PUBLIC HEALTH AND CRIMINAL JUSTICE APPROACHES TO HOMICIDE RESEARCH

Proceedings of the 2003
Homicide Research Working Group
Annual Symposium

Edited by
Carolyn Rebecca Block and Richard Block

The Homicide Research Working Group (HRWG) is an international and interdisciplinary organization of volunteers dedicated to cooperation among researchers and practitioners who are trying to understand and limit lethal violence. The HRWG has the following goals:

- to forge links between research, epidemiology and practical programs to reduce levels of mortality from violence;
- to promote improved data quality and the linking of diverse homicide data sources;
- to foster collaborative, interdisciplinary research on lethal and non-lethal violence;
- to encourage more efficient sharing of techniques for measuring and analyzing homicide;
- to create and maintain a communication network among those collecting, maintaining and analyzing homicide data sets; and
- to generate a stronger working relationship among homicide researchers.

Homicide Research Working Group publications, which include the *Proceedings* of each annual Intensive Workshop (beginning in 1992), the *HRWG Newsletter*, and the contents of issues of the journal *Homicide Studies* (beginning in 1997), may be downloaded from the HRWG web site, which is maintained by the Inter-University Consortium of Political and Social Research, at the following address: http://www.icpsr.umich.edu/HRWG/

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INTRODUCTION

Wendy Regoeczi, Cleveland State University

The twelfth annual meeting of the Homicide Research Working Group was sponsored by the Epidemiology and Prevention for Injury Control Branch of the California Department of Health Services. Approximately 50 group members convened in Sacramento to participate in the symposium. In keeping with the theme of the host site, the Program Committee determined that the workshop should emphasize a public health perspective to the study of violence, both with respect to the unique contributions of this area as well as its complements and contrasts to those made by the field of criminal justice. The conference began with an opening panel moderated by Roger Trent of the host facility. The speakers – Susan Sorenson, Alex Kelter, Paul Seave, and Eric Gorovitz – were drawn from areas reflecting a diversity of perspectives on violence research and policy, thus providing an opportunity for everyone in attendance to increase their familiarity and knowledge of approaches outside their own.

The opening symposium was followed by two and half days of presentations on homicide research in various stages of progress. The focus on public health increased the breadth of both the backgrounds of the workshop attendees and the meeting program itself. There were several panels devoted specifically to public health-related issues concerning homicide and violence, including papers on workplace violence, the relationship between medical resources and homicide, and integrating public health and sociological perspectives on violence. The Group was also joined by several individuals working in the area of Post-Traumatic Stress Disorder, who contributed a very informative panel discussing a variety of aspects pertaining to this topic as it relates to violence. Holding to the ideals upon which the Group was founded, each panel stimulated a great deal of discussion, reflection, and suggestions for further research and exploration. Fifteen posters, computer demos and literature displays were contributed by individuals and organizations. Sessions on Friday and Saturday morning were devoted to these displays and provided a valuable opportunity for participants to increase their awareness of available resources, datasets, current research, and publications, as well as to engage in further debate and discussion with others regarding a variety of research-related issues.

Many thanks to all of the attendees for their participation, and to the numerous individuals who contributed endless amounts of their valuable time and energy into making this another successful summer workshop for HRWG. Special thanks go to Candice Batton, who essentially functioned as an unofficial co-chair throughout the process of putting the program together. The Homicide Research Working Group is grateful to the Epidemiology and Prevention for Injury Control Branch of the California Department of Health Services for hosting the meeting. We hope to see everyone in Ann Arbor in 2004 as we continue to try and expand our collaborative network of homicide researchers and reap the benefits of a broader range of perspectives and approaches to studying, and most importantly, reducing and preventing lethal and non-lethal violence.

VIOLENCE RESEARCH AND POLICY
OPENING PRESENTATION, 7:00 PM - 8:30, Thursday June 5, 2003

Moderator: Roger Trent, Epidemiology and Prevention for Injury Control Branch, California Department of Health Services

Presenters:

Public Health and Homicide, Susan Sorenson, University of California, Los Angeles, School of Public Health

Homicide Prevention: The View from a State Health Department, Alex Kelter, Epidemiology and Prevention for Injury Control Branch, California Department of Health Services

Can the Criminal Justice System Prevent Domestic Violence? Paul Seave, Crime and Violence Prevention Center, California Department of Justice

Research, Policy and Advocacy: the Politics of Prevention. Eric Gorovitz, Policy Director for the Coalition to Stop Gun Violence

Recorder: Dallas S. Drake, Minnesota Gay Homicide Study

PUBLIC HEALTH AND HOMICIDE

Susan B. Sorenson, UCLA School of Public Health,
University of California Los Angeles

In contrast to criminology, which traditionally studies patterns of criminal behavior, public health focuses primarily on homicide victimization. Moreover, public health focuses on homicide as a health issue. By this, I mean that the emphasis is on societal costs, typically, in terms of years of potential life lost.

Public health has placed primary importance on fatal intentional injury to date for two reasons: 1) Survival, the essential basis of health, is of paramount interest in public health, and 2) A paucity of large-scale databases on nonfatal intentional injuries (e.g., assaults and gunshot wounds that are not fatal) limits population-based research.

Risk is not distributed randomly: Young, minority males (especially 20 to 24-year-old Black men) have a disproportionate risk of becoming a homicide victim. These observations fit with public health's priority of addressing health disparities.

Public health has brought a focus on the mechanism of injury which, in the case of homicide, is typically a handgun. The focus on firearms as a mechanism of fatal injury is not limited to homicide, however; firearms are used in more suicides than homicides in the U.S. (16,455 vs. 11,001 in 2001)

Intervention strategies in the field of injury control use education, legislation, regulation and, when necessary, litigation to reduce risk. Upstream approaches (e.g., those that focus on how firearms are designed) generally are preferred to downstream approaches (e.g., those that attempt to change the behavior of all persons who handle a firearm).A matrix that incorporates the element of time (before, during, and after an injury-producing event) and intervention point (the person who could be injured, the mechanism that causes the injury, and the social and physical environments in which the injury occurs) has proven useful in identifying multiple ways to reduce injuries from violence.

In sum, as a field, public health is not out just to document health problems but to reduce them so as to increase the health of the population.

RESOURCES

Arias, E., & Smith, B. L. (2003). Deaths: Preliminary data for 2001. National Vital Statistics Reports, 51 (5). Washington, D.C.: National Center for Health Statistics.

Baker, S. P., Teret, S. P., & Dietz, P. E. (1980). Firearms and public health. *Journal of Public Health Policy*, 1 (Sep.): 224-229.

Haddon, W., Jr. (1968). The changing approach to the epidemiology, prevention, and amelioration of trauma: The transition to approaches etiologically rather than descriptively based. *American Journal of Public Health*, 58:1431-1438.

Haddon, W., Jr. (1972). A logical framework for categorizing highway safety phenomena and activity. *Journal of Trauma*, 12:193-207.

Teret, S. P., & Wintemute, G. J. (1993). Policies to prevent firearm injuries. *Health Affairs*, 12: 97-108.

HOMICIDE PREVENTION: THE VIEW FROM A STATE HEALTH DEPARTMENT

Alex Kelter, Epidemiology and Prevention for Injury Control Branch, California Department of Health Services

From the standpoint of a public health agency, the most important question about homicide is, "What workable policies will help prevent it?" Prevention in a typical public health model implies prevention at any stage of the progression of the "disease." In addition, from the public health point of view, the thing being prevented is not a crime, but a death (homicide) or injury (nonfatal assault) that did not need to happen.

Primary Prevention:

What factors will keep perpetrators from becoming perpetrators and victims from becoming victims. For example, does early childhood development, like parenting education and support or quality pre-school, eventually lead to reduced homicide?

Secondary Prevention:

What factors will help keep would-be perpetrators and victims from realizing their "potential" and coming together, resulting in a death? For example, do better systems of restraining orders and closer parole supervision serve to reduce intimate partner homicide?

Tertiary Prevention:

For homicide and other forms of assault, we may be able to interrupt the intergenerational transmission of violence. For example, are there policies that can prevent the next generation's homicide by preventing this generation's child from being a victim of abuse and neglect?

All our attempts to understand directly serve our need to make policy decisions. Public Health policies are always constructed in an atmosphere of uncertainty, where we give it our best shot (please forgive the metaphor) and carefully monitor the results. We inevitably give more attention to knowledge we can use now than knowledge that is sometimes called "nice to know."

To serve prevention needs, public health professionals may make different conceptual distinctions that those whose main job is to solve the scientific riddle of people killing people. In my humble opinion, the following different forms of violence (with varying potential to cause death)are virtually different phenomena from a public health prevention standpoint. That is to say, each of these would require different, sometimes overlapping, policy approaches, and therefore different scientific knowledge.

- Felony-related "crime" (e.g., robbery)
- Gang-related (e.g., drive-bys, turf battles)
- Child maltreatment (e.g., shaken baby syndrome)

- Intimate partner violence (at any age)
- Elder "assisted suicide" ("mercy" killings)
- Sexual (e.g., homicide accompanying rape)

We do not know all the precursors of all these different kinds of violence, and we have to make assumptions and hope that a variety of policies will help. Some policies might not seem to be very directly related to the homicide rate. Examples: less media violence, more stable families, improved housing, jobs, education, less drug abuse, more regulated commerce in handguns.

My bosses' question to me, and therefore my question to you is always: what works? Please keep up your good work of developing knowledge. We may not use it all today or tomorrow, but you are giving us an array of tools to help craft our policies.

CAN THE CRIMINAL JUSTICE SYSTEM PREVENT DOMESTIC VIOLENCE?

Paul L. Seave, Crime and Violence Prevention Center,
California Department of Justice

Question: How could the criminal justice system (police, prosecutors, courts, probation, parole) **prevent** domestic violence?

1. **The criminal justice system is reactive:**

The criminal justice system's core function is reactive in nature: respond to calls for help, investigate crimes, arrest criminals, assist victims of crime, prosecute, sentence, incarcerate, and supervise through probation and parole. The criminal justice system is organized around this core mission, its resources are arrayed to accomplish this mission, and the public expects this orientation. Only at the margins does the criminal justice system engage in prevention activity, and the police typically take the lead .

2. **A promising proactive approach:**

The Boston Gun Project (Operation Ceasefire) presents a remarkable exception to the reactive rule, and suggests a general approach by which the criminal justice system could **prevent** domestic violence. In the early and mid-1990's, Boston officials believed they were in the midst of a youth gang homicide crisis. In 1987, there had been 22 such homicides, but by 1990 (the peak year) the number had risen to 73. Between 1991 and 1995 inclusive, there were on average 44 per year. The Boston City Police, with the help of researchers from the Kennedy School, devised a strategy that made use of deterrence. First, the police figured out which gangs were most likely to engage in homicide. Then, police and probation, often with the assistance of other local, state, and federal law enforcement, relentlessly and directly communicated the following message to those gangs: law enforcement (city, state, and federal) would do everything within their power to imprison any gang whose members continued to engage in killing and other violence. (Note that the law enforcement did not ask gang members to leave their gangs or stop others types of misconduct: the focus was on homicide.) The message was communicated by probation officers when visiting their supervisees, by juvenile hall officials, and in special "forums" convened by probation officials for large groups of gang members.

As it happened, the youth gang with the most violent reputation disregarded law enforcement's warning. A federal investigation resulted in successful prosecutions of most their members, and that result was communicated directly to the other Boston gangs. In essence, Operation Ceasefire sought to take advantage of the theory of deterrence ("focused deterrence"), which is the criminal justice system's primary mechanism to prevent crime: according to the theory, a credible threat of significant punishment for engaging in prohibited conduct, directly communicated to the at-risk audience, should reduce misconduct.

The subsequent drop in Boston's youth gang homicide appeared to bear out the efficacy of Operation Ceasefire. In 1996 (the intervention began in mid-1996), the number plummeted to 26, and continued to drop: 1997 - 15, 1998 - 18, and 1999 - 15. Evaluations of Operation Ceasefire have concluded that the intervention was responsible for the reduction; and the intervention has been replicated successfully at other sites. (This conclusion is not without controversy: for example, some public health officials in Boston maintain that the reduction was due in whole or in part to their earlier efforts with the gangs.)

3. **Ceasefire does not easily translate into a strategy for preventing all domestic violence:**

Can we adopt Operation Ceasefire's use of focused deterrence to prevent domestic violence? As a general matter, it would appear very difficult to do so for several reasons. First, the power of the Ceasefire message was due in part to the threat to hold all members of a gang accountable for the misconduct of any one of them. Batterers, however, typically do not operate in gangs. Second, Boston law enforcement used their power over the gang members, by virtue of their being on probation or in juvenile facilities, to deliver the message and to effect interventions (e.g., home visits, searches, probation violations). Most batterers, however, are not under court supervision. Indeed, most are never reported to law enforcement; those who are reported are rarely charged with anything greater than a misdemeanor; those who are prosecuted rarely receive a sentence greater than probation; and those who receive probation are rarely supervised in any way. Third, any strategy to deter domestic violence must be concerned that a threat to punish a batterer for future misconduct could result in the batterer committing more or greater violence in an effort to deter the victim from calling the police ("bad deterrence").

4. **Ceasefire can translate into a deterrence strategy for batterers already subject to restraining orders:**

Restraining orders may provide a mechanism by which to deliver focused deterrence to batterers. In the last ten years, California has created a system by which victims of domestic violence may obtain restraining orders from the civil courts to protect them from future battering. These orders prohibit contact between the victim and batterer, usually prohibit the batterer from possessing firearms, and allow for the arrest and prosecution of batterers who violate such orders. A victim may obtain an "emergency order" from the police, which can last as long as seven days. Within that time, the victim can apply to the court for a "temporary restraining order," which can last as long as three weeks. Within that time, the victim can apply for a "permanent restraining order," which can last as long as three years. On any given day in California, there are in effect approximately 1,000 emergency orders, 6,200 temporary restraining orders, and 77,000 permanent restraining orders.

The point of restraining orders is to deter future battering. These orders could allow the criminal justice system to use focused deterrence, as employed by Operation

Ceasefire. First, these orders may mark the more dangerous batterers. Second, they give law enforcement a tool (leverage) by which to communicate and intervene with this class of batterers. Finally, the restraining orders identify a class of domestic violence victims who have asked for protection through a deterrence mechanism, even though the mechanism itself creates a risk of violence.

5. **Framework for strategy to deter batterers:**

If a local criminal justice system wanted to use focused deterrence on batterers already subject to restraining orders, law enforcement could classify those batterers according to some or all of the following criteria (among others): prior restraining order (increasingly available in state-wide data base), criminal history of D.V. or other violence (available in state-wide data base), record of having purchased firearm (available in state-wide data bases), in "at risk" relationship (e.g., relationship just ended). Law enforcement could consider the following types of interventions (among others), a la Ceasefire: talk to the batterers to let them know that they are being monitored and will be prosecuted; seize a batterer's firearm and arrest the batterer (if there was evidence of firearm possession).

6. **Data and Research Lag Far Behind Criminal Justice Strategy to Deter D.V.:**

Do restraining orders, as currently implemented, deter battering. The studies thus far suggest that they can to a limited degree, especially for less violent batterers. This does not say much, and given the extraordinarily uneven implementation of restraining order regimes within jurisdictions, let alone among jurisdictions, it is difficult to know how much to make of the data. Do restraining orders, as currently implemented, do harm? Do they mark higher-risk batterers? How exactly are restraining orders obtained and enforced? There is much research to do!

7. **Closing Observations:**

- Given the criminal justice system's reactive orientation, effective prevention strategies are very hard to design, and even harder to implement.

- Innovations run far ahead of data and research.

- There must be a better connection between practitioners/policy-makers and researchers.

RESEARCH, POLICY AND ADVOCACY: THE POLITICS OF PREVENTION

Eric Gorovitz, Coalition to Stop Gun Violence

My professional background combines the disciplines of law and public health. For 10 years, I have applied my training in these two disciplines to injury prevention advocacy. Over the years, I have participated in research, policy development and advocacy, spending most of my time on the latter two endeavors. Since 1995, my work has focused mainly on the prevention of firearm injury, although I have worked on other types of injury as well.

Regardless of the specific issue or arena, however, the answers to three central questions always underlie all of my work: What are the facts? Given those facts, what should we do? How do we get it done?

The following discussion suggests that research, policy development and advocacy, the disciplines through which we answer these three questions, all include significant political elements that affect our both the substantive answers and the effectiveness of our efforts to implement them.

THE ROLE OF POLITICS

Participants in the relevant disciplines sometimes believe that their work is objective and apolitical. In my experience, however, that is virtually never the case. Each discipline presents myriad opportunities for subjective decision-making, and each such decision is, in my view, inherently political. Politics thus pervades our efforts to answer each of the three central questions, and influences the path we follow toward accomplishing prevention. As a result, the boundaries separating the three arenas are less distinct than some of us believe, or even desire.

Research: What are the "Facts"?

The first question, generally the realm of researchers, seems the most objective, the farthest removed from politics. Researchers often seek to distance themselves from the politics surrounding the issues on which they work. These concerns about preserving the appearance of objectivity often prevent researchers, who are well informed and influential, from participating in policy development and advocacy efforts addressing issues covered by their research.

In fact, though, answering the question, "What are the facts?" is itself a political act. Choices of what issues to study, what sources and techniques to use, and how to interpret and present results all involve political judgments. Researchers wield tremendous power over policy development and advocacy through such choices, because the choices of researchers define the boundaries of knowledge available to the other two arenas. The decision to seek answers to a particular research question can solidify the case for a given policy by supporting previous related findings. The decision may also

weaken the case of a given policy by uncovering or highlighting errors or limitations previously unrecognized in prior findings. Furthermore, and in some cases most important, the decision to study a given question may leave other, equally influential questions unanswered, and therefore unavailable to those engaged in policy development and advocacy.

Policy Development: What Should We Do About the "Facts"?

In the context of injury prevention, policy development seeks to translate research findings about the epidemiology of injury into strategies for preventing injury. Theoretically, prevention policies reflect detailed, objective understanding, derived from sound data, of the sources and nature of risk in defined populations.

In practice, however, policy development is obviously and necessarily political, because it involves making strategic decisions about how to respond to the findings of relevant research. For example, some policy development practitioners seeking to prevent firearm homicide favor strategies aimed at deterrence, on the theory that the prospect of swift, sure and severe punishment will cause potential perpetrators to make a rational choice to forego committing murder with a firearm. Others favor strategies that eliminate that choice by denying potential perpetrators access to a firearm.

Of course, both of these strategies (which, incidentally, need not be mutually exclusive) implicate other issues of importance, such as how one believes we should spend limited public resources and how one feel about access to firearms generally. For a person developing prevention policy, these collateral, political issues may carry as much weight as data about risk. In addition, one's views on such tangential matters may greatly affect the weight one gives to research findings purporting to tilt the balance one way or another.

Advocacy: How Do We Get It Done?

Of the three arenas at issue here, advocacy is the most clearly political. Advocates set out to engage the political process with a specific goal in mind. Most injury prevention advocates seek implementation of data-driven policies intended to target identified sources of risk.

However, because many epidemiologically significant sources of injury derive from human activities in which some people have a direct economic or philosophical interest, injury prevention advocates often encounter stiff opposition to the policies they promote, even when the research supporting those policies is robust. The political process provides a mechanism for resolving these differences of perspective, through the art of compromise.

The outcome of this process of mutual concessions, however, depends substantially on the balance of political power. If the two sides possess similar political power, a true compromise may result. If one side possess much greater power than the other, however, the outcome will be more lopsided.

Injury prevention advocacy suffers from a chronic lack of political power, for many reasons. Primary among those reasons are the following:

- Prevention is difficult to quantify;
- Well-funded, injury-causing enterprises fight vigorously to protect their economic interests; and
- Advocates are perceived as biased rather than objective.

Accordingly, even when research suggests a clear path to prevention and a well-drawn policy is proposed, advocacy efforts may fail.

RESEARCHERS AS ADVOCATES

Researchers who recognize that their work is always political can directly influence policy outcomes by engaging in advocacy. Many have done so without compromising the appearance of relative objectivity that their status as researchers conveys. Two examples from the firearm injury prevention debate demonstrate the strength researchers have to influence policy when they engage in advocacy.

Homicides in Los Angeles

Los Angeles County, CA, suffers roughly 1,000 of homicides every year.[1] Researchers who have access to detailed data about the factors and circumstances surrounding these shootings in aggregate know a great deal about the epidemiology of firearm homicide in Los Angeles County. The general public, however, relies mainly on newspaper accounts of individual homicides. Injury prevention researcher Dr. Susan Sorenson, a professor at UCLA, compared these two sources of information to determine whether the public's perception of LA County's homicide problem matched the data.[2]

Dr. Sorenson compared the story told by the Los Angeles Times, through its collective coverage of homicides in the area over several years, with the story told by the data on homicides in the same area, during the same period. Her research showed a systematic coverage bias that gave the public a misperception of the epidemiology of homicide.

This study reflects the recognition that the public's perception of a problem can affect attitudes about prevention strategies. By using her skills as a researcher to uncover the misperception, Dr. Sorenson has invited the newspaper to modify its coverage to more accurately reflect the problem, which may materially alter the environment in which policy development occurs. Indeed, other researchers have taken her findings directly to the paper, and are evaluating whether their coverage has changed has a consequence.

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[1]California Department of Health Services, Vital Statistics Death Statistical Master File.

[2]Sorenson, et al., "News media coverage and the epidemiology of homicide," Am. J. Pub. Health 88:1510-1514 (1998).

Concealed-Carry and Crime

Another researcher, John Lott, demonstrates that direct advocacy by researchers can have great power, even if the research upon which it is based is less than definitive. In August, 1996, while a professor at the University of Chicago, Lott released a study, without peer review, purporting to find a huge decrease in violent crime as a result of the passage of laws making it easier to for people to carry concealed handguns.[3] He immediately began to advocate for the adoption of permissive concealed carry laws, and has since become a ubiquitous and influential commentator on the issue.

However, it now appears that Lott's findings are not so clear. Years after he began promoting his research, others have found major flaws with his methodology and, accordingly, his conclusions. The clearest refutation of Lott's findings comes from two researchers, John Donohue and Ian Ayres, of Stanford and Yale respectively, who found numerous mistakes and inaccuracies in Lott's analysis.[4] After correcting those errors, Donohue and Ayres found that permissive concealed carry laws are most likely to cause an increase in crime than the decrease claimed by Lott. Despite these new findings, Lott continues to advocate for polices based on his now-discredited findings, without acknowledging the existence of a debate about the validity of his claims.[5]

Although Lott's direct involvement in advocacy contradicts the view that some researchers have about the propriety of overtly mixing academics and advocacy, his credibility as a researcher seems unblemished, at least among policymakers. Lott is living proof that advocacy is not necessarily incompatible with research.

CONCLUSION

Research, policy development and advocacy are political enterprises that are inextricably intertwined in ways not always recognized by practitioners. By embracing politics as inherent to research and participating in policy development and advocacy, homicide prevention researchers can influence the politics of prevention.

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[3]Lott, JR, Mustard, DB, "Crime, Deterrence, and Right-to-Carry Concealed Handguns," John M. Olin Law & Economics Working Paper No. 41 (1996).

[4]Ayres, I, Donohue, J, "Shooting Down the 'More Guns, Less Crime' Hypothesis," 55 Stan. L. Rev. 1193 (2003).

[5]See, e.g., Lott, J, "City Hall's Gun Folly," New York Post, July 28, 2003.

DISCUSSION: VIOLENCE AND RESEARCH POLICY
OPENING PRESENTATION
Recorded by Dallas S. Drake, Minnesota Gay Homicide Dataset

Tom Petee: I think evidence is there for restraining orders . . . mixed evidence, but they really work in some jurisdictions.

Becky Block: Paul can you bring up your 50 ways to reduce violence while I ask the next question? I think we would all like to see them again. Alex, regarding restraining orders, I think you made a pretty convincing argument. Law enforcement is a gate-keeper.

Paul Nieuwbeerta: We should use people in the field to make referrals. This is a more cost effective method.

Alex Kelter: We have an experiment going on in California – mandated reporting in assault cases. Persons seen in emergency departments are required to be reported to the police. Providers virtually never report these to the police. We have no idea if it effects the outcome. We have no research to tell whether it works or not. This research would be very valuable to conduct.

Becky Block: The person most at risk of becoming a victim is an offender. Have you looked at interventions focused at violent offenders who are victimized? People are ready to listen when they've been shot and are sitting in a hospital bed.

Eric Gorovitz: Data is not being entered in the domestic violence systems. Handgun acquisition is strongly linked to suicide. We should manage the data a little more efficiently.

Tom Petee: Where does the suicide data come from?

Becky Block: Chicago data agree that when women kill their male intimate partner, they hardly ever kill themselves. Almost all intimate partner homicide/suicides have a male offender.

Alex Kelter: Over the decade of the 90s, about 40% of men shoot wives and then commit suicide.

Becky Block: Thinking about Alex's categories of violence, I wonder if it would be useful to look at homicides by a caretaker. For example, we've come up with a new code in Chicago for caretakers of children.

Lynn Huff-Corzine: What is the way to prevent homicide?

Alex Kelter: The violence is complex and so the solution is complex. It depends on where you want to intervene, early, late or too late. What came out of Harvard Boston Gun Project were thousands of street level violence prevention strategies.

Eric Gorovitz: Strategies work best when there is community buy-in.

Alex Kelter: If the program was so good, why aren't they still doing it? When the problem went away, they lost interest. Its not enough to get the good people together, you have to keep them together.

METHODOLOGICAL AND STATISTICAL ISSUES IN STUDYING HOMICIDE AND VIOLENCE
PANEL SESSION I, 8:30 AM - 10:00 AM, June 6, 2003

Moderator: Chris Dunn, ICPSR, National Archive of Criminal Justice Data

Papers:

Self-Report Data on Youth Violence Over Time: Surprising Results Using Monitoring the Future Surveys, by Gary Jensen, Vanderbilt University

Perspectives of Terror Homicides in the Uniform Crime Reporting Program, by James H. Noonan, and James A. Woods, Federal Bureau of Investigation

Homicide Offenders and their Criminal Trajectories in the Netherlands, by Paul Nieuwbeerta, Netherlands Institute for the Study of Crime and Law Enforcement (NSCR)

Recorder: Vanessa Leggett, Criminal Justice Center for Training, University of Houston-Downtown

SELF-REPORT DATA ON YOUTH VIOLENCE OVER TIME: SURPRISING RESULTS USING *MONITORING THE FUTURE* SURVEYS

Gary F. Jensen, Department of Sociology, Vanderbilt University

ABSTRACT

Most criminologists acknowledge limited, but acceptable, uses for self-report survey techniques to measure common, non-serious offenses among youth. However, such techniques are likely to be challenged by critics for the study of serious violent crime. In fact, despite the availability of data on self-reports of violence in Monitoring the Future Surveys conducted for over a quarter of a century, there has been little systematic assessment of their utility in the study of variation in youth violence over time. This paper addresses the problems commonly cited as reasons for bypassing such data and compares temporal patterns using MTF data on self-reported assault and group fights to patterns based on UCR arrest data. Both types of data can be argued to tap similar underlying currents of violent crime.

INTRODUCTION

In his 1993 Presidential Address to the American Society of Criminology, Delbert Elliott (1994: 1) criticized the National Research Council's Panel on the *Understanding and Control of Violent Behavior* (Reiss and Roth 1993) for largely ignoring self-report studies of violence. Self-report studies have been viewed as unsuitable for the study of violence because of low base rates, limited samples and lack of information on the sequential order of offenses. Using data from his National Survey of Youth, Elliott demonstrated that self-report data on serious violent events yielded conclusions very similar to those derived from police or arrest records. Moreover, when there were disparities, they could as readily be resolved in favor of the survey data as the agency data.

Elliott's critique of prejudices against self-report data can be extended to the study of trends in violence as well. Self-report survey data on offending over time have been largely ignored in government and commission reports, especially in reports on violence. Nearly all publicized and official statements about trends in crime and youth violence have been based on the F.B.I.'s Uniform Crime Reports (UCR) with some data included from the National Crime Victimization Survey (NCVS). The most recent assessment of temporal patterns of youth violence is Cook's and Laub's article in *Crime and Justice* (2002:1-37) using UCR arrest data and NCVS data. Although some self-report data on drug use have been included in OJJDP reports on juvenile offenders (e.g. see Snyder and Sickmund, 1995) there has been little use of self-report data in the discussion of trends or patterns over time in **violence** among American youth. Yet, one of the major sources of self-report data on drug use, the Monitoring the Future surveys of high school seniors, has been collecting self-reports data on violence, theft and other illegal activities for over two decades (See Bachman, Johnston and O'Malley 2000).

It is quite reasonable for criminologists to have major reservations about self-report data as an authoritative source of information on patterns of violence among socio-demographic categories of youth (See Hindelang, Hirschi and Weiss, 1981) and it may be even more reasonable to have doubts about such data from high school seniors as a source of information on crime over time. Even in large samples base rates will be low and potentially unreliable, and surveys restricted to high school seniors will miss the most violent youth who are likely to have dropped out of school. Add these problems to perennial doubts about the validity of self-report responses to questions about serious forms of illegal behavior and the limited number of violent offenses included in such surveys, and it is hardly surprising that they have received little attention.

However, many of these criticisms have little bearing on whether the self-report data that do exist can yield meaningful statements about violence over time. Self-reports may not be perfectly reliable and valid but, were reliability and validity to be relatively constant over time, self-report data could accurately tap trends or variations in violent events over time. Similarly, while some of the most serious offenders may have dropped out before their senior year, variations over time in the reports of high school seniors may still capture underlying currents of crime. Dropouts may have higher rates of violence than those who stay in school but patterns over time could still parallel one another. The rates may be lower for high school seniors than for more representative samples, but fluctuations and trends may be quite similar.

Criticism of survey data on serious offenses appears to have precluded attempts to assess temporal variations in juvenile violence. Yet, equally serious questions about police and agency data have not deterred criminologists from using the Uniform Crime Reports or National Crime Survey data to make statements about trends in violence and to hazard forecasts about the meaning of those patterns for violence in the future (See Wilson and Hernstein 1985; Walker 1994; Britt 1995; Fox 1995). If data as remote from the occurrence of actual crime and delinquency as arrest are acceptable for reports on violence among youth in the nation, then criticisms of survey data should not impede exploration of patterns over time using self-reports of violence.

One of the most recent attempts to document trends in youth violence is Cook's and Laub's article in *Crime and Justice* (2002:1-37) which uses Uniform Crime Report (UCR) arrest data and victim reports from the National Crime Victimization Surveys (NCVS) as "two indicators of the underlying phenomenon (i.e. serious violence committed by juveniles)." Based on these two sources of data, they conclude that an unprecedented "epidemic" of youth violence "began in the mid-1980s," "peaked in 1993-94," and "has receded since (2002:2)." Moreover, that temporal pattern was largely attributable to variations in juvenile violence involving minorities.

With all due caution and recognition of reasonable reservations, this paper explores the utility of the Monitoring the Future self-report data for discerning patterns over time in violence among American youth. As a first step in that direction, the empirical relation between UCR juvenile arrest rates and these self-report data will be examined. If UCR and MTF data measure the same underlying currents of juvenile crime, then

temporal patterns similar to those reported by Cook and Laub should be discovered using the MTF data. The central research question is whether or not criminologists would have been badly misled about youth violence over time had self-reported data been used?

TRENDS IN YOUTH VIOLENCE USING SELF-REPORT DATA

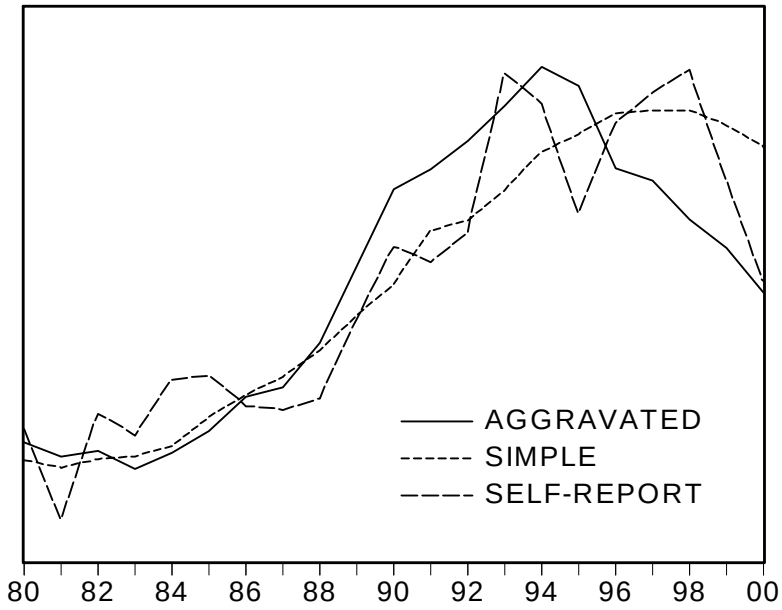
Although the *Monitoring the Future* surveys do not ask about murder or rape they do include questions about interpersonal violence (see Bachman, Johnston and O'Malley 2000: 107-108). Since this paper is presented to the Homicide Studies Working Group, the focus will be on two forms of violence that readily escalate into homicide, assault and group or gang fights.

Self-reported aggravated assault is based on high school seniors' self-reports that they have "hurt someone badly enough to need bandages or a doctor (ASSAULT)." No self-report item can eliminate all ambiguities and this item could pick up events that would not be categorized as aggravated assault by police such as injuries afflicted on others by accident or in self-defense. The item was intended to tap serious interpersonal violence and most criminologists would likely consider it a description of aggravated assault. Whether responses to this item more effectively capture simple assault than aggravated assault can be examined by determining the correspondence of the self-report item with UCR arrests for the two categories.

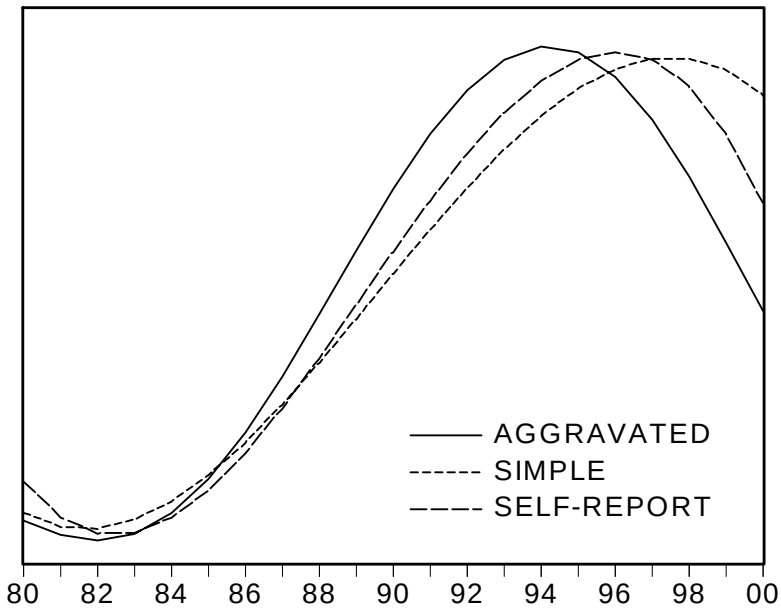
There are no national estimates of "gang" violence over any substantial amount of time other than the F.B.I. supplemental homicide data, and the item included in the MTF surveys is only an approximation of gang activity. High school seniors were asked how often in the last twelve months they had, "taken part in a fight where one group was fighting against another group?" Since the MTF surveys are directed at high school seniors, criminologists should express doubts that responses to this question over time correspond with variation in violence involving "real" gangs and gang members. However, the utility of that measure for discerning meaningful patterns of gang or group violence over time can be considered empirically.

Figure 1 depicts the variations over time in arrest rates of juveniles aged 10 to 17, for aggravated assault, simple assault and average self-reports on the self-reported assault item (Coded as: Not at all = 0, Once = 1, Twice = 2, Three or Four = 3, and Five or more = 5), together with the best fitting equation for each series. While there are disparities during specific spans of time, the temporal patterns using the actual values are quite similar. Whether juvenile arrest data or self-reported data on assault are used, the conclusion would be that assault escalated rapidly beginning in the mid-1980s, peaked in the mid-1990s, and began declining sometime in the mid-1990s.

FIGURE 1: ARREST RATES FOR AGGRAVATED AND SIMPLE ASSAULT AND AVERAGE SELF-REPORTED ASSAULT (STANDARDIZED), 1980-2000



BEST FITTING EQUATIONS



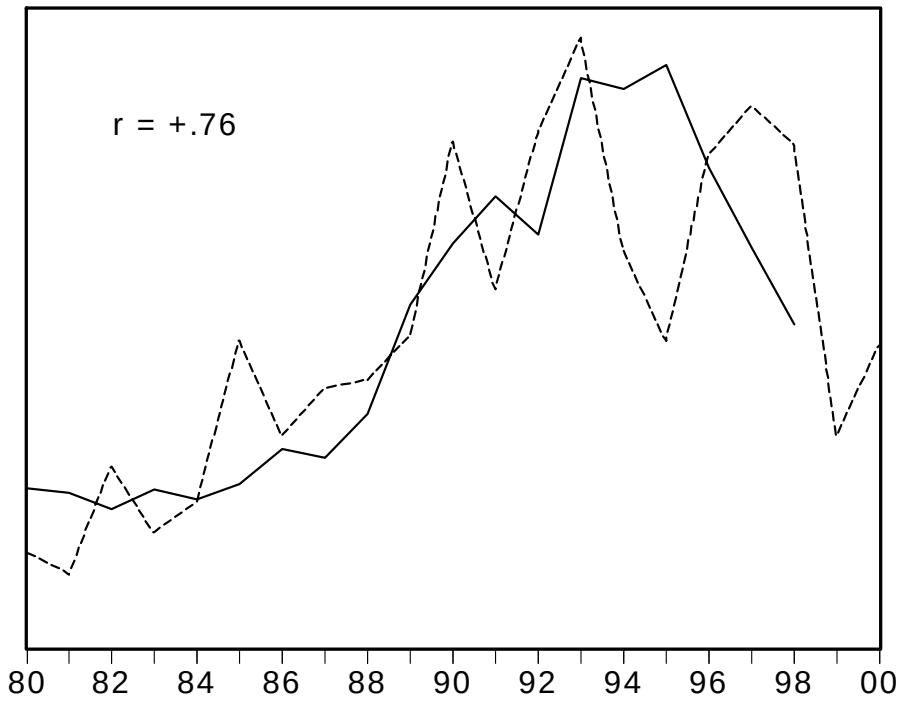
In contrast to the arrest data, there are two peaks in the self-report measure, one in 1993 and one in 1997. The first peak appears to coincide with the peak for aggravated assault, while the second coincides with the peak for simple assault. The plots for the best-fitting equations are remarkably similar across self-report and arrest data and it is safe to conclude that criminologists would not have been mislead to any significant degree had self-reports of assault been used to describe the course of juvenile violence over the last two decades of the twentieth century.

A common reservation expressed about the use of self-report survey data to measure serious offenses is that the frequency of such events is likely to be too small to yield reliable estimates. The MTF surveys are based on sizeable samples, but very few respondents are likely to indicate involvement in the most serious crimes and the averages are likely to fluctuate randomly from year to year. The averages for self-reported group fights from 1980 through 2000 and the youth gang homicide arrest rates are plotted in Figure 2. The correlation between the two series is not as strong as those found for self-reported assault and arrest rates for assault, but it is still substantial, +.76. Moreover, as was the case with assault, the correspondence between the best fitting equations for the two series is reasonably strong, +.84. Thus, despite all of the possible differences between measures of self-reported group fights and youth gang violence, the general patterns over time are very similar. Whether using homicide data or self-reported group fights, group or gang violence escalated from the early 1980s, peaked in the mid-1990s, and declined through late 1990s. The fluctuations expected for low frequency offenses are notable, but the overall temporal pattern captured by the best-fitting equations is nearly the same as the pattern for F.B.I. data.

The problem with low frequency offenses is compounded when variations in sub-categories of youth are considered. Black youth constitute a small proportion of the MTF samples and females report relatively little involvement in violence. Yet, the degree to which these limitations complicate the use of self-reports to discern trends over time can best be determined through analysis. Few criminologists would have anticipated the correlations observed between self-report measures in the MTF samples and arrest data.

Figure 3 plots the actual values over time and the standardized values for self-reported assault, aggravated assault and simple assault for both black and white youth. Both actual and standardized values are presented because it is hard to discern similarities and differences in patterns over time using the actual values. Yet, plots of actual values are the foundation for common observation that youth violence escalated more dramatically for blacks than whites from the mid-1980s to the mid-1990s and declined more rapidly for blacks. The plots of actual values for aggravated, simple and self-reported assault are consistent with those observations. However, when the data are standardized, some prior observations can be questioned and some new observations proposed.

FIGURE 2: SELF-REPORTED GROUP FIGHTS AND F.B.I. YOUTH GANG HOMICIDE RATE



BEST FITTING EQUATION

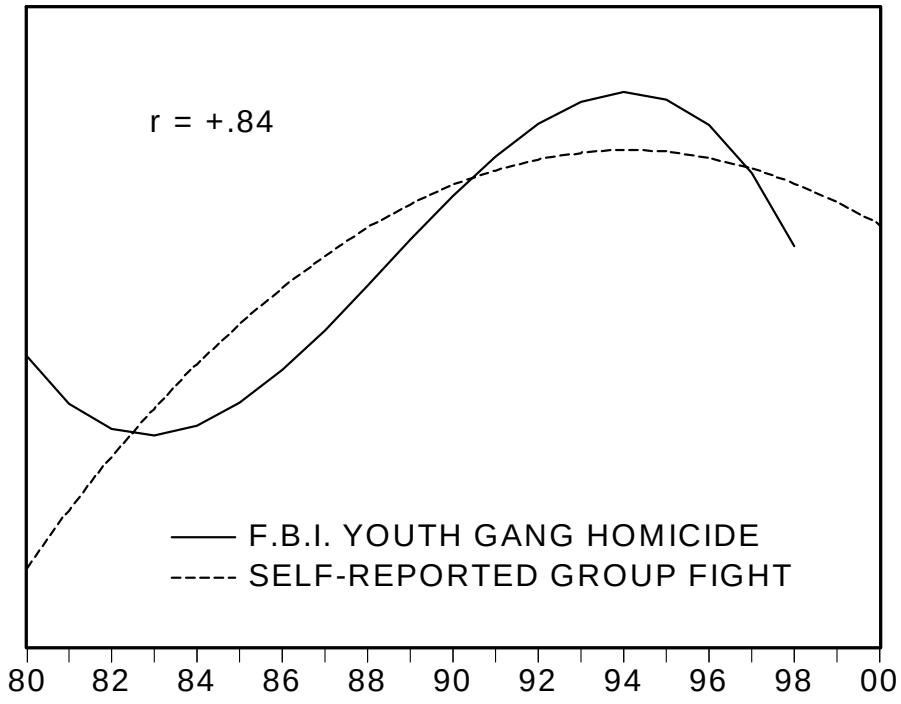
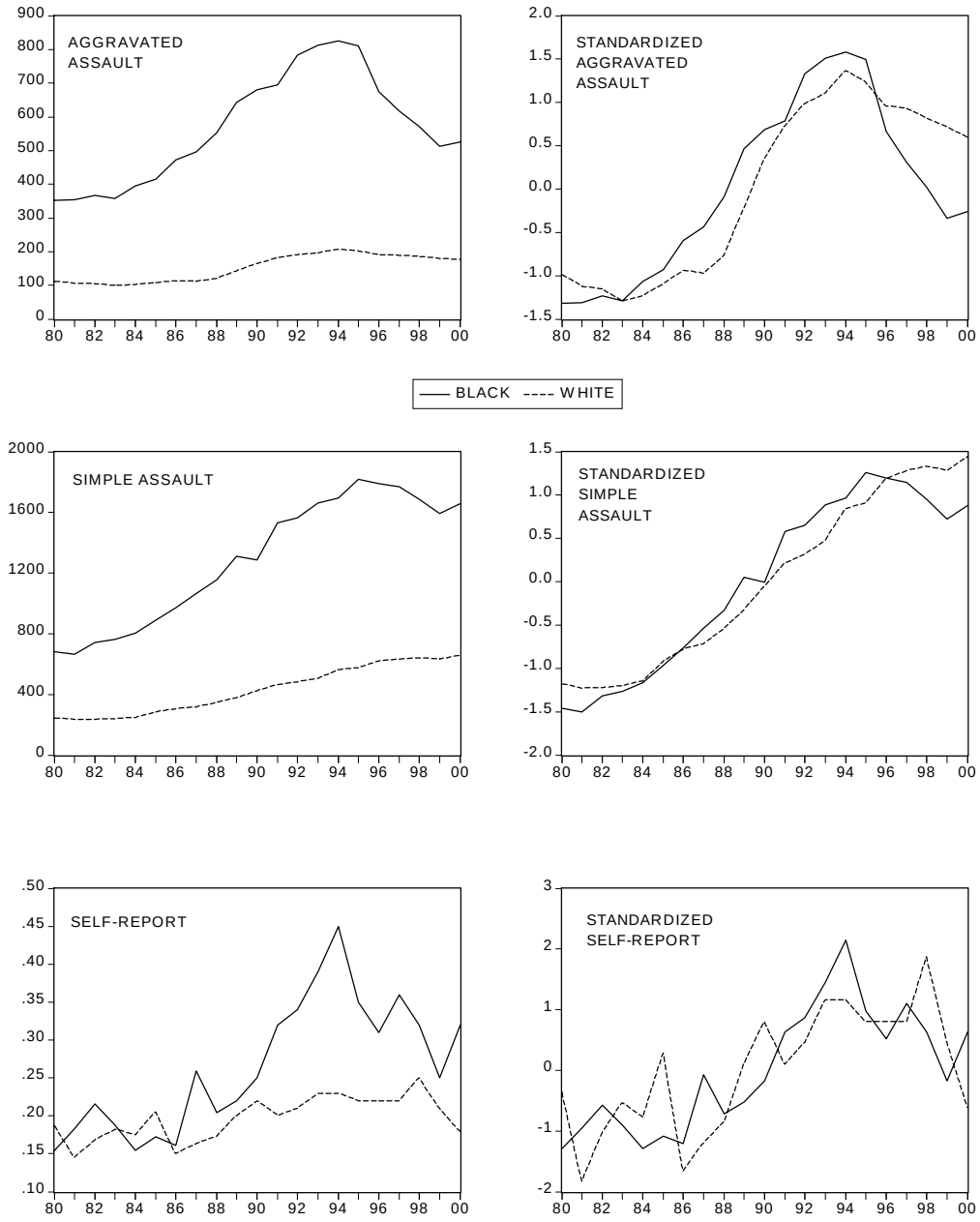


FIGURE 3: AGGRAVATED, SIMPLE AND SELF-REPORTED ASSAULT FOR BLACK AND WHITE YOUTH, ACTUAL AND STANDARDIZED VALUES



For one, it does not appear that the escalation of assault from the mid-1980s through the mid-1990s was dramatically different for blacks and whites no matter how it is measured. Violence escalated for both black and white youth. The decline beginning in

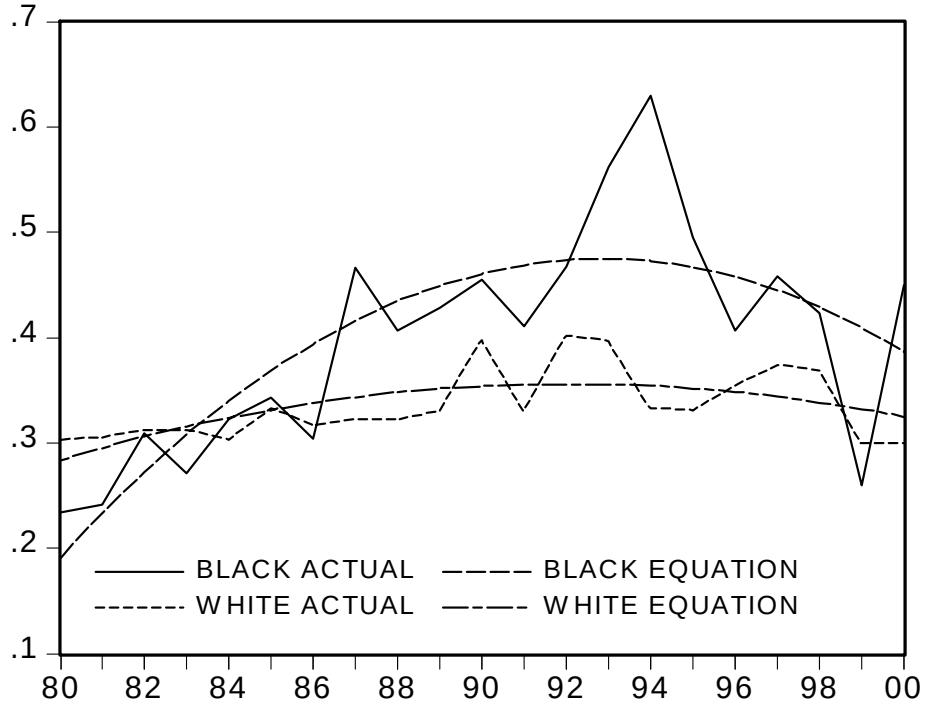
the mid-1990s is more dramatic for blacks than whites, as has commonly been proposed. But, that is partially due to a continued escalation of assault for whites. The dual peaks noted for self-report assault in Figure 1 may reflect the fact that assault peaked earlier for blacks than whites. The data continue to support the view that arrest and self-report assault data capture similar underlying patterns.

It is common to observe that information on gang delinquency over time is very limited (Bursick and Grasmick 1993; Snyder, Sickmund and Poe-Yamagata 1996). What little evidence there is comes from agency data for specific cities (See Sanders 1994; Block and Block 1993) and suggests that gang violence began an upward surge in the mid-to-late 1980's. Moreover, several gang researchers have suggested that the ethnic characteristics of gangs have changed over time as well (Hagedorn and Macon 1988; Horowitz 1991; Moore 1991). The common impression is that gangs shifted from white to black sometime in the 1970s although no actual evidence is presented. In fact, the changes in the economy and the race-related events that Hagedorn and Macon argue helped to generate minority gangs occurred in the early 1980s, not in the 1970s.

Figure 4 includes plots of black and white means for self-reported group fights from 1980 through 2000 together with the standardized scores. Using the actual values, the surge in black self-reports of group fights started in 1986 and the gap was most prominent by 1994. The average for black youth declined notably after 1994 and was actually lower than that found for white youth by 1999. The overall pattern using the standardized data is similar for blacks and whites and the best-fitting equations are nearly identical when standardized. Actual values for blacks exceed whites for about a ten year span, but the patterns over time are highly correlated.

Figure 5 plots simple assault, aggravated assault and self-reported assault for females and males as well as the best fitting equations. Several patterns can be noted in these two graphs and in analyses of correlations between measures for females and males. For females, the correlation between arrest rates for simple assault and self-reported assault is +.75 and the correlation between aggravated assault and self-reports is +.76. For males, the correlation between simple assault arrest rates and self-reported assault is +.93 and +.86 for aggravated assault and self-reports. In short, survey data and arrest data yield more similar patterns over time for males than females and are most strongly correlated with the less serious form of assault. However, these disparities should not detract from the fact that the best-fitting equations show the overall temporal patterns to be quite similar for males and females.

FIGURE 4: SELF-REPORTED GROUP FIGHTS
FOR BLACK AND WHITE YOUTH, ACTUAL AND STANDARDIZED



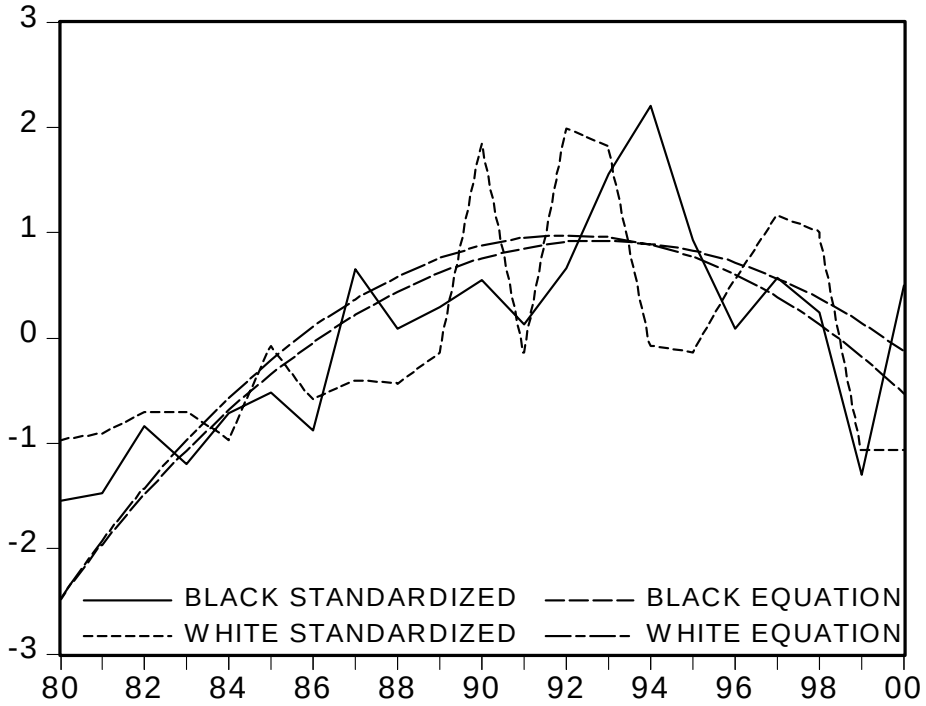
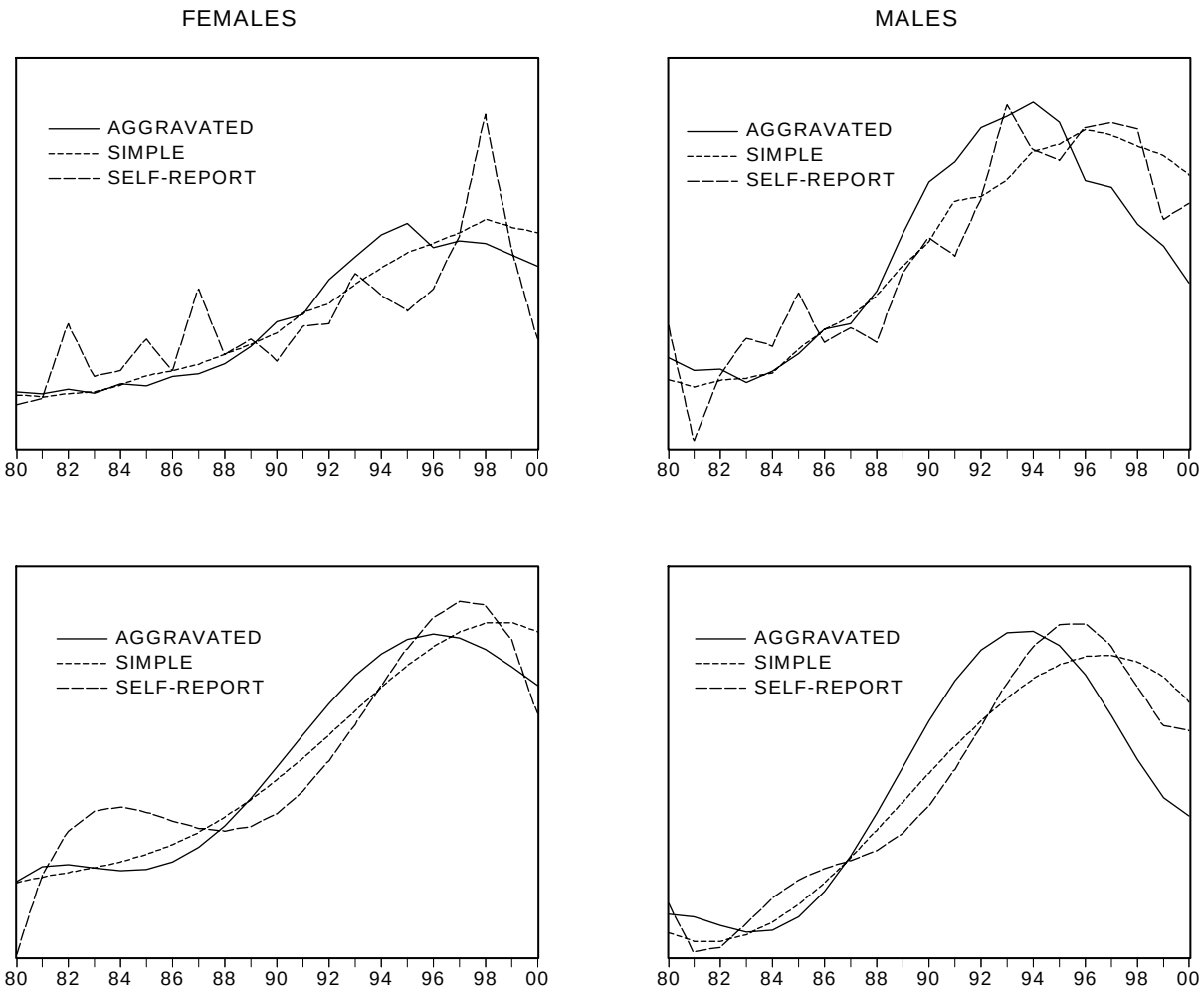


FIGURE 5: AGGRAVATED, SIMPLE AND SELF-REPORTED ASSAULT FOR FOR FEMALES AND MALES



CONCLUSIONS AND RECOMMENDATIONS FOR THE FUTURE

This analysis challenges claims that the self-report method is of little use in the study of serious violent offenses. Despite the obvious limitations of samples based on high school seniors, the MTF surveys reveal patterns over time that are quite similar to juvenile arrest data. This correspondence does not guarantee that these two types of data are valid measures of currents of juvenile crime, but that hypothesis is consistent with the patterns observed. Moreover, the correspondence works two ways in that the results support the notion that there are underlying variations in real behavior reflected in arrest rates and that variations in self-reports of serious violent offenses are reflected in arrest statistics.

If this correspondence between measures is evidence of "real" currents of youth violence, then theories about such variation can be tested using additional data from the MTF surveys. Exploration of change in crime and delinquency over time has been limited to analyses correlating different types of agency data, a limitation that has greatly restricted the range of theories and issues that can be examined. Since the MTF surveys contain measures of a huge number of potential explanatory variables, the evidence of meaningful variations over time in self-reports has major implications for future research.

The results may be particularly important for the study of gang violence in the United States. If group fights prove to be a "proxy" measure of gang violence, tapping trends or variations over time despite the obvious gap between "real" gang violence and the phenomenon captured in the MTF surveys, then theories about gang violence over time can be tested. If the group fight data measure underlying temporal patterns that are shared by gang violence, then it appears that the major gap between blacks may have developed in the early to mid-1980s.This pattern is consistent with Hagedorn and Macon's depiction of the 1980s as "disastrous for the black community (1998: 42)." In fact, in their study of Milwaukee gangs, the worst years in terms of declines in household income were 1984 and 1985. They observe that "The lack of political power and the nearly universal fear of police by black youth were a component part of the Milwaukee black experience of the 1980s (1998: 49)." In their study of youth in Philadelphia, Savitz, Lalli and Rosen (1977) report that gangs were predominately white as recently as the mid-1970s. In short, it makes more sense to propose that the shift in the gang problem occurred in the 1980s than the 1970s. Confirmation of the timing of this shift through other data sources would add to the credibility of MTF survey data because they suggest just such a pattern.

REFERENCES

Bachman, Jerald G., Lloyd D. Johnston, and Patrick M. O'Malley (2000). *Monitoring the Future*. Ann Arbor, Michigan: The University of Michigan.

Block, Carolyn Rebecca and Richard Block (1993). Street Gang Crime in Chicago. *Research in Brief*. Washington, D.C.: National Institute of Justice.

Britt, Chester L. (1995). The Nature of Common Crime in the Year 2010. Pp. 86-99 in John Koflas and Stan Stojkovic (Editors), *Crime and Justice in the Year 2010*. Belmont, California: Wadsworth Publishing Company.

Bursick, Robert J. and Harold G. Grasmick (1993). *Neighborhoods and Crime: The Dimensions of Effective Community Control*. New York: The Free Press.

Cook, Philip J. and John H. Laub (2002). After the epidemic: Recent trends in youth violence in the United States. *Crime and Justice 29*: 1-37.

Elliott, Delbert (1994). Serious violent offenders: Onset, developmental course, and termination. *Criminology* 32: 1-21.

Fox, James Allen (1995). *Trends in Juvenile Violence*. Washington, D.C.: Bureau of Justice Statistics.

Hagedorn, J. M. (with Perry Macon) (1988). *People and Folks: Gangs, Crime and the Underclass in a Rustbelt City*. Chicago: Lakeview.

Hindelang, M., T. Hirschi and J. Weiss (1981). *Measuring Delinquency*. Beverly Hills: Sage.

Horowitz, Ruth (1991). Sociological perspectives on gangs: Conflicting definitions and concepts. Pp. 37-54 in C. Ronald Huff (Ed.), *Gangs in America*. Newbury Park, CA: Sage.

McDowall, David and Colin Loftin (1992). Comparing UCR and NCS over time. *Criminology 30*: 125-132.

Moore, Joan W. (1991). *Down to the Barrio*. Philadelphia: Temple University Press.

Reiss, Albert J., Jr. and Jeffrey A. Roth (Editors) (1993). *Understanding and Preventing Violence*. Washington, D.C.: National Academy Press.

Savitz, Leonard D., Michael Lalli and Lawrence Rosen (1977). *City Life and Delinquency Victimization: Fear of Crime and Gang Membership*. Washington, D.C.: Law Enforcement Assistance Administration.

Snyder, Howard N. and Mellisa Sickmund (1995). *Juvenile Offenders and Victims: A National Report*. Washington, D.C.: Office of Juvenile Justice and Delinquency Prevention.

Wilson, James Q. and Richard J. Hernstein (1985). *Crime and Human Nature*. New York: Simon and Shuster.

PERSPECTIVES OF TERROR HOMICIDES IN THE UNIFORM CRIME REPORTING PROGRAM[1]

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ABSTRACT

On September 11, 2001 (9/11) the world changed and the debate began: how do we capture terrorist incidents in the Uniform Crime Reports (UCR)? Questions concerning the true nature of the crime confounded a reporting system that was never designed to capture such an event. Defining terrorism is critical to the issues of capturing these homicides in UCR and, once defined, eliminating the new barriers to the process of receiving and analyzing the data.

The objectives of this presentation are to examine how terrorism is captured in the Federal Bureau of Investigation's Supplementary Homicide Report (SHR), define terrorist events, and discuss how we ensure that future events are represented in the data. We examine the consequences of including these data and problems that prevent the changing of the SHR to properly reflect this type of incident.

INTRODUCTION

The September 11, 2001 terror attacks on the Nation changed the world's perspective. Since suicide terror tactics typically occurred across the ocean, many people in the United States, including government officials, never anticipated that an attack of such magnitude would occur at home. Because of this naïveté, many government agencies (FBI UCR, CDC, local law enforcement, US Armed Forces) at all levels were challenged in responding to and recording this type of large-scale attack. The administrators of data systems designed to capture various types of information were never designed to handle such an event, and were found lacking in their ability to accurately describe such criminal events. Working within the limitations of their systems, these agencies recorded the event and began the process of improving their facilities to capture more fully and understand terrorist actions.

ISSUES UNIQUE TO 9/11

For the Federal Bureau of Investigation's (FBI) UCR Program, discussions of how to classify and count the 9/11 terrorist events took center stage during the annual process of publishing *Crime in the United States* (CIUS) and *Law Enforcement Officers Killed and Assaulted* (LEOKA). Several factors unique to the events of 9/11 complicated data collection and integration into the other "normal" crime data annually reported to the Nation.

[1]**NOTE:** The opinions expressed in this paper are those of the authors and are not to be viewed as a statement of the official views of the Federal Bureau of Investigation.

The UCR Program has a wide variety of groups with a vested interest in the National law-enforcement reported crime data. Academicians, politicians, law enforcement, governmental agencies, the media, and the public have many reasons for researching UCR data, from personal curiosity to advanced statistical analysis. To ignore completely the incident based on Presidential declarations labeling the events as an act of war (the UCR Program does not count homicides attributable to an act of war) would be to ignore a large portion of the people who would have an interest in these data and information. Including the 9/11 data without restriction would drastically skew the data and force researchers to include information in their studies when it would be best not to use the data. Perhaps the most potentially controversial question was whether to include the firefighters who died after responding to the incident in the UCR as homicides. By definition, the UCR does not include deaths of people who place themselves in harm's way (someone runs into an arson-fueled, burning building and dies when the building collapses) as homicide. However, many people wanted to include the deaths of firefighters in the data arguing that to exclude them would be to dishonor them.

Problems concerning the proper recording of the 9/11 incidents are compounded by UCR Program data definitions and database structures. Unlike other homicides recorded by the Supplementary Homicide Reports, the 2,823 deaths reported at the World Trade Center in New York City drastically strained the current SHR data structure (which can only have 11 victims per row), so that the murders could only be contained across 257 rows of data (Incident numbers 49-306 for New York City). Because the UCR Program does not collect information for crime occurring on Federal property, the 184 deaths at the Pentagon required special attention. And finally, the decision to locate the 40 homicides occurring from the downed plane in Somerset County, Pennsylvania has been criticized since the initial incident (the hijacking of the plane) could be considered to have occurred in Boston, New York State, or Pennsylvania. Grasping the intentions of the terrorists, passengers may have crashed the plane to save the lives of other people, thus defining the deaths as suicides (and therefore not collected by UCR). Further, the location of the crash is somewhat arbitrary. Had the passengers acted sooner or waited five minutes more, the deaths would have occurred in another county, or state.

To maintain a balance between maintaining the integrity of UCR Program data and meeting the needs of UCR Program data users, the events of 9/11 were separated from the traditional reporting in *Crime In the United States* so that researchers have the ability to include the information in their research at their discretion.

DEFINING TERROR

While there are varying definitions of terrorism, most of them include it as an act that is committed against a symbol of a group of people with the intention of instilling fear and/or harm to the group as a whole. Because of the nature of the victim and the offender, the acts are intended not only to cause harm but also to send a political message.

The Uniform Crime Report attempts to standardize definitions of crime and related categories to create a foundation for law enforcement agencies to report the same information regardless of personal or jurisdictional variance in describing criminal events. To define terrorism in relation to crime in the UCR Program it is essential to understand the context surrounding the motivations of the incident and the characteristics of the crime itself. While it may be easy to identify the use of weapons of mass destruction by foreign nationals as terrorism, the line between what defines a terrorist incident and a crime blurs when the factors behind the event are not as dramatic as the events of 9/11 or the Oklahoma City Bombing. For example, if an international terrorist organization created billions of dollars worth of counterfeit money in an attempt to harm the US economy one could argue that this an act of terrorism. Does the person, sympathetic to Al Queda, piloting a small Cessna airplane into a building where no one is injured an act of terrorism? Certainly, according to the definition above, certain hate crime incidents could be called terrorism when the motivation of the offenders is to intimidate a group of people through the victimization of individual members, often with political and ideological undercurrents. Consider the sniper attacks around Washington DC in 2002. Should those events be classified as terrorist homicides or merely criminal homicides?

Since it can be argued that there are many characteristics of terrorism, additional factors must be considered in the development of a UCR definition and classification. State- or government-sponsored, domestic-sponsored, religious, political, and environmental motives could be the basis of a classification system to differentiate between different characteristics. Table 1 shows a potential classification system that could identify terrorist events. This table is only an example and the events and categories listed are not necessarily recommendations of definitions. They are intended to indicate possible criteria for event definitions.

Two or several dimensions could categorize events. Table 1 is arrayed along the dimensions of organization and ideology. The ideological dimension captures the motivation behind the events. Offenders who believe their behaviors are for non-selfish political or religious ends commit ideologically-driven actions. Like the suicide bombings in Israel and the 9/11 attacks, the offenders believe their actions enhance the lives of their specific constituencies, or as in racially motivated hate crime, their actions undermine their putative enemy. Actions perceived as not ideological are committed for other potentially selfish reasons but use terror to achieve their ends, such as aggrandizement of power, psychological or economic motivations, or other kinds of personal gain.

The organizational dimension defines events by the degree of structural support from people not directly involved with the commission of the action. Offenders of this type may be supported or directed by a larger group. Once these immediate offenders are removed by law enforcement, other members may fill this gap. In unorganized terrorist actions there is little or no overt or physical support from others. The perpetrator of this type of action is usually a single individual or a small group, whose removal eliminates the threat of further actions.

Table 1
Potential Classification System That Could Identify Terrorist Events

	Organized	Unorganized
Ideological	9/11/2001 Embassy Bombings Suicide Bombings Cross-burnings – Hate Crime	Oklahoma? Atlanta / Birmingham Unabomber Cross-burnings – Hate Crime
Not Ideological	Saddam Hussein Usama Bin-Laden (These are arguably ideological) DC Snipers?	DC Snipers? Columbine – Schools Central Park Sexual Assaults New Orleans Serial Rapist Tylenol Lacing

DATA ISSUES

Once an act of terrorism is defined, the UCR Program must consider how the information is to be collected and stored in a database. Currently, without a terrorism flag in the UCR Program, there are limited ways to detect terror incidents. For example, in the SHR the terror homicides occurring at the World Trade Center are easy to find (Figures 1 & 2). Researchers can scroll through the data files and locate the large block of victims and offenders under New York and the date of 09112001. However, it is much more difficult to find the anthrax homicides that occurred shortly after the 9/11 attacks. In the SHR the weapon for the anthrax attacks could be described as poison, but there is no way of clarifying what type of poison is used, so the homicide may have been the anthrax poisoning or a different homicide that used another type of poison.

Even large-scale attacks can be dwarfed when examined with the Nation's crime. For example, if the homicides of the Oklahoma City bombing in 1995 are included in the UCR data, the impact is barely noticeable at the National level. However, when looking at State or Local levels, if the terror homicides are arbitrarily included the event drastically impacts crime trends. Such skewed data could erroneously affect agency staffing, budgets, funding, and other characteristics and systems influenced by crime rates. (See Figures 3 & 4).

Another issue limiting the collection of terrorism data in the UCR is the Hierarchy Rule. This rule states that law enforcement agencies are only to report the offense in an incident that is highest in the UCR Hierarchy of crimes. For example, if an offender while committing a burglary is confronted by and stabs the homeowner with a knife, an aggravated assault is reported and not a burglary. Relating this rule to the 9/11 attacks, the UCR Program did not receive any information on the victims of the World Trade Center or Pentagon who were not killed (these people would be considered victims of aggravated assault), the hijacking of the planes, or any information on the amount of

property damage. While these issues are dissolving as the UCR Program shifts to the National Incident-Based Reporting System (NIBRS), many states and large populations where terrorist events are likely to occur have not made the conversion to NIBRS.

Figure 1

Figure 2

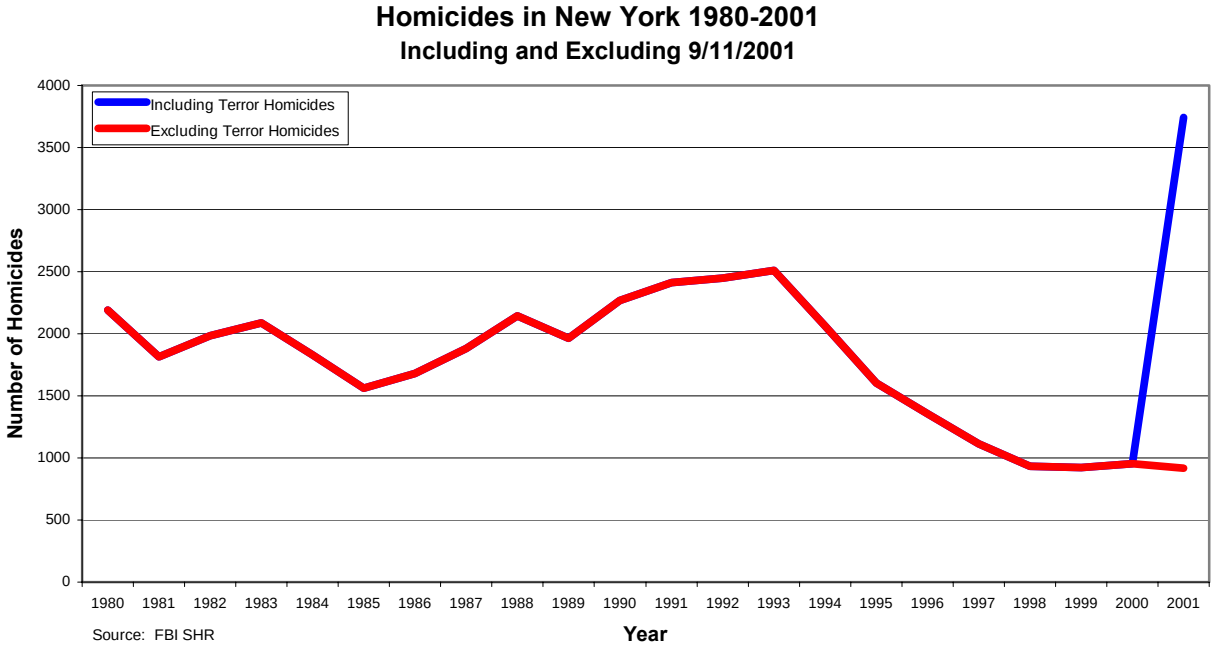

Figure 3

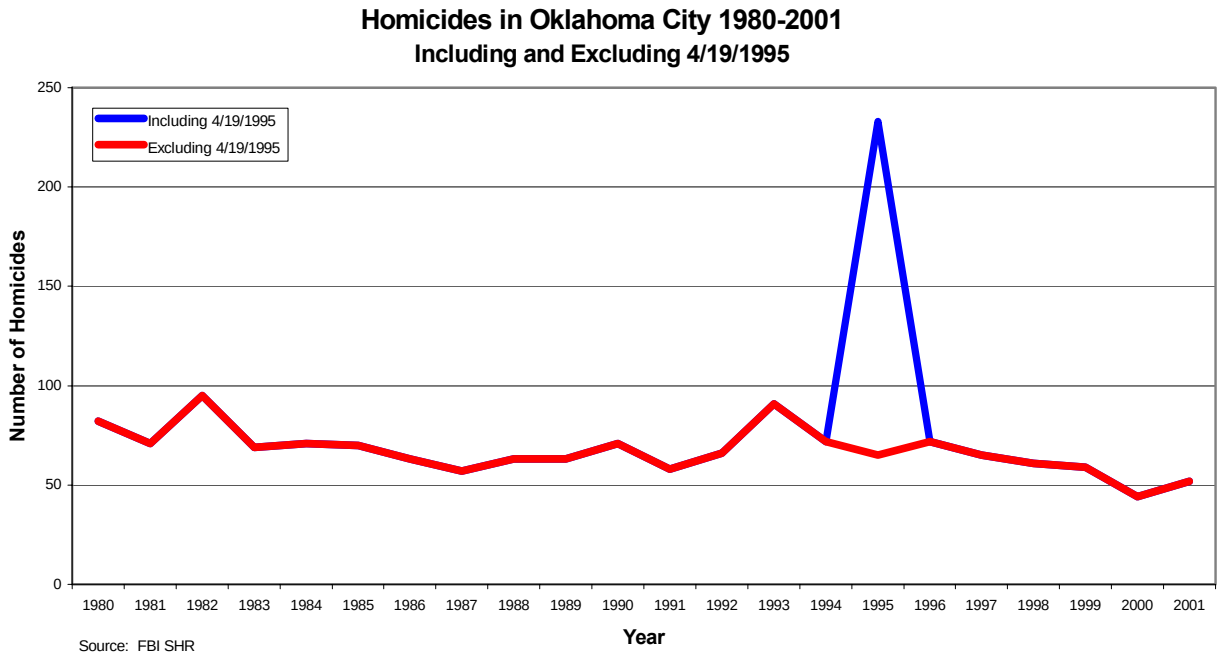

Figure 4

Because the UCR Program does not collect offenses that occur on Federal property, one concern of future terrorism data collection is losing information for terrorist attacks occurring on government grounds; a desirable target for many terrorist groups.

Finally, unless very broadly defined, there are very few terrorist events that occur in the United States in any given year. This small population of incidents challenges statistical analysis methodologies to yield any significant and reliable results. Breaking down terrorist attacks into several categories may only increase the difficulty in conducting valid research. The information gleaned by any UCR terrorist data collection program may need to rely on qualitative methods and description and not necessarily on quantitative methods.

PROGRAM IMPACT OF IMPLEMENTATION

If a terrorism data collection program becomes a reality, either for the entire UCR Program or select data collections such as the SHR, there are several logistical obstacles to overcome before implementation.

The UCR Program could simply include a new data element in its data collection programs that would allow reporting law enforcement agencies to flag or mark an incident as a terrorist event. While this approach may seem simple, there are significant challenges in adding elements to the UCR Program. During recent developments, Congress sought to add a new race category to all government data collection programs, for which the UCR Program conducted a cost analysis study. The conclusion of the study revealed that this change would cost the UCR Program and over 17,000 law enforcement agencies implementing it $200 million in computer software changes and staff training. Because law enforcement participation in the UCR Program is voluntary it is likely that adding expensive initiatives to collect terrorism data could harm law enforcement agency participation in the UCR.

HOMICIDE OFFENDERS AND THEIR CRIMINAL TRAJECTORIES IN THE NETHERLANDS

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ABSTRACT

In several Western industrial nations, longstanding national homicide monitoring programs exist. Up to recently, however, no such program existed in the Netherlands. Consequently, research on homicide was rare, and if done, it was based on small samples. In response to this situation, data are now being collected on every homicide in the Netherlands in the period 1992 through 2001. This unique data set makes it possible to conduct in-depth analyses of various aspects of homicide. This paper is the first result.

The paper's aim is twofold. First, it provides a summary of the main characteristics of all 2,546 homicide cases, in particular focusing on the various types of homicidal encounters, for example - partner, family, robbery, other criminal, arguments, sexual and other homicides. Second, this paper analyses the full criminal conviction histories of all homicide offenders convicted in the Netherlands between 1992 and 2001. The paper analyses how the risks of being convicted develop during adolescence, early adulthood and adulthood, and how they cumulate into the homicide. Special attention is given on how criminal careers differ across offenders of different types of homicides. The criminal trajectories are analyzed using latent class growth curve models.

INTRODUCTION

Annually in the Netherlands — a country with about 16 million inhabitants — about 250 people commit a murder or manslaughter. It is thus surprising that so little is known about this "capital crime" and the perpetrators of these crimes. Systematic surveys of murder and manslaughter in which a distinction is made according to type of murder have almost never been performed in the Netherlands. In contrast to countries such as Australia, Great Britain and the United States, the Netherlands had no tradition of authoritative and long-term "homicide monitors" in which data are presented on all murders, victims and perpetrators. In addition the statistical publications about murder and manslaughter produced by Statistics Netherlands (the Dutch Central Bureau for Statistics (CBS)) do not give a good overall picture of murders, because they are targeted on either only victims or only on convicted murderers.

So far the only summaries that do combine data concerning the cases, victims and perpetrators, and also make a distinction between various types of murders, are the reports based on a study of *Murder and Manslaughter in 1998* in the Netherlands (Smit, et al., 2001). This study, however, deals only with a single year, so that no trends can be described. Moreover, in a single year there are only a small number of murders of each type, so that the discussion of the different types is consequently restricted.

A systematic summary of homicide in the Netherlands was then seriously lacking. Recently, therefore, on the basis of various sources, an attempt was made to create a systematic summary of all homicide cases that have occurred in the Netherlands over the last decade. This resulted in a databank *Murder and manslaughter 1992 – 2001* (Nieuwbeerta, 2003). The databank includes data on characteristics of incidents, victims and offenders from all murder and manslaughter cases in the Netherlands in the last ten years. It also resulted in a book, *Homicide in the Netherlands 1992-2001*, published in Dutch, in which a comprehensive description of fatal violence in the Netherlands was provided (Leistra & Nieuwbeerta 2003).

The aims of this article are twofold. The first aim is to provide a brief description of the main characteristics of all 2,549 cases of murder and manslaughter in the Netherlands in the period 1992-2001. It is the first time that such a description is presented in English language. The paper indicates trends and shows what types of homicide occur most frequently. It also indicates where most murders are committed, the ethnic background of perpetrators and victims, and what sorts of weapons are used.

The second aim of this paper is to examine the position of homicide offenders on trajectories of criminal delinquency, based on official criminal conviction records. For that purpose, the paper addresses the following questions:

- What are the trajectories of criminal behavior before offenders commit a homicide in the Netherlands?
- To what extent is the likelihood that homicide offenders follow specific trajectories related to characteristics of the homicide cases and the perpetrators?

These questions are addressed by analyzing data on full criminal conviction histories of the homicide offenders. Latent class growth curve models are employed to analyze the data.

HOMICIDE IN THE NETHERLANDS

Before we present the results of the latent class analysis on criminal trajectories of homicide offenders, we provide a brief description of all cases of homicide in the Netherlands in the period 1992-2001, and focus on characteristics that are relevant for the criminal trajectories of the perpetrators. For an extensive overview, we refer to Leistra & Nieuwbeerta (2003).

In total, there were 2,389 murder cases in the Netherlands from January 1, 1992 through December 31, 2001. These murders resulted in 2,549 victims losing their lives. On average, this means almost 250 cases per year. The Dutch population amounts to about 16 million nowadays. So, there were annually an average of 1.7 murder victims per 100,000 inhabitants. The number of victims of murders has in the last ten years fallen slightly, both in absolute numbers as well as in terms of the number of inhabitants (Table 1). There were 2,564 perpetrators prosecuted for these crimes.

According to international police and medical statistics, the annual homicide rates in the Netherlands are comparable to those found in other Western European countries,

Canada and Australia (Barclay, Tavares & Siddique, 2002; World Health Statistics Annual, 1997-1999). The rate is, however smaller than in most Central European nations (on average about 3.0 per 100,000) and substantially smaller than in the United States of America (6 to 7 per 100,000) and Central European nations like Estonia and Russia (about 15 and 21 per 100,000).

Table 1
Numbers of murder cases and victims per year, 1992 - 2001

Year of Occurrence	Murder Cases	Victims	Victims per 100,000 inhabitants
1992	248	262	1.73
1993	258	273	1.79
1994	230	241	1.58
1995	269	281	1.83
1996	241	255	1.65
1997	259	283	1.81
1998	215	238	1.51
1999	225	236	1.50
2000	209	225	1.42
2001	235	255	1.59

Types of Homicide

The murders differ in the relationship between the perpetrators and the victims and the context in which the murder took place. In total, we distinguished seven types of homicide: two types of murders in the family domain (partner killings and other murders in the family), two types in the criminal domain (robbery with murder and other murders in the criminal domain), murders occurring during arguments, sexual murders, and other murders (see Table 2). Similar classifications are used in studies in the Netherlands (Smit, et al., 2001) and in several other countries (Mouzos, 2000). Furthermore, the classification is a close match to various criminological theories and to opportunities offered for interventions.

Murder cases that have not been solved by the police have not been classified. To be able to classify a murder into a category, you need to know the relationship between the perpetrator and the victim. In unsolved cases, this information is not available. It might have been possible to classify a portion of the unsolved cases – for example contract killings – on the basis of information about the cause of death, the place of the crime and background of the victim. To avoid distortion of the facts, we have decided not to do so.

The majority of murders in the family/relational domain concern intimate partner murders. These we take to include all killings whereby one (ex-)partner kills the other

(ex-)partner. Cases whereby rivals in love were killed are also included in this category. Together, the partner killings and killings of rivals constitute almost one-fifth of all murder cases in the Netherlands. In the family/ relational domain, killings of children and parents also occur. In the remaining murder cases in the family/relational domain, persons other than partners, parents and/or children are killed. These cases relate to murders of, for example, brothers, sisters, uncles and aunts. Together, the category “other murders in the family” accounts for approximately 10% of all murders.

Table 2
Number of victims per type of murder

Type of Homicide	Number of Victims	Percentage
Intimate Partner	474	19%
Other family sphere	294	10%
Murders in the criminal world	278	11%
Robberies with murder	182	7%
Other arguments	509	20%
Sexual murders	95	4%
Other, unclassified	252	10%
Unsolved murders	510	20%
Total	2,549	100%

The second category relates to murder cases that have taken place in the criminal world. That is to say that the perpetrator or the victim or both were involved in criminal activities. Most of these are related to drugs, such as drug addicts who murder each other, addicts who murder their dealers, or drug dealers murdered during a drug transaction. The settling of accounts in the criminal world is also included here. This category accounts for about 11% of all murder cases. In addition, we classify robbery with murder separately. Of all murders, 7% were classified as robbery with murder. Here, victims are not involved in criminal activities. This category includes victims arising from robberies, hold-ups or burglaries.

Another large category is formed by murders occurring during arguments. In such cases, a brief or long-term conflict between friends, acquaintances or strangers leads to a violent death. We have included here only those cases of murder and manslaughter in which perpetrators and victims were not immediate family and did not know each other from the criminal world. In the last ten years, this category represented 20% of all murders.

Murders committed in the sexual domain are classified as a separate category. It includes murder cases in the prostitution world and murder cases in which victims have been sexually assaulted or raped. We were able to establish this in about 4% of all murder cases.

In addition to this category, there is a “remainder category.” These are murders in which we may have information about the relationship between the perpetrator(s) and victim(s) and the circumstances of the murder case, but that cannot be classified into any of the previously mentioned categories. Moreover, this category includes murder cases where we have insufficient information about the relationship between the perpetrators and the victims to be able to judge precisely what type of murder it was. The “remainder category” consists of about 10% of all murders in the Netherlands. It is naturally a very heterogeneous group.

Incident Characteristics

There are sometimes several victims in cases of murder and manslaughter. In the period studied, two victims died 4% of the 2,389 murder cases and three or more victims in 1% of the cases. In total 2,549 persons were killed. This is an average of 1.07 victims per murder case. The percentage of murder cases in which, respectively, one, two, three or more victims were killed is very constant over time.

Also, the number of perpetrators involved in a murder case is constant over the period in question. On average, one perpetrator is involved in 78% of all solved murders. In 14%, there are two perpetrators involved, and in 8% of cases, three or more perpetrators. This is an average of 1.35 perpetrators per murder case. In 20% of the cases, the number of perpetrators involved is unknown, because these cases are not (yet) solved. In murders in the family/relational domain, there is relatively more frequently only one victim and one perpetrator involved: this is the case in 88% of partner killing cases, and in 75% and 89% of child and parent killing cases, respectively. It is in particular in the criminal domain that relatively frequently several perpetrators are involved in murder cases. On average, there are several perpetrators involved in 22% of cases. This is the case almost 50% of the time in murders in the criminal world and robberies with murder.

The majority (two-thirds) of all victims are shot or stabbed to death (see Table 3). More than one-third (39%) are killed with a gun. About a third (32%) are killed with some kind of knife (knife, stiletto, etc.). The remaining third consists of roughly 10% (of all victims) who are killed by a blow from a blunt instrument, a further 10% by smothering or strangulations and 5% by other forms of physical violence. A very small portion (3%) are killed by poisoning, drowning, burning or being run over by a motor vehicle. The classification according to cause of death is stable over time. Men are, however, more often shot, whilst women are relatively frequently strangled. The percentage accounted for by homicides with firearms lies far higher in the category of murders in the criminal world. Contract killings are almost all (92%) carried out using a gun. In murders in the criminal world, firearms are used in 68% of cases. In murders in the family/relational domain, firearms are used much less frequently (in about one third of the cases). When children

and their parents are after each other's blood, they strangle or stab each other relatively frequently. In intimate partner killings, the victims are stabbed to death in 41% of cases and strangled in 18% of cases.

Table 3
Weapons used by Homicide Offenders by Type of Homicide

Weapon Type	Partner	Other family	Criminal World	Argu-ments	Robbery murder	Sexual murder	Type not known	Total
firearm	27	39	68	32	28	9	42	39
stabbing, knife	41	39	22	40	34	36	32	32
strangling, suffocation	18	5	3	4	13	36	8	11
Other	14	17	7	23	24	20	17	18
	100%	100%	100%	100%	100%	100%	100%	100%

Almost half (47%) of all murders were committed in homes (see Table 4). In a third of cases (31%), the homicide was committed on the public highway and in almost another one-tenth (8%), in other public locations, such as parks and woodlands. Almost 10% of all murders occur in places of entertainment (for example discos, bars, and coffee shops).[2] Women are most often killed in a house (66%); men are killed equally frequently in a house and in the open (both 38%). The majority of murders in the family/relational domain are committed in a house (about 70%). Murders in this category rarely take place in hotels, cafes or restaurants: only 3% of cases. Murders in the criminal world are much less frequently committed in a house. Robberies with murder take place in a house in 55% of cases. The murder was committed in a house in only 31% of the cases in the criminal world. These murders are in the majority committed on the public highway or other public locations (parks, woods, water). Vice crimes take place principally in a house or in public locations.

Table 4
Place where offenders commit homicides

Place of Occurrence	Victim's Gender		
	Men	Women	Total
House	38	68	47
Public highway, park, water	38	16	31
Hotel, café, restaurant	12	4	9
Other	4	4	5
Total	100%	100%	100%

[2] In the Netherlands, the coffee shops are permitted to sell cannabis for use on the premises.

Offender Characteristics

Murder is, like most forms of criminal behavior, principally a matter for men (see Table 5). Of all 2,549 victims, 71% were male and 29% female. This means that on average, women run a risk of 1.0 per 100,000 of being murdered, whilst for men this risk is 2.3 per 100,000. Most of those committing murder are also men (91%); 3.0 in 100,000 men are perpetrator, versus 0.3 per 100,000 women. Men are thus 10 times more likely to be a perpetrator than women. The male/female profile also differs clearly in the type of murder. Those committing murders in the criminal domain are men in almost every case: contract killings 98%, robbery 92% and others 98%. In the cases involving child or parent killings, 50% of the perpetrators (and victims) are men. Women are in particular involved in murders in the relational domain, and then principally as the victims. Whenever women commit a murder, it is almost always in the family/relational domain and only very seldom in the criminal domain.

Table 5
Man/woman distribution of homicide offenders per homicide type

Gender	Partner	Other family	Criminal World	Argu-ments	Robbery murder	Sexual murder	Type not known	Total
Victim:								
man	30	68	97	89	73	39	80	71
woman	70	32	3	11	27	61	20	29
	100%	100%	100%	100%	100%	100%	100%	100%
Perpetrator:								
man	86	90	98	96	91	92	90	91
woman	14	10	2	4	9	8	10	9
	100%	100%	100%	100%	100%	100%	100%	100%

The difference between men and women are also visible when we look at the ages of the perpetrators. The risk of committing a murder for men is at its highest between the ages of 19 and 24. In this age group, almost 10 in 100,000 men commit a murder. For women, this is also the time when the risk is highest. However, for women the chance that they will commit a murder is much lower: about 1 in 100,000 women between the ages of 20 and 24 commit a murder. The difference between men and women slowly decreases thereafter, principally because the risk for men reduces. After reaching retire-ment age, men and women to all intents and purposes do not commit murders. (The youngest perpetrator was, for that matter, twelve years old.)

Slightly more than half of the victims and perpetrators are of Dutch origin (Table 6). Of those of foreign origin – among both the victims and perpetrators – about 80% come from the Dutch Antilles, Surinam, Turkey of North Africa (chiefly Morocco, but also Tunisia and Algeria). Almost one-tenth of the victims and perpetrators come from West-European countries, and the remaining 10% come from other countries. The ethnic composition of the entire population thus clearly deviates from that of victims of murder: among the victims there are relatively more non-Dutch origin persons and in particular, Antilleans, Surinamers, Turks and Moroccans.

Table 6
Ethnic origin of victims and perpetrators

	Victims		Perpetrators	
Ethnic Origin	**Percentage**	**Rate per 100,000**	**Percentage**	**Rate per 100,000**
Netherlands	52%	8.8	56%	.8
Ned. Antilles	4%	6.9	7%	22.1
Surinam	75%	4.8	8%	9.5
Europe	9%	1.6	6%	2.4
Turkey	9%	6.2	8%	9.8
North Africa	8%	6.0	6%	8.0
Other	11%	4.0	10%	7.4
Total	100%		100%	

Persons of foreign origin have a relatively high risk of committing a murder. Whereas native Dutch people have an annual chance of 0.8 per 100,000, for Antilleans this is 22.1 per 100,000, for Turks 9.0, for Surinamese 9.5 and for Moroccans 8.0 per 100,000. If we look specifically at men, then the differences are even greater. The chance that an Antillean man will commit a murder is 30 per 100,000. The overrepresentation of people with a non-Dutch origin exists for every type of homicide, but especially for murders in the criminal sphere.

Legal Outcomes

Eighty per cent of all murders committed in the period 1992 through 2001 have been solved. We speak of solving the case in this connection when at least one suspect has been prosecuted by the Prosecution Office. The 80% of solved cases means that 20% (or 483 cases of murder committed in the last ten years) are still not solved. In the other 1,906 solved murder case the police have apprehended 2,562 persons as suspects of murder or manslaughter, and these persons have been prosecuted for these crimes by the Public Prosecutor's Office.

When the suspect(s) of a murder is(are) known, then in principle prosecution can begin. The suspect is then officially charged by the Public Prosecutor's Office with murder or manslaughter. A number of suspects are, however, not prosecuted in the Netherlands. In the last ten years, 33 suspects were, in the end, prosecuted abroad. In those cases, after the Public Prosecutor's Office presented a summons to the suspect, it then passed the case over to the person's country of origin. In addition, some suspects were not prosecuted because they died. That is especially the case in the murder-suicide cases. In the last ten years, this was the case for 73 (3% of the suspects). Usually this was in the family sphere.

Ultimately, a charge of murder or manslaughter was made against 2,458 suspects by the Public Prosecutor's Office in the period 1992-2001. However, not all these prosecuted suspects were sentenced for murder or manslaughter. Sometimes the judge considered that the charge "murder" or manslaughter was not correct or could not be proven. In such cases, the perpetrator is acquitted or discharged from further prosecution. Five per cent of the suspects charged with murder of manslaughter in the period 1992 through 2001 by the Public Prosecutor's Office were in the end acquitted or discharged from further prosecution following a court case conducted by the judge (in first instance).

Judges can also deviate from the charges made and classify the case as something different. In the cases where the charge was murder or manslaughter, 10% were ultimately sentenced for a less serious crime, for example "grievous bodily harm leading to death" or "culpable homicide." In the cases where the most serious charge made was murder, in 26% the perpetrator was sentenced for manslaughter. In such cases, the judge has decided that "acting in full knowledge of the facts" was not applicable here or could not be proved.

Perpetrators who are found guilty of manslaughter can be punished with a prison sentence of maximally 15 years or a fine of the fifth category. A life sentence can be given to those perpetrators who have, deliberately and acting in full knowledge of the facts, taken the life of another person. Also, these murder perpetrators can be given a temporary sentence of twenty years. In addition to or instead of a punishment, the judge can sentence the perpetrator to be detained at Her Majesty's Pleasure (HMP) [TBS – ter beschikkingstelling]. HMP is feasible if, according to experts, the suspect suffers from "defective development or pathological disturbance of the mental abilities," as a result of which he or she with respect to the crime committed was not fully responsible, and if there is reason to fear repetition of a similar offence. The HMP can be ordered in combination with a prison sentence. Often when the prison sentence is given, the fact that HMP is also be ordered will be taken into account.

Of all perpetrators sentenced for murder and manslaughter, 77% are given only a prison sentence, 4% are given only HMP, and 17% are given both HMP and a prison sentence. Two per cent are sentenced to detention in a young offenders' institution.

There are hardly any differences between murder and manslaughter in the sorts of sentences given. Perpetrators who, in the end, are sentenced for assault or some other

lesser offense are given only a prison sentence relatively more frequently. This is probably because these are “less serious” cases with less danger of recidivism.

The sentences that are imposed differ substantially between the types of homicide. HMP is principally ordered in cases involving child killing (46% of cases), parent killing (46%) and sexual murders (36%), and to a lesser extent intimate partner killings (24%). In murders in the criminal world and murders resulting from arguments, a prison sentence is often the only sentence imposed; with contract killings in 100% of the cases.

The average length of the prison sentence imposed was 6.6 years. Where HMP was also ordered for those convicted, the average sentence was 5.7 years and for those sentenced only to prison the average was 7 years. Perpetrators sentenced for murder were given a sentence of almost 8.5 years, whilst the average prison sentence for those sentenced for manslaughter was 2 years less. When perpetrators were also given HMP, the difference was smaller. The prison sentences for those convicted of murder were only four months shorter. Perpetrators convicted of robbery with murder and murders in the criminal sphere were sentenced on average to 8 years. Perpetrators of sexual murders were given the longest sentences, almost 10 years. The shortest sentences were given to those convicted of child or parent killing, on average about 5.5 years.

Approximately 20% of the perpetrators were given a prison sentence of less than 3 years. Sentences of between 4 and 10 years were imposed on 55% of the perpetrators, with the remaining 15% of perpetrators receiving a sentence of more than 10 years. One per cent of the perpetrators were sentenced to 20 years or life.

DATA

Databank *Homicide in the Netherlands*

This paper analyses official data on the criminal histories of all 2,546 homicide offenders convicted in the Netherlands between 1992 and 2001. The data come from two sources. Information on the characteristics of the homicide incidents, victims and offenders drew on data from the databank *Murder and Manslaughter 1992 – 2001* (Leistra & Nieuwbeerta, 2003; Nieuwbeerta, 2003). The databank includes data from all 2,389 crimes that, according to the Criminal Code, fall into the categories of murder (Art. 289 and 291 Criminal Code) or manslaughter (Art. 287, 288 and 290 Criminal Code). The manslaughters relate to crimes in which the perpetrator has deliberately taken the life of the victim. If the manslaughter is premeditated, then this amounts to murder. In this article we will - in order to keep the text brief – generally talk about “homicide” (both murder and manslaughter).

To construct the databank, various sources of information were used. These overlap each other, but also complement each other. First, we searched all of the over 13,000 press reports about murder and manslaughter in the Netherlands published in the period 1992-2001 by the General Dutch Press Agency (ANP). The ANP press reports contain much information about the characteristics of the homicide cases, perpetrators and

victims. In addition, the databank utilized information from the annual summaries of all murder and manslaughter cases published in the Dutch weekly magazine *Elsevier*. Furthermore, data available from the computer files of the National Detection Information Division of the Dutch National Police (NRI-KLPD) and the national database of the Public Prosecutor's Office (OM) were incorporated.

When defining whether a crime related to a murder, in principle we based our data on the qualification of the crime given by the Public Prosecutor's Office, or - where prosecution did not or has not yet taken place - on the police assessment of the case.

In the databank a relative restricted list of characteristics of the homicides is available. These cover where the murder took place (house, public area, hotel, other) and the weapon used to commit the murder (firearm, knife, strangling, other). In relation to the victims and the perpetrators, information is available about their age, sex, and ethnic origin (Dutch versus Foreign). In addition, the relationship between the perpetrator(s) and victim is known, as well as the context in which the murder took place. Based on this information, seven types of homicide are distinguished:

- partner killings,
- other murders in the family,
- robbery with murder,
- other murders in the criminal domain,
- murders occurring during arguments,
- sexual murders, and
- other murders.

Summary statistics of the characteristics of the homicide offenders and the characteristics of the incidents they were involved in are presented in Table 1 (above).

Data on Criminal Conviction Histories

The data from the *Murder and Manslaughter 1992 – 2001* databank were extended with data on the criminal histories of all 2.564 homicide offenders. These data were obtained from the Criminal Record Register of the Central Judicial Documentation department of the Ministry of Justice [Strafregister van de Dienst Centrale Justitiële Documentatie van het Ministerie van Justitie]. At this department all the criminal records of all Dutch citizens are archived and registered. Local municipalities can request details here when citizens request a "certificate of good conduct." Until the beginning of the nineties, this information was stored at each of the 19 separate courts of law. Since then, the archives and criminal records have been combined and stored and managed centrally.

Person-Period File

In order to analyze the individual's risk of offending in each year of their lives, a so-called "person-period" file was constructed. Each record in this file contains information on the occurrences of criminal events for each individual in each year of their live, as well as information on all relevant covariates, i.e. the characteristics of the homicide incidents,

victims and offenders from the databank. Since we analyze criminal careers up to the year the offenders committed a homicide, the data file was censored until the year before the homicide took place. The fully constructed data file contains information for 78,924 person-years from 2,564 individuals.

The criminal histories of homicide offenders are the main variables used in this paper. In each year of their live prior to the year they committed their (first) homicide, the number of convictions and the type of convictions are known. Since in most years over their live course, most people are not convicted and in those years they were convicted the number of convictions is typically small (in most cases only one or two), the main distinction is between having been convicted or not. Therefore, for the dependent variable if a individual committed offences in a certain year, the variable was given the value of 1, and if not the value of 0.

METHODS

To identify types of criminal careers and examine the determinants of the probabilities for offenders who follow different trajectories, we use a latent class model especially developed to study group-based offending trajectories (Nagin & Land, 1993) and earlier applied to the criminal careers of homicide offenders (Loeber, et al., 2003).[3]

The model has two components. First, similar to hierarchical or latent growth curve modeling a polynomial relationship is used to link homicide offender's age with the following quadratic equation:

$$Y^k_{it} = \ln (p^k_{ij}/(1-p^k_{ij})) = \beta^k_0 + \beta^k_1 * age_{it} + \beta^k_2 * age_{it}^2 \qquad (1)$$

where the variable Y^k_{it} for the conviction of an individual I at age t given membership in group k is coded 1 when the individual has been convicted and 0 when he or she has not. Age_{it} is the offender's age at time t, age_{it}^2 is the square of offender's age at time t, and β^k_0, β^k_1, and β^k_2 are the maximum likelihood coefficients estimated by the model to fit the trajectory. The superscript k means that these parameters can differ across the k groups. So, for each group different trajectories are estimated. For any given k, conditional independence is assumed for the sequential realizations of the elements Y^k_{it} over the t periods of measurement. A key issue in the application of a group-based model is determining how many groups define the best fitting model. We follow the lead of D'Unger, Land, McCall and Nagin (1998), and used the Bayesian Information Criterion (BIC) as a basis for selecting the optimal model.

The second component of the mixture model of developmental trajectories is the probabilistic group membership model. In this model the probability π_k that an individual from the population under study belongs to trajectory group k is the dependent variable.

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[3]This paper's text on the description of the models and the results is largely based on the Loeber, et al. (2003) paper.

By allowing π_k to vary with individual characteristics, it is possible to test whether and by how much a specified factor affects probability group membership, controlling for the level of other factors that potentially affect π_k. When more than two groups are distinguished, the probabilistic group membership model has the form of the following multinomial logit model:

$$\pi_k(x_i) = \frac{e^{\theta k_0 + \theta k_I * x_I}}{\sum_K e^{\theta k_0 + \theta k_I * x_I}}$$

Where x_i denotes a vector of factors measuring factors that are associated with group membership, and $\pi_k(x_i)$ the probability of membership in group k given x_i. The θ 's capture the impact of the individual characteristics of interests, x_i, on the probabilities of group membership.

CRIMINAL CONVICTION TRAJECTORIES OF HOMICIDE OFFENDERS

Having earlier described the main characteristics of homicides and the perpetrators involved in the Netherlands over the last ten years, the aim here is to examine the position of homicide offenders on trajectories of criminal delinquency, based on official criminal conviction records. The analyses are exploratory in nature. The main questions are the following:

- what are the trajectories of criminal behavior before offenders commit a homicide in the Netherlands?
- to what extent is the likelihood that homicide offenders follow specific trajectories related to characteristics of the homicide cases and the perpetrators?

These questions are addressed analyzing official registrations of full criminal conviction histories and employing the earlier introduced latent class models. The results of the analyses will be presented in two different sections. The first section presents the trajectories related to criminal convictions. The second section investigates the determinants of the likelihood of homicide offenders to follow specific trajectories of criminal convictions.

Criminal Trajectories

The data on criminal convictions of homicide offenders were first modeled to determine the developmental trajectories of convictions. The best model was chosen using the BIC-statistic, which identifies the optimal number of groups in mixture models of developmental trajectories (D'Unger, et al., 1998). In the end, a three-group model was selected as the most parsimonious and the best fitting to explain the relationships between convictions over offender's age. For each group, a quadratic curve was fitted. The coefficients

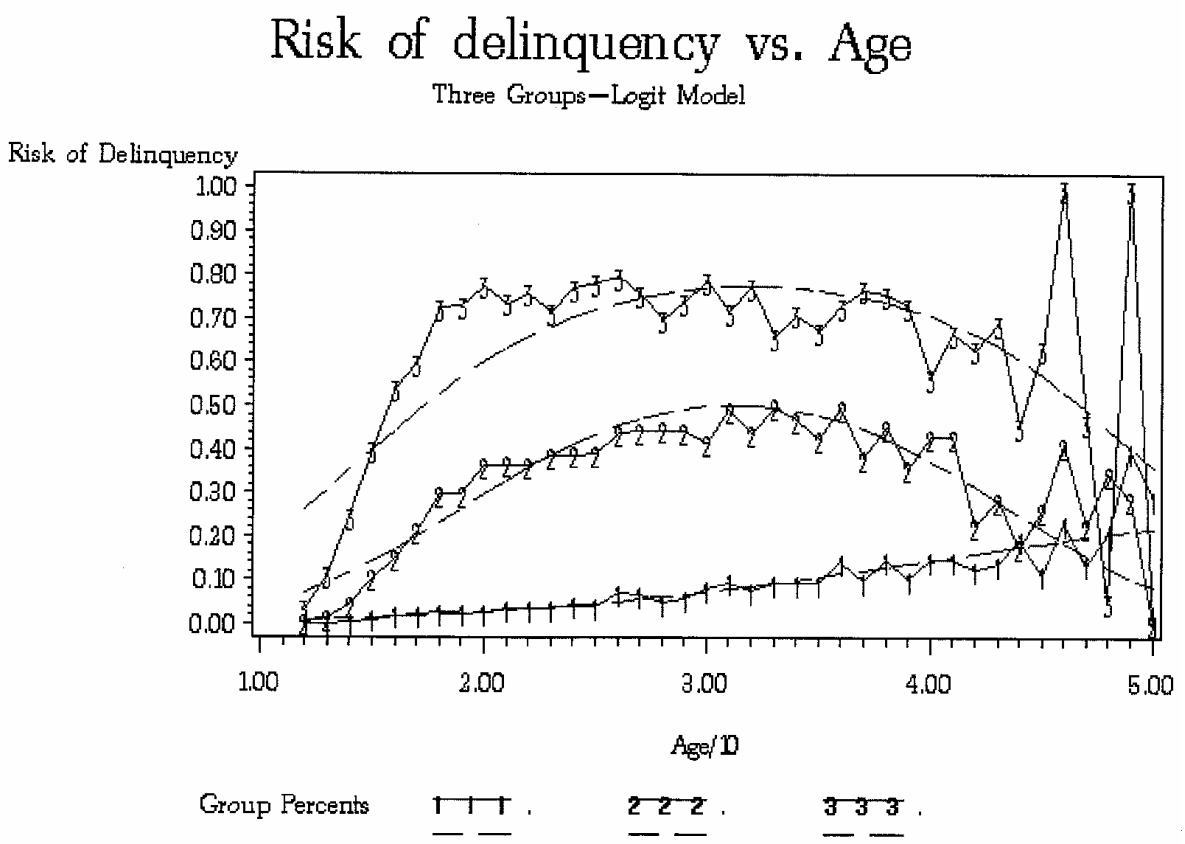
of the polynomial relationship linking homicide offender's age with crime in each year are presented in the first panel of Table 7. Since coefficients of polynomial relationships are difficult to interpret, the results are also given in a graph in Figure 1.

Table 7
Parameter estimates for Logistic Trajectory model with 3 Groups

Trajectory Parameters	Group 1	Group 2	Group 3
Constant	-6.42***	-6.75***	-4.58***
Age/10	1.67***	4.32***	3.63***
(Age/10)*(Age/10)	-0.13***	-.069***	-0.57***
Group Membership Parameters		**Group 1 vs 2**	**Group 1 vs 3**
Constant		-0.34	-1.28
Partner killing (reference)		---	---
Other family murders		-0.15	-0.48
Murders in the criminal world		0.57**	0.75**
Arguments		0.48**	0.55
Robberies with murder		0.49*	1.28***
Sexual murders		0.84**	0.38
Other type		0.57**	1.06***
Woman		-1.33***	-1.94***
Foreign		-1.01***	-1.93***
Stabbing, knife (reference)		----	----
Firearm		0.06	0.29
Strangling, suffocation		-0.52**	-0.54
Other		0.10	-0.24
House (reference)		----	----
Public highway		0.13	0.64***
Hotel, bar, restaurant		0.12	0.49
Other		-0.30	0.45
More than one victim		-0.11	-0.44

*p < 0.10
**p < 0.05
***p < 0.01

A first trajectory, the low delinquent group, representing 50% of the sample, remains low throughout their entire life. For members of this group the risk of committing a crime in each year is very small. So, about half of the perpetrators had committed none or only a few offences before they committed a homicide. For most of them, the homicide was their first offence. A second trajectory, called the middle group, starts at an intermediate level at age 20. This group represents 34% of the overall sample. The remaining, third, trajectory starts at a substantially higher level of convictions at age 20 and shows higher levels of crime throughout their lives. This group comprises 16% of the homicide offenders.



Group Membership

The next question, then, is to what extent is the likelihood that homicide offenders follow specific trajectories related to offender characteristics and to the type homicide they committed? The selected three-group trajectory model was used, in which probabilities of group membership are related to a number of characteristics of the offender and the homicide case that are expected to be of relevance: type of homicide, modus operandi, scene of crime, the number of victims killed, and the perpetrator's sex and ethnicity. The probabilistic group membership model has the form of a multinomial logit model. The second panel of Table 7 (above) shows coefficient estimates and t statistics. The low delinquent group (group 1) serves as the contrast group.

As expected, there are substantial effects of the type of homicide offenders committed. Relative to the offenders who committed a murder in the family (especially partner), all others have a higher probability of belonging in the group of intermediate active offenders (group 2) and also in the group of highly active (group 3). Furthermore, Women and Non-Dutch have a lower risk of being in the two more active groups. The weapon used and the place where the homicide took place have almost no effect on group membership probabilities, except that offenders who killed their victim(s) in public places have a higher risk of belonging to the highly active group.

Using the "posterior probability" of membership to a trajectory, every individual is assigned to the trajectory that best conforms to his behaviour over time. Following this maximum probability assignment rule, Table 8 shows calculations of the predicted probabilities of group membership based on the coefficient estimates.

The calculations were performed by substituting the coefficient estimates into Equation 2, and then computing group membership probabilities for assumed values of the explanatory variables x_i. The calculations show the likelihood that specific types of homicide offenders follow specific trajectories (Table 8) and the profile of the three trajectory groups of homicide offenders (Table 9). Both tables show strong differences between offenders having committed different types of homicide. Summarizing, men involved in homicides in the criminal world and committed in public places using firearms have the highest probability to belong in the active group, i.e. they have a very high likelihood of having had a very active criminal career before they committed their homicide.

REFERENCES

Barclay, G. C. and C. Tavares (2002). *International Comparisons of Criminal Justice Statistics 1999*. London, Home Office.

D'Unger, A., K. C. Land, P. L. McCall and D. S. Nagin (1998). How many latent classes of delinquent/criminal careers? Results from mixed Poisson regression analyses of the London, Philadelphia, and Racine cohorts studies. *American Journal of Sociology, 103* (6): 1593-1630.

Leistra, G and P. Nieuwbeerta (2003). *Moord en doodslag in Nederland 1992 – 2001 [Homicide in the Netherlands 1992 - 2001].* Amsterdam: Prometheus.

Loeber, R., E. Lacourse & D. Lynn Homish (2003). Homicide and violent offenders identified in the Court and their Delinquency Trajectories in Adolescence and Early Adulthood. (Unpublished paper.)

Nagin, D. S. and K. C. Land (1993). Age, criminal careers, and population heterogeneity: Specification and estimation of a nonparametric, mixed Poisson Model. *Criminology, 31*: 327-362.

Table 8
Likelihood that specific types of homicide offenders follow specific trajectories

Type of Homicide	Career Trajectory			
	Group 1	Group 2	Group 3	Total
Partner killing (reference)	63	28	9	100%
Other family murders	69	24	7	100%
Murders in the criminal world	44	38	18	100%
Arguments	41	41	18	100%
Robberies with murder	40	31	29	100%
Sexual murders	42	44	14	100%
Other type	39	36	25	100%
Man (reference)	45	36	19	100%
Woman	83	16	1	100%
Dutch	39	38	23	100%
Foreign	60	31	10	100%
Firearm	44	36	20	100%
Stabbing, knife	51	33	16	100%
Strangling, suffocation	63	25	12	100%
Other	46	38	16	100%
House	55	32	13	100%
Public highway	42	38	20	100%
Hotel, café, restaurant	41	38	21	100%
Other	51	27	11	100%
One victim	48	34	17	100%
More than one victim	52	35	13	100%
Total	50	34	16	100%

Nieuwbeerta, P. (2003). *Databank Moord en Doodslag in Nederland, 1992 - 2001 [Databank Homicide in the Netherlands 1992 – 2001]*. Machine readable data file and Codebook). Leiden: NSCR.

Smit, P. R., S. van der Zee, W. van der Heide, F. Heide (2001). *Moord en doodslag in 1998 [Homicide in 1998]*. Den Haag: WODC.

World Health Organization (2001). *World Health Statistics Annual 1997-1999.* Geneva, World Health Organization.

Table 9
Profile of the three trajectory groups of homicide offenders

Type of Homicide	Career Trajectory		
	Group 1	Group 2	Group 3
Partner killing (reference)	25	16	10
Other family murders	16	7	4
Murders in the criminal	15	19	18
Arguments	21	28	26
Robberies with murder	11	10	21
Sexual murders	4	6	3
Other type	9	13	18
Man (reference)	85	96	100
Woman	15	4	0
Dutch	42	59	74
Foreign	58	41	26
Firearm	33	38	44
Stabbing, knife	33	31	30
Strangling, suffocation	14	8	7
Other	19	23	19
House	53	42	34
Public highway	32	42	45
Hotel, café, restaurant	8	11	14
Other	6	4	8
One victim	94	94	96
More than one victim	6	6	4
Total	100%	100%	100%

DISCUSSION: METHODOLOGICAL AND STATISTICAL ISSUES IN STUDYING HOMICIDE AND VIOLENCE

Recorded by Vanessa Leggett
Criminal Justice Center for Training, University of Houston-Downtown

Becky Block: Paul, with career criminals in the Netherlands, the frequency of events might vary from one person to another. This might be related to specific prevention and intervention mechanisms for different types of offenders. For example, are you looking at prevention mechanisms that may be pertinent to sexual offenders?

Paul Nieuwbeerta: The first thing that comes to my mind is, no. All of these people were offenders who had committed homicide. I could combine these data with people who didn't commit homicide to arrive at a control group. If we know someone's career, we know what the risks will be as to whether or not they will commit a homicide.

Becky Block: But in theory, you would have that data. Am I right?

Paul Nieuwbeerta: Yes, it's not only a theory. We do have the data. Actually, tomorrow Paul Smit and Catrien will give a presentation where this is done in a different way.

Becky Block: The career data is less complete for people you label "foreigners." How do you think this affects your analysis in regard to bias?

Paul Nieuwbeerta: I'd hoped no one would notice. This really is a work in progress. All the results came out as I expected, except the coefficients for the foreigners. If you look at the data and look at the results, they have a lower risk of being in the most-active group than in the non-active group. So it's counterintuitive. And it might be caused by incomplete criminal career data for the period they were not yet in the Netherlands.

Mark Riedel: First, for Jim. You talked about definitional issues with respect to terrorism. It occurs to me that in setting up these data systems, you're going to have to incorporate some dimension in terms of length of time. For example, if you take something like the World Trade Center, there's no question that it was a terrorist act. But if you take some of the other acts, like the anthrax event, it could take some time to investigate that to decide just exactly what or who is responsible. And then for Paul, your data indicates that the Netherlands had an eighty-percent clearance rate on homicide, which is extremely high compared to the United States. Have you noticed any changes over time in the amount of percentage cleared?

Paul Nieuwbeerta: Over this period of our investigation — 1992 to 2001 — it's very stable, about eighty percent. An explanation could be that the Netherlands does not have as many gang- or firearms-related cases, which are much harder to solve.

Jim Noonan: Yes, but that's true with any homicide where it's not obvious in the investigation that it's a homicide instead of an accident. With any kind of event — like the anthrax situation — where we don't know who the offender is, it's going to be very difficult to determine the group behind it and categorize it as a terrorist event. So the definition might have to be based on the type of activity and the method of delivering the event as opposed to relying on a group coming forward to take credit for an event.

Paul Blackman: This is a follow-up for Jim. A lot of the European countries update their crime data based on increasing knowledge about what happened—deciding whether something really was a criminal homicide as opposed to, for example, suicide or justifiable homicide. Is there any consideration of having the UCR update things as more knowledge becomes available so that if, for instance, Tylenol turns out to be terrorism it could be reclassified? And for Paul, since I'm not retired yet, I couldn't help but notice that thirty-nine percent of the homicides in the Netherlands involve firearms, even though the Netherlands, based on survey research, has among the lowest levels of gun ownership in Europe — about two percent of households, compared to roughly five percent for England/Wales, about ten percent for Germany, about a quarter for France. But according to your homicide rate, is it all pretty much in the black market, or are your gun owners very violent, or is there any other explanation for this outlandishly high gun use in homicide?

Jim Noonan: In answer to whether crime data will be updated, you would hope that any agency would update when new information becomes available on any crime. But you have to remember that it's a voluntary system. And many times our people who really get into the nitty-gritty parts of the incident-based data will find a mistake. But the staffing levels of the police agencies are so poor sometimes that they just can't correct it. But I would certainly hope that something as hot, so to speak, as terrorism would get fixed — the same with homicides. Those are probably two of the biggest incidents that would be corrected just because of their attention in the media and politics and so on.

Paul Nieuwbeerta: Paul, I think you're correct in the percentage of firearms in the Netherlands being very low; this is reflected in the very low homicide rates. Thirty-nine percent of the homicides with our offenders used a firearm, which is relatively high. But if you look at the data, most of these homicides took place in the criminal world or were robberies. So, the two percent of firearm owners are not an extremely violent group. It's just that the firearms were from the black market.

Tom Petee: Gary, I kind of agree with your rationale regarding the use of survey data. But I find myself biased against using that kind of data in terms of the journalists that are out there. Could you offer any suggestions on how to get past that?

Gary Jensen: Bias exists and I've noticed there's a bias against self-report survey data. Part of this is due to the fact that people have this commitment to using official data. The only way it's going to be overcome is to mount a vociferous defense of it against this prejudice. People are going to have to start actually analyzing the data, asking questions, testing the hypotheses of patterns over time.

Christine Mathiesen: Just a comment for Gary. I think one of the groups you're probably not picking up in the high school self-report are the mentally ill offenders. When I evaluate them, by and large, most have not graduated high school; most have dropped out in eighth or ninth grade.

Gary Jensen: All of the missing groups can affect the actual rates you get. If the over- or under-representation in certain groups varies over time, there may be a problem. But if it turns out that the underrepresentation of the mentally ill or of dropouts is relatively constant, then there isn't a problem. Or you could introduce that as a variable and see if the issue of dropouts might lead to systematic misprediction during certain spans of time. My approach is to put survey data on the same plane as official data, acknowledge those problems, and, if possible, measure those variables over time.

Christine Mathiesen: Yeah, and I think that's my point—where the whole mental illness piece would fit into the whole equation — to find a way to capture elsewhere perhaps.

Gary Jensen: Certain groups are uniquely over- or under-represented.

Dallas Drake: Paul, you use the Dutch national press agency to gain data on your homicides. And I wondered if you could briefly address the validity of using news sources for data — how well the news sources cover the homicides. And secondly, how long did it take to put all this data together and how many people were working on it?

Paul Nieuwbeerta: We worked on this for two years, using several research assistants to collect the data. We didn't trust any one source, so we got data from the police, from the prosecution office and also from the press agency. And we combined them all and got a long list of homicides. Roughly one-fifth of those in the newspaper weren't actually homicides when we looked into it. And also, the other way around: one-fifth of the cases that were homicides were not reported in the newspapers. Obviously, in the Netherlands, the police are very cautious about to bring out information about homicides on children or within the family. So those were clearly underrepresented in the newspapers.

Dick Block: Jim, why "ideology" as a category, when it seems to me that much of terrorism today is related to some combination of religion and nationalism? Ideology related to terrorism was something, in part, left over from another time period. Also, whether it's organized or disorganized is pretty difficult to define in terms of terrorism.

Jim Noonan: We used generic terms just to provoke a discussion about what should be used in the definition of terrorism. Ideology is just a generic term for whatever reason — beyond themselves — someone would have to do a terrorist event. The same with the term "organized." The important thing with that type of table would be the basis for what we call terrorist events that might be organized or ideological. And if there's a terrorism event and it's not organized and not ideological — like the sniper attacks — that's not a terrorist event; that's just murder. And that would all have to be fleshed out. It may be based on a series of questions just like hate crimes are.

Dick Block: I guess they're somewhat artificial categories. You could see easily where something would be a hate crime to terrorists — simultaneously?

Jim Noonan: Yes. Absolutely. And if we do something like that, we're going to have to be very careful to define them better.

Gary Jensen: I just wanted to say something about the terrorism issue because there's a really good article in *American Sociological Review* by Jack Gibbs on the concept of terrorism that gets widely ignored, and ideology would be a simple convention. Gibbs casts terrorism as a form of social control, in which one party tries to influence a third party through a second party. And in terrorism, it's the second party that's being attacked and trying to influence the third party — sometimes they're the same. It's a theoretical justification as to motive and intent in implementing the form of control. Ideology would be a central convention of it as a defining characteristic. And so you could go to Gibbs's justification for some of the properties of your typology.

Dick Block: I guess it would depend on how broadly you define ideology. For example, the revolution that used Communism as the basis of ideology would differ from a nationalist Serbian and Croatian kind of thing. And for Gary, when I asked a question about standardization, it seems to me that what you're doing is you're saying trend can be looked at. But then, there is a difficulty on eliminating race in numbers because there is a reality — especially in control — to looking at how many of something occurred. And not just a Z-score, which is something pretty far away from the actual number of events.

Gary Jensen: My analysis was with arrest rates. There are several different ways you can do it. If you had the data to ask whether there is this fundamental difference between, for example, blacks and whites — the patterns over time—you should have difficulty predicting one rate from the other. In common time-series factors you can look at stability coefficients over time and see during what spans of time can you predict one rate in one group from another. The interesting thing is that you forget the rates that were spanned over time extremely well for one group compared to another, which suggests that you're ignoring underlying similarities in trends. And then if you look at when it fits and doesn't fit, then you can begin hypothesizing about mispredicting. You can't predict one from the other as something to be explained rather than something to be statistically eliminated. If you want to explain the trends, try to predict one from the other. Or if you can't predict it, try to figure out why you can't. People who keep analyzing arrest data, or UCR data — in systematically using a set of clear-cut standards, they're trying to follow an ill-discussed cookbook.

POSTER - DEMO - LITERATURE DISPLAY SESSION
10:15 a.m. - 11:00 a.m., June 6, 2003 and 10:15 a.m. - 11:15 a.m., June 7, 2003

Organizer: Carolyn Rebecca Block, Illinois Criminal Justice Information Authority

Presenters:

Literature Display and Computer Demonstration: National Database of GLBT Homicide: 1970-2003, by Dallas S. Drake and Joe Shulka, Minnesota Gay Homicide Study

Literature Display: Resources of the Inter-University Consortium for Social Research (ICPSR) and the National Archive of Criminal Justice Data (NACJD), by Chris Dunn and Kaye Marz, National Archive of Criminal Justice Data

Literature Display: NIJ Resources and Research on Lethal and Non-Lethal Violence, by Kara Emory, National Criminal Justice Reference Service

Poster and Literature Display: Evaluating CeaseFire: A Strategic Effort to Reduce Homicides in Chicago, by Tim Metzger, the Chicago Project for Violence Prevention

Poster: Los Angeles Homicides per 100,000, 1830-2000, by Eric Monkkonen, University of California, Los Angeles

Poster: San Francisco Homicides per 100,000, 1850-2000, by Kevin Mullen, San Francisco Police Department (Ret.)

Poster and Literature Display: What's New at the FBI: Integrating Geographic Information System Capability into the UCR, and an SHR Annual Publication, by James H. Noonan, Federal Bureau of Investigation

Literature Display: Bureau of Justice Statistics, by Michael Rand, Bureau of Justice Statistics

Poster: Descriptive Analysis of Homicides on College Campuses, by Dawn C. Roberts, Courtney Cameo, Sandra M. Roth, and Brandi Booth, Department of Psychology, Bradley University

Literature Display: Canadian Centre for Justice Statistics Reports on Lethal and Non-Lethal Violence, by Josée Savoie, Canadian Centre for Justice Statistics

Poster: Public Health Surveillance of Violence-Related Injuries, by Thomas R. Simon and Cindi Melanson, Centers for Disease Control and Prevention

Poster: The Black Forest and Space City: Comparative Characteristics of U.S. and German Homicide, by Victoria Titterington, Sam Houston State University; and Volker Grundies, Max-Planck-Institute.

Literature Display: JRSA's Incident-Based Reporting Resource Center, by Lisa Walbolt, Justice Research and Statistics Association

Literature Display: Compiling and Using Comparable Cross-National Data on Violence: WODC, the European Sourcebook and EUCPN, by Paul Smit, Research & Documentation Center (WODC), Ministry of Justice, the Netherlands

NATIONAL DATABASE of GLBT HOMICIDE: 1970 – 2003

Dallas Drake and Joe Shulka, Minnesota Gay Homicide Study

ABSTRACT

The Minnesota Gay Homicide Study presented a preview of the National GLBT Homicide Database. This database is being developed to provide data for analysis of gay, lesbian, bisexual, and transsexual homicide incidents. The database currently contains 117 variables on approximately 2000 cases. Although many of the cases remain uncoded, it is possible to get a sense of what this database has to offer. It is possible for fellow researchers to have input into the selection of variables and coding schema. The database consists of both a victim-based and offender-based component. It will be displayed on a laptop computer along with a hard copy of the current code-book.

The Minnesota Gay Homicide Study is an independent, academic, all-volunteer nonprofit organization based in Minneapolis, Minnesota. Its mission is to promote greater knowledge and understanding of the unique nature of gay, lesbian, bisexual and transsexual homicide through sound empirical research, critical analysis and effective community partnerships. The three-fold goals of the Minnesota Gay Homicide Study are to increase the solvability of gay homicides, articulate gay homicide issues, and ultimately, to determine what steps can prevent gay homicides from occurring.

SUMMARY

The Minnesota Gay Homicide Study, in this poster session, displayed on a lap-top computer, an incipient version of a national database of gay, lesbian, bisexual, transsexual and cross-dresser homicides. It includes cases occurring in the United States from 1970 through the year 2003. The codebook detailing the codes for each variable was also on display so that researchers could have input into the actual coding categories.

The National GLBT Homicide Database was created in the fall of 2002 as a type of exploratory research. It has now been expanded to a comprehensive research project. No model existed for such a database, and thus all of the variables and codes were developed specifically with this type of homicide incident in mind.

The basis for the data collection started with various listings from the Internet that listed victims who were gay or transsexual. Although these lists are significantly unreliable, they did point toward various search terms. This facilitated finding victims by using other key databases. These Internet lists collectively became referred to as the Martyr List. These lists were compiled by gay or transsexual activists and had been repeatedly republished on other web-sites, including all of the typos, misspellings, and factual errors. Also, many of the cases included foreign victims. The Martyr List excludes types of cases that, our researchers have learned, do not further the political agenda of the activists. The Martyr List by itself proved significantly unreliable, but it provided an initial platform for beginning the case search process.

Key news databases were also used in the development of the database. Many cases have been highlighted in the mainstream press. Some cases have actually been reported directly to the Homicide Study through our Internet web-site, or our e-mail. A more comprehensive source has been the gay community press, including on-line publications and GLBT historical archives. A methodical search for cases using these methods is now underway. All identified cases are subsequently reviewed and evaluated for use in the database.

Variables were constructed based on various research questions regarding case solvability and prevention needs. Demographic information is also included in the variables. Thought was given as well to creating a system whereby cases might be linked by offender or crime scene characteristics to facilitate apprehension of serial offenders. The database currently encompasses almost 2000 cases with 117 variables. Each variable contains numerous codes for each variable. Codes simplify and standardize the entering of information and become the interface for statistical analysis programs, which only operate using numerical operators.

Minnesota is overrepresented in the database. The initial research of the Homicide Study involved the identification of all GLBT homicide cases in the geographic state of Minnesota over the course of 30 years. To date, it contains the largest, most comprehensive census of GLBT homicide cases known to exist in the United States. Approximately 100 cases have been identified and another 60 are pending, awaiting positive identification of sexual orientation. The Minnesota cases gathered in this previous study are considered part of the national database, but are held separately as their own database. This allows us to determine the degree of completeness of the national data-set based on previous search strategies.

Once the database is completed, it will be available for many of the types of statistical inquiry that one would expect of criminological research. These include questions about basic victim and offender demographics, crime scene behaviors, weapon information, incident locations, and many other details about the homicide incident. Queries will be possible on general or specific interest topics. Eventually, researchers hope to place a public version of the data in the Criminal Justice Archive at Ann Arbor, Michigan.

One unanswered question is how to keep the National GLBT Homicide Database current, especially if it is to be used for serial homicide case linkage. Another is how to be sure researchers are obtaining all of the known cases and to be sure that cases actually match the criteria of the dataset. Specifically, in many cases there exists controversy over the sexual identity of either the victim or the offender. These and many other questions pose significant challenges to the ongoing success of this project.

For more information, visit our web-site at: www.mngayhomicide.org.

RESOURCES OF THE INTER-UNIVERSITY CONSORTIUM FOR SOCIAL RESEARCH (ICPSR) AND THE NATIONAL ARCHIVE OF CRIMINAL JUSTICE DATA (NACJD)

Chris Dunn and Kaye Marz, National Archive of Criminal Justice Data

ABSTRACT

Approximately 110 collections in the National Archive of Criminal Justice Data (NACJD) have data about various aspects of homicide. The NACJD exhibit was a table top display and handouts about the NACJD and available products (e.g., CD-ROMs), with emphasis on resources for research on homicide. We explained how to locate these resources, learn more about their contents and structure, and described how to download these data to the individual's computer for statistical analysis. Some of these data sets are also available on the NACJD Web site for use with an on-line statistical analysis program. These data can be used to answer inquiries about homicide and to create instructional exercises. Information was also provided on Census 2000 data.

The NACJD has a Homicide Data Resource Guide that provides links to data collections specifically focused on homicide or directly related to criminal justice processes like capital punishment and to other collections that are about a more general topic but include homicide as one of a number of offense types. The resource guide also provides links to these collections that are available for on-line analysis. The Homicide Data Resource Guide is located at:

http://www.icpsr.umich.edu/NACJD/HOMICIDE/index.html.

NIJ RESOURCES AND RESEARCH ON LETHAL AND NON-LETHAL VIOLENCE

Kara Emory, National Criminal Justice Reference Service

ABSTRACT

The NIJ/NCJRS literature display included single copies of relevant NIJ publications and order forms. These displayed publications are also available online at www.ojp.usdoj.gov/nij.

DISPLAY OVERVIEW

The National Criminal Justice Reference Service, one of the most extensive sources of information on criminal and juvenile justice in the world, provides services to an international community of policymakers and professionals. These publications, as well as other criminal justice, juvenile justice and drug policy related materials, are available free to download from the National Criminal Justice Reference Service at www.ncjrs.org and also from the National Institute of Justice (NIJ) Web site at: www.ojp.usdoj.gov/nij.

Paper copies of the items listed below are available from the National Criminal Justice Reference Service (NCJRS). To order, you may call NCJRS at (800) 851-3420 to talk to a publication specialist; or send an e-mail to puborder@ncjrs.org. Orders subject to fee require prepayment. Orders of 6 (six) or more documents require prepayment for shipping and handling charges.

LITERATURE DISPLAYED

The following selected publications are available from the National Institute of Justice (NIJ):

NCJ199425 Report to the Attorney General on Delays in Forensic DNA Analysis
http://www.ojp.usdoj.gov/nij/pubs-sum/199425.htm

NCJ190351 Responding to Gangs: Evaluation and Research
http://www.ojp.usdoj.gov/nij/pubs-sum/190351.htm

NCJ188741 Reducing Gun Violence: The Boston Gun Project's Operation Ceasefire
http://www.ojp.usdoj.gov/nij/pubs-sum/188741.htm

NCJ188740 Reducing Gun Violence: Evaluation of the Indianapolis Police Department's Directed Patrol Project
http://www.ojp.usdoj.gov/nij/pubs-sum/188740.htm

NCJ194972 Youth Victimization: Prevalence and Implications

http://www.ojp.usdoj.gov/nij/pubs-sum/194972.html

NCJ194197 Using DNA to Solve Cold Cases
http://www.ojp.usdoj.gov/nij/pubs-sum/194197.htm

NCJ184482 National Evaluation of the Youth Firearms Violence Initiative
http://www.ojp.usdoj.gov/nij/pubs-sum/184482.htm

NCJ188564 Documenting Domestic Violence: How Health Care Providers Can Help Victims
http://www.ojp.usdoj.gov/nij/pubs-sum/188564.htm

NCJ184894 An Update on the "Cycle of Violence"
http://www.ojp.usdoj.gov/nij/pubs-sum/184894.htm

NCJ186049 Disorder in Urban Neighborhoods— Does it Lead to Crime?
http://www.ojp.usdoj.gov/nij/pubs-sum/186049.htm

CONTACT NCJRS FOR FURTHER INFORMATION

Email: askncjrs@ncjrs.org

Internet: www.ncjrs.org

Write: NCJRS, PO Box 6000, Rockville, MD 20849-6000

Call: 1-800-851-3420 (Toll free)
301-519-5500 (Local or international)
1-877-712-9279 (TTY Service for the Hearing Impaired)
301-519-5212 (Fax)

EVALUATING CEASEFIRE:
A STRATEGIC EFFORT TO REDUCE HOMICIDES IN CHICAGO

Tim Metzger, The Chicago Project for Violence Prevention

ABSTRACT

The Chicago Project for Violence Prevention develops and fosters collaborative relationships between law enforcement, city officials, grass roots organizers, residents, law makers, clergy, and community-based organizations to reduce violence in Chicago. The poster session will examine current evaluation efforts, results, and limitations of the evaluation. Preliminary results show encouraging findings that point to a positive relationship between Chicago Project activities and decreases in violence (shootings and homicides). Quantitative and qualitative crime trend data, information regarding the implementation and evaluation of the strategic intervention, awareness of efforts and ways to increase collaboration between key community stakeholders will be presented.

SUMMARY

The Chicago Project for Violence Prevention seeks to lower the shooting and homicide rates in seven Chicago communities through a public health approach. This initiative, called CeaseFire, works with a community coalition comprised of a social service or community development agency, police, outreach workers, and clergy. Additionally public education campaigns are conducted in each target community that focuses on violence prevention.

In an effort to evaluate this initiative two waves of surveys, in 2000 and 2001, were conducted in five neighborhoods that received intervention, and two comparison communities matched by demographic variables and levels of community violence. Surveys were conducted via telephone with 100 adult (over 25 years old) residents in target and comparison neighborhoods. The survey data suggested that the neighborhood with the greatest amount of intervention was the neighborhood where measures of collective efficacy and violence prevention awareness increased most significantly. Concurrent with these increases in awareness was a 67% reduction in shooting in the neighborhood, as measured by Chicago Police Department data.

The intensity of the CeaseFire intervention varied from community to community. Measures were taken to track the intensity of intervention. This resulted in the creation of a matrix which weights and scores intervention intensity. This intensity was compared with shooting rates in the Chicago Project for Violence Prevention partner communities. Youth outreach is noted as a key component of the intervention as these workers are able to work with a community coalition, provide outreach, distribute public education materials, and interface with other social service agents.

Analysis shows that all four communities that have been working with youth outreach workers have experienced reductions in shootings, ranging from 22% to 67% in

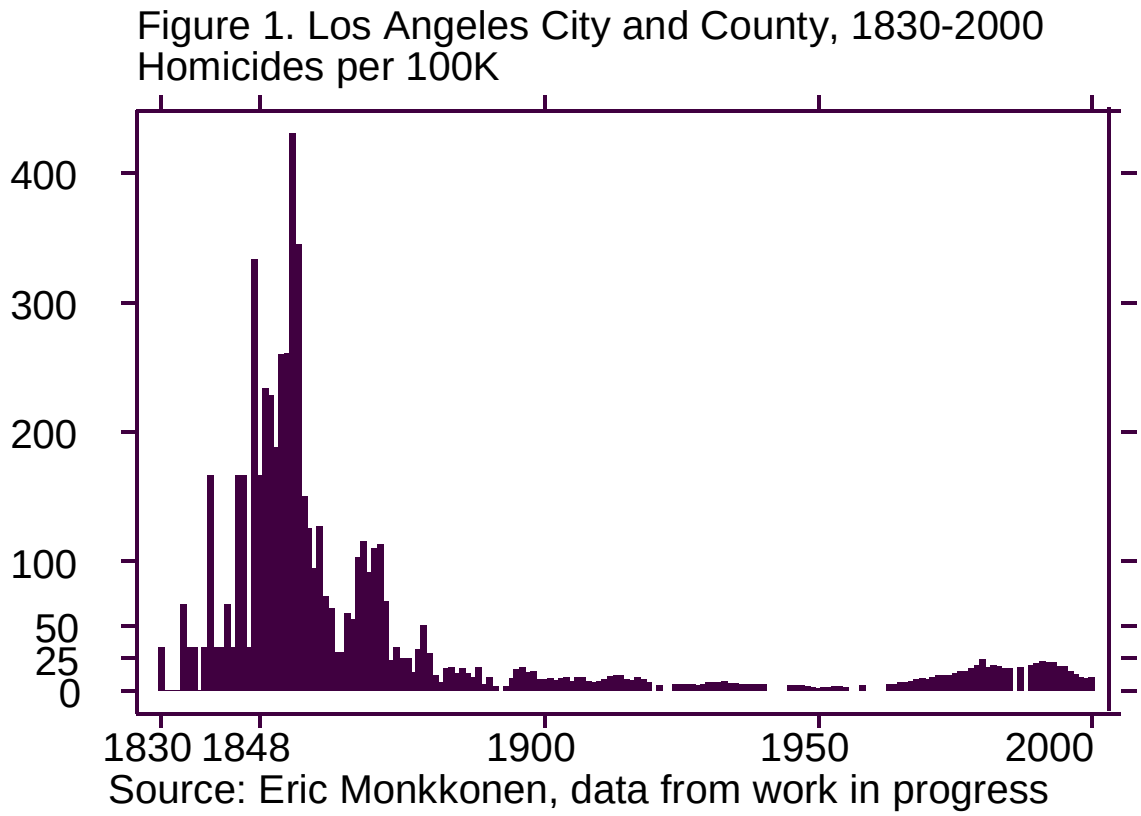
the first year, and from 14% to 67% since implementation. Shooting decreases in three of the four CeaseFire zones were larger than those seen in neighboring beats, and in comparison communities. Furthermore, the shooting decreases in all four beats were larger than the change in the city as a whole. These decreases were statistically significantly larger than the neighboring areas, the comparison areas, and the city in the CeaseFire zone with the most intervention.

LOS ANGELES HOMICIDES PER 100,000, 1830-2000[1]

Eric Monkkonen, University of California, Los Angeles

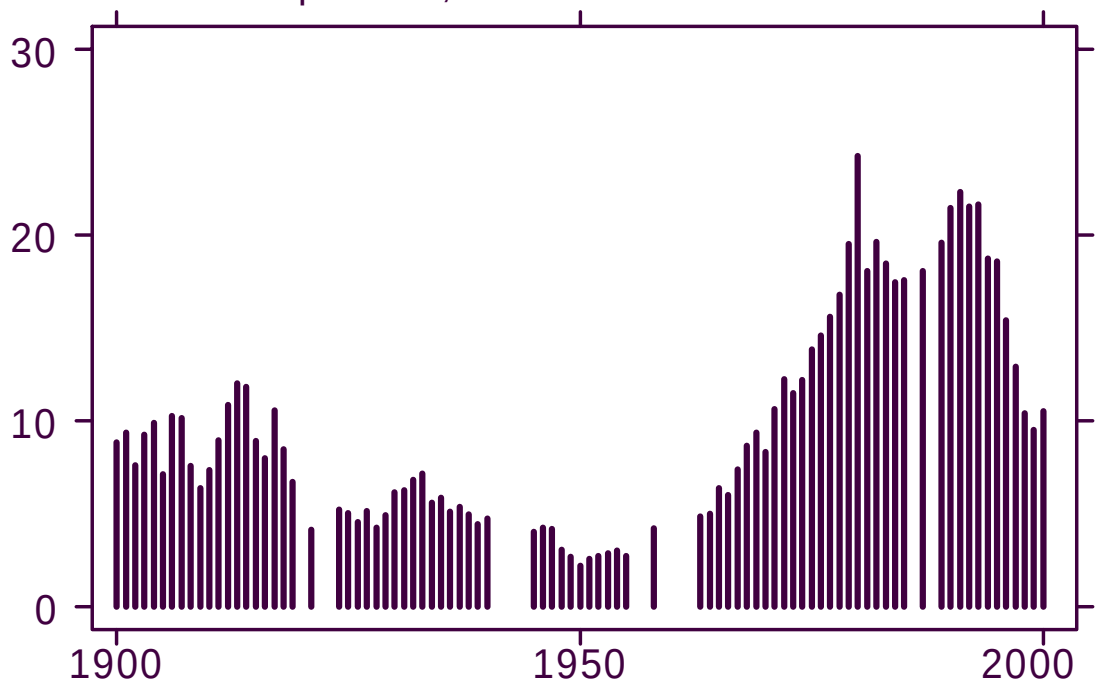
ABSTRACT

This is one of two coordinated poster presentations, "San Francisco homicides per 100,000, 1850-2000," presented by Kevin Mullen, and "Los Angeles homicides per 100,000, 1830-2000," presented by Eric Monkkonen. They will be graphical presentations. Monkkonen's is an ongoing project to assemble an individual and aggregate level time series of homicides in Los Angeles from the Mexican era down through the near present. The two data sets splice on to the FBI SHR series, but are primarily based on coroner's registers, some newspaper work, and court documents, including the Alalde's records for the Mexican period in LA (1830-1850).



[1]Note: This work was supported by generous grants from the National Science Foundation and the UCLA Academic Senate.

Figure 2. Los Angeles City and County, 1900-2000
Homicides per 100,000



Source: Eric Monkkonen, data from work in progress

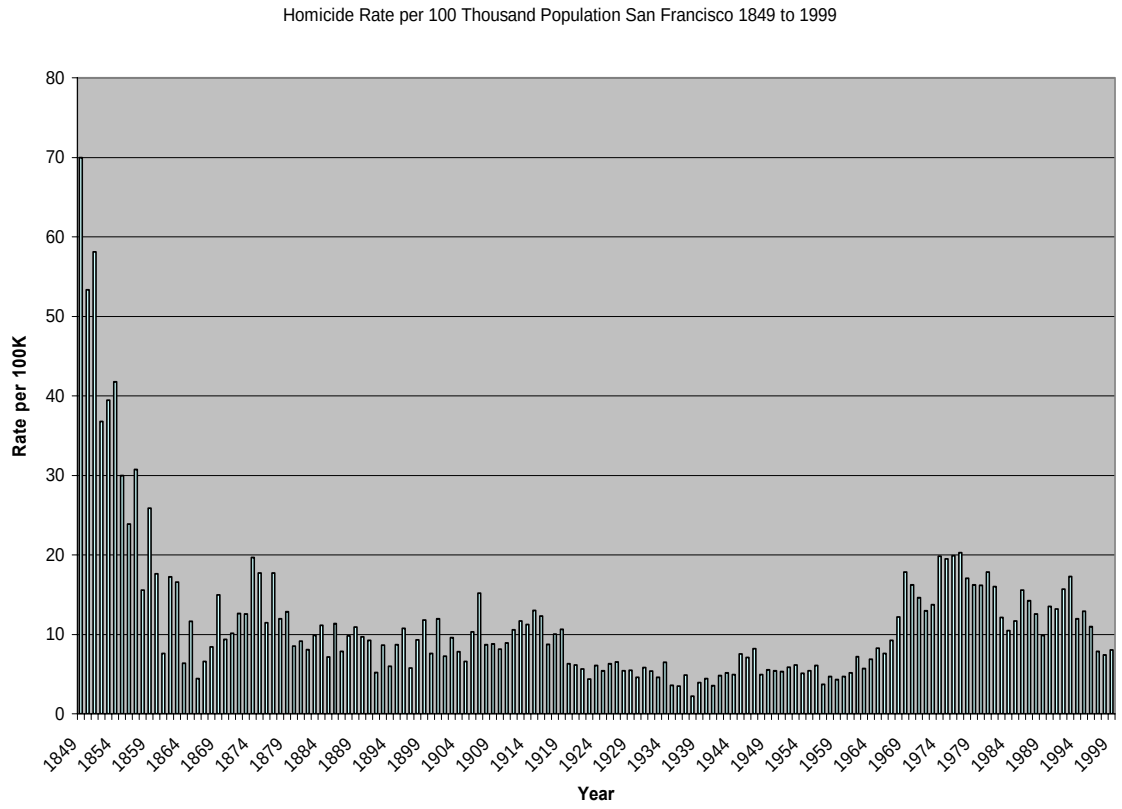
SAN FRANCISCO HOMICIDES PER 100,000, 1850-2000

Kevin Mullen, San Francisco Police Department (Ret.)

ABSTRACT

This is one of two coordinated poster presentations, "San Francisco homicides per 100,000, 1850-2000," presented by Kevin Mullen, and "Los Angeles homicides per 100,000, 1830-2000," presented by Eric Monkkonen. They will be graphical presentations. Mullen's is the core of a book pertaining to criminal violence and six successive groups of minority arrivals in San Francisco over the last century and a half (Australians, Latinos, Irish, Chinese, Italians, and African Americans). The rates on the graph are based principally on Coroners' annual tabulations and registers, newspaper accounts, and the Police Department's "Murder Book."

Figure 1
Homicide Rate per 100,000 Population, San Francisco, 1849-1999



NEW UCR DEVELOPMENTS AT THE FBI: INTEGRATING GEOGRAPHIC INFORMATION SYSTEMS IN THE UCR AND AN ANNUAL SHR PUBLICATION[1]

James H. Noonan, Federal Bureau of Investigation, Criminal Justice Information Services Division

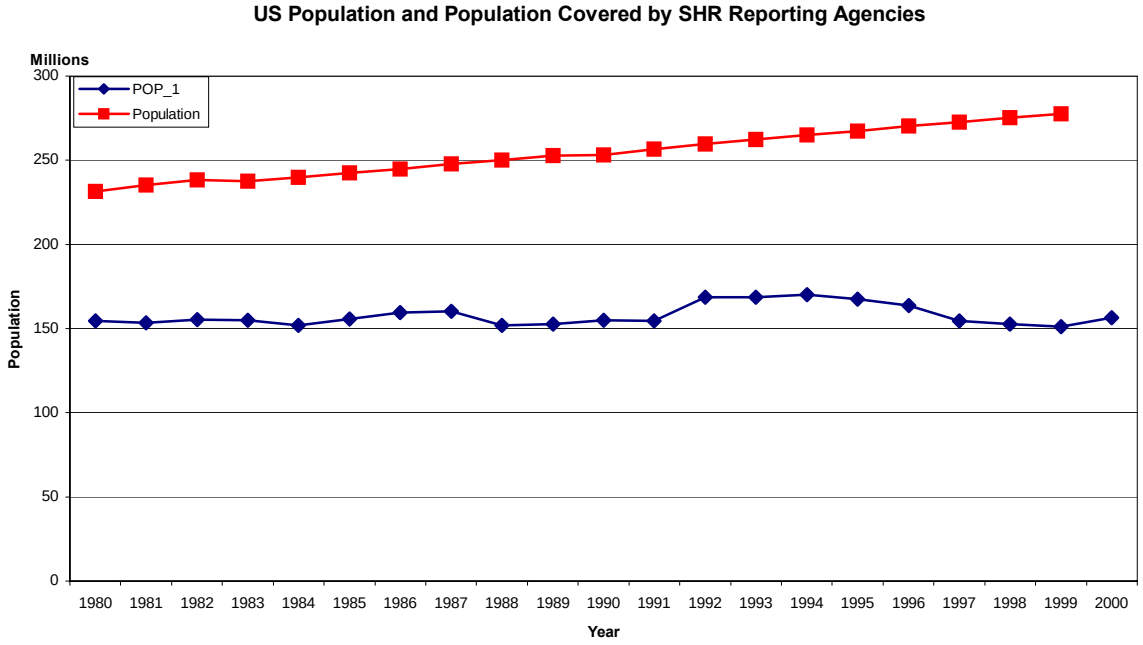
James A. Woods, Federal Bureau of Investigation, Criminal Justice Information Services Division

ABSTRACT

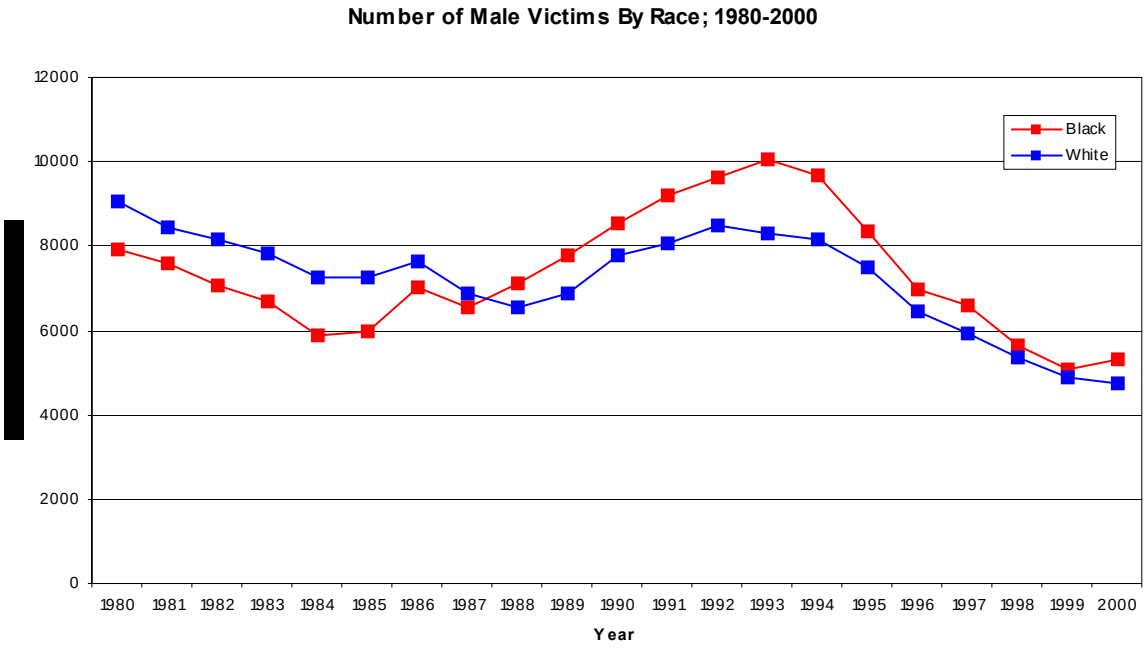
The Crime Analysis, Research and Development Unit of the Federal Bureau of Investigation is currently involved with several new initiatives which aim to improve the dissemination of crime data and information. First is the implementation and integration of Geographic Information Systems (GIS) technology into the Criminal Justice Information Services Division databases. The second is the development of a semi-automated annual Supplementary Homicide Reports (SHR) publication and an SHR multi-year trend publication. Although these initiatives are in the infancy stages, some examples of the preliminary results were presented at the poster session of the 2003 Homicide Research Working Group.

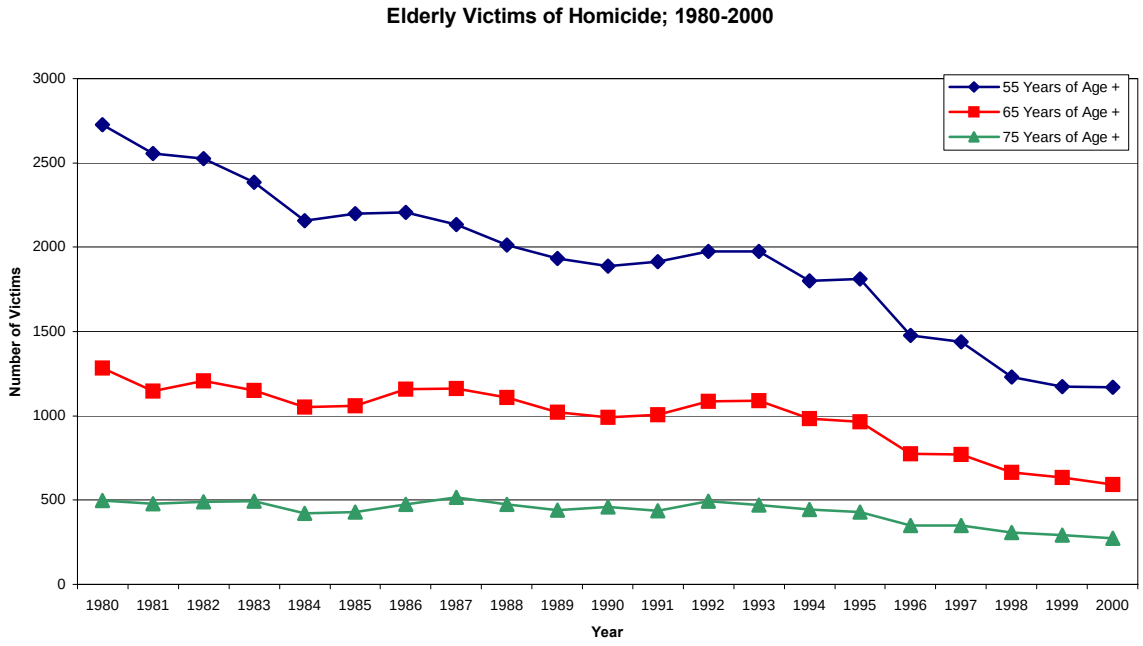
POSTER SLIDES

The three following slides are potential charts to be included in the SHR multi-year trend publication.



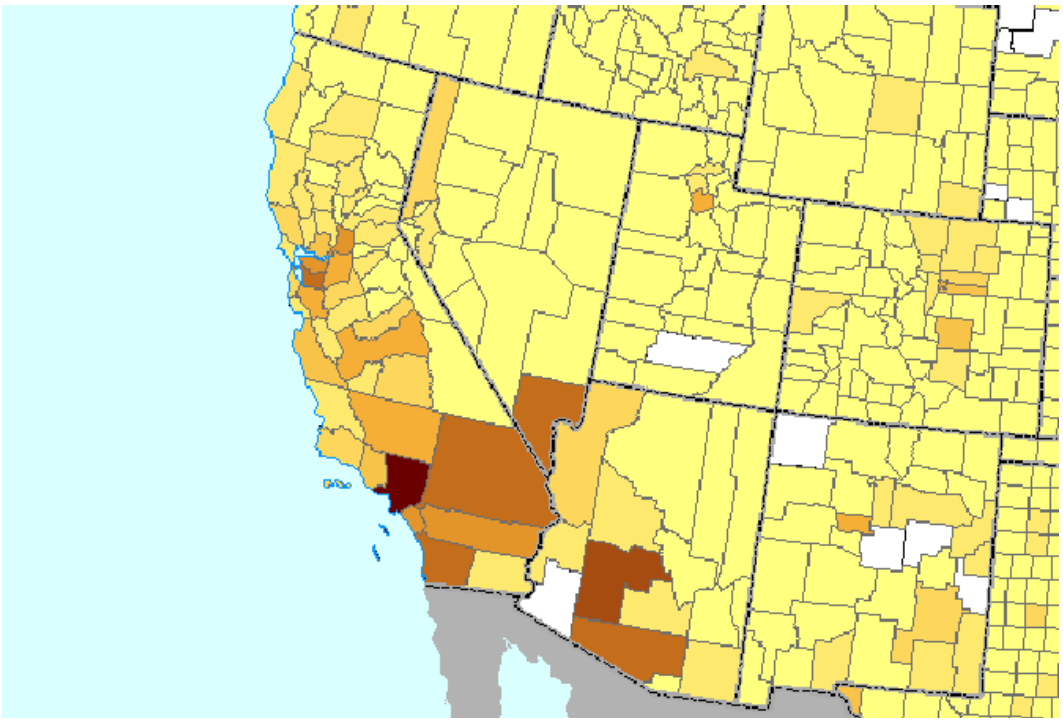
[1]The opinions expressed in this paper are those of the authors and are not to be viewed as a statement of the official views of the Federal Bureau of Investigation.



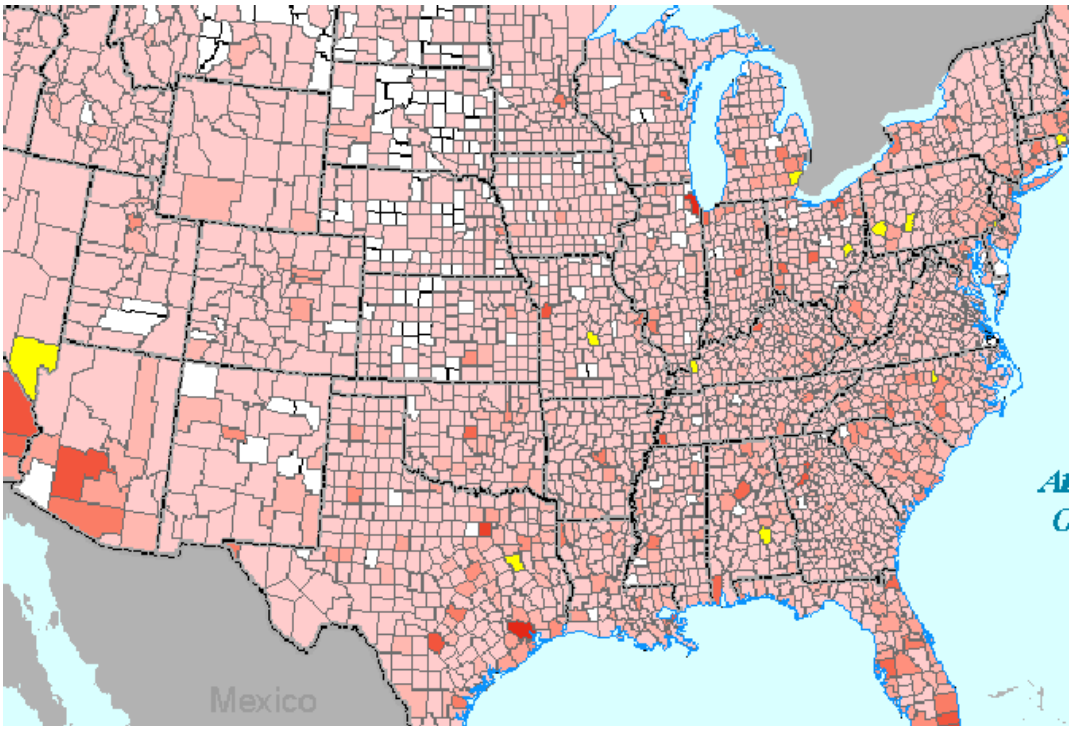


The following three slides are maps created through the GIS initiative to show how data can be understood and interpreted through visual representation. The legends for each map were removed to show how data could be interpreted intuitively.

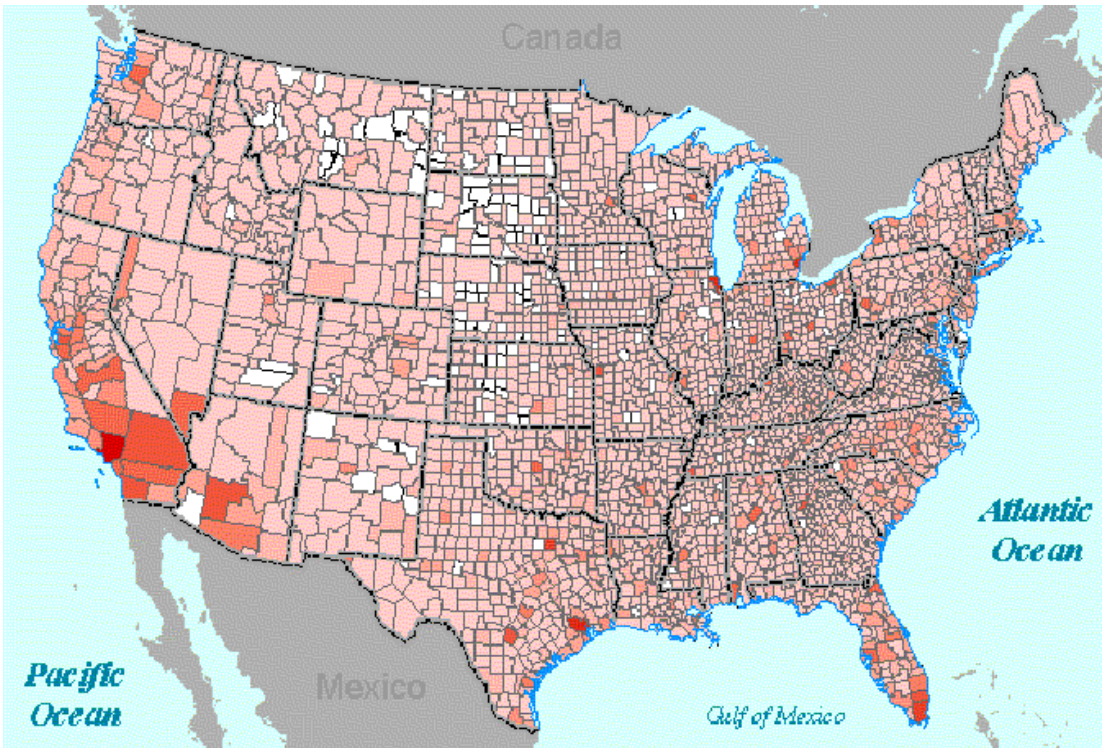
This map shows the number of Summary Return A Homicides by county for 2000. (Source: FBI UCR)



This map shows the number of homicides per county, from 1980-2000. Counties reporting sniper homicides are coded in yellow. (Source: FBI SHR)



This map shows the number of homicides per county, from 1980-2000. (Source: FBI SHR)



LITERATURE DISPLAY: BUREAU OF JUSTICE STATISTICS
Michael Rand, Bureau of Justice Statistics

This literature display presented the latest Bureau of Justice Statistics publications and reports on homicides and other violent crimes. The display examined data from the SHR, UCR, NCVS and other sources that describe homicide and violent crime victims and offenders, as well as crime trends and aggregates. In addition to describing victims and offenders, these reports and publications examine the incident characteristics and case outcomes.

The following reports were distributed:

Criminal Victimization 2001: Changes 2000-2001 with Trends 1993-2001, NCJ 194610

Workplace Violence, 1992-96, NCJ 168634

Guide to the BJS Website: Third Edition, NCJ 187735

Age Patterns of Violent Victimization, 1976-2000, NCJ 190104

Firearm Injury and Death from Crime, 1993-97, NCJ 182993

Homicide Trends in the United States: 2000 Update, NCJ 197471

Intimate Partner Violence, 1993-2001, NCJ 197838

Spouse Murder Defendants in Large Urban Counties, NCJ 153256

Felony Defendants in Large Urban Counties, 1998, NCJ 187232

Data Online Flyers

DESCRIPTIVE ANALYSIS OF HOMICIDES ON COLLEGE CAMPUSES

Dawn C. Roberts, Department of Psychology, Bradley University
Courtney Cameo, Department of Psychology, Bradley University
Sandra M. Roth, Department of Psychology, Bradley University
Brandi Booth, Department of Psychology, Bradley University

ABSTRACT

Approximately 20 homicides occur on college campuses in the United States each year, and numerous other college students, faculty, or staff are murdered off-campus (Department of Education, 2001). This study describes victim, offender, and situation characteristics of college homicides. A search of secondary reports in the Chronicle of Higher Education from the past 25 years identified 104 U.S. and 64 international cases. Among this sample, perpetrators were more likely to be Caucasian, male, matriculating as an undergraduate, acquainted with the victim, attending a doctoral institution, and majoring in a physical science. Underreporting of incidents and missing data mitigate the generalizability of these findings.

INTRODUCTION

Approximately 20 homicides occur on college campuses in the United States each year. An additional number of college students, faculty, or staff members are killed off-campus, with totals approaching 300-400 deaths per year (Department of Education, 2001). This non-negligible number of homicides suggests that study of this culturally- and geographically-defined unit is warranted.

Little is known about these college homicides. The 1990 Crime Awareness and Campus Security Act, also known as the Clery Act, was initiated by the parents of Jeanne Clery, a student at Lehigh University in Bethlehem, PA. They learned that 38 violent crimes on Lehigh's campus had not been made public in the three years before their daughter's murder. The Clery Act mandated the report of crimes on campuses by postsecondary institutions to the federal Department of Education, beginning fully with the 1999 calendar year.

However, these reports yield only frequencies of a variety of crimes, including homicide, with no descriptive information submitted. Many questions regarding these homicides remain, including situational, victim, and offender characteristics. Analysis of the complex interactions of persons and events that lead to the homicides of hundreds of students, faculty, and staff each year has not yet been undertaken. This analysis is especially important because of the relative access of campus authorities to students or staff, and the relatively independent policing of this unit. These unique characteristics of college or university communities may lend themselves to intervention strategies for prevention of incidents or for offender identification that are unavailable to many other culturally- or geographically-defined units.

Information needed to describe college- or university-related homicides includes all situational, victim, and offender descriptive characteristics. Comparison of these rates with population base rates, with corrections for average age of the population, population density, and geography or terrain of campuses, also is needed. Additionally, other factors such as alcohol and substance abuse and the relatively high frequencies of personal interactions with others may influence rates. Unique social rules for interpersonal communications within a campus setting may also need to be considered.

As a first step in describing these homicides, descriptive information about these incidents is needed. The purpose of this study is to obtain preliminary descriptive information about homicides on college or university campuses or homicides involving college or university students or personnel, based on secondary reporting of incidents.

METHOD

Sample

Homicide incidents were identified through a search of articles in the *Chronicle of Higher Education*, January 1988 through May 2003. Incidents captured with a search of the keywords *murder, kill, homicide, slain, death, dies, assassinate* were selected and included in the sample if there was at least one homicide or manslaughter victim. Negligent homicides were included, although accidental deaths in which a person was not charged with negligent homicide(e.g., Texas A & M bonfire) were not. All homicides occurring on college or university campus property were included. Homicides that did not occur on the campus proper, but that had a victim or perpetrator who was a college student, faculty, or staff member also were included.

Situational Variables

From these articles, variables describing the situation were coded. These included the following: month and year of incident, state and country in which the incident occurred, college's AAUP and classification (doctoral, comprehensive, baccalaureate, associate). Further, method/cause of death was determined using ICD classification codes (US Department of Health and Human Services, 2002). Finally, category/context (hazing, hate crime, domestic violence, workplace violence, serial killing, mass murder, political, in commission of another crime, drug-related, other) and location in relation to the campus were extracted from articles.

Victim Variables

Information regarding victim variables also was coded from the *Chronicle* articles. These included the following: number of victims for the incident, age, race, and sex of the victim, victim's role at the school, if any (undergraduate/graduate, faculty, staff), and relationship to the offender.

Offender Variables

Offender characteristics obtained from the articles included the following: number of offenders for the incident, age, race, and sex of the offender, offender's role at the school, if any (undergraduate/graduate, faculty, staff), and area of offender's major field of study.

RESULTS

Descriptive statistics were determined for situational, victim, and offender variables. Means were calculated for continuous values, and frequencies, expressed as percentages, were calculated for categorical values. Valid, as opposed to true, percentages are reported, with missing data dropped from the calculations. However, much data was missing from these secondary reports, with at least two variables missing from every article.

Domestic homicides were differentiated from international homicides, due to different reporting standards. One-hundred four deaths were reported in Chronicle articles for US colleges, and sixty deaths were reported for colleges based outside the US. Tables 1a, 1b and 1c provide a summary of the situational, victim, and offender characteristics.

DISCUSSION

One hundred four homicides on U.S. college campuses were reported in the *Chronicle of Higher Education* over the past 25 years. Among this sample, offenders were more likely to be Caucasian, male, matriculating as an undergraduate, acquainted with the victim (as roommate, classmate, instructor, friend), attending a doctoral institution, and majoring in a physical science. They were most likely to act alone, and to use firearms or explosives. The most common contexts for the murders were intimate partner violence and hazing incidents. Likewise, victims were more likely to be Caucasian, male, and matriculating as an undergraduate.

These characteristics are consistent with US homicides that occur outside of a college or university context, with a few exceptions. Although African-American males are more likely to be victims than any other demographic group, they are least likely to access postsecondary education, and thus, are less likely to be involved in incidents captured by this study. The greater representation of undergraduates and doctoral institutions in these homicide events probably is related to greater population numbers in these categories. Correction of these values by subsets of populations may lead to an entirely different descriptive picture of college-related homicide events.

In contrast to these domestic homicides, those occurring on international college campuses that were reported in the Chronicle appeared to be distinctly different. The

majority described political dissension by liberal scholars that resulted in violence. Several offenders, typically militia or military police, tended to kill several victims who were undergraduates and faculty unknown to them. This difference between domestic and international incidents almost certainly reflects the type of situation leading to homicide that is deemed newsworthy by the staff of a publication focused on US post-secondary education.

Table 1a
Descriptive characteristics of domestic and international college homicides: Situational variables*

	USA	International
Incident n	104	60
College classification		
I (doctoral)	66%	
IIA (comprehensive)	22%	
IIB (baccalaureate)	10%	
III (associate)	2%	
Incident location		
On-campus	58%	65%
Category/context		
hazing	11%	2%
hate crime	7%	6%
domestic	13%	4%
workplace	2%	8%
serial	1%	0
mass murder	5%	0
political	0	77%
w/ other crime	5%	2%
drug-related	1%	2%
other	52%	0
Method/cause		
Fight, brawl, rape	5%	6%
Poisoning	6%	0
Hanging/strangulation	6%	0
Firearms and explosives	46%	43%
Cutting/piercing instrument	16%	16%

*Missing values are not included in calculation of percentages, yielding “valid percent.”

Table 1b
Descriptive characteristics of domestic and international college homicides: Offender variables*

	USA	International
Incident n	104	60
Offenders per incident	1.3 (85% lone)	4.0 (33% lone)
Offender age	25.8 years	25.0 years
Offender race		
Caucasian, Non-Hispanic	64%	
Hispanic/Latina(o)	9%	
African-American	9%	
Asian	14%	
Native American	0	
Other	5%	
Offender sex		
Male	96%	100%
Offender's school role		
Undergraduate student	57%	6%
Graduate student	12%	0
Faculty	1%	9%
Staff	8%	9%
Other (e.g., Military Police)	22%	76%
Offender's department/major		
Social science	18%	
Physical science	55%	
Performing Arts	9%	

*Missing values are not included in calculation of percentages, yielding "valid percent."

Table 1c
Descriptive characteristics of domestic and international college homicides: Victim variables*

	USA	International
Incident n	104	60
Victims per incident	1.53	7.59
Victim age	21.9 years	38.3 years
Victim race		
Caucasian, Non-Hispanic	38%	7%
Hispanic/Latina(o)	9%	14%
African/African-American	22%	0
Asian/Asian-American	19%	0
Native American	0	0
Other	12%	79%
Victim sex		
Male	61%	78%
Relationship to perpetrator		
Family	5%	0
Current/former romantic partner	16%	0
Acquaintance	61%	16%
Apparent stranger	39%	84%
Victim's school role		
Undergraduate student	65%	56%
Graduate student	7%	10%
Faculty	11%	27%
Staff	4%	4%
Other	14%	4%

*Missing values are not included in calculation of percentages, yielding "valid percent."

Two major issues attenuate these findings. First, there appears to be vast underreporting of incidents. Further, this underreporting is not likely to be random. Only 104 domestic incidents, with approximately 150 victims, were identified. However, the report of 300-400 victims per year since 1999, when reporting was mandated, indicate an approximate total of 7,500 victims over the reporting period, without accounting for rate increases or decreases.

The factors influencing this selective report of incidents are unclear, although Paulsen (2003) found that incidents involving statistically rare victims (e.g., multiple victims, Caucasian or female victims) received more celebrated coverage in a local newspaper. Several incidents that received extensive local or national press attention, however, were not reported in the Chronicle, even when offenders and victims were both students and the incident occurred on campus. Colleges are motivated to underreport

crimes because their enrollments depend upon the perception that they are safe communities. The use of surveillance data to investigate these homicides likely would yield more accurate estimates and descriptions.

A second issue mitigating the validity of these findings is the amount of missing data regarding situational, victim, and perpetrator characteristics. Again, this is likely limited by the use of a secondary source to identify incidents. The use of surveillance data to identify incidents, followed by extraction of descriptive information from police reports, would combat this drawback.

Future research directions include the following: 1) use of surveillance data to develop a more accurate descriptive picture of these homicides, 2) comparison of college homicide characteristics with homicides occurring in other geographic or cultural settings, and 3) identification of predictors of campus homicides that are amenable to modification or intervention.

REFERENCES

Department of Education, Office of Postsecondary Education (2001). *Campus Crime and Security at Postsecondary Institutions*. Washington, DC: Government Printing Office.

Department of Health and Human Services, Centers for Disease Control and Prevention (2002). *International Classification of Diseases, 9th Revision*. DHHS Publication PHS 02-1260. Washington, DC: Government Printing Office.

Paulsen, D. J. (2003). Murder in black and white: The newspaper coverage of homicide in Houston. *Homicide Studies, 7*, 289-317.

CANADIAN CENTRE FOR JUSTICE STATISTICS
REPORTS ON LETHAL AND NON-LETHAL VIOLENCE

Josée Savoie, Senior Analyst / Project Manager of the Homicide Survey
Canadian Center for Justice Statistics

ABSTRACT

This literature display will present the latest publications and reports on homicides and violence from the Canadian Centre for Justice Statistics. Literature on display will include some of Statistics Canada's most recent findings on lethal and non-lethal violence in spousal violence cases, including spousal violence after marital separation and children witnessing family violence. Other reports on display will describe homicide victims and offenders within Canada.

PAPERS DISPLAYED in SACRAMENTO:

Dauvergne, Mia (2002). *Homicide in Canada – 2001. Juristat*. Catalogue no.85-002-XPE Vol. 22, no. 7. Ottawa: Statistics Canada

Pottie Bunge, Valerie (2001). *National trends in intimate partner homicides, 1974-2000. Juristat*. Catalogue no. 85-002-XPE. Vol.22 no. 5. Ottawa: Statistics Canada.

Savoie, Josée (2002). *Crime statistics in Canada, 2001. Juristat.* Catalogue no. 85-002-XPE Vol.20, no 10. Ottawa: Statistics Canada.

Family Violence in Canada: Statistical profile 2002. Catalogue 85-224-XIE. Ottawa: Statistics Canada.

SUMMARY of the INFORMATION:

The Daily – Statistics Canada[1]

Homicides in Canada, 2001

Spousal homicides increased in 2001 for the first time in six years, but the rate of youths charged with homicide dropped to a 30-year low. Overall, the national homicide rate remained stable for the third consecutive year. Police reported a total of 554 homicides in 2001, eight more than in 2000. The national homicide rate, which has generally been declining since the mid-1970s, was 1.78 homicides for every 100,000 individuals, similar to levels during the late1960s (Figure 1).

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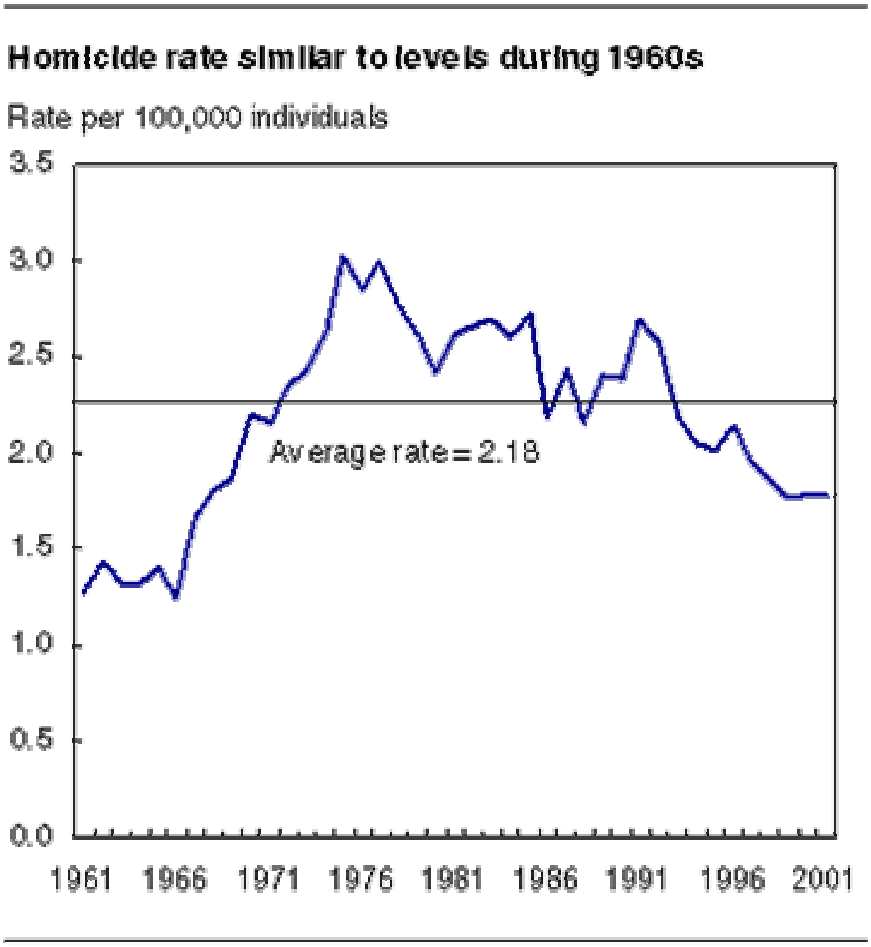
[1]Aggregate statistics on homicide in Canada for 2001 were originally released in *The Daily* on July 17, 2002 as part of a wide-ranging report on crime. This report represents a more detailed analysis of the homicide data. The Criminal Code classifies homicide as first-degree murder, second-degree murder, manslaughter or infanticide. Deaths caused by criminal negligence, suicides, and accidental or justifiable homicides are not included.

Figure 1
Current Homicide Rate Similar to Levels of the 1960s



Most victims of homicide knew their killer. In 2001, about 45% of all solved homicides were committed by an acquaintance, and 43% by a family member. The remaining 13% of victims were killed by a stranger, a proportion that has remained relatively constant over the past 10 years.

Spousal Homicides Rise

Police classified a total of183 homicides in 2001 as family-related, 52 more than in 2000. However, 2001's total was only slightly higher than the annual average of 175 from 1991 to 2000. A total of 86 spousal homicides were reported in 2001, up from 68 in 2000, the first increase since 1995. Spousal slayings accounted for 47% of all family homicides and one-fifth of solved homicides in 2001.

The number of men accused of killing their current wife or ex-wife rose from 52 in 2000 to 69 in 2001, with virtually all of this increase occurring in Ontario. The number of women accused of killing their husband (16) was unchanged from 2000. One homicide was committed by a same-sex spouse.

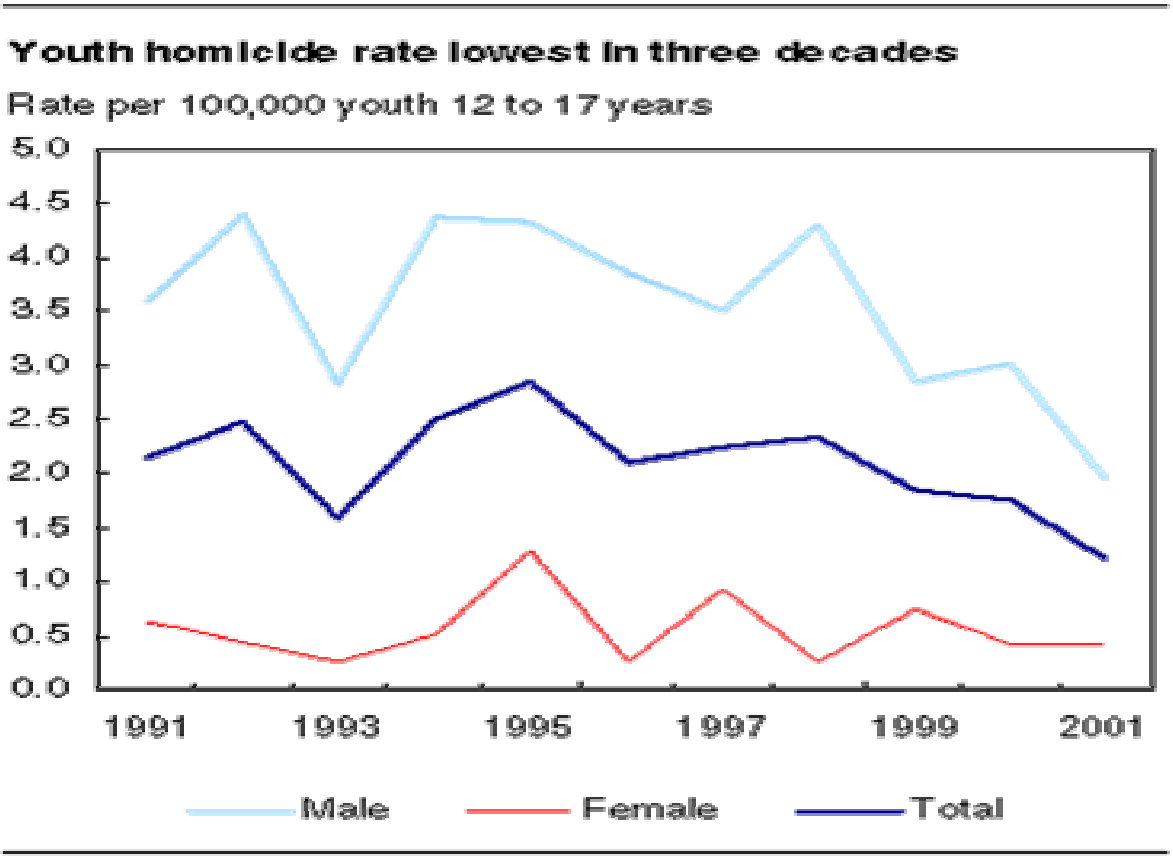
Homicides by other intimate partners, such as boyfriends or girlfriends, decreased from 23 in 2000 to 12 in 2001. In total, 52% of all female victims and 8% of all male victims in 2001 were killed by an individual with whom they had an intimate relationship at one time, either through marriage or dating.

The other family-related homicides included 26 victims killed by their father or step-father, 17 by their mother or step-mother, 21 by their son, 4 by their daughter, 8 by a sibling and the remaining 21 by an extended family member. Most multiple-victim homicides and murder-suicides were family-related, and the vast majority of accused persons in these types of incidents were male.

Plunge in Youth Homicides

The rate of young people aged 12 to 17 accused of homicide declined for the third year in a row, resulting in the lowest rate in 30 years (Figure 2). There were 30 young people accused of committing homicide in 2001, 13 fewer than in 2000, and considerably less than the annual average of 52 during the previous decade. The decline in 2001 was largely the result of a decrease in the number of male youths accused of homicide. Despite this decline, males still accounted for 83% of homicides committed by youths, similar to the proportion of 87% among adults.

Figure 2



Plunge in Youth Homicide Rate

Majority of Both Victims and Accused Had Criminal Records

Two-thirds of the 485 people accused of homicide had a criminal record, consistent with previous years. The majority of these individuals had been previously convicted of a violent offence, including four for homicide. Of these four, three had completed their prison sentence and were living in the community, and one was in a correctional institution when the homicide occurred. In addition, 51% of the 505 homicide victims over the age of 12 also had a criminal record. Prior convictions for violent offences were the most common. A total of 139 victims had been previously convicted of a violent offence, including two for homicide.

One in Nine Homicides a Gang-Related Slaying

Police reported 62 victims of gang-related slayings, down from 72 in 2000. However, they accounted for one out of every nine homicides in 2001. Gang-related homi-

cides have almost tripled since the early 1990s. Two-thirds involved drug trafficking or the settling of accounts. From 1991 to 2000, Quebec accounted for the majority of all gang-related incidents. However, in 2001, Quebec accounted for only 37%, because of an increase in incidents in Ontario.

Firearms Involved in About One-Third of Homicides

Firearms were involved in 31% of all homicides in 2001, a proportion consistent with previous years. Of the 171 firearm-related homicides, 110 were committed with a handgun, 46 with a rifle or shotgun, 7 with a sawed-off rifle or shotgun, 3 with a fully automatic firearm, and 5 with another type of firearm. Handguns were used in 65% of all firearm homicides. This proportion has risen from 46% in 1998 as a result of the continuing decline in the number of homicides involving rifles or shotguns. A further 31% of homicide victims were stabbed to death in 2001; 22% of victims died as a result of beatings and 8% from strangulation or suffocation. Eight babies died in 2001 as a result of shaken baby syndrome.

Homicide Rates Generally Higher in Western Canada

Homicide rates were higher in the West than in the East in 2001 (Table 1), which has generally been the case in the past. Among the provinces, Manitoba recorded the highest rate (2.96 homicides for every 100,000 individuals) for the second year in a row, followed by Saskatchewan (2.66). Newfoundland and Labrador, with one homicide, reported the lowest rate for the third consecutive year, followed by Nova Scotia and New Brunswick. Nova Scotia's rate was its lowest since 1963, and the rate in British Columbia was the lowest since 1964.

Among Canada's nine largest metropolitan areas, Winnipeg reported the highest homicide rate at 2.77 victims for every 100,000 population; Ottawa reported the lowest rate (0.36), its lowest since 1984. Among metropolitan areas with populations between 100,000 and 500,000, Regina had the highest rate (3.53), and Sherbrooke, with no homicides, had the lowest.

AVAILABLE on CANSIM: TABLES 253-0001 to 253-0006

Information on methods and data quality available in the Integrated Meta Data Base: survey number 3315

Juristat: Homicide in Canada, 2001, Vol. 22, no. 7 (85-002-XIE, $8/$70; 85-002-XPE, $10/$93) is now available. For more information, or to enquire about the concepts, methods or data quality of this release, contact Information and Client Services (1-800-387-2231; 613-951-9023), Canadian Centre for Justice Statistics.

Table 1
Homicides by Province or Territory (rates per 100,000 population)

Province	2001		2002		Average 1991 to 2000	
	Number	Rate	Number	Rate	Number	Rate
Canada	**554**	**1.78**	**546**	**1.77**	**616**	**2.10**
Newfoundland and Labrador	1	0.19	6	1.12	6	1.01
Prince Edward Island	2	1.44	3	2.17	1	0.89
Nova Scotia	9	0.95	15	1.59	19	2.06
New Brunswick	8	1.06	10	1.32	11	1.45
Quebec	140	1.89	150	2.03	148	2.04
Ontario	170	1.43	156	1.34	189	1.72
Manitoba	34	2.96	30	2.62	32	2.86
Saskatchewan	27	2.66	26	2.54	26	2.53
Alberta	70	2.28	59	1.96	65	2.35
British Columbia	85	2.08	85	2.09	113	3.01
Yukon	1	3.35	2	6.54	2	5.19
Northwest Territories	4	9.79	1	2.44	4	8.76
Nunavut	3	10.65	3	10.94	Not appropriate or not applicable.	

*Revised figures.

Table 2
Homicides by Census Metropolitan Area (rates per 100,000 population)

Census Metropolitan Area	2001			2000*			Average 1991 to 2000	
	Population	Num.	Rate	Population	Num.	Rate	Num.	Rate
Pop. 500,000 or more								
Toronto	4881392	78	1.6	4763232	81	1.7	80	1.84
Montréal	3,511,845	78	2.22	3,474,915	75	2.16	83	2.45
Vancouver	2,078,824	44	2.12	2,058,736	42	2.04	55	2.95
Calgary	971,532	15	1.54	947,344	16	1.69	17	2.00
Edmonton	956,805	25	2.61	941,788	19	2.02	24	2.66
Ottawa**	844969	3	0.36	828,557	8	0.97	12	1.53
Québec	693064	5	0.72	690,521	12	1.74	11	1.57
Winnipeg	684,778	19	2.77	682,090	17	2.49	18	2.64
Hamilton	680,561	13	1.91	672,173	10	1.49	12	1.85
Total	**15303770**	**280**	**1.83**	**15059356**	**280**	**1.86**	**311**	**2.2**
Pop. 250,000- 499,999								
Kitchener	431696	6	1.39	423,200	8	1.89	6	1.49
London	426307	6	1.41	422131	2	0.47	5	1.18
St. Catharines-Niagara	393,083	5	1.27	390,874	4	1.02	7	1.70
Halifax	359,186	3	0.84	355,874	8	2.25	8	2.44
Victoria	318,796	4	1.25	317,145	7	2.21	6	2.06
Windsor	313,838	3	0.96	306,795	6	1.96	7	2.38
Oshawa	305,308	1	0.33	298,893	2	0.67	4	1.35
Hull***	261,981	2	0.76	257,514	2	0.78	4	1.41
Total	**2,810,195**	**30**	**1.07**	**2,772,426**	**39**	**1.41**	**46**	**1.73**
Pop. 100,000- 249,999								
Saskatoon	230,517	1	0.43	230,979	7	3.03	6	2.82
Regina	198,125	7	3.53	199,276	7	3.51	5	2.42
St. John's	176,163	1	0.57	175,817	3	1.71	3	1.42
Chicoutimi-Jonquière	158,740	1	0.63	160,486	4	2.49	1	0.73
Sudbury	156,714	5	3.19	158,126	1	0.63	4	2.27
Sherbrooke	154,865	0	0.00	153,623	4	2.60	2	1.34
Trois-Rivières	141,535	1	0.71	141,644	4	2.82	2	1.41
Saint John	128,058	1	0.78	127,730	1	0.78	2	1.87
Thunder Bay	124,581	3	2.41	125,833	1	0.79	4	2.88
Total	**1,469,298**	**20**	**1.36**	**1,473,514**	**32**	**2.17**	**29**	**1.94**
Census metro. area tot	**19,583,263**	**330**	**1.69**	**19,305,296**	**351**	**1.82**	**386**	**2.11**
Pop. less than 100,000	**11,498,624**	**224**	**1.95**	**11,464,373**	**195**	**1.70**	**230**	**2.06**
Canada	**31,081,887**	**554**	**1.78**	**30,769,669**	**546**	**1.77**	**616**	**2.09**

*Revised figures.
**Ottawa refers to the Ottawa part of the Ottawa-Hull Census metropolitan area.
***Hull refers to the Quebec part of the Ottawa-Hull Census metropolitan area.

Table 3
Solved homicides by accused-victim relationship

Relationship type* - victims killed by:	2001		2000**		Average 1991 to 2000	
	Number of victims	%	Number of victims	%	Number of victims	%
Family relationship						
Spousal relationship						
Husband (legal and common-law)	52	12.1	38	9.3	49	9.9
Husband (separated and divorced)	17	4.0	14	3.4	18	3.7
Wife (legal and common-law)	13	3.0	13	3.2	16	3.3
Wife (separated and divorced)	3	0.7	3	0.7	2	0.4
Current or ex-same-sex spouse	1	0.2	0	0.0	...	...
Total spousal	**86**	**20.0**	**68**	**16.7**	**85**	**17.4**
Father	26	6.1	21	5.1	27	5.4
Mother	17	4.0	10	2.5	16	3.3
Child	25	5.8	18	4.4	19	3.9
Sibling	8	1.9	6	1.5	10	2.1
Other family relation:	21	4.9	8	2.0	18	3.7
Total non-spousal	**97**	**22.6**	**63**	**15.4**	**90**	**18.5**
Total family	**183**	**42.7**	**131**	**32.1**	**175**	**35.8**
Acquaintance						
Current or ex-boyfriend/ girlfriend/ other intimate	12	2.8	23	5.6	24	5
Close friend	28	6.5	31	7.6	31	6.3
Authority figure	1	0.2	5	1.2	not appropriate or not applicable.	
Business associate (legal)	11	2.6	7	1.7	14	2.9
Criminal relationships	25	5.8	27	6.6	36	7.3
Neighbour	24	5.6	10	2.5	21	4.4
Casual acquaintance	90	21.0	105	25.7	112	22.9
Total acquaintance	**191**	**44.5**	**208**	**51.0**	**240**	**49**
Stranger	54	12.6	68	16.7	71	14.4
Unknown relationship	1	0.2	1	0.2	5	0.9
Total solved homicides	**429**	**100.0**	**408**	**100.0**	**489**	**100**

*Includes only those homicides in which there were known accused. If there were more than one accused, only the closest relationship to the victim was recorded.

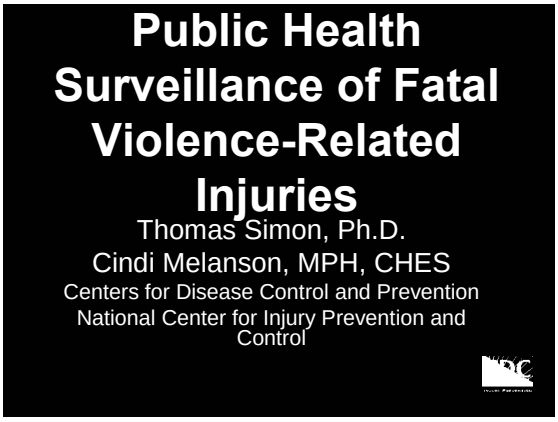
**Revised figures.

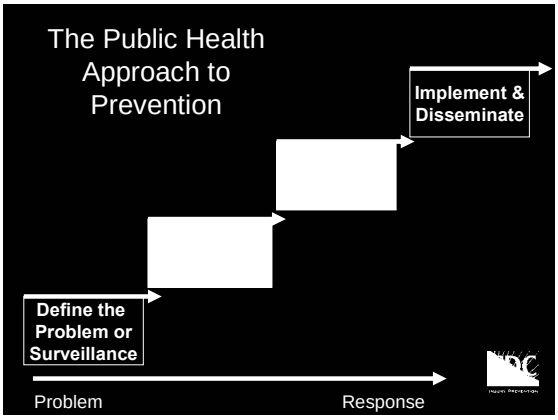
PUBLIC HEALTH SURVEILLANCE OF FATAL VIOLENCE-RELATED INJURIES

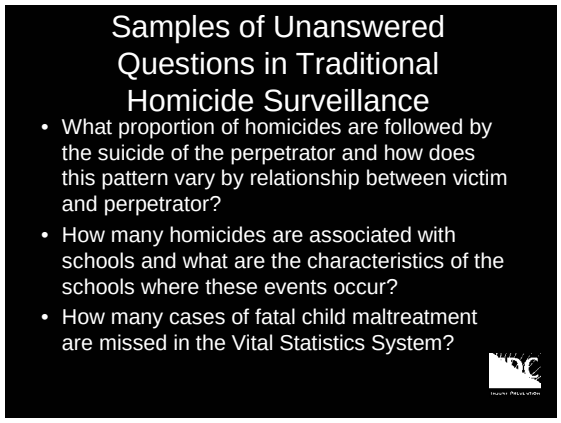
by Thomas R. Simon and Cindi Melanson
Centers for Disease Control and Prevention
National Center for Injury Prevention and Control

ABSTRACT

The poster highlighted CDC's current efforts to improve surveillance of violence-related injuries. It included descriptions of the National Violent Death Reporting System, the School Associated Violent Death Surveillance System, and the work being done to improve surveillance of injuries from child maltreatment. Participants were provided with copies of recent reports and information on how to learn more about each system. CDC's online Web-based Injury Statistics Query and Reporting System (WISQARS), an inter-active database system that provides customized reports of injury-related data, was also demonstrated.







Fatal Violence Surveillance Projects in CDC's National Center for Injury Prevention and Control

The National Violent Death Reporting System (NVDRS)

Goal of the NVDRS

- To develop a system that will provide a census of violent deaths that occur within the U.S. The system will generate public health surveillance data at the national, state, and local levels that is more detailed and timely than published mortality statistics by integrating the following sources of data:
  - Death Certificates
  - Police reports, including supplemental homicide reports
  - Coroner and medical examiner records
  - Crime lab reports

In the NVDRS a Violent Death is Defined As*:*

- Suicide
- Homicide
- Events of undetermined intent
- Unintentional firearm injury
- Legal intervention
- Terrorism

NVDRS States Funded for Piloting FY2003

- Maryland
- Massachusetts
- New Jersey
- Oregon
- South Carolina
- Virginia

NVDRS Next Steps

- Pilot NVDRS system and standard codes in 6 original pilot states
- Additional states will be funded this year
- Data will become available in 2004
- Basic surveillance publications will follow.
- Eventually all 50 states will be incorporated, assuming funding is available

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Email: Lfrazier1@cdc.gov

School-Associated Violent Death Surveillance System

Case Definition

Any homicide, suicide, or firearm-related death in which the fatal injury occurred while the victim was:

- On school property
- On the way to or from school
- At or on the way to or from a school-sponsored event

Case Finding Methods

Method #1: Computerized searches of two newspaper and broadcast media databases

Method #2: Case identified by US Department of Education or the National School Safety Center

Study Objectives

- Track the occurrence of these events
- Identify common features of these events
- Target interventions

Data Collection and Response Rates (1994-1999)

Telephone interviews with school official

- Response rate = 78%

Telephone interview with police or police report

- Response rate = 97%

Contact Information

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Child Maltreatment Mortality Surveillance

Goal:

- Link and compare alternative data sources and approaches to surveillance for fatal child maltreatment at the state level

California

- CA Dept. of Health Services, Epidemiology and Prevention for Injury Control (EPIC) collaborating with CA state Child Death Review Council will identify fatal CM among CA children ages 0-9 in 2000 & 2001
- Data sources: Link Child Protective Services, Child Death Review Teams, Homicide files, and Vital Statistics data
- Purpose: describe cases and value of data sources

Michigan

- Michigan Department of Community Health will identify cases of fatal CM among children ages 0-9 in 2000-2002
- Data sources: Link Child Death Review, Medical Examiners, Vital Statistics, Child Protective Services, and Law Enforcement data
- Goal: describe epidemiology of cases and evaluate all data sources, including a cost-per-case analysis

Rhode Island

- Rhode Island State Department of Health and partners
- Data sources: Vital Records, Supplemental Homicide Reports, Child Protective Services and Office of RI Medical Examiner (including child death review team and police records)
- Goal: evaluate alternative approaches to surveillance of fatal CM and pilot surveillance methodologies

WISQARS™ (Web-based Injury Statistics Query and Reporting System) is an interactive database system that provides customized reports of injury-related data.
Available online at: www.cdc.gov/ncipc/wisqars

Materials Distributed:

1. The National Violent Death Reporting System Update 2003
available by contacting Leroy Frazier (770) 488-1507

2. Results from the School-Associated Violent Death Study; School-Associated Violent Deaths in the United States, 1994-1999
available online at: www.cdc.gov/ncipc/abstract.htm

3. Intimate Partner Violence Surveillance: Uniform Definitions and Recommended Data Elements
available online at: www.cdc.gov/ncipc/pub-res/ipv_surveillance/intimate.htm

4. Sexual Violence Surveillance: Uniform Definitions and Recommended Data Elements
available online at: www.cdc.gov/ncipc/pub-res/sv_surveillance/sv.htm

5. CDC Injury Research Agenda
available online at: www.cdc.gov/ncipc/pub-res/research_agenda/agenda.htm

THE BLACK FOREST AND SPACE CITY: COMPARATIVE CHARACTERISTICS OF U.S. AND GERMAN HOMICIDE

Victoria B. Titterington, Sam Houston State University
Volker Grundies, Max Planck Institute for Foreign and International Criminal Law

ABSTRACT

This analysis was conducted because of a unique opportunity to compare incident-level homicide files extracted from the Freiburg Cohort Study for the West German state of Baden-Wurttemberg and for police data from the U.S. city of Houston. In this exploratory analysis, we compare characteristics of criminal homicide perpetrated by persons ages 14-30 for the period of the mid-1980s to 2001. Our findings indicate that, along with an expected, substantial difference between the two areas in overall homicide levels, the ages of peak offending rates are older for German than U.S. offenders. Other relative characteristics of offenders, victims, relationships and methods of killing (especially for women) are quite similar. We describe these findings, with a particular emphasis on the age-crime curve. A number of subsequent research possibilities are also discussed.

Figure 1. Age-crime curve for homicide rates of German male offenders.

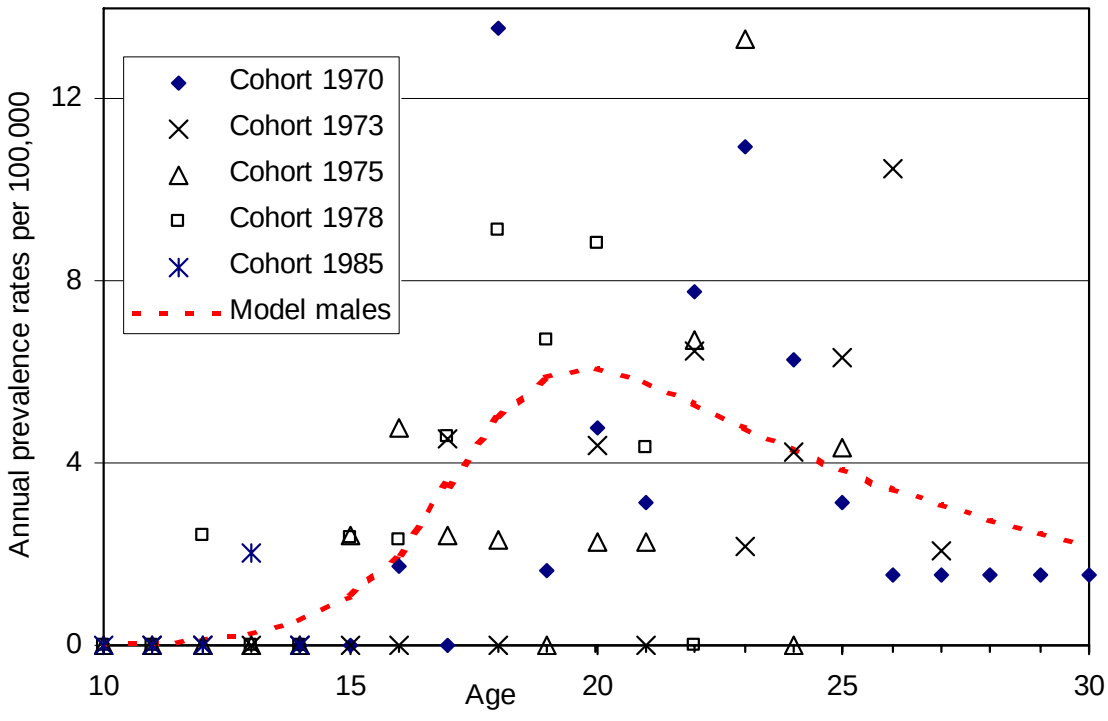

Figure 2. Age-crime curve for German and U.S. male homicide offenders.

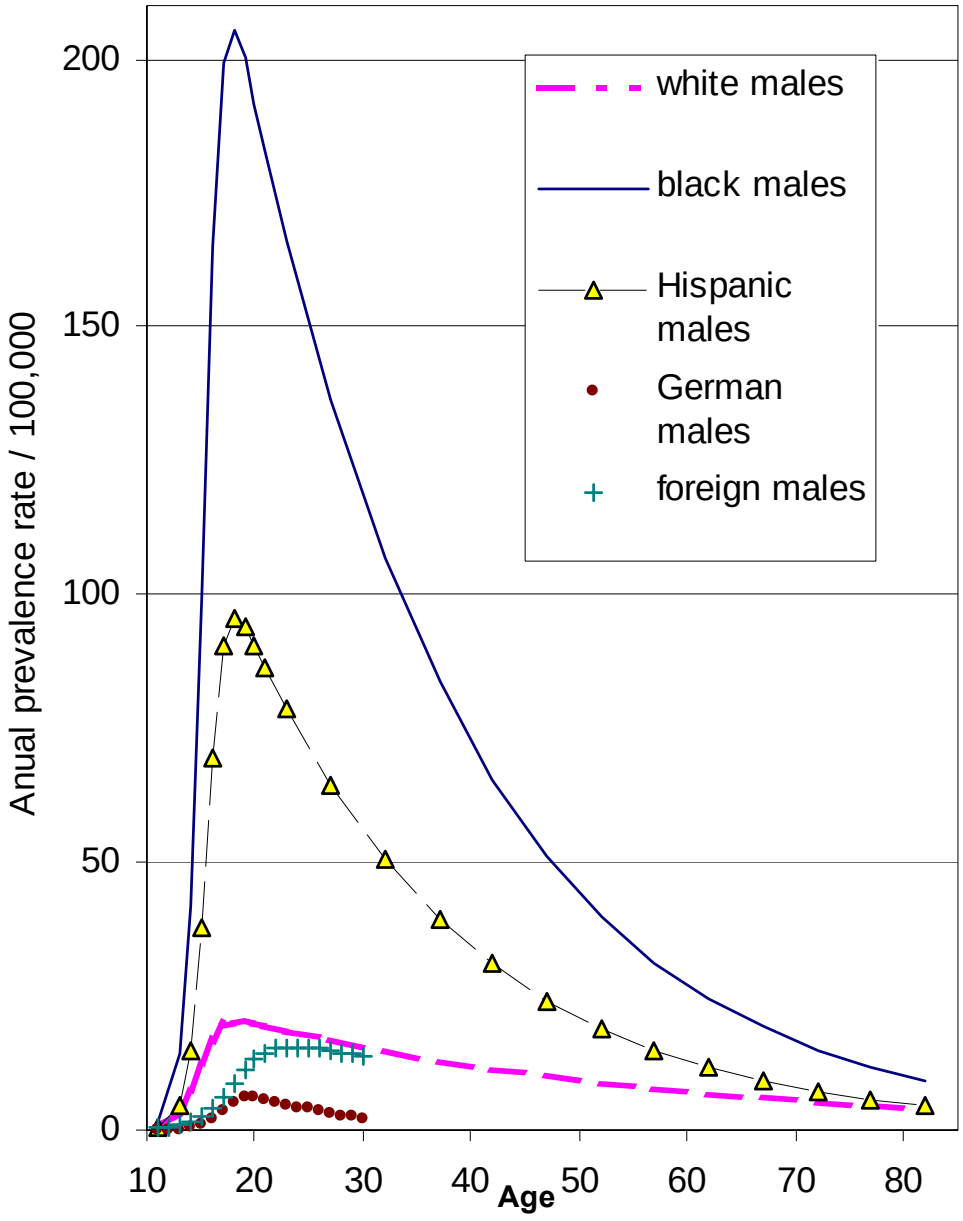

Figure 3. Age-crime curve for U.S. and German female homicide offenders.

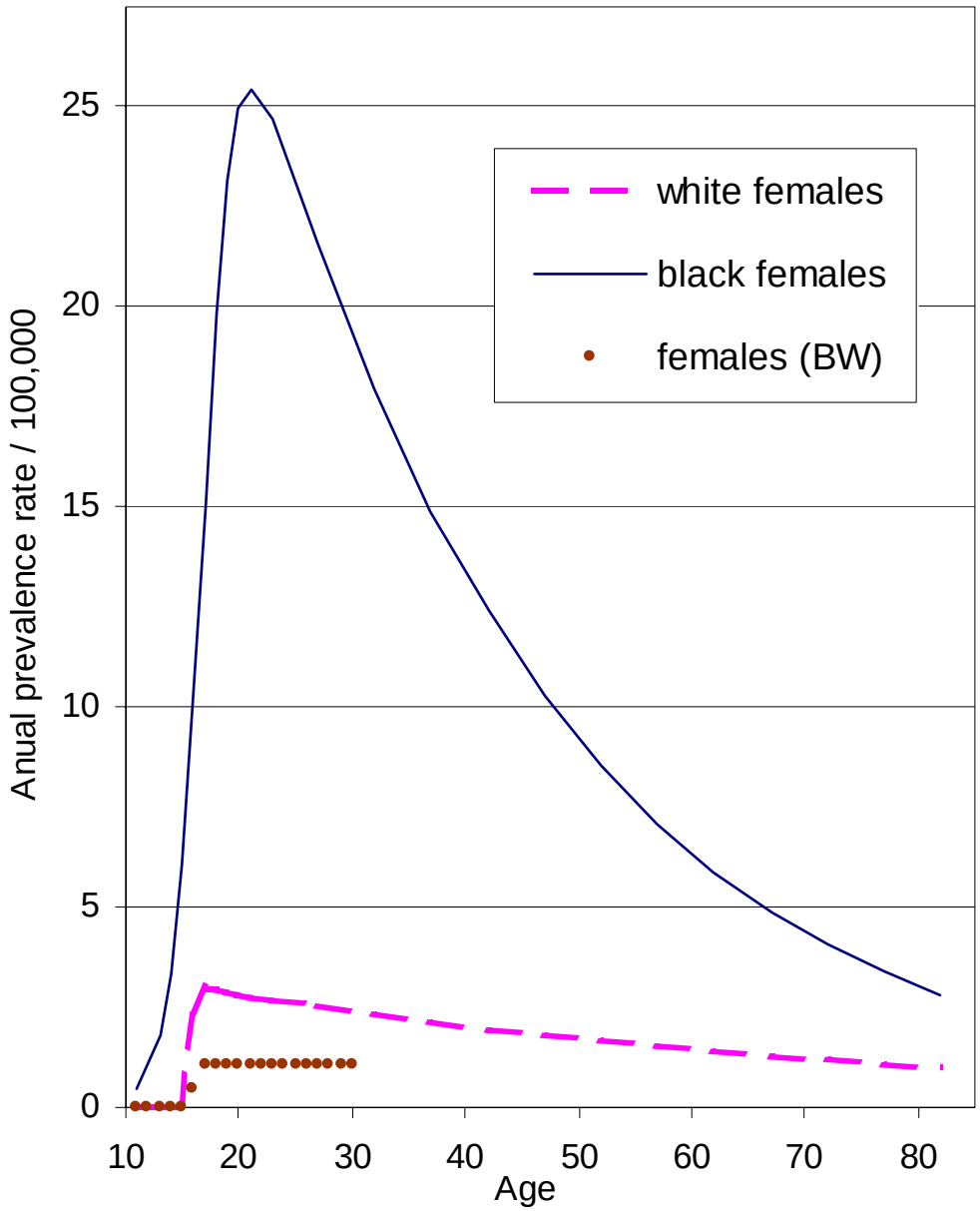

Table 1
Comparative National and State/City
Sociodemographic and Homicide Characteristics (various years)[1]

General Statistics	Germany/ Baden-Wurttemberg	U.S./ Houston
Population estimate,1990	10,000,000	1,630,500
Population density (sq. mi.)	714	2,900
Percent males	47.84	49
Percent females	50.38	51
Percent unemployment	4	6.1
Percent divorce	16	12.5
Percent annual growth	.1	1
Percent of German ancestry	90	--
Percent not of German ancestry	10	--
Percent Black	--	27
Percent Hispanic	--	28
Percent White, Asian, or Other	--	45
National Homicide		
Overall homicide rate, per 100,000, 1980	1.2 (FRG)	10.5 (U.S.)
Overall homicide rate, per 100,000, 1991	1.1 (Germany)	10.4 (U.S.)
Firearm Homicides	16% (1991-95)[2]	70% (1985-94)
Homicide, At-Risk Persons (Ages 14-31)[3]		
Male Offenders[4]		
# of Homicides	171	1994
Offending rate, per 100,000	5.2	67.8
Male victims	123 (72%)	1,693 (85%)
Female victims	48 (18%)	301 (15%)
Female Offenders[4]		
# of Homicides	29	200
Offending rate	0.9	7.7
Male victims	10 (34%)	161 (80%)
Female victims	19 (66%)	39 (20%)

[1]Sources: WHO (1995), Baden-Wurttemberg *Statistisches Bundesamt*. *Statistisches Taschenbuch. Statistik von Baden-Wurttemberg: Die Auslander*, US Census Bureau

[2]Clark & Wildner, 2000.

[3]Baden-Wurttemberg age 14-31 population estimates based on 1970, 1973, 1975, 1978 Freiburg Cohort Study.

[4] Houston, based on offenders with known ages, 14-31 years

Table 2
Parameters of the age-crime curve

Place	Group	n	const	a0	a1	age descending parameter	χ^2	df	χ^2 / df
Baden-Wurtemberg	German males	100	1	17.6	0.89	-.11 ± .05	65	59	1.1
	Foreign males	74	65.2	18.2	0.61	-.02 ± .16	9.1	17	0.6
	Females	29	28.6	16	15.83	.002 ± .05	17	17	1
Houston	White males	184	333.3	14.9	0.98	-.025 ± .004	15	19	0.8
	Black males	981	5129.3	15.3	1.26	-.049 ± .002	39	19	2
	Hispanic males	574	2425	15.6	1.26	-.049 ± .004	39	19	2
	White females	24	39.1	15.9	10.72	-.016 ± .008	25	19	1.3
	Black females	141	588.3	17.1	0.72	-.037 ± .006	19	19	1

Table 3
Descriptive statistics for homicide rates,
all Baden-Wurttemberg (BW) and Houston (H) subgroups

	Average 14-30	Maximum rate	Age at maximum rate	Age at strongest increase	Age descending parameter
Baden-Wurtemberg					
Males	3.6	6.1	19.8	17.1	-.11 ± .05
Foreign males	11.3	15	23.4	17.4	-.02 ± .16
Females	0.9		over 17	17.1	.002 ± .05
Houston					
White males	16.2	20.2	18.6	14.8	-.025 ± .004
Black males	159.8	205.5	17.8	15.2	-.049 ± .002
Hispanic males	70.3	95.7	18.1	15.5	-.049 ± .004
White females	2.3	3	16.5	15.9	-.016 ± .008
Black females	20.6	25.5	21.1	16.8	-.037 ± .006
Hispanic females	2.8				

Table 4
Differences between gender and race (nationality)
according to the victim-offender relationship (offender ages 14 to 30)
Percentages for all known victim-offender relationships = 100%

	intimates	family	friends	Total known	strangers	unknown or missing	Total
Baden-Württenberg							
German males	4 4%	14 15%	38 41%	56 61%	36 39%	19	111
Foreign males	9 13%	6 9%	20 29%	35 51%	34 49%	12	81
Females; German & Foreign	3 10%	14 47%	5 17%	22 73%	8 27%	3	33
Houston							
White males	17 7%	29 13%	93 41%	139 61%	88 39%	32	259
Black males	59 6%	65 7%	531 56%	655 69%	300 31%	118	1073
Hispanic males	31 5%	44 8%	318 55%	393 67%	190 33%	75	658
White females	13 46%	4 14%	9 32%	26 93%	2 7%	0	28
Black females	79 54%	19 13%	37 25%	135 92%	12 8%	3	150
Hispanic females	7 35%	7 35%	5 25%	19 95%	1 5%	1	21

Table 5
Differences between gender and race (nationality)
according to the method used (offender ages >13 & <31)

	firearms	knives or other instruments	personal force	other	total
Baden-Württenberg					
German males	11 13%	36 41%	32 36%	9 10%	88
Foreign males	10 9%	40 57%	16 22%	6 8%	72
Females	1 6%	10 56%	5 28%	2 11%	18
Total Baden-Württemberg	22 12%	86 48%	53 30%	17 10%	178
Houston					
White males	166 65%	63 25%	11 4%	16 6%	256
Black males	878 83%	147 14%	10 1%	28 3%	1063
Hispanic males	465 72%	150 23%	13 2%	16 3%	644
Females	114 61%	52 28%	9 5%	11 6%	186
White females	21 81%	3 11%	2 8%	0	26
Black females	83 59%	45 32%	5 4%	7 5%	140
Hispanic females	10 50%	4 20%	2 10%	4 20%	20
Total Houston	1623 75.5%	412 19.2%	43 2.0%	71 3.3%	2149

JRSA's INCIDENT-BASED REPORTING RESOURCE CENTER

Lisa Walbolt, Justice Research and Statistics Association

The Justice Research and Statistics Association's (JRSA) Incident-Based Reporting Resource Center is supported by the Bureau of Justice Statistics to provide comprehensive information on accessing and using incident-based reporting data for the analysis of crime and reporting of justice statistics. The goal of the Center is to facilitate the use of state incident-based reporting (IBR) systems and the National Incident-Based Reporting System (NIBRS) by crime analysts, researchers, and other justice professionals. The Center seeks to put practical analytical information and tools into the hands of analysts who want to work with incident-based data, and to provide a forum where analysts can exchange information and ideas about using IBR data. Please visit the site and provide feedback on what information you'd like the Center to provide in order to assist you in using incident-based data.

This literature display included the following documents:

The *JRSA Forum*
JRSA's *Incident-Based Reporting Resource Center Fact Sheet*
JRSA Brochures
Call for Papers for JRSA's Justice Research and Policy Journal

COMPILING AND USING COMPARABLE CROSS-NATIONAL DATA ON VIOLENCE: WODC, THE EUROPEAN SOURCEBOOK AND EUCPN

Paul Smit, Research & Documentation Center (WODC),
Ministry of Justice, the Netherlands

The Research and Documentation Centre (WODC) of the Ministry of Justice in the Netherlands participates in various international activities as regards cross-national Criminal Justice Statistics.

The first to mention is the *European Sourcebook on Crime and Criminal Justice Statistics*. The first edition, covering the years 1990 – 1996 for almost all countries of the Council of Europe, was published in 1999 by the Council of Europe (Stasbourg, July 1999, PC-S-ST (99) 8 REV). The second edition, covering the years 1995 – 2000, will be published in December 2003 by the WODC (The Hague, 2003, O&B 212). Both editions can also be found on the website www.europeansourcebook.org

Also, the WODC participates in the European Union Crime Prevention Network (EUCPN) subgroup on crime statistics. This resulted in the publication, *Crime Trends in the EU*, focusing on burglary, car theft and robbery for the 15 EU countries. More information on the EUCPN can be found on the website
http://lab.mostra.com/online/eucpn/home

Many reports publicized by the WODC can be found on the website www.wodc.nl Most reports are in Dutch, but all reports have a English summary. Some reports are in English, e.g. *Criminal Victimisation in Seventeen Industrialised Countries* (nr. 187 in the O&B (Research and Policy) series), *The Dutch Criminal Justice System* (O&B nr 205) and the aforementioned *European Sourcebook on Crime and Criminal Justice Statistics*, second edition (O&B nr 212).

PTSD, FATAL AND NON-FATAL VIOLENCE
PANEL SESSION II, 11:00 a.m. - 12:30 p.m., June 6, 2003

Moderator: Gregory A. Leskin, National Center for PTSD

Papers:

Crime-Related PTSD as a Public Health Issue: PTSD Diagnosis, Prevalence in Forensic Settings, and Implications for Reducing Future Violence, by Christine M. Mathiesen, Atascadero State Hospital

Clinical and Legal Perspectives on PTSD and Homicide, by Claudia L. Baker, National Center for PTSD

Ethnic Differences in Intimate Partner Violence and PTSD: Results from the Chicago Women's Health Risk Study, by Gregory Leskin, National Center for PTSD; Carolyn Rebecca Block, Illinois Criminal Justice Information Authority; and Jacquelyn Campbell, Johns Hopkins University

Recorder: Kim Davies, Department of Sociology, Augusta State University

CRIME-RELATED PTSD AS A PUBLIC HEALTH ISSUE: PTSD DIAGNOSIS, PREVALENCE IN FORENSIC SETTINGS, AND IMPLICATIONS FOR REDUCING FUTURE VIOLENCE

Christine M. Mathiesen, Atascadero State Hospital

ABSTRACT

Posttraumatic stress disorder (PTSD) is a psychiatric disorder that can develop after experiencing a trauma, and research suggests that PTSD may develop solely from perpetrating violent crime, not only victimization. The link between violence and trauma is bi-directional, and early traumatization might predispose some individuals to increased adult arrests and violent outbursts. The diagnostic criteria for PTSD and prevalence rates are presented first. Perpetrator and crime characteristics that may result in posttraumatic reactions follow. Finally, ideas for researching this population are proposed, with the goals of identifying how frequently committing violent crime results in PTSD, and how evaluating and treating PTSD in criminal populations might reduce risk for future violence.

INTRODUCTION AND HISTORICAL PERSPECTIVE

Throughout human history, traumatic experiences have been a part of life, and the effects of chronic stress have been acknowledged and written about for millennia. However, not until this century, have we systematically sought to understand trauma's effect (Wilson, 1995), and the formal Posttraumatic Stress Disorder (PTSD) psychiatric diagnosis has been in existence only since 1980 (DSM-III; American Psychiatric Association [APA], 1980).

Traumatic events can cause adaptive, survival-oriented changes in a person's behavior (Sorg, & Kalivas, 1995; Deutsch & Young, 1995), for example, the ability to respond extremely quickly to enemy fire in combat situations. However, the presence of a diagnosable disorder indicates that maladaptive behavior change can also result from trauma (Wilson, 1995). Recent literature suggests that one of the maladaptive outcomes of trauma may be that some people are at increased risk for committing, not being the victim of, future interpersonal violence. For example, there is evidence that early traumatization in an individual's life might lead to increased adult arrests and possibly to violent outbursts (Shaffer & Ruback, 2002). This is not to say that all traumatized people are more likely at some point to commit future violence, but that previous victimization may be a factor in some individual's violent behavior. As such, an improved understanding of the relationship between trauma and subsequent violent behavior should help us to reduce future violence.

THE PTSD DIAGNOSIS

Medical doctors rely on patterns of signs (e.g. fever) and symptoms (e.g. muscle aches) to determine what illness (e.g. infection) a patient has. As with medical diagnoses,

psychiatric diagnoses have specific criteria a patient must meet. The current DSM-IVTR (2000) diagnostic criteria for PTSD include the following:

A. "The person has been exposed to a traumatic event in which . . . [he/she] (1) experienced, witnessed, or was confronted with . . . actual or threatened death or serious injury, or a threat to the physical integrity of self or others [and] (2) the person's response involved intense fear, helplessness, or horror." (pp. 427-428).
B. This event is recurrently reexperienced (e.g. nightmares, flashbacks).
C. The individual must persistently avoid stimuli associated with the trauma, and experience a numbing of general responsiveness (e.g. avoidance of conversations, feelings, or places associated with the trauma).
D. She/He must experience persistent symptoms of increased arousal (e.g. sleep difficulties, exaggerated startle response, hypervigilance, difficulty concentrating).
E. The symptoms must last longer than one month, and
F. The symptoms cause clinically significant distress or impairment in important areas of functioning (e.g. school, work, home).

PREVALENCE: PTSD AS A PUBLIC HEALTH ISSUE

Kessler, Sonnega, Bromet, and Nelson (1995), in their national comorbidity study with a community sample of 8,098 subjects, found a 7.5% lifetime prevalence of PTSD. PTSD, and even anxiety disorders under which PTSD is classified, are often not included in studies of psychiatric disorders in forensic facilities (see reviews: Brink, Doherty & Boer, 2001; Powell, Holt, & Fondacaro, 1997). Thus, there is not yet a good sense of how prevalent trauma and PTSD are in forensic populations. However, the available prevalence data suggest criminal populations have increased rates of trauma (41%, Dutton & Hart, 1994; 87%, Saxon, et al., 2001) and PTSD compared to the general population. In prisons, published estimates of inmates with current PTSD are 8% (Brink et al., 2001), 21% (Gibson, et al., 1999), and 39% (Saxon, et al., 2001). In forensic hospitals, estimates of patients with current PTSD range from 18% (male inmates; Kruppa et al., 1995) and 23% (Spitzer, et al., 2001), to 28% (female inmates; Kruppa, et al., 1995). For both the prison and hospital PTSD populations, the most common traumatic events causing PTSD included seeing someone hurt or killed, being raped, being physically assaulted, and sexual abuse.

PTSD AND ITS RELATIONSHIP TO FUTURE VIOLENCE

Historically, traumas considered to result in PTSD have included such events as severe automobile accidents, natural disasters, being a combat veteran, and being the victim of violence. The literature regarding combat veterans, however, suggests that not only may being a victim of violence result in PTSD, but participating in violent behavior may also lead to PTSD. For example, "socially sanctioned" killing or injuring of others had a strong direct effect on veterans' later developing PTSD (Fontana & Rosenheck; 1999).

However, one does not have to have committed violence within the duties of ones job for PTSD to develop. In fact, Rogers, Gray, Williams, and Kitchiner (2000) state that

offenders are less prepared for the psychological effects of killing than veterans or police officers who receive training as part of their jobs, and thus may be more likely to develop PTSD than veterans or police officers. The crime of violent homicide can be particularly traumatic and lead to PTSD (Harry & Resnick, 1986; Rynearson, 1984). Harry and Resnick (1986) describe case histories of three men who developed PTSD after committing homicides. Each of these men had minimal prior criminal histories, but all had had chaotic, traumatic childhoods, and each killed women with whom he had a significant but turbulent emotional relationship, and were either in a dissociative or psychotic mental state at the time of the offense. Fifteen percent of the inmates in Collins and Bailey's (1986) study developed PTSD symptoms after committing a violent offense. Kruppa, Hickey, and Hubbard (1995) found that, for both male and female offenders, PTSD symptoms were most frequently caused by their index offense. However, for most subjects, the offense was not the only trauma experienced, and previous traumas included: for women rape and sexual abuse and for men sexual abuse, accidents, and other violence. This is a common finding: it is the rule rather than the exception that an individual has been traumatized multiple times, and perpetrators may have PTSD from previous personal trauma, not from committing violence.

Most people who experience trauma and develop PTSD do not go on to perpetrate violence. However, a history of trauma and subsequently developing PTSD appears to predispose certain individuals towards future risk. For example, PTSD is related to measures of anger and hostility, but not necessarily violence (Chemtob, Hamada, Roitblat, & Muraoka, 1994). In contrast, there is evidence that participating in combat may increase some veterans risk for actual future violent behavior (Fontana & Rosenheck, 1999). Unresolved assault trauma may have been a factor in one woman who perpetrated a murder during a dissociated mental state (Meacham, 2001). Childhood trauma may have been a factor in men murdering significant women in their lives (Harry & Resnick, 1986). Although early childhood abuse is certainly not the only reason someone might become violent, it may be a significant factor for some individuals (Weeks & Widom, 1998).

Vietnam veterans appear somewhat frequently in this sparse literature. Some (Beckerman & Fontana, 1989) did not find increased incidence of violence, whereas others found positive correlations between trauma and future violence. The veterans studied by McFall, et al. (1999), reported that they had a harder time controlling violence and had participated in property destruction, threats both with and without weapons, and physical fighting. PTSD symptom severity predicted violence even after controlling for war zone violence and comorbid psychiatric disorders. Further, they found that the avoidance-numbing PTSD symptom cluster was most strongly related to who would commit violence. In a survey of state prisons, the US Department of Justice found that the average Vietnam veteran inmate tended to be charged with the same types of crimes as non-veterans and veterans from other wars, but that they were more likely to be convicted of crimes against person (murder, rape, or assault) than non-veterans, and less likely to have been convicted of crimes against property (robbery or burglary). This is not to say that veterans in particular become more violent because of military service or subsequent PTSD. Rather, at this time, we can only conclude that Vietnam veterans are

more closely studied. Fifty percent of the inmates included in the DOJ survey had received less than an honorable discharge, and 60% of these Vietnam veterans had been incarcerated at least once prior to military service. This group of veterans appears very different than the average veteran as they were much more likely to have earned a dishonorable discharge. While the Vietnam sample has not been extensively studied, anecdotally less qualified enlistees and draftees were recruited, and in some cases criminal history was overlooked (Broderick, personal communication).

Certainly, most people who experience trauma through victimization or through their job do not go on to perpetrate violence. Why some are predisposed towards more violence following traumatization is as yet unclear. Although it used to be thought that violence breeds violence, this relationship is not as strong as once believed, and such variables as poverty and low education may also be strongly related to who commits future violence (Lisak, Hopper, & Song, 1996; Widom, 1989). Untreated PTSD may correlate with violent recidivism (Meachams, 2001; Saxon, et al., 2001). If people have previously been traumatized or have comorbid psychiatric disorders, current stressors appear to have a greater impact (Andreason, 1980), which may result in a reduced ability to cope, leading to violent responses.

FUTURE DIRECTIONS

Interpersonal trauma is traumatic both for victims and some perpetrators, and appears to increase the likelihood that certain individuals may commit future violence. Research into the area of trauma, PTSD, and violence risk should lead to an improved understanding of the bi-directional relationship between violence and PTSD. This in turn will enhance the evaluation and treatment of PTSD in criminal populations. Doing so has multiple benefits including reduction of future interpersonal violence and trauma, reduction of the incidence of psychiatric disorders such as PTSD and depression, and reduction of secondary costs for treatment, prosecution, and maintenance of correctional facilities.

It should be noted, however, that sometimes identification and treatment of PTSD in correctional settings may have temporary negative outcomes. For example, treating the underlying trauma or other psychopathology enables perpetrators to become aware of what they had done, initially increasing guilt and depressive symptomatology, which in some cases could lead to suicide (Harry & Resnick, 1986). This should not lead to caution in identifying and treating PTSD. Rather, it should lead to a comprehensive assessment of PTSD, guilt, depression, and thoughts of self-harm so they can all be treated promptly. The larger implication is that reducing future violence reduces many future psychiatric consequences, including PTSD, guilt and depression.

The first step toward understanding this issue is identifying the prevalence of trauma and PTSD in criminal populations. Studies into psychopathology in criminals need to incorporate more consistently PTSD and anxiety disorders in their data collection. Clinical interviews and self-report formats for collecting trauma histories and diagnosing PTSD are the primary routes to collect this data, and should be changed to ask about

violence committed by study participants. Additional variables, such as substance abuse, also must be accounted for, as must the challenges of studying forensic subjects, who may be less willing to participate fully or who may malinger due to the perceived gain of being seen as "mentally ill."

From this start, we can begin to identify how frequently PTSD is a consequence of committing violent crime, and which individual, environmental and/or crime-related variables have the highest correlation with PTSD and future violence. For instance, the fact that McFall et al. (1999) found that the avoidance-numbing symptoms most strongly correlated with future violence suggests that such symptoms should be targeted in violence prevention treatment programs. This information can then be applied to prevention. Sorensen (2002), in her article on public health approaches to preventing traumatic stress, suggests using such public health approaches as Haddon's Injury Prevention Matrix (1968). Community psychology uses a similar intervention matrix, whereby primary interventions address the whole population ("before event"), secondary interventions focus resources on at-risk groups ("during"), and tertiary interventions are provided to individuals who have already developed a psychiatric disorder ("after"). In the case of trauma and subsequent violence, secondary interventions directed to individuals at risk for developing PTSD should limit the incidence of new cases, which could also function as a primary intervention for limiting subsequent violent behavior. Previous traumatization is not the only reason people become violent. However, given the prevalence of trauma and PTSD in forensic populations, the bi-directional relationship between trauma and violence deserves a close look, as it likely provides clues as to why some individuals are violent and how to reduce their violent behavior.

REFERENCES

American Psychiatric Association (1980). *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III; 3rd ed.). Washington, DC: American Psychiatric Association.

American Psychiatric Association (2000). *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IVTR; 4th ed., text revision). Washington, DC: American Psychiatric Association.

Andreason, N.C. (1980). Post Traumatic Stress Disorder. In Kaplan, H. I., Freedman, A. M., & Sadock, B. J. (Eds.), *Comprehensive Textbook of Psychiatry*, pp.1517-1525. Baltimore, MD: Williams and Wilkins.

Beckerman, A., & Fontana, L. (1989). Vietnam veterans and the criminal justice system: A selected review. *Criminal Justice and Behavior 16*(4), 412-428.

Brink, J. H, Doherty, D., & Boer, A. (2001). Mental disorder in federal offenders: A Canadian prevalence study. *International Journal of Law and Psychiatry, 24*, 335-337

Chemtob, C. M., Hamada, R. S., Roitblat, H. L., & Muraoka, M. Y. (1994). Anger, impulsivity, and anger control in combat-related posttraumatic stress disorder. *Journal of Consulting and Clinical Psychology 62*(4), 827-832.

Collins, J. J., & Bailey, S. (1990). Traumatic stress disorder and violent behaviour. *Journal of Traumatic Stress, 3*, 203-220.

Deutsch, A. Y., & Young, C. D. (1995). A model of the stress-induced activation of prefrontal cortical dopamine systems: Coping and the development of post-traumatic stress disorder. In M. J. Friedman, D.S. Charney, & A. Y. Deutsch (Eds.), *Neurobiological and Clinical Consequences of Stress: From Normal Adaptation to PTSD* (pp. 163-175). Philadelphia, PA: Lippincott-Raven.

Fontana, A., & Rosenheck, R. (1999). A model of war zone stressors and posttraumatic stress disorder. *Journal of Traumatic Stress, 12*(1), 111-126.

Gibson, L. E., Holt, J. C., Fondacaro, K. M., Tang, T. S., Powell, T. A., & Turbitt, E. L. (1999). An examination of antecedent traumas and psychiatric comorbidity among male inmates with PTSD. *Journal of Traumatic Stress 12* (3), 473-484.

Haddon, W. (1968). The changing approach to the epidemiology, prevention, and amelioration of trauma: The transition to approaches etiologically rather than descriptively based. *American Journal of Public Health, 58*, 1431-1438.

Harry, B., Resnick, P. J. (1986). Posttraumatic stress disorder in murderers*. Journal of Forensic Sciences, 31* (2), 609-613.

Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C.B. (1995). Posttraumatic stress disorder in the national comorbidity survey*. Archives of General Psychiatry, 52*, 1048-1060.

Kruppa, I., Hickey, N., & Hubbard, C. (1995). The prevalence of post traumatic stress disorder in a special hospital population of legal psychopaths. *Psychology, Crime and Law 2,* 131-141.

Lisak, D., Hopper, J. W., & Song, P. (1996). Factors in the cycle of violence: gender rigidity and emotional constriction. *Journal of Traumatic Stress, 9* (4), 721-743.

McFall, M., Fontana, A., Raskind, M., & Rosenheck, R. (1999). Analysis of violent behavior in Vietnam combat veteran psychiatric inpatients with posttraumatic stress disorder. *Journal of Traumatic Stress, 12* (3), 501-517

Meacham. M. (2001). Case study of post sentencing forensics. *The Forensic Examiner*, pp. 15-19.

Powell, T. A., Holt, J. C., & Fondacaro, K. M. (1997). The prevalence of mental illness among inmates in a rural state. *Law and Human Behavior* 21(4), 427-438.

Rynearson, E. K. (1984). Bereavement after homicide: A descriptive study. *American Journal of Psychiatry, 141* (11), 1452-1454.

Saxon, A. J., Davis, T. M., Sloan, K. L., McKnight, K. M., McFall, M. E., & Kivlahan, D. R. (2001). Trauma, symptoms of posttraumatic stress disorder, and associated problems among incarcerated veterans. *Psychiatric Services, 52*(7), 959-964.

Shaffer, J. N., & Ruback, R. B. (December, 2002). Violent victimization as a risk factor for violent offending among juveniles. *Juvenile Justice Bulletin*, 1-8.

Sorg, B. A., & Kalivas, P. W. (1995). Stress and neuronal sensitization. In M. J. Friedman, D. S. Charney, & A. Y. Deutsch (Eds.), *Neurobiological and Clinical Consequences of Stress: From Normal Adaptation to PTSD* (pp. 49-72). Philadelphia, PA: Lippincott-Raven.

Sorenson, S. B. (2002). Preventing traumatic stress: Public health approaches. *Journal of Traumatic Stress 15* (1), 3-7

Spitzer, C., Dudeck, M., Liss, S., Orlob, S., Gillner, M., & Freyberger, H. J. (2001). Post-traumatic stress disorder in forensic inpatients. *The Journal of Forensic Psychiatry, 12* (1), 63-77.

US Department of Justice (1981). *Veterans in Prison*. Bureau of Justice Statistics.

Weeks, R., & Widom, C. S. (1998). Self-reports of early childhood victimization among incarcerated adult male felons. *Journal of Interpersonal Violence, 13*, 346-361.

Widom, C. S. (1989). The intergenerational transmission of violence. In N. A. Weiner & M. E. Wolfgang (Eds.), *Pathways to criminal violence*. Newbury Park, CA: Sage.

Wilson, J. P. (1995). The historical evolution of PTSD diagnosis: From Freud to DSM-IV. In G. S. Everly & Dating, J. M. (Eds.), *Psychotraumatology: Key Papers and Core Concepts in Post-Traumatic Stress* (pp. 9-26). New York: Plenum Press.

CLINICAL AND LEGAL PERSPECTIVES ON PTSD AND HOMICIDE

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ABSTRACT

There are several ways in which Post-Traumatic Stress Disorder (PTSD) and trauma exposure can predispose an individual to violent and homicidal behavior. As such, trauma exposure and PTSD are issues commonly assessed by mental health experts during the trial and the appeals phases of death penalty cases. This paper details several pathways through which PTSD can lead to lethal and non-lethal violence and uses case histories from the writer's work as a psychosocial consultant to defense attorneys to place these theoretical issues in a real-world context. The legal implications of the link between PTSD and homicide are also discussed.

INTRODUCTION

Post-Traumatic Stress Disorder (PTSD) can result in violent and homicidal behavior in several ways. In some rare and dramatic cases, homicides are committed during a dissociative flashback in which the perpetrator has lost contact with present reality and is reliving or reenacting a past trauma. More commonly, symptoms of and behaviors associated with PTSD are one factor in a series of events leading to homicidal behavior. This paper will detail both of these situations and use case studies to illustrate the clinical and legal dimensions of each.

DISSOCIATIVE FLASHBACKS AND HOMICIDE

Clinical perspective

Homicides committed during dissociative flashbacks tend to have some of the following characteristics:

1. The homicide was spontaneous and unpremeditated.
2. The homicidal behavior was uncharacteristic of the perpetrator and/or the perpetrator had no prior criminal record.
3. The choice of the victim was fortuitous or accidental.
4. The homicide recreated in a psychologically meaningful way elements of the traumatic stressor.
5. The perpetrator reports amnesia for all or part of the episode.
6. The perpetrator is unable to give any explanation for the homicide and there is no discernable current motivation.
7. A seemingly benign incident resulted in excessive violence.
8. The perpetrator was unable to engage in coherent dialogue appropriately related to time and place at the time of or shortly after the homicide (Sparr, 1996).

Several environmental factors increase the likelihood of a flashback-related homicide. In general, when a homicide is committed during a flashback, recent stressful life events, often reactivating trauma-related issues, have psychologically destabilized the perpetrator and left him or her more vulnerable to a dissociative episode. Surroundings reminiscent of the environment of the original trauma and/or an accurate or inaccurate perception of danger or threat increase the likelihood of this type of violent outburst.

Legal implications

PTSD is most often used as the basis of an insanity plea in these types of cases. PTSD-based insanity defenses generally argue that the perpetrator's loss of reality testing at the time of the homicide met the legal criterion for insanity (not knowing the nature and quality of an act or not knowing that the act was wrong as a result of a severe mental defect). The current mental status of the defendant is not relevant, only their mental status at the time of the crime. In successful insanity defenses, the perpetrator is found "Not Guilty by Reason of Insanity," and is ordered to receive psychiatric treatment until such time as the treating physician feels that the "mental defect" has been adequately treated and the individual is no longer dangerous (although the perpetrator can not be held for longer than the maximum allowable prison sentence for his or her crime).

In spite of the frequent portrayal of insanity defenses in courtroom dramas, in actuality they are quite rare. Insanity defenses based on PTSD are rarer still. Between 1985 and 1990, less than 1% of insanity pleas were based on PTSD. Insanity defenses are also not often successful. Only 29% of these defenses resulted in Not Guilty by Reason in Insanity verdicts (Sparr, 1996). In this writer's experience as a PTSD expert in death penalty cases, this type of defense has never been considered or warranted. However, there are numerous cases described in the literature in which PTSD has been used as the basis for an insanity defense.

Case Study

One of the most commonly cited of these cases is Heads vs. Louisiana. In this case, Charles Heads, a resident of Houston and a Vietnam veteran, went to his sister-in-law's house in Louisiana in search of his wife and two children who had left the family home the day before. Upon arriving in Louisiana from arid Houston, Mr. Heads encountered lush vegetation reminiscent of Vietnam. A previous night's rain had also resulted in warm, humid weather and abundant ground fog. When he arrived at this home a dispute began. Mr. Heads then broke into the house and began firing his pistol somewhat aimlessly down the hallway until he ran out of bullets. He then retrieved his shotgun from his car and returned to the house where he fired several blasts, one of which struck his sister-in-law's husband in the head and killed him. After the crime, Mr. Heads did not run away and was described as wandering "in a daze" around the house with his weapon at his side. Mr. Heads was found guilty of first degree murder at his trial.

Upon appeal, Mr. Heads' attorneys argued that his behavior on the night of the murder constituted insanity because he had not been able to distinguish right from wrong at the time of the shooting. Testimony regarding Mr. Heads' combat experience in Vietnam (which included the loss of a substantial percentage of his platoon) was introduced as was evidence that he had previously experienced a dissociative state during a separation from his wife. His lack of a criminal record was also emphasized. Psychiatrists who assessed him testified that the setting of the shooting, which had been reminiscent of Vietnam, and the stress of the loss of his wife and children had induced a flashback in Mr. Heads. These issues of loss were linked to unresolved issues around the loss of his buddies in Vietnam. In addition, the psychiatrists testified that during this flashback, Mr. Heads' reality testing was impaired and he had reverted to survival behavior that had been adaptive in Vietnam. Upon appeal, Mr. Heads was found Not Guilty by Reason of Insanity and released with the stipulation that he obtain treatment for his PTSD.

OTHER PTSD SYMPTOMS AND HOMICIDE

Clinical Perspective

As previously stated, homicides committed during dissociative flashbacks are relatively rare. Cases in which symptoms of PTSD and resultant behaviors contribute to a series of events culminating in homicidal behavior are more common. This type of link between PTSD and homicide can operate through many intervening variables. For example, many, if not most, individuals with PTSD use drugs or alcohol to self-medicate. The decreased inhibitions, heightened aggressiveness and/or criminal life-style that is often associated with substance abuse can lead to homicide. The irritability and difficulty with anger control often seen in PTSD can increase the likelihood of violent and homicidal behavior. Hypervigilance can lead individuals to misinterpret the level of danger or threat in a situation and subsequently act in exaggerated self-defense. Survivor guilt can lead individuals to consciously or unconsciously commit criminal acts in which there is a near certainty of getting caught in an attempt to alleviate guilt through self-punishment. Emotional numbing can lead to sensation-seeking behavior, which, when taken to the extreme, can include homicide. Emotional numbing can also reduce the feelings of empathy that often inhibit homicidal behavior.

Legal implications

In these types of cases, the finding of PTSD is most often a consideration in sentencing proceedings or in plea negotiations as it does not have the potential to influence the guilt phase verdict. During the trial phase, findings of PTSD can be a mitigating factor leading the prosecution to decline to file for the death penalty or can be a mitigating factor presented to the jury or judge during sentencing proceedings. In post-conviction cases, where the perpetrator has already been sentenced to death, the finding of PTSD can be introduced as new evidence that allegedly would have been presented had the defendant received adequate counsel (if a PTSD assessment was not completed during the trial phase).

Case Study

This type of link between PTSD and homicidal behavior has emerged numerous times in the writer's work in death penalty cases. Following is one illustrative case history:

Mr. S. is a 39 year old Hispanic man who has been on death row for 10 years for a murder committed when he was in his late twenties. In the murder, he and several associates appeared at the home of a man involved in organized crime. They were aware that this man was carrying a substantial sum of money. Mr. S. and his associates approached the man in his driveway and, with guns drawn, demanded that he give them the money he was carrying. The victim then drew a gun himself and shot one of Mr. S's associates. According to the associates, Mr. S then shot the victim, killing him. (However, according to Mr. S, one of the associates was the shooter.) No significant evidence regarding Mr. S.'s life history was presented at the sentencing phase. He was sentenced to death by a jury vote of 7 to 5.

Upon receiving the case, Mr. S's appellate attorneys hired a neuropsychological consultant to test Mr. S for organic brain impairment. As a result of history obtained during this evaluation, the neuropsychologist recommended that Mr. S. be evaluated for PTSD. This writer was then hired to evaluate Mr. S for PTSD and obtained the following historical information. Mr. S. was born in a small Latin American nation with significant political turmoil. He had a history of difficult and aggressive behavior as a child and had academic and behavioral problems in school. When he was 12 years old, his family took refuge with a group of others in the embassy of another Latin American country, where they stayed with only minimal food or water for 2 weeks. This nation eventually agreed to provide the refugees with asylum and they were sent to a refugee camp in this country. Mr. S. and his family remained at this camp for approximately three years. Conditions at the camp were very poor. A large group of released criminals had also been placed there and there were daily fights and stabbings, many over food. Mr. S. witnessed these fights and once saw his mother after she was slashed in the face during a mugging. His parents were also quite traumatized by the experience and several relatives reported that his father had a "nervous breakdown" while at the camp.

When Mr. S. was approximately 16 years old, he and his family were permitted to come to the United States as refugees. Family members with whom Mr. S's family stayed upon arrival in the US described Mr. S. as very anxious and depressed. They described startle responses, hypervigilance and insomnia in Mr. S. and also reported that he refused to discuss his experience at the refugee camp. Mr. S. began using alcohol and marijuana around this time. Between ages 16 and approximately 26, Mr. S. continued to drink and use marijuana and was arrested several times on charges such as throwing a rock through a window and fighting while intoxicated. All of these charges were subsequently dropped. He worked part-time at numerous construction jobs during these years.

When he was approximately 26 years old, Mr. S. was shot while in a dangerous neighborhood attempting to buy marijuana. The bullet lodged one inch from his spine and he had numerous surgeries to remove it. He reported that he was told that it was questionable whether he would be able to walk again. He was initially hospitalized for one month and has subsequently been hospitalized numerous times for problems related to this injury. He continues to walk with a limp resulting from the bullet wound. After being released from the hospital, Mr. S.'s functioning deteriorated. Although he had been abusing marijuana and alcohol prior to the shooting, after the shooting this use escalated dramatically. He also began to use crack cocaine in increasingly larger quantities. His social security records showed an almost 75% reduction in earnings in the year after his release from the hospital. Mr. S's friends described significant changes in Mr. S. after the shooting. They described him beginning to carry a gun, seeming more nervous and "on-guard" and being unable to relax. They also describe increased irritability and depression.

Approximately 18 months after the shooting, Mr. S. began engaging in increasingly violent crimes such as armed home invasion robberies and muggings. All of these crimes were committed with accomplices and were financially motivated. This "crime spree" clearly indicated a dramatic escalation from his previous contacts with the criminal justice system for throwing rocks and fighting. After five months, the "crime spree" culminated in the armed robbery attempt described above and ended with the murder of the intended victim.

When this writer first met with Mr. S, his first, somewhat defensive, statement was, "I know you are here to talk to me about what happened in the camp, but that had nothing to do with what ended up happening. That was all related to drugs." The history taking therefore began with questions regarding Mr. S's drug use. He described a stable pattern of moderate abuse after his arrival in the United States and described a dramatic escalation in the early 90s but was unable to give a reason for this. Later in the interview, it came to light that the shooting had occurred immediately prior to this time period. The ways in which substances can be used to medicate PTSD symptoms was then explained to Mr. S., as was the cumulative effect of traumas and the ability of a new trauma to reactivate memories of previous traumas. He appeared somewhat surprised by this concept, but quickly became more open to an assessment for PTSD. Based on information he provided, a diagnosis of PTSD was made.

In this interesting case, Mr. S. had developed PTSD as a result of his exposure to life-threatening violence while at the refugee camp. Upon arriving in the United States, he experienced PTSD symptoms and began attempting to medicate them with alcohol and marijuana. Although he did have PTSD during this time, he was able to function relatively adequately, his PTSD symptoms decreased somewhat over time and his criminal behavior was limited to "disturbing-the-peace" type crimes. However, when he was shot, this new traumatic stressor, in addition to resulting in PTSD symptoms in and

of itself, led to the reactivation of his previous traumas. Often the feelings of helplessness inherent in illnesses and injuries are triggers for memories of prior traumas in which the individual felt helpless. In addition, the inability to stay busy and involved in the present when one is ill or severely injured commonly results in a resurgence of PTSD symptoms related to prior traumas. Mr. S. increased his drug use in response to his increased symptoms and began needing more and more money to support this habit. This need led to increasingly violent behavior to secure the needed funds. Additionally, his hyper-vigilance and prior experience being shot perhaps resulted in a fast and overly lethal response when the victim drew his own weapon. Mr. S. was not legally insane at the time of the shooting, however the numerous traumas he had experienced in his life, the resultant PTSD symptoms and his attempts to self-medicate with drugs and alcohol certainly played a role in the chain of events that eventually led to the murder.

CONCLUSION

As this paper has discussed, there are numerous ways in which PTSD can be linked to lethal violence. The role of PTSD in legal proceedings and the legal consequences of a PTSD diagnosis are dependant upon the history of the particular defendant and the facts of the specific crime. Perhaps by increasing awareness among mental health professionals about the pathways through which PTSD can lead to lethal violence and by developing outreach programs to reach traumatized individuals who likely would not present on their own for treatment, some of these tragic outcomes can be averted.

REFERENCES

Sparr, Landy, Reaves, Michael, and Atkinson, Roland (1987). Military Combat, Posttraumatic Stress Disorder, and Criminal Behavior in Vietnam Veterans, *Bulletin of the American Academy of Psychiatry and the Law,15*(2), pp. 141 – 162.

Sparr, Landy (1996). Mental Defenses and Posttraumatic Stress Disorder: Assessment of Criminal Intent, *Journal of Traumatic Stress,* 9 (3), pp. 405 – 425.

ETHNIC DIFFERENCES IN INTIMATE PARTNER VIOLENCE AND PTSD: RESULTS FROM THE CHICAGO WOMEN'S HEALTH RISK STUDY

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INTRODUCTION

There are estimates that more than 10 million American women and men are victims of violence by a partner each year (Schafer et al., 1998). Further, more than one in three women utilizing an emergency room have been exposed to acts of domestic violence (Stark & Flitcraft, 1988). Beyond the immediate medical needs of these patients, many suffer from mental disorders associated with partner violence, including depression, suicidality, and substance abuse (West et al., 1990; Stets & Straus, 1990). In addition, high rates of post-traumatic stress disorder (PTSD) have been found in both clinical and community populations exposed to domestic violence.

PTSD is an anxiety disorder resulting from exposure to extremely stressful experiences, such as the physical and sexual assault accompanying domestic violence. According to DSM-IV, symptoms of PTSD include traumatic memories for the event, nightmares, and distressing emotional or physical reactions to reminders of the trauma. Attempts are made to avoid thinking or talking about past traumatic experiences. Emotional numbing and difficulties remembering aspects of the traumatic event are prominent features of the PTSD diagnosis. Finally, PTSD is characterized by hypervigilance, exaggerated startle response, intense anger, and difficulties sleeping.

The severity and type of traumatic experience that a woman may experience in an abusive relationship vary from direct violence (hitting, choking, sexual assault) to threats of continued violence to extreme limitations on personal freedom. Domestic violence and intimate partner violence (IPV) are terms that refer to a continuum of potentially traumatic experiences that can occur in a violent relationship. Types of IPV that are typically associated with PTSD include physical violence (Astin, Lawrence, & Foy, 1993), psychological abuse (Arias & Pape, 1999; Street & Arias, 2001) and stalking (Mechanic, Uhlmansiek, Weaver, & Resick, 2000). Closely related to these types of IPV are threats of continued violence, as well as coercive control over the victim's 'ability to communicate with others, financial resources, and attempts to leave the relationship. Control and power over the women's autonomy may also contribute to the development of PTSD (Campbell & Lewandowski, 1997).

There is a growing literature suggesting that PTSD is a highly prevalent disorder in women exposed to IPV. An examination across varied study samples (i.e., domestic violence shelters, hospitals, community clinics) suggests that the rate of PTSD as a result of IPV is between 19% and 84% (Astin et al., 1993; Bean & Moller, 2002; Cascardi, O'Leary, Lawrence, & Schlee, 1995; Humphreys, Lee, Neylan, & Marmar, 2001; Kubany

et al., 1996). Further, women suffering multiple types of victimization (i.e., psychological and physical abuse) increase their likelihood of developing PTSD (Astin, Ogland-Hand, Coleman, & Foy, 1995), with accompanying comorbid major depressive disorder (Nishith, Griffin, & Poth, 2002) and associated guilt and shame (Street & Arias, 2001).

The present study examined risk factors for developing PTSD among women seeking primary medical care services. Specifically, secondary analysis of the Chicago Women's Health Risk Study (CWHRS; Block, 2000) assessed the degree to which exposure to several different types of domestic violence (e.g., controlling behavior, psychological abuse, threats, stalking, physical violence) was associated with PTSD.[1] The present study examined whether female victims of intimate partner violence (IPV) differed in terms of their exposure to lethal and non-lethal types of violence according to two factors: 1) whether the woman met diagnostic criteria for posttraumatic stress disorder (PTSD) and 2) the ethnicity of the woman.

METHODS

Sample

Data from the Chicago Women's Health Risk Study (CWHRS) were examined. CWHRS used a quasi-experimental design to interview women in hospital health clinics about their abuse histories by an intimate or romantic partner. More than 2600 women over 18 years old were randomly screened at four large medical centers in the Chicago Area between 1997-1998. The sampling sites were chosen because they were located in those areas of the city having the highest risk of intimate partner homicide. The study attempted specifically to identify women who may be at highest risk for homicide, including expectant mothers, women without regular sources of health care, and abused women in situations where the abuse is unknown to helping agencies. By screening a large number of patients for IPV in a medical clinic, women who might not typically seek mental health services to discuss domestic violence were identified and included in the study sample. The majority of women in this study sample represent ethnically diverse groups (i.e., African-American, Latina) from disadvantaged backgrounds. (Based on 1997 U.S. Department of Health and Human Services Poverty Guidelines, at least 43% of this sample would qualify as existing at or below the poverty level.)

Of the total sample, 590 women screened positive for abuse in the previous year (answered "yes" to at least one of three screening questions); 2,097 women screened not abused or abused over a year ago. All of the women who screened positive and a random sample of women who did not screen positive were given a detailed, structured interview, in Spanish or English. The final sample consisted of 497 women who had interviewed positive for domestic violence (physical or sexual violence, violent threat at the hands of an intimate partner) in the previous year and 208 comparison women (no abuse incident in the past year, but in a relationship and age 18 or older).Table 1 presents a profile of the sample's demographic characteristics, comparing women who had

[1] Data analyzed for the purpose of this study include additional data prepared by Carolyn Rebecca, primary investigator of the CWHRS.

experienced physical abuse in the previous year to women who had not. The present study analyzes the 497 abused women.[2]

Table 1
Sociodemographics and predictors of PTSD among Domestic Violence Victims

Sample Characteristic (at initial interview)	Abuse in past year	
	Yes n = 497	No n = 208
Woman's age		
18-20	17.1%	14.9%
21-25	16.1%	15.9%
26-30	17.3%	18.3%
31-40	34.6%	26.0%
41-50	12.9%	19.2%
51-67	2.0%	5.8%
Racial/Ethnic Group		
African/American	69.6%	60.6%
Latina/ Hispanic	21.1%	26.0%
White or Other	8.7%	11.1%
Multiracial	1.6%	2.4%
Woman's relationship with abusive partner[3]		
Current wife	17.1%	26.0%
Ex- or former wife	4.4%	2.9%
Current commonlaw wife	4.0%	6.3%
Ex- or former commonlaw wife	2.2%	1.9%
Current girlfriend	32.3%	48.1%
Ex- or former girlfriend	31.7%	10.6%
Current same-sex partner	2.6%	1.0%
Ex- or former same-sex partner	1.2%	.5%
Current other (friend, lover, child's father)	.6%	1.9%
Former other (friend, lover)	2.2%	1.0%
Child's father (ex-intimate partner)	1.6%	.0%
Woman's education		
Not a high school graduate	47.9%	38.0%
High school graduate or GED	23.3%	28.8%
Some college or trade school	25.6%	27.9%
College graduate or professional school	3.0%	4.8%
Missing	.2%	.5%
Household income from all sources, previous year		
less than $5000	28.2%	21.6%
$5,000 to $9,999	16.5%	18.3%
$10,000 to $19,999	18.1%	21.6%
$20,000 to $29,999	8.5%	6.7%
$30,000 to $39,999	4.0%	7.2%
more than $40,000	8.2%	7.7%
missing	1.2%	1.9%
Woman doesn't know	15.3%	14.9%

[2]Eight women were not included in these analyses due to missing ethnic/racial identification, and one identified as multiracial.

[3] If the woman had more than one abusive partner in the previous year, this is the abuser she chose as responsible for the most serious incidents, or the one "that bothered you the most."

Measures

Power and Control (Johnson & Sacco, 1995).

The five-item "Power and Control" scale was developed for the *Violence Against Women Survey.* For each of the five power and control items, the woman is asked to respond yes or no based on the occurrence of that behavior by an intimate partner in the past year.

HARASS: Harassment in Abusive Relationship: A self-report Scale (Brockmeyer & Sheridan, 1998).

The HARASS is a 19-item self-report measure developed to assess stalking & harassment of women at the hands of abusive partners particularly as they are trying to leave the relationship. HARASS items include nine items of violent stalking (for example, "followed you," "frightened or threatened your friends," "left threatening messages on the phone," "threatened to kill you if you leave"), three items of violent threats (for example, "threatened to harm the kids if you leave"), four items of manipulation and punishment (for example, "threatened to kill your pet," "tried to get you fired from your job"), and three items of general harassment (for example, "called you on the phone and hung up," "left notes on your car"). In the CWHRS, follow-up questions were added to some HARASS items, to capture the frequency of these partner behaviors in the past month and past year.

Intimate Partner Violence Experienced in the Previous Year (Johnson, 1996).

This modified version of the Conflict Tactics Scale was originally constructed for the *Violence Against Women Survey*. It assesses the prevalence of a series of different types of violent behavior at the hands of an intimate partner. However, in the CWHRS, it includes questions that take into account the potential for injury (for example, adding "that could hurt you" to the item "thrown anything at you"). Also, the introductory wording stresses "physical violence against you," rather than "ways of resolving conflict." In the CWHRS, the section was prefaced by telling the woman that, "The questions in this section have to do with physical violence," and for each question, the woman was asked to endorse yes or no to whether "each thing has happened to you in an intimate relationship with a current or former intimate partner (husband, boyfriend, sex partner, etc.) in the past year." There are 11 items in the CWHRS physical violence instrument.

Post-Traumatic Stress Disorder Symptom Scale (PSS-I; Foa & Tolin, 2000).

The PSS was used to assess diagnosis and severity of PTSD. This 17-item scale corresponds directly with the DSM-III-R criteria for PTSD. Symptoms are scored on a 4-point scale. Foa and Tolin (2000) provided evidence supporting reliability and validity data with test re-test reliability over a 1-month period at.80. The PSS-I correctly identified the SCID-PTSD status of 94% of the subjects with a sensitivity of .88 and a specificity of .96.

Danger Assessment (DA; Campbell, 1994).

The DA is an 18-item yes/no dichotomous response format of risk factors associated with intimate partner homicide. The DA is scored by counting the "yes" responses, and although no cutoff score has been published, a score of 9.3 was found in abused women versus .75 in non-abused women, supporting discriminant group validity.

RESULTS

Very high rates of PTSD were discovered for the abused women in the CWHRS sample, 64.1% compared to 30.5% for the women in the comparison group (Chi square $p < .0001$). This was true for each of the three ethnic groups: African-American (59.3% versus 26.4%; Chi square $p < .0001$), Latina (77.9% versus 38.8%; Chi square $p < .0001$) and other (71.4% versus 31.8%; Chi square $p = .002$).

However, among those women who had experienced some type of intimate partner violence in the previous year, the type of violence was not related to whether or not the woman had a PTSD diagnosis (Table 2). Among African/American women, those who said "yes" to any individual type of violence (except being pushed, grabbed or shoved) were significantly more likely to have a PTSD diagnosis than those who said no, but none of the individual types stands out as particularly significant. In particular, there seems to be no pattern with the seriousness of the abuse. Similarly, among Latina abused women, women who had experienced each type of violence were more likely to have a PTSD diagnosis than women who had not, though none of these differences reached statistical significance. Thus, the specific assaultive act she experienced was not related to the likelihood that the woman would have a PTSD diagnosis, regardless of her racial/ethnic group. The high rates of PTSD occurred for all abused women.

The Danger Assessment (DA) combines items about physical violence and items about psychological abuse. For Latina abused women, but not for African/American abused women, some of the specific DA items are related to the woman's risk of a PTSD diagnosis (Table 3). For African/American abused women, all of the DA items were significant, except for the partner having been reported for child abuse. For Latina abused women, however, only six of the DA items were significant — abuser's controlling behavior, belief that the abuser is capable of killing her, actual threats to kill her, increasing frequency of the violence, and whether or not she had threatened or tried to commit suicide. For "other" racial/ethnic groups, only two of the DA items were significant — violent and constant jealousy and past use or threat of a weapon.

Similarly, an item-by-item analysis of the Power and Control scale (Table 4) finds that, for abused African/American women, all of the six items are significant. However, for Latina and "other" women, only three items are significantly related to the woman's risk of a PTSD diagnosis — the abuser calling her names and putting her down, the abuser limiting her contact with her family or friends, and the abuser preventing her from knowing about or having access to family income.

Table 2
PTSD Prevalence Rates (Percent with a PTSD Diagnosis)
By Race/Ethnicity and Type of Intimate Partner Violence Experienced in the Previous Year

In the past year, has an intimate partner…	Total N=489			Black Women N=341			Latina Women N=105			Other Women N=43		
	Yes	No	χ^2	Yes	No	χ^2	Yes	No	χ^2	Yes	No	χ^2
pushed, grabbed or shoved you?	66	51	4.4*	61	45	3.1	80	64	0.94	75	50	0.58
slapped you?	70	52	13.9**	67	43	15.8**	84	70	2.1	73	69	0
kicked, bit, or hit you with a fist?	72	54	16.2**	69	43	20.2**	85	74	1.1	80	59	1.3
thrown anything at you that could hurt you?	79	51	42.1**	77	40	45.5**	87	72	2.3	81	62	1.1
choked you?	74	55	18.3**	72	44	25.2**	91	74	2.1	84	61	1.7
beaten you up, for example, hit you repeatedly?	74	55	18.6**	72	46	21.8**	83	76	0.2	90	55	4.8*
hit you with an object that could hurt you?	80	55	30.1**	77	46	30.2**	95	74	3.4	88	62	2.1
forced you into any sexual activity you did not want to do, by threatening you, holding you down, or hurting you in some way?	79	56	26.0**	77	48	26.2**	89	74	1.7	86	64	1.1
threatened to or used a knife on you?	84	58	23.6**	83	51	26.2**	92	76	0.72	91	65	1.6
threatened to or used a gun on you?	80	62	7.7*	77	56	8.2*	100	77	0.45	86	69	0.21
threatened to hit you with a fist or anything else that could hurt you?	68	51	10.7**	63	44	8.1*	84	67	3	82	53	2.4

Note: * $p < .05$, ** $p < .001$.

Table 3
PTSD Prevalence Rates (Percent with a PTSD Diagnosis)
By Race/Ethnicity and Response on Danger Assessment Scale Items

Danger Assessment Item	Total % N=489			Black % N=341			Latina % N=105			Other % N=43		
	Yes	No	χ^2	Yes	No	χ^2	Yes	No	χ^2	Yes	No	χ^2
Does abuser control most or all of your daily activities?	75	47	36.6**	70	41	26.3**	86	67	4.1*	82	53	2.5
Is abuser violently and constantly jealous of you?	74	49	30.2**	69	42	22.4**	84	68	3.1	87	50	4.9*
Was abuser ever arrested?	68	59	3.2	65	47	7.4*	81	77	0.1	77	56	0.7
Do you believe abuser is capable of killing you?	74	51	24.5**	71	42	26.9**	97	67	9.2**	71	69	0
Does abuser ever try to choke you?	71	55	12.4**	69	41	25**	83	76	0.4	83	58	2
Is abuser drunk every day or almost every day?	73	56	13.5**	68	50	9.7*	85	71	2.1	83	58	2
Does abuser threaten to kill you?	80	52	38.6**	75	45	30.6**	97	67	10.5**	84	61	1.7
Has abuser ever forced you to have sex when you did not wish to do so?	78	53	30.2**	74	47	24.6**	90	70	4.9*	80	64	0.7
Is abuser violent outside the home?	71	58	7.2*	69	51	10.6**	84	73	1.1	63	79	0.7
Has the physical violence increased in severity over the past year?	82	53	41.5**	81	46	37.9**	86	73	1.8	84	61	1.7
Has the physical violence increased in frequency over the past year?	83	53	45.9**	80	47	33.1**	91	69	5.3*	89	58	3.3
Has abuser ever used a weapon or threatened to use a weapon?	79	54	28.6**	76	47	28.9**	88	75	1.2	94	54	5.8*
Does abuser use drugs?	77	56	19.4**	74	49	19.8**	81	76	0.1	86	58	2.8
Have you ever threatened or tried to commit suicide?	80	57	25.1**	76	53	15.0**	93	67	8.8*	75	69	0
Has abuser ever threatened or tried to commit suicide?	74	61	6.1*	71	56	4.6*	90	72	3.2	55	77	1
Has abuser ever been reported for child abuse?	82	63	3	71	58	0.48	86	77	0	100	66	1.4

Note: * $p < .05$, ** $p < .001$.

Table 4
PTSD Prevalence Rates (Percent with a PTSD Diagnosis)
By Race/Ethnicity and Response on Power and Control Scale Items

Power and Control Item: in past year, partner . . .	Total % N=489			Black % N=341			Latina % N=105			Other % N=43		
	Yes	No	χ^2	Yes	No	χ^2	Yes	No	χ^2	Yes	No	χ^2
Insisted on knowing who you are with and where you are at all times.	70	39	29.5**	66	23	34.4**	80	72	0.3	81	46	3.3
Was jealous and didn't want you to talk to other men	66	55	2.6	62	41	5.2*	77	80	0	78	50	1.7
Called you names to put you down or make you feel bad	73	39	44**	67	37	23**	89	46	17.8**	83	42	5.3*
Tried to limit your contact with family or friends	74	48	34.5**	69	41	24.2**	86	65	5.1*	87	52	4.4*
Prevented you from knowing about or having access to family income, even if you ask.	83	45	67.9**	80	39	54.2**	90	66	6.6 *	86	44	5.5*

Note: * $p < .05$, ** $p < .001$.

Not all of the items of the HARASS scale of stalking and harassment are significant for abused African/American women (Table 5). The four items that are not significant for abused African/American women are also not significant for abused Latina or "other" women. Still, five items are of particular importance for Latina women – when the abuser destroyed her belongings, frightened or threatened her friends, frightened or threatened her family, threatened to kill her, or agreed to pay bills but never paid them.

Table 5
PTSD Prevalence Rates (Percent with a PTSD Diagnosis)
By Race/Ethnicity and Response on HARASS Scale Items

HARASS Item	Total % N=489			Black % N=341			Latina % N=105			Other % N=43		
	Yes	No	χ^2	Yes	No	χ^2	Yes	No	χ^2	Yes	No	χ^2
Showed up without warning	71	52	17.3**	68	41	21.4**	82	74	0.5	90	57	4.0*
Destroyed something that belongs to you or that you like very much	77	52	33.3**	73	44	28.5**	92	69	5.7*	82	53	2.4
Followed her	76	53	28.1**	73	43	28.7**	88	73	2.3	86	57	2.9
Called on phone and hung up	68	59	4.0*	66	52	6.7*	83	74	0.4	73	71	0
Sat in car or stood outside house	70	59	5.4*	67	53	5.7*	83	75	0.4	87	63	1.6
Partner scared her with weapon	82	57	25.4**	80	49	27.6**	100	75	2.2	92	62	2.6
Threatened to kills self	73	60	6.3*	67	56	3.2	84	74	1	70	72	0
Frightened or threatened friends	78	59	16.4**	74	52	13.4**	96	73	3.7*	89	67	0.8
Threatened to hurt pet	82	51	12.0**	82	41	12.9**	90	70	0.8	67	77	0
Tried to get her fired from work	79	53	13.4**	77	48	11.0**	100	71	1.5	71	65	0
Frightened or threatened family	87	58	27.6**	82	54	15.3**	100	70	8.6*	90	65	1.2
Threatened to take kids if she left	78	60	7.6*	67	57	0.8	86	72	1.7	78	74	0
Left threatening messages	75	64	5.0*	70	55	3.1	100	77	1.1	90	67	1
Left notes on her car	67	56	0.8	60	47	0.7	100	73	0.6	75	61	0
Threatened to harm kids of she left	79	63	2.3	73	57	1.4	100	77	1.1	50	77	0
Threatened to kill her	80	55	30.6**	76	47	29.0**	97	70	7.6*	79	68	0.1
Agreed to pay certain bills but never paid them	74	55	18.8**	70	49	14.6**	92	71	4.9*	88	60	2.6
Reported drug use to authorities	92	61	18.1**	93	55	19.1**	100	77	0.4	83	69	0

Note: * $p < .05$, ** $p < .001$.

Thus, for the Latina and other group, more specific types of violence were associated with PTSD. Figures 1-3 illustrate the rates of PTSD based on a continuum of violence exposure. In Figure 1, rates of PTSD gradually increase for the African-American group in proportion to the increase level or threat of violence. In Figure 2, rates of PTSD substantially increase in relation to the occurrence of actual violence (slapping/pushing) and remain at an elevated level. In Figure 3, very high rates of PTSD were found for forced sex and being physically assaulted.

Figure 1
Current Rates of PTSD by Level of Traumatic Exposure: African-American Women
N=341

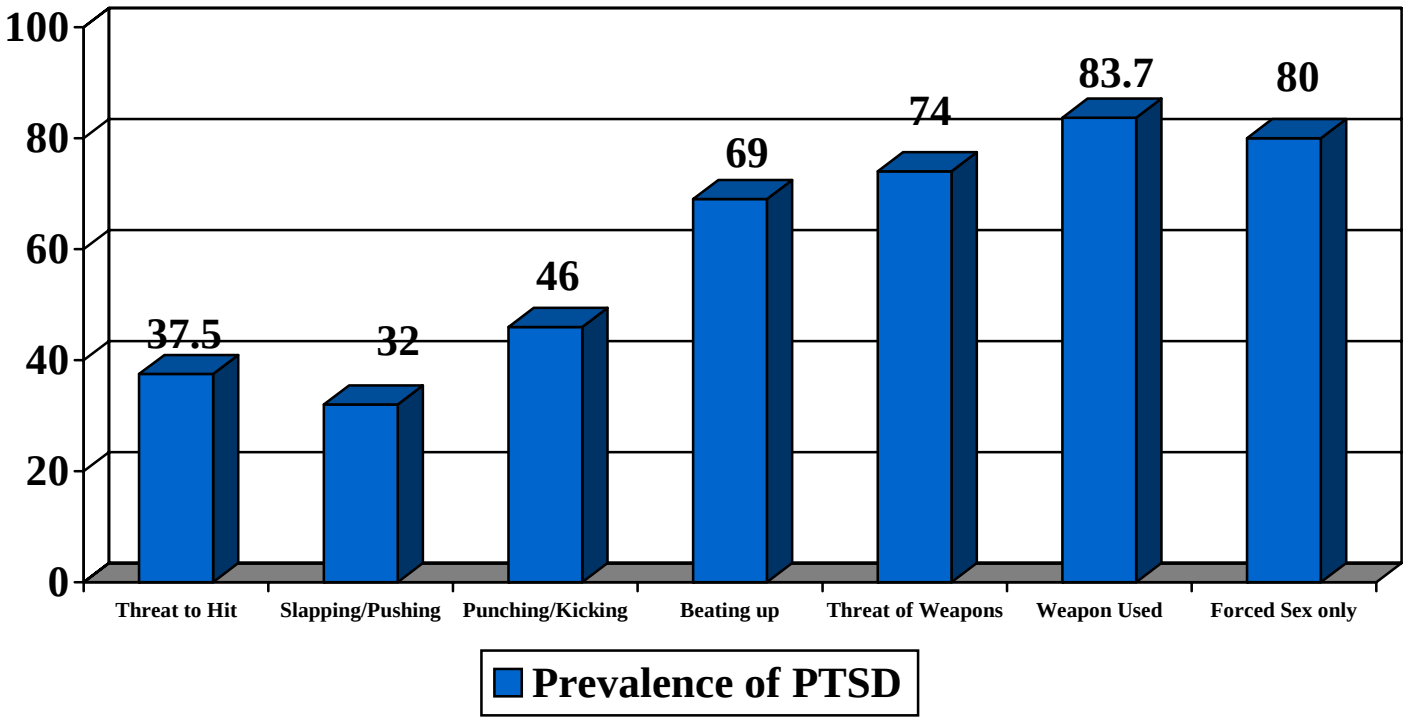


Figure 2
Current Prevalence Rates of PTSD by Level of Traumatic Exposure: Latina Women
N=105

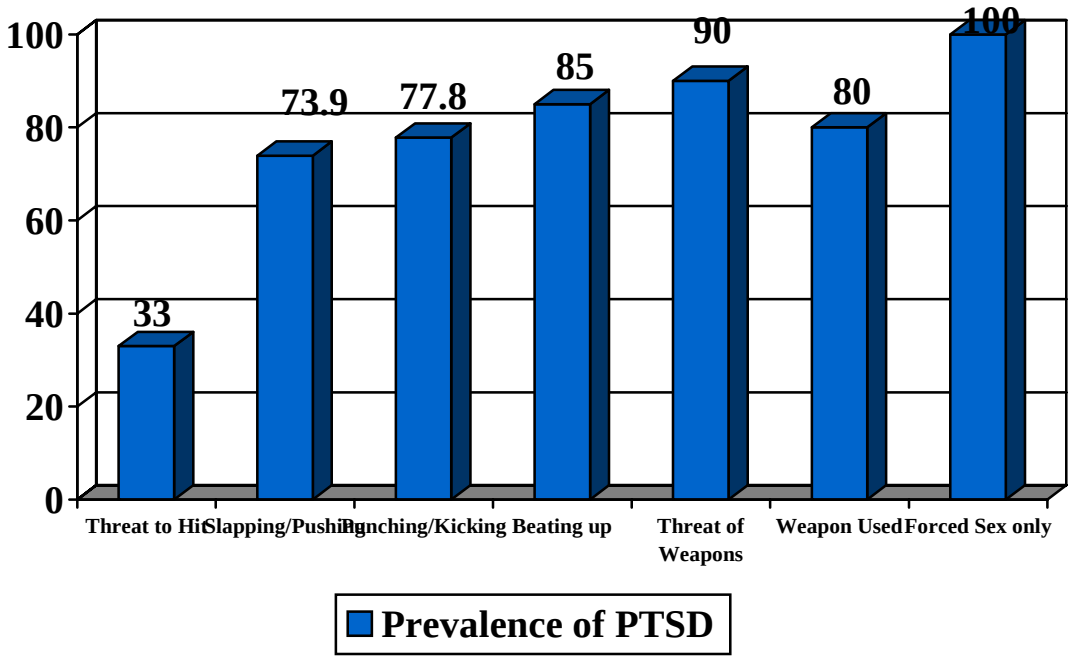
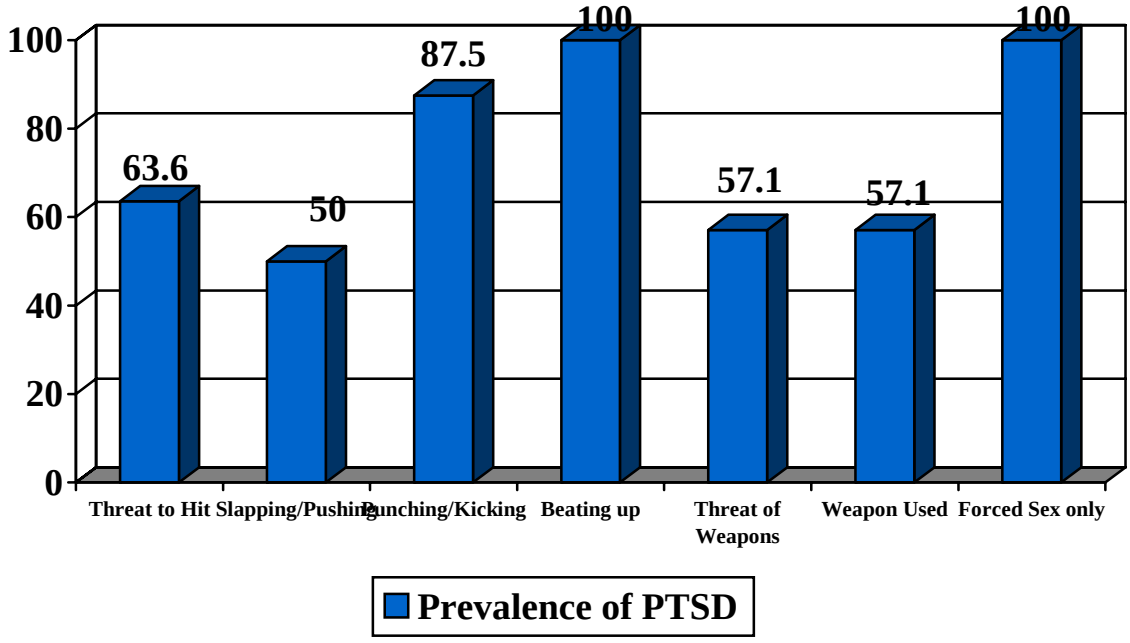


Figure 3
Current Rates of PTSD by Level of Traumatic Exposure: Other Women
N=43



DISCUSSION

One of the main findings of this study was the very high rate of PTSD found across all three ethnic/racial groups. The Latina group showed the highest rate of PTSD. In addition to the high rate PTSD was the high proportion of women who endorsed multiple types of violence ranging from harassment and harassment to threats and physical violence. However, different patterns of response emerged across the three groups in the types of violence associated with PTSD. A exposure-based dose response relationship may best characterize the African-American group. That is, higher rates of PTSD were found proportional to more extreme types of violence (physical and sexual assault). A "threshold effect" may characterize the Latina group, where high rates of PTSD are established lower on the violence continuum, but then remain high across all other types of violence. Finally, the third group (other) demonstrated very high rates of PTSD for sexual assault and being beaten, but no clear linear pattern emerged across the continuum as a whole.

The results of this study demonstrate the high public health risk for women exposed to IPV. In addition, this study demonstrates the strong rationale for routine screening for IPV and PTSD in hospital and primary care clinics. Further, this is the first study to show differing patterns of PTSD across ethnic/racial groups, an area sorely needed in the domestic violence literature.

REFERENCES

Arias, I., & Pape, K. T. (1999). Psychological abuse: implications for adjustment and commitment to leave violent partners. *Violence and Victims, 14* (1), 55-67.

Astin, M. C., Lawrence, K. J., & Foy, D. W. (1993). Posttraumatic stress disorder among battered women: risk and resiliency factors. *Violence and Victims, 8* (1), 17-28.

Astin, M. C., Ogland-Hand, S. M., Coleman, E. M., & Foy, D. S. (1995). Posttraumatic stress disorder and childhood abuse in battered women: comparisons with maritally distressed women. *Journal of Consulting and Clinical Psychology, 63* (2), 308-312.

Bean, J., & Moller, A. T. (2002). Posttraumatic stress and depressive symptomatology in a sample of battered women from South Africa. *Psychological Reports, 90* (3 Pt 1), 750-752.

Brockmeyer, D. M. & Sheridan, D. J. (1998). Domestic violence: A practical guide to the use of forensic evaluation in clinical examination and documentation of injuries. In J. C. Campbell (ed.), *Empowering Survivors of Abuse: Health Care for Battered Women and their Children.* Thousand Oaks, CA: Sage. Pp. 214-226.

Campbell, J. C. (1994). Prediction of homicide of and by battered women. In: Campbell, J. C. (ed.), *Assessing Dangerousness. Violence by Sexual Offenders, Batterers, and Child Abusers*. Thousand Oaks, CA: Sage Publications.

Campbell, J. C., & Lewandowski, L. A. (1997). Mental and physical health effects of intimate partner violence on women and children. *Psychiatric Clinics of North America, 20* (2), 353-374.

Cascardi, M., O'Leary, K. D., Lawrence, E. E., & Schlee, K. A. (1995). Characteristics of women physically abused by their spouses and who seek treatment regarding marital conflict. *Journal of Consulting and Clinical Psychology, 63* (4), 616-623.

Foa, E. B. & Tolin, D.F. (2000). Comparison of the PTSD symptom scale-interview version and the clinician-administered PTSD scale. *Journal of Traumatic Stress*, 13 (2): 181-191.

Humphreys, J., Lee, K., Neylan, T., & Marmar, C. (2001). Psychological and physical distress of sheltered battered women. *Health Care for Women International, 22* (4), 401-414.

Johnson, H. (1996). *Dangerous Domains: Violence against Women in Canada*. Toronto: Nelson Canada.

Johnson H. & Sacco V.F. (1995). Researching violence against women: statistics Canada's national survey. *Canadian Journal of Criminology*, 37(3), 281-304.

Kubany, E. S., McKenzie, W. F., Owens, J. A., Leisen, M. B., Kaplan, A. S., and Pavich, E. (1996). PTSD among women survivors of domestic violence in Hawaii. *Hawaii Medical Journal, 55* (9), 164-165.

Mechanic, M. B., Uhlmansiek, M. H., Weaver, T. L., & Resick, P. A. (2000). The impact of severe stalking experienced by acutely battered women: an examination of violence, psychological symptoms and strategic responding. *Violence and Victims, 15* (4), 443-458.

Nishith, P., Griffin, M. G., & Poth, T. L. (2002). Stress-induced analgesia: prediction of posttraumatic stress symptoms in battered versus nonbattered women. *Biological Psychiatry, 51* (11), 867-874.

Street, A. E., & Arias, I. (2001). Psychological abuse and posttraumatic stress disorder in battered women: examining the roles of shame and guilt. *Violence and Victims, 16*(1), 65-78.

PTSD, FATAL, AND NON-FATAL VIOLENCE
HRWG PARTICIPANTS' DISCUSSION
Recorded by Kim Davies, Augusta State University

Catrien Bijleveld: I have a question about the rates of PTSD. Why is the rate about twice as high among women as compared to men?

Greg Leskin: The main theory is that women are exposed to more interpersonal violence and sexual assault, which equals more bodily injury for women. This is similar to panic disorders. Also biological explanations may play in.

Becky Block: Christine, I want to clarify how we would read the chart on lifetime prevalence of associations with PTSD. It is the percent of men or women exposed to an event and then of those exposed, the percentage that have PTSD.

Christine Mathiesen: Yes.

Dawn Roberts: The practical applications of what we have heard are that the offender may be at risk for PTSD, and then may be at risk to again recommit – so PTSD treatment to avoid further victimization would be a goal wouldn't it?

Christine Mathiesen: Yes, this is consideration. Skill-building and coping skills as well as how to manage stress are key. We need to do more foundation work for offenders.

Kathleen Heide: This question is directed at Claudia. I have two questions about evaluation. First, with offenders on death row, do they have PTSD? And second with Mr. S. whom you spoke about, what is the relationship of PTSD to murder. If it seems the linkage is not there or not direct, then what is point?

Claudia Baker: The intervening circumstance of his violence led to substance abuse and that was followed by homicide. Plus, Mr. S. had a gun pulled on him. In other cases, crime is less directly related to PTSD. The most compelling link is flashbacks.

Becky Block: You mentioned power and control, and this is so important. Holly Johnson found it to be a key for predicting severity of violence in the Canadian Violence Against Women Survey. It may be a good practice to use Holly's "Power and Control" scale when doing intimate partner violence studies. These five questions have shown to be very robust and very important.

Tim Metzger: My question is for Christine. Considering policy or advocate research, this research suggests that PTSD precedes some criminality. Would the policy implication be to help with PTSD before crime?

Christine Mathiesen: Yes, a three-year funded study in Connecticut is being done where they will try to bring in ideas. Stopping cycle with intervention in prison is a start.

Primary, secondary, tertiary interventions are important. Coping strategies, training in elementary schools does seem to help, according to some research. Just figuring this out so that we can support policy is just starting today.

Susan Sorenson: It is important to be cautious that we do not jump to policy too quickly. Remember, women have twice the rate but they do not go on to offend.

Greg Leskin: (Referring to the table on power and control) 70% of those who answered yes to partner "insisting on knowing who you are with and where you are at all times" had a PTSD diagnosis. I emphasized one interesting difference, between the African American, Latina, and other groups, but another important finding is the number of predictors for African American women. There may be subtypes of women in the population.

Mark Riedel: (Referring to page 1 of handout in Greg's study) Why is the number of 31-40 years old so high in this study and why no whites?

Becky Block: The sample of women includes those who went to medical clinics in these areas for whatever reason. We worked diligently on safety and privacy issues and culturally accepted questions in an attempt to find women not known in other studies to be at risk. So the answer is that these are the women who came through the door in these neighborhoods, and were at least age 18 and in a relationship in the past year.

Dick Block: Just women who had suffered intimate partner violence?

Becky Block: No, everyone who came through the door, for a well-baby visit, a pregnancy checkup, or whatever reason. Those who said yes to our screening question for violence in the past year were then interviewed, plus a random sample of women who said no.

Dick Block: What were the levels of PTSD in the control group?

Greg Leskin: 28.8% of the women who screened "non-abused in last year."

Dick Block: Were the same factors found in these women? Such as power and control?

Becky Block: Power and control was much lower in the control group. However, some women in the non-abused control group had been abused before 1 year cut-off – this is a problem with the study.

Thomas Simon: Suicidal versus offending: are these distinct?

Christine Mathiesen: Self-harm versus victimizers. Men were more likely victimizers and women more likely to self harm. But we don't know if we know enough.

Dallas Drake: How do male and female rape victims compare in regard to PTSD?

Greg Leskin: PTSD is higher among men who are raped. It is very high.

Dallas Drake: Yes, why? Any break down by race or whatever?

Greg Leskin: No data is published. Kessler's data is available so someone could do it.

PUBLIC HEALTH APPROACHES AND LETHAL VIOLENCE
PANEL SESSION III, 1:30 PM - 3:00 p.m., June 6, 2003

Moderator: Victoria B. Titterington, Sam Houston State University

Papers:

Recognizing Homicide as a Public Health Threat: Toward an Integration of Sociological and Public Health Perspectives in the Study of Violence, by William Alex Pridemore, University of Oklahoma

Workplace Homicides in California: Comparing Workplace and Other Homicides, by Marc Riedel, Southern Illinois University

Studying The Relationship Between Medical Resources and Homicide Rates in an Urban Community, by Wendy C. Regoeczi, Cleveland State University

Recorder: Thomas A. Petee, Department of Sociology, Auburn University

RECOGNIZING HOMICIDE AS A PUBLIC HEALTH THREAT: TOWARD AN INTEGRATION OF SOCIOLOGICAL AND PUBLIC HEALTH PERSPECTIVES IN THE STUDY OF VIOLENCE

William Alex Pridemore, Davis Center for Russian Studies, Harvard University, and Indiana University Department of Criminal Justice

INTRODUCTION

This introductory and conceptual essay is meant to encourage debate over the potential benefits and drawbacks to this integration, and it follows the lead of recent work that attempts to combine sociology/criminology and health (Kawachi, Kennedy, and Wilkinson, 1999; Mercy and Hammond, 1998; Ross, 1993; Schneiderman, Speers, Silva, Tomes, and Gentry, 2001). The paper begins with an examination of the burden of violence-related morbidity and mortality worldwide, including a discussion of nations and populations with high levels of homicide mortality, and an outline of suspected causes of these high rates. This is followed by a discussion of the advantages provided by the sociological and public health perspectives, some of their often-unrecognized similarities, and the benefits they can provide to each other and to our overall understanding of the causes of violence.

INTEGRATING SOCIOLOGICAL AND PUBLIC HEALTH PERSPECTIVES

The fields of sociology and public health often overlap in their examination of violence. However, each offers unique substantive and methodological contributions to our understanding of the causes of violence and potential interventions that may reduce its harm.

Sociological Criminology

In its study of violence, the main goal of sociological criminology is to develop causal theories from past observations and empirically evaluate their validity. This incremental process creates a better understanding of the underlying causal structure of the variation of homicide rates over time, from place-to-place, and among population groups. Further, although most sociologists are not trained in designing and implementing interventions, many are methodologically equipped to empirically evaluate the efficacy of public health interventions and other policy implementations. Thus, theory construction and testing, together with policy and intervention analysis, might be the main roles for sociologically-oriented criminologists in an integrated approach toward the causes and prevention of violence.

For most sociologists and criminologists, homicide is and always has been understood first and foremost as a crime, not as a health outcome. Much of the substantive knowledge about homicide developed by criminologists and sociologists, however, mirrors that developed by public health researchers and epidemiologists about diseases. For example, both are beginning to more fully recognize multiple levels of causation (see Diez-Roux, 1998) and both often look to the same structural covariates of health out-

comes, such as deprivation and social capital (Kawachi, Kennedy, and Wilkinson, 1999), whether those outcomes are diseases or violent victimizations. Further, where epidemiologists recognize that exposure early in life may lead to higher risks of developing a disease later on, the life course approach of some criminologists and sociologists stresses that what happens earlier in one's life might increase the risk of offending or victimization later in life (see Sampson and Laub, 1993; Widom, 1989).

Public Health

While discussions of violence have appeared in the public health literature for decades, it has been a peripheral topic in the discipline until relatively recently. This is largely the result of our traditional view of violence and homicide only as a crime, and thus as a social rather than a public health concern. However, although "external" in nature, violence-related morbidity and mortality are no less a threat to physical and mental health, and the sources of many other illnesses and deaths studied by epidemiologists are also external and created by humans. The public health perspective's focus on violence and homicide as types of morbidity or mortality (not simply as a crime) has lent a new and rejuvenating approach, especially since a main public health goal is harm reduction, not just scientific knowledge.

Public health has a tradition of focusing on individual risk and protective factors. This is important, because sociologists often have difficulty making the leap from aggregate population features to individual action or victimization. As mentioned above, however, the distribution of the lifestyle and risk factors of individuals are largely socially patterned (see Bobak and Marmot, 1996).Thus, there has been a shift in public health toward realizing the role of the social environment in the incidence and prevalence of morbidity and mortality, including violence (Diez-Roux, 1998). It is obvious that "places in which people live are important for their health" (Siegrist, 2000: 1283) and that there are sizeable differences in health outcomes between and within populations (see Catalano and Pickett, 2000; Macintyre, Maciver, and Sooman, 1993).

Specifically, Mercy and Hammond (1998) list the following as the main contributions of public health to the study of violence:

1. An emphasis on and commitment to violence prevention.
2. Prevention strategies that are based on sound scientific evidence.
3. Acting in an interdisciplinary manner in order to integrate information from several fields and use it to create efficient, cost-effective, and complementary responses.
4. Providing effective health services that mitigate the physical and psychological injuries of victims of violence.
5. Commitment to recognizing the important role of communities in responding to violence.

From this, we see that the public health perspective is action-oriented and its main goal is analysis of scientific evidence in order to improve injury prevention and violence reduction. This goal may be more immediately achievable via the use of traditional public

health tools, even when the exact nature of the causal mechanisms are not completely understood.

SUMMARY AND CONCLUSIONS

This conceptual essay suggests that violence is a serious health threat in many populations and that it has extensive negative physical, emotional, social, and economic consequences. In many nations of sub-Saharan Africa, Latin America, and the former Soviet Union, homicide is among the leading causes death, especially for certain demographic groups. The health burden of homicide in the United States is several times that in other developed market economies, and the risk of homicide for blacks in the country is unacceptable in such a nation. Among some populations, such as African-Americans in the United States, violence has posed a major public health threat for decades, though we are only now recognizing it as such. Among others, such as working-age males in transitional Russia (Pridemore, 2003), homicide and other violence has recently emerged as a heightened health threat. Sociological criminology and public health must work together in order to respond to both types of situations.

Human beings do not behave like atoms (i.e., always acting in the same manner given a seemingly similar set of initial conditions), thus making it difficult to predict homicide at the individual level. Further, human interaction inevitably leads to violent encounters, and thus a baseline homicide rate is to be expected. However, homicide is an external cause of death that exhibits fairly consistent demographic, temporal, and spatial patterns. In other words, homicide is not necessarily a random event, but instead is a patterned cause of death with antecedents that can be empirically determined. It is thus a preventable form of mortality and the burden of violence can therefore be minimized via public health interventions, especially among those populations with high levels of excess mortality resulting from it. It is true that sociologists are theory-oriented and that they deal with social characteristics that many believe are not easily amenable to change. Public health, however, has a history of successfully applying scientific knowledge in order to implement efficacious intervention strategies that involve changing institutional (e.g., food and water safety, product warning labels) and individual behaviors (e.g., seat belt usage, smoking) that are difficult to influence.

Sociological criminologists can reveal patterns of homicide and discover how they covary with group-level processes and social structural conditions, thereby better understanding its causal structure. Further, the traditionally interdisciplinary approach of public health provides the tools to discover both individual and social risk and protective factors and to develop effective intervention strategies that can reduce the public health burden of violence. As scientists, sociologists and criminologists should be conservative in their claims about the underlying causal mechanisms of higher homicide rates. However, much like the original battles against certain diseases (e.g., tuberculosis and AIDS), public health officials do not need to wait for decades to understand exactly the causal mechanism of the threat, but can observe the most proximate risk factors and respond to them appropriately in order to diminish the consequences, while at the same time providing clues to causes. This enables us to reduce the risk of lethal violence in the short-

term while attempting to understand the underlying causal mechanisms more fully in the long-term. In sum, despite difficulties in doing so, an integration of the sociological/ criminological and public health perspectives should be synergistic, allowing us to improve our understanding of and response to the heavy burden of homicide and other types of violence.

REFERENCES

Bobak, M. & Marmot, M. (1996). East-West mortality divide and its potential explanations: Proposed research agenda. *British Medical Journal, 312,* 421-425.

Catalano, R. & Pickett, K. E. (2000). A taxonomy of research concerned with place and health. In G. L. Albrecht, R. Fitzpatrick, & S. C. Scrimshaw (eds.), *The handbook of social studies in health and medicine* (pp. 60-82). London: Sage.

Diez-Roux, A. V. (1998). Bringing context back into epidemiology: Variables and fallacies in multi-level analysis. *American Journal of Public Health, 88,* 216-222.

Kawachi, I., Kennedy, B. P., & Wilkinson, R. G. (1999). Crime: Social disorganization and relative deprivation. *Social Science and Medicine, 48,* 719-731.

Macintyre, S., Maciver, S., & Sooman, A. (1993). Area, classes and health: Should we be focusing on places or people? *Journal of Social Policy, 22,* 213-234.

Mercy, J. A. & Hammond, W. R. (1998). Combining action and analysis to prevent homicide: A public health perspective. In Smith, M. D. & Zahn, M. A. (eds.), *Homicide: A sourcebook of social research* (pp. 297-310). Thousand Oaks, CA: Sage Publications.

Pridemore, W. A. (2003). Demographic, temporal, and spatial patterns of homicide rates in Russia. Forthcoming in *European Sociological Review, 19*, 41-59.

Ross, C. E. (1993). Fear of crime and health. *Journal of Quantitative Criminology, 9,* 159-175.

Sampson, R. J. & Laub, J. H. (1993). *Crime in the making: Pathways and turning points through life*. Cambridge, MA: Harvard University Press.

Schneiderman, N., Speers, M. A., Silva, J. M., Tomes, H., & Gentry, J. H. (Eds.). (2001). *Integrating behavioral and social sciences with public health*. Washington, DC: American Psychological Association.

Siegrist, J. (2000). Place, social exchange and health: Proposed sociological framework. *Social Science and Medicine, 51,* 1283-1293

Widom, C. S. (1989). The cycle of violence. *Science, 244,* 160-166.

WORKPLACE HOMICIDES IN CALIFORNIA: COMPARING WORKPLACE AND OTHER HOMICIDES

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ABSTRACT

In the public health literature, workplace homicides have been studied and prevention approaches suggested and implemented. The present study compares workplace homicides to other homicides using a California data set where law enforcement and vital statistics have been linked on a case-by-case basis. Using hypotheses drawn from public health research, indications are that workplace homicides more frequently involve robberies and strangers, older and better educated victims, more than one victim, nonwhites, handguns and firearms. Females are also more likely to be killed by knives.

INTRODUCTION

In 2000, the Bureau of Labor Statistics recorded 671 homicides in workplaces in the United States. Although this figure represents a 38% decline from a high of 1,080 in 1994, homicide remains the third leading cause of fatal occupational injuries for all workers and the second leading cause of fatal occupational injuries for women (Bureau of Labor Statistics, 2003). For all workers, motor vehicle accidents were the most frequent cause followed by machine-related injuries while for women, motor vehicle accidents were the most frequent cause of fatal occupational injuries.

While the frequencies for workplace homicides are small in comparison to other homicides, there are a number of reasons for additional research. First, providing accurate information for media coverage becomes important because, of all work related fatalities, workplace homicides are characterized as intentional and attract the most media attention (Sygnatur & Toscano, 2000). Second, workplaces are relatively controlled environments and offer a valuable opportunity for implementing prevention efforts (Stout, Jenkins, & Pizatella, 1996).

Third, research approaches used by criminologists and criminal justice researchers are different from those used by public health researchers and practitioners which offers the possibility of replication as well as additional findings. Public health practitioners and scholars rely on death certificates as well as other victim-based data to focus on the larger problem of preventing occupational injuries and fatalities (Riedel & Welsh, 2002). By contrast, criminological researchers rely on police-based data which makes possible comparison among different kinds of homicides, homicide victims, and offenders. Police-based homicide data typically does not indicate whether the fatality was job related (Riedel, 1999).

Ideally there should be substantial overlap between death certificates and police generated data, such as the Supplementary Homicide Reports (SHR), which would make the study of workplace homicides in comparison to both occupational fatalities or other

homicides a relatively simple matter. Agreement between the two data sets is limited: a review of the literature by Riedel and Regoeczi (2002) has concluded that the smaller the unit of comparison, ranging from the nation to over 3,000 counties, the greater the disagreement.

The inability to link together death certificate and SHR has drawn the attention of agencies interested in workplace homicides. In July, 1990, the National Institute for Occupational Safety and Health (NIOSH) convened a panel of experts in interpersonal violence to review NIOSH data, primarily death certificates, to identify areas of concern and make recommendations. One recommendation was that data from National Traumatic Occupational Fatalities, the NIOSH data, be linked with the SHR. A second recommendation was that workplace homicides need to be compared to other types of homicides (NIOSH, 1992).

This study is an attempt to meet both recommendations. The first recommendation is met through use of a recently available data set created by Roger Trent and his associates that links on a case-by-case basis vital statistics (VS) and SHR data in California for the years 1990-1999.[1] The second recommendation is met through comparisons between workplace and other homicides using variables that have been identified as characterizing workplace homicides. Thus, the relationship of women, older victims, Latino, and Asian victims will be compared to other homicides.

WORKPLACE AND OTHER HOMICIDES

Workplace homicide is included under the broader definition of workplace violence: "violent acts, including physical assaults and threats of assaults, directed toward persons at work or on duty" (NIOSH, 1996 p. 1). Figure 1 compares total homicides (murders and nonnegligent manslaughters) to workplace homicides from 1992 through 2000. Total homicides declined from 23,760 in 1992 to 15,517 in 2000. Workplace homicides declined from 1,044 in 1992 to 677 in 2000; in both series, the decline was 35%.

To make the two series comparable in Figure 1, the frequencies were converted to z-scores. Although the annual frequency of total homicides is over 22 times the number of workplace homicides, the two series are parallel for nine years. While workplace homicides reached a peak in 1994 and remained higher than total homicides until 1997, they are slightly lower for the last three years of the series. Generally, workplace homicides are about 4.5% of all homicides with very little variation ($\sigma = 0.23$).

I was not able to find any research comparing workplace and other homicides, so the following focuses on characteristics of workplace homicide. While some sections of the following literature review are meant to be informative, other sections are used to raise hypotheses for this study.

[1] California Department of Health Services, Epidemiology and Prevention for Injury Control (EPIC) Branch, Violent Injury Surveillance Program. Linked Homicide File, 1990-1999. October 2001.

Figure 1

Total and Workplace Homicides (Z-Scores):

United States, 1992-2000

Year of Murder

*www.ojp.usdoj.gov/bjs/homicide/tables/totalstab.htm

**http//data.bls.gov/servlet/SurveyOutputServlet

REVIEW OF THE RESEARCH LITERATURE

Classification of Workplace Homicides

There are a number of overlapping classifications of workplace violence and homicides because a workplace or occupation may be subject to more than one type. For example, the University of Iowa sponsored a violence intervention workshop in which 37 experts from around the United States delineated four different types of workplace violence (University of Iowa Injury Prevention Center, 2001). Kraus, Blander, and McArthur (1995) describe five classifications of workplace homicides provided by the Bureau of Labor Statistics.

The classification used here was developed by the California Department of Industrial Relations available in the *Cal/OSHA Guidelines for Workplace Security*, (1995). This classification consists of three major types of workplace homicides.

Type I Criminal Acts

The agent has no legitimate business relationship to the workplace and usually enters the affected workplace to commit a robbery or other criminal act (p. 6).[2] Estimates

[2] Page numbers refer to California Department of Industrial Relations (1995), *Cal/OSHA guidelines for workplace security*. Retrieved May, 2003, from http://www.dir.ca.gov/dosh/dosh%5Fpublications/worksecurity.html.

of robberies and criminal acts from state and national studies done in the nineties range from 37% in Texas in 1991 to 82% for the US in 1992 (Kraus et al., 1995).

The typical situation involves a person entering a small late-night retail establishment, e.g., liquor store, gas station or a convenience food store, to commit a robbery. During the commission of the robbery, an employee or, more likely, the proprietor is killed or injured.

Employees or proprietors who have face-to-face contact and exchange money with the public, work late at night and into the early morning hours, and work alone or in very small numbers are at greatest risk of a Type I event. While the assailant may feign being a customer as a pretext to enter the establishment, he or she has no legitimate business relationship to the workplace (p. 7).

Based on the following, the first hypothesis states that robberies will be more common among workplace homicides than among other homicides. In addition, since robberies are committed predominantly by strangers, the second hypothesis is that victims will be strangers to their offenders more often in workplace homicides than in other homicides.

Hypotheses

1. Robberies will have a significantly greater likelihood of occurring in workplace homicides than in other homicides.
2. Stranger relationships will have a significantly greater likelihood of being present in workplace homicides than other homicides.

Type II Dangerous Jobs

In Type II events, the agent is either the recipient, or the object, of a service provided by the affected workplace or the victim, e.g., the assailant is a current or former client, patient, customer, passenger, criminal suspect, inmate or prisoner (p. 6). Estimates from studies in the nineties range from 21% in Texas to four percent for the US in 1992 and 1993 (Kraus et al., 1995).

Type II events involve fatal or nonfatal injuries to individuals who provide services to the public. These events involve assaults on public safety and correctional personnel, municipal bus or railway drivers, health care and social service providers, teachers, sales personnel, and other public or private service sector employees who provide professional, public safety, administrative or business services to the public.

Law enforcement personnel are at risk of assault from the "object" of public safety services (suspicious persons, detainees, or arrestees) when making arrests, conducting drug raids, responding to calls involving robberies or domestic disputes, serving warrants and eviction notices and investigating suspicious vehicles. Similarly, correctional personnel are at risk of assault while guarding or transporting jail or prison inmates (p. 7).

Type III Personal Relationships

In Type III events, the agent has some employment-related involvement with the affected workplace. Usually this involves an assault by a current or former employee, supervisor or manager; by a current/former spouse or lover; a relative or friend; or some other person who has a dispute with an employee of the affected workplace (p. 6). While "going postal" in the popular lexicon refers to employees going on a rampage and killing a number of their fellow employees and/or supervisors, this is a very small percent of workplace homicides. Type III events account for a smaller amount of workplace homicides than Type I or Type II events. Kraus, et al. (1995) in their review found that Type III events account for from eight percent to 13% of workplace homicides.

Most commonly, the primary target of a Type III event is a co-employee, a supervisor or manager of the assailant. In committing a Type III assault, an individual may be seeking revenge for what he or she perceives as unfair treatment by a co-employee, a supervisor or a manager. Increasingly, Type III events involve domestic or romantic disputes in which an employee is threatened in their workplace by an individual with whom they have a personal relationship outside of work.

Even though incomplete, existing data indicate that the number of Type III events resulting in nonfatal injury, or in no physical injury at all, greatly exceeds the number of fatal Type III events. Indeed, the most prevalent Type III event may involve threats and other types of verbal harassment (p. 8).

For the fourth hypothesis, altercations may be the causal factor in either Type II or Type III events. Clarification is found in the research reviewed by Santana and Fisher (2002). They reviewed several studies that indicate females are more frequently victimized by intimates or individuals they know. The conflict occurring in their lives outside of work is brought into the workplace which would indicate Type II events.

Hypotheses

3. Altercations will have a significantly greater likelihood of being present in workplace homicides than in other homicides.
4. A variable measuring interaction between females and circumstances, female/altercations, will have a significantly greater likelihood of being present in workplace homicides than in other homicides.

Gender

Males are more frequently the victim of workplace homicides than females. Duhart (2001) found 81% of the victims of workplace homicides from 1993 through 1999 were males and 19% were females. While males are still the majority victims in criminal homicides (75.5%), there is a higher proportion of female victims in criminal homicides (24.4%) than in workplace homicides (Riedel & Welsh, 2002).

Using work-related gender-specific rates for eight studies, Kraus, et al. (1995) found that male workplace homicide rates were from three to five times greater than female rates. However, proportionate mortality due to homicide is much higher for females than for males. While from 10% to 30% of all male work-related fatal injuries are homicides, from 40% to 57% of female work-related fatal injuries are due to homicides.

All the research reviewed by Kraus et al. (1995) is consistent in finding that over 70% of work-related homicides involve firearms. Stabbing or the use of sharp or piercing objects is second, while blunt objects are used much less frequently.

There appears to be a gender difference with respect to weapon used. Males and females are victimized most frequently by firearms but females are killed disproportionately more often by cutting or stabbing instruments. Kraus (1987) found in California that 80% of males and 62% of females were killed by firearms. On the other hand, 12% of males and 23% of females were killed by cutting or stabbing instruments.

Hypotheses

5. The likelihood of female victims will be significantly greater for other homicides in comparison to workplace homicides.
6. Handguns will have a significantly greater likelihood of being used in workplace homicides than in other homicides.
7. Females will have a significantly greater likelihood of being killed by stabbing in workplace homicides than in other homicides.

Race/Ethnicity

Kraus, et al. (1995) note in their review of the literature that there is relatively little information on incidence of workplace homicide for racial and ethnic groups. Probably because most of the US population is white and more white people are employed than minorities, it is no surprise that 72.9% of victims from 1980 through 1992 were white (National Institute for Occupational Safety and Health, 1996).

Research from the period 1980-1985 indicated that nonwhite rates were 1.8 times higher than white rates. Black rates were 2.4 times higher than white rates. Rates for specific minorities other than black indicate higher rates of workplace homicides. Among Texas males, Davis (1987) found that black males had a homicide victimization rate 1.7 times greater than white males while Hispanic workers had victimization rate 1.3 times the white rate.

Sygnatur and Toscano (2000) and Toscano and Weber (1995) found blacks, Hispanics, Asian-Americans, and other minorities have a higher workplace homicide risk than their proportions in the workplace would indicate. For example, Hispanics are one-sixth of all workplace homicides which is double their share in the workforce. Immigrants to the United States were 22% of homicide victims, but only nine percent of employed.

There are two reasons for the disproportionate representation of minorities in workplace homicides. First, they are employed in occupations that carry a high risk of homicide victimization. These include taxi drivers, clerks, managers, and proprietors of small businesses.

Second, there are many discussions of how workplace homicides and violence can be reduced by situational crime prevention strategies (Clarke, 1998; Gill, Fisher, & Bowie, 2002; Heskett, 1996; Kelleher, 1996). It is unreasonable to suppose these prevention techniques are, or can be, equitably distributed over the huge variety of workplaces. There are many businesses that rely on employees that require little training and are poorly compensated which tend to attract members of racial groups with few occupational resources. For example, convenience stores and gas stations require employees with little training and remain open at times when there are few or no guardians.

Hypothesis

8. Nonwhites in comparison to whites will have a greater likelihood of being the victim of workplace homicides than other homicides.

Age

As a general rule, workplace homicide rates tend to increase steadily until age 65 and older (Kraus et al., 1995). Duhart (2001) found for the period 1993-1999, 26% of the victims were 35-44 years of age, 25% were 25-34 years, and 20% were 45-54 years of age. For California between 1979-1981, Kraus (1987) found the highest rate of workplace homicides in the ages between 30-64.

Beginning at age 65, victimization rates show a sharp increase. For example, NIOSH (1995) found that nearly half of the workplace homicides occurred between ages of 25 to 44, but workers 65 years and older had the highest rate of workplace homicides (2.0 per 100,000). Davis (1987) found Texas males 65 years of older had homicide rates 3.5 times that of males under 65.

What is noteworthy is that the percent of workplace victims over the age of 65 is small. Howe (1994) found six percent of males and four percent of females were workplace homicide victims. Similarly, Duhart (2001) found only six percent of workplace victims were 65 years or over.

The difference seems to be that the sharp increase in rates reflect age-specific work-related calculations while the percentages are simple proportions of the total. Whether the difference is accounted for by different measures, it suffices to say that older victims may have a higher death rate because they have lower chances of survival for wounds.

Hypotheses

9. Workplace homicide victims will have a significantly greater likelihood of being older than victims of other homicides.
10. Workplace homicide victims will have a significantly greater likelihood of being 65 years or older in comparison to other homicide victims.

Education and Number of Victims

I was unable to find any research on workplace homicides that described level of education. On the one hand, it might be suggested that having some college education would be associated with managers and administrators. Because managers and administrators are at low risk for workplace victimization, the odds of a college education would be higher for other homicides than for workplace homicides. On the other hand, victims of other homicides comparison are younger which would suggest that higher education should be related to workplace homicides. Because the research literature does not suggest a direction, the null hypothesis will be used.

None of the research reviewed on workplace homicides discussed the number of victims. This may be a consequence of the available data which are victim-based rather than event-based. Because the research does not suggest a direction, null hypotheses are used.

Hypotheses

11. The likelihood of victims having some college education is not significantly greater for workplace in comparison to other homicide victims.
12. The likelihood of more than one victim is not significantly greater for workplace homicides in comparison to other homicides.

METHOD

The process of merging Supplementary Homicide Reports (SHR) and vital statistics (VS) is described in detail in the documentation provided by the Epidemiology and Prevention for Injury Control (EPIC) Branch, Violent Injury Surveillance Program. Complete documentation is provided with the data set.

The SHR data set consisted of 34,584 homicides investigated and reported to the California Criminal Justice Statistics from 1990-1999. The Department of Health Services provided the death records on a death statistical master file. Because the goal was to link as many death records as possible to the homicide file, all 170,111 injury deaths (E800.0 - E999.9) from 1990-1999 were used.

Integrity, formerly known as Automatch, was used to achieve the linkage between the two data sets. Integrity is a probabilistic linkage program that uses selected variables to link cases from the two data sources and assigns a final probability to the success of

the linkage. Including the automated and manual linking that was done, 32,163 cases of the 34,584 cases were matched for a matching rate of 93%. 2,421 cases were designated homicides by law enforcement, but could not be matched — so only SHR data are available for those cases. Complete details of the matching process are available in the documentation.

I excluded 2,421 unlinked cases which left 32,163 cases of workplace and other homicides. Cases were also excluded where it was unknown or missing whether the injury occurred at work, manslaughters, justifiable homicides and cases where victims were listed as less than 12 years of age. This left a file of 1,239 workplace homicides and 27,385 other homicides. I took a random sample of 2000 cases from the 27,385 and merged it with 1,239 workplace homicides to create an analysis file of 3,239 cases.

Definition of Variables

The dependent variable was whether the homicide occurred in the workplace, coded (1), or elsewhere, coded (0).

Circumstances: robberies; other felonies (*rape, burglary, larceny, motor vehicle theft, arson, prostitution and commercial vice, other sex offenses, narcotics, gambling, other and suspected felonies*); altercations (*lovers triangle, brawls, arguments, domestic violence*); and other nonfelonies (*institutional killings, sniper attacks, gang and gangland killings, other nonfelonies*). Other felonies were the reference category.

Victim/offender relationship: intimate relationships (*husband, wife, CL husband, CL wife, boyfriend, girlfriend, ex-husband, ex-wife, homosexual relationship*); other family (*mother, father, son, daughter, brother, sister, in-law, stepfather, stepmother, stepson, stepdaughter, other family*); other known to victim (*neighbor, acquaintance, employee, employer, friend, gang member, other known to victim*); and strangers. Other known was the reference category.

Victim gender: coded (0) for males and (1) for females.

Weapons: handguns, other firearms (*other firearms, rifle, shotgun*), knives or other cutting or stabbing instruments, other weapons (*blunt objects, hands, feet, poison, drugs or narcotics, rope or garrote, arson or fire, explosion, asphyxiation, other*). Other weapons were the reference category.

Victim race/ethnicity: white; Latino; black; Asian (*Chinese, Japanese, Filipino, Asian, Cambodian, Korean, Laotian, Vietnamese*); other races (*Native American, Samoan, Hawaiian, Pacific Islander, other*). Latino victims were the reference category.

Victim age: continuous variable log transformed to remove skewness.

Binary age: victims age 65 and older were coded (1) and victims less than 65 were coded (0).

Victim education: more than 12 years of education was coded (1) and less than college was coded (0).

Number of victims: coded (0) for one victim and (1) for more than one victim

Because the research literature indicated a relationship between female victims and the use of knives, a series of binary variables were constructed with females and knives coded (1) and males and other weapons coded (0). The same was done with females and males and handguns, firearms, and other weapons. For the same reason, a series of variables measuring gender and altercations, robberies, other felonies, and other nonfelonies were constructed.

RESULTS

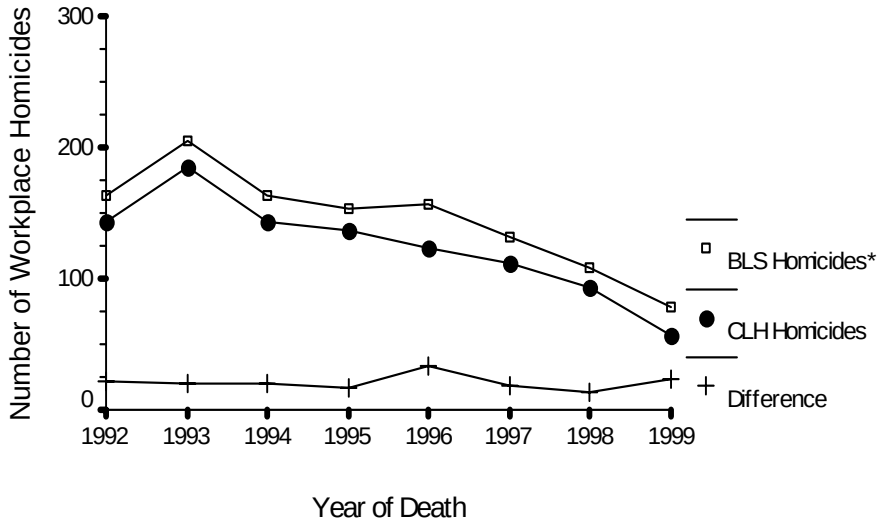
Trends in California

Kraus (1987) reported that only 30% of 466 work related homicides recorded on death certificates could be found in the state Occupational Safety and Health agency. Because of possible discrepancies, workplace homicides reported in the CLH file were compared to data available from California Bureau of Labor Statistics. Figure 2 shows that the Bureau of Labor Statistics consistently report more workplace homicides than the CLH file. The bottom line in Figure 2 indicates the difference between the two series. Except for 1996 and 1999, which showed a larger increase in BLS homicides, the difference is approximately 20 cases ($\bar{x}$ = 20.9, σ =5.6).

Figure 2

Comparing BLS and CLH Workplace Homicides:

California, 1992-1999



*California Divison of Labor Statistics and Research

There are two reasons for the difference in the two series. There may be differences in the definition of workplace homicides used by BLS from that used in vital statistics. What seems more likely is that the annual number of missing cases may be among those where data were missing as to whether the injury occurred at work or the missing cases may be among the over 2,000 cases that were not matched.

Logistic Regression

Table 1 gives the logistic regression with the dependent variable of whether the homicide occurred in the workplace or elsewhere. To determine model fit, the BIC' statistic was used, which was -889.77 indicating an acceptable fit. The following section will discuss the results of the logistic regression.

Table 1
Logistic Regression Analysis of Workplace and Criminal Homicides

Variable	B	S.E.	Odds Ratio
Circumstances - Robberies	1.193***	0.214	3.296
Other Nonfelonies	-0.638**	0.201	0.528
Altercations	-0.036	0.240	0.964
Relation - Intimate Partners	-1.007***	0.267	0.365
Other Family	-0.442	0.298	0.642
Stranger	0.327***	0.131	2.527
Female by Altercations	1.352**	0.488	3.867
by Robbery	0.058	0.576	2.882
by Other Nonfelonies	0.691	0.600	1.995
Gender - Female	-1.611**	0.536	0.199
Weapons - Handguns	0.871***	0.229	2.391
Firearms	1.124***	0.287	3.079
Knives	0.212	0.285	1.237
Female by Knives	1.599**	0.571	4.947
by Handguns	0.971*	0.465	2.640
by Firearms	1.061	0.676	2.892
Race - White	0.598***	0.140	1.818
Black	-0.7727**	0.166	0.483
Asian	1.178***	0.245	3.250
Other	1.503***	0.281	4.493
Victim Age	3.630***	0.373	1.877
Education - College	0.920***	0.129	2.510
No. of Victims - More Than One	0.571***	0.175	1.770

*p < .05
**p < .01
***p < .001

Type I Criminal Acts

The first and second hypotheses were supported. Consistent with previous research, workplace homicides most commonly involve robberies. In comparison to other felonies, being victims of robberies increases the odds of workplace homicides by a factor of 3.296. In the bivariate comparison, 54.0% of 1136 workplace homicides and 11.4% of 1723 other homicides involved robberies.

By contrast, being the victim of other nonfelonies decreases the odds of workplace homicides by a factor of 0.528. Bivariate comparisons indicated that only 7.9% of other nonfelonies involved workplace homicides in comparison to 32.6% of other homicides.

Stranger relationships are also more common in workplace homicides. The second hypothesis is supported in that strangers increases the odds of a workplace homicide by 2.527. Bivariate analysis indicated that 69.0% of workplace homicides involve strangers while 32.0% characterized other homicides. The odds of intimate partners being involved in workplace homicide decreases by a factor of 0.365.

Type III Personal Relationships

Hypotheses 3 is not supported. The hypothesis of altercations as a cause of workplace homicides is possible with both Type II and Type III violence, but the coefficient is not significant. The bivariate analysis indicates that altercations are more frequent in other homicides: 28.4% of workplace homicides and 43.4% of other homicides involve altercations.

Hypothesis 4 was meant to test whether personal relationships outside of work would lead to workplace homicides for women. The variable of female/altercations does increase the odds of workplace homicides by a factor of 3.867. The difficulty with positing intimate partners as assailants is that it is not consistent with two other findings in Table 1. First, the variable of intimate partners decreases the odds of workplace homicides by a factor of 0.365. Second, the variable of altercations was not significant. It's possible that psychologically unstable persons may be more likely to provoke altercations with women than men. The crosstabulation shows the percentage of workplace women who die from altercations is smaller (6.6%) then those who die from altercations in other homicides (9.1%).

Gender

The fifth hypothesis indicated that the odds of female victims would be significantly greater for other homicides compared to workplace homicides. This hypothesis was supported with an odds ratio of 0.199. Cross tabular analysis indicates that 14.8% of females were workplace homicide victims compared to 16.1% of females who were victims of other homicides. The sixth hypothesis was supported in that handguns increases the odds of workplace homicides by a factor of 2.391. Similarly, firearms increases the odds of workplace homicides by a factor of 3.079. Bivariate analysis

indicated that 73.8% of workplace homicides and 65.6% of other homicides involved handguns. Likewise, 10.0% of workplace homicides and 9.6% of other homicides involved firearms.

Drawing on a single study that suggested women were more frequently attacked by knives, it appears that the seventh hypothesis is supported. The variable female/ knives increases the odds of workplace homicides by a factor of 4.947, one of largest odds ratios in Table 1. Bivariate analysis indicates that there is only a small percentage difference between workplace females attacked by knives (2.2%) and those who are victims of other homicides (2.1%).

Race/Ethnicity

Hypothesis 8 is given partial support in Table 1. Compared to Latino victims, whites, Asians, and members of other races increases the odds of workplace homicides by factor that ranged from 3.250 for Asians to 4.493 for members of other races. Not supporting hypothesis 8 is the result that black victims decreases the odds of workplace homicides by a factor of 0.083. While whites, Asians, and other race/ethnic group have higher percentages of workplace homicides, blacks have a higher percentage of other homicides (29.2%) than workplace homicides (10.2%).

While the odds for white victims were high, the odds for Asians and other races were even higher. Asians and members of other race/ethnic groups may be targeted more frequently because they work at locations and times that make them more vulnerable to attack.

Age

To test hypothesis 9, the logarithm of victim ages was taken because of skewness. Rather than using a unit change in a continuous variable, the odds ratios reflect a change in the standard deviation of the logged victim age (Long & Freese, 2001).

Thus, for a standard deviation increase in the log of the victim age, the odds of being a workplace homicide victim increases by 1.877, holding other variables constant. Workplace homicide victims are significantly older than other homicide victims: the mean age of workplace homicides was 39.9 compared to 30.2 for other homicide victims.

Previous research has indicated that there is a significantly greater likelihood of workplace homicide victims over the age of 65. A second logit was run by substituting for the continuous variable of age a binary variable in which victims 65 and over were coded (1) and those younger than 65 were coded (0). The logit coefficient and odds ratio were not significant which does not support hypothesis 10.

To explore the contradictory finding between this study and previous research that showed persons over 65 had much higher rates of victimization, the age distributions of workplace and other homicides were plotted. While it may be true with age-specific work-

related rates, plotted ages do not show any sharp increase of workplace homicides after age 65. Indeed, at about that age, the distributions of workplace and other homicides become very similar. Since most homicides are committed by firearms, the similarity of the distributions for workplace and other homicides for those over 65 suggest that it is not location, but survivability: older people are less likely to survive an attack.

Education and Number of Victims

The final two hypotheses were stated in null form because of the absence of research literature to suggest a direction. Workplace homicide victims are not only older, they are better educated. Hypothesis 11 is rejected because having some college increases the odds of workplace homicides by 2.510. For workplace victims, 41.7% had some college while this was true for only 15.4% of other homicide victims.

The final hypothesis stated in null form (hypothesis 12) was rejected. More than one victim increases the odds of workplace homicides by a factor of 1.770. Almost 13% of workplace homicides involved more than one victim; this was true of only 9.5% of other homicides. Give the nature of work settings, there are usually more than one person around which makes multiple targets available. While focusing on violence rather than homicides, Planty (2002) found a third party presence at work during a violent crime in 74.5% of victimizations.

CONCLUSIONS

This study compared workplace and other homicides using a data set that merged law enforcement and vital statistics data for California from 1990-1999. The following conclusions are supported.

First, The research presented here on gender is consistent with previous research on one finding: males are clearly in the majority for both workplace and other homicides. However, this study suggests that the percent of males is larger and percent of females smaller in workplace in comparison to other homicides.

Second, while rates of workplace victimization are low for women, it is the second leading cause of workplace homicides. The results in this study suggest there is a pronounced gender component to workplace homicides. While both genders are victims of firearms, women have a greater likelihood of being attacked by knives. In addition, women also have a greater likelihood of being victims of workplace homicides as a result of altercations. While it could be suggested that both these findings reflect conflicts that originated outside the workplace involving, for example, intimate partners, our results indicate that intimate partners have a decreased odds ratio for workplace homicides and altercations is not a significant variable. While this study indicates the importance of gender, it serves to highlight the issue rather than resolve it.

Third, while whites have a greater likelihood of being the victims of workplace homicides, Asians and other racial groups, except blacks, have an even greater likeli-

hood. The larger odds ratios of nonwhite groups probably reflects a greater involvement in occupations, such as taxi drivers, that carry a high risk of lethal violence or work in locations that offer little security against attacks.

Fourth, it is clear from Table 1 that workplace victims are older. In a bivariate comparison, it appeared that workplace victims had a mean age that was approximately ten years older than victims of other homicides.

In a review of the research literature on work-related assault, Kraus, et al. (1995 p. 367) stated that the

> "public health literature of the past decade has suggested that two employed populations are at extreme risk of homicide while at work: women and men at least age 65."

While I agree that women are at extreme risk, the research reported here does not support that males over 65 are at extreme risk of workplace homicide. Not only did the logit not support that contention, but plots of frequency distributions of ages of workplace and other homicides shows that the incidence of homicide is about the same for men age 65 and over. What the distributions do suggest is that males over age 65 are less likely to survive a violent attack regardless of the location.

Finally, that some college education increases the odds of workplace homicides is probably not surprising given that workplace homicide victims tend to be older and more likely to avail themselves of additional education to improve occupational opportunities. The finding that more than one victim increases the odds of workplace homicides is not discussed in the research literature, but workplaces typically contain several people who may be victimized.

REFERENCES

Bureau of Labor Statistics (2003). *Census of Fatal Occupational Injuries*. Retrieved May, 2003, from http://data.bls.gov/servlet/SurveyOutputServlet.

California Department of Industrial Relations (1995). *Cal/OSHA Guidelines for Workplace Security*. Retrieved May, 2003, from http://www.dir.ca.gov/dosh/dosh% 5Fpublications/worksecurity.html.

Clarke, R. V. (Ed.) (1998). *Situational Crime Prevention: Successful Case Studies* (2nd ed.). Albany, NY: Harrow and Heston.

Davis, H. (1987). Workplace homicides of Texas males. *American Journal of Public Health, 77*, 1290-1293.

Duhart, D. T. (2001). *Violence in the Workplace, 1993-99* (No. NCJ 190076): Bureau of Justice Statistics.

Gill, M., Fisher, B., & Bowie, V. (Eds.). (2002). *Violence at Work: Causes, Patterns, and Prevention*. Portland, OR: Willan.

Heskett, S. L. (1996). *Workplace Violence: Before, During and After*. Boston: Butterworth-Heinemann.

Howe, H. L. (1994). *Differences in Workplace Homicides by Sex, 1993*. Retrieved May, 2003, from http://stats.bls.gov/iif/oshwc/cfar0001.pdf.

Kelleher, M. D. (1996). *New Arenas for Violence: Homicide in the American Workplace*. Westport, Conn.: Praeger.

Kraus, J. F. (1987). Homicide while at work: persons, industries, and occupations at high risk. *American Journal of Public Health, 77*(Oct.), 1285-1289.

Kraus, J. F., Blander, B., & McArthur, D. L. (1995). Incidence, risk factors, and prevention strategies for work-related assault injuries: A review of what is known, what needs to be known, and countermeasures for intervention. *Annual Review of Public Health, 16*, 355-379.

Long, J. S., & Freese, J. (2001). *Regression Models for Categorical Dependent Variables using Stata*. College Station, TX: Stata Press.

National Institute for Occupational Safety and Health (1992). *Homicide in U.S. Workplaces: A Strategy for Prevention and Research* (No. 92-103). Morgantown, WV.

National Institute for Occupational Safety and Health (1995). *Preventing Homicide in the Workplace*. Retrieved April, 2003, from http://www.cdc.gov/niosh/ homicide.html.

National Institute for Occupational Safety and Health (1996). *Violence in the Workplace*. Retrieved March, 2003, from www.cdc.gov/niosh/biolfwd.html.

Planty, M. (2002). *Third-party Involvement in Violent Crime, 1993-1999* (No. NCJ 189100). Washington: Bureau of Justice Statistics.

Riedel, M. (1999). Sources of homicide data: A review and comparison. In M. D. Smith & M. A. Zahn (Eds.), *Homicide: A Sourcebook of Social Research* (pp. 75-95). Newbury Park: Sage Publications.

Riedel, M., & Regoeczi, W. C. (2002, June). The California linked homicide file: Exploring a new data source. Paper presented at the Homicide Research Working Group, St. Louis.

Riedel, M., & Welsh, W. N. (2002). *Criminal Violence: Patterns, Causes, and Prevention*. Los Angeles: Roxbury Publishing Co.

Santana, S. A., & Fisher, B. S. (2002). Workplace violence in the USA: Are there gender differences? In M. Gill, B. Fisher & V. Bowie (Eds.), *Violence at Work: Causes, Patterns, and Prevention* (pp. 92-113). London: Willan Publishing.

Stout, N. A., Jenkins, E. L., & Pizatella, T. J. (1996). Occupational injury mortality rates In the United States: Changes from 1980 to 1989. *American Journal of Public Health, 86*, 73-77.

Sygnatur, E. F., & Toscano, G. A. (2000). Work-related homicides: The facts. *Compensation and Working Conditions, 5*, 3-8.

Toscano, G., & Weber, W. (1995). *Violence in the Workplace*. Retrieved May, 2003 from http://www. bls. gov/oshwc/cfar0005.pdf/.

University of Iowa Injury Prevention Center (2001). *Workplace Violen*ce: *A Report to the Nation*. Retrieved May 2003 from httyp://www.public-health.uiowa.edu/ iprc/nation.pdf

STUDYING THE RELATIONSHIP BETWEEN MEDICAL RESOURCES AND HOMICIDE RATES IN AN URBAN COMMUNITY

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ABSTRACT

It has been speculated that a recent rise in homicides in Cleveland may be related to the closing of several trauma units in the city over the past few years. A review of the existing literature on medical resources and trauma deaths, as well as homicides more specifically, raises a number of questions regarding the most appropriate approach to studying the relationship between the decreased availability of medical resources and lethal violence in Cleveland.

BACKGROUND TO THE PROBLEM

The city of Cleveland reported a significant rise in the number of homicides in the city during the first quarter of 2002. This rise became the subject of intense scrutiny. The media coverage and public concern that followed resulted in safety summits being held throughout the city. The question was raised about whether there was a connection between the increase in homicides and several recent trauma unit closings in the city. Specifically, St. Luke's shut down its trauma center in May of 1999 and Mt. Sinai Medical Center closed in February, 2000. As an indicator of its significance, trauma business at Huron Hospital, another hospital on Cleveland's east side, tripled after the shut down of Mt. Sinai (Tobin & Solov, 2003).

MEDICAL RESOURCES AND HOMICIDE

Two areas of research are relevant to the current study. First, a substantial body of literature exists on the relationship between medical resources and mortality rates. These studies examine such issues as the location of emergency units, the distribution of medical resources across communities, changes in trauma mortality over time, and the impact of emergency response time on patient survival (see for example, Friedman, 1973; Mayer 1979a; 1979b; O'Keefe, Jurkovich, Copass, & Maier, 1999; Pilcher, Gettinger, & Seligson, 1979; Sherman, 1979). A smaller body of research addresses the topic of the relationship between medical resources and homicide more specifically. It has been speculated, for example, that developments in medical technology and support services may have contributed to a suppression in the homicide rate over time (Harris, Thomas, Fisher, & Hirsch, 2002; Hawkins, 1983; Wolfgang, 1958).

The criminological literature provides some evidence supporting the argument that the availability of medical resources has an influence on lethal violence. Doerner (1983) conducted one of the initial studies hypothesizing that medical resources (hospital beds per capita, percent registered nurses on hospital staff, number of surgeries, number of emergency visits) contribute to variation across states in homicide rates, which received some support. This study was further built upon by Doerner and Speir (1986), who

examined the impact of medical resources on percent lethality (the ratio of recorded homicide cases to the number of recorded homicides and aggravated assaults) for counties in Florida from 1968-1972, again finding that medical resources explain part of the variation in rates of criminally induced lethality. Using a more refined measure of medical resources, Doerner (1988) examined this same relationship for Florida counties from 1982 to 1986. In this case he found particularly strong effects for emergency transportation. Long-Onnen and Cheatwood (1992) tested the impact of county-wide medical resources and demographic variables on percent lethality for 306 counties in five eastern states from 1980 to 1985, finding significant effects for medical resources. Harris et al. (2002) conducted a county-level negative binomial regression analysis of the impact of county-level medical variables for the periods 1976-1980 and 1994-1997 on lethality, finding significant effects for all but one indicator of medical resources.

LIMITATIONS OF EXISTING STUDIES

While making an important contribution to the study of violence, particularly to the extent that they demonstrate that medical resources have an impact on lethality, these studies suffer from several limitations, both in their own right and as models for the current research. For the most part they consist of state- or county-level comparisons (e.g. addressing the question of whether states with less adequate medical resources have higher homicide rates), thus they use a different unit of analysis than the current research. Furthermore, these aggregate-level studies suffer from certain limitations, particularly with respect to their use of national data on homicide and aggravated assault. For example, the reliance on aggravated assault data collected through the Uniform Crime Reporting Program is problematic to the extent that assaults contained within this category include a wide range of behaviors, only some of which would produce potentially lethal trauma (see Harris et al. 2002:137). While a handful of single-city studies exist (e.g., Barlow & Barlow 1988; Giacopassi et al., 1992; Hanke & Gundlach 1995), none of these examine the impact of a specific change in access to medical resources (i.e., trauma unit closings) on the homicide rate.

THE CURRENT STUDY

In combination with an on-going data collection effort at Cleveland's Homicide Unit, detailed information is being collected on homicide cases occurring in the city between 1998 and 2002, on the basis of a thorough review of individual case files. Information pertaining to the medical procedures carried out at each homicide event is being noted, such as the location of the homicide, the time of arrival of EMS on the scene, the hospital to which the victim is taken, and the victim's status (e.g. DOA) upon arrival at the hospital. However, a number of data collection and statistical modeling decisions remain. For example, should the study include or exclude justifiable homicides (i.e. those committed in self-defense or, in the case of law enforcement, in the line of duty)? Existing studies limit the homicide category to criminal (i.e. non-justifiable) homicides, although the rational for doing so is unclear. There is also the issue of violent events that could potentially be lethal but do not result in death. Several of the studies reviewed created a dependent measure of percent lethality, which uses a combination of

data on homicide and on aggravated assault. During discussions with the Lieutenant of the Homicide Unit for the Cleveland Division of Police I was informed that perpetrators of assaults that could have resulted in death are typically charged with felonious assault rather than aggravated assault (in Ohio, felonious assault is a second degree felony, whereas aggravated assault is a fourth degree felony). For the present purposes, then, should data be collected on felonious assaults, on the assumption that the closing of trauma units would lead to more homicides and fewer felonious assaults (i.e. would-be homicide victims). Should information be collected on the weapon used during the offense, as a shift towards greater gun usage may lead to more deaths given that fire-arms are the most likely to produce lethal trauma? Also, it is possible that medical response times have an impact on victim survival only for injuries resulting from certain types of weapons (e.g. non-firearm).

With respect to modeling decisions, there appears to be a couple of possible avenues to pursue. One approach would be an interrupted time series analysis, although questions remain about how to handle the multiple hospital closings, whether there are sufficient data points, and which years should be included. Alternatively, a geographic/ mapping approach may be feasible if data on the distance from the crime scene/injury site to the hospital can be obtained. Harris et al. (2002:156), for example, note the need for future research to geocode the distance between the injury site and the closest receiving health care facility.

REFERENCES

Barlow, H, & Barlow, L. (1988). More on the role of weapons in homicide violence. *Medicine and Law, 7,* 347-358.

Doerner, W. (1983). Why does Johnny Reb die when shot? The impact of medical resources upon lethality. *Sociological Inquiry, 53,* 1-15.

Doerner, W. (1988). The impact of medical resources upon criminally induced lethality: A further examination. *Criminology, 26,* 171-179.

Doerner, W., & Speir, J. (1986). Stitch and sew: The impact of medical resources upon criminally induced lethality. *Criminology, 24,* 319-330.

Friedman, J. J. (1973). Structural constraints on community action: The case of infant mortality rates. *Social Problems, 21,* 230-245.

Giacopassi, D., Sparger, J., & Stein, P. (1992). The effects of emergency medical care on the homicide rate: Some additional evidence. *Journal of Criminal Justice, 20,* 249-259.

Hanke, P., & Gundlach, J. (1995). Damned on arrival: A preliminary study of the relation-ship between homicide, emergency medical care, and race. *Journal of Criminal Justice, 23,* 313-323.

Harris, A. R., Thomas, S. H., Fisher, G. A., & Hirsch, D. J. (2002). Murder and medicine: The lethality of criminal assault 1960-1999. *Homicide Studies, 6,* 128-166.

Hawkins, D. F. (1983). Black and White homicide differentials: Alternatives to an inadequate theory. *Criminal Justice & Behavior, 10,* 407-440.

Mayer, J. D. (1979a). Seattle's paramedic program: Geographical distribution, response times, and mortality. *Social Science and Medicine, 13D,* 45-51.

Mayer, J. D. (1979b). Emergency medical service: Delays, response time and survival. *Medical Care, 17,* 818-827.

Long-Onnen, J., & Cheatwood, D. (1992). Hospitals and homicide: An expansion of current theoretical paradigms. *American Journal of Criminal Justice, 16,* 57-74.

O'Keefe, G. E., Jurkovich, G. J., Copass, M., & Maier, R. (1999). Ten-year trend in survival and resource utilization at level I trauma center. *Annals of Surgery, 229,* 409-415.

Pilcher, D. B., Gettinger, C. E., & Seligson, D. (1979). Recurrent themes in ambulance critique review sessions over eight years. *Journal of Trauma, 19,* 324-328.

Sherman, M. A. (1979). Mobile intensive care units: An evaluation of effectiveness. *Journal of the American Medical Association, 241,* 1899-1901.

Tobin, M. & Solov, D. (2003). Clinic deal saves Huron trauma center. *The Plain Dealer* April 18:A1, A9

Wolfgang, M. (1958). *Patterns in criminal homicide*. Philadelphia: University of Pennsylvania.

DISCUSSION
PUBLIC HEALTH APPROACHES AND LETHAL VIOLENCE
Recorded by Thomas A. Petee, Auburn University

Eric Monkkonen: Wendy, if you could, it would be nice to be able to code time from injury to death, since that might have some impact on what you are examining.

Wendy Regoeczi: That is a good point, although it may not always be possible to do so.

Catrien Bijleveld: William, if you look at your data from Africa, the numbers are huge. How can these deaths be preventable?

William Pridemore: Sociologists tend to look at this from a macro-level perspective and consequently may lose sight of what can be changed. Public health people know more about this.

Roger Trent: Wendy, if there is going to be an effect with hospital closings, it is probably going to be in the area of time to definitive care.

Jay Corzine: Wendy, what was the location of the hospital closings relative to where homicides are concentrated in Cleveland?

Wendy Regoeczi: One hospital closing was in an area where homicides are disproportionately located.

Jay Corzine: Changes in the volume of penetrating wounds might have an impact as well.

Chris Dunn: William, there is a very important difference that has to do with screening and risk assessment in both systems. We sometimes run into a problem of coercive intervention.

William Pridemore: Some things we look at are hard to change, while others are easier.

Dallas Drake: William, it almost seems that public health is a victim-based approach, while criminologists focus more on offenders. Within public health there is a focus on determining the cause, which is more difficult with criminology.

William Pridemore: Not necessarily. Criminology certainly has concerns over victimization.

Billie Weiss: For prevention, you need to change the community's perception. Public health sometimes focuses on changing the community. Also, Wendy, not all trauma units are created equal – staffing and specializations have to be considered as well.

Susan Sorenson: Public health focuses on populations not on people. Cause is important, but not essential for public health. There is a strong focus on the mechanism – we have to take some action which is based on available information. Personally, I hope we don't integrate public health and sociology, because we might lose the individual identities of the disciplinary contributions.

Tom Petee: Wendy, it seems to me that severity of the injury has to play a role in the process as well.

Susan Sorenson: Public health has developed injury severity scores as well as dealing with the time issue – distance to health care is not sufficient.

Vanessa Leggett: Wendy, are you able to determine the reportee for 911 calls? It may have some impact?

Wendy Regoeczi: Not always.

Becky Block: Marc, what kind of definition did you use for workplace? Location alone is probably not sufficient.

Marc Riedel: We used the National Institute of Occupational Violence definition – violence against or toward a worker. Occupational fatality data is relatively difficult to work with.

LEARNING FROM EXPERIENCE: UNDERSTANDING THE OBSTACLES, CHALLENGES, AND ACCOMPLISHMENTS OF DOMESTIC VIOLENCE DEATH REVIEW TEAMS
PANEL SESSION IV:1:50 PM - 4:45 PM

Moderator: Myrna Dawson, University of Guelph

Papers:

No Longer a Secret: Examining Domestic Violence Deaths, by Kate M. Foulke, Columbus Health Department

The Los Angeles County Domestic Violence Death Review Team: Some Barriers to Effective Implementation, by Billie P. Weiss, Violence Prevention Coalition of Greater Los Angeles

Community Review of Homicides of Women: Findings from the Philadelphia Women's Death Review Team, by Caroline G. West, Philadelphia Women's Death Review Team

Recorder: Paul H. Blackman**,** Research Coordinator, NRA Institute for Legislative Action

NO LONGER A SECRET: EXAMINING DOMESTIC VIOLENCE DEATHS

**Kate Foulke, Franklin County Domestic Violence Death Review,
Columbus Health Department, and Columbus Coalition Against Family Violence**

ABSTRACT

Professionals in the field of domestic violence have long known about incidents of homicide involving intimate partners and family members. Initially, though, much of the information was anecdotal and when cases did come to the attention of the community, information was often sensational and incomplete. Looking for a solution, many communities saw successful child death reviews as a model that could be adapted to the examination of intimate partner deaths. Implementing a death review team poses a number of challenges. Agency commitment needs to be obtained, forms and procedures need to be created, team members need to be identified, and goals need to be written. This is followed by the challenge of identifying cases. Some domestic homicides receive media attention while others do not – how can we ensure cases are not missed? The Franklin County Domestic Violence Review is designed to prevent future domestic violence homicides. This initiative examines all adult domestic related homicides within our county. The review team consists of agencies that interacted with the victim and/or perpetrator. The reviews are not about assigning blame; instead, we are evaluating the processes to prevent future deaths. The review is designed to do several things: obtain an accurate number of domestic fatalities, note commonalities between the deaths and identify any gaps or coordination opportunities for service providers. We also evaluate investigation and intervention procedures and make specific recommendations to collaborating agencies and organizations. Locally, we hope to carry our process one step further by having a separate committee create an action plan to accomplish the recommendations. Domestic violence has been perceived as a private issue for too long and we need to come together as a community to have an impact. Having a domestic violence death review team provides a forum for positive discussion, evaluation and change.

INTRODUCTION

Over half of all Franklin County female homicides from 1998 to 2001 were domestic related. According to the Ohio Office of Criminal Justice, someone in Ohio dies as a result of intimate partner violence every five days. Nationwide, the Bureau of Justice Statistics reports that three women are murdered by their husband or boyfriend every day. However, domestic violence deaths are something that we have only recently begun to study in an organized fashion. Those who have worked in the field of domestic violence have long known that these deaths were occurring, but their work was focused on assisting victims of domestic abuse and ensuring their safety so that the violence did not escalate into homicide. When homicides did occur, community agencies often spent their time pointing fingers at each other, looking for a scapegoat to blame for the homicide.

Domestic Violence Death Reviews have been developed in response to this situation. Though these reviews differ from place to place, they have several things in common:

- Comprehensive approach: A multi-agency, cross-disciplinary team is able to create a full picture of the circumstances surrounding the homicide.
- They enhance community awareness and domestic violence prevention, by their specific focus on homicide.
- They ensure that those who died are not forgotten.

The first domestic homicide review occurred in San Francisco and was the result of Vera Charan's death in 1990. For the first time, people from many agencies came together with the common idea of sharing information and looking at the existing systems to see if they were adequate to deal with domestic violence issues. Policies and procedures were examined to see if there were changes that needed to be made. Since this initial review, other programs have begun to appear across the United States. Many of these reviews modeled themselves after local child fatality review teams already in existence and in some cases even had some of the same participants.

THE FRANKLIN COUNTY DOMESTIC VIOLENCE DEATH REVIEW

The Franklin County Domestic Violence Death Review is a young program, having only been in existence since March 2001. We examine cases that have been adjudicated by the court system involving adult domestic homicides; this includes both current and former intimate partners, as well as other family members such as siblings, parents and adult children, and so on. Like other domestic violence death reviews, our goal is to examine these deaths in order to prevent future domestic homicides. This is done by reviewing the cases in a non-judgmental manner, looking for gaps in services and needed system improvements. The Team is also looking at trends and commonalties that will allow us to better determine lethality.

The Franklin County Review Team mission is the following:

- Examine circumstances surrounding domestic homicide deaths.
- Make recommendations based on findings.
- Increase coordination and communication among systems and agencies.

A successful review depends on the combined efforts of all agencies involved. On our Team, we have representatives from law enforcement, the City and County Prosecutor's office, the Coroner's office, the Public Defender's office, City and County Probation departments, Job and Family Services, Children's Services, the Alcohol, Drug and Mental Health Board, as well as victim advocates and domestic violence shelter staff. Other agencies are invited to participate on an as needed basis, when they had interactions with either party.

Each member of the team brings the information they have pertaining to a specific case. Conversations about the cases are confidential; what is said in the room as it

relates to a specific case, stays in the room. As we conduct these reviews, a data collection form is filled out capturing a variety of related information. This includes victim and perpetrator demographics, criminal history, relationship status, drug use, protection order information, weapons used, witnesses, and system contacts. After the reviews are completed, this information is transferred to Access which allows us to create reports comparing the different cases, map trends and compare lethality factors.

After these reports are created and cases are summarized, the Team looks at the data and talks about recommendations. What can be done to prevent future deaths? Recommendations may have to do with improving the systems that are already in place: training staff to recognize warning signs of abuse, improving lethality assessments. Perhaps more community awareness is needed about domestic violence so people can recognize the signs of an abusive relationship and know where to go for help. The review process also allows us to validate what was done correctly, it is not always all negative, sometimes we discover what parts of the system are working well.

Eventually, all of these recommendations are taken to the Columbus Coalition against Family Violence, a local group that is funding the initial three years of this project. This Coalition has a variety of Task Forces that can implement recommendations made by the Team. However, besides any recommendations that will be made, we have already seen other benefits of the review process. Some agencies have revisited their procedures for handling domestic cases, while others have gained a better understanding of the dynamics of domestic violence. Also we have seen several new working relationships develop between agencies.

Progress in Year 1

Since the Review Team convened in March, 2002, it has been meeting monthly. We identified and adapted best practices of the field, and initiated a data collection process, and completed 31 reviews. The data collection process coordinates information from coroner, law enforcement, and other sources. The 31 reviewed cases included all closed 1998 domestic cases, all 1999 domestic cases, and all 2000 domestic cases completed as of June 2003.

The level of participation and engagement has been high, with an average of 17 attendees at each meeting. The Review offers a unique opportunity for team members to communicate. Many agencies have never before sat at the same table. There is open sharing of information in the process of preparing the case review. Also, there is a sense of community and ownership, featuring nonjudgmental questions and creative problem solving. The review process itself has proved valuable to the participants, in several ways:

- Better able to identify lethality indicators.
- Asking more and different questions when working with victims.
- Able to educate others in the system.
- Networking among individuals in different systems.

- Increased understanding of other agencies' services and roles.
- Development of prevention strategies.

What's Next?

From June through August this year, the team will develop an Annual report, a draft of which will be presented to the Columbus Coalition for input and feedback. The report will include the following information:

- Number of domestic violence deaths.
- Causes of death (weapons used).
- Victim and perpetrator demographics.
- Observed trends and commonalities.
- Policy recommendations.

In Year 3, the Team plans to do the following:

- Continue case reviews and present findings.
- Team members will work to implement recommendations within their own agencies.
- Collaborate with additional community leaders and agencies to implement recommendations.
- Team members will evaluate and improve review process.
- Evaluate implementation of recommendations, specifically effectiveness and feasibility.
- Include findings and an evaluation in the next annual report.

THE LOS ANGELES COUNTY DOMESTIC VIOLENCE DEATH REVIEW TEAM: SOME BARRIERS TO EFFECTIVE IMPLEMENTATION

Billie P. Weiss, Violence Prevention Coalition of Greater Los Angeles

ABSTRACT

The LA County Domestic Violence Team formed in 1997 in an effort to gain information on the epidemiology and magnitude of fatal domestic violence. Such information was thought to be able to guide effective prevention/intervention activities. The Coroner and District Attorney chair the LA team. A year was spent designing a comprehensive data collection form. Prosecutors were reluctant to share data on current cases because of fear of jeopardizing prosecutions. It was decided to review homicides/ suicides since it was unlikely that there would be an open case. Initially, cooperation among agency team members was excellent. However, staff changes and shifting priorities among agencies resulted in waning participation. Current efforts are underway to standardize data collection with other teams throughout the country, and to revitalize interest in agency participation. To date, one report has been prepared by this team. Findings of case review have lead to increased scrutiny of batterers' treatment and a lack of record keeping by medical and other providers that documents recurring and escalating violence. The team has documented lack of reporting less severe incidents by friends, families and other observers.

HISTORY OF THE LOS ANGELES DVDRT

Enabling Legislation

- 1995 – California Penal Code 11163.3
- Described Interagency Nature of Teams
- Confidentiality issues immediately arose.
- 1996 DHS - DOJ meetings to discuss implementation/barriers
- 1998 – Statewide Protocols Developed

Los Angeles DVDRT

- 1996 Multidisciplinary meetings.
- Enabling legislation said: <u>may</u> share information across disciplines.
- No subpoena powers.
- Domestic Violence Council
- Data Collection instrument developed

THE DVDRT TEAM

Purpose of the Team

- Confidential forum to review fatalities
- Discover interventions preceding the fatality.
- Make recommendations to strengthen policies and procedures.
- Develop prevention strategies.

Team Goals

1. Systematic review
2. Create and maintain a comprehensive data base

- Demographics
- Relationship History
- Abuse History
- Prior Interventions
- Resources Utilized
- Case Disposition.

Staffing the Teams – Data Collection

Data collection depends upon contributions from the following people. All of these people are volunteers, donating their time to the project.

- DA's Office - Co-Chair
- Coroner's Office – Co-chair
- School of Public Health
- Department of Health Services
- Advocates

OUTCOMES

- Identify system gaps.
- Develop and recommend coordinated prevention strategies.
- Improve communication/collaboration among local agencies.
- Identify trends, patterns, risks.
- Issue and disseminate an annual report.

1997 Findings

1. 39 Fatal Domestic Violence Cases
   – identified through DA's office

2. Detailed information on 33 - 53 deaths.
   a. 38 Homicides
   b. 15 Suicides

   c. Perpetrator identified in 17 Cases
      i. 17 homicides + 2 fetuses
      ii. 17 found guilty by trial or plea.

   d. 16 Cases of murder/suicide
      i. 36 fatalities: 16 suicides + 1 attempted suicide
      ii. Thus, 16 Murder/Suicides

Report Published in 2001: 1997 Cases

<u>Characteristics of Victims and Perpetrators</u>

1. Female Perpetrators – 3
   a. More likely to have allegation of prior history of abuse by the victim
   b. Same sex relationships likely to have similar history.

<u>Weapons</u>

1. Firearms used in 100% of murder/ suicides.
2. However, firearms used in only 18.8% of all homicides. Other causes of death:
   a. strangulation,
   b. stabbing,
   c. beating,
   d. burning

RECOMMENDATIONS

- Research needed on the Effectiveness of Batterer's Treatment Programs.
- Cross reporting with Child Protective Services when children are involved.
- Improve data collection systems.

THE PROGRAM IN 2001

2000 Election

3. New District Attorney
4. Staff changes at UCLA
5. No data collection

2002 New Staffing

- Re-introduction of concerns about sharing data.
- Reinvention of policies procedures, protocols.
- Attendance declines.
- No reports.

COMMUNITY REVIEW OF HOMICIDES OF WOMEN
FINDINGS FROM THE PHILADELPHIA WOMEN'S DEATH REVIEW TEAM

Caroline G. West, Philadelphia Women's Death Review Team

ABSTRACT

In absence of legislation, but with a four-year history of strong collaboration in the Child Death Review Team, the Philadelphia Women's Death Review Team (PWDRT) was launched in 1997. PWDRT represents a collaboration of public and private agencies from criminal justice, medical, public health, social service, and domestic violence service organizations. Using a public health-focused process, approximately 1300 death certificates a year (women aged 15 - 60, Philadelphia residents) are screened by a clinical screening committee and about 30% of the total are referred to the full team for a systematic review about a year after the death. Deaths referred to the full team for review include all violence-associated deaths, defined as: homicides, suicides, drug overdoses, and deaths which appear to be result of long history of substance abuse or HIV. Homicides comprise approximately 12% of all of the deaths reviewed by PWDRT; between 1998 and 2001, the team reviewed 163 homicides of Philadelphia women. This presentation describes PWDRT's process of homicide review, as well as its findings relating to patterns and trends of homicides of women in Philadelphia. Particular emphasis will be placed on the prevalence of homicides to women with a history of commercial sex work, and their disproportionate representation among unsolved homicides in Philadelphia.

PHILADELPHIA WOMEN'S DEATH REVIEW TEAM SUMMARY OF REPORT ON 1999 DEATHS[1]

INTRODUCTION

Violence against women is a critical public health problem that has devastating consequences for women, their children, and their families, as well as the communities in which they reside. Intimate partner violence[2] is primarily a crime against women, as the following statistics suggest (Rennison & Welchans, 2000):

- Approximately 876,340 instances of rape, sexual assault, robbery, aggravated assault and simple assault were perpetrated against women by an intimate partner in 1998.

- Women victims accounted for almost 72% of the 1,830 murders attributable to intimate partners and about 85% of the victims of non-lethal intimate partner violence cases in 1998.

[1] PWDRT's most recent report can be found online at: http://www.phmc.org/pdf/99WDRTReport.pdf

[2] Intimate Partner violence refers to the pattern of violent and abusive behaviors inflicted by spouses, ex-spouses, boyfriends and girlfriends, and ex-boyfriends and ex-girlfriends.

- The Federal Bureau of Investigation estimated that nearly 2,528 females, age 18 and over, were victims of murder; 1,659, or 66% of these homicides were committed by a male in 1999.

Research suggests that, in order to reduce the amount of violence against women in our communities, the focus must be on prevention (Crowell, 1996). Developing effective prevention strategies, however, requires "a research infrastructure that supports interdisciplinary efforts and helps to integrate those efforts into service programs and institutional policies" (Crowell, 1996, pg. 6). Toward this end, the Philadelphia Women's Death Review Team (PWDRT) represents the first multi–agency, interdisciplinary effort in Philadelphia County designed to prevent future, violence-related deaths to Philadelphia women between the ages of 15 and 60.

Unlike other domestic violence fatality review teams in the United States, PWDRT looks beyond intimate partner homicides in its assessment of violence against women; this choice stems from the belief that murder is not the only potentially lethal consequence of intimate partner violence. Substance abuse, HIV/AIDS, and suicide are all associated with violent lives (SAMHSA, 1994). PWDRT, therefore, examines not only homicides, but also all other cases of premature death to women in Philadelphia County in which the cause or manner of death is known to have an association with violence. By taking this broader perspective, PWDRT hopes to develop prevention strategies that address not only women at risk of homicide, but also those struggling with the associated problems of drug use, HIV/AIDS, and mental health disorders.

Review of violence-associated deaths occurs through a three-step process --

1. review of individual deaths,
2. analysis of aggregate data, and
3. initiation of corrective action.

The four central objectives of PWDRT are the following:

1. to track the incidence and prevalence of violence-related deaths of women,

2. to identify the degree to which intimate partner violence (IPV) contributes to the community's mortality,

3. to identify patterns and trends in violence-related deaths of women, and

4. to formulate key policy and practice recommendations to improve the systems that serve and protect women and their children.

The PWDRT represents a collaboration of over 23 public and private agencies led by the Philadelphia Department of Public Health, the Philadelphia District Attorney's Office, the Philadelphia Health Management Corporation (PHMC), and Women In Transition. It includes representatives from government agencies, law enforcement, courts, hospitals, domestic violence service and advocacy groups, and other community agencies.

METHODOLOGY

The Philadelphia Women's Death Review Team is comprised of four interdependent components: the **Core Leadership Committee**, the **Clinical Screening Committee**, the **Review Team**, and the **Policy Committee**. Each component is responsible for collecting, sharing, and discussing information regarding any history of reported violence or other factors known about a woman's death which may indicate that intimate partner violence was a factor in her life.

PWDRT reviews the deaths of all women aged 15 to 60 years who were residents of Philadelphia County at the time of their deaths. Deaths are identified through three sources:

- death certificates provided by the Division of Information and Reimbursement Systems of the Philadelphia Department of Public Health,
- medical examiner files located at the Philadelphia Office of the Medical Examiner, and
- review of media reports.

Death certificate data are stored in a secure database and in a locked file located at PHMC. All deaths are reviewed retrospectively approximately one year after the date of death. This method of retrospective review allows PWDRT to obtain the most complete information and usually ensures that active investigations and open cases within the criminal justice system are complete by the time of PWDRT review.

Team Composition and Activities

Team leadership is provided by the **Core Leadership Committee**, including a designated representative from the Philadelphia Department of Public Health, the Philadelphia District Attorney's Office, the Philadelphia Health Management Corporation, and Women In Transition. The Core Leadership Committee meets monthly to oversee the direction of PWDRT, set the agenda, determine Team membership, and monitor project activities including program development and fiscal management.

The **Clinical Screening Committee** is comprised of representatives from public health, human services, medicine, law enforcement, and victim's services, and meets monthly at the Medical Examiner's Office to review all death certificates of Philadelphia female residents ages 15-60. This committee examines the death certificates for adequacy of information, and determines which cases should be forwarded to the Review Team for a further review.

All deaths meeting the following criteria are selected for further review.

- homicide,[3]
- suicide,
- undetermined cause,[4]
- drug or alcohol-related natural death (e.g., cirrhosis of the liver),
- AIDS or HIV-related disease (e.g., atypical mycobacterium),
- death due to adverse drug reactions,
- death to women within a year of giving birth (pregnancy associated),
- death with questionable circumstances, and
- inadequate death certificate.

Based on the work of this committee, a list of cases to be reviewed is distributed to members of the Review Team two weeks before the monthly review meeting to allow Team members time to collect case-specific information from their agencies.

The **Review Team,** representing over twenty-three entities from health, legal, and social service organizations, meets monthly to systematically review the deaths of Philadelphia women selected for review by the Clinical Screening Committee. Representatives from the participating agencies share information regarding any agency contact and interaction with the women or their children prior to their deaths, the completeness of the death investigation by the appropriate agencies, and, in cases of homicide, the response of the law enforcement and judicial communities. Also, when available, information is collected about the perpetrator(s) involved in the homicide cases. Each case is then carefully reviewed to identify what role, if any, that intimate partner violence played in the life and death of each woman. In cases where there was a known history of violence, and in cases where an intimate partner murdered the decedent, the Review Team identifies the policies, laws, regulations, system changes, and/or services that, if implemented, might have prevented the deaths of these women.

The **Policy Committee** meets quarterly to continue discussions about issues that arise during monthly case review meetings, to review domestic violence policies and death prevention strategies, and, as appropriate, to create subcommittees that work to refine PWDRT's recommendations. Additionally, the Policy Committee examines issues related to the coordination of local violence intervention and treatment systems. All PWDRT members are invited to participate. Invitations are further extended to elected representatives, academic institutions, agency administrators, and community advocacy groups.

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[3] Unlike the Uniform Crime Report's definition of "murder" (the unlawful killing of a human being with malice afterthought), "homicide" is defined as any death by the hands of another, regardless of whether charges are brought (e.g. self-defense) but does not include vehicular manslaughter.

[4] Deaths are certified as undetermined when serious doubt exists as to whether a person met his/her death intentionally or accidentally. Information concerning the circumstances may be lacking because of insufficient background information, lack of witnesses, or because of a lengthy delay between death and discovery of the body. If an extensive investigation and autopsy cannot clarify the circumstances, the death is placed in this category.

1999 DATA RESULTS

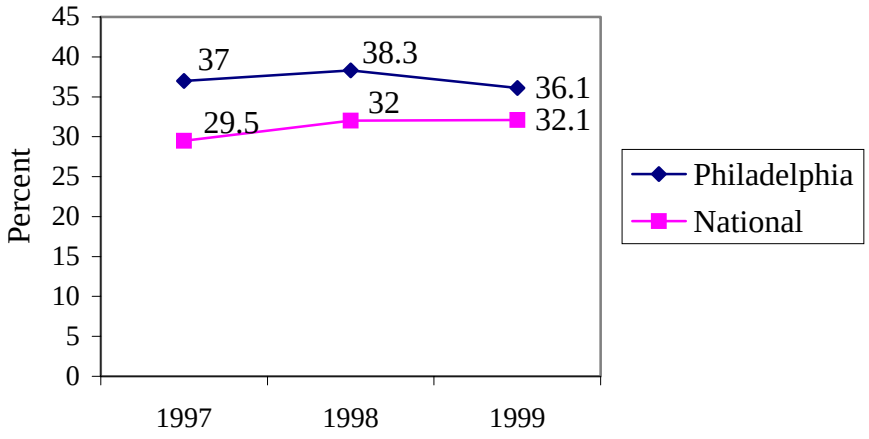
Intimate Partner Homicides

In PWDRT's attempt to document violence in the lives of women who die in Philadelphia, intimate partner homicides are the first deaths that are chosen for review.

Research has shown that the rates of intimate partner violence (IPV) in society and the effect it has on a community's overall mortality and morbidity are staggering. IPV is primarily a crime against women, as demonstrated by a recent survey by the National Institute of Justice. This survey indicates that nearly 25 percent of surveyed women said that they were raped and/or physically assaulted by a current or former spouse, cohabiting partner, or date at some point in their lifetime; 7.6 percent of men had been similarly affected (Tjaden and Thoennes, 2000). Because of the prevalence of IPV in society, PWDRT is particularly interested in the role IPV plays in the lives and premature deaths of Philadelphia women.

The percentage of all homicides to women known to be a direct result of IPV has declined slightly in 1999 from 1997 and 1998, but the Philadelphia percentage remains higher than the national average, as illustrated in Figure 1.

Figure 1
Intimate Partner Violence Homicides as a Percent of All Murders of Women, Philadelphia and Nationally (1997 to 1999)



In 1999, 13 women died as a direct result of intimate partner violence in Philadelphia. The mean age of the victims was 31.2 years. African-American women accounted for 69% (n=9) of the cases followed by Caucasian women (15%, n=2).

Nine of the IPV homicides (69%) took place in the decedent's own home, one occurred in another person's home, and three took place in a street setting.

A gun (38%, n=5) was the predominant weapon used in IPV homicides. A knife was used in three of the cases, strangulation in one of the cases, and a blunt force object in 3 of the cases. The weapon in the remaining case is unknown.

PWDRT found that ten of the women (77%) were *known* to have had prior episodes of IPV in their lives. Furthermore, in three of the cases, decedents had previously sought or obtained a Protection From Abuse Order. In eight cases, the perpetrator and decedent lived together in the year prior to death. Regarding the relationship between the decedent and perpetrator: in 10, or 77%, of the cases the perpetrator was the decedent's spouse or paramour; in three of the cases, the perpetrator was the decedent's ex-spouse or ex-paramour. Two decedents who died as a result of intimate partner violence were pregnant at the time of death; one was seven weeks pregnant and the other was nine months pregnant at the time of her death. The Department of Human Services (DHS) reported prior knowledge of three of the women who died from IPV. One of the women was known to DHS as a child, and two were known as parents. Additionally, one of the victims had previous involvement with the criminal justice system.

The toxicology investigations performed on the decedents indicated that one of the women was positive for alcohol and three women tested positive for drugs.

Of thirteen perpetrators, three were identified as having prior reports of committing IPV and there were prior arrests in four cases. Additionally, one perpetrator was actively involved in the criminal justice system and was on probation at the time that he committed the homicide. Previous *known* agency contact involving these perpetrators includes one perpetrator who had a history as a perpetrator of child abuse/neglect and one perpetrator who was homeless at the time of the homicide. Additionally, two of the perpetrators committed suicide after committing the homicide and one of the perpetrators attempted suicide.

Since two of these homicide cases involved the perpetrator committing suicide, only 11 cases went to trial. At the time of this analysis, five cases had actually gone to trial, in all of these cases the perpetrator was convicted. In one case, the perpetrator was convicted of first-degree murder. Six cases were awaiting trial at the time of this analysis.

POLICY RECOMMENDATIONS

Through the review process and quarterly meetings of the Policy Committee, PWDRT consistently works to use its data to identify gaps in the systems that serve women in Philadelphia. The following recommendations related specifically to homicide cases reviewed in 1999, and was directed toward the larger Philadelphia community of service providers and advocates:

Domestic Violence

PWDRT reviewed thirteen cases of women who were killed by an intimate partner in 1999. Ten of these women had known previous episodes of intimate partner violence in their lives. Yet none of these women who were eventually killed by their partner were known to be battered women by any service provider who could have provided assistance.

PWDRT recommends a greater effort to help women become aware of the resources that are available to help them if they have experienced, or ever should experience, intimate partner violence. These efforts should target non-public and Philadelphia County primary care physicians, obstetricians, pediatricians and substance abuse treatment providers. These people should be encouraged to do the following:

- establish domestic violence screening policies,
- use the RADAR screening and referral tool for domestic violence, and
- distribute domestic violence awareness posters and resource cards for battered women.

DISCUSSION
LEARNING FROM EXPERIENCE:
UNDERSTANDING THE OBSTACLES, CHALLENGES, AND ACCOMPLISHMENTS OF DOMESTIC VIOLENCE DEATH REVIEW TEAMS
Recorded by Paul H. Blackman, NRA Institute for Legislative Action

Vickie Titterington: Caroline, the proportion of victims killed for whom the motive was unknown is not out of line with homicide in general. But shouldn't this be surprising, given the fact that everyone knows up front that these cases are going to be carefully reviewed at some point? Has there been any attempt to gauge the effect of death of death review teams on the recordkeeping of police?

Caroline West: We don't actually know if the recordkeeping is better or more accurate; but that might be worth looking at.

Vickie Titterington: So you distinguish between, but look into, deaths from long-term substance abuse and overdoses? For clarification, an example of your "deaths due to adverse drug reactions" category would be a drug overdose, and an example of the "natural deaths" would include cirrhosis of the liver?

Caroline West: Yes, that is correct, since both would be risk factors associated with domestic violence. Long-term substance abuse would include deaths from cirrhosis of the liver, for example, but adverse drug reactions would be immediate overdoses.

Becky Block: Here's a question for Kate and Billie. Some of the results of the Chicago Women's Health Risk Study have been puzzling me, and I hope you can help. The abused women who killed their male intimates differed sharply from abused women who became homicide victims, and from abused women who did not die. One difference was that the women homicide offenders were much more likely to have called the police about the abuse in the previous year. This implies that the police may have missed an opportunity to intervene and save lives. But I don't know why this is so. Obviously, this has a lot of practical implications. You both mention that you have some cases of women offenders, but apparently many fewer than we have in Chicago. Have you learned anything at all from the death reviews that might give us practical advice for prevention in these cases?

Billie Weiss: We only have information on whether the police were called before of something was in the medical records. Doctors don't put this in their reports. We have the precipitating incident, and previous threats in long-term relationships may be noted, but no family or other intervention. Police were called in three cases, one rape, with no call. What did the police do? We don't know. However, they weren't generally called. About the difference in numbers: There being more intimate-partner homicides in Chicago may be due to recording. There are half as many suicides as homicides, which is odd for the country; there are a large number of homicides, but not from intimate partner violence.

Kate Foulke: No, we haven't yet had any information on this, but it is an important issue.

Kathleen Heide: Billie, I have a definitional question. You made reference to a schoolgirl killed in domestic violence by her boyfriend. I tend to think of domestic violence as involving persons who live together. Is that not the case?

Billie Weiss: We look at intimate-partner violence whether the persons are, or were, living together or not.

Kate Foulke: We don't require that the parties have lived together; and our definition is broader than the one in the Ohio Revised Code.

Caroline West: It's the same with Philadelphia as with the teams in Los Angeles and Columbus: we count it if there was an intimate relationship, past or present, regardless of whether the couple is living together.

Joe Shulka: Why did you review deaths from HIV/AIDS?

Caroline West: We believe that there may be a relationship between violence and HIV, so we consider such deaths to involve persons in the category of being at-risk for violence.

Vanessa Leggett: I don't understand your looking at pregnancy- and AIDS-related deaths in reviewing domestic violence deaths.

Caroline West: We're trying to be inclusive in finding domestic-violence related deaths. And other studies have shown that intimate-partner violence leads to pregnancy-related deaths, so such deaths are a risk factor for violence; violence may be associated with the death even if the specific cause of death was not violence.

Becky Block: And it's good to remember, with AIDS, that abuse sometimes involves a deliberate effort to infect the partner. So one should certainly look for possible violence in that group of decedents.

Tom Simon: Caroline, I am interested in the review team's recommendation that screening for intimate-partner violence be routinely provided at substance-abuse facilities. How likely is it that this will become a reality? Do adequate resources exist in Philadelphia to cover the provision of services to all the persons who screen positive?

Caroline West: Well, based on the start down this path, I'm fairly confident that it can be implemented successfully.

Paul Blackman: Is there any conflict between various state mandatory reporting laws and the new federal privacy law [HIPAA: Health Insurance Portability and Accountability Act of 1996], or were state requirements exempted?

Caroline West: No. But we make sure that e-mails don't include any names, just numbers, and the death review is integrating public health information on the dead, so there is no need for medical records of the living, which I believe is the concern of HIPAA.

Billie Weiss: There was concern when the law took effect. Public health believed it was exempt, but that's not completely true. But records are in our data base without identifiers, so HIPAA fears may be overblown; reasonable precautions should work.

Kate Foulke: Public health agencies do have more leeway for getting access to information needed for injury research and public health surveillance. We do take precautions and keep all our files locked up. The information is shared orally during the case reviews; we don't distribute hard copies of information between agencies.

Billie Weiss: The medical examiner has law enforcement reports, but members of the review team will only report on their own data.

Paul Nieuwbeerta: In how many cities are there death review teams? Is the number growing?

Kate Foulke: It's growing. The domestic-violence death review teams grew out of the child fatality reviews. There are now about 75 teams, mostly organized at the city or county level, but with some statewide review teams in some states, like Washington and New Hampshire, which have smaller numbers of such deaths.

SUBTYPES OF HOMICIDE
PANEL SESSION V: 8:30 a.m. - 10:00 a.m., June 7, 2003

Moderator: Paul H. Blackman, Research Coordinator, NRA Institute for Legislative Action

Papers:

Co-Worker Robbery Homicide in Commercial Enterprises: An Exploratory Study and Work in Progress, by Patrick D. Walsh, Loyola University New Orleans; David R. Kent, Loyola University New Orleans, and William E. Thornton, Loyola University New Orleans

Civilian Justifiable Homicides in California: Routine Activities, Prevention, Precaution, and Situational Resources, by Marc Riedel, Southern Illinois University; and Wendy C. Regoeczi, Cleveland State University

An Evaluation of Arson-Associated Homicide in Chicago: 1965-1995, by Dallas S. Drake, Minnesota Gay Homicide Study and Retired Firefighter, Burnsville, MN; and Carolyn Rebecca Block, Illinois Criminal Justice Information Authority

Recorder: Myrna Dawson, University of Guelph

CO-WORKER ROBBERY HOMICIDE IN COMMERCIAL ENTERPRISES: AN EXPLORATORY STUDY AND WORK IN PROGRESS

Patrick D. Walsh, Loyola University New Orleans
David R. Kent, Loyola University New Orleans
William E. Thornton, Loyola University New Orleans

ABSTRACT

The study utilizes a content analysis of media reported homicides perpetrated upon an employee (s) or employer (s) by a present or former co-worker (s) during the commission of a robbery in a retail business. There is little empirical criminological data that examines co-workers as a separate robbery/murder type. Workplace violence research indicates that most work related homicides are expressive in nature involving crimes of passion or anger committed by disgruntled employees, spouses, or acquaintances. However, in those workplace homicides where victim-perpetrator interactions can be identified, robbery appears to be the primary motive. Additional data about offenders, victims, circumstances of the crimes, and crime prevention and security recommendations are presented in the research

DEFINITION

Co-worker robbery homicide is defined as a homicide perpetrated upon an employee (s) or employer (s) by a present or former co-worker(s) during the commission of a robbery in a retail environment.

Noted Cases

- Brown's Chicken, Palatine, Ill. – seven fatalities (January, 1993)
- Louisiana Pizza Kitchen, New Orleans, La.- three fatalities, one survivor (December, 1996)
- Wendy's Old Fashioned Hamburgers, Queens, NY- five fatalities, two survivors (May, 2000)
- Whataburger, Houston, TX.- one fatality, two survivors (May, 2003).

Urban Legend/ Actual Problem

- In many cities in retail robbery homicide cases, an early investigative protocol is to evaluate the possibility of employee involvement.
- The food service industry has come to accept this phenomenon, "When it happens, there's a high probability that the offender is an ex-employee…"
- Employees similarly have concerns about the situation- "I have enough to do worrying about people coming in and trying to rob the place without having to worry about co-workers being dangerous" (Subway worker)

Partial List of Victimized Establishments

Arby's, Bob's Big Boy, Burger King, Mrs. Field's Cookies, McDonald's, Wendy's Whataburger, Taco Bell, Popeye's Fried Chicken, Malibu Amusement Center, Wynn's Supermarket, Color Tile Supermarket, Louisiana Pizza Kitchen, IGA Supermarket, Gambino's Bakery, Brown's Pasta & Chicken, Chuck E. Cheese Pizza, Chili's Grill and Bar, Ruby's Tuesday, City Café, Tanner's Roasted Chicken, Jack in the Box, Applebee's, China Rose, KFC, Friendly's, Gourmet Grill and Daiquiri, Subway, House of Beers, Emmet's Kosher Meats, Connecticut Muffin Shop, Domino's Pizza, Waffle House, Dirt Cheap Liquor Store, Taurus Flavors, Cajun's Fabulous Chicken, Shenanigan's Pub and Grill, PortRoyale, Boston Market, Bruegger's Bagel Shop, Bayer Garden Shop, Lakewood Motel, Savannah Car Wash, The Gap, Montclair Post Office, Lee's Famous Recipe Country Chicken, Sammy White's Brighton Bowl, Logan's Roadhouse, Piggly-Wiggly, Tardy Furniture Store, Prestige Barbeque, Mi-T-Fine Car Wash, Fatz Café, Sub Station II, Eckerd Drug Store, Hardee's, Little Caesar's Pizza, Epic Armored Car, Edward's Supermarket, Cloth World, Harley-Davidson Café, Lone Star Steakhouse, MGM Casino, GNC

ORIGINS OF STUDY

- 20-year study of homicides in New Orleans, La. (Harper, Voigt, and Thornton, 2002, 2003)
- On-going study of non-rationality in robbery offenders (Walsh, 2002a,b)
- On-going study of robbery-homicides in food service sector (Kent, 1996)

Consensus/ Common Findings

- All three studies noted homicides in which present/former co-worker(s) were offender(s).
- The specific perpetrator/victim link observed appeared to have been generally neglected.
- Overlapping/confusing data was found, but not disaggregated to specifics of this peculiarity (NIOSH, CFOI, etc.).

Original Data Search (Utilizing Cleared Cases Only)

- Employee involvement in robbery
- Employee involvement in robbery, accompanied by injuries (non-fatal)
- Employee involvement in robbery, with fatalities

Co-Worker Robbery to Homicide Escalation

I. Robbery Homicides
II. Robberies with injuries (non-fatal)
III. Robberies committed by ex/present employees
IV. Robberies committed by others conspiring with current employees

Robberies Committed with Employee Complicity

- Sixty-five percent of fast food robberies involve employee complicity (D'Addario, 1994)
- Felson et al (2000) noted that one-third of all robberies involved acquaintances, with race, economic status, and inside information as considerations in target selection

Factors Affecting Fatality Rate

- Improvements in medical response time as well as improvements in emergency care (Giacopassi, 1992). Further noted by Bratton (1998), "The difference in a homicide and an aggravated assault is a ¼ inch."
- Placement in cooler/freezer (post-shooting) slows down blood loss rate.
- Increased weapon possession by other employees/customers.

Excluded Crimes

- Robbery homicide between employees/employers in illegal transactions (drug sales)
- Workplace robbery homicide in which no employment relationship existed between actors, i.e., customers
- Workplace homicide related to domestic violence
- Workplace homicide related to disgruntled employee, with no robbery factor noted

METHODOLOGY

- Lexis-Nexis search of top 50 daily newspapers
- Anecdotal information from police detectives
- Personal knowledge of specific cases
- News article retrieval from fee-based provider

Keywords Utilized

- Employee, ex-employee, co-worker, former employee, and worker
- Murdered, killed, died, shot, stabbed, and beaten
- Massacre, slaughter, found dead, found murdered, and found killed

Multiple combinations were entered using all available variables.

Data Complications

- Pertinent data was not always included in news article
- Geographic bias was noted - cases in New York and Washington, D.C. received extensive coverage

- Pertinent data was often misreported, i.e., reporting a robbery as a theft
- Employee involvement was not always noted in original reports
- Only closed cases were utilized, precluding highly probable cases but not yet resolved

Data

- 208 cases
- 329 fatalities
- 87 survivors
- 383 perpetrators

PRELIMINARY FINDINGS

- Fast food and casual dining places accounted for 51% of occurrences
- Incidents occurring in the late evening, near or after closing accounted for 58% of cases
- In 30% of cases offenders were let in by other employees (complicit or unsuspecting), while in 19% of the cases the offender was on duty

Planning was evident in most cases - door jams on exterior doors to prevent employees from fleeing, handcuffs, plastic ties, bringing plastic bags for blood splatter abatement, cutting telephone lines, procuring guns (sometimes renting them) and extra ammo, purchasing potatoes on way to crime scene to use as silencers, and in some cases insisting that each offender shoot at least one victim.

Focus of crime was economic in nature - Christmas gifts were purchased upon leaving crime scene, proceeds were used at casino, to pay bills, purchase jewelry and buy drugs.

Steps were taken to conceal identity - video tapes were removed from crime scene, suspects either always left the crime scene or made false report of what had occurred.

There appeared to be a higher rate of confessions in these cases than in homicide cases in general.

- In 88% of cases there were no survivors
- 61% of the cases involved a lone assailant (present/former employee)
- In 38% of the cases the employee assailant was accompanied by another person

Prior Criminal History

- 30% of offenders had prior criminal histories at the time of employment
- 11.5% of the offenders were involved in other homicides, either pre- or post-incident

- 15.2 % of the offenders were involved in other robberies, either pre- or post-incident
- 47% of the occurrences were in the South

Range of Data

- Time between incident and arrest- one hour/nineteen years
- Number of victims- one/seven fatalities
- Number of perpetrators- one/five
- Proceeds of robbery- $6/$563,000
- Tenure of employment (prior to involvement in robbery-homicide)- one day/ fifteen years

POLICY IMPLICATIONS

Most currently utilized robbery countermeasures assume an offender to be a rational thinking external threat.

Hiring processes in certain industries are often times geared to cost and time.

Validity of Currently Employed Robbery Countermeasures

- Lighting - no noted effect
- Escape Route - no noted effect
- Multiple Staffing - no noted effect, possibly a factor in increased fatalities. As noted by Erickson (1998), “Two clerks…two dead people.”
- Camera/ Video System - no noted effect
- Bullet Resistant Barriers - no noted effect
- Time access controlled safe - no noted effect
- Alarms - no noted effect
- Visibility - no noted effect
- Guards - no noted effect (sometimes were victims/sometimes were perpetrators)

Proposed Robbery Countermeasures

- Background Checks - local and in all prior places of residences
- Off premise video recording - to prevent theft of recorded videotapes
- Interactive video recording - live dial-in recording and verbal interaction between employees and monitoring company
- Armored car pickup of funds - no access by manager alone
- Employee awareness of countermeasures - all employees are advised of implemented countermeasures, including demonstration of interactive recording system
- Pendant and hard wired panic alarms
- Strict adherence to back door/ after hours security

REFERENCES

Bratton, W. (1998). *Turnaround - How America's Top Cop Reversed the Crime Epidemic*. NY: Random House.

D'Addario, F. (1994). Easy marks - Fast-food industry is slow to take action growing crime. *Wall Street Journal*, Thursday, September 22, 1994

Erickson, R. J. (1998). *Convenience Store Security at the Millennium*. Alexandria, VA.: National Association of Convenience Stores

Felson, R. B., Baumer, E. P., and Messner, S. F. (2000). Acquaintance robbery. *Journal of Research in Crime and Delinquency, 37*:282-305

Giacopassi, D. J. & Sparger, J. R. (1992). The effects of emergency medical care on the homicide rate: Some additional evidence. Journal of Criminal Justice, 20: 249-259.

Kent, D. (1999). Violence in the workplace: Evaluating security preparedness. American Society of Industrial Security Chapter Presentation, New Orleans, LA July, 1999

Harper, D. W., Voigt, L., and Thornton, W. E. (2003). Twenty years of homicide in New Orleans: Revisiting the subculture of violence hypothesis". Academy of Criminal Justice Sciences, Boston, MA March, 2003

Harper, D. W., Voigt, L., and Thornton, W. E. (2002). Illicit drug use, weapon use and homicide: A two-decade comparison. 2nd Annual Conference of the European Society of Criminology, Toledo, Spain September, 2002

Walsh, P. (2002a). Offender's place of residence as a determinant in the target selection process of robbery offenders. 2nd Annual Conference of the European Society of Criminology, Toledo, Spain September, 2002

Walsh, P. (2002b). OSHA'S recommendations for workplace violence prevention programs in late-night retail establishments. American Society of Criminology Conference; Chicago, Il November 2002.

CIVILIAN JUSTIFIABLE HOMICIDES IN CALIFORNIA: ROUTINE ACTIVITIES, PREVENTION, PRECAUTION, AND SITUATIONAL RESOURCES

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ABSTRACT

Traditional criminological theories have difficulty explaining events such as justifiable homicides involving civilians, in which roles become reversed ending in the demise of the original offenders. This paper draws on routine activities theory to introduce a concept of situational resources to generate hypotheses regarding factors distinguishing civilian justifiable from criminal homicides. Predictions about victim/ offender relationships, homicide location, victim age, offender age, weapon, and the number of victims and offenders are tested using homicide data for California for the years 1987 through 1999. Results from a hierarchical logistic regression model provide support for the hypotheses.

INTRODUCTION

One of the most difficult theoretical problems in the study of lethal violence is explaining justifiable homicides involving civilians.[1] In contrast to criminal homicides, the roles in justifiable homicides are reversed; the anticipated criminal homicide victim becomes the offender while the homicide offender becomes the civilian justifiable victim. In two of the few existing studies on civilian justifiable homicides, Tennenbaum (1993) and Marsolais (1997) described a broad range of theories including social disorganization, subculture of violence, and routine activities, but most of their analysis consists of simply examining descriptive patterns of civilian justifiable homicides (CJH).

The difficulty is that any one of the three theories mentioned offers an explanation of homicides, but has difficulty explaining events in which roles become reversed ending in the demise of the original offenders. For example, there is no explanation of a central and basic characteristic of CJH: there are far fewer CJH than criminal homicides. While cities and counties show considerable variation, CJH are consistently less than 20% of all homicides (Bensing & Schroeder, 1960; Lorenz Dietz, 1983; Lundsgaarde, 1977; Marsolais, 1997; Rushforth, Ford, Hirsch, Rushforth, & Adelson, 1977; Wilbanks, 1984; Wolfgang, 1958). Nationally, CJH range between only 3% and 4% of all homicides.

[1] Legally, homicide is the killing of one human being by the act, procurement, or omission of another. When no criminal culpability is found, the homicide is justifiable (Black, 1979). In California, a defense of "justification" can be raised by civilians by showing that the killing was committed in self-defense; in defense of property; or to prevent a offender from causing the death of either strangers or family members (see http://www.leginfo.ca.gov/cgi-bin/displaycode?section = pen&group=00001-01000& file=187-199, Sections 196-198). Additionally, the Home Protection Bill of Rights in California, passed in 1984, states that a person can use deadly force if he or she holds “a reasonable fear of imminent peril of death or great bodily injury to self, family, or a member of the household” and has reason to “believe that an unlawful and forcible entry occurred.” (See http://www.leginfo.ca.gov/cgi-bin/ displaycode? section=pen &group=00001-01000&file=187-199, Section 198.5, Accessed: August 26, 2001.)

ROUTINE ACTIVITIES

Routine activities theory postulates that crime occurs as a result of an intersection in space and time of suitable targets, absence of guardians, and motivated offenders (Cohen & Felson, 1979; Felson, 1998; Felson & Cohen, 1980). Put another way, one person's routine activities are another person's criminal opportunities. The concept of routine activities suggests a mode of regular living in which people follow a more or less set routine in their daily life. In living their lives, people do not think that they offer a robbery opportunity when they use an ATM machine or use the services of a check cashing facility. People who have to work late come home after dark unaware that this may increase their chance of victimization. Criminal opportunities are created by an intersection in time and space in which a motivated offender finds a suitable target and an absence of guardians.

Routine activities theory has been subsequently expanded to include a view of offenders. Collaboration with Clarke (1993) led to a view of offenders as rational decision makers who choose targets with the ultimate goal of successfully completing the crime. In addition, as a result of research on "hot spots" by Sherman, Gartin, and Buerger (1989) and Roncek and Maier (1991) it became apparent that routine activities theory was applicable to violence.

This paper explores and tests the view that civilian justifiable homicides (CJH) can be explained by an extension of routine activities theory. Our view is that CJH are possible because of routine precautions and situational resources of victims and by the failure of offenders to include those components in their rational choice of targets.

THREE TYPES OF CRIME PREVENTION

The emphasis on suitable targets, likely offenders, and the absence of guardians puts the focus on the situation giving rise to the crime. There are two types of crime prevention discussed by Felson and Clarke. First, there are those that range from redesigning public space into space for which someone can legitimately be accountable. For example, Felson (1998) suggests there are three design approaches to reducing crime: (1) control natural access; (2) provide natural surveillance; and (3) foster territorial behavior. The suggestions range from designing housing, street closures and alternatives, making commercial locations less vulnerable, and reducing opportunities for crime in parking lots. This type of prevention is collectively known as situational crime prevention as defined by Clarke (1998 p. 4):

> Situational prevention comprises opportunity-reducing measures that (1) are directed at highly specific forms of crime, (2) involve the management, design, or manipulation of the immediate environment in as systematic and permanent way as possible, (3) make crime more difficult and risky, or less rewarding and excusable as judged by a wide range of offenders.

Examples of successful situational crime prevention include steering column locks to prevent auto theft, deterring obscene phone calls by use of caller ID, reducing drink promotions in nightclubs that encouraged mass intoxication and violence, and reducing convenience store robberies by such measures as having two or more clerks on duty, and enhancing interior views of the store.

Routine Precautions

A second type of prevention are routine precautions. Felson and Clarke (1995 p. 179-180) define routine precautions as activities that we consciously do daily to protect ourselves.

> Every day, we all do such things as lock our doors, secure our valuables, counsel our children, and guard our purses and wallets to reduce the risk of crime. To this end, we also buy houses in safe neighborhoods, invest in burglar alarms, firearms, and avoid dangerous places and people.

The discussion of routine precautions represents a shift in the concept of victims for Felson and Clarke. While situational crime prevention relies on redesigning public space, routine precautions consider what people may do to protect themselves. To be sure, Felson and Clarke argue that the task of criminologists is to contribute their knowledge to make these routine precautions more effective as prevention strategies. What is important in the discussion of routine precautions is that crime prevention is not exclusively a matter of redesigning public space, it is also a matter of what persons can and do routinely to protect themselves.

Situational Resources

Most of us are not called upon to respond to life threatening circumstances in the same way as Aron Ralston. Ralston, a hiker and mountain climber, found his right arm pinned to a cliff face by an 800 pound boulder. After trying to free himself and exhausting most of his water and food, he used a pocket knife to cut off his right arm and free himself (CBSNews.com, 2003).

The only element that situational resources has in common with Ralston's ordeal is that, given conditions in which their life is threatened, people will take extreme risks. While situational resources addresses those kinds of events, there are two major differences. First, situational resources focuses on life threatening events imposed by other people. Second, situational resources are largely unattended to elements of routine activities, but those in which, when confronted by the possibility of victimization, are seized upon to prevent it.

There is such a variety of individual differences in successfully meeting life-threatening situations imposed by others that any description of patterns may seem impossible. Such differences range from individuals who don't react to the threat in a timely way to those who consistently remain calm in a situation of threat and rationally assess alternatives that are open to them.

There is, however, one avenue of exploration. Rather than focusing on individual differences, we consider the elements in situations that make it possible for the CJH offender to turn the tables on the attacker. In other words, we cannot specify variations in individual differences, but we can hypothesize situations or elements of situations that offer opportunities of self protection to CJH offenders.

Consistent with the view in routine precautions of an active victim, the concept of situational resources assumes that CJH offenders evaluate alternatives as rationally as CJH victims. That CJH offenders may do so in a moment of surprise and shock and that they are inexperienced in doing so is testimony to a large number of failures, not their passivity. On the other hand, the CJH victim believes the attack is worth the risk and reward involved. The concept of situational resources suggests that, prior to the attack, neither CJH victims nor CJH offenders may be aware of what resources the CJH offender can mobilize.

Situations in which homicides occur are very fluid and dynamic affairs, as the next section will make clear, so role reversals of victims and offender should occur more often. But the preceding view provides reasons for understanding why cases in which the victims kill their initial offender are comparatively small in number. There are three reasons why CJH are a small of proportion of all homicides. First, offenders (CJH victims) have the luxury of choosing the situation that is most beneficial to them. Victims (CJH offenders), on the other hand, have to marshal the resources available to them at the moment. Second, in the very short time that transpires in a violent attack, CJH offenders may be temporarily incapacitated. Third, situational resources to terminate an attack may not be available or perceived by the participants.

THE DYNAMICS OF VIOLENT ENCOUNTERS

Statistical analyses of homicide patterns depend on completed events. Participants are classified as victims and offenders, characteristics of both as well as location, time, and circumstances are duly recorded by investigating authorities where the information is available. The resulting statistical analysis conveys a fixed and predictable quality to the event which belies what really happened.

Homicides are very dynamic affairs. They are a subset of dispute-related violent acts; they are, “Aggressive actions [that] seek to compel and deter others, to achieve a favorable social identity, and to obtain justice, as defined by the actor” (R. B. Felson, 1993, p. 104). Tedeschi and Felson (1994) argue that expressive violence does not exist. The offender has some reason to attack the victim, even if thinking about it for only a split second.

A second indication of the fluid nature is that at the outset of many violent encounters that lead to homicide, it is unclear who will ultimately be victims and offenders. This characteristic is noted in one of the earliest studies of homicide (Wolfgang, 1958). In his classic description of homicide as a situated transaction,

Luckenbill (1977) made it clear that the identification of the homicide victim and offender depended on the outcome of a “face contest” that escalated with threats and counter-threats to a lethal conclusion.

While there are burglaries where the offender unintentionally confronts a home-owner with a gun, our primary interest is in robberies and criminal homicides. We assume that a common feature of the latter violent encounters is that one of the participants is using violence or the threat of violence to compel behavior from the other (Luckenbill, 1977, 1980, 1981; Wright & Decker, 1997).

The use or threat of violence to compel behavior is subject to unanticipated consequences. Block (1997 p. 10) has suggested that "most [robbery] killing[s] are the outcome of . . . a robbery which somehow progressed beyond the degree of harm intended by the offender." Where the rules of interaction are not shared and violence or the threat of violence is used to obtain compliance, the probability of unanticipated consequences increases as the following instance suggests.

> The victim was a 19-year-old White gas station attendant who was working, together with the older station manager, on the graveyard shift. The killer, a 20-year-old Black male, drove up to the station requesting a fill-up. The killer, and his companion who later was apprehended but not prosecuted, left their car at the gasoline pumps and went into the station. One of them suddenly pointed a gun at the two gas station attendants. He demanded all the money in the cash register. As the younger man began to open the cash register he accidentally broke off the handle. He put the handle in his back pocket and that action was taken by the killer to mean that the attendant was going for a gun. The killer fired his .22 caliber pistol and the 19-year-old gas station attendant fell over dead. The killer and his companion . . . emptied the cash register and left the station with their haul, which amounted to $80. (Lundsgaarde, 1977 #349 p. 135-136)

Felson (1987) is correct in assuming that offenders pick the easiest and most obvious situations to attack. For example, in CJH, most offenses are intraracial because of the proximity of targets (Alvarez, 1992; Marsolais, 1997). But offenders are not as stupid as “stupid criminal” web pages would have us believe. There is a large body of research that indicates that offenders do practice a limited rationality and minimize risks in selecting targets, managing the event, and escaping (Katz, 1991; Lejeune, 1977; Luckenbill, 1980, 1981; Wright & Decker, 1997).

As noted earlier, a major reason for their success is that offenders choose the situation that is most beneficial to them. The victim, on the other hand, has to marshal the resources available to him or her or, in the case of routine precautions, be able to use the ones carried into the situation. Minimally, it means that the encounter must begin and end quickly before victims have time to think. This obviously requires that offenders become adept at managing violent situations. In their study of robbery offenders, Wright and Decker (1997 p. 107) state:

> In announcing their stickups, the offenders are attempting to strike a precarious balance. They must threaten would-be victims sufficiently to compel compliance without either immobilizing or emboldening them through excessive fearsomeness.

While we have described situational resources in some detail, in the hypotheses to follow we describe the kinds of CJH where routine precautions and situational resources are useful in explaining the CJH offenders behavior.

HYPOTHESES

Insufficient Information About the CJH Offender

Other things being equal, the less one person knows about the other, the more likely a miscalculation is to occur in subsequent interaction. We take the view suggested by Lofland (1973 p. 15) that there is a distinction between nonstrangers, for which we have some personal knowledge, and strangers for which we only have knowledge of social categories.

> That is, one knows who the other is only in the sense that one knows he can be placed into some category or categories. One knows that the other is a policeman or a whore or a female or an American Indian or a student or a Frenchman or a king, or some combination thereof.

Miscalculation in interacting with strangers is not an uncommon experience. For example, many of us have had the experience of interacting with a stranger in a store under the assumption that he or she was an employee only to find out that he or she was another shopper. The interaction is halted with nothing more serious than an apology for imputing the wrong identity and a mild case of embarrassment. Avoiding the latter situations may be one reason most large stores now require employees to wear a badge or an identifying article of clothing.

But not knowing enough about victims and the kinds of resources they can mobilize in a violent confrontation may have fatal consequences for CJH victims. Indeed, research showing that strangers are disproportionately involved in CJH is one of the most persistent findings. Marsolais (1997) found that 38.6% of 306 CJH in Houston from 1987 through 1992 involved strangers. Of the 1451 criminal homicides, 21.9% involved strangers. In a national data set, Alvarez (1992) found that 67% of CJH from 1976 through 1987 involved strangers; Tannenbaum (1993) found 66.5% of CJH and 24.7% of criminal homicides involved strangers for the period of 1976 through 1990. In Cuyahoga county from 1958 through 1982, Challener, Adelson, and Rushforth (1987) found that 54.2% of CJH involved strangers. While there are variations among cities, available research indicates that stranger criminal homicides range between 15% to 25% (Riedel, 1993, 1998, 1999; Riedel & Regoeczi, 2000).

Further, the existence of strangers is an urban phenomena. Cities are places where the vast majority of people know nothing personally about others with whom they

share space (Milgram, 1970). For the average urban dweller, meeting and interacting with strangers is a routine fact of life. There are several reasons for the omnipresence of strangers: (1) there are biophysical limitations to the number of people who may be known by name or face; (2) cities are highly complex and differentiated organizations and a person's routine activities becomes channeled and restricted; and (3) cities are places of transients; people come, conduct their business, and move on, limiting the number of encounters with the same people (Lofland, 1973).

The preceding suggests that we should find more criminal and CJH involving strangers in large cities than small urban and rural areas. If insufficient information about the target leads to CJH, then we should also expect more strangers involved in CJH than criminal homicides. With respect to the latter, Tennenbaum (1993) compared very large cities to municipalities for stranger criminal homicides and CJH. The ratio of big cities to municipalities for stranger criminal homicides was 1.03 while ratio for stranger CJH was 1.92, almost twice the ratio for stranger criminal homicides.

H1: Among CJH homicides, the proportion of CJH involving stranger relationships will be significantly larger than any other type of victim/offender relationship.

H2: Controlling for the density of population, stranger relationships will be positively related to the likelihood the homicide is justifiable as opposed to criminal.

Misjudging Categorical Capabilities: Age

Tennenbaum (1993) postulated a "mirror assumption" that CJH offenders are similar to criminal homicide victims; the assumption received the best support with respect to the ages of participants in the two types of violence. The "mirror assumption" of older CJH offenders and younger CJH victims most likely reflects a target selection process. In their study of robbery offenders, Wright and Decker found that one of the important demographic factors in selecting a victim was age. "Quite a few offenders expressed a preference for elderly victims because they were unlikely to offer any resistance," (Wright & Decker, 1997 p. 86).

If we assume that victims feel that their age makes them more vulnerable to attack, they may take the routine precaution of carrying a weapon. This is a matter of central concern to offenders which explains why they would rather attack a law-abiding citizen than another offender. Of the 86 robbery offenders studied by Wright and Decker (1997 p. 72), 30 routinely robbed law-abiding citizens.

> They did so at least in part because this was believed to be less dangerous than robbing other criminals. As one pointed out, "You don't want to pick somebody dangerous, they might have a gun themselves."

We further hypothesize that the likelihood of elderly citizens being armed will be greater in locations which are high in population density, as these types of environments

involve interaction with more strangers and unknown others, in turn heightening one's sense of vulnerability.

Clearly, although not controlling for age, research indicates that CJH offenders frequently use handguns in a confrontation with CJH victims. Tennenbaum (1993) found that approximately 67% of CJH offenders in justifiable homicides used handguns. By comparison, about 48% of offenders in criminal homicides used handguns. The differences were smaller in the research done by Marsolais (1997). He found in Houston that 66.3% of the CJH offenders used handguns in CJH while 61.0% used handguns in criminal homicides.

H3 The effect of handguns on the likelihood of a homicide being justifiable compared to criminal will be conditioned by offender age: its impact will be greater among older offenders.

H4: The effect of offender age on the likelihood of a homicide being justifiable as opposed to criminal will be conditioned by population density: its impact will be greater in areas with higher population density.

Insufficient Information About the Location: "The Home Court Advantage"

The type of location serves to distinguish CJH from criminal homicide. Griswold and Massey (1985) found that 40.0% of CJH occurred at another's home, typically the CJH offender. Similarly, Copeland (1984) found that 56% of CJH in Dade county occurred in the home. Unlike the previous studies, Marsolais (1997) compared the percent of CJH that occurred in a residence (64.4%) to the percent of criminal homicides also occurring in a residence (50.2%).

On the face of it, attacking victims in their residence offers substantial situational resources to the CJH offender. How many people leave their home for work, for example, only to return in a short time because they forgot an item that is needed that day? In a surprise confrontation, even if the attacker is armed, we suggest that CJH offenders are in a better position to defend themselves in their homes than in other locations. Settings better known to CJH offenders than CJH victims offer the possibility that CJH offenders may have an accessible handgun that CJH victims do not know about, even if they knew one another prior to the event. The CJH offender's residence also offers a wide variety of accessible objects that can be used as weapons, ranging from lamps and ashtrays to a wide variety of stabbing and slicing devices found in kitchens.

H5: Offender residence will be positively related to the likelihood the homicide is justifiable as opposed to criminal.

Single and Multiple Offenders

Prior research shows justifiable homicides involving civilians typically involve single offenders and victims. Tennenbaum (1993) reports that 96.5% of CJH and 87.4%

of criminal homicides involve single participants and victims; Alvarez (1992) found similar results using different years of national data. Challener et al. (1987) found that 98.8% of CJH in Cleveland, Ohio from 1950 through 1982 involved single victims and single offenders.

By contrast, Marsolais (1997) found small differences in the ratio of victims and offenders in CJH and criminal homicides. For CJH, 71.2% involved single victims and offenders while for criminal homicide, the percent was larger (78.3%). Marsolais suggests the disparity with earlier research is due to differences in reporting; while police in other jurisdictions only recorded the actual slayer and victim, the Houston data included other victims and offenders present.

Because a violent encounter involves controlling the victim while the attack takes place, the presence of multiple offenders makes it more unlikely that CJH offenders can avail themselves of routine precautions or mobilize situational resources. Other things being equal, a single offender gives the CJH offender more of an opportunity to mobilize available resources.

H6: The number of victims and offenders will be significantly related to the likelihood the homicide is justifiable as opposed to criminal.

METHOD

Data

The data for this study were derived from the California Homicides Data File. This file contains information on 44,296 homicides reported to the California Criminal Justice Statistics Center at the California Department of Justice from 1987 through 1999. There were 64 cases listed as occurring before 1987; these were included in the 1987 data. We excluded 411 manslaughter cases. For the remaining 43,885 cases, there were 41,382 willful homicides and 2,503 justifiable homicides. Beginning in 1992, data were collected on gang participation in the victim/offender classification in addition to a classification under circumstances. Deleting those cases from the victim/offender relationship variable left us with 976 civilian justifiable homicide cases. The 1,522 justifiable homicides by police were excluded from analyses. In order to prevent a highly skewed dependent variable as a result of comparing criminal homicides to civilian justifiable homicides (criminal homicides outnumbering civilian justifiable homicides by more than 42 to 1), we drew a random sample of criminal homicides equally 3% of the total number of criminal homicide cases (N = 1125). Thus, the final data set included 2101 cases.

Measures

In line with the hypotheses developed in the previous section, the following variables were used in the analysis.

Victim and Offender Age. Both of these were treated as continuous variables.

Victim/Offender Relationship. A dummy variable was created to contrast stranger with non-stranger homicides.

Weapon. A dummy variable was created to contrast handguns with all other weapons.

Location. A dummy variable was created to contrast offender's residence with all other homicide locations.

Total Number of Victims and Offenders. Both were treated as continuous variables. They were logged in order to adjust for their skewed distributions.

CJH offender age x Handgun. An interaction was created between CJH offender age and the dummy variable for handgun.

Population Density. The average population for each county was calculated and divided by the total land area to create a measure of the average persons per square mile between 1987-1999. This variable was logged to adjust for its skewed distribution.

Analysis

For the multivariate analysis, the nested structure of the data required the use of a program which could incorporate the multilevel nature of the data. The current research was carried out using the hierarchical linear modeling software developed by Raudenbush, Bryk, Cheong, and Congon (2000).

RESULTS

Bivariate Analysis

Hypothesis 1 predicted that stranger relationships would make up a greater proportion of civilian justifiable homicides than any other type of victim/offender relationship, since miscalculation is likely to be a function of the level of knowledge one person has about another. Comparing intimate partner, other family, acquaintance, and stranger homicides, we find that stranger relationships make up the large majority of civilian justifiable homicides (64.4%), followed by acquaintances (26.2%) (Table 1). Intimate partner and family homicides represent only a small proportion of civilian justifiable homicides (4.5% and 5.0% respectively).

Multivariate Analyses

The first step of the multivariate analysis consisted of running an unconditional model which tested whether there is variability in the probability of justifiable vs. criminal homicides across counties. The results (not shown) indicate there is highly significant variability ($p = 0.000$), thus underscoring the need to conduct the analyses using a multilevel software which can take into account this variability.

Table 1
VICTIM/OFFENDER RELATIONSHIP IN CIVILIAN JUSTIFIABLE HOMICIDE CASES: CALIFORNIA, 1987-1999

Victim/Offender Relationship	Cases	Percent
Intimate Partner	43	4.5%
Other Family	48	5.0%
Friend/Acquaintance	253	26.2%
Stranger	621	64.4%
Total	965	100%

The second step involved testing a model which included the full set of level-1 predictors: stranger vs. non-stranger; offender residence; number of offenders; number of victims, victim age; offender age; handgun. In the initial run, all level-1 coefficients were allowed to vary randomly across level-2 units (county). Those which were not found to vary significant were subsequently fixed. Random effects were retained for offender age, number of offenders, handgun, and the intercept. Thus, the impact of these variables on the probability of a homicide being justifiable vs. criminal varies significantly across counties.

The third step involved adding the interaction between age and handgun to the model. Initially the coefficient for this variable was allowed to vary randomly but due to the lack of significance of this variation, it was fixed in a subsequent run. The interaction between age and handgun was significant as was retained in the model.

The final stage involved adding the level-2 predictor. Main effects were included for the average population density for each county for the years under investigation. The model also included a cross-level interaction between CJH offender age and average population density. No significant interaction was found between CJH offender age and population density so the model was re-run removing this term. The results for the final model are presented in Table 2. Population-average model estimates with robust standard errors are reported. The results provide strong support for the hypotheses upon which this study is premised.

Insufficient Information About the CJH Offender

It was hypothesized that, controlling for population density, stranger relationships would be positively related to justifiable homicides since miscalculations are more likely to occur in situations where there is little or no information about the would-be target (Hypothesis 2). The findings from our analysis indicate that killings involving strangers are over four times more likely be justifiable than criminal homicides.

Table 2
HIERARCHICAL LINEAR MODEL COMPARING JUSTIFIABLE VERSUS CRIMINAL HOMICIDES FOR CALIFORNIA COUNTIES, 1987-1999.[a]

Variable	Coefficient	Standard Error	Odds Ratio
Intercept	-1.044***	0.236	0.352
Stranger vs. Non-Stranger	1.408***	0.118	4.088
CJH Offenders Residence	1.930***	0.172	6.889
Number of CJH Offenders (Logged)	-2.981***	0.585	0.051
Number of CJH victims (Logged)	-2.171**	0.774	0.114
CJH victim Age	-0.016***	0.002	0.984
CJH Offender Age	0.028***	0.006	1.028
Handgun	0.427	0.341	1.533
CJH Offender Age X Handgun	0.015*	0.008	1.015
Persons per Square Mile (Logged)	0.094	0.069	1.098

* $p < .05$ ** $p < .01$ *** $p < .001$

[a]Results presented are for the population-average model with robust standard errors.

Misjudging Categorical Capabilities

It was also predicted that the use of a handgun would increase the likelihood that the homicide would be justifiable as opposed to criminal, and further that this would be particularly the case in homicides involving older CJH offenders (Hypothesis 3). The significance of the interaction term between CJH offender age and handgun in the model renders support for this hypothesis. This finding supports the argument that ownership of handguns among the elderly is likely to lead to situations in which would-be offenders misjudge the ability of the would-be victim to defend themselves, leading to the commission of justifiable homicides.

It was further hypothesized that elderly individuals would be more likely to arm themselves in self-defense in densely populated areas where they are encounter more strangers. Thus, the relationship between age and the probability of a homicide being justifiable versus criminal would be conditioned by the density of the wider environment (Hypothesis 4). We did not find support for this hypothesis. The interaction between CJH offender age and the average population density of the county was not significant.

Insufficient Information about the Location

We hypothesized that the offender's residence would function as the location in which miscalculations by would-be offenders would be most likely to occur (Hypothesis 5). We find strong support for this hypothesis: homicides that take place in the CJH

offender's residence are nearly seven times more likely to be justifiable homicides (odds ratio = 6.9). It is in such locations where potential victims may have the greatest chance of turning the tables on their would-be attackers since their familiarity with the surroundings as well as access to potential weapons may be sufficient to reverse the balance of power.

Multiple Victims and Offenders

We predicted that homicides involving single victims and offenders would increase the likelihood of the killing being justifiable as opposed to criminal (Hypothesis 6). This hypothesis receives strong support in the analysis: increases in the number of offenders and the number of victims dramatically reduces the likelihood of the homicide being justifiable. Crimes involving sole attackers are likely the best candidates for would-be victims to avail themselves of situational resources in successfully defending themselves.

DISCUSSION AND CONCLUSION

Efforts to explain CJH homicides run into the difficulty of explaining the characteristics of lethal attacks in which the criminal homicide victim becomes the civilian justifiable homicide offender while the criminal homicide offender is the CJH victim who is killed. The introduction of situational resources draws upon the routine activities/ rational choice perspective and extends the view of victims. Consistent with routine activities, rational offenders survey victims' routine activities for ways that present opportunities for criminal attacks. Our view is that the victim in routine activities is more than a suitable target: victims take risks, sometimes extreme, to protect themselves. This view of victims who actively protect themselves is consistent with the later view of Felson and Clarke (1995) in their discussion of routine precautions.

Our view of active victims is sharply circumscribed. While the care that people take to protect themselves from victimization varies enormously, even with respect to routine precautions, it is difficult to argue that self-protection is unimportant in the face of another who threatens injury and even lethal violence.

Thus, from the perspective of the CJH offender, the violent situation has, on the one hand, all the elements of conventional activities since violence occurs in the course of routine activities. On the other, in some instances the same situation contains elements that CJH offenders can use to turn the tables on their attackers. While we cannot account for individual variations in responding to violent attacks, we can describe resources available to CJH offenders to protect themselves. We have found support that stranger relationships, locations in the home of the CJH offenders, misjudging categorical relationships, use of handguns, and number of participants provide situational resources that increase the probability of civilian justifiable homicides.

This paper is a work in progress. We have a hypothesis of the relationships between CJH and criminal homicides that we have not tested. There is also the question of similarities and differences between race/ethnic groups and CJH that we have not

dealt with in this paper. Finally, there is the intriguing and very large question of individual differences in responding to violent threats. To draw a final parallel between Aron Ralston and interpersonal threats of violence, what individual characteristics differentiate those who take extreme risks and succeed and those who simply give up?

REFERENCES

Alvarez, A. (1992). Trends and patterns of justifiable homicides: A comparative analysis. *Violence and Victims, 7*(4), 347-356.

Bensing, R. C., & Schroeder, O. (1960). *Homicide in an Urban Community*. Springfield, IL: Charles C Thomas.

Black, H. C. (1979). *Black's Law Dictionary* (5th ed.). St. Paul, MN: West Publishing Co.

Block, R. (1977). *Violent Crime: Environment, Interaction and Death*: Lexington: Lexington Books.

CBSNews.com. (2003). *Climber Describes Amputation Ordeal*. Retrieved May, 2003, from http://www.cbsnews.com/stories/2003/05/02/national/printable551979.shtml

Challener, N. C., Adelson, L., & Rushforth, N. B. (1987). Justifiable homicide: A study of the application of nonculpable deadly force in Cuyahoga County (Cleveland), Ohio, 1958-1982. *Journal of Forensic Sciences, 32*, 1389-1402.

Clarke, R. V. (Ed.) (1998). *Situational Crime Prevention: Successful Case Studies* (2nd ed.). Albany, NY: Harrow and Heston.

Clarke, R. V., & Felson, M. (Eds.) (1993). *Routine Activity and Rational Choice* (Vol. 5). New Brunswick: Transaction Publishers.

Cohen, L. E., & Felson, M. (1979). Social change and crime rate trends: A routine activity approach. *American Sociological Review, 44*, 588-608.

Copeland, A. R. (1984). The right to keep and bear arms -- A study of civilian homicides committed against those involved in criminal acts in metropolitan Dade County between 1957-1982. *Journal of Forensic Sciences, 29*, 584-590.

Felson, M. (1987). Routine activities and crime prevention in the developing metropolis. *Criminology, 25*, 911-131.

Felson, M. (1998). *Crime and Everyday Life* (2nd ed.). Thousand Oaks, CA: Pine Forge Press.

Felson, M., & Clarke, R. V. (1995). Routine precautions, criminology, and crime prevention. In H. Barlow (Ed.), *Crime and Public Policy: Putting Theory to Work* (pp. 179-190). Boulder, CO: Westview Press.

Felson, M., & Cohen, L. E. (1980). Human ecology and crime: A routine activity approach. *Human Ecology, 8*, 389-406.

Felson, R. B. (1993). Predatory and dispute-related violence: A social interactionist approach. In R. V. Clarke & M. Felson (Eds.), *Routine Activity and Rational Choice* (Vol. 5, pp. 103-125). New Brunswick: Transaction Publishers.

Griswold, D. B., & Massey, C. R. (1985). Police and citizen killings of criminal suspects: A comparative analysis. *American Journal of Police, 4*, 1-19.

Katz, J. (1991). The motivation of the persistent robber. In M. Tonry (Ed.), *Crime and Justice: A Review of Research* (pp. 277-305). Chicago: University of Chicago Press.

Lejeune, R. (1977). The management of a mugging. *Urban Life and Culture, 6*, 123-148.

Lofland, L. H. (1973). *A World of Strangers: Order and Action in Urban Public Space*: New York: Basic Books.

Lorenz Dietz, M. (1983). *Killing for Profit*. Chicago: Nelson-Hall.

Luckenbill, D. F. (1977). Criminal homicide as a situated transaction. *Social Problems, 25*, 176-186.

Luckenbill, D. F. (1980). Patterns of force in robbery. *Deviant Behavior, 1*, 361-378.

Luckenbill, D. F. (1981). Generating compliance: The case of robbery. *Urban Life, 10*, 25-46.

Lundsgaarde, H. P. (1977). *Murder in Space City: A Cultural Analysis of Houston Homicide Patterns*: New York: Oxford University Press.

Marsolais, M. (1997). *Lethal Self-Help in an Urban Community: An Analysis of Justifiable Homicide in Houston, Texas, 1987-1992.* Unpublished Doctoral Dissertation, Sam Houston State University, Huntsville.

Milgram, S. (1970). The experience of living in cities. *Science, 167*, 1461-1468.

Riedel, M. (1993). *Stranger Violence: A Theoretical Inquiry*. New York: Garland Publishing Co.

Riedel, M. (1998). Counting stranger homicides: A case study of statistical prestidigitation. *Homicide Studies, 2*, 206-219.

Riedel, M. (1999). Toward a perspective on stranger violence. *Advances in Criminological Theory*, 12, 19-35.

Riedel, M., & Regoeczi, W. (2000, November). Estimating stranger homicides: Los Angeles and Chicago. Paper presented at the American Society of Criminology, San Francisco, CA.

Roncek, D. W., & Maier, P. A. (1991). Bars, blocks, and crimes revisited: Linking the Theory of routine activities to the empiricism of "hot spots." *Criminology, 29*, 751-753.

Rushforth, N. B., Ford, A. B., Hirsch, C. S., Rushforth, N. S., & Adelson, L. (1977). Violent death in a metropolitan county: Changing patterns in homicide (1958-74). *New England Journal of Medicine, 297*, 531-538.

Sherman, L. W., Gartin, P. R., & Buerger, M. E. (1989). Hot spots of predatory crime: Routine activities and the criminology of place. *Criminology, 27*, 27-55.

Tedeschi, J., & Felson, R. B. (1994). *Violence, aggression, and coercive action*. Washington: American Psychological Association Books.

Tennenbaum, A. N. (1993). *Justifiable Homicides by Civilians in the United States, 1976-1990: An Exploratory Analysis.* Unpublished Doctoral Dissertation, University of Maryland, College Park.

Wilbanks, W. (1984). *Murder in Miami: An Analysis of Homicide Patterns and Trends in Dade County (Miami) Florida 1917-1983*: Lanham, Md.: University Press of America.

Wolfgang, M. E. (1958). *Patterns in Criminal Homicide*: Philadelphia: University of Pennsylvania Press.

Wright, R. T., & Decker, S. H. (1994). *Burglars on the Job: Streetlife and Residential Break-ins*. Boston: Northeastern University Press.

Wright, R. T., & Decker, S. H. (1997). *Armed Robbers in Action: Stickups and Street Culture*. Boston: Northeastern University Press.

AN EVALUATION OF ARSON-ASSOCIATED HOMICIDE IN CHICAGO – 1965 to 1995

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ABSTRACT

The goal of this paper is to shed light on the under-researched topic of arson homicide. We define four types of "arson-associated homicide" — homicides in which the victim was killed in an arson fire (primary arson homicide), an arson was committed after the murder (secondary arson homicide), the person was burned to death but not in an arson (person burned or set on fire), and in which the victim's body was burned after the murder (body burned). While arson homicide typically includes only primary arson homicides, the other three types of arson-associated homicide share many of the characteristics of primary arson homicide. However, secondary arson homicide and "body burned "are similar in that they both involve arson or burning to conceal a murder, while primary arson homicide and "person burned or set on fire" involve the use of fire as an instrument of death.

Examining the 269 arson-associated incidents from 1965 to 1995 in the Chicago Homicide Dataset, in which 461 victims died, we detect patterns of the types of victims, types of offenders, and types of incident. We look at clearance rates for different types of arson-associated homicide incidents. We also describe the adult and juvenile offenders who use fire as a criminal weapon during their murderous attack, or as a method of destroying or degrading crime scene evidence. We comment on the context of these incidents, especially with respect to intimate partner, and sex-related homicides.

INTRODUCTION

In Chicago from 1965 to 1995, arson-associated homicide incidents accounted for only 1.2% of all homicide incidents and 1.9% of all homicide victims. (We define arson-associated homicide as including all homicides in which fire was either the instrument of death, or used to conceal the death. See below for more detail.) Despite the small numbers, arson-associated homicide deserves our attention. It is a significant and unique form of murder, which has been difficult to address DeHann (1997). Of all the ways to die, death by fire is among the most painful (Huff, 1993:26-27), but many arson-associated homicides remain unsolved. A major deficit in the investigation of arson-associated homicide is the inability of investigators to successfully solve a case (Geberth, 1990; Geller, 1992; Sapp & Huff, 1994; DeHaan, 1997) following the wholesale destruction of evidence by the fire (Battle & Weston, 1978). Geller (1992) states, “Arson is one of the easiest crimes to commit, but the hardest to prevent or prove.”

For the purposes of this analysis, we define primary arson homicide as occurring when the primary cause of death was attributed to an arson fire of a structure or a vehicle, whether the primary cause of death was direct (heat, flame contact) or indirect (smoke inhalation, toxic gases, escape efforts). However, there are other deaths associated with arson, but in which arson was not the primary cause of death. One of the

most common situations occurs when a victim is killed by other means, and then the offender starts a fire to cover up the murder. We call this *secondary arson homicide*, and distinguish between two types of secondary arson homicide – one in which the offender starts a fire in the building or a vehicle, and a second in which the offender sets the body itself on fire. In addition, we include as a separate category in our analyses deaths in which the victim was set on fire or burned to death, but not in arson of a structure or vehicle.

Arson-associated homicide is the broad term we have chosen to describe all of these attacks – primary arson, person burned or set on fire, secondary arson after death, and person set on fire after death. Arson-associated homicide includes using fire to kill or burn the victim, or as a device to conceal evidence of the crime, regardless of whether it occurs inside of a building. It does not include excessive exposure to climatic heat, such as when illegal immigrants die locked in an overheated railroad boxcar, nor does it include infants scalded in hot grease or intemperate water. It does include contact with direct flame or with a heated tool or device, such as is used to brand.

Previous research has mostly ignored the issue of arson-associated homicide. While there are some studies of arson offenders, we have been able to identify only three quantitative studies of arson-associated homicide. Preliminary analysis of primary arson homicides in the City of Chicago was conducted by Block (1986) and integrated into her comprehensive work, *Homicides in Chicago: Aggregate and Time Series Perspectives on Victim, Offender and Circumstance: 1965-1981*. Sapp & Huff (1994) researched characteristics of 183 primary arson homicides in the United States among 10,000 Violent Criminal Apprehension Program (VICAP) reports. That report has several methodological limitations, however. Of the 183 cases, 83.1% were missing offender information, and victim information was present for only one victim per incident. Victim risk factors were computed based on available information for 69 victims, representing a 62.3% missing data problem. In addition, VICAP reports are not representative of the population of arson-associated homicides, but instead over-represent unsolved cases. Reporting to VICAP is not mandatory and includes the completion of approximately 24 pages of detailed questions. Finally, Lerer (1994) reported in South Africa that “of 358 burn-related deaths, 35 (10%) were homicides.” He found that the 35 homicide victims did not differ from other adult victims of residential fires. In 82% of homicide cases, fire was used in combination with other weapons. Victims revealed evidence of alcohol use prior to death in 48% of homicides.

Because of the scarcity of prior research, in the present analysis, we pose a number of very basic, descriptive questions. Our first goal is to describe the victims and offenders in arson-associated homicides. Who is most likely victimized, and what increases their risk (Sapp & Huff, 1994)? In what situations and under what conditions is arson-associated homicide likely to occur? How do adult arson-associated homicide offenders differ from juveniles (Gaynor, Huff, and Karchmer, 1985)? What distinguishes various offenders who use fire as a criminal weapon based on age, gender and other sociological variables? What are the nuances of how an offender employs the weapon fire? For instance, are victims burned before or after death (Sapp & Huff, 1994)? Finally,

a more complex question concerns the search for understanding motivations behind the use of fire as a choice of weapon, which is often considered to be a symbolically expressive tool (Geller, 1992; Robbins, Herman, & Robbins, 1969; Topp, 1973).

DATA AND METHODS

To address these questions, we use an updated, expanded and corrected version of the 1965 to 1995 Chicago Homicide Dataset (CHD), which has been collected and maintained for many years by the Illinois Criminal Justice Information Authority, in partnership with the Crime Analysis Unit of the Chicago Police Department. The CHD overcomes the problem of delayed reporting (a serious problem with arson-associated data) through diligent and continued code checking, and periodic updates of prior years of data.

We define four types of arson-associated homicide. In two of these types, the primary cause of the victim's death was a fire set by the offender. In the first, accounting for 293 victims in 138 incidents, the person died in a building or a car set on fire by the offender. In the second, accounting for 43 victims in 34 incidents, the person was set on fire or burned by the offender, but no building was burned. For example, the person was doused with gasoline and set on fire. We call these two types of arson-associated homicide "primary arson" and "person burned," respectively.

In the other two types of arson-associated homicide, the fire was lit after the victim died, and was used as a means to conceal the homicide or destroy evidence. In the first of these, accounting for 78 victims in 54 incidents, the offender set fire to a structure after a victim was killed by other means. Many of the victims in these situations were found by fire fighters called to a fire. In the final type of arson-associated homicide, accounting for 47 victims in 43 incidents, the offender killed the victim, then set fire to the body. Perhaps the body was dumped in the alley, in the forest preserve, or in a dumpster, and then doused with gasoline and burned. We call these two types of arson-associated homicide "secondary arson" and "body burned," respectively.

In the version of the CHD archived previous to this research (ICPSR 1996), though primary or secondary arson are possible codes for weapon type, there is no code for "person burned" or "body burned." In addition, the CHD arson data had never been cleaned on a case-by-case basis by looking at the narratives of the cases (not available in the archived data). For this analysis, we created a special field in the CHD for the four types of arson-associated homicide, by searching through the narratives for all 23,817 cases (victim-level) from 1965 to 1995.

We began by looking each homicide that was already coded as either primary or secondary arson, or coded "arson victim" in the causative factor field. For each of these cases, we checked the narratives for cause of death, to make sure that the case was coded accurately as either primary or secondary arson. We then conducted a keyword search across the narrative fields for all 23,817 cases, searching for words such as "burn," "fire," or "gasoline," and read the narratives for each "hit" to determine whether the

case was arson-associated, and if so, which of the four types of homicide it was. This process resulted in the coding of 461 arson-associated deaths from the larger 23,817 case victim-level CHD.

Finally, we created an incident-level file (one arson-associated homicide incident per record) with 269 cases. Although there is only one type of arson-associated homicide per victim, a single incident might have multiple victims who died in different types of arson-associated homicide. For example, a fire lit to conceal the strangulation-rape of a mother (secondary arson) might also kill her children (primary arson).

Not included in any of these arson-associated categories, nor in either arson-associated data set, were victims burned by means other than fire, for example burned by hot grease, burned by hot water, and burned by acid or caustic agent. Scalding or "burned by hot water" represents the largest of these categories, with 26 cases. These scalds are predominantly of children (61.4%), and young children age birth through 3 years (57.6%). Only 8 cases of scalding occur in later years, 47-61 years, and none afterward.

Many questions about arson-associated homicides are appropriate only at the incident level. For example, since homicide incidents are cleared, not victimizations, the appropriate comparison for an analysis of clearance rates would be incident-level. Similarly, an analysis of the number of offenders, the time of day, or whether the offender committed suicide, of arson-associated incidents versus non-arson incidents would be appropriate only with incident-level data.

It is especially important to use incident-level data when examining arson-associated homicides, because arson-associated incidents are more likely than other homicides to have multiple victims. A homicide with five victims, for example, would appear five times in a victim-level data set but only once in an incident-level data set. In general, primary arson homicide incidents were more likely to kill multiple victims (36%), compared to secondary arson homicide incidents (24%) or to homicides in which the person was set afire (16%), and much more likely than either non-arson homicides (3%) or homicides in which the body was burned after death (5%). Therefore, the analysis presented in the rest of this section is based on an incident-level Chicago Homicide Dataset file. Cases in the incident-level file include only the "unique incident" cases shown in Table 1.

The difference between the number of victims and the number of incidents is bigger for arson-associated homicides than for others. Of the 23,356 victims in the Chicago Homicide Dataset from 1965 to 1995 who were not killed in any kind of arson-associated homicide, 22,647 were either the only victim killed in that incident, or the first of multiple victims (Table 1). These 22,647 unique incidents accounted for the deaths of 23,357 victims, a proportion of 1.03 victims to one incident. In contrast, the 293 victims who were killed in a primary arson homicide died in 138 separate incidents, a proportion of 2.12 victims per incident, and the 78 victims killed in a homicide followed by secondary arson were killed in 54 separate incidents, a proportion of 1.44 victims per incident. On

the other hand, the victim-to-incident proportions for victims who were burned or set on fire (1.26 to 1), and for victims whose body was burned after death (1.09 to 1) were not as extreme.

Table 1
Homicide Incidents versus Homicide Victimizations
by Type of Arson-Associated Homicide

Type of Homicide Incident	Unique Incident		Second or subsequent victim in Multiple-Victim Incident		Total Victims (100%)
	Number	Percent	Number	Percent	
Not arson-associated	22,647	97.0	709	3.0	23,356
Primary arson	138	47.1	155	52.9	293
Person burned, set on fire	34	79.0	9	20.9	43
Secondary arson (after death)	54	69.2	24	30.8	78
Body burned (after death)	43	91.5	4	8.5	47
Total victims	22,916	96.2	901	3.8	23,817

FINDINGS

Victim Characteristics

Children and the elderly are over-represented among arson-associated homicide victims, compared to other homicide victims (Table 2). Through age 14, children comprise a higher proportion of victims of arson-associated homicide than they do of non-arson homicide. Similarly, adults age 60 or older comprise a higher proportion of victims of arson-associated than other homicides. Overall, 24% of the victims of arson-associated homicide were juveniles (age 16 or younger), compared to 8% of the victims of all other homicides (Chi square = 150.9, df = 1, $p < .001$; Gamma = .567, $p < .001$). When victim age categories are collapsed by decade, age 0 - 9 is the mode at 19.8%, and the second highest modal age category is 60 and over at 18.6%. Where arson was used as a primary cause of death, the age difference becomes even more pronounced, with 0 – 9 years accounting for 23.5% and 60 and over accounting for 20.5%.

Black non-Latino victims represent a lower proportion of arson-associated homicides (55%) than non-arson-associated homicides (71%), Latino victims represent almost the same proportion in both groups, and non-Latino white victims represent a much higher proportion of arson-associated (30%) than non-arson (15%) victims. However, this was true only for adult victims (age 18 or older). For juveniles in general, there was no difference in the proportion of each racial/ethnic group killed in an arson-associated

homicide and the proportion killed in other types of homicide. There was an exception, however, for the youngest children. Of the 588 child victims aged 4 or younger, Latinos were more represented (21%) among the arson-associated victims versus non-arson (10%) victims (Chi square p = .01; Gamma = .404, p = .056).

Table 2
Victim Developmental Age Group, Arson-Associated Homicide
(percent)

	Type of Homicide				
Victim's Age Group	**Not Arson**	**Primary Arson**	**Victim Burned, Set on Fire**	**Secondary Arson**	**Body Burned**
Infant (birth to 11 months)	.8	.3	4.7	1.3	.0
Toddler, preschooler (12 months to age 4)	1.5	14.8	9.3	5.1	2.2
Primary schoolage (5 to 9)	.5	7.6	11.6	2.6	2.2
Middle schoolage (0 to 14)	1.6	3.8	2.3	3.8	.0
Older teens (15 to 19)	13.9	3.4	4.7	3.8	17.4
Young adult (20 to 39)	55.6	26.9	32.6	43.6	58.7
Middle age (40 to 59)	19.6	22.1	18.6	23.1	17.4
Elderly (60 to 79)	5.8	12.4	16.3	15.4	2.2
Old age (80 and older)	.8	8.6	.0	1.3	.0
Total victims (100%)*	23,330	290	43	78	46

*Age is missing for 30 victims, 27 "not arson," three primary arson, and one "body burned."

The proportion female was much higher for arson-associated homicides than for other Chicago homicides (Chi square p < .0001; Gamma = .548, p < .0001). This difference was strong and significant for each racial/ethnic group (Table 3). Comparing the "not arson" homicides to the arson-associated homicides, women of all three racial/ethnic groups (Black, Latina and other), were more represented among the arson-associated than the non-arson homicide victims. In contrast, men were under-represented among the arson-associated homicide victims.

Like the very young and the very old, women were more represented in fires occurring within a structure – 43% of primary arson victims and 50% of secondary arson victims were women, compared to 30% of person burned and 39% of body burned.

Table 3
Victim Gender and Race/Ethnicity, Arson-Associated Homicide
(percent)

Victim's Gender and Race/Ethnicity	Type of Homicide				
	Not Arson	Primary Arson	Victim Burned, Set on Fire	Secondary Arson	Body Burned
Black women	12.8	21.6	16.3	28.2	27.7
Latina women	1.2	4.1	9.3	5.1	2.1
White/other women	4.0	17.8	7.0	16.7	8.5
Black men	58.6	31.5	37.2	23.1	48.9
Latino men	11.7	8.2	9.3	7.7	2.1
White/other men	11.7	16.8	20.9	19.2	10.6
Total victims (100%)*	23,352	292	43	78	47

*Race/ethnicity is missing for five victims, four "not arson" and one primary arson.

Offender Characteristics

Although there is a wide literature about juvenile arsonists, among Chicago Homicide Dataset incidents, there is no significant difference between cause-of-death arson homicide incidents and non-arson associated incidents in the likelihood that at least one offender was a juvenile (in Illinois criminal law, this is defined as age 16 or younger). Of the non-arson-associated incidents, 11% were committed by at least one offender who was 16 or younger, compared to 9% of the primary arson incidents and 14% of incidents where the victim was set on fire.

Thus, even though the proportion of non-fatal arson fires set by juveniles may be high, according to the available research, in Chicago, arson-associated homicide incidents are no more likely to involve juvenile offenders than any other homicide incidents. If this is true, it could indicate that the death rate from arson fires set by juveniles tends to be lower than the death rate from arson fires set by adults. Perhaps juvenile arsonists, compared to adult arsonists, are less motivated by a desire to kill.

On the other hand, none of the 31 secondary arson incidents or the 22 "body burned" incidents where the offender's age was known had a juvenile offender. This may indicate that homicide tends to be more impulsive and less rationally planned for juvenile compared to adult offenders. One indication of rational planning is the offender's concern about capture and punishment (see Block, *et al*., 2001). Perhaps juvenile homicide

offenders tend to be less skilled at covering up their crime. This theory cannot be checked against clearance data, however, because very few of the uncleared cases have information on offender's age.

Similarly, although arson is sometimes considered a "male" offense, among Chicago Homicide Dataset incidents, there is no significant difference between primary arson homicide and non-arson associated incidents in the likelihood that all offenders were male. Of the 18,858 non-arson associated incidents in which the offender(s)'s gender was known, 86% were committed by men, another 2% by men and women together, and 12% by women alone. Figures for primary arson homicide are similar. Of the 124 primary arson incidents in which the offender(s)'s gender was known, 82% were committed by men, another 2% by men and women together, and 15% by women alone.

On the other hand, of the 32 homicides in which the victim was burned or set on fire and the offender(s)'s gender was known, 78% were committed by men, none by men and women together, and 22% by women alone. Thus, the percent of women offenders is somewhat higher for homicides in which the victim was burned to death, compared to non-arson homicides. Of the seven homicides committed by women, four were child abuse, two were incidents where the offender burned the victims while they were sleeping, and one occurred in response to an attack by an intimate partner. Of the 25 homicides committed by men, six were child abuse, 11 were motivated by revenge or retaliation, four were robberies, and two were family murder/ suicides. The "revenge" homicides were retaliation over a previous fight, being evicted or told to leave, being accused of robbery, calling the police, or an intimate partner leaving the relationship. Several occurred at a gas station while pumping gas. All of the men's child abuse victims and three of the four women's child abuse victims were boys, ages infant to seven.

The likelihood of women offenders was lower, however, for the two types of homicide in which arson was used to conceal the crime. None of the 31 secondary arson incidents in which the offender(s)'s gender was known was committed by women acting alone. All but one were committed by men (97%) and one (3%) men and women together. Of the 23 homicide incidents in which the body was burned after death and the offender(s)'s gender was known, 87% were committed by men, another 4% by men and women together, and only 9% by women alone. Thus, arson-associated homicides in which the arson was committed to conceal an earlier homicide are rare or nonexistent for juvenile offenders or for women offenders. Arson to conceal seems to be the territory of adult male offenders.

Factors Related to the Investigation of Arson-Associated Homicides

Lingering Death

Arson-associated homicide victims are significantly (Chi square < .001; Gamma = .160, p = .01) less likely to die at the scene and more likely to live at least a week after the incident, compared to non-arson homicide victims. Though 98.7% of secondary arson victims die at the scene, only 75.0% of primary arson victims die at the scene, compared

to 83.5% of non-arson-associated homicide victims. Elderly primary arson victims are much less likely to die at the scene (43%) compared to elderly victims of non-arson homicide. Fully 36% lived at least eight days — a very painful way to die — compared to 13% of elderly non-arson victims. Victims aged 60 to 79 lived, on average, 7.17 days after a non-arson fatal incident, compared to 16.61 days after a primary arson incident; victims aged 80 or older lived, on average, 4.67 days after a non-arson fatal incident, compared to 29.84 days after a primary arson incident.

In contrast, young children (under five) were more likely to die at the scene when the cause of death was arson-associated (86%) versus non-arson (69%). Lingering deaths were more common for children aged for or younger when the child was killed in a non-arson homicide (10.36 days on average), compared to primary arson homicide (1.75 days on average). Many of the children fatally injured in a non-arson homicide had been severely beaten or shaken, suffered brain and other injuries, and spent considerable time in the hospital before death.

Little children are probably more likely to die at the scene in a primary arson incident due to their altitude during the incident, especially if the fires occur at night. Children in cribs are about three feet up off the floor where they are more susceptible to smoke and heat. One might almost expect elderly victims to be less susceptible because they would collapse to the floor where the air quality is better, and the air is cooler. Indeed, that's exactly what we found, 43% of elderly victims of primary arson homicide did not die at the scene. This appears to be an effect caused by the type of weapon used and the inability of victims to self-rescue. Fire truly is a unique weapon.

Time of Day

Secondary arson homicide may go undetected for some time, because the victim was already dead or fatally injured when the arson was committed, and therefore had no chance of escape. This could result in a delayed alarm of the fire. Table 4 shows the time of occurrence of homicide incidents, according to the type of arson-associated homicide. Arson-associated homicide incidents, especially primary and secondary arson, are more likely to occur in the middle of the night or in the early morning hours than are non-arson associated homicides. The majority of primary arson homicide incidents (61%) and secondary arson homicide incidents (59%) occur between midnight and 8 a.m., compared to a third (34%) of non-arson homicide incidents.

It is common during these nighttime hours to experience delays in detecting fires due to lack of outdoor traffic. Nighttime fires are less likely to be reported by neighbors or passersby. When people are not at work and not asleep, fires are more likely to be quickly reported. Delay in detecting and reporting the incident can lead to increased fire damage, making it harder to find the evidence needed to solve the case. While fire detection systems could prevent this delay, they must be in working order to do so.

Table 4
Time of Occurrence, Arson-Associated Homicide Incidents
(percent)

Time of Day of Incident	Type of Homicide - Incident Level*				
	Not Arson	Primary Arson	Victim Burned, Set on Fire	Secondary Arson	Body Burned
Middle of the night (12:01 am to 5:59 am)	24.7	41.5	30.3	33.3	20.5
Early morning (6:00 am to 8:00 am)	9.7	20.0	18.2	25.5	12.8
Daylight hours (8:01 am to 5:00 pm)	23.0	18.5	27.3	19.6	43.6
Early evening (5:01 pm to 8:00 pm)	13.7	6.7	21.2	2.2	2.6
Late evening (8:01 pm to midnight)	28.9	13.3	3.0	19.6	20.5
Total incidents (100%)	22,643	135	33	51	39

*Eight incidents were not included in this table, because they involved multiple victims, killed in different kinds of arson-associated homicide – five incidents with primary and secondary arson victims, one in which one victim was set on fire and the others burned to death in the resulting arson, one in which one victim was set on fire and the others were burned after death, and one in which the offender burned a victim's body and another victim died in the resulting arson.

Clearance Rates

It would be reasonable to expect that arson-associated homicides might be harder to solve than other homicides. Clearance rates (the proportion of incidents cleared) are an indicator of the "solvabilitly" of the homicide. A homicide incident is "cleared" when at least one offender has been arrested (cleared by arrest), or the offender has been positively identified but an arrest was not possible (exceptional clearance). An incident is exceptionally cleared when, for example, the offender committed suicide.

Contrary to our expectation, the clearance rate for homicide incidents in which arson was the primary cause of death for at least one victim was not lower than for clearance rates for non-arson homicide incidents (Table 5). In fact, it was higher (88% versus 81%; Chi square = 3.96, df = 1, p = .047; Gamma = .250, p = .020). Most of the difference lies in the percent of incidents cleared by arrest (83% for primary arson incidents versus 74% for non-arson-associated incidents).

One possible reason for the higher clearance rates for primary arson homicide incidents may be the amount of resources that are brought to bear on an arson-associated homicide. Although homicide investigators (the police) are involved, the fire depart-

ment is also involved with several fire/arson investigators. Usually, they can also expect to receive assistance from the State Fire Marshall's Office. Few homicide investigations, except major cases, involve this level of investigative resource. This represents a considerable increase in resource allocation, which could lead to increases in rates of case clearance.

Table 5
Clearance Rates, Arson-Associated Homicide Incidents
(percent)

Type of Case Clearance	Type of Homicide - Incident Level*				
	Not Arson	Primary Arson	Victim Burned, Set on Fire	Secondary Arson	Body Burned
Not Cleared	19.2	12.5	21.2	35.3	41.0
Cleared (total):	80.8	87.5	78.8	64.7	59.0
by arrest	73.6	82.4	72.7	54.9	56.4
exceptional (death of offender)	2.9	2.9	6.1	5.9	2.6
other exceptional	4.2	2.2	.0	3.9	.0
Total incidents (100%)	22,649	136	33	51	39

*Eight incidents were not included in this table, because they involved multiple victims, killed in different kinds of arson-associated homicide – five incidents with primary and secondary arson victims, one in which one victim was set on fire and the others burned to death in the resulting arson, one in which one victim was set on fire and the others were burned after death, and one in which the offender burned a victim's body and another victim died in the resulting arson.

Clearance rates where the victim was burned or set on fire (79%), are not higher than non-arson associated homicides, and rates for the two types of arson-to-conceal homicides were considerably lower clearance rates than other homicides. Only 55% of secondary arson incidents and 56% of incidents in which the victim's body was burned were cleared by arrest, compared to 74% of non-arson associated incidents.

Put another way, secondary arson represents 19% of arson-associated incidents, but 31% of uncleared incidents. Body burned represents 15% of arson-associated incidents, but 28% of uncleared arson-associated incidents. Thus, when the homicide incident involved an attempt to conceal the identity of the victim or to destroy crime scene evidence, clearances were indeed hindered.

SUMMARY AND IMPLICATIONS FOR PRACTICE

Fire, whether used as a weapon to kill or as an instrument to conceal a murder, is relatively rare. This paper has shown, however, that the differences between arson-associated and non-arson homicides justify a separate analysis. Fire is a unique weapon, requiring unique investigatory skills. Variables that may affect the ability to self-rescue, such as age of the victim and the time of day when the incident occurs, may affect the speed of the discovery of the fire, which in turn can affect clearance rates. In addition, investigation of arson-associated homicides can be difficult, because evidence is destroyed in the fire. Indeed, two kinds of arson-associated homicide — secondary arson and "body burned" are often deliberate attempts by the offender to destroy evidence.

In addition, we have shown that there are important differences in the patterns of the four types of arson-associated homicide. For example, primary arson and secondary arson homicide incidents were much more likely to kill multiple victims, compared to non-arson homicide incidents, or to homicides in which the person was burned or set on fire, or the body burned after the murder. Whereas the majority of primary (61%) and secondary (59%) arson homicide incidents occur between midnight and 8 in the morning, only 23% of "body burned" homicides occur during those hours.

Although no homicide can be said to be pleasant for the victim, death in an arson-associated homicide can be especially difficult. Adult victims of arson-associated homicide are more likely to die a lingering death that can be very painful. Young children, the elderly, and women are more represented as victims of primary or secondary arson homicide than they are as victims of non-arson homicide. Of particular interest is the increased victimization risk for women – they represent 43% of arson-associated homicides versus 18% of non-arson Chicago homicides. This finding lends support to a hypothesis that fire, an unnecessary aspect to the killing, is a form of overkill. Overkill is found in between 46-90% of intimate partner homicides (Cazanave & Zahn 1992; Dutton & Kerry 1996), and can result from intense anger that develops within a troubled relationship between intimates.

Contrary to the literature on juvenile arsonists, which might imply that juveniles would be responsible for a disproportionate number of arson-associated homicide, we found no significant difference between primary arson homicide incidents and non-arson incidents in the likelihood that at least one offender (if there were multiple offenders) was a juvenile. Further research is needed to determine whether juvenile arsonists, compared to adult arsonists, are less motivated by a desire to kill. In addition, the offenders in the two types of arson to conceal — secondary arson homicide and "body burned" — were much more likely to be an adult male than were the offenders in non-arson homicides incidents. Using fire to conceal a murder seems to be the territory of adult male offenders.

One of the most important findings in this analysis concerns the clearance rate of arson-associated homicide cases. A much higher than anticipated clearance rate was discovered for primary arson homicides than we had expected (88%), compared to non-

arson homicide incidents (81%), and to significantly lower clearance rates for fires in which the motive appeared to be to conceal the crime (65% for secondary arson and 59% for "body burned." Thus, if the offender's motive was to conceal the crime or destroy evidence, making arrest unlikely, the motive appears to have succeeded in many cases.

WORKS CITED

Battle, B. P., & Weston, P. B. (1978). *Arson: Detection and Investigation*. New York: Arco Publishing Company.

Block, Carolyn Rebecca (1986). *Homicide in Chicago: Aggregate and Time Series Perspectives on Victim, Offender and Circumstance (1965-1981).* Chicago, IL: Center For Urban Policy, Loyola University of Chicago.

Cazanave, N. A., & Zahn, M. A. (1992). Women, murder and male domination: Police reports of domestic violence in Chicago and Philadelphia. Pp. 83-97 in E. C. Viano (Ed.), *Intimate Violence: Interdisciplinary Perspectives*. Washington, DC: hemisphere.

DeHaan, J. D. (1997). *Kirk's Fire Investigation*. (4th ed.). Upper Saddle River, NJ: Prentice Hall.

Douglas, John E., Ann W. Burgess, Allen G. Burgess, and Robert K. Ressler (1992). *Crime Classification Manual: A Standard System for Investigating and Classifying Violent Crimes*. San Francisco: Jossey-Bass Inc.

Dutton, D. G., & Kerry, G. (1996). Modus operandi and psychological profiles of uxoricidal males. Unpublished manuscript, University of British Columbia, Department of Psychology, Vancouver, Canada.

Gaynor, J., Huff, T.G., & Karchmer, C.L. (1985). *The Linkages between Childhood Fire-setting and Adult Arson Crime: A Secondary Analysis of Convicted Arsonists' Retro-spective reports.* San Francisco, CA: National Firehawk Foundation.

Geberth, V. J. (1990*). Practical Homicide Investigation: Tactics, Procedures, and Forensic Techniques.* (2nd ed.). New York: Elsevier Science Publishing Company, Inc.

Geller, J. L. (1992). Arson in review: From profit to pathology*. Journal of Clinical Forensic Psychiatry,* 15, 623-645.

Hall, J. R., Jr. (2001). *U.S. Arson Trends and Patterns.* [Report] Quincy, MD: National Fire Protection Association, Fire Analysis and Research Division.

Huff, Ronald (1993) "Filicide by fire – The worst crime?" *Fire Prevention.* Oct: 26-27.

ICPSR (International Consortium for Political and Social Research) (1996). Research Data, 2nd Edition [CD-ROM]. ICPSR ed. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [producer and distributor].

Inciardi, James A. (1970). The adult firesetter: A typology. *Criminology*, 8: 145-155.

Jackson, Patrick G. (1988). Assessing the validity of official data on arson. *Criminology*, 26:1, 181-195.

Jacobson, M. P. (1985). *The Enigmatic Crime: A Study of Arson in New York City.* Dissertation, City University of New York. Ann Arbor Michigan: University Microfilms International. 276 p.

King, Charles G. (1987). At the fire scene. *Fire Engineering*. January, 19-23.

Lerer, L. B. (1994). Homicide-associated burning in Cape Town, South Africa. *American Journal of Forensic Medical Pathology*, 15(4), 344-347.

Madea, B., Schmidt, P. Banaschak, S. & Schyma, C. (2001). Homicide by burning. [article in German], *Archiv für kriminologie*, 208 (1-2):1-9.

Prins, H. (2001). Arson and sexuality. Pp 11-15 in C. D. Bryant (Vol. Ed.), *Encyclopedia of Criminology and Deviant Behavior* (Vol. 3). Philadelphia, PA: Brunner-Routledge.

Robbins, E. S., Herman, M., & Robbins, L. (1969). Sex and arson: Is there a relationship? *Medical Aspects of Human Sexuality*, 3 (10), 57-64.

Sapp, A. D. and Huff, T.G. (1994). *Arson-Homicides: Finds from a National Study.* Washington, D.C.: National Center for Analysis of Violent Crime, Federal Bureau of Investigation.

Sapp, A. D., Huff, T. G., Gary, G. P. & Icove, D. J. (1994). *A Motive-Based Offender Analysis of Serial Arsonists*. Washington, D.C., Department of Justice.

Schmalleger, Frank (2001*). Criminal Justice Today: An Introductory Text for the 21st Century*. Upper Saddle River, NJ: Prentice Hall.

Snyder, H. N. (1998). *Juvenile Arson, 1997* (Office of Juvenile Justice and Delinquency, Prevention Fact Sheet #91). Washington D.C.: U.S. Department of Justice.

Standolnik, R. (2000). *Drawn to the Flame: Assessment and Treatment of Juvenile Fire-setting Behavior*. Sarasota, FL: Professional Resource Press.

Swigert, V. L.; Farrell, R. A.; & Yoels, W. C. (1976). Sexual homicide: Social, psycho-logical, and legal aspects. *Archives of Sexual Behavior*, 5:5, 391-401.

Topp, D.O. (1973). Fire as a symbol and as a weapon of death. *Medicine, Science, and the Law*, 13, 79-86.

U.S. Fire Administration (2001). Arson in the United States. Federal Emergency Management Agency, [*Topical Fire Research Series*] 2:4, 1-3.

VICAP (2002). *Crime Analysis Report*. National Center for the Analysis of Violent Crime, U.S. Department of Justice, Federal Bureau of Investigation.

DISCUSSION: SUBTYPES OF HOMICIDE
Recorded by Myrna Dawson, University of Guelph

Catrien Bijleveld: A question for Dallas Drake and Becky Block: It's important to distinguish between compulsive arsonists and persons who simply choose to commit arson … did you look at that?

Dallas Drake: Yes, the literature basically discounted the idea of pyromania; it occurs, but not often.

Becky Block: The advantage of the data used in this study is that all arson homicides are included so there is lots of information, but the disadvantage of the data is that we don't have other details such as psychoanalytic reports that would be available if the study had been done using interviews with prisoners. Often, in arson homicides, there is a dispute over someone being asked to leave a bar or a party. That person comes back and sets a fire … a lot are also drug-related acts.

Eric Monkkonen: A question for Patrick Walsh and David Kent: Some possible policy implications of your study is that convenience stores and other similar businesses should not hire ex-offenders … could you comment on that?

David Kent: Yes, that could be an implication, but we are hoping to introduce a sensible balance in our findings.

Dick Block: A question for Patrick Walsh and David Kent: Your paper supports what I am looking at … the image of who the offender is – a stranger, but a significant proportion have relationships to the victim. In my research, one-third of the incidents occur within one block of the offender's home and the victim's home so there is, at least, a neighborhood association or random chance is higher because they are closer so we need to look at robbery homicide where there is a relationship.

David Kent: Non-lethal injury is more prevalent in pedestrian areas; here, the vast majority are from services (industries) in our study compared to parking lot and pedestrian areas.

James Noonan: A question for Dallas Drake: Is there a way to determine the number of victims that were firefighters?

Dallas Drake: There was a category for firefighters and there were some, but not sure of exact number . . . and to respond to an earlier question about compulsive arsonists, there is a connection to sexuality . . . 5% had a sexual motive compared to 3% in non-arson, but not sure if significant.

Vanessa Leggett: A question for Dallas Drake: Among the deaths, what was the number that resulted from carbon monoxide?

Dallas Drake: Arson homicide is defined as such if someone was killed by fire; no carbon deaths were distinguished because carbon monoxide poisoning is arson homicide.

Becky Block: Yes, it would still be an arson homicide.

Vanessa Leggett: What about infants versus adults? It would be interesting . . . do adults live longer?

Dallas Drake: Yes.

Becky Block: A question for Patrick Walsh: You left out disgruntled employees . . . we get that combination quite often in the Chicago Homicide Dataset -- robbery homicide done by an angry employee or ex-employee.

Patrick Walsh: We did have some who said, "I was pissed" and so did the robbery.

Dick Block: Two questions for Marc Riedel . . . first, are there differences between who is victim and who is offender in how it becomes defined as a justifiable homicide; expect so in cases of domestic violence and aggravated assault and, second, are incidences that occur at offender's home also the victim's home?

Marc Riedel: Offender's home came out much higher. Regarding classification of justifiable homicide, I took what police had reported.

RISK FACTORS IN HOMICIDE
PANEL SESSION VI: 11:30 a.m. - 12:30 p.m., June 7, 2003

Moderator: Thomas A. Petee, Auburn University

Papers:

Traced Firearms and Criminal Violence in Chicago, by Richard Block, Darryl Brice and Aneta Galary, Loyola University of Chicago

Weekend Effects of Binge Drinking on Homicide Mortality: Further Evidence for the Social Connection between Alcohol and Violence in Russia? by William Alex Pridemore, University of Oklahoma

Recorder: Joe Shulka, Minnesota Gay Homicide Study

TRACED FIREARMS AND CRIMINAL VIOLENCE IN CHICAGO[1]

Richard Block, **Loyola University of Chicago**
Darryl Brice, Loyola University of Chicago
Aneta Galary, Loyola University of Chicago

Where do the firearms used in violent crimes come from? The object of the Illegal Gun Markets and Criminal Violence in Chicago project was to trace guns back from their use in criminal violence and their last recorded purchase. Once these linkages were made the project was to search for sales patterns. The project accomplished these objectives by combining data files from several sources including the Chicago Police Department (CPD), the Bureau of Alcohol, Tobacco and Firearms (BATF), the United States Census, and several land use studies.

The research concentrated on Uniform Crime Reports violent crime incidents occurring in Chicago from 1995 through 1998 (index crimes) in which a firearm was present. During the time period there were 79,723 such incidents. Unfortunately, only 2,818 could be linked to a specific dealer of last registered purchase. While these purchases should not be considered a representative random sample of all purchases or guns used, this report compares the geographic location and nature of crimes for incidents with traced guns to other index gun incidents in which no gun was traced or the trace was unsuccessful (available for the HRWG seminar).

Analysis of the acquisition of weapons used in crime was pioneered in the Boston Cease Fire Project (Braga, et al, 2001) and has since been expanded to several other cities including Chicago (BATF, 2000a). In order to avoid duplication of previous analysis, this research concentrates on UCR Index Violence and mostly considers dealers rather than offenders. When the analysis overlaps with previous research, the findings are quite consistent. A few dealers account for many traces (BATF, 2000a; BATF, 2000b). For example, four dealers operating near Chicago's boundaries were the last registered dealer of traced guns used in one quarter violent index crimes. with successful gun traces. The analysis is both spatial and temporal. It analyzes distance and days from last recorded purchase and gun use in a violent index crime.

Chicago residents cannot legally own and possess handguns in the city unless they were registered before 1983. Chicago residents can obtain Illinois Firearms Owners Identification (FOID) cards, and they can register long guns and possess them within the city. Although some suburbs have similar laws, others suburbs permit the sale of handguns. The data indicates that some dealers are quite willing to sell handguns to Chicago residents.

[1]The research was funded by the Joyce Foundation and had the full cooperation of the Chicago Police Department and the Bureau of Alcohol Tobacco and Firearms. However, the opinions expressed in this report are solely those of the authors and do not reflect those of any cooperating agency or of Loyola University Chicago.

DATA AND THEIR LINKS

The following data were available for the project:

A. The Chicago Police Department supplied the following files.

1. All incidents recorded by the police from 1995 through 1998.
2. Detailed reports of all homicides from 1995 through 1999.
3. All recorded victims of violent crime from 1995 through 1999.
4. All recorded offenders of violent crime from 1995 through 1998.
5. All firearms trace requests sent from the CPD to BATF from 1995 through 1999.

B. Files supplied by the Bureau of Alcohol, Tobacco & Firearms

1. Records of trace requests from Chicago region from 1995 through July 2001 including an indicator of whether or not the trace was successful and a dealer id number for successful traces. Many requests were not from the Chicago Police Department. Only those from the CPD were analyzed.
2. A complete listing of Federal Firearms Licenses (FFL) with a dealer id number, including those that were no longer in business.
3. Individuals who were listed buyers of traces originating in Chicago between January 1, 1995 and July 2001.
4. Multiple sales where dealer or purchaser was located in Chicago, between January 1, 1995 and July 10, 2001.
5. Individuals who were purchasers in these multiple sales.

Linking BATF and CPD data was difficult. At that time, there was usually no common identifier between the two data files. Trace requests in one year might be processed in the next year or even two years later.[2] Both the BATF file and the police request file included a firearms serial number and a manufacturer and model. Unfortunately model and manufacturer were not defined uniformly either between the files or internally in the CPD files.

Some of problems were corrected by visual inspection of the records. However, a few firearms and dealers could not be uniquely identified, and were excluded from analysis. If the CPD requested a trace on the same firearm in multiple incidents, then a hierarchical rule based on crime seriousness was applied. No traced firearm was counted twice.

Once a BATF record was linked to a CPD record through a common serial number, the records were spatially and temporally linked. The days between last recorded purchase and the crime incident was calculated. The address of the buyer and the dealer were geocoded, the two records were geographically linked to each other, and the distance between the dealer's zip code and the incident location was calculated.

[2] Because of the long elapse time between some trace requests and their fulfillment by BATF, it was decided to exclude 1999 requests because many of these were probably still in process.

The link between BATF and Police Department records would be much easier if BATF consistently recorded the police record id field. Incident id's vary from department to department, but nearly all departments have some form of incident identification. Consistent recording of the police department incident identifier on BATF trace requests would greatly aid the linking process both for police and researchers.

A VERY LEAKY FUNNEL: THE TRACING of FIREARMS USED IN VIOLENT CRIMES IN CHICAGO

Given the many difficulties encountered in creating data linkages and the difficulty in recovering a weapon in many violent crimes, what is the likelihood that a police recorded firearm incident can be linked to a specific dealer. Between 1995 and 1998, 79,273 incidents of gun present UCR Index Violence occurred in Chicago. Of these, 40,554 were robberies, 35,525 were aggravated assaults, 1,929 were homicides and 1,265 were criminal sexual assaults. From 1995 through 1998, the CPD made nearly 52,000 requests for BATF gun traces, but only 8,008 were requests for traces resulting from Index Violence (15 %). One third of all homicide incidents resulted in a trace request, but other incidents were much less likely to result in a trace request. About 1/8th of the index violence requests had no serial number and were not traced by BATF. Of the remainder, 67% were linked to a BATF trace record through a serial number.[3]

Of those linked to BATF trace records, about 58% were linked to a specific dealer for last recorded purchase. 1,015 different dealers were represented. Overall a specific dealer was linked to 3.5% of the violent index crimes. Guns used in homicide were much more likely to be linked to a dealer (13.7%) than were guns used in other crimes. The firearm used in a robbery was linked to a specific dealer in less than one percent of incidents. The small percentage of firearms that are traced to a specific dealer may or may not be representative of all firearms used in violent index crimes. We simply don't know. However, these guns can be compared to those used in other index gun violence.

For those incidents for which a BATF record could be linked to a CPD request, (3,427), a successful trace was likely (58.7%). However, of 5,447 incidents for which the CPD requested at least one trace, many could not be found in BATF records. Of those requests that had at least one gun with a traceable serial number (4,974), only 68.9% could be found in BATF records. Once an incident was found in BATF records, crime type made little difference in the likelihood that a dealer name would be found for at least one gun, about 59%.

A very small percentage of index gun violence was linked to a specific gun dealer. How were incidents with a successful BATF trace different from those without a successful trace? To answer the question, incidents without a successful gun trace were compared to those with a successful trace to a specific dealer. Comparisons were made of

[3] This is a slight underestimate because only one incident is counted per gun. The incident to be counted was determined by a hierarchical rule – homicides before criminal sexual assaults, robberies before aggravated assaults.

the crime location, characteristics of the incident, the incident's neighborhood, and of the offender.

A. Incident Characteristics that made a difference in the likelihood of a successful trace:

1. Year of occurrence
2. Was there a known offender?

Between 1995 and 1998, the number of index gun felony violence declined from 23,205 to 17,745. In each year, the percentage of incidents that resulted in a CPD trace request was about seven percent. However, over time, the link between CPD requests and BATF traces has become much stronger and the success of BATF in linking a gun to a dealer has greatly improved. In 1995, looking at only those incidents with a trace request that included a serial number, 38.4% were found in BATF records. In 1998, 95.7% of incidents could be found. Of those incidents that were found in BATF records, a dealer was found for at least one gun in 57.4% of incidents in 1995 and 68.4% in 1998. Thus, while the likelihood that the CPD would request a gun trace remained unchanged over the time period, the likelihood of a CPD trace request's successful link to a dealer has increased dramatically from 20% in 1995 to 60% in 1998. While in 1995, 1.4% of index gun violence incidents were linked to a specific gun dealer, in 1998, 4.2% were linked to a specific dealer. Probably the representativeness of these incidents increased as well, but the extent to which they increased is not known.

As expected, incidents without a known offender are much less likely to result in a trace request than those in which at least one offender was identified. For this analysis, only incidents of sexual assault, robbery, and aggravated assault were available for analysis. Of these 77,258 incidents, 27.5% had at least one known offender and 72.5% had no known offender. Aggravated Assaults were much more likely to have a known offender (45.5%) than robberies (11.7%), or sexual assaults (25.0%). An offender was known for most incidents with a successful BATF trace (84.4%). Of incidents with a known offender 7.4% were successfully traced to a dealer. Of incidents with no known offender, .5% were traced to a dealer. CPD requests with no known offender were less likely to be found in BATF records (58.4%) than those with known offenders (70.6%). BATF was slightly more successful at finding a dealer for the few requests with no known offender that it processed (62.8%) then for those with a known offender (57.9%). Over time, the percentage of incidents with a known offender increased from 22.1% in 1995 to 31.6% in 1998. However, this did not effect the number trace requests made by the CPD.

Given the very small percentage of CPD trace requests that were made for incidents with no known offender and the high percentage of incidents that had no known offender, information on BATF traces can at best be applied to incidents with a known offender. They can be generalized to the entire universe of Index gun violence only to the unknown extent that incidents with no known offender are similar to those with a known offender.

B. Neighborhood comparisons resulted in no significant differences.[4]

1. Racial and Ethnic Makeup of the Neighborhood of the Incident
2. Average Income of the Neighborhood of the Incident
3. Geographic location of the incident

C. Offender Characteristics were most related to the CPD's decision to request a trace.

1. Race/Ethnicity of the Known Offender
2. Age of the Known Offender

The 279 Chicago Police Beats were categorized by racial makeup and average household income. These characteristics were then added to each incident. These neighborhood characteristics were unrelated to the CPD's decision to request a BATF trace, the BATF initiation of a trace, or to a successful trace to a dealer (not shown). Given the lack relationship between successful gun traces and either incident location or neighborhood characteristics, it can be concluded that the geographic distribution of guns traced to a specific dealer is very similar to that of Index gun violent incidents.

While race and ethnicity had no effect at the community level (not shown), race/ ethnicity of known offenders (excluding homicide-see above) was slightly related to the CPD decision to request a trace. This analysis is limited to criminal sexual assaults, robberies, and aggravated assaults with at least one known offender (21,287).The CPD was more likely request a trace if a least one offender was white than if they were Hispanic or black. A request was made in 18.8% of incidents with a black offender, 23.0% of incidents with an Hispanic offender, and 25.4% of incidents with a non-Hispanic white offender. These differences were eventually reflected in a greater likelihood of a gun dealer being identified in incidents with a white offender (9.6%), than an Hispanic (8.3%) or black offender (7.1%). However, the likelihood that BATF could identify a dealer once their identification was initiated was very similar for the three groups, about 58%, and little different than the overall rate. Aggravated assaults are the most common crime for which an offender is known. For these, the CPD is less likely to request a gun trace for blacks than for whites or Hispanics. There is no relationship for this decision or offender's race for robbery.[5]

A similar relationship exists between age of offender and the CPD decision to request a BATF trace. The CPD is more likely to request a trace if there is at least one offender 25 or older than if the offender(s) were younger. The CPD made a trace request in 23.6% of the incidents with at least one offender age 25 or older. The made a trace request in 17.1% of incidents with an offender age 15-24. BATF's ability to successfully link a gun to a dealer is unaffected by the offender's age. Because, the CPD was more likely to request a trace for guns used by older offenders, overall a higher percentage of guns were successfully traced to a dealer in at least one offender was 25 or older (8.9%)

[4] Discussion of these findings is available on request.

[5] The number of incidents of sexual assault with a white or Hispanic offender was too few for this analysis.

than for incidents with offenders 15-24 (6.5%) or incidents with even younger offenders (5.8%).

In conclusion, demographic characteristics of offenders do make a difference, but the difference is primarily in the CPD's decision to request a trace, not in BATF's ability to locate the dealer of last recorded purchase. However, the incidents with at least one gun traced to a specific dealer do not represent all guns used in violent index crimes. Only a small percentage of Index gun violence with no known offender results in a trace request. At best, guns traced to a specific dealer represent incidents with a known offender. BATF's ability to link guns with dealers and with CPD incidents dramatically increased over the four years of the study. Therefore, incidents with at least one gun traced to a specific dealer are probably a better representation of index gun violence at the end of the study period than at the beginning.

GIVEN ALL THE LIMITATIONS OF THE DATA AND THEIR LACK OF REPRESENTATIVENESS, WHAT CAN BE SAID ABOUT LEGAL MARKETS for FIREARMS USED in VIOLENT CRIMES?

A. A Few Dealers Sold Many Traced Guns.

Previous research has shown that many traced guns come from only a few shops. The twenty-eight hundred traced guns used in Index Violence in this study are no different. Guns used in Chicago Index violence were traced to 1,015 different dealers. As in previous research, most of these dealers (774) sold only a single traced gun. However, if guns are divided into approximate quarters according to the number of guns sold by a dealer, a few dealers sold many traced guns. Half of the traced guns were sold by 31 dealers. Of the total, one quarter were sold by four dealers. Fourteen of the 15 most active dealers were in the Illinois suburbs of Chicago. The other dealer was in Mississippi.

By ordinance, it is illegal for a civilian to possess a handgun in Chicago. However, about half of these guns (1,397) were sold to residents of Chicago. Of these guns, sixty six were rifles or shotguns that could be legally registered in Chicago. About twelve hundred different purchasers (1,197) bought these guns. Dealers of guns sold to Chicago residents were even more concentrated than the traces as a whole. Four dealers sold 46% of all guns sold to Chicago residents (638). All of these shops are quite close to the city and, therefore, close to city residents who want to purchase guns.

B. How Far did the Gun Travel Between Last Recorded Purchase and Its use in a Recorded Crime?[6]

Most of the traced firearms used in Index Violence in Chicago from 1995 through 1998 were bought at gun shops within the Chicago region, often in sight of the city. Secondarily, the weapons were bought at shops in Mississippi. Previous research has found the same pattern. Violent crime gun purchases are predominately a local problem.

[6]The distance actually traveled is unknown. We only know the "crow flies" distance between the center of the dealer's zip code and the location of the incident.

For each traced gun, the distance between the zip code of last recorded purchase and its use in a violent index crime was measured. One quarter of the firearms were acquired within 9 miles of the incident and half were acquired within 19 miles of the incident. About 60% were acquired within the metropolitan region. Many incidents occurred less than eight miles from the shop and even within the metropolitan area, few guns were purchased more than 50 miles from the incident.

The dealers with the most traces tend to be near the city's boundaries; therefore, the distance between these high volume shops and an incident of index violence using a gun sold at the shop tends to be less than for dealers with fewer traced guns. Dividing guns into four categories based on the volume of sales for the dealer, the median distance from the dealer to the crime for guns sold at the highest volume dealers (123-236 traced guns) was 9.38 miles, for dealers that sold 10-67 guns, 10.38, for those that sold 2-9 traced guns, 80.34, and for those that sold only one gun, 474.38 miles.[7]

C. How Many Days Elapsed between the Last Recorded Purchase of the Gun and its Use in a Recorded Index Violent Crime?

The time between last recorded purchase and recorded use in a crime varied by the number of traced guns sold by dealer. For those shops with 1 trace gun, the median days to crime was 1,810 days. For those with 10-67 guns sold, the median as 836 days, and for those with 123 or more traced guns, the median was 994 days. As Exhibit One (below) demonstrates, the median disguises a very substantial difference in days to crime. The distribution of days to crime is much more evenly spread out for shops with fewer than 10 guns traced. For those shops with 10 or more traced guns, the days to crime is much more skewed and peaked toward fewer days. Many guns are involved in Index violence within 1.5 years of purchase.

As with the volume of guns traced to the dealer, the median days to crime disguises important differences in the distribution of days. In Exhibit Two (below), each column represents 100 days. Many guns purchased near to the crime are used within the first year with a rapid fall of traced guns after the second year. Traced guns whose recorded purchase is close to the criminal incident are likely to be found quickly in a police files.

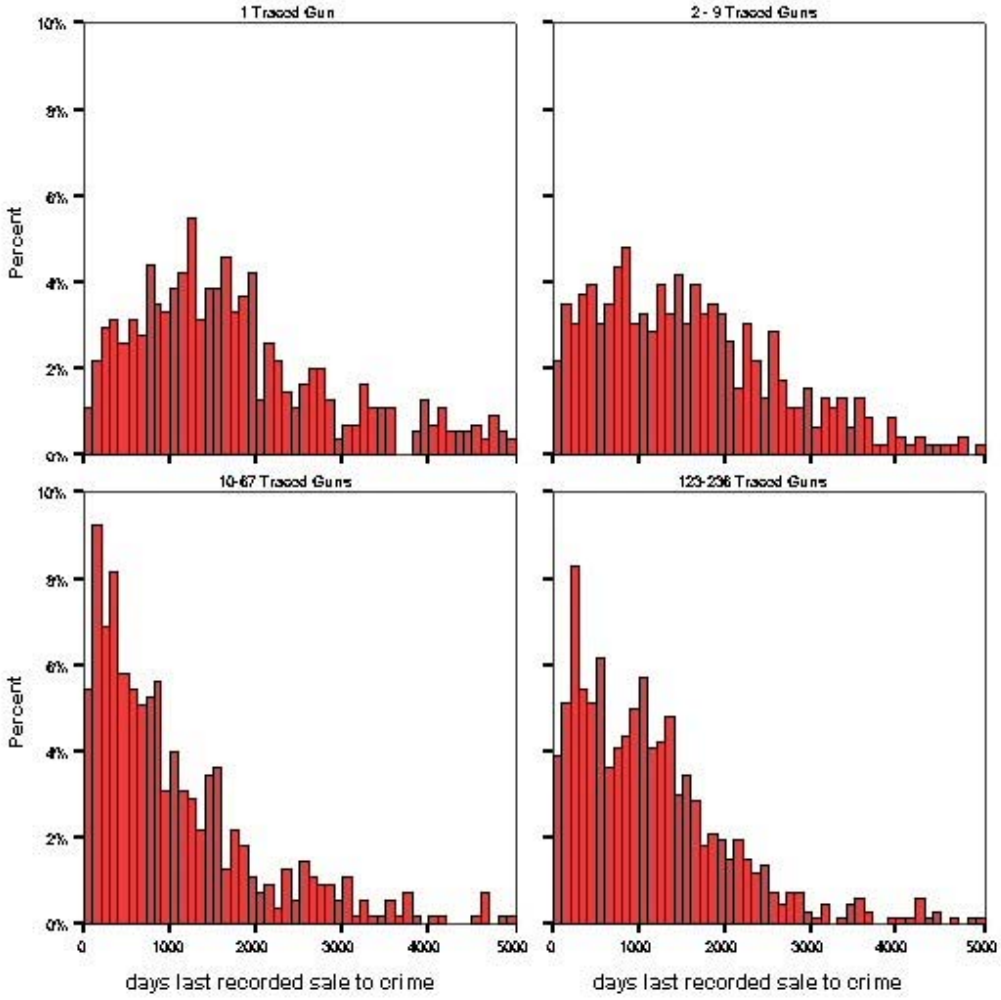
Distance between the gun dealer and the occurrence of a traced crime and the number of guns traced to the dealer are very strongly related (R = -.394). Guns purchased at dealers that sell many traced guns are not likely to travel far before they are recorded by the police in a violent crime. Two percent of guns sold by shops with only one traced gun are less than 10 miles from the site of the police recorded index violence. Sixty-nine percent are more than 311 miles away. Over fifty percent (51.7%) of traced guns sold by dealers with more than 123 traces were used in index violence less than 10 miles of the shop. Ninety percent were used less than 20 miles from the shop.

[7] No dealer sold between 68 and 122 traced guns.

Days from Last Recorded Purchase to Violent Index Crime

Number of Guns Traced to a Dealer

Chicago Gun Traces 1995-1998

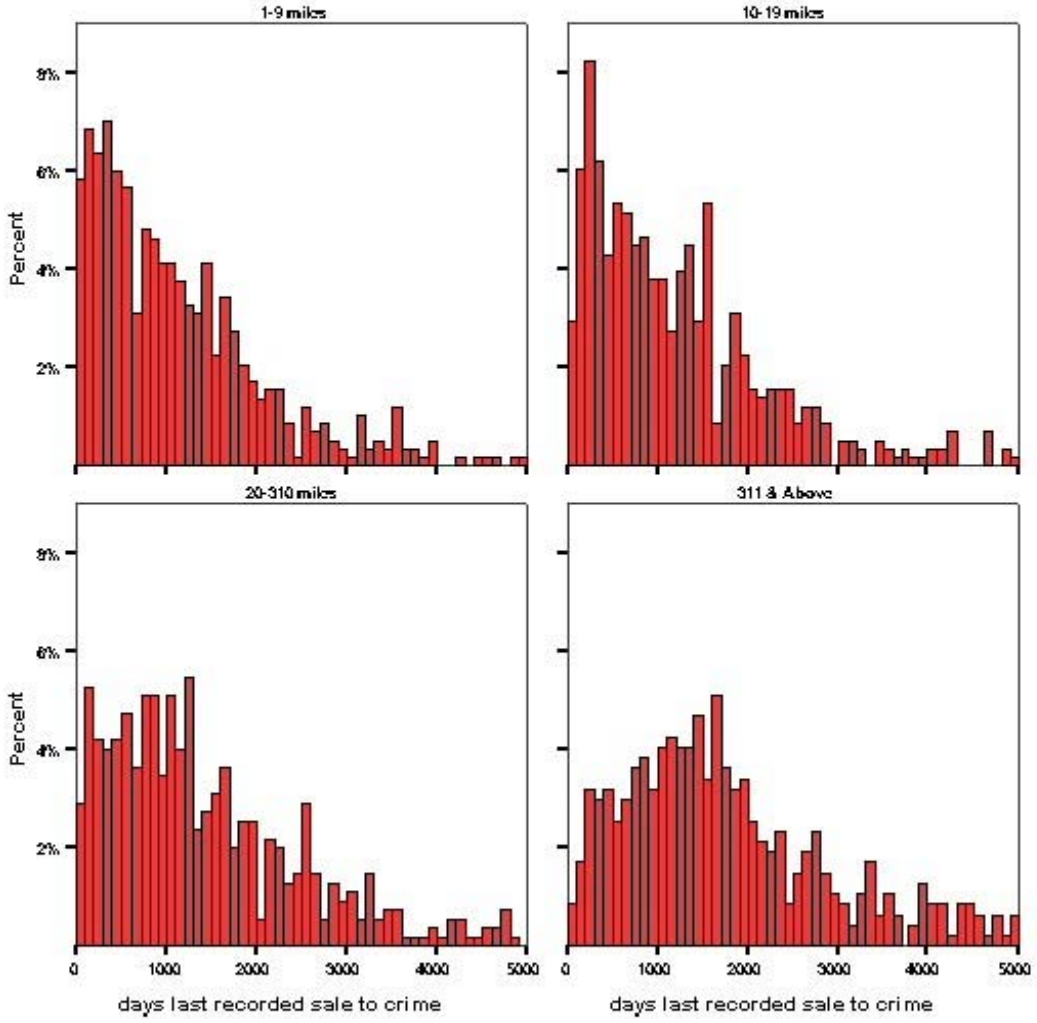


Sources: Chicago Police Department
Bureau of Alcohol Tobacco & Firearms
Analysis: Richard Block

EXHIBIT ONE

Days from Last Recorded Purchase to Violent Index Crime Distance from Shop to Crime

Chicago Gun Traces 1995-1998



Sources: Chicago Police Department
Bureau of Alcohol Tobacco & Firearms
Analysis: Richard Block

EXHIBIT TWO

All high volume dealers are close to the city. Guns sold by dealers close to the city are likely to travel less and arrive sooner at a police record of violent index crime than other firearms. The two variables seem to operate statistically independently of one another. However, dealers who choose to maintain a shop near to the city are likely to have many patrons who ignore Chicago's ban on registering hand guns.

D. Traced Guns Sold to Chicago Residents

As previously mentioned, Illinois firearms law and Chicago Firearm ordinances are somewhat confusing and contradictory. A Chicago resident can receive an FOID Card and purchase a handgun, but he or she cannot possess it in the city. However, as stated above, about half of all the guns traced to index violence were sold to residents of the city. Most of these were in violation of the city ordinance. Firearms sold to Chicago residents were much more likely to be purchased from high volume dealers than firearms sold to non-Chicago residents. Three percent of traced guns sold to non-residents were sold by the highest volume dealers. Forty-four percent of guns sold to Chicago residents were sold by these dealers. Half of guns sold to non-residents were purchased at a dealer with a single trace. Seven percent of guns sold to Chicago residents were sold by dealers with a single trace.

Guns traced to Chicago residents were used sooner in violent index crimes (median = 990 days) than those sold to non-residents (median = 1,369 days). As Exhibit Three (below) indicates, many guns sold to Chicago residents were used in index violence soon after purchase. Use peaks between 200 and 400 days from purchase. For non-Chicago residents, use in index violence peaks at about 1500 days, and twenty five percent of guns were used in index violence within 750 days of recorded purchase.

CONCLUSIONS

A. The following conclusions were found for Index gun violence incident traces in general:

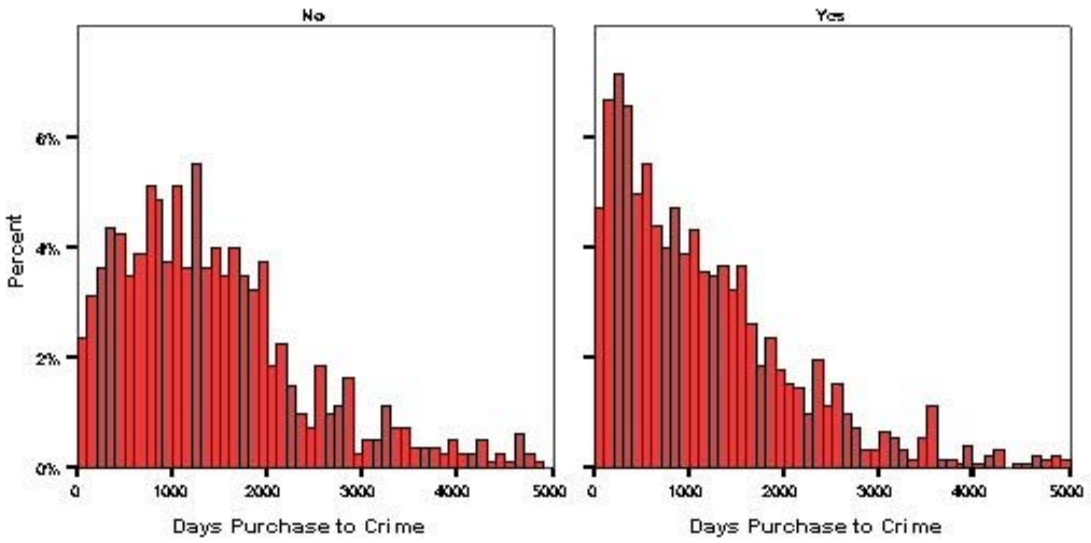
1. The link between BATF records and departmental records is difficult to make, unless a departmental incident identifier is included and verified on every BATF trace record.

2. A very low percentage of all incidents of index violence with a firearm could be traced to a specific dealer. Those that could be traced may or may not be a representative (random) sample of all firearms used.

3. The incidents with at least one gun traced to a specific dealer cannot represent all guns used in violent index crime. They can, at best, only represent those incidents with a known offender.

Days to Crime
Chicago Index Violence 1995-1998

Buyer a Chicago Resident at Time of Purchase



Sources: Chicago Police Department
Bureau of Alcohol Tobacco & Firearms

EXHIBIT THREE

4. BATF's ability to link guns with dealers and with CPD incidents dramatically increased over the four years of the study. Therefore, incidents with at least one gun traced to a specific dealer are probably a better representation of index gun violence at the end of the study period than at the beginning.

5. Characteristics of the incident or the neighborhood in which it occurred have only slight effect on the CPD's decision to request a BATF trace or BATF's ability to trace a gun to a dealer.

6. The offender's race/ethnicity and age are related to the CPD's decision to request a BATF trace, but they are unrelated to BATF's success in locating a dealer.

B. The following were found for the 2,800 traced guns in this study.

1. Thirty one dealers were responsible for half the gun traces. Four dealers were responsible for one quarter of the traces.

2. Most of the traced guns were purchased very close to Chicago – generally in the city's Illinois suburbs. Of those that were purchased further away, many were purchased in Mississippi.

3. Days from last recorded purchase to crime varied systematically with the number of guns traced to the dealer and the distance between the dealer and the crime. Guns sold by high volume dealers and near to Chicago tended to have a shorter days to crime. Almost all high volume dealers are located very close to the city.

4. Chicago residents tended to buy guns in shops very close to the city and guns bought by Chicago residents were used in index violence in the city much sooner than guns bought by non-Chicago residents.

Finally, this research reports the conclusion that there is a white market for firearms used in Chicago Index Violence. The last recorded purchaser of a gun is rarely the user in violent crime. More often, the weapon passes through the grey market of gun shows and private sales, or the black market of thefts in transit or acquired during other crimes before it is used in an index crime. Thus, an analysis limited to the white market of gun and pawn shops, barely views the tip of the tip of the iceberg of firearms acquisition (Braga, et al., 2002; BATF, 2000b; BATF, 2000c).

REFERENCES

Braga, Anthony A., David M. Kennedy, Elin J. Waring, and Anne M. Piehl (2001). Problem-oriented policing, deterrence, and youth violence: An evaluation of Boston's Operation Ceasefire. *Journal of Research in Crime and Delinquency* 38(3): 195-225.

Braga, Anthony A, Phillip J. Cook, David M. Kennedy, and Mark H. Moore (2002). The illegal supply of firearms. Pp 321-352 in *Crime and Justice: A Review of Research*, Michael Tonry (Ed.), Vol 29. Chicago: University of Chicago Press.

Bureau of Alcohol, Tobacco and Firearms (BTAF) (2002). *Youth Gun Initiatives: Crime Gun Trace Reports (2000)*. Washington DC.

Bureau of Alcohol, Tobacco and Firearms (BTAF) (2000a). *Crime Gun Trace Reports (1999): Chicago*. November, 2000. Washington DC.

Bureau of Alcohol, Tobacco and Firearms (BTAF) (2000b). *Following the Gun: Enforcing Federal Laws Against Firearms Traffickers*. June, 2000. Washington DC.

Bureau of Alcohol, Tobacco and Firearms (BTAF) (2000c). *Commerce in Firearms in the United States*. February, 2000. Washington DC.

Cook, Phillip J.& Anthony Braga (2001). Comprehensive firearms tracing: Strategic and investigative uses of new data on firearms markets. *Arizona Law Review*, 43 (2, Summer): 277-309.

Cohen, Jacqueline & Jens Ludwig (2003). Policing gun crimes. In *Evaluating Gun Policy: Effects on Crime and Violence*, Jens Ludwig and Phillip Cook (Eds). Pp. 217-250. Chicago: Brookings Institute.

Levine, Ned & Associates (2002). *CrimeStat II: A Spatial Statistics Program for Analysis of Crime Incident Locations*. National Institute of Justice, Washington D.C.

Kellermann, Arthur L., Frederick P. Rivara, Norman B. Rushforth, Joyce G. Banton, Donald T. Reay, Jerry T. Francisco, Ana B. Locci, Janice Prodzinski, Bela B. Hackman and Grant Somes (1993). Gun ownership as a risk factor for homicide in the home. *The New England Journal of Medicine* 329 (15, October): 1084-1091.

WEEKEND EFFECTS OF BINGE DRINKING ON HOMICIDE MORTALITY: FURTHER EVIDENCE FOR THE SOCIAL CONNECTION BETWEEN ALCOHOL AND VIOLENCE IN RUSSIA?

William Alex Pridemore, Harvard University, Davis Center for Russian and Eurasian Studies, and Indiana University, Department of Criminal Justice

Russia's perennially high homicide rate increased further during and after the dissolution of the USSR. The homicide rate more than tripled between 1988 and 1994, the rate of nearly 30 per 100,000 persons in 2001 was among the highest in the world, and violent death played an important role in decreasing life expectancy during the 1990s, especially for males (Notzon, et al., 1998).

Several scholars argue that alcohol consumption played an important role in the variation of overall mortality rates in Russia during the last two decades (Leon, et al., 1997; Shkolnikov, et al., 2001), and some suggest that it also contributes to the country's high homicide rate (Gavrilova, et al., 2000;Shkolnikov , et al., 1997). Nemtsov (1998), for example, reveals the reduction and subsequent increase of alcohol-related violent deaths during and after Gorbachev's anti-alcohol campaign, and Pridemore (2002) shows a cross-sectional relationship between alcohol and homicide mortality in Russian regions during the mid-1990s. While Pridemore employs data aggregated to the regional level, he argues that the social and contextual effects of what, how, and where Russians drink are partially responsible for the hypothesized relationship between alcohol and violence in Russia. Binge drinking and vodka are two main suspects, especially in the context of high tolerance of heavy drinking and decreased formal social control (Bobak, 1999; Norstrom, 1998).

A recent study of Lithuania points to the contribution of binge drinking to daily variations in types of mortality, including violence (Chenet, et al., 2001). While not establishing a causal relationship, a correlation between daily levels of binge drinking and homicide should provide further evidence for the social connection between alcohol and violence in Russia. Specifically, we expect rates of both to be higher during the weekend. Recorded homicide deaths are likely higher on Fridays and Saturdays, since the time of death is usually relatively easy to calculate, given the presence of witnesses and the response of police and medical professionals. The exact time of a death due to alcohol poisoning might be less clear. Unlike homicides, there is usually no tangible event, witnesses to the actual death are unlikely, and the death is probably not discovered until the following morning. Thus we would expect recorded deaths due to acute alcohol poisoning to be higher on Saturdays and Sundays, resulting mostly from drinking on Friday and Saturday nights.

METHODS

As with Chenet et al. (2001), we use accidental alcohol poisoning deaths as a proxy for binge drinking. This category is likely overused in Russia relative to the West, since it is often employed to classify deaths due not only to acute poisoning but also to

the underlying effects of chronic alcoholism (Blum and Monnier, 1989; Shkolnikov and Meslé, 1996). However, the combination of binge drinking and consumption of vodka and illegally produced alcohol (the quality of which is unregulated), does result in a high number of deaths due to true alcohol poisoning in Russia.

Death certificates of those aged 20-64 in the Udmurt Republic are analyzed according to day and cause of death for the years 1994-1998. These data were originally collected as part of a United Nations Development Programme project examining the Russian mortality crisis during the transition (Shkolnikov and Chervyakov (2000; Chervyakov, et al., 2002). Cause of death was recorded according to the Soviet classification scheme, with accidental alcohol poisoning coded as 163 and homicide as 174, which correspond to ICD-9 codes 860 and 960-978, respectively. The use of the Udmurt Republic is important, because it is one of the few regions in Russia that did not experience a significant increase during the 1990s in the use of the "violent death, cause unknown" category, which has resulted in significant under-enumeration of homicides throughout the nation.

RESULTS

Table 1 presents the proportional septadian distribution of deaths due to alcohol poisoning and homicide in 1994-1998 in the Udmurt Republic. As expected, both homicide and alcohol deaths are significantly higher on the weekend ($p < .01$ for all distributions except homicide in winter, $p = .082$), with homicide mortality peaking on Fridays and Saturdays and alcohol poisoning on Saturdays and Sundays. The same pattern holds true for overall deaths and for the warm and cold seasons.

COMMENT

Vodka represents about 75% of the estimated 14+ liters of alcohol consumed annually in Russia (Treml, 1997), and surveys suggest that nearly one-third of Russian men binge-drink at least once per month (Bobak, et al., 1999). The results presented here support our hypothesis and are consistent with the Chenet et al. findings in Lithuania (Chenet, et al., 2000) and in Moscow (Chenet, et al., 1998).

While there are many reasons why alcohol may be related violence, social and cultural characteristics likely play an important contextual role. First, quicker and deeper intoxication results from binge drinking and distilled spirits, and this has been shown to be related to violent outcomes (Norstrom, 1998). Second, there is high social tolerance for heavy drinking in Russia, perhaps resulting in less informal social control over this type of behavior. Third, the tendency for Russians to drink in private or semi-private settings (as opposed to a bar/pub culture) results in decreased formal social control by police or other security personnel. Further, the ability of the police to provide broad patrol coverage and to respond to calls has been drastically reduced in Russia, since funding has been sharply cut and the crime rate has gone up.

Table 1
Proportional distribution of homicide and alcohol poisoning mortality by day of week[1]

	All		Warm Season (May - October)		Cold Season (November - April)	
	Homicide	Alcohol poisoning	Homicide	Alcohol poisoning	Homicide	Alcohol poisoning
Monday	0.132	0.135	0.122	0.147	0.143	0.125
Tuesday	0.128	0.113	0.120	0.107	0.136	0.118
Wednesday	0.125	0.143	0.133	0.136	0.117	0.150
Thursday	0.143	0.140	0.144	0.137	0.141	0.142
Friday	0.165	0.137	0.162	0.144	0.167	0.132
Saturday	0.164	0.158	0.173	0.162	0.154	0.155
Sunday	0.137	0.174	0.141	0.168	0.132	0.179
Total	2180	2289	1152	1058	1028	1231
P^2 (df = 6)	$p < .001$	$p < .001$	$p = .004$	$p = .007$	$p = .082$	$p = .001$

One important limitation here is that these aggregate data do not provide information about individual homicides, and thus we do not know if offenders and/or victims were drinking at the time of the event. However, Nemtsov's (1998) study of individual death records shows that about 50% of accident and violence *victims* in Moscow were blood alcohol positive; Chervyakov et al's (2002) examination of court transcripts reveals that at least two-thirds of all *offenders* in the Udmurt Republic were intoxicated at the time of offense; and official Russian police data report that more than two-thirds of the 125,000 people arrested for homicide or attempted homicide between 1996 and 2000 were under the influence of alcohol at the time of the event (MVDRF, 2000).

Another possibility is that the correlation between weekend effects on binge drinking and on homicide is spurious, that other social or contextual factors are responsible for the increase in both. This could be the case, since the risk of intoxication and of violence may be higher during this time as a result of normal routine activities. This notion is supported by the results that show there were 11% fewer homicides during the cold season relative the to the warm season, when people spend more social time outdoors and at their dachas. It is this intermediate social context, however, that we believe to be important in the relationship between drinking and homicide.

In sum, the results presented here reveal evidence for the social connection between alcohol consumption and homicide in Russia. The evidence is not causal in

[1] Note: Proportions do not sum to exactly 1.0 in all columns due to rounding and to the exclusion of a very small number of cases in which the day of death was unknown.

nature, but when situated in the context of other data and studies, it provides further support. These initial findings should encourage continued research on this relationship, especially on the intervening role played by social, cultural, and situational characteristics.

REFERENCES

Blum A. and Monnier A. (1989). Recent mortality trends in the USSR: New evidence. *Population Studies, 43*:211-241.

Bobak M., McKee M. and Rose, R. (1999). Alcohol consumption in a national sample of the Russian population. *Addiction, 94*:857-866.

Chenet L., McKee M. and Leon D. (1998). Alcohol and cardiovascular mortality in Moscow: New evidence of a causal association. *Journal of Epidemiology and Community Health,* 52:772-774.

Chervyakov, V.V., Shkolnikov, V. M. and Pridemore, W.A. (2002). The changing nature of murder in Russia. *Social Science and Medicine* 55:1713-1724.

Gavrilova, N.S., Semyonova, V.G. and Evdokushkina, G. N. (2000). The response of violent mortality to economic crisis in Russia. *Population Research and Policy Review,* 19:397-419.

Leon, D.A., Chenet, L. and Shkolnikov, V. M. (1997). Huge variation in Russian mortality rate 1984-94: Artefact, alcohol, or what? *Lancet,* 350:383-388.

M.V.D.R.F. (Ministerstvo Vnutrennykh Del Rossiiskoi Federatsii [Ministry of the Interior of the Russian Federation]). Prestupnost I Pravonarusheniya 2000: Statisticheskii Sbornik [Crime and Offenses 2000: Statistical Collection]. Moscow: Author. 2001.

Nemtsov, A.V. (1998). Alcohol-related harm and alcohol consumption in Moscow before, during and after a major anti-alcohol campaign. *Addiction, 93*:1501-1510.

Norstrom, T. (1998). Effects on criminal violence of different beverage types and private and public drinking. *Addiction, 93*:689-699.

Notzon, F.C., Komarov, Y. M. and Ermakov, S.P. (1998). Causes of declining life expectancy in Russia. *Journal of the American Medical Association*, 279:793-800.

Pridemore, W.A. (2002). Vodka and violence: alcohol consumption and homicide rates in Russia. *American Journal of Public Health* 92:1921-1930.

Shkolnikov, V. M. and Chervyakov, V.V. (2000). *Politika po kontrolyu krisisnoi smertnosti v Rossii v perekhodnii period (Policies for the control of the transition's mortality crisis in Russia)*. Moscow: United Nations Development Programme.

Shkolnikov, V. M., McKee, M. and Leon, D.A. (2001). Changes in life expectancy in Russia in the mid-1990s. *Lancet* 357:917-921.

Shkolnikov, V. M. and Meslé, F. (1996). The Russian epidemiological crisis as mirrored by mortality trends. In: DaVanzo J,. (ed.), *Russia's Demographic "Crisis."* Santa Monica, CA: Rand. Pp 113-162.

Shkolnikov, V. M., Meslé, F. and Vallin, J. (1997). Recent trends in life expectancy and causes of death in Russia, 1970-1993. In: Bobadilla, J. L., Costello, C.A. and Mitchell, F. (eds.), *Premature Death in the New Independent States*. Washington, DC: National Academy Press. Pp 34-65.

Treml, V.G. (1997). Soviet and Russian statistics on alcohol consumption and abuse. In: Bobadilla, J. L., Costello, C.A. and Mitchell, F. (eds.), *Premature Death in the New Independent States*. Washington, DC: National Academy Press. Pp 220-238.

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DISCUSSION: RISK FACTORS IN HOMICIDE
Recorded by Joe Shulka, Minnesota Gay Homicide Study

Vicky Brewer Titterington: Bill, how many cases is this based on?

William Pridemore: I think it says on the bottom of the sheet.

Paul Blackman: Were some traces not conducted due to local information, and were guns actually used in the incident or were they just found during the arrest?

Dick Block: I tried to control for that especially where many guns were used in an incident – greater than 42 in one incident. No, I don't have that. They have a good ability to look at obliterated serial numbers.

Paul Blackman: What about 1983?

Dick Block: Record keeping has improved over time.

Paul Nieuwbeerta: A question about both studies – half day intervals provide clearer data. Does your data allow this?

William Pridemore: I don't have that. The information is available from court records though and I will look at that. About 80% of those had alcohol involvement for the victim.

Dick Block: My co-author looked at week and hour and found the greatest variation was in gang-homicides.

Paul Nieuwbeerta: How are your results and conclusions biased by police going to the most common source all the time?

Dick Block: The only bias I can think of would be the expensive gun shops.

Dallas Drake: Bill, this is extraordinary data. How were you able to gain access to it?

William Pridemore: The former Soviet Union is more open now. The raw data was always there. They only fudged on their official reports of the raw data. I was able to gain access through a friend.

RESEARCH ISSUES WITH CASE-BASED HOMICIDE IN POPULAR LITERATURE
PANEL SESSION VII, 1:45 p.m. - 3:15 p.m., June 7, 2003

Moderator: Lin Huff-Corzine, University of Central Florida

Presenter: Vanessa Leggett, University of Houston-Downtown

Discussants:

Richard Block, Loyola University of Chicago
Paul H. Blackman, National Rifle Association
Thomas A. Petee, Auburn University

Recorder: Jay Corzine, University of Central Florida

RESEARCH ISSUES WITH THE CASE-BASED HOMICIDE IN POPULAR LITERATURE

Vanessa Leggett, University of Houston-Downtown

INTRODUCTION

Panelists in this session addressed fundamental issues facing the present-day researcher of homicide:

1. To preserve the integrity and accuracy of the research process — which could be compromised when the researcher and/or subject become/s entangled in legal proceedings — should criminologists, writers and researchers postpone any independent (i.e., unofficial) investigation pending adjudication?
2. Under what circumstances, if any, should researchers report admissions of criminal wrongdoing when information is given in confidence?

AN EXAMPLE OF RESEARCH INVOLVING CASE-BASED HOMICIDE

The following scenario, which actually happened to a member of the Homicide Research Working Group, was presented for discussion:

A writer and lecturer in criminology ("Researcher" in the following) sets out to write a popular nonfiction story about a homicide of considerable public interest. The case involved a woman murdered as part of an alleged conspiracy between her husband ("Solicitor") — a bookmaker and police informant — and his brother ("Contractor"), whom Solicitor was suspected of hiring to shoot her. After an intensive investigation, state prosecutors indicted and jailed both suspects without bond. Neither confessed nor made admissions to police.

Before either suspect was tried for the alleged murder conspiracy, Researcher secured an exclusive interview with Contractor, who said he was prepared to give a tape-recorded confession to the crime, based on one condition: Researcher had to promise to keep information confidential until after the trial. During the tape-recorded confession, Contractor implicated Solicitor in the purported murder-for-hire scheme. However, before the trial began — and before the series of interviews had been completed — Contractor was found dead in his jail cell. Prominently displayed against a wall in the cell was a "suicide" note in which Contractor confessed to the crime, but claimed Solicitor was "innocent." Unaware that Contractor had given a taped confession to Researcher, Solicitor's attorneys asked that the murder-conspiracy charges be dropped, based on the "suicide note" they maintained exonerated their client.

Researcher was left with an obvious dilemma: whether to surrender the interview materials to authorities or keep a promise to her source, now deceased, to withhold publishing the information until after Solicitor's trial.

Ultimately, prosecutors served Researcher with a state grand jury subpoena. Specifically, authorities sought to obtain her interview materials with Contractor. Researcher initially refused and retained counsel. An attorney advised Researcher that she could not legally withhold material information of which she was the sole possessor. The confession at issue went to the heart of the case: a suspected participant in the alleged murder-for-hire scheme outlined, on tape, a murder conspiracy. That Researcher wanted to assert a qualified First Amendment privilege was inconsequential, according to the attorney, because Researcher alone possessed the information. The lawyer explained that any alternate sources of the same information could not be availed since, as a practical matter, prosecutors could no longer question the original source, who was dead, and as a constitutional matter, authorities could not compel the other suspect to give testimony against his own penal interest.

After the District Attorney's Office issued a warrant for her arrest, Researcher surrendered the taped confession, with these provisions: (1) at the completion of the legal proceedings, original recordings (unless admitted as evidence) and all copies would be returned to Researcher's possession, and (2) in the interim, the District Attorney would provide Researcher with her own set of copies. Authorities reviewed the contents of the tape recordings and subpoenaed Researcher to trial.

During the trial proceedings, however, Researcher was not called to testify. Hence, the state trial court never ruled on the tape-recorded interview's admissibility, which was in question, since, as a defendant, Solicitor had a constitutional right to confront his accuser — to wit, the Contractor on the tape-recorded interview, who, as a decedent, could not be cross-examined. At the completion of the trial, Solicitor was acquitted. Prosecutors returned to Researcher the original recordings and what they represented were all copied recordings.

While Researcher continued her independent investigation, the District Attorney's Office, apparently dissatisfied with the jury's verdict — only the second not-guilty finding in the D.A.'s long history of successful death-penalty prosecutions — asked the federal government to intervene -- specifically, to investigate Solicitor for assorted bookmaking-related charges as well as the murder-for-hire case the state had lost. The Federal Bureau of Investigation formed a task force, and appointed as case agent the newly elected District Attorney's wife, who happened to work for the local FBI office.

As the federal investigation progressed, FBI agents asked Researcher for her "assistance," explaining that they had listened to Contractor's tape-recorded confession, the same recordings state prosecutors had agreed in writing to return to Researcher. By retaining copies without Researcher's knowledge or consent, and providing copies to the FBI, the District Attorney's Office had violated the terms of their agreement. Still, Researcher was willing to cooperate with the federal government, provided agents agreed to avoid any inquiries about other sources she had cultivated during her research, many of whom she had promised confidentiality.

However, before long, agents began to pressure Researcher to disclose confidential-source information. Once it became clear that Researcher would not provide such information, agents asked her to sign an agreement to become a confidential informant, offering money as an incentive. After Researcher declined the offer, agents served her with a federal grand jury subpoena, which demanded all interview materials, including confidential-source material. Further, the subpoena asked for any and all originals and copies of interviews, which would have left Researcher without any means to verify information she had uncovered during her research. Federal prosecutors would not allow Researcher to keep even one copy for her own use and further, refused to modify the subpoena (e.g., strike confidential sources).

Without the subpoenaed information, Researcher appeared before the federal grand jury. She testified voluntarily about non-confidential source material, only refusing to answer questions about confidential source material. Prosecutors informed the court that the government — which they represented intended to seek the death penalty — could not indict Solicitor without Researcher's information. Predictably, the federal district judge held Researcher in civil contempt and ordered her detained until Researcher agreed to comply with the terms of the subpoena or until the termination of the grand jury's session, whichever occurred first.

One-hundred and sixty-eight days later, Researcher was released when the grand jury disbanded. Prosecutors convened a new grand jury and three weeks later, without any help from Researcher, the United States Attorney's Office indicted Solicitor for federal murder-for-hire. Prosecutors did not end up seeking the death penalty.

PANEL DISCUSSION

The three panelists addressed some of the implications that this example of case-based homicide research might have for other homicide researchers:

- With cases pending adjudication, should any independent — i.e., unofficial — investigation be postponed by criminologists, writers and others interested in exploring the etiology of homicide and presenting their findings to a wide audience?
- Should ethical standards for academic and scientific researchers vary from those that guide writers of popular nonfiction or journalists?
- What about patterning ethical practices after those followed by law enforcement?
- Finally, should an inclusive, uniform ethical code exist for all researchers of homicide, whether scholarly, forensic, or literary?

Richard Block

In reaction to Vanessa Leggett's presentation, Richard Block discussed the problems that are regularly encountered by academic criminological researchers when, through informants, they learn about previous or current criminal behavior. In his academic career, this has happened ten or more times. Sometimes the revelations can be anticipated and safe guards of anonymity can be built into the research. However,

what should be done with unanticipated revelations of criminal activity? When should the researcher notify the police? How should confidentiality be protected?

Block then proceeded to give several examples of this problem. In doing an evaluation of a home for delinquent girls, he was able to locate girls who had fled the program and were in violation of probation. The program director asked for their addresses. The request was refused. Evaluating the same program, Block discovered that some girls were operating a drug market and using the home as a safe and convenient place to store drugs. In this case, the problem was included in the evaluation report that was sent to the funding agency and to the home's director. Block discussed several similar problems, but could only make suggestions that might limit the researchers difficulty when criminal behavior is unexpectedly revealed.

Tom Petee

Tom Petee discussed some of the ethics issues involved in research and what, if any, protection is available to researchers when the courts want access to research data. He talked specifically about the Washington State University case which involved a graduate student who was doing research on radical animal rights groups who had apparently been breaking into research labs, where the courts wanted access to his records on that research. He also talked about the anonymity/confidentiality requirements for human subject research being conducted at a university, and how that can come into conflict with courts/prosecutors wanting those supposedly protected records.

Paul Blackman

Paul Blackman spoke from prepared remarks, an edited version of which follows:

Based on judicial precedents, the various constitutional issues involved in Vanessa's case are fairly clear – and unfairly wrong. The binding Supreme Court decision on the issue of a reporter's right to silence in the face of things like a grand jury subpoena isn't really great. And the *Branzburg* case[1] involved a reporter who witnessed a crime, which Vanessa didn't do, although some criminological researchers have, or have heard what amount to confessions. Vanessa gave up taped confessions and defendant statements. Per the Court's compromise between criminal justice and the First Amendment, reporters have no more right than the average citizen to refuse to testify, within three limits. Testimony, absent evidence of governmental harassment or oppression, can be forced: (a) if the evidence is relevant to the inquiry; (b) if it can't be obtained by alternative means; and (c) if the information is of compelling and overriding interest, that is, if it goes to the heart of the case. That "absent evidence of governmental harassment or oppression" seems to toss in a fourth issue.

[1]*Branzburg* v. *Hayes*, 408 U.S. 665 (1972). *Branzburg* was a 5-4 decision, but really more like a 4-1-3-1 decision, with four justices saying there was no privilege for reporters, four saying it was a qualified right, one of whom found it not violated in the facts at hand, and one saying it was an absolute right. The standard for the right of a reporter has actually been set by one of the dissenting opinions. Irrelevant to Vanessa's federal grand jury, a majority of the states have adopted stronger shield laws.

None of the first three criteria appear to have been met. Aside from her interviews with the Angleton brothers, all of her evidence would be inadmissible hearsay – potentially useful to a grand jury but inadmissible in a criminal procedure, and obviously available by alternative means. And an indictment was eventually quickly obtained by a second grand jury without her.

Is there any evidence of harassment or oppression in the subpoena? Well, yes. First, the issue only arose after Vanessa refused to serve as an undercover agent for the feds, temporarily, at least, giving up her book plans. Next, in addition to ordering her to testify and to supply all of her notes and tapes, the feds were demanding *all copies* of her notes and tapes, leaving her no basis for working on her book. One suspicion is that at least part of the goal was suppressing, temporarily or permanently, a book critical of the state investigation and prosecution – in which Chuck Rosenthal, the husband of the FBI agent, was involved. And, from my point of view, as an old constitutional law professor concerned with things like the perversion of the protection against being twice put in jeopardy for the same offense, I think the double-jeopardy issue in Robert Angleton's case is relevant to determining whether there is governmental harassment or oppression. The initial exceptions, violating the spirit but not the letter of the double-jeopardy prohibition, appealed to decent folks: states weren't prosecuting whites for killing uppity blacks, or else they did so half-heartedly with all-white juries guaranteeing acquittal, so the feds tried. Then, with cases like that of the cops involved in the beating of Rodney King, the feds decided to try even though the state had really tried, but had been unsuccessful, but there was a civil rights nexus to the issue. Now, with Angleton, there's nothing: the state tried; the state failed. While there are technically federal issues, there's nothing really to appeal to the feds aside from the vindictiveness of the state, unwilling to let a killer go free just because its investigation and prosecution was done incompetently.

The potential threat of Vanessa's case to others, whether writers or scholars, is that the rules that have been built up over the course of the past few decades to limit the possibility of the First Amendment being fettered in efforts to allow thorough investigation and prosecution of wrongdoing, were basically all violated by the Justice Department, with the violation approved by the federal courts. So far, of course, there is no evidence that the weakening protection is intended to victimize anyone but Vanessa – which may or may not be related to Vanessa's actions and the reactions of the news media.

OPEN DISCUSSION
Recorded by Jay Corzine, University of Central Florida

Kim Vogt: Does anybody think that the Patriot Act may create more problems with confidentiality?

Paul Blackman: Yes, but I don't have any specifics. Maybe Jim Noonan can address the question.

Jim Noonan: I'm not an agent. I'm a statistician.

Kim Vogt: I was asking about basic issues, not specifics.

Lin Huff-Corzine: There are some issues at the University of Central Florida. We have to look much closer at what chemicals are stored in labs. At some schools, faculty have been taken into custody because of possible involvement in illegal activities. They have been hauled off somewhere.

Tom Petee: There is ambiguity because of the expanded powers related to confidentiality. Safeguards for not giving up information are circumvented.

Lin Huff-Corzine: In Florida, all e-mail messages are public record. We respond to requests for e-mail records routinely.

Vicki Titterington: Vanessa, what did the other inmates (detainees) think about your situation?

Vanessa Leggett: I don't know exactly. I was sometimes embarrassed when asked. They didn't comprehend it. There were rumors that I was a snitch, not a journalist.

Kathleen Heide: Communications about juvenile homicide are not protected, but I've never been subpoenaed. It is a non-issue. As a licensed mental health professional, there is protection with some exceptions. I put the exceptions out front. Is there any state that recognizes privileged communications for academics?

Paul Blackman: Some states protect researchers as well as reporters.

Richard Block: Illinois does not. For the judge project I did, the Supreme Court passed a special ruling that the data were confidential.

Vanessa Leggett: The least protection is in the 5th Circuit.

Tom Petee: Paul is right. There are sometimes human subjects protections.

Jim Noonan: Vanessa, do you feel safe or threatened? Have there been contracts on you?

Vanessa Leggett: Yes, when first released. The bookie discovered that I tape recorded our conversations before the indictment. An Assistant United States Attorney told me there were credible sources that he had hired someone to kill me. He asked if I wanted protection. There are degrees of protection. They already drive by my house and monitor my movements and phone records. They re-subpoenaed me. I'm a subpoena magnet for the federal government. I'll feel safest when the book is out.

Mark Riedel: It's hard to attack an issue individually. The professional associations like the American Society of Criminology's Committee on Ethics in Research should address

the issues. The American Psychological Association has an extensive code of ethics that provides protections.

Vanessa Leggett: The American Sociological Association has a code of ethics. There is a basic code in journalism.

Becky Block: Vanessa, what do you think is theoretically possible? Do you have specific recommendations as to things that might be done?

Richard Block: I'm more concerned with the IRB (Institutional Review Board). You can't specify a code of ethics in case-based research. In collecting and analyzing data, you find evidence for criminal activity. What is ethical research on homicide?

Vanessa Leggett: To obtain the best interview, you promise confidentiality. It improves the quality of the information. But case law will not uphold confidentiality. You have to apply a balancing test. It is personal balancing.

Tom Petee: It is balancing that is subjective. You can guarantee anonymity if you can't identify the source. We should press professional organizations to make clear statements. It is not balanced at present.

Paul Blackman: When a researcher is facing the government, there is strong pressure to comply.

Jay Corzine: The situations can be very complicated. When I was at the University of Nebraska-Lincoln (UNL), a graduate student approached me with a problem. She was involved in ethnographic research at a local bar that featured amateur strip contests with two other graduate students and a professor. I knew that a UNL coed had been raped and killed in her apartment, but I didn't know that the four of them had been questioned by police because the investigation led the police to the bar. The student who approached me believed she had information relevant to the case that was not known by the other researchers, but she was worried about human subjects protection. She came to me because it was known in the department that I had ties with the Lincoln Police Department. Serving as an intermediary, I linked the graduate student and the detective heading the investigation. The bottom line is that the information she provided led to the arrest and incarceration of the killer. In some cases, it is not ethical to protect subjects.

Lin Huff-Corzine: It is often a hard call to make.

Dallas Drake: There are unique positions related to confidentiality. We protect the data. In our gay/lesbian homicide research, we store the data off site.

Tom Petee: There is a need to worry about institutional support. It can be a tenuous situation. Data should be stored in locked offices and file cabinets. There should be a schedule for the destruction of records.

Vanessa Leggett: It didn't do me much good. It is obstruction of justice to destroy documents once a subpoena is issued.

Marc Riedel: You can attach an ID number to documents early in data collection. The linkage information can be in another place under your control.

Vanessa Leggett: The bookie assigned numbers to the players. It is easy to identify people.

Paul Blackman: You need a lawyer who knows the law.

Vanessa Leggett: What is off site?

Marc Riedel: A secure place.

Kim Vogt: Richard Wright and Scott Decker kept the materials for their book in England.

Richard Block: Any keys are password coded. Students can't access the data. Becky, did you do that with the health survey encryption?

Becky Block: Kathleen, there are places where you can't promise anonymity. You can't if there is a risk of imminent harm. For example, in Jackie Campbell's Danger Assessment (DA) instrument, which involves estimates of the risk of death, one question involves asking if the woman's abuser has abused the children. However, if the woman answers "yes," the nurse or practitioner administering the DA must report it, under mandated reporting laws. Harm to a child must be reported to the Department of Children and Family Services. Therefore, the consent form has to let the woman know that this might happen.

THE CONTINUUM OF VIOLENCE
PANEL SESSION VIII, 3:30 p.m. - 5:00 p.m., June 7, 2003

Moderator: Wendy C. Regoeczi, Cleveland State University

Papers:

Differences Between Convicted Violent Offenders: Completed and Attempted Homicides and Aggravated Assaults, by Paul Smit, Research & Documentation Center (WODC), Ministry of Justice, the Netherlands; Catrien Bijleveld, Netherlands Institute for the Study of Crime and Law Enforcement (NSCR); Marisca Brouwers, Research & Documentation Center (WODC), Ministry of Justice, the Netherlands; Rolf Loeber, University of Pittsburgh; and Paul Nieuwbeerta, Netherlands Institute for the Study of Crime and Law Enforcement (NSCR)

Predicting Lethal Versus Non-Lethal Violence Against Children: A Contextual Analysis of NIBRS Data, by Janice E. Clifford-Wittekind, Auburn University; Jay Corzine, Lin Huff-Corzine, University of Central Florida; Greg S. Weaver, Auburn University; Thomas A. Petee, Auburn University; and John Jarvis, Federal Bureau of Investigation

The Spectra of State-Sanctioned Homicide in the American South, by Paul H. Blackman, Research Coordinator, NRA Institute for Legislative Action

Recorder: Victoria B. Titterington, College of Criminal Justice, Sam Houston State University

DIFFERENCES BETWEEN CONVICTED VIOLENT OFFENDERS: COMPLETED AND ATTEMPTED HOMICIDES AND AGGRAVATED ASSAULTS

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Catrien Bijleveld, Netherlands Institute for the Study of Crime and Law Enforcement
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ABSTRACT

Using the 1998 Dutch homicide database (Smit et al., 2001a, 2001b), we study differences between offenders who have been convicted for homicide, attempted homicide, aggravated assault and attempted aggravated assault. We contrast these four groups regarding their demographic characteristics, criminal career and sentences received. It appears as if the four groups are not easily distinguishable on the basis of these characteristics. Next, we look at the patterning of offences before the sampling offence ((attempted) homicide and (attempted) aggravated assault), focusing mainly on property offences, violent offences, drug offences and public order offences. We expand on explanations for our findings, as well as a number of questions the findings raise.

INTRODUCTION

This research is presented here as a “work in progress.” Preliminary results based on exploratory analyses are given.

RESEARCH QUESTIONS

We test a number of hypotheses, and we carry out a number of exploratory analyses. The first hypothesis is that homicide offenders (with the possible exception of “intimate” homicide offenders), as they are perpetrators of offences with the most severe outcome, are characterized by more violent previous criminal careers than other (violent) offenders. The idea behind this hypothesis is then, in a sense, that the homicide is the culmination of a violent career, in which, at some point, the violent exerted in encounters becomes fatal. The second hypothesis is that the outcome of a violent encounter is a chance event. In this hypothesis one works from the idea that all violent encounters are equal and that chance determines whether the victim will die or not.

Lastly, we carry out a number of exploratory analyses. Our questions are not directed here, but instead very open. Our main research question is here to what extent the criminal careers of homicide and other violent offenders differ, in terms of the demographic characteristics of these offenders, and in terms of their criminal careers. The

properties of these criminal careers that we take along in our analyses are, their start, their duration, the types of offences in these careers, and the patterning of these offences.

DATA

Our data were extracted from the OBJD (Research and Policy Analysis on Criminal Records) database. This is a database containing the criminal records from all persons who are prosecuted in the Netherlands, regardless whether they are convicted or not.

From this database we extracted all criminal records from all persons that were convicted in 1998 for homicide or aggravated assault (including attempts).

Next, we removed from this dataset all offences that ended in a "not guilty" verdict (or similarly decisions) and all misdemeanors. This resulted in a dataset containing 33,033 offences for 3,237 offenders, of which 1,196 were convicted for (attempted) homicide and 2,041 for (attempted) aggravated assault. Thus, the 33,033 offenses include the following:

- 3,237 offences that were the basis for the current analysis, the so-called “sampling offences,”
- 23,612 offences that were committed before the sampling offence, and
- 6,184 offences that were committed after the sampling offence.

The variables used in this analysis that were collected for each offence are the following:

- The date the offence was committed,
- Whether there was a weapon involved (possession or use),
- Whether drugs were involved,
- The type of offence (according to a standard classification),
- The date of birth of the offender,
- Country of birth of the offender,
- Sex of the offender, and
- The length of the unsuspended custodial sentence imposed.

Many other variables were collected (e.g. on the decision of the prosecutor and the sentencing by the judge), but these are not yet presented here. Next, for each of the 3,237 offenders, the variables that were actually used in the analysis were computed (see Table 1).

Only for the sampling offences that were completed homicides were we able to distinguish between types of homicides (e.g. intimate, stranger, sexual, etc.). All data were categorized according to sex, country of birth and the type of the sampling offence. For the sampling offence we make a distinction between the following five categories:

- Completed homicides (except intimate homicides); n = 87
- Completed homicides (only intimate homicides); n = 55
- Homicide attempts; n = 1054
- Aggravated assault (completed); n = 604
  Aggravated assault (attempts); n = 1437

Table 1
Variables used in analysis

Variable	Definition
# offences in career	The number of offences with a date committed *before* the 1998 sampling offence
Mean seriousness	Based on the offence type and the mean of the imposed unsuspended prison sentences a seriousness scale was constructed for offence types. The mean seriousness is computed for all offences before the 1998 sampling offence
Mean time between offences	The mean time between two offences, corrected for the time the offender was in prison.
History of weapon use	The percentage of offences before the 1998 sampling offence where a weapon was involved
History of drug related offences	The percentage of offences before the 1998 sampling offence where drugs were involved
History of violent offences	The percentage of offences before the 1998 sampling offence where the offence was a violent offence
History of public order offences	The percentage of offences before the 1998 sampling offence where the offence was a public order offence
History of violent and public order offences	The percentage of offences before the 1998 sampling offence where the offence was a violent offence or a public order offence
History of property offences	The percentage of offences before the 1998 sampling offence where the offence was a property offence
Age at time of sampling offence	The age of the offender when the 1998 sampling offence was committed
Age at time of first offence	The age of the offender when the first offence of the career was committed

METHOD

For testing the first hypothesis, we compare the previous offences of homicide offenders with those of the perpetrators of attempted homicide, of aggravated assault, and of attempted aggravated assault. We use Kruskal-Walis non parametric tests. For testing the second hypothesis, we compare the demographic characteristics and properties of criminal careers of homicide offenders and perpetrators of attempted homicide. It

is necessary to compare exactly these groups: attempted homicide and completed homicide have in common that either a judge or – in the absence of a judge's verdict - the prosecutor or the police, have judged that the perpetrator had intent to kill. For aggravated assault as well as attempted aggravated this is not the case: here the perpetrator intended only to wound. So, by comparing the differences between attempted and completed homicide we compare offences in which the only (apparent) difference between incidents is the nature of the outcome.

For investigating the exploratory research question, we use a variety of exploratory techniques, stemming from the Gifi (1990) system for multivariate analysis, using the SPSS (1990) software. The main question asked is whether certain characteristics cluster around particular offences. In a first analysis, we simply investigate the clustering of criminal career and demographic characteristics. In a second more elaborate analysis, we attempt to model the chronology of criminal careers, in the sense that we attempt to discern whether our four different offences are characterized by particular previous patterns of offences.

PRELIMINARY RESULTS

First, we compare the previous offences of homicide offenders with those of the perpetrators of attempted homicide, of aggravated assault, and of attempted aggravated assault. We carried out a large number of Kruskal-Wallis non-parametric tests.

Several conclusions could be drawn from these tests. A first is that the characteristic on which homicide offenders scored most consistently different from other violent offenders is starting age and age of commission of the offence. Homicide offenders in 1998, in almost all comparisons, started offending at a later point in their lives, and the homicide was committed when they were older than other offenders. A second conclusion that could be drawn is that there is a lot of variability within the group of homicide offenders. Analyses carried out for subgroups, such as men and women, or ethnic Dutch and non-ethnic Dutch offenders, led to different conclusions.

For summarizing our findings, we present Table 2. In this table, for ease of inspection, homicide and attempted homicide have been combined and completed assault and attempted assault have been combined. As stated, homicide offenders started out later and were older at the time of their sampling offence. Summarizing Table 2, it furthermore appears that (attempted) homicide offenders have more active careers, more previous convictions for weapon use, and fewer violent offences, based mainly on ethnic Dutch males' patterns. The careers of female homicide offenders are characterized by less serious previous offences and by fewer previous drug offences. Particularly Dutch male offenders have more property offences in their previous criminal careers. Homicide offenders have, excluding the females, more convictions for drug offences. We could not find any significant difference in the frequency of committed offences. All in all, these findings do not confirm the first hypothesis. A number of unexpected results were found (such as that homicide offenders have previous criminal careers with fewer violent

offences),[2] and that there was quite a bit of heterogeneity between men and women, and ethnic Dutch and non-ethnic Dutch offenders.

Table 2
Results of comparisons (homicide versus assault)

Homicide vs Assault (including attempts)	All	Men only	Women only	Dutch	Non-Dutch
N (homicide/assault)	1196/ 2041	1110/ 1876	66/ 120	629/ 1330	567/ 711
# offences in career	+27%	+30%		+43%	
Mean seriousness			-12%		
History of weapon use	+57%	+59%		+69%	
History of drug related offences	+47%	+62%	-94%		+41%
History of violent offences	-11%	-11%		-22%	
History of public order offences	-13%	-12%			-18%
History of violent and public order offences	-12%	-11%		-15%	
History of property offences	+7%	+8%		+17%	
Age at time of sampling offence (years)	1.9	1.8	3.3	2.1	1.3
Age at first offence in career (years)	0.9	0.8	2.2	0.4	

Testing the second hypothesis, we found that (again using Kruskal Wallis tests) perpetrators of completed homicides had fewer convictions for violent offences (p=.068), fewer convictions for public order offences (p=.066) and had been older at first conviction and were older at the age of committing the inclusion offence. In a sense, it does then appear that perpetrators of completed and attempted homicide do not differ a great deal. On the other hand, particularly on the variable on which the least differences would have had to have been found had the hypothesis been true, i.e. the number of previous convictions for violent offences, a difference was found.

Results from the exploratory analyses are not available yet.

[2] This was even the case in a separate analysis where we compared only the non-intimate completed homicides with completed aggravated assault.

FUTURE RESEARCH

One first conclusion that emerges from our analyses is that we have too superficial information on the violent encounters. For homicide we know what type of violent encounter we are talking about, whether it was a family event, a contract killing, etc., but for the other violent offences, this information is missing. One logical next step would be to collect this information, at least for the 1998 incidents. It is foreseeable that differences between assaulters and killers will vary between intra-familial disputes and criminal disputes, and the many questions that our research generated, may in fact be a result of the heterogeneity in the data.

REFERENCES

Gifi, A. (1990). *Nonlinear Multivariate Analysis*. Chichester: Wiley.

Smit, P.R., van der Zee, S., Heide, F. & van der Heide, W. (2001). *Moord en Doodslag in 1998 [Homicide in 1998].* The Hague: WODC Research and Documentation Centre, Ministry of Justice, Research Notes Series, #8.

Smit, P.R., Bijleveld, C,C,J,H, & van der Zee, S. (2001). Homicide in the Netherlands: An exploratory study of the 1998 cases. *Homicide Studies, 5*, 293-310.

SPSS. (1990). *SPSS Categories. SPSS User's Guide*. Chicago: SPSS Inc.

PREDICTING LETHAL VERSUS NON-LETHAL VIOLENCE AGAINST CHILDREN: A CONTEXTUAL ANALYSIS OF NIBRS DATA

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ABSTRACT

This study begins to clarify how situational elements and both victim and offender characteristics are related to the lethality of assaults against young children. Among the potential predictors of lethality among children under age five, we examine age and gender of the victim and offender, victim-offender relationship, type of weapon used in the incident, and time of day that assaults occur. Data from the National Incident-Based Reporting System (NIBRS) collated by the Federal Bureau of Investigation for the Uniform Crime Reports 1995-2000 are analyzed using logistic regression. Results indicate that it is a combination of victim, offender, and situational factors that predict lethality in violent incidents.

INTRODUCTION

Homicides of children generate a good deal of attention among public health researchers. Public health statistics reveal that in recent years homicide has been a leading cause of death involving injuries for children in the United States (Fingerhut, Annest Baker, Kockanek and McLoughlin, 1996). In fact, homicide is the only major cause of childhood death to have increased in the past 30 years (Finkelhor, 1997). Some experts even describe violence toward children as a public health crisis (U.S. Advisory Board on Child Abuse and Neglect, 1995).

This “crisis” seems especially pronounced for children under five years of age. Abuse and neglect threaten the lives of young children, with deaths from these causes outnumbering deaths from falls, choking, drowning, motor vehicle accidents, residential fires, and suffocation combined (U.S. Advisory Board on Child Abuse and Neglect, 1995). Moreover, it is highly likely that due to the resemblance of such incidents to other causes of mortality among children and the difficulty of documenting child homicide incidents, the actual homicide rate for younger children is substantially greater than police statistics indicate (Finkelhor, 1997).

To date, however, we know of no study that examines how child homicide risk factors compare to serious child abuse factors. The purpose of the present investigation is to explore how various factors related to violence toward young children are differentially related to lethal and non-lethal outcomes of assaults.

Factors Associated with Homicide Risk for Children

The vast majority of research on the homicide of children is done by public health researchers and focuses on descriptive studies rather than explanatory investigations. It is also important to note that many of these studies employ locally-derived samples that are most likely not generalizable to the larger population (Chew, McCleary, Lew and Wang, 1999).

Most of the research on child homicide suggests that children are most likely to be murdered by a member of their family, with a parent being the probable perpetrator (Crittenden and Craig, 1995; Strang, 1996; Finkelhor, 1997; Chew et al., 1999; Alvarez and Bachman, 2003). Although it is unusual to find that a stranger kills a young child (Strang, 1996), prior research is somewhat inconsistent about the relationship between the victim and offender in child homicide cases. Some studies suggest that the father is most likely to be the offender (Kasin and Cheah, 1995; Strang, 1996; Brewster et al., 1998; Lucas et al., 2002), while other studies identify the mother as being the most likely offender (Finkelhor, 1997). Still others claim that mothers and fathers are equally likely to kill their young children (Chew et al., 1999; Alvarez and Bachman, 2003). Some of this inconsistency is probably due to researchers' use of small samples and samples with limited scope, i.e., infanticide, in their investigations of child homicide.

Similarly, the existing literature contains contradictory evidence about whether boys or girls are more likely to become child homicide victims. Some studies report that the victims are more likely to be males (Blaser, Jason, and Weniger, 1984; Brewster et al., 1998; Stiffman, Schnitzer, Adam, Kruse, and Ewigman, 2002), while others suggest that female victims are more predominant (Abel, 1986; Kasim and Cheah, 1994). A few studies even indicate that child homicide victims are evenly distributed between boys and girls (Silverman, Riedel and Kennedy, 1990; Chew et al., 1999). There is also some evidence that sex differences in child homicide victimization may differ by age (Chew et al., 1999; Lucas et al., 2002).

Race appears to be a salient risk factor as well with blacks overrepresented among both child homicide offenders and certain child victim age groups (Goetting, 1988; Siegel, Graves, Maloney, Norris, Calonge and Lezotte, 1996; Lucas et al. 2002). However, at least one study (Chew et al., 1999) argues that child homicide victimization more closely resembles the composition of the general population than does adult homicide victimization.

Unlike adult homicide, in which the weapon of choice is a firearm (cite needed), the existing literature on child homicide suggests that child victims are significantly more likely to be killed by the offender's hands, feet, or other personal weapons. In short, the literature indicates that children most likely die as a result of a physical beating, punching, kicking or shaking (Strang, 1996; Brewster, Nelson, Hymel, Colby, Lucas, McCanne and Milner, 1998; Chew et al., 1999). In fact, the evidence related to the frequency of head trauma and "shaken baby" syndrome in fatal child abuse cases bear out this phenome-

non (Hicks and Gaughan, 1995; Starling, Holden and Jenny, 1995; Alvarez and Bachman, 2003). The probable explanation is that children, especially young children, are more vulnerable to dying from an attack that would not be lethal for an adult (Finkelhor, 1997).

The few studies that have addressed contextual factors related to child homicides indicate that, when compared to adult homicides, children are significantly more likely to be killed at home during the midday rather than during the evening or night (Brewster et al., 1998; Chew et al., 1999; Lucas et al., 2002). Finally, the circumstances surrounding child homicide center around family disputes (Brewster et al. 1998; Lucas et al., 2002) and an incident related to progressively severe child abuse (Chew et al., 1999).

DATA AND METHODS

Data utilized in this study consist of information for the years 1995 through 2000 from the National Incident-Based Reporting System (NIBRS), which are compiled under the auspices of the Federal Bureau of Investigation for the Uniform Crime Reports (U.S. Department of Justice, Federal Bureau of Investigation, 2001). Although not implemented in all states, NIBRS is designed to more comprehensively document incident-level data than earlier forms of data collection (Maxfield, 1999; Maxfield and Maltz, 1999).

For the present study, data from the administrative, incident, offender, and victim sections of the NIBRS dataset were obtained form ICPSR and merged into a single file (see Akiyama and Nolan, 1999 concerning NIBRS data analyses). The unit of analysis employed in this study is non-lethal vs. lethal incidents that involve children. Only incidents involving both a single offender and victim are included. These data are used to examine how victim and offender characteristics, as well as key contextual factors, influence the lethality of violent incidents against children under five years of age. Because the dependent variable utilized in this study is dichotomous, logistic regression is employed.

Dependent Variable

The primary dependent variable used in this research is an indicator of whether an incident involving a child less than five years of age results in a homicide or an aggravated assault. More specifically, the dependent variable represents the lethality of the crime incident, with homicide coded as “1” and aggravated assault coded as “0.” Models 1 through 3 include victims younger than five years. Model 4 narrows the scope of the analysis to victims less than one year old.

Independent Variables

Independent variables were selected based on findings noted in the literature review. First, because the literature shows mixed results, we include sex and race of victims and offenders. Sex of victims is coded as “1” and “0” for males and females, respectively. Race is coded as “1” and “0” for black and non-black victims, respectively.

Information related to the offender consists of offender age in years, sex (coded 1 = male, 0 = female, and offender race (black = 1, non-black = 0). Additionally, the victim-offender relationship is coded as “1” if the offender is a parent or step-parent of the victim and “0” if the relationship is not of a parental type.

Consistent with past research, two contextual variables included in this investigation are type of weapon used in the incident and time of day the event occurred. Among the weapons included are personal weapons, i.e., hands and feet, knife or other cutting instrument, blunt object, and fire. All weapons types are coded as “1” if it was the weapon employed and “0” if it was not the weapon used. The hour of the offense is coded as 1 = 12:00 a.m. – 5:59 a.m.; 2 = 6:00 a.m. – 11:59 a.m.; 3 = 12:00 p.m. – 5:59 p.m.; and 4 = 6:00 p.m. – 11:59 p.m.

RESULTS

A series of logistic regressions were conducted to examine the influence of the victim and offender characteristics on whether the incident had a lethal or non-lethal outcome. Odds ratios were computed to provide a way to examine the relationship between variables (Reynolds, 1977). Odds ratios range from “0” to infinity, where a value of “1.0” reflects no difference between the compared categories. A value of less than 1.0 indicates a negative relationship and a value greater than 1.0 indicates a positive relationship. Applied to the results of our study, a value of less than 1.0 means that a particular variable is less likely to lead to a fatal outcome, whereas a value of more than 1.0 means that presence of a particular variable is more likely to lead to a fatal outcome.

The first model shows the chances of an incident ending in lethality for all child victims under the age of five. Out of a total of 2,165 cases, 1,990 were categorized as assaults and 175 were categorized as homicides. Lethal outcomes were over two times more likely to occur when the child was black (odds ratio=2.038) and over one and one-half times more likely if the offender was a parent or step-parent (odds ratio=1.524). Personal weapons, i.e., hands and feet, significantly increased the chances of lethality for a child by nearly two times (odds ratio=1.982) when compared to other types of weapons. In contrast, non-lethal incidents of violence aimed at young children were more likely when a blunt instrument was used by the assailant (odds ratio=.203).

For child victims under the age of five years, two additional models were tested to control for sex of the offender. The total number of cases involving a male offender was 1.321. Of these, 1,220 had a non-lethal outcome and 101 had a lethal outcome. In Model 2, column two of Table 1, note that when the offender was male, boys were less likely to die (odds ratio = .604) and use of hands or feet doubled the chance of lethality (odds ratio = 2.070).

The third column of Table 1 provides the results of analyses controlling for female offenders. There were 844 incidents involving a female offender. Of those, 770 had a non-lethal outcome, whereas 74 incidents had a lethal outcome. The likelihood of a fatal

outcome was over three times (odds ratio=3.014) higher when the woman offender was a parent or step parent of the child victim. When women offenders are considered, both use of a personal weapon (odds ratio = 2.527) or knife (odds ratio = 2.338) more than doubles the chances of a lethal outcome for child victims. Fire and blunt objects were not included in the model for female offenders because there were no cases of women using these weapons.

Table 1
ODDS RATIOS FOR CHILD VICTIMS

	Children < Age 5		Children < Age 1	
	Entire Sample	**Male Offender**	**Female Offender**	**Entire Sample**
Victim Characteristics				
Victim Sex	0.763	.604*	1.021	0.979
Black Victim	2.038*	1.775	2.055	1.116
Offender Characteristics				
Offender Age	0.998	1.008	0.979	1.003
Male Offender	0.873	----	-----	0.676
Black Offender	1.005	1.089	0.964	1.723
Offender Alcohol Use	1.122	1.265	0.556	1.13
Offender Drug Use	1.896	2.449	1.764	1.22
Parental Relationship to Victim	1.524**	1.012	3.014**	1.572
Time of Incident				
12:00 – 5:59 a.m.	1.073	0.84	1.617	0.85
6:00 – 11:59 a.m.	1.061	1.235	0.884	0.774
12:00 – 6:00 p.m.	1.475	1.267	1.724	1.939*
Weapon Choice				
Person Weapon	1.982**	2.070**	2.527**	2.869**
Knife	1.428	0.557	5.338**	3.408
Blunt Instrument	.203*	0.376	n/a	0.445
Fire	0.727	2.094	n/a	n/a

Note: *p $\leq$ .05; ** p$\leq$ .01

The results in column 4 explore influences on child victim lethality for those under the age of one year. There were 454 incidents, with 374 non-lethal outcomes and 80 lethal outcomes. Supporting the concept of “shaken baby,” infants were nearly three times (odds ratio = 2.869) more likely to die when attacked by an offender using personal weapons. These incidents were also nearly two times (odds ratio = 1.939) more likely to occur between 12:00 p.m. and 5:59 p.m. Fire was not included in the model because there were no cases in which this type of weapon was used.

DISCUSSION

Findings from the current study indicate that the lethality of the outcome is influenced by different factors depending on the age of the child. Likewise, the results differ when we control for sex of the offender. For victims under the age of five, race of the victim, parental relationship and weapon type are significant predictors of lethality. Examination of incidents by offender sex show that both men and women offenders' use of a personal weapon significantly increased the chances of a lethal outcome for the child. In contrast to male offenders, female offenders' use of a knife also significantly increased the risk of a lethal outcome for children.

When child victims less that one year old were singled out, personal weapons continued to be a significant predictor of lethal outcomes. It is only among the very young, however, that incidents leading to a fatal outcome were more likely to occur at a particular time of day; between noon and 5:59 p.m.

Comparison across the models reveals that the only variable providing consistent results was the increased lethality associated with the use of a personal weapon. Knives, of course, also increased the likelihood of a lethal outcome when women violently attacked children, and the choice of a blunt object led to a higher rate of non-lethal outcomes.

In some ways, the current findings are consistent with previous work examining physical attacks on children. First, our results support the claim that children are most at risk of death at the hands of a parent or step-parent (Crittenden and Craig, 1990; Somander and Rammer, 1991; Kasim and Cheah, 1995; Strang, 1996; Finkelhor, 1997; Chew et al., 1999; Alvarez and Bachman, 2003). Second, the relationship between victims and offenders in this study supports the literature asserting that, when a child is killed by a female offender, the perpetrator is most likely to be his or her mother. Third, like Silverman, Riedel, and Kennedy (1990) and Chew et al. (1999), our models that examine total populations and women offenders show that sex of the victim was not suggestive of lethality. Fourth, we find that black children are more likely to be victims of lethal outcomes than are non-black children under the age of five. Fifth, following Strang (1996), Brewster et al. (1998) and Chew et al. (1999), personal weapons increased the chances that a violent attack on a child would end in a fatality. Finally, we find that the youngest victims were more likely to be killed during the midday (Brewster et al., 1998; Chew et al., 1999; Lucas et al., 2002) rather than during the evening or night.

We chose to examine the lethality of child victimizations using NIBRS, a more comprehensive data source than the Supplementary Homicide Reports (SHR) now available from the FBI. In part, we thought that having more information would help shed light on one of the more obscure types of homicide. What we found, however, was that our ability to examine child victimization was still limited by the structure of the data. NIBRS, for example, does not allow for examination of key elements of the incidents like circumstance or motivation. In addition, when the incident resulted in a fatality, no type of injury

was given. While the data set incorporates incidents located in different places, it is not nationally representative of all cases involving child victims because only 20 states were participating in NIBRS in 1995. Finally, we could not compare our results with non-criminal deaths of children under five years old because this information is not included in the data set.

We strongly encourage the collection of a more comprehensive set of data. Through the use of NIBRS, we do uncover more details about violent attacks on children than we could using the SHR, but there are many questions left that this data set cannot answer. Clearly, the design for NIBRS data collection was completed with adult victims of homicide and assault in mind. The categories of circumstance or motivation (i.e., revenge, domestic dispute, and felony-related) are simply not applicable in attacks on young children. We suggest that more applicable categories for children be provided (i.e., can't get child to stop crying, won't leave me alone, series of abusive events). With this type of information, we could examine the motivation of offenders in more depth.

REFERENCES

Abel, E. L. (1986). Childhood homicide in Erie County, New York. *Pediatrics*, 77, 709-713.

Alvarez, A., and Bachman, R. (2003). *Murder American style*. Belmont, CA: Wadsworth.

Blaser, M. J., Jason, J. M. and Weniger, B.G. (1984). Epidemiological analysis of a cluster of homicides of children in Atlanta. *Journal of the American Medical Association*, 251, 3255-3258.

Brewster, A., Nelson, J., Hymel, K., Colby, D., Lucas, D., McCanne, R., and Milner, J. (1998). Victim, perpetrator, family and incident characteristics of 32 infant maltreatment deaths in the United States Air Force. *Child Abuse and Neglect*, 22, 91-101.

Chew, K., McCleary, R., Lew, M., and Wang, J. (1999). The epidemiology of child homicide in California, 1981 through 1990. *Homicide Studies*, 3, 151-169.

Crittenden, P.M. and Craig, S.E. (1990). Developmental trends in the nature of child homicide. *Journal of Interpersonal Violence*, 5, 202-216.

Fingerhut, L.A., Annest, J. L., Baker, S. P., Kochanek, K. D. and McLoughlin, E. (1996). Injury mortality among children and teenagers in the United States, 1993. *Injury Prevention*, 2, 93-94.

Finkelhor, D. (1997). The homicides of children and youth. In G. Kaufman Kantor and J. Jasinski (Eds.), *Out of the Darkness: Contemporary Perspectives on Family Violence* (pp.17-34). Thousand Oaks, CA: Sage Publications.

Goetting, A. (1988). When parents kill their young children: Detroit, 1982-1986. *Journal of Family Violence, 3*, 339-346.

Lucas, D., Wezner, K., Milner, J., McCanne, T., Harris, I., Monroe-Posey, C., and Nelson, J. (2002). Victim, perpetrator, family and incident characteristics of infant and child homicide in the Unites States Air Force. *Child Abuse and Neglect*, 26, 167-186.

Kasim. M., and Cheah, I. (1995). Childhood deaths from physical abuse. *Child Abuse and Neglect*, 19, 847-854.

Reynolds, H. T. (1977). *The Analysis of Cross-Classification*. New York: Free Press.

Siegel, C., Graves, P., Maloney, K., Norris, J., Calonge., N., and Lezotte, D. (1996). Mortality from intentional and unintentional injury among infants and young mothers in Colorado, 1986 to 1992. *Archives of Pediatrics and Adolescent Medicine*, 150, 1077-1013.

Sliverman, R. A., Riedel, M. and Kennedy, L. W. (1990). Murdered children: A comparison of racial differences across two jurisdictions. *Journal of Criminal Justice*, 18, 401-416.

Somander, L. K. and Rammer, L. M. (1991). Intra-and extrafamilial child homicide in Sweden 1971-1980. *Child Abuse and Neglect*, 15, 45-55.

Stiffman, M., Schnitzer, P., Adam, P., Kruse, R., and Ewigman, B. (2002). Household composition and risk of fatal child maltreatment. *Pediatrics*, 109, 613-621.

Strang, H. (1996). Children as victims of homicide*. Trends and Issues in Crime and Criminal Justice*, No.53. Canberra, Australia: Australian Institute of Criminology.

U.S. Advisory Board on Child Abuse and Neglect (1995). *A nation's shame: Fatal child abuse and neglect in the United States*. Washington, D.C.: U.S. Government Printing Office.

THE SPECTRA OF STATE-SANCTIONED HOMICIDE IN THE AMERICAN SOUTH

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ABSTRACT

Governments generally begin by proscribing the taking of human life, and then carve out circumstances where killing may be sanctioned. This study hazards a typology for the continuum from state-sanctioned to state-condemned homicide looking at three spectra:

- The spectrum of victim selection from individualized to indiscriminate (e.g., due-process executions and duels through vigilance committees to race riots and wars);
- The spectrum of government affiliation from official through quasi-governmental to private (e.g., military and police through patrols and vigilance committees to private individuals and mobs);
- The temporal spectrum of when, and the certainty with which, approval is granted from law or judicial decree through ad hoc to post hoc evaluation (e.g., slave chastisement or outlawry through summary military execution to some lynchings and law-enforcement killings).

The idea is to find a way to study a neglected facet of homicide that has at times constituted a substantial portion of a jurisdiction's homicides.

INTRODUCTION

Over the past four centuries, the overwhelming majority of homicides committed by persons in America have been government-sanctioned in some way (Leonard & Leonard, 2003, p. 106). Even in years with relatively little in the way of state-sanctioned homicides beyond justifiable or excusable killings by law enforcement authorities or private citizens, state-sanctioned homicides probably account for at least 10% of the overall intentional takings of others' lives (Kleck, 1997; Sherman & Langworthy, 1979; FBI, 2002). When such killings constituted a majority of homicides, many were authorized in wars involving various Indian tribes, Spanish, French, and British explorers and colonists, Canadians, Mexicans, Americans, and Confederates. But the manner of state sanction varies considerably, from advance authorization for minions of the state to approval after the fact of individual homicides treated at first, at least, as possible murders or manslaughters. The continuum from clearly sanctioned to criminal homicide involves a variety of spectra, including the manner of choosing victims, the degree of government affiliation of the killers, and the temporal issue of when and whether approval is granted.[2] Because of its experiences with various Indian tribes (Shea, 1983; Steele,

[1] Which is not responsible for the views expressed here.

[2] In addition, there are homicides that may be vigorously prosecuted by the state but approved by juries, and thus sanctioned by the people, in a sense, but not by the authorities, and others that cannot be successfully prosecuted due to lack of evidence as to which mob members, for example, may legally be held responsible for riot-related slayings. Even here, however, some uncertainty exists regarding the sincerity with which authorities prosecuted. It may be obvious that prosecution is not really sincere if, in the midst of a trial of White thugs for attacking ministers active in civil rights, killing one, a racist sheriff visits the jurors to discuss their verdict, but what of the case of Emmitt Till's killers, prosecuted but readily acquitted by an all-White jury (Newton &

1994; Morgan, 1975), race relations (Stampp, 1956; Elkins, 1959/1968; Tolnay & Beck, 1995; Ginzburg, 1962; Gilje, 1996), and the culture of honor (Wyatt-Brown, 1982; Ayers, 1984; Redfield, 1880/2000; Williams, 1980), the South provides good examples of the continuum of state-sanctioned homicides, with views as to the appropriateness or inappropriateness of such approval often different in today's world than in the America of the time.[3] Yet for those who can accept the honorability of the killers in both sides of a variety of conflicts, many of the state-sanctioned homicides would be recognized as acceptable behavior. For purposes of this study, state-sanctioned homicides are those approved by whatever generally-recognized body is the governing authority for the killer, be it an Indian tribe, colonial authority, state, etc., and regardless of how such homicides would be viewed in today's society.

THE SPECTRUM FROM INDIVIDUALIZED TO INDISCRIMINATE KILLING

The amount of victim selectivity does not always vary with either the timing of the sanctioning of homicides or the extent to which the individual or individuals doing the killing are tied to the government sanctioning the killings. The most discriminate state-sanctioned homicides would be capital sentences executed upon those convicted following contemporary notions of due process of law (Banner, 2002). A primary difference over time was the sort of offense likely to lead to execution, with many more offenses by slaves capital than those by Whites, and with more property offenses capital through the 18th century in the South than later (Banner, 2002; Schwarz, 1988/1998 and 1996). Less discrimination occurred when trials lacked some contemporary safeguards, moving down in discrimination to those found guilty by summary trials, whether military or by slave patrols, vigilance committees, and the like (Aptheker, 1943/1993; Banner, 2002; Schwarz, 1996).

Self-defense killings are generally fairly discriminate, whether done by private citizens or the police, although that discrimination is not as consistently true with law enforcement officers, who may believe they are shooting a real suspect only to learn that the person is guilty of no more than being a young Black male driving a car vaguely resembling a real suspect's, a practice that tends to be concentrated in certain jurisdictions, such as Prince George's County in contemporary Maryland (Whitlock & Stockwell, 2003). And, occasionally – as with the Branch Davidians at Ranch Apocalypse near Waco (Kopel & Blackman, 1997) – law enforcement might be indifferent regarding individualized suspicions of possible victims of official violence and its repercussions.

But some individualization was involved even in most of the slayings of persons involved in slave revolts, killed intentionally or accidentally from chastisement by their

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Newton, 1991, pp. 435, 482)? Is government sanctioning involved when prosecutors carefully select a jurisdiction where insanity is more readily acceptable for the defense or a pro-acquittal jury is more likely, as in the cases of John Hinckley's trial for attempted assassination or O. J. Simpson's for murder?

[3] Indeed, were it not for a lesser tendency toward indiscriminate rioting and lynching, and chain gangs (Gilje, 1996; Brundage, 1993; Ayers, 1984), much-studied Virginia alone (Morgan, 1975; Shea, 1983; Mullin, 1972; Schwarz, 1988/1998 and 1996; Stampp, 1956; Elkins, 1959/1968) might exemplify the continuum of state-sanctioned homicide.

owners or overseers, or those chosen for slaying by southern lynch mobs. Patrols and vigilance committees, as well as courts, were somewhat careful in determining which slaves should be executed, if only because slaves constituted valuable property and, if executed by the state, warranted compensation to the owner (Aptheker, 1943/1993). Such caution, and bothering with a trial, were less likely when the crime involved sexual assault, in which case "justice" was often prompt with torture used rather than a perfunctory trial and ordinary execution (Wyatt-Brown, 1982, pp. 388-389).[4] Similarly, individualization of suspicion was unnecessary for the mass executions, generally without pretense of a trial, caused by White panics associated with, although far afield from, the few serious slave revolts, such as those following the Stono rebellion in South Carolina in 1739, the southern Louisiana insurrection of 1811 (suppressed with the aid of federal troops), and Nat Turner in southeastern Virginia in 1831, where the number of slaves summarily killed far exceeded the number tried and executed (Aptheker, 1943/ 1993, pp. 187-189, 249-50; Wyatt-Brown, 1982, p. 403; Genovese, 1979, pp. 17, 43).

However sloppy in their selection, lynch mobs generally at least pretended that they were punishing persons for a specific offense[5] – although in a few instances, the offense was openly political, amounting to state-sanctioned assassination by mob, as occurred with the killing of six White Republican officials in Red River Parish, Louisiana, in 1874 (Vandal, 2000, pp. 69, 85).[6] Most lynchings preceded a determination by a court whether the person was guilty of the offense charged, but there were certainly instances of lynchings occurring during the trial, during jury deliberations, after acquittal, after conviction before a death sentence could be carried out, or after conviction when a non-capital sentence was decreed (Ginzburg, 1962; Gilje, 1996, p. 102). In some instances, the "crime" was minimal, including suspicion of looking with lust, arrogance, and the like (Ginzburg, 1962; Tolnay & Beck, 1995). In addition, real offenses may have led to lynching without too much concern whether the suspect was really guilty, despite infrequent kangaroo courts preceding the events. In addition, some lynching victims were killed due to association with the actual suspect – such as friend, or family member, or someone suspected of having helped the accused – especially when the actual suspect had successfully escaped (Ginzburg, 1962; Tolnay & Beck, 1995, p. 21). Some of the lynchings were followed, occasionally provoked by Black resistance to the lynchings, by rioting aimed more at Blacks in general rather than those suspected of a particular offense (Gilje, 1996, p. 106). While lynching was most commonly of Blacks following the Civil War, there were lynchings of whites before that period, for such things as being a suspected Tory, or suspected of harboring a suspected slave insurrectionist, or Blacks for plotting insurrection (Gilje, 1996, p.57; Wyatt-Brown, 1982, pp. 367, 421-422; Newton &

[4] Another motivation for lynch law – particularly following legal reforms that reduced the number of capital offenses so that White defendants were no longer apt to be sentenced to death – was as an alternative to maintaining expensive jail facilities (Wyatt-Brown, 1982, p. 397).

[5] The obverse of the punitive lynch mob was the protective one, freeing suspected killers from jail and the threat of punishment, effectively rendering the initial killing as state, or at least community, sanctioned (Ayers, 1984, pp. 160-161; Redfield, 1880/2000, pp. 49-50).

[6] A northern example would be the 1837 mob murder of abolitionist Elijah Lovejoy, although the primary purpose there was to take his printing press rather than his life.

Newton, 1991, pp. 93-94). Whites constituted about 10% of the persons lynched in the five-decade heyday of southern lynching (Tolnay & Beck, 1995, p. 272).[7]

Some degree of individualization and some of chance occurred with deaths occurring during imprisonment. The expense of prisons discouraged much use in the antebellum South but for those whose individual convictions led to imprisonment, chance affected whether they survived in prisons where over 5% of inmates died each year (Ayer, 1984, p. 70). During the late 19th and early 20th century, leasing out chain gangs to private businesses became popular since it meant punishment was profitable rather than costly to the state. The individuals – mostly Black – chosen for the gangs had trials, with varying degrees of fairness or arbitrariness, but whether they survived the punishment involved less individual selection. Where up to 20% of those on a chain gang might die annually from mistreatment or during an escape attempt, those dying from the sanctioned generalized mistreatment meted out to all the gang members were not necessarily chosen individually to die with state approval.

Ordinarily, among the least discriminate state-sanctioned homicides were killings either by mobs or in the course of wars, where the only criterion for selecting victims was that they be members of enemy forces. Some military activities, not involving actual fighting, were more individualized, as with the selective summary execution of Tory outlaws by Virginian militia during the Revolutionary War (Dabney, 1971, p. 141). But even some summary executions were largely indiscriminate, as when 350 Texan rebels were executed by Mexicans in 1836 to send a message and thus discourage further rebellion (Newton & Newton, 1991, p. 97). Rioting at that time, and before, was common, but riots did not generally become deadly until the second half of the 19th century (Gilje, 1996). There were some exceptions, including deadly xenophobic rioting against Catholics in such southern seaports as Charleston, New Orleans, Norfolk, and Savannah, in the 1810s, and Mormons in Missouri in the 1830s (Gilje, 1996, pp. 65, 78-79). And, of course, there were always exceptions in the South for anti-Black rioting (and, west of the Mississippi, for vigilante activities)(Gilje, 1996, pp. 82, 90).

It would appear that in some years and states, anti-Black riots and lynchings during Reconstruction may have indiscriminately killed more persons than there were estimated killed in ordinary criminal homicides (Gilje, 1996; Tolnay & Beck, 1995, pp. 5-6). In some instances, even in those cases, and with lynchings, state-sanctioned homicides were indiscriminate, killing friends as well as foes. After the Civil War, prior to the heyday of lynchings, there were frequent indiscriminate attacks on Blacks by Whites often associated with the Ku Klux Klan, with fairly large-scale loss of life, and minimal threat from the authorities. In 1866, in Memphis, what began as a dispute between Black soldiers and Irish cops became more deadly once the soldiers were returned to their

[7] The period from 1882-1930 is generally recognized as the heyday, but not because there was less lynching in the years between the end of the Civil War and 1882. What changed in 1882 was that the *Chicago Tribune* began a concerted effort to keep track of southern lynchings, so the data became available and more reliable (Tolnay & Beck, 1995, p. 259). Focusing on the 1870s, for example, Redfield reports 18 persons killed by mobs in Texas, with others probably killed by mobs, and 75-100 Blacks killed in South Carolina political affrays in 1876 (Redfield, 1880/2000, pp. 75, 103).

base, and three days of rioting left 46 Blacks dead. Racial rioting that year in New Orleans left a similar number of Blacks, and a few Whites, dead. Near Shreveport, Louisiana, in Bossier and Caddo parishes, in 1868, about 150-200 Blacks were killed by White mobs, with another 105 in Colfax, Louisiana, in 1873. That riot also demonstrated the lack of individual targeting in riots, since a pair of Whites was killed, apparently accidentally. Lack of adequate reporting means a lack of precise figures, but Reconstruction Era (1865-1877) deaths of this sort have been estimated in the thousands, with estimates of at least 500 and perhaps in excess of 1,000 (mostly Black) in Louisiana in 1868 alone, and 400-500 murders of Blacks in Texas from 1865-1868 – compared to Redfield's estimate for 1878 of about 53 Blacks killed by Whites in Texas (Gilje, 1996, pp. 94-100; Vandal, 2000; Redfield, 1880/2000, pp. 74-75).

Race riots occurred with some frequency, North and South, in the late 19th and early 20th centuries, where the targets were often just Blacks in general, perhaps because they had tried to protect themselves from particular White attackers. Those with larger numbers of casualties include Wilmington, North Carolina, 1898; Atlanta, 1906; Houston (uniquely deadly to Whites, until 19 Blacks were executed for the offense, surpassing the White total by three) and East St. Louis in 1917; Phillips County, Arkansas, in 1919; and Tulsa in 1921 (Gilje, 1996, pp. 108-114; Haynes, 1976). Since a World War II-era riot in Beaumont, Texas, the deadliest race riots have occurred in the North (Gilje, 1996, pp. 156-161).

Those riot-related deaths are minimal compared to the wars between settlers and Indians in the 17th century where the homicide rate would more reasonably be described in terms of percentage of the settlement wiped out rather than per 100,000 – and the settlers were the winning side. A surprise attack by the Powhatan's Indian confederacy in 1622, for example, killed over one-quarter of the Jamestown settlement; on the other hand, through a variety of causes, the Indian population in the area declined from about 14,000 in 1607 to about 3,500 in 1675 (Steele, 1994, pp. 37, 46, 49). (A much higher percentage of settlers in the early decades of the settlement of Virginia were killed by disease, since the Europeans had no immunities to new diseases of America just as the Indians had none against diseases of Europe.) The killings both by and of Indians were largely indiscriminate, although the Indians seem better to have distinguished between Frenchman, Englishman, and Spaniard, than the various explorers and colonists did between the various Indian tribes. Part of the background for Bacon's Rebellion in 17th-century Virginia was the killing not just of reportedly thieving Doeg tribesmen but also of friendly Susquehannahs, who responded by becoming threats to the Virginians. Bacon led men who believed the governor was insufficiently responding to Indian (counter)attacks, who used friendly Occaneechees to help capture some Susquehannahs, which was followed by Bacon's then having the Occaneechees killed as well (Morgan, 1975, ch. 13; Steele, 1994, pp. 52-53; Washburn, 1957). When the wrongly attacked tribe fought back, of course, the colonists viewed the initial attack as retroactively warranted; sometimes, a tribe's merely fleeing when accused of theft or murder was perceived as evidence of guilt (Steele, 1994, p. 55).

And, while most such killings were direct, warfare involving such things as the "feedfights" against the Indians, a popular 17th- and 18th-century approach to warfare, waiting until just before harvest, and then destroying food and subjecting some of the enemy to eventual death by starvation, could arguably be considered indiscriminate state-sanctioned homicides, with civilians the likely casualties (Steele, 1994; Shea, 1983, pp. 20, 29, 64, 67; Morgan, 1975, pp. 74, 100). One reason for the approach was that the colonists were less able directly to fight the Indians, who often avoided direct confrontations between soldiers and braves (Morgan, 1975, p. 100). Part of the problem was the nature of Indian life, where subsistence farming was aimed at producing the amount needed by the tribe, not a surplus, with the result that when, or if, Europeans either took produce for themselves, as Hernando de Soto did in plundering local Indian villages (Morgan, 1975, ch. 3; Newton & Newton, 1991, p. 3), or deliberately destroyed crops, deaths from starvation were likely results. So a Cherokee chief, whose tribe had sided with the British in the Revolutionary War, complained that the Virginians, in addition to defeating the Cherokees, "burnt 17 towns, destroyed all our provision by which we & our families were almost destroyed by famine this Spring" (Calloway, 1995, p. 204). Following similar strategy, the Pamunkey Indians may have chosen 1642 for their last-ditch attack on the various settlers' houses in Virginia from a belief that the English Civil War was reducing the shipment of food to the colonies and that the colonists would soon starve (Shea, 1983, p. 59).

The indiscriminate killing of individual Indians by private citizens occurred when bounties were placed on the scalps of enemy Indians with the rewards fraudulently paid to private citizens who killed friendly Indians for their scalps (Steele, 1994, 228-229). An additional problem was determining which Indians were allies, which were opponents, and which were neutral. Sometimes Indians took advantage of their better ability to distinguish tribes as when Powhatan tricked the Jamestown colonists into attacking members of the Chickahominy tribe in 1616, and then used the incident as a reason for the Chickahominy to ally with Powhatan's Pamunkey tribe (Steele, 1994, p. 45). But even warfare among tribes occasionally involved killing persons from neutral or friendly tribes, as when Choctaws in Alabama in 1757 killed two Shawnee believing them to be Chickasaws (Newton & Newton, 1991, p. 43).

Some of the victims of mobs included persons the mobs were not necessarily hostile to, and even some particularly vicious lynchings included deaths from what might be termed "friendly fire": lynch mobs surrounding and shooting at the intended victim occasionally accidentally killed other members of the lynch mob (NAACP, 1919, pp. 27-28). On the other hand, war did not invariably mean no discrimination in choosing victims for state-sanctioned slayings. In the 1620s and 1640s, Virginia colonists fighting with some Indian tribes, invited the leaders to peace talks and poisoned them, by that means killing some 200 in 1623 (Shea, 1983, p. 36; Steele, 1994, pp. 47, 53), or ambushed them under similar circumstances (Steele, 1994, pp. 47-49, 51), or under a flag of truce (Calloway, 1995, p. 210). Indians similarly, on occasion, feigning peaceful intents (even if under duress), invited explorers or colonial leaders to their village and then attacked them (Steele, 1994, p. 15), or tortured and burned a legation that came out to negotiate during a siege (Steele, 1994, p. 52).

In addition, Europeans often took the view that Indian killing of Europeans constituted crimes to be punished, so that battles might be followed by individualized punishment, as when Spaniards in the 1570s who fought Indians who had killed most of a party of Jesuits on the Chesapeake Bay, followed the battlefield killing of 20 Indians by hanging 14 others said to have been involved in the massacre of the Jesuits, or a dispute in 1759 between the English in South Carolina holding some Cherokee as hostages until those allegedly involved in a killing were turned over for punishment, an insistence that led to Cherokee resistance, the killing of English traders, the killing of the hostages, and continued warfare (Steele, 1994, pp. 30, 228-230). Neither side fought 17th- and 18th-century Indian-European conflicts using traditional European rules of war; both sides tended to attack civilians, massacre survivors or, in the case of some Indians or Blacks on the losing side, enslave them, often transporting Indians to Caribbean islands (Shea, 1983, p. 122-124; Steele, 1994, pp. 49-52, 136, 154-155, 164, 241; Newton & Newton, 1991, pp. 31, 36; Morgan, 1975, pp. 264, 328-329).[8] English and Spanish colonists and soldiers wiped out Indian villages as part of war (Newton & Newton, 1991, pp. 7, 28; Calloway, 1995, p. 204). Indian attacks tended to take advantage of the spread-out settlements to stage attacks on various homesteads rather than against organized European forces, as in the major efforts by the Pamunkey to drive out the English from the Virginia settlements in the mid-1620s and 1640s (Steele, 1994, pp. 46-48; Newton & Newton, 1991, p. 31), with killing both indiscriminate and aimed at what would be perceived as civilians. In between the normal indiscriminate nature of choosing victims in war and the discrimination in choosing leaders was the approach apparently taken by Confederate General Nathan Bedford Forrest, at Fort Pillow, where White Union soldiers were more likely to be allowed to surrender than were Black soldiers, who were mostly slain in their attempts unsuccessfully to surrender (Lane, 1997, p. 141; Hurst, 1993, pp. 167-178). Similar actions had occurred in the early colonial days, where Spaniards defeated some French Huguenot explorers in what is now northern Florida, and summarily executed the Protestants as heretics (Steele, 1994, p. 27).

[8]The enslavement of Indians, without transportation, while practiced, was not quite so popular as that of Blacks for a variety of reasons. Attempts to enslave a conquered native population are generally doomed to failure (Patterson, 1982, pp. 111-113). An escaped Black slave was largely alone unless he could find a group of similarly escaped slaves and/or reach some location without slavery, often with an Indian tribe (Morgan, 1975, p. 100; Stampp, 1956, pp. 23-24; Steele, 1994). To try to prevent that, Europeans tried to foment hostility between Indians and Blacks to limit their cooperation (Genovese, 1979, p. 58; Calloway, 1995, p. 263). One such place where cooperation between Indians and escaped slaves occurred was in Florida, so that the second Seminole War of the 1830s was, in some ways, slave revolt as escaped slaves fought with their Seminole comrades (Stampp, 1956, p. 138; Genovese, 1979, pp. 72-73). Newly imported slaves also lacked knowledge of the language (Mullin, 1972, ch. 2). Indians, on the other hand, were both better able to live off the land of their birth, and readily able to escape and find fellow tribesmen (Patterson, 1982, p. 149). So escapes were common. More controversially, it has been suggested that those Indians who could not escape would pine away and die in captivity, preferring death to servitude (Elkins, 1959/1968, p. 94n).

THE SPECTRUM FROM GOVERNMENT OFFICIAL TO PRIVATE CITIZEN

Over the centuries, the direct tie to the government of those committing state-sanctioned homicides has also varied, not always consistently. While virtually all of those killing in the course of war, or executing persons for capital offenses, are now employees of the state, that was not always the case. Colonials often fought in the Indian wars, in the case of Bacon's Rebellion going to war first, after having been refused authorization, and demanding afterwards to be treated as members of the militia (Washburn, 1957; Morgan, 1975, pp. 258-265). Similarly, in warlike killings involving Indians and settlers, or Indians and enemy tribesmen, often neither the Indian nor White participants were employees of the tribe or colony, but simply civilians involved in ongoing conflicts (e.g., Newton & Newton, 1991, pp. 47-51), a fact complicated by the fact that the Whites often held a tribe responsible for anything a member did (Calloway, 1995, p. 184), making all Indians thus perceived in a sense as government agents. When fighting became serious enough to require organized forces, those enlisted to fight Indians or the French or Spanish, as in 17th- and 18th-century Virginia (Steele, 1994, p. 135; Morgan, 1975, p. 280), were vagrants, debtors, thieves, and the penniless, a group less inclined to the niceties of civilized warfare than professional soldiers might have been. Despite who may have comprised the officer corps, the lower ranks in armies have always included disproportionate numbers of persons by age and background normally perceived as at-risk for homicide offending than other members of any society, increasing the likelihood of extra-battlefield killings.

While most executions now involve persons with at least part-time government employment, that was not always the case (Banner, 2002, p. 176). Colonial Jamestown began as a company town, and while there were executions – including such cruel methods as chaining a man to a tree until he starved – they were conducted more under the laws of the company than of the British (Morgan, 1975, p. 80). And in at least one instance, a slave acquitted of murder in 17th-century Maryland was compelled to do the actual hanging of his four fellow servants who had been convicted (Merritt, 1952, pp. 6-8). In addition, in the antebellum South slaves might be executed by lynch mobs for more heinous offenses, such as murder or rape, with burning rather than the standard legal punishment of hanging (Stampp, 1956, pp. 190-191).

Slavery involved the privatization of many actions that could result in death. In order for slavery to be an effective system, the owner or his family and employees had to have near-absolute power over the slave, with everything legal shy of deliberate killing or malicious maiming (Stampp, 1956, p. 141).[9] Slave patrols, which were used to keep slaves in check and to prevent slave escapes or revolts, were comprised of private citizens, compelled as an obligation of citizenship, slaveholder or not, to serve periodically, but with power on occasion to summarily execute slaves. One risk was that these non-slaveholding involuntary patrollers might vent dislike of both owner and slave by the excessive punishment of the slave (Stampp, 1956, pp. 214-215). And anyone was legally allowed, regardless of tie to the government, to kill a slave who had been declared an

[9] Slaveholders were restricted in some treatment of slaves, where the treatment was perceived as a threat to the institution of slavery. The master's power, for example, did not extend legally to teaching his slaves to read or write (Stampp, 1956, p. 208).

outlaw on the request of his owner, with the owner sometimes entitled to the normal compensation for an executed slave (Stampp, 1956, pp. 213-214; Schwarz, 1988/1998, pp. 18, 135,188, 195).

Not even prisons were exclusively managed by government employees. The way the southern states managed to go from prisons being an expensive burden with relatively few sentences prior to the Civil War, to a money-making operation with convictions encouraged during the final third of the 19th century, was by having chain gangs. The prisoners were leased out to private employers who similarly employed the guards, who were responsible for treating or mistreating the prisoners, and authorized to kill those attempting to escape. From 1870-1889, for example, there were about 50 legal executions recorded in Alabama, and perhaps a similar number of lynchings from 1882-1889, but in 1870 (a high point, to be sure, of 41% where the figure was just under 20% the preceding two years), over 70 convicts died in the convict lease system (Espy & Smykla, 1994; Tolnay & Beck, 1995, pp. 260, 271; Ayers, 1984, pp. 200-201). In Tennessee, in 1884, there were a few legal executions, a handful of lynchings, and close to 200 prisoner deaths (Espy & Smykla, 1994; Tolnay & Beck, 1995, pp. 260, 271; Ayers, pp. 217, 340).

Acting in quasi-official capacity were some of the vigilance and other committees, often ad hoc, purporting to represent the community considering appropriate degrees of guilt and punishment for persons suspected of various offenses, from slave revolt to, in the days of Civil War Texas, treason. Primarily in Cooke County (Gainesville), but with some action in neighboring Grayson, Wise, and Denton counties, Texas state troops made massive arrests of suspected Union sympathizers in Fall 1862. Some were tried and convicted by a “citizen’s court,” but others were lynched, and a few were just shot (McCaslin, 2002). The members of such committees were certainly not government officials, but they were not quite just private citizens either. They may, to some extent, have been self-selected, but they were often self-selected from the leadership of particular communities.

Rather less representative, and generally not government employees – with exceptions, of course, of certain members of the mobs – were lynch mobs and rioters. The more common private mobs’ state-sanctioned killings were relatively numerous. While generally aimed at Blacks, there were also mob-actions and lynchings aimed at Mormons or at those suspected of immoral activities (Ayer, 1984, pp. 255-265).

In the decades following the Civil War, the number of lynchings in some states of the Deep South probably exceeded the number of legal executions by factors of 2-4, with ratios still achieving 0.5-1 in other Deep South and other southern states (Espy & Smykla, 1994; Tolnay & Beck, 1995, pp. 270-271; Brundage, 1993, p. 263). Most mobs were composed of private citizens. But that was by no means always the case, either for lynching or riots, and exceptions were not uncommon: a posse killing suspects in 1902 Georgia; a mass murder of Mexican “suspects” by a posse led by Texas Rangers in 1917; a Kentucky mob shooting of a suspected cop-killer in his jail cell with the action defended by the sheriff as men “going about their business” in 1935; and anti-civil rights

killings by KKK members working for law enforcement officers or who were law enforcement officers themselves, best remembered in the release of three arrested civil rights workers to their slayers in Philadelphia, Mississippi, in 1964 (Newton & Newton, 1991, pp. 310, 366, 369, 409, 432-433, 466-467, 487). Some riots began as exchanges between Blacks and White law enforcement officers (as in Memphis, in 1868). In others, anti-Black law enforcement played a key role, as in the 1906 Atlanta riot, where police used massive force to disarm a black suburb to prevent protective measures being taken against the rioters (Gilje, 1996, pp. 96, 110): "Government forces often sided with the whites; seldom were they neutral" (Gilje, 1996, p. 115).[10]

And, particularly during the late 19th century and early into the 20th, the government was also not neutral in labor disputes that occasionally involved homicides committed either by private security forces or government officials. Soldiers killed 10 persons suppressing a railroad riot in Baltimore in 1877. For that matter, state national guards were sometimes supported by the private enterprises they killed to protect as well as by the state. Such a privately-subsidized state national guard, along with privately-subsidized local constabulary and the purely tax-payer funded federal army, was involved in the deadly suppression of the coal mine strikes in West Virginia, 1921-22 (Gilje, 1996, p. 141-142; Laurie, n.d.).

Currently, while estimates vary, over one-thousand suspected felons are killed annually by private citizens in addition to the hundreds killed by law enforcement officers, complicated perhaps by some of the officers acting while off duty (Kleck, 1997; Fyfe, 1982; Sherman & Langworthy, 1979; FBI, 2002; Geller & Scott, 1992). And, as with estimates of the number of lawful killings of criminals by private citizens, estimates on the number of civilians killed annually by law enforcement generally exceed, roughly doubling, the number reported by the FBI.

During the period before the end of the Civil War, slave owners and, occasionally, their overseers, could lawfully kill Blacks. And other Whites, as well, would generally be in a position to claim self-defense in most such slayings (Stampp, 1956; Schwarz, 1996). Following the Civil War, the tradition of southern honor seemed to justify many killings in mutual combat, or affray – a casual version of the outlawed duel (Williams, 1980) – as self-defense, so that private citizens would not be punished for what would now be viewed and prosecuted as criminal homicide (Redfield, 1880/2000; Wyatt-Brown, 1982; Ayers, 1984, p. 267-276).

THE TEMPORAL SPECTRUM AND CERTAINTY OF STATE SANCTION

Both the most and among the least discriminating state-sanctioned homicides are generally approved in advance with near certainty of approval. Killings in war rarely, but occasionally, result in some punishment, or at least repercussions and the threat of punishment, and wartime killings constitute the bulk of state-sanctioned homicides in

[10] An exception occurred in Kentucky in February 1920 when the governor used military force to suppress a lynch mob that was threatening a Black man accused of murder and sexual assault, killing five Whites. The suspect was promptly tried, convicted, and electrocuted (March 11)(Gilje, 1996, p. 153; Bowers, 1984, p. 442).

American history. Most of the deaths in the Civil War occurred in the South, and that war's roughly half-million dead (battlefield and other, disease and mistreatment of prisoners being serious concerns) were far more than were killed in any other American war.[11]

In the case of Indian wars, however, these wars were not necessarily formally approved in advance, although most of the killings were in response to orders. Bacon's Indian warfare led to eventual rebellion, before which he and his troops pressured the government for post facto approval of the warfare. Wars on American soil meant all sides, while sanctioned by some authority to kill, were also subject to being killed with sanction of the other side mostly in war but sometimes as criminals charged with treason, murder, and other offenses. Partly, this was due to the nature of the early wars between colonists and American Indians, where part of the warfare involved private attacks by the various sides on outposts of the other. Unable to catch Indians in the wilderness, settlers instead attacked their villages. Indians felt safest attacking the homes of settlers, partly in response to Indian complains about cheating or stealing by settlers and especially traders (Newton & Newton, 1991, pp. 35-37, 40-42, 44-45, 47, 51, 53; Steele, 1994, pp. 165-166). Such cheating was a serious political issue where colonial and then American policy was to encourage the Indians to run up debts at government trading posts since, as Thomas Jefferson observed, they will then "cede lands to rid themselves of debts" (Calloway, 1995, p. 242). The Whites often viewed the attacks as simple crimes, demanding that the Indians turn over the culprits, often for summary punishment (Steele, 1994, pp. 228-229).

Executions following due process involved clear advance state sanctioning, but, over the centuries, have accounted for only about 1% of state-sanctioned homicides.

Other types of state-sanctioned execution approach the clarity of state sanctioning, with implicit powers given to military officers, under certain circumstances, to impose summary execution. Not all such military executions would fit, with some complaints, for example, that in putting down Bacon's rebellion, Governor Berkeley not only seized property without trial, but imposed summary military executions without legal justification, and had at least some men executed after learning that the king had ordered the pardon of most of the rebels (Morgan, 1975, pp. 272-273, 276). Although not formally punished for his actions, Berkeley's semi-voluntary return to England was in apparent disgrace, and he died before he could restore his good name (Washburn, 1957).

Similarly, laws empowering government officials to use deadly force under certain circumstances indicate some prior approval, although it then falls to others to determine whether the specified criteria sanctioning the homicide have been met. For the most part, law enforcement and military use of deadly force is going to be approved on review, but

[11] For comparative purposes, it might warrant remembering that America's World War II dead, at about 400,000, account for well under 1% of the total state-sanctioned homicides in that war, and the total number of American state-sanctioned homicides, from the earliest Spanish incursions into what in now the United States to the present, would total less than 10% of the number of state-sanctioned slayings associated with the six years of World War II (Leonard & Leonard, 2003, p. 106; Rummel, 1994, p. 112).

this is not universally the case, and the potential for civil remedies could also be seen as limiting the extent of state sanction. Maryland's Prince George's County may fairly automatically decline to prosecute shootings of suspects by police officers, but civil litigation may not be dismissed so summarily.

Officially approved by law, but subject to review as to whether the law applied, is the use of deadly force by private citizens. The law and its application have varied, over the centuries, and depending upon the race and status of those claiming self-defense. Even slaves might, on occasion, claim self-defense as a reason for killing a White man, but such an event was quite rare; resisting chastisement by a master was not allowed, and only especially cruel action by an overseer might occasionally be accepted as justification (Higginbotham, 1978, p. 256; Stampp, 1956, p. 220). In addition, the courts before which slaves would be tried were biased, being just before a judge or justice of the peace, or before a jury expressly including slaveholders where a White man's jury might not (Stampp, 1956, pp. 225-226; Schwarz, 1988/1998, p. 49; Schwarz, 1996, p. 28). While acquittals might not be uncommon for ordinary offenses (Schwarz, 1996, p. 78), killing a White man and claiming self-defense would not be ordinary.

For Whites in the days of southern dueling, nothing may have happened following such affrays; grand juries sometimes commented on the practice, but trials were rare. The number of that particular type of state-sanctioned homicide is unknown, although there are some reports of up to several a day or week in some cities (Williams, 1980, pp. 8-10). Once dueling was outlawed, there may have been trials, but self-defense would have been more readily approved in the South than in northern courts (Redfield, 1880/2000). The law currently would still recognize self-defense as a state-sanctioned basis for homicide, but reviews to see if such killings were warranted would be more likely than in the past to determine that such killings were not officially sanctioned and the killers at least subject to a trial. Indeed, one of the reasons for a current criminological estimate of 1,400 to 3,200 civilian justifiable self-defense killings (Kleck, 1997, p. 163), while the FBI's report is closer to 200 (FBI, 2002, p. 28), is that the latter report as murder and non-negligent manslaughter everything investigated as possible criminal homicide, excluding decisions by medical examiners, prosecutors, or grand or petit juries regarding the justifiability or excusability – the government approval – of the killing (Kleck, 1991, pp. 112-116; FBI, 2002, p. 19).[12]

It could, however, be noted that review of killings constitutes a repercussion even if no formal punishment occurs. Costs are imposed when private citizens need to defend themselves from state prosecution for homicide. Thus, it could be argued that dueling, where prosecution was rare, was more state-sanctioned than post-bellum self-defense

[12] "Do not count a killing as justifiable or excusable solely on the basis of self-defense or the action of a coroner, prosecutor, grand jury, or court. The willful (non-negligent) killing of one individual by another is being reported, not the criminal liability of the person or persons involved. For UCR [Uniform Crime Reports] purposes, crime counts are based on law enforcement investigation" (FBI, 1980, p. 6).

killings where trials were likely, even if convictions were rare (Williams, 1980; Redfield, 1880/2000).[13]

Although not expressly approved in advance -- and, indeed, violative of the letter of the law -- certain state-sanctioned homicides have been relatively free from the threat of serious review. Included in such slayings were those of White servants in early colonial days, Black slaves and White abolitionists prior to the end of the Civil War, and of persons suspected of northern sympathies during it, whether those killings were performed by private citizens, government employees, or something in between. Women tried for abusive treatment resulting in the deaths of servants in colonial Virginia were not found guilty, although one was required to give bond for better behavior in the future (Morgan, 1975, p. 165). When a planter, for example, learned that a slave was preaching the imminent destruction of the world, and persuaded his fellow slaves that they were immune from White men's whips and guns, the planter waited for the slave to approach, and then demonstrated that particular slave's non-immunity, with no fear of prosecution being even considered. On rare occasions, slaveholders risked punishment for killing their property, but generally when the slaveholder was held in low community repute (Wyatt-Brown, 1982, pp. 373-377). Part of the problem was that slaves could not be threatened with a loss of liberty, as could indentured servants (whose disobedience might be punished by extending the terms of service), so they had to have physical fear. Thus most slave societies have had circumstances approving the taking of a slave's life by his owner (Patterson, 1982, pp. 190-193). Otherwise, if masters had to fear that slave chastisement might result in prosecution if the severity led to death, slaveholding would become legally hazardous. The result was legislation generally protecting slaveholders and overseers from prosecution if death occurred by chance, even if willful killing was technically illegal (Morgan, 1975, p. 312; Stampp, 1956, pp. 218-220). In addition, runaway slaves, surviving successfully in their neighborhood, posed such an exemplary threat that the law provided for such outlying slaves to be proclaimed as outlaws, making their killing by anyone legal (Morgan, 1975, pp. 312-313). Such treatment was not common, partly since excessive chastisement and death was counterproductive to the general goal of using slaves to produce wealth (Morgan, 1975, p. 314).

Civil sanctions may occur even if criminal sanctions are not imposed. And other repercussions may work to discourage state-sanctioned homicides even in war. For example, although Gen. Forrest escaped any formal punishment for the actions of his men at Fort Pillow, there were repercussions both on and off the battlefield. His men feared retaliatory treatment should they lose any battles to northern forces that included Black soldiers, and Black Union soldiers fought more bitterly against Gen. Forrest's men for fear of similar execution should they attempt to surrender. In addition, Gen. Forrest had to wait longer than most Confederate officers for his pardon, and he was concerned that he might be prosecuted by the ultimate victors for the events at Fort Pillow (Hurst, 1993).

[13] Perhaps exemplifying the southern tradition of the late 19th and early 20th century, the obituary of Senator Strom Thurmond noted that his "father shot a political rival to death, but was acquitted on the grounds of self-defense" (Smith, 2003).

Similarly, lynchings, while generally reported and recorded as criminal homicides, rarely resulted in serious review. If the authorities wished to prevent a particular lynching, they generally prevented it rather than also punishing the attempted lynching by those involved. The rare exceptions were those lynchings where actions were seen by the White community more as just an unwarranted attack on innocent Blacks and/or where the mob accidentally killed some of its own (NAACP, 1919, pp. 20, 27-28). Similarly fairly protected from the prospect of punishment, although not expressly approved in advance, have been mob actions, particularly race riots, and killings by private parties or militias protecting corporate interests from the Gilded Age until the New Deal (Gilje, 1996).

CONCLUSION

A serious problem affects the ability to analyze statistically the importance of state-sanctioned homicide to the overall study of American homicide historically, and that involves data. Not only are overall data on criminal homicide wanting, but, most importantly, state-sanctioned homicide data vary in their availability both over time and over the type of such homicide, as well as to the official response. With the development of wire services, and the inclination of newspapers to report on violence around the nation, the data are least flawed since the final decades of the 19th century. Before that, however, while there are some fairly reliable data on state-conducted homicides, like war and especially capital punishment, data are quite weak on other state-sanctioned homicides, such as those resulting from punishing owned, runaway, or revolting slaves, racial and ethnic rioting, and lynching.

REFERENCES

Aptheker, H. (1943/1993). *American Negro slave revolts.* New York: International.

Ayers, E. L. (1984). *Vengeance and justice: Crime and punishment in the 19th-century American South.* New York: Oxford University Press.

Banner, S. (2002). *The death penalty: An American history.* Cambridge, MA: Harvard University Press.

Bowers, W. J. (1984). *Legal homicide: Death as punishment in America, 1964-1982.* Boston: Northeastern University Press.

Brundage, W. F. (1993). *Lynching in the new South: Georgia and Virginia, 1880-1930.* Urbana, IL: University of Illinois Press.

Calloway, C. G. (1995). *The American Revolution in Indian country: Crisis and diversity in Native American communities.* New York: Cambridge University Press.

Dabney, V. (1971). *Virginia, the new dominion: A history from 1607 to the present.* Charlottesville, VA: University Press of Virginia.

Elkins, S. M. (1959/1968). *Slavery: A problem in American institutional and intellectual life.* Chicago: University of Chicago Press.

Espy, M. W., & Smykla, J. O. (1994). *Executions in the United States, 1608-1991: The Espy file* [computer file]. 3rd ICPSR ed. Compiled by J. O. Smykla, University of Alabama. Ann Arbor, MI: Inter-university Consortium for Political and Social Research. [On-line]. Available: http://www.icpsr.umich.edu:8080:ABSTRACTS/08451.xml (March 21, 2002).

FBI [Federal Bureau of Investigation]. (1980). *Uniform crime reporting handbook.* Washington, DC: U.S. Department of Justice.

FBI. (2002). *Crime in the United States, 2001.* Washington, DC: U.S. Government Printing Office.

Fyfe, J. J. (Ed.). (1982). *Readings on police use of deadly force.* Washington, DC: Police Foundation.

Geller, W. A., & Scott, M. S. (1992). *Deadly force: What we know: A practitioner's desk reference on police-involved shootings.* Washington, DC: Police Executive Research Forum.

Genovese, E. D. (1979). *From rebellion to revolution: Afro-American slave revolts in the making of the modern world.* Baton Rouge, LA: Louisiana State University Press.

Gilje, P. A. (1996). *Rioting in America.* Bloomington, IN: Indiana University Press.

Ginzburg, R. (1962). *100 years of lynchings.* New York: Lancer Books.

Grimsted, D. (1998). *American mobbing, 1828-1861: Toward civil war.* New York: Oxford University Press.

Haynes, R. V. (1976). *A night of violence: The Houston riot of 1917.* (Baton Rouge, LA: Louisiana State University Press.

Higginbotham, A. L., Jr. (1978). *In the matter of color: Race and the American legal process: The colonial period.* New York: Oxford University Press.

Hurst, J. (1993). *Nathan Bedford Forrest: A biography.* New York: Alfred A. Knopf.

Kleck, G. (1991). *Point blank: Guns and violence in America.* New York: Aldine deGruyter.

Kleck, G. (1997). *Targeting guns: Firearms and their control.* New York: Aldine deGruyter.

Kopel, D. B., & Blackman, P. H. (1997). *No more Wacos: What's wrong with federal law enforcement and how to fix it.* Amherst, NY: Prometheus Books.

Lane, R. (1997). *Murder in America: A history.* Columbus, OH: Ohio State University Press.

Laurie, C. D. (n.d.). The United States Army and the return to normalcy in labor dispute interventions: The case of the West Virginia coal mine wars, 1920-1921. [On-line.] Available: http://www.geocities.com/MadisonAvenue/Boardroom/4278/wvh.htm (June 27, 2003).

Leonard, I. M., & Leonard, C. C. (2003). The historiography of American violence. *Homicide Studies, 7,* 99-153.

McCaslin, R. B. (2002). Great hanging at Gainesville. In Texas State Historical Association, *The handbook of Texas Online.* [On-line]. Available: http://www.tsha.utexas.edu/handbook/online/articles/view/GG/jig1.html (July 2, 2003).

Merritt, E. (Ed.) (1952). *Archives of Maryland: Vol. 65. Provincial proceedings, 1670 [1671].* Baltimore: Maryland Historical Society.

Morgan, E. S. (1975). *American slavery, American freedom: The ordeal of colonial Virginia.* New York: W. W. Norton.

Mullin, G. W. (1972). *Flight and rebellion: Slave resistance in eighteenth-century Virginia.* New York: Oxford University Press.

NAACP [National Association for the Advancement of Colored People]. (1919). *Thirty years of lynching in the United States, 1889-1918.* New York: Author.

Newton, M., & Newton, J. A. (1991). *Racial & religious violence in America: A chronology.* New York: Garland.

Patterson, O. (1982). *Slavery and social death: A comparative study.* Cambridge, MA: Harvard University Press.

Redfield, H. V. (1880/2000). *Homicide, North and South: Being a comparative view of crime against the person in several parts of the United States* (D. Eckberg, Ed.). Columbus, OH: Ohio State University Press.

Rummel, R. J. (1994). *Death by government.* New Brunswick, NJ: Transaction.

Schwarz, P. J. (1988/1998). *Twice condemned: Slaves and the criminal laws of Virginia, 1705-1865.* Union, NJ: Lawbook Exchange.

Shea, W. L. (1983). *The Virginia militia in the seventeenth century.* Baton Rouge, LA: Louisiana State University Press.

Sherman, L. S., & Langworthy, R. (1979). Measuring homicide by police officers. *Journal of Criminal Law and Criminology, 70,* 546-560.

Smith, J. Y. (2003, June 27). Ex-Senator Thurmond dies at 100. *Washington Post*, pp. A1, A19.

Stampp, K. M. (1956). *The peculiar institution: Slavery in the ante-bellum South.* New York: Vintage Books.

Steele, I. K. (1994). *Warpaths: Invasions of North America.* New York: Oxford University Press.

Tolnay, S. E., & Beck, E. M. (1995). *A festival of violence: An analysis of southern lynchings, 1882-1930.* Urbana, IL: University of Illinois Press.

Vandal, G. (2000). *Rethinking southern violence: Homicides in post-Civil War Louisiana, 1866-1884.* Columbus: Ohio State University Press.

Washburn, W. E. (1957). *The governor and the rebel: A history of Bacon's rebellion.* Chapel Hill, NC: University of North Carolina Press.

Whitlock, C., & Stockwell, J. (2003, April 30). Pr. George's officer cleared in killing: Unarmed student was tailed to Fairfax and shot in 2000. *Washington Post*, pp. B1, B 5.

Williams, J. K. (1980). *Dueling in the old South: Vignettes of social history.* College Station, TX: Texas A&M University Press.

Wyatt-Brown, B. (1982). *Southern honor: Ethics and behavior in the old South.* New York: Oxford University Press.

DISCUSSION: THE CONTINUUM OF VIOLENCE
Recorded by Victoria B. Titterington
College of Criminal Justice, Sam Houston State University

Becky Block: A question for Paul Smit, Catrien and the rest of panelists -- I'm glad to see you looking at all homicides, including attempteds. The designation of attempted homicide versus aggravated assault is a prosecutorial decision; on a practical level, based on the penalty the prosecutor thinks he can get. As you may know, the Chicago Women's Health Risk Study includes 15 sister projects around the U.S., with Jackie Campbell at the head. In this project, the conclusion is that an "attempted homicide" is one in which the person would have been dead, except for some intervention. Maybe there are just different kinds of homicide; some more like assaults, but someone died anyway, versus an intention to kill. So, perhaps we should divide the assaults accordingly and re-analyze them.

Also, a question about the child victim paper -- I'm concerned that the definition of "official assault" for children younger than age five may be insufficient, as this is generally happening behind closed doors. The mechanism of this coming to public attention may be very different. Maybe for black kids specifically, assaults aren't making it into the system. That would be a measurement issue that could account for your findings.

Catrien Bijleveld: For the Netherlands, legally, "attempted homicide" has to be intent to kill; but this is primarily a prosecutor's decision . . . who must also convince a judge of the charge. The feeling in the Netherlands is that more and more judges go for "attempted homicide" when there are multiple previous aggravated assault offenses. And yes, we must look at all categories of completed homicides as well as aggravated assaults.

Tom Petee: I agree that there are lots of issues of how these kids come to the attention of the police. The literature says assaults, and probably homicides, are underreported for this age group.

Becky Block: For black kids, maybe these cases are more likely to be prosecuted as SIDS deaths.

Janice Clifford-Wittekind: We should also look at the issue of class. Also, who's going to do the screening, where it's more likely to be picked up and is it going to end up in NIBRS data.

Dick Block: There's a big difference in surveillance by class and race.

A question for Paul -- Using Dutch data sources for things like time between offenses, do you know whether someone's been in the Netherlands and who's officially living in the country.

Paul Smit: Yes, it's possible to know both but probably not legal.

Dick Block: You would at least know if they registered as moving in and out of the country.

A question for Tom Petee: Why is there a link between blunt instruments and fire?

Tom Petee: I believe these categories should be collapsed.

Kathleen Heide: Tom, in your study, was there a significant relationship between drugs and alcohol?

Tom Petee: No.

Thomas Simon: Tom, is there a distinction between severe and general injury?

Tom Petee: We found no coding at all on the injuries in the homicide cases.

Dick Block: Jim, does NIBRS use Trauma Injury Codes?

Jim Noonan: No, there is just a generic category.

Wendy Regoeczi: Tom, what was the reference category in your comparison?

Tom Petee: Generically for each factor, it was whatever was not counted.

Paul Nieuwbeerta: What were the weapons categories?

Tom Petee: The four categories were firearms, knives, blunt instruments and personal force.

Paul Nieuwbeerta: Maybe the weapons categories should be changed.

Mieko Bond: Why are offenders who completed homicides different from those who committed aggravated assaults? Maybe it was a matter of advanced planning. For example, non-completed homicide offenders are eight times more violent.

Paul Smit: I'm not sure. But the completeds are in two kinds: murder (planned) versus non-negligent manslaughter.

Mieko Bond: So, you answered your own question. It's a matter of mistake versus planned.

Becky Block: What are the age categories for the youngest victims?

Jim Noonan: Neonates are less than one week old. Newborns are older than one week.

Becky Block: The other thing I want to reiterate about the child victim paper is that these are limited to single victim, single offender incidents. The analysis Kim and I did show that over one-fourth (29%) of child victims under age 15 in Chicago from 1965 to 1996 were multiple victim, multiple offender, or both, and the percent varies with a child's developmental age -- 8% of infants, 24% of toddlers/preschoolers, 46% of primary schoolage children, and 37% of middle schoolage children. These are a different group of kids. It's a shame to exclude all of them, and probably misleading and biased.

Tom Petee: Multiple victim or multiple offender homicides represent 12% of incidents for this age group in the NIBRS data. We're not afraid of analyzing these cases, but it creates lots of different issues, including interpretation.

Chris Dunn: I encourage all of you to look at the available data on these issues that we oversee at ICPSR. There is a NIBRS Resource Guide – where you may pick and choose variables and insert them into SPSS. They are very easy to use.

HOMICIDES INVOLVING CHILDREN
PANEL SESSION IX, 8:30 a.m. - 9:30 a.m., June 8, 2003

Moderator: Marc Riedel, Southern Illinois University

Papers:

Parents Who Get Killed and the Children Who Kill them: An Examination of 24 Years of Data, by Kathleen M. Heide, University of South Florida; and Thomas A. Petee, Auburn University

Child Homicide Victims in Chicago, 1965-1995, by Kimberly A. Vogt, University of Wisconsin - La Crosse; and Carolyn Rebecca Block, Illinois Criminal Justice Information Authority

Recorder: Wendy Regoeczi, Cleveland State University

PARENTS WHO GET KILLED AND THE CHILDREN WHO KILL THEM: AN EXAMINATION OF 24 YEARS OF DATA

Kathleen M. Heide, University of South Florida
Tom Petee, Auburn University

ABSTRACT

Empirical analysis of homicides in which children have killed parents has been limited. The most comprehensive and recent analysis involving parents as victims was undertaken by Heide and used Supplementary Homicide Report (SHR) Data for the 10-year period 1977-1986. This paper provides an updated examination of characteristics of victims, offenders, and offenses in parricide incidents using SHR data for the 24-year period 1976-1999. The analysis proceeds in three stages. First, offense (homicide circumstances), victim (age, race), and offender (age, race, sex) correlates are reported. Second, juvenile involvement in incidents in which parents were killed is examined and a determination is made whether changes in youth involvement in parricide offenses are discernible over the 24-year period. Third, weapons used to kill victims in parricide cases are examined using both offender and victim databases. The paper concludes with a comparison of findings that emerged from 24 years of data with those from the earlier 10-year period in a number of important areas.

INTRODUCTION

A number of cases of adolescents killing parents in the early 1980s garnered newspaper headlines in the United States. From that time onward, the killing of fathers and mothers, particularly by youths under 18, has continued to generate national concern. The term parricide, while technically referring to the killing of a close relative, has become increasingly identified in both the popular and professional literature with the killing of one or both parent(s). Accordingly, in this paper, *parricide* is used to indicate homicides in which mothers and fathers are killed. The precise terms used to refer to the killings of fathers and mothers, *patricides* and *matricides*, respectively (Heide, 1992), are also used in this paper.

Despite the interest in this topic, most of the scholarly work on this topic has been limited to case analyses involving clinical samples, usually small in number (Heide, 1992, 1999, Heide, 2003). Empirical analyses of victim, offender, and offense correlates of parents slain using a national data base do exist. Heide used the Federal Bureau of Investigation's Supplementary Homicide Reports (hereafter SHR) for the period 1977-1986 to describe the characteristics of parricide victims and offenders (Heide, 1993b), to examine weapons used in parricide cases (Heide, 1993c), and to explore juvenile involvement in multiple offender and multiple victim parricides (Heide, 1999a).These analyses, while valuable from an historical period, need to be updated. This paper uses 24 years of data to describe the correlates of victims, offenders, and offenses in parricide incidents as an overall phenomenon and then examines these characteristics by juvenile versus adult offender status. Juvenile involvement at various points of time is examined to discern whether juveniles have become more involved since the mid 1970s in incidents in which

parents have been killed. Weapons used to kill victims in parricide incidents are reported, and examined within categories of age, juvenile versus adult offender status. The paper concludes with a brief comparison of the present findings with those previously reported by Heide.

METHOD

The data for this study were derived from the FBI's SHR for the years 1976 through 1999 (see Fox, 1976-1999). The SHR contains fairly detailed information on the victim, offender, and circumstances for homicides occurring in the United States that are known to law enforcement agencies participating in the FBI's Uniform Crime Reporting Program. For the years 1976-1999, the SHR provides homicide data on 452,965 victims and 500,946 offenders, representing approximately 92% of the estimated number of homicides occurring in the United States during that time period. The data are separated into two separate files – one pertaining to the offender and the other to the victim – both of which were utilized in the present study. Because we are interested in examining the nature and context of parricide offenses, our study focuses on homicide incidents rather than some form of aggregate analysis.

To isolate all parricide cases for the analyses, we initially identified as homicide cases involving parents and children using the victim-offender relationship variable in the data set. This measure is supposed to indicate the victim's relationship to the offender. Unfortunately, this variable is sometimes misreported, with law enforcement agencies instead reporting the offender's relationship to the victim – effectively switching the order of the relationship. However, this error can be relatively easily remedied by cross-checking the ages of the victim and offender and making the necessary corrections. We recoded 68 cases as a result of this cross-checking. Thereafter, we created a separate data set for all homicide cases involving fathers and/or mothers as victims. Our final parricide data sets consist of 5781 victims and 5558 offenders.

The victim and offender data bases that we constructed contain four types of incidents: (1) single victim, single offender parricides; (2) multiple victim, single offender parricides; (3) single victim, multiple offender parricides, and (4) multiple victim, multiple offender parricides. The SHR data links the victim-offender relationship to the first victim killed. In parricide cases, the overwhelming majority of fathers and mothers slain are killed in single victim, single offender incidents. In our victim-based data set, 86 percent of the mothers and fathers slain were killed in single victim, single offender incidents. The remaining 14 percent (834 cases) were killed in multiple victim situations. It is possible that a subset of these cases are not parents. This would seem particularly likely in the 2 percent of cases (n=107) that involved three or more victims. In our offender-based data set, 92 percent of offenders killed parents in single victim, single offender incidents. The remaining 8 percent (446) cases involved multiple offender situations.

In multiple victim and multiple offender incidents, this linkage suggests that caution be used in reporting findings. It is more accurate, for example, to report the results in terms of incidents in which fathers were killed than to tie it specifically to fathers killed.

Accordingly, we describe findings in terms of "victims who were killed in patricide incidents" or report correlates of offenders "in patricide events" or "patricide incidents" to be on the safe side. It would seem likely that the results obtained would be fairly close to the true characteristics of both parricide victims and offenders, given the very high representation of victims and offenders in single victim, single offender incidents. However, we take a conservative approach to the reporting of our results so that erroneous conclusions are reduced.

In previous analyses, Heide (1993a, b, c) used only single victim, single offender parricides to avoid this difficulty. In this paper we have included all parricidal incidents for two reasons. First, we were interested in examining characteristics involved in all types of parricide cases, and we did not want to exclude important subsets. Second, we were interested in seeing if the patterns that Heide found using single victim, single offender incidents would be similar to those encountered in all types of parricidal incidents, including those involving multiple victim and multiple offender situations.

OFFENSE, VICTIM, AND OFFENDER CORRELATES

Examination of Table 1 reveals that five circumstance categories predominated in incidents involving the slayings of parents over the 24 year-period examined using offender-based data: other argument, other (not felony), unable to determine, brawl due to alcohol, and argument over money/property. The sixth category consisted of all remaining types. Two of the circumstances, other arguments and other reasons (not felony), accounted for approximately 81 percent of the homicidal incidents involving fathers and 76 percent of the homicidal incidents involving mothers.

The differences in the circumstances surrounding the deaths of victims in patricide and matricide incidents were significant (Chi Square = 139.16, d.f.= 5, $p < .001$). As indicated in Table 1, victims in patricide incidents were significantly more likely than victims in matricide incidents to die as a result of other arguments (59 versus 44 percent). Victims in matricide incidents were significantly more likely than those in patricide events to be killed in homicidal events for other (not felony) reasons (31 versus 23 percent) or in circumstances unable to determine (12 versus 8 percent).

Parricide Victim Characteristics

As depicted in Table 2, the age range for victims killed in patricide and matricide incidents using victim-based data over the period 1976-1999 was expansive. Victims killed in incidents in which fathers were slain ranged in age from 27 to 98 years of age and older; nearly identical to the age range for victims killed in matricide incidents, from 28 to 98 years of age and older. The mean and median ages of victims killed in patricide incidents were 55 and 53, respectively. Victims in matricide events were slightly older than victims in patricide events. The comparable average ages for victims killed in matricide events were 58 and 57, respectfully.

Table 1
Circumstances of Parricide Offenses, 1976-1999 (Offender-Based Data)

Circumstances	Fathers as Victims		Mothers as Victims		Total	
	N	%	N	%	N	%
Other argument	1826	58.5	1083	44.5	2909	52.3
Other (not felony)	707	22.6	763	31.3	1470	26.4
Unable to determine	234	7.5	296	12.2	530	9.5
Brawl due to alcohol	79	2.5	31	1.3	110	2
Argument over money or property	89	2.9	73	3	162	2.9
Other reasons	187	6	190	7.8	377	6.8
Total	3122	100	2436	100	5558	100

Note: Significant $x^2 = 139.16$, d.f. = 5, $p<.001$

Significant racial differences between victims killed in incidents involving fathers and mothers were apparent. In patricide incidents, 68 percent of victims were White, 30 percent were Black; the remaining two percent was comprised of Oriental, Indian, other racial group, or unknown race categories combined. In matricide incidents, 75 percent of victims were White, 23 percent were Black; approximately 2 percent was comprised of the four other categories. Victims killed in matricide events were significantly more likely than victims killed in patricide events to be White than nonwhite (Chi Square = 41.275, d.f. =1, p<.001).

Parricide Offender Characteristics

The ages of offenders involved in parricide incidents using offender-based data covered a large span. As reflected in Table 3, offenders involved in incidents in which fathers were killed ranged in age from 7 to 72 years of age; fairly similar to the offender range found in matricide incidents, from 8 to 78 years old. The mean and median ages of offenders who participated in killing fathers were 25 and 23, respectively. Offenders involved in matricide events tended to be slightly older; the comparable ages for these offenders were 30 and 27, respectively.

The racial profile of those involved in parricide events was very similar to the racial profile of victims killed in parricide incidents. Offenders who participated in the killings of mothers were significantly more likely to be White than offenders involved in the killings of fathers (Chi Square =28.783, d.f.=1, p<.001).

Offender gender differences in parricide events were apparent and significant. Males were the killers in both matricide and patricide events in the overwhelming majority

of cases. As depicted in Table 3, males, typically sons, were significantly more likely than females, usually daughters, to participate in the killings of both mothers and fathers. Males were involved in the murders of 87 percent of the incidents involving fathers and 84 percent of the incidents involving mothers (Chi Square =13.476, d.f.=1, p<.001).

Table 2
Characteristics of Parricide Victims, 1976-1999 (Victim-Based Data)

	Father as Victim (n = 3189)		**Mother as Victim** (n = 2592)	
Age	n = 3173		n = 2578	
Mean	54.6		58	
Median	53		57	
Range	27-98		28-98	
	N	**Percent**	**N**	**Percent**
Race	n = 3189		n = 2592	
White*	2156	67.6	1953	75.3
Black	960	30.1	585	22.6
Oriental	31	1	28	1.1
Indian	26	0.8	13	0.5
Other	3	0.1	5	0.2
Unknown	13	0.4	8	0.3

Note: Significant $x^2 = 41.275$, d.f. = 1, p<.001
*White versus all other known (N= 5760)

YOUTH INVOLVEMENT IN THE SLAYING OF PARENTS

Significant differences in the age distribution of offenders involved in patricide and matricide incidents (Chi Square = 264.184, d.f.=6, p<.001) were found using offender-based data. As depicted in Table 4, the age distribution of offenders involved in patricide offenses was more truncated than that found in matricide incidents. More than 72 percent of incidents in which fathers were killed involved children under 30 years of age. The percentages of incidents in which fathers were slain by offenders over 30, and particularly over 40, declined noticeably as offender age categories increased. Of victims slain in patricide events slain during the period 1974-1999, 91 percent were killed by offenders under 40 years of age, and 98 percent were killed by those under 50 years of age. In contrast, 56 percent of offenders involved in the killings of mothers were under 30 years of age, 78 percent were under 40, and 91 percent were under 50.

Table 3
Characteristics of Parricide Offenders, 1976-1999 (Offender-Based Data)

	Father as Victim (n = 3122)		Mother as Victim (n = 2436)	
Age				
Mean	25		30.1	
Median	23		27	
Range	7-72		8-78	
	N	**Percent**	**N**	**Percent**
Race				
White*	2097	67.2	1799	73.9
Black	950	30.4	586	24.1
Oriental	31	1	26	1.1
Indian	29	0.9	15	0.6
Other	3	0.1	3	0.1
Unknown	12	0.4	7	0.3
Sex				
Male**	2716	87	2034	83.5
Female	406	13	402	16.5

*White versus all other known (N= 5539); Significant $x^2 = 28.783$, d.f. = 1, $p<.001$
**Male versus female offenders (N= 5558); Significant $x^2 = 13.476$, d.f. = 1, $p<.001$

Table 4
Offender Age Categories by Parricide Victim Type, 1976-1999
(Offender-Based Data)

Offender Age Category	Father as Victim			Mother as Victim			Total Parents		
	N	%	Cum %	N	%	Cum %	N	%	Cum %
Under age 18	793	25.4	25.4	415	17	17	1208	21.7	21.7
18 to 19 years	346	11.1	36.5	195	8	25	541	9.7	31.4
20 to 29 years	1119	35.8	72.3	744	30.5	55.6	1863	33.5	64.9
30 to 39 years	579	18.5	90.9	535	22	77.5	1114	20	84.9
40 to 49 years	217	7	97.8	317	13	90.6	534	9.6	94.5
50 to 59 years	53	1.7	99.5	169	6.9	97.5	222	4	98.5
60 and older	15	0.5	100	61	2.5	100	76	1.4	100
Totals	3122	100	100	2436	100	100	5558	100	100

Note: Significant $x^2 = 264.184$, d.f. = 6, $p<.001$

Although the overwhelming majority of offenders involved in incidents in which fathers and mothers were killed during the 24 year period under review were adults, juvenile involvement in these types of incidents is noteworthy. Approximately one of four offenders involved in the killings of fathers (25.4 percent) and one of six offenders who participated in the killings of mothers (17.0 percent) were under 18 years of age. If the analysis is extended to include 18 and 19 year olds, which is defined by child development experts as the later period of adolescence (Heide, 1999), the involvement of youth in parricide incidents is quite substantial. Children or adolescents were involved in more than one third of incidents in which fathers were killed (36.5 percent) and one quarter of incidents in which mothers were slain (25.0 percent).

Juvenile involvement in incidents in which parents were killed was examined over time in three analyses using offender-based data. In the first analysis (table 5), the 24-year time frame was divided into four periods of six years (1976-1981, 1982-1987, 1988-1993, and 1994-1999). The differences in the proportionate involvement of juvenile across these four time periods were significant (Chi Square =20.022, d.f.=3, p<.001). Juveniles were significantly more likely to have participated in the killings of mothers and fathers in the earliest time period than in the three subsequent ones. Approximately one of four individuals arrested in incidents in which parents were killed in 1976 through 1981 was under 18. In the three subsequent periods, about one of five of those arrested in events in which parents were killed was a juvenile.

Table 5
Juvenile/Adult Status by Time Period, 1976-1999 (Offender-Based Data)

Age Group	Time Periods									
	1976-1981		1982-1987		1988-1993		1994-1999		Total	
	N	%	N	%	N	%	N	%	N	%
Under 18 years	397	25.7	292	20.2	274	19.9	245	20.5	1208	21.7
18 years and older	1147	74.3	1155	79.8	1100	80.1	948	79.5	4350	78.3
Total	1544	100	1447	100	1374	100	1193	100	5558	100

Note: Significant $x^2 = 20.022$, d.f. = 3, p<.001

In the second analysis, the involvement of juveniles in the killings of biological parents was examined over two decades (1980-1989 and 1990-1999). As depicted in Table 6, approximately one of five arrested in incidents in which parents were killed was a juvenile across the two decades. The very slight differences between the two decades in proportionate involvement were not significant.

Table 6
Juvenile/Adult Status by Decade, 1980-1999 (Offender-Based Data)

Age Group	Time Periods					
	1980-1989		1990-1999		Total	
	N	%	N	%	N	%
Under 18 years	508	20.9	416	19.8	924	20.4
18 years and older	1921	79.1	1688	80.2	3609	79.6
Total	2429	100	2104	100	4533	100

Note: Not Significant $x^2 = .906$, d.f. = 1, $p<.341$

In the third analysis, the1990s were equally divided into the early 1990s and the late 1990s. As shown in Table 7, the very slight differences in the proportionate involvement of juveniles in incidents involving the killings of parents during the two periods (19 versus 20 percent) were not significant.

Table 7
Juvenile/Adult Status by Early/Late 1990s (Offender-Based Data)

Age Group	Time Periods					
	1990-1994		1990-1999		Total	
	N	%	N	%	N	%
Under 18 years	221	19.3	195	20.3	416	19.8
18 years and older	922	80.7	766	79.7	1688	80.2
Total	1143	100	961	100	2104	100

Note: Not Significant $x^2 = .301$, d.f. = 1, $p<.583$

WEAPONS USED TO KILL PARENTS

The types of weapons used by juvenile and adults in incidents in which parents were killed are shown in Tables 8 through 10 by victim type. Significant differences in weapons used in patricide and matricide incidents were found when the effects of age of the offender were controlled in the three analyses using offender-based data.

In Table 8, twelve categories of weapons are examined, including five related to firearms, six other discrete methods, and an "other category" comprised of homicide by poison, explosives, drugs, and drowning. The differences in methods used by juveniles differed significantly from those selected by adults to kill in incidents in which fathers were killed (Chi Square =180.216, d.f.=10, p<.001) and mothers (Chi Square 103.936, d.f.=11, p<.001).

Of particular note in Table 8 are the significant differences in non-firearm weapons selected by juveniles and adults in incidents in which parents were killed. Adults were significantly more likely than juveniles to kill victims in both patricide and matricide incidents using knives, blunt objects, personal weapons, strangulation, asphyxiation, and other methods (poison, explosives, drugs, and drowning). Adults were also significantly more likely than juveniles to use fire to kill victims in incidents in which mothers were slain.

Table 8
Weapons Used by Parricide Victim Type, 1976-1999 (Offender-Based Data)

	Father as Victim						Mother as Victim					
	Under 18		18+		Total		Under 18		18+		Total	
Weapon	N	%	N	%	N	%	N	%	N	%	N	%
Firearm	13	1.6	26	1.1	39	1.3	8	2	14	0.7	22	0.9
Handgun	258	32.7	690	30.2	948	30.8	117	29	408	20.9	525	22.3
Rifle	165	20.9	240	10.5	405	13.2	71	17.6	146	7.5	217	9.2
Shotgun	194	24.6	346	15.1	540	17.6	53	13.2	169	8.7	222	9.4
Other gun	0	0	0	0	0	0	1	0.2	1	0.1	2	0.1
Knife	105	13.3	522	22.8	627	20.4	89	22.1	559	28.7	648	27.5
Blunt object	27	3.4	217	9.5	244	7.9	30	7.4	255	13.1	285	12.1
Personal Weapon	13	1.6	184	8	197	6.4	15	3.7	226	11.6	241	10.2
Fire	11	1.4	27	1.2	38	1.2	8	2	51	2.6	59	2.5
Strangulation	2	0.3	18	0.8	20	0.7	8	2	69	3.5	77	3.3
Asphyxiation	0	0	9	0.4	9	0.3	2	0.5	27	1.4	29	1.2
Other*	0	0	8	0.3	8	0.3	1	0.2	25	1.3	26	1.1
Total	788	100	2287	100	3075	100	403	100	1950	100	2353	100

Note: Significant Father $x^2 = 180.216$, d.f. = 10, p<.001
Significant Mother $x^2 = 103.936$, d.f. = 11, p<.001
*Other includes poison, explosives, drugs, and drowning.

In Table 9, weapons used to kill in incidents involving parents are dichotomized into firearm and other (non-firearm) weapons and examined by victim type controlling for the effects of offender age. Juveniles were significantly more likely than adults to choose firearms as opposed to other weapons to kill victims in patricide incidents (Chi Square 139.968, d.f.=1, p<.001) and in matricide incidents (Chi Square 80.222, d.f.=1, p<.001). Specifically, 80 percent of juvenile offenders used firearms to kill victims in patricide

incidents as compared to 57 percent of adult offenders. With respect to victims in matricide incidents, the comparable figures for juvenile and adult offenders were 62 and 38 percent, respectively.

Table 9
Weapons Used (Firearm vs. Other Weapon) by Offender Age By Parricide Victim Type, 1976-1999 (Offender-Based Data)

Parricide Victim Type	Weapon Type	Offender Age					
		Under 18		18 and older		Total	
		N	%	N	%	N	%
Father*	Firearm	630	79.9	1302	56.9	1932	62.8
	Other weapon	158	20.1	985	43.1	1143	37.2
	Total	788	100	2287	100	3075	100
Mother**	Firearm	250	62	738	37.8	988	42
	Other weapon	153	38	1212	62.2	1365	58
	Total	403	100	1950	100	2353	100

Note: *Significant Father $x^2 = 138.968$, d.f. = 1, $p<.001$
**Significant Mother $x^2 = 80.222$, d.f. = 1, $p<.001$

Weapons used by offenders in parricide cases are examined using two firearm types (handguns and other firearms) and other weapons within juvenile and adult status groups in Table 10. Significant differences were found in the types of weapons used by juveniles and adults to kill victims in both patricide (Chi Square = 161.378, d.f.=2, $p < .001$) and matricide incidents (Chi Square = 87.685, d.f. = 2, $p<.001$). Juveniles, on the one hand, were noticeably more likely than adult offenders to use other firearms (e.g., shotguns, rifles) to kill victims in cases in which fathers were killed (47 versus 27 percent). Adults, on the other hand, were far more likely to use other weapons (43 versus 20 percent) in these types of parricidal situations. Juvenile offenders involved in cases in which mothers were killed, relative to their adult counterparts, were noticeably more likely to use handguns (29 versus 21 percent) and other firearms (33 versus 17 percent). In contrast, adult offenders involved in matricide events were significantly more likely than juvenile offenders who participated in these events to use other weapons (62 versus 38 percent).

Tables 11 through 13 use victim-based data to compare the ways that victims died in events in which mothers and fathers were killed over the 24-year period. Significant differences were found in the types of weapons used (Chi Square = 271.580, d.f.= 11, $p < .001$). Of the 12 weapon categories listed in Table 11, victims in patricide incidents were most likely to be killed by handguns (31 percent), whereas victims in matricide events were most likely to be killed by knives (27 percent). Victims in patricide cases were

significantly more likely than victims in matricide events to be killed by handguns (31 versus 23 percent), shotguns (18 versus 10 percent), and rifles (13 versus 11 percent). In contrast, victims in matricide events were significantly more likely than victims in patricide incidents to be killed by knives (27 versus 21 percent), blunt objects (12 versus 7 percent), personal weapons (9 percent versus 6 percent), fire (3 versus 1 percent), strangulation (3 versus 1 percent), asphyxiation (1 versus far less than 1 percent), and other (1 versus far less than 1 percent).

Table 10
Weapons Used (Gun Type vs. Other Weapon) By Offender Age
By Parricide Victim Type, 1976-1999 (Offender-Based Data)

Parricide Victim Type	Weapon Type	Offender Age					
		Under 18		18 and older		Total	
		N	%	N	%	N	%
Father*	Handgun	258	32.7	690	30.2	948	30.8
	Other firearm	372	47.2	612	26.8	984	32
	Other weapon	158	20.1	985	43.1	1143	37.2
	Total	788	100	2287	100	3075	100
Mother**	Handgun	117	29	408	20.9	525	22.3
	Other firearm	133	33	330	16.9	463	19.7
	Other weapon	153	38	1212	62.2	1365	58
	Total	403	100	1950	100	2353	100

*Significant Father x^2 = 161.378, d.f. = 2, p<.001
**Significant Mother x^2 = 87.685, d.f. = 2, p<.001

When weapons used in incidents involving the killing of parents are collapsed into firearms and other weapons used, the differences between the ways in which victims in patricide and matricide incidents were slain are very noticeable (Chi Square = 206.606, d.f. = 1, p<.001). As shown in Table 12, victims killed in patricide incidents were significantly more likely than victims slain in matricide events to be killed by firearms (64 versus 44 percent). Victims in matricide incidents were significantly more likely than victims in patricide cases to be slain by other weapons (56 versus 36 percent).

In Table 13, the ways in which victims were killed in parricide cases are presented in two firearm categories (handguns and other firearms) and an “other weapons” category. Once again, the differences found in the ways in which victims were killed in patricide and matricide incidents were significant (Chi Square = 208.071, d.f.=2, p < .001). Victims in incidents in which fathers were slain were more likely than victims in incidents

in which mothers were slain to be killed by handguns (31 versus 23 percent) and other firearms (32 versus 22 percent). Victims in matricide cases, in contrast, were more likely than their victims in patricide cases, to be killed by other weapons (56 versus 36 percent).

Table 11
Weapon by Parricide Victim Type, 1976-1999
(Victim-Based Data)

Weapon Type	Father		Mother		Total	
	N	%	N	%	N	%
Firearm	41	1.3	24	1	65	1.1
Handgun	973	31	571	22.7	1544	27.3
Rifle	419	13.3	266	10.6	685	12.1
Shotgun	560	17.8	253	10	813	14.4
Other gun	0	0	2	0.1	2	0
Knife	649	20.7	676	26.8	1325	23.4
Blunt object	234	7.4	297	11.8	531	9.4
Personal Weapon	194	6.2	236	9.4	430	7.6
Fire	39	1.2	67	2.7	106	1.9
Strangulation	18	0.6	75	3	93	1.6
Asphyxiation	7	0.2	29	1.2	36	0.6
Other*	7	0.2	22	0.9	29	0.5

Significant $x^2 = 271.580$, d.f. = 11, p<.001
*Other includes poison, explosives, drugs, and drowning.

Table 12
Weapon Used (Firearm versus Other Weapon)
By Parricide Victim Type 1976-1999
(Victim-Based Data)

Weapon Type	Victim Type					
	Father		Mother		Total	
	N	%	N	%	N	%
Firearm	1993	63.5	1116	44.3	3109	54.9
Other weapon	1148	36.5	1402	55.7	2550	45.1
Total	3141	100	2518	100	5659	100

Significant $x^2 = 206.606$, d.f. = 1, p<.001

Table 13
Weapon Used (Gun Type versus Other Weapon)
By Parricide Victim Type 1976-1999
(Victim-Based Data)

Weapon Type	Victim Type					
	Father		Mother		Total	
	N	%	N	%	N	%
Handgun	973	31	571	22.7	1544	27.3
Other firearm	1020	32.5	545	21.6	1565	27.7
Other weapon	1148	36.5	1402	55.7	2550	45.1
Total	3141	100	2518	100	5659	100

Significant $x^2 = 208.071$, d.f. = 2, $p<.001$

SUMMARY, CONCLUSIONS, AND IMPLICATIONS FOR FURTHER STUDY

In this paper, we used Supplementary Homicide Report Data to examine correlates of parricide victims and offenders over the 24-year period, 1976-1999. We used two data bases, one involving 5781 victims and the other comprised of 5558 offenders involved in incidents in which fathers and mothers were slain. We included single and multiple victim incidents and single and multiple offender incidents in which parents were killed. To be on the safe side, we discussed results in terms of incidents in which fathers and mothers were killed rather than tying the results obtained specifically to fathers and mothers as victims, and sons and daughters as offenders.

We plan three future analyses to fine-tune these reporting issues. First, we will use SHR data to do a replication of Heide's 1977-1986 analyses of victim and offender characteristics and offense correlates, including weapons used, using single victim, single offender incidents (Heide, 1993 b, c). We will compare these results obtained to those previously found by Heide and to those we found in this paper. Second, we plan on analyzing more complete data on parricides than those available through SHR by using the National Incident Based Reporting System (NIBRS). his data base collects a variety of offense-related data from several states. NIBRS data, in contrast to SHR data, links each victim to an offender. As a result, analyses on parents killed and on the children killing them can be made using NIBRS data with more accuracy than with SHR data, particularly in multiple victim and multiple offender situations. We will compare our findings using NIBRS data with SHR data for the same period to see if patterns observed in a group of states during this snapshot are comparable to national trends Third, we plan to do a separate paper looking at parricide incidents involving multiple victims and multiple offenders. The third prospective paper is designed to update a previous analysis done by Heide using SHR data (1993a) and to see what findings emerge using NIBRS data. In each of these papers, analyses will include youth involvement in parricides, given the

concern over the participation of juvenile participation in the killing of mothers and fathers in the U.S. over the last two decades.

Comparisons with Earlier Analyses

As discussed above, comparisons between findings reported in this paper and earlier results obtained by Heide in her analysis of 1977-1986 data must be made with caution due to the differences in the types of parricide incidents included in the earlier and later analyses. Interestingly, comparison of earlier results with those reported in this paper revealed very striking consistencies. Differences found to be significant in the earlier period remained significant in the later and more extensive time period. Highlights of these similarities are presented below. For ease of comparison, analyses published in 1993 involving 1977-1986 data are referred to as the *earlier study*; those discussed in this paper involving 1976-1999 data are referred to as the *later study* or the *present study*.

1. The six types of circumstances that predominated in the earlier study were the same in the later study. The ranking, as well as the differences in trends, in the circumstances found in incidents in which fathers and mothers were killed were the same in both studies. The top two circumstances (other argument, other not felony) comprised 81 percent of the circumstances involved in patricide incidents in this study as compared to 83 percent in the earlier study. In matricide incidents, these two circumstances comprised 76 percent of the total in this study versus 78 percent in the earlier. Differences between these two top circumstances in the matricide and patricide incidents were tested in both studies and found to be significant.

2. The typical age and age patterns of the victims killed in patricide and matricide cases were very similar. The typical victim killed in patricide incidents was in his early 50s. The typical victim killed in matricide incidents was in her late 50s.

3. In both studies, victims killed in matricide incidents were significantly more likely than those killed in patricide incidents to be white versus nonwhite. In matricide cases, using victim-based data, 75 percent of victims in this study, compared to 74 percent of victims in the earlier study, were white. In patricide cases, 68 percent of victims in this study, as opposed to 65 percent in the earlier study, were white. Not surprisingly, given the victim-offender relationship in both data bases, the results obtained using offender-based data were very nearly the same.

4. Gender differences in offenders involved in incidents in which parents were killed were significant in both studies. The proportionate involvement of males in the killing of victims in patricide incidents was the same in both studies, 87 percent. Males also were disproportionately represented in the killings of victims in matricide events in both studies, 84 percent in the present study and 86 percent in the earlier study.

5. The involvement of youth was the same in incidents in which fathers were killed, and very similar in matricide incidents across the two studies. Juveniles under 18 com-

prised 25 percent of offenders in incidents in which fathers were killed in both studies. If offender age is increased to include upper adolescents, 36 percent of those arrested in patricide incidents were age 19 or younger in both studies. In incidents in which mothers were killed, 17 percent of arrestees in the present study, as compared to 15 percent in the earlier study, were juveniles. When the analysis is extended to include those through age 19, 25 percent of offenders who were involved in matricide incidents in this study, as opposed to 22 percent in the earlier study, were 19 years of age or younger.

6. The truncated pattern in age range categories observed with respect to those involved in the killings of fathers, as contrasted to those involved in the killings of mothers, was also observed in both studies. The results in offender age categories are amazingly similar in patricide and matricide incidents in both the present and earlier studies. The differences found in age categories of offenders involved in the killings of fathers and mothers are significant in both studies. In incidents in which fathers were killed, the cumulative frequency results can be encapsulated as follows for each offender age group (present study versus earlier study): up to 29 years old (72 versus 76 percent), up to 39 years old (91 versus 94 percent), up to 49 years old (98 to 99), and up to 59 years old (99.5 versus 99.9). In incidents in which mothers were killed, the cumulative frequency results can be encapsulated as follows for each offender age group (present study versus earlier study): up to 29 years old (56 versus 54 percent), up to 39 years old (78 versus 78 percent), up to 49 years old (91 to 91), and up to 59 years old (98 versus 98).

7. One important difference between the two studies emerged when youth involvement in parricide events was examined. In the earlier study, no significant differences were found to suggest increasing involvement of juveniles in the killings of mothers or fathers over the 10-year period, 1977-1986. In contrast, significant differences were found during the 24-year period when the period was broken down into four equal, six year periods. This analysis found that juveniles were significantly more likely to be involved in incidents in which parents were killed in the first period, (1976-1981) than the three later periods (1982-1987, 1988-1993, 1994-1999). Similar to results found in the earlier study, other analyses investigating juvenile versus adult involvement over two decades (the 1980s versus the 1990s) and the 1990s (1990-1994 versus 1995-1999) revealed no evidence of increased youth involvement in incidents in which parents were killed over time.

8. Differences in weapons used by juveniles to kill victims in patricide and matricide incidents emerged in this study using offender based data and were consistent with results found in the earlier study. Juveniles in both studies were significantly more likely than their adult counterparts to use firearms rather than other weapons to kill victims in patricide and matricide incidents. In incidents in which fathers were killed, 80 percent of juveniles in the present study, compared to 82 percent in the earlier study, used firearms as opposed to other weapons. In contrast, 57 percent of adult offenders in these same incidents in the present study, compared to 60 percent in the earlier study, used firearms. In incidents in which mothers were killed, 62 percent of

juveniles in the present study, compared to 65 percent in the earlier study, used firearms as opposed to other weapons. In contrast, 38 percent of adult offenders in these same incidents in the present study, compared to 34 percent in the earlier study, used firearms.

9. Differences in specific type of firearms used by juveniles and adults in incidents in which fathers and mothers were killed were also significant across the two studies, using offender based data. Juveniles were significantly more likely to use other firearms (shotguns and rifles) than adults in patricide and matricide events across the two studies. In patricide incidents, 47 percent of juveniles in the present study and 53 percent in the earlier study used shotguns or rifles, compared to 27 percent of adult offenders in the present study and 29 percent of adult offenders in the earlier study. In matricide incidents, 33 percent of juveniles in the present study and 38 percent in the earlier study used shotguns or rifles, compared to 17 percent of adult offenders in the present study and 16 percent of adult offenders in the earlier study.

10. Analyses using victim based data in the present study revealed significant differences in the ways in which victims were killed in patricide and matricide incidents. These data were consistent with offender based analyses in that they showed that victims in incidents involving fathers were significantly more likely than the victims in incidents involving mothers to have been killed by firearms versus other weapons. In addition, victims in patricide incidents, relative to victims in matricide incidents, were significantly more likely to have been killed by handguns and other firearms (rifles, shotguns) than other weapons. These results were consistent with differences found in types of weapons used to kill fathers versus mothers in the earlier study.

Conclusions and Implications

The comparison of the findings in the present study with those from the earlier study indicates that offender, victim, and offense data are amazingly stable over time. These findings are particularly compelling given that the data sets were not constructed using the same types of incidents. The results suggest that the inclusion of multiple victim and multiple offender incidents does not alter the results in any significant way. Future analyses planned by the authors will explore differences between single victim, single offender incidents with those involving multiple victims and/or multiple offenders. NIBRS data will provide a more in-depth look at the characteristics of parricide events, including those involving multiple victim and multiple offender incidents that is not possible using SHR data.

REFERENCES

Fox, James Alan (2001). *Uniform Crime Reports [United States]: Supplementary Homicide Reports, 1976-1999* [Computer file]. ICPSR version. Boston, MA: Northeastern University, College of Criminal Justice [producer]. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor].

Heide, K. M. (1992). *Why Kids Kill Parents: Child Abuse and Adolescent Homicide*. Columbus, Ohio: Ohio State University Press (cloth); (1995) Thousand Oaks, Sage Publications (paperback).

Heide, K. M. (1993a). Juvenile involvement in multiple offender and multiple victim parricides. *Journal of Police and Criminal Psychology, 9* (2): 53-64.

Heide, K. M. (1993b). Parents who get killed and the children who kill them. *The Journal of Interpersonal Violence, 8* (4): 531-544.

Heide, K. M. (1993c). Weapons used by juveniles and adults to kill parents. *Behavioral Sciences and the Law, 11*: 397-405.

Heide, K. M. (1999). *Young Killers: The Challenge of Juvenile Homicide*. Thousand Oaks, Sage Publications.

Heide, K. M. (2003). Youth homicide: A review of the literature and a blueprint for action. *International Journal of Offender Therapy and Comparative Criminology, 47*(1): 6-36.

CHILD HOMICIDE VICTIMS IN CHICAGO,1965-1995

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ABSTRACT

This paper discusses the patterns and circumstances of homicide victimization in Chicago for children age 14 and under for the years 1965-1995 using the Chicago Homicide Dataset (CHD). The large number of cases and the wealth of information that is available for each case in the CHD allow us to study in detail the circumstances of victimization for specific age groups and provide analysis of findings aimed at prevention of child homicide. Risk patterns for child homicide victims are examined by sex of the victim, victim/offender relationship, offender characteristics, circumstances related to the homicide, weapon type, and location of the homicide. Similar to previous research, the study finds that characteristics of child homicide vary with developmental level of the child. We found that there is little gender variance in victimization with younger children, but an increasing risk of victimization for males as age increases. Circumstances of homicide victimization in older children resemble adult homicides, with acquaintance homicides with firearms predominating.

INTRODUCTION

All homicides are tragic, but homicides of children are among the most devastating. In the United States, homicide is currently a leading cause of death among children under the age of 14 (Krug, Mercy, Dahlberg & Powell, 1998). In their comparison of child homicide rates in 26 countries, Krug et al. found that in the early 1990s, the United States had a child homicide rate five times greater than all 25 other countries combined (twice that of Singapore, the country with the second highest rate). The high rate of child homicide in the United States is not a new phenomenon, having increased three-fold from 1950 to 1994 (National Center for Health Statistics, 1995). Juvenile homicide victimization rates increased rapidly during the late 1980's and early 1990's (Finkelhor & Ormrod, 2001). Recent attempts to explain this increase (e.g., Zahn & McCall, 1999) and to find ways to reduce the likelihood of childhood homicide often focus on differences in victimization risk among different groups of children. In particular, research has explored differences among children by their gender, and by their developmental age.

Several researchers, most notably Finkelhor (1997), contend that child homicide is best understood in relation to the developmental stages of childhood. The circumstances, weapon type, and gender ratios for homicides of children differ with the child's developmental or life-course stage, such as infant, toddler or preschool, primary school age, and middle school age (Alder & Polk, 2001; Chew, McCleary, Lew & Wang, 1999; Christoffel, Anzinger & Amari, 1983; Crittenden & Craig, 1990; Finkelhor & Ormrod, 2001; Jason, Gilliland & Tyler, 1983). Because of physical dependency on adults, infant and preschool children tend to be killed by parents or caretakers in fatal situations of child abuse,

physical punishment, or neglect (Crittenden & Craig, 1990; Finkelhor, 1997; Smithey, 1998; Alder & Polk, 2001), whereas middle school age children are less likely to be killed by a caretaker and more susceptible to lethal street violence (e.g., Finkelhor & Ormrod, 2001).

Studies have also found that the population-based risk of being murdered is almost equal for infant boys and girls, but that there is an increasing gender gap as children grow older (Alder & Polk, 2001; Boudreaux, Lord & Jarvis, 2001; Finkelhor, 1997). The proportion of boy victims to girl victims increases with the child's age. Boudreaux, et al. tie this phenomenon to differences in socialization for girls and boys, maintaining that differing gender role expectations and the resulting differences in routine activities of childhood explain differences in victimization risk for boys and girls as they grow older. As children move from the infant, toddler and preschool developmental stages to the primary school and middle school stages, they are less closely supervised by adults and more likely to explore risky activities such as gang membership. Boudreaux and her colleagues argue that these patterns increase the risk of homicide victimization, and that gender differences in these developmental patterns produce a greater increase for boys.

This research has posed many questions that remain to be answered. Are girls and boys subject to risk from different kinds of offenders or in different kinds of situations, and does this change as they grow through the infant to middle school years? If, as Boudreaux and colleagues argue, boys are more at risk than girls of being killed in a gang-related homicide, are girls more at risk than boys of being killed in a sexual assault or another type of homicide? Are young children more at risk from male or female offenders, and does it matter whether or not the offender is a caretaker? Are boys and girls, infants and older children, equally at risk of being killed during a domestic assault on their parent and does this change with developmental age?

Although the current literature has given us a foundation for asking those questions, finding the answers has been limited by the data. Either the number of cases is small, or the information about each case is limited, or both. Fortunately, the Chicago Homicide Dataset contains a large number of cases with the detail necessary to answer these and other questions. This paper examines the patterns, characteristics and circumstances surrounding the homicides of 1,124 children aged 14 and younger, that occurred in Chicago from 1965 through 1995.

DATA AND METHODS

This paper is based on the Chicago Homicide Dataset (CHD), using data from 1965-1995. Collected with the close cooperation of the Chicago Police Department over many years, and containing detailed information on every homicide recorded by the police from 1965 to 1995 (close to 24,000 homicides), the Chicago Homicide Dataset is the largest, most detailed dataset on violence available in the United States.[1] With this

[1] Beginning in 1968 with the collection of 1965 data and continuing today, the Crime Analysis Unit of the Chicago Police Department has assisted and advised Richard Block, Carolyn Block and others in the Chicago Homicide Dataset project. The Illinois Criminal Justice Informa-

resource, we can answer questions about patterns of risk for specific groups in the population, in specific areas of the city, and for specific types of lethal violence. To the degree that trends around the country reflect trends in Chicago, the Chicago experience will tell us something about the reasons for the nationwide surge in homicide rates and suggest intervention strategies for reducing the current high levels of risk.[2]

The present analysis is based on an updated, expanded and corrected version of the 1965 to 1995 data. We first created detailed codes for circumstance, situation, and weapon, based on the narratives (not available in the CHD data archived in the National Archive of Criminal Justice Data) and on the original MAR (Murder Analysis Reports). We then created a victim-level dataset with a case for each young victim. The dataset includes all victims age 14 or under, regardless of the number of victims or the number of offenders in the murder incident. To limit our analysis to single-victim, single-offender homicides would not only exclude a large proportion of cases (28%), but because the included cases would be a biased selection, results of the analysis would be incorrect and misleading. In the case of multiple victims, only those children age 14 or younger are included. This "young child" dataset includes records for 1,124 homicide victims from newborns to children aged 14.

For the calculation of annual rates, we aggregated the data into yearly categories over the 31 years from 1965 to 1995, and combined the children into three standard census age groups (0-4, 5-9, and 10-14 years). We created separate victim files with corresponding population files for boys and girls and for three racial/ethnic groups: non-Latino black, non-Latino white/other, and Latino. We are grateful to Marie Bousfield, city of Chicago Demographer, for providing annual inter-census population estimates for specific age, gender and race/ethnicity categories (Bousfield, 1998; Bousfield, 2002). We then calculated total and disaggregated rates per 100,000 population for each year. The population data combine census racial and ethnic categories (Hispanic, non-Hispanic, African American, white and "all other" racial groups). Hispanic and non-Hispanic are identified in the following analysis as Latino and non-Latino; African American as black. The category "white, non-Latino" includes Asians and Pacific Islanders, Native Americans, and whites (Bousfield, 1998).

The age distribution for the 1,124 boy and girl victims in the Chicago Homicide Dataset (Table 1) is clustered at the youngest and oldest ages (infants and age 14), with the fewest children at ages 7 or 8. The spurt at age 14 is much greater for boys than for girls. When the children are aggregated into four developmental age groups (Figure 1), following the literature on developmental or life course stages in childhood (Chew et al.,

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tion Authority has supported and maintained the Dataset since 1979. The Joyce Foundation supported collection and archiving of 1991-1994 data. Funding for earlier data collection and analysis was provided by the Harry Frank Guggenheim Foundation, Loyola University of Chicago, the Ford Foundation, the University of Chicago, the Bureau of Justice Statistics and the National Institute of Mental Health. Data from 1965 through 1995 are available from the Inter-university Consortium for Political and Social Research at http://www.icpsr.umich.edu:8080/ABSTRACTS/06399.xml?format=ICPSR. For details of the dataset, see Block & Block (1993).

[2] There is some evidence that trends in Chicago are similar to trends in other northern urban places (see Block, 1987).

1999; Christoffel, et al. 1983; Crittenden & Craig, 1990; Finkelhor, 1997), we see that the age distribution is not U-shaped, but bimodal. Toddler and preschool victims occur in almost equal numbers as middle schoolage victims, while infant victims occur in almost equal numbers as primary schoolage victims. For girls, however, the percentage killed during the toddler and preschool years is higher than the percentage killed during the middle schoolage years, while the opposite is true for boys.

Table 1
VICTIM'S AGE AT DATE OF INJURY CHILDREN AGED NEWBORN THROUGH 14
CHICAGO HOMICIDE DATASET, 1965-1995

Age Group	All Children		Age, by Gender			
	Freq.	Percent	Boys		Girls	
			Freq.	%	Freq.	%
Birth to 11 Months	197	17.5	106	15.2	91	21.4
Age 1 (12 to 23 Months)	154	13.7	92	13.2	62	14.6
Age 2 (24 to 35	118	10.5	64	9.2	54	12.7
Age 3	71	6.3	43	6.2	28	6.6
Age 4	50	4.4	27	3.9	23	5.4
Age 5	30	2.7	17	2.4	13	3.1
Age 6	28	2.5	21	3.0	7	1.6
Age 7	24	2.1	16	2.3	8	1.9
Age 8	24	2.1	16	2.3	8	1.9
Age 9	31	2.8	18	2.6	13	3.1
Age 10	26	2.3	17	2.4	9	2.1
Age 11	24	2.1	16	2.3	8	1.9
Age 12	44	3.9	27	3.9	17	4.0
Age 13	103	9.2	66	9.5	37	8.7
Age 14	200	17.8	152	21.8	48	11.3
Total	1124	100.0	698	100	426	100

HOMICIDE RISK OVER TIME FOR YOUNG CHILDREN, BY DEVELOPMENTAL AGE GROUP

The population-based risk of homicide victimization (rate per 100,000 per year) for children aged 14 or younger, compared to the rate for people aged 15 and older (Figure 2) shows that the risk for older people fluctuated much more than the risk for young children. However, the risk for children was not stable over the 31 years. On the contrary, the chance that a Chicago child would be murdered rose from a low of 1.74 per 100,000 population in 1965 to 8.49 per 100,000 in 1995, an increase of 388%. (The peak change, from 1965 to 1992, was 14% higher, 402%.) Thus, while the risk of becoming a homicide victim has ebbed and flowed over time for those older than 14, the population-based risk for babies and children has climbed steadily, particularly since the mid 1980s.

FIGURE 1. CHILD HOMICIDE VICTIMS, BY DEVELOPMENTAL AGE AND GENDER CHICAGO HOMICIDE DATASET, 1965-1995

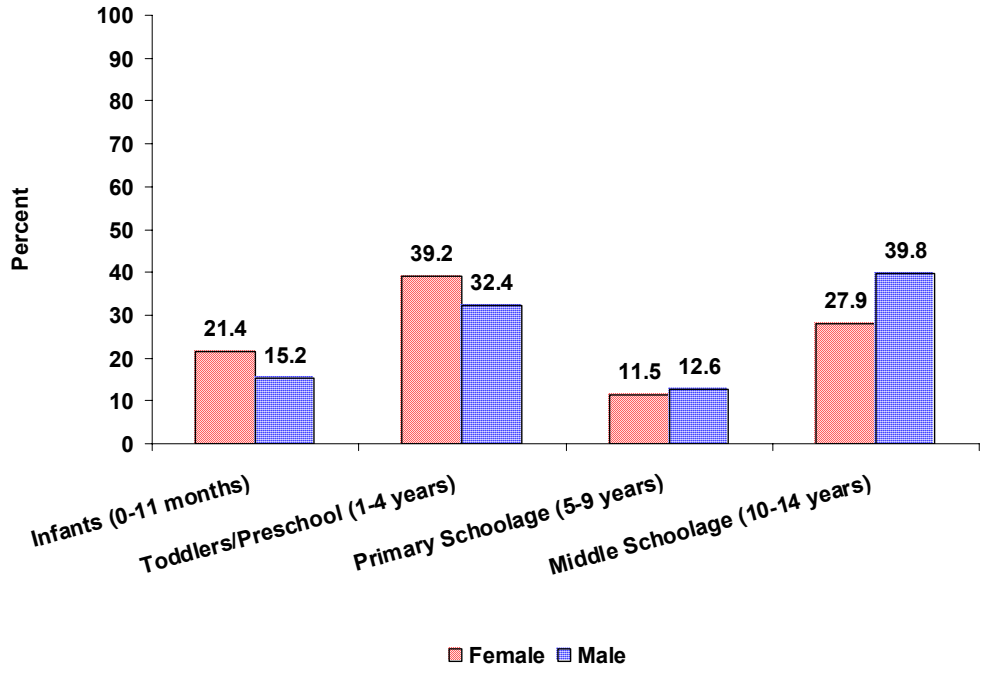
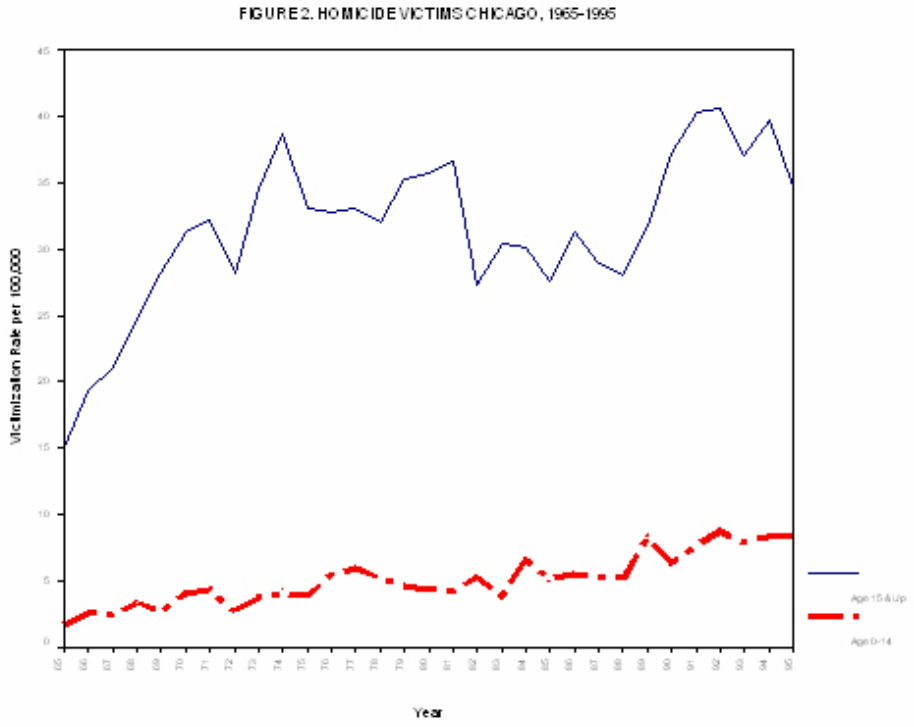


Figure 2

Victimization Trends of Young Children,1965-95



This is a discouraging and perhaps frightening observation. With adult homicides, the spurts and declines over the years tell us that the level of risk of homicide victimization is not necessarily written in stone. Because the level has varied in the past, we know that it could vary in the future. If we can decipher why there were spurts in the past, perhaps we can know how to prevent spurts in the future. If we can explain why the homicide rate fell in the past, perhaps we can know what must be done to keep the rate low in the future. In contrast, the fact that the murder rate for the youngest victims is moving inexorably upward, with no appreciable spurts or declines over 31 years, suggests that the causes of the increase may be related to long-term societal processes that are less amenable to intervention than the processes that may be driving adult homicides. Perhaps, however, if we can specify whether or not the 31-year increasing trend in victimization risk occurred for only certain groups of children, we may be able to discover patterns that could lead to ideas for successful prevention or intervention. Did the steady increase over time occur for all young victims, or only for specific groups of children – boys or girls, racial/ethnic group, or specific age group?

It is clear that the risk of victimization was much greater for non-Latino black children than for Latino or non-Latino white/other children, throughout the 31-year study period (Figure 3), and that the risk of being murdered increased sharply across the 31 years only for the non-Latino black children. The risk for non-Latino white/other children remained level, while the risk for Latino children fluctuated sharply over time, with spurts in 1976, 1989 and 1994. Therefore, the steady increase shown in Figure 2 is specified by the child's racial/ethnic group – the steadily increasing risk occurred only for non-Latino black children, though it was influenced by periodic spurts in the risk for Latino children.

Rates for non-Latino black children rose rapidly over the 30-year period, with some minor fluctuation, climbing from 3.77 per 100,000 in 1965 to 13.25 per 100,000 in 1995, a 254% increase. Further, the three racial/ethnic groups were more similar to each other in the risk of a child being murdered in the 1960s (ranging from .56 to .00 and 3.77 in 1965) than they were in the 1990s (ranging from 2.83 to 5.54 and13.35 in 1995). Rates in the 1990s were much higher for non-Latino black children than for Latino or non-Latino white/other children. By 1995, the "race gap" in victimization risk was at unprecedented levels.

Even though the risk of being murdered was almost always higher for boys than for girls (Figure 4), the victimization rates for both boys and girls moved steadily upward over the years. Therefore, the pattern seen in Figure 2 cannot be specified by the child's gender. Between 1965 and 1995, the victimization rate for boys rose 365%, and the victimization rate for girls rose 374%. For boys, however, there was an even more rapid increase in the 1990's than for girls. From 1988 to 1995, the risk of a young boy being murdered rose from 4.65 to 11.35, an increase of 144%, while the risk of a young girl being murdered dropped from 5.76 to 4.88, a decrease of -15.30%.

Figure 3
Trends in Homicide Victimization of Young Children, by Race/Ethnicity

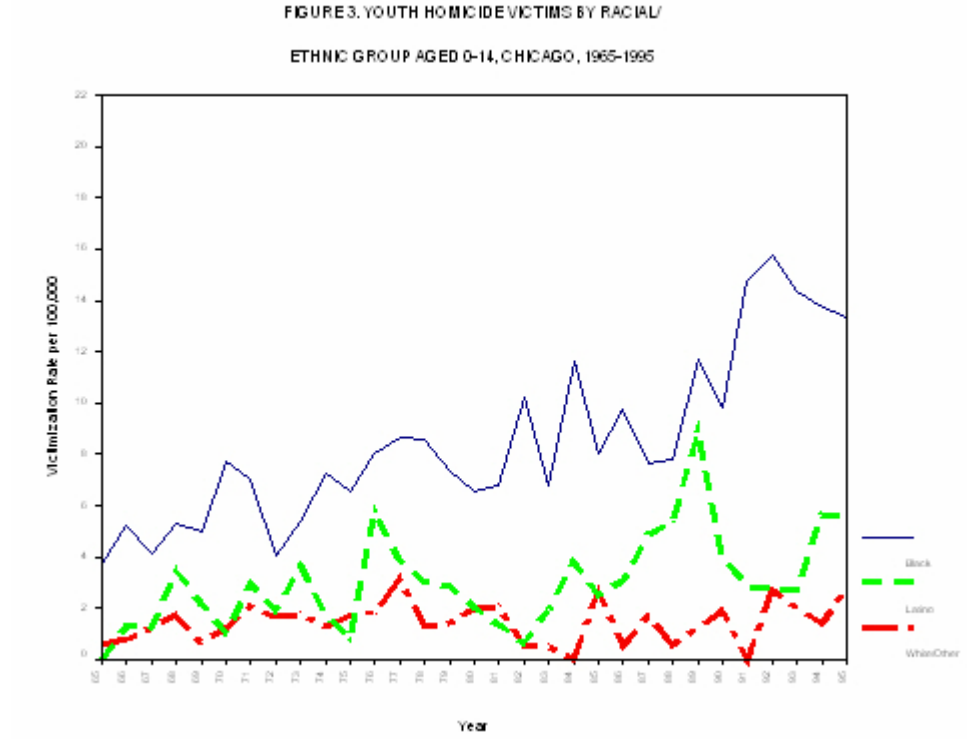
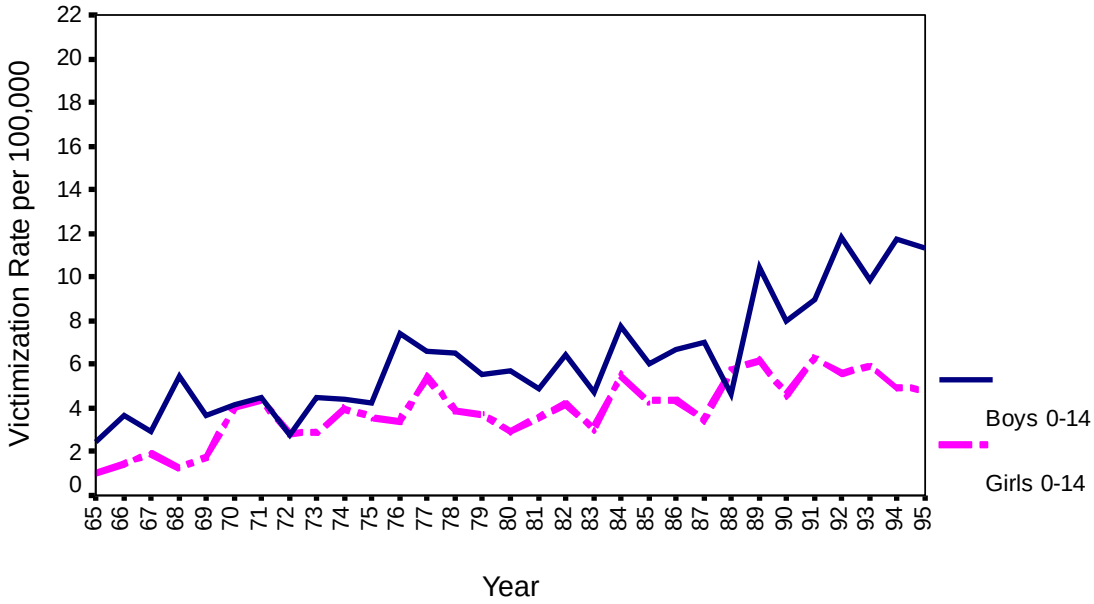


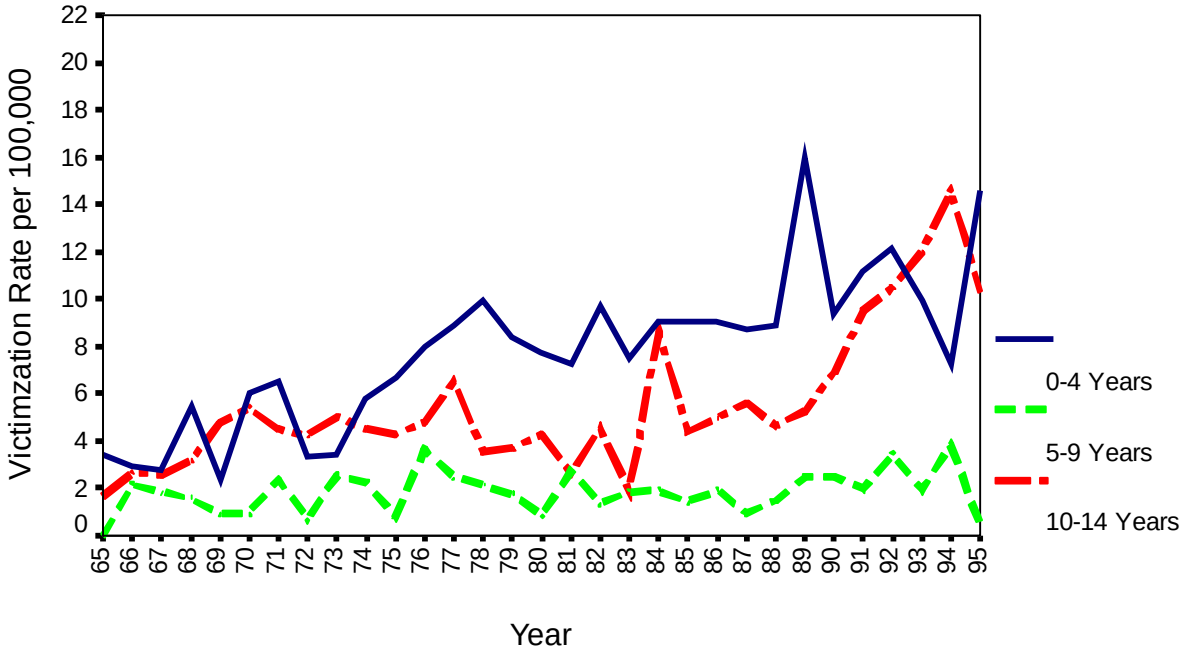
FIGURE 4. YOUTH HOMICIDE VICTIMS BY GENDER

AGED 0-14, CHICAGO, 1965-1995



Although we might have expected that trends for middle schoolage children would drive the pattern over time of youth victimization, that was not the case (Figure 5).[3] The population-based risk of being murdered tended to be as great or greater for babies and preschoolers than for middle schoolage children. The risk of victimization was higher for the youngest children than the oldest children in 26 of the 31 years in the entire study period, and in 21 of the 22 years from 1974 through 1995. In contrast, the victimization risk for children in the primary schoolage years tended to be lower than the risk for either older or younger children, and showed no pattern of increase over time.

FIGURE 5. YOUTH HOMICIDE VICTIMS BY DEVELOPMENTAL AGE GROUP, CHICAGO, 1965-1995



Therefore, the long-term increase in child victimization risk, seen in Figure 2, is specified by the child's developmental age – the rate increased only for the youngest and for the oldest children. Although the risk for all three age groups was similar in the sixties, the risk for babies and preschoolers increased sharply and steadily throughout the 31 years, and the risk for children aged 10-to-14 rose rapidly after 1984 and through the mid-1990s. What could have changed after 1974 to put babies and toddlers, who are most often killed by their caretakers, at greater risk of victimization than middle schoolers, who are more at risk from street violence?

The pattern of an increasing trend for only the youngest and the oldest children holds for both boys and girls (Figures 6 and 7). From 1965 to 1973, for both girls and boys, the risk of becoming a homicide victim was about the same for all age groups.

[3] We have aggregated infants with toddlers/preschoolers in this figure, because reliable population data are available only for the aggregated category.

From 1974 to 1990, for both girls and boys, the victimization rate for babies and toddlers tended to be higher than the rate for children of middle school age, while the rate for primary schoolage children remained low. From 1984 to 1995, however, the victimization rate for middle schoolage boys increased extremely rapidly, while the rates for the youngest girls and boys and the rate of middle schoolage girls continued their steady rise. This shows us that the jump in the overall rate for 10-14 year-olds (seen in Figure 5, above) was mostly due to an increase in risk for boys.

The trend data raise questions that the more detailed data from the CHD can address. If risk of victimization for babies and toddlers is so high, what circumstances surrounding their deaths are different from, or similar to, the circumstances of homicide in primary and middle school age children?

DIFFERENCES IN HOMICIDE SITUATION AND CIRCUMSTANCES, BY DEVELOPMENTAL AGE GROUP

Multiple Offenders and Victims in the Homicide Incident

Overall, 84% of the 1,124 children were the only homicide victim in that incident, and a single offender was responsible for killing 78% of the 1,070 child victims for which information is available.[4] However, this pattern differs sharply by the child's age group. Though only 63% of middle schoolage victims and 53% of primary schoolage victims were killed in a single victim/ single offender incident, almost all (92%) of the infants and three-quarters (76%) of the toddlers and preschoolers were the only victim killed by one offender. This pattern held true for Latino, non-Latino white/other, and non-Latino black child victims. The risk of *multiple-offender* homicide increases with developmental age (from 4% for infants to 30% for middle schoolage children), while the risk of *multiple-victim* homicide is highest for primary schoolage children. Fully 35% of children killed between ages 5 and 9 were killed together with at least one other victim, compared to 5% of the infants, 18% of the toddlers and preschoolers, and 12% of the middle schoolers.

The eight infants killed by multiple offenders were all killed by two people.[5] However, toddlers, preschoolers and primary schoolers were killed by as many as five offenders, and middle schoolers were killed by as many as nine offenders. The number of victims did not vary by the child's age group.

[4] The number of offenders is missing for 4.8% of the 1,124 children, but this varies by the child's gender and developmental age. The percent missing is 2.8% of the 106 infant boys and 4.4% of the 91 infant girls, 1.8% of the 226 toddler/preschooler boys and 2.4% of the 167 toddler/ preschooler girls, 5.7% of the 88 primary schoolage boys and 10.2% of the 49 primary schoolage girls, and 5.4% of the 278 middle schoolage boys and 11.8% of the 119 middle schoolage girls. Note that the percent missing this basic investigatory information is consistently higher for girls.

[5] Although we might have assumed that these two people would be the child's parents, that was not always the case. Though three of the eight children were killed by their mother and father, and another by the foster mother and foster father, one child was killed by two male baby-sitters, one by two unidentified men who beat the mother to death on the street, one by shots fired on the street by two male strangers, and one in a home invasion robbery in which both parents were also killed.

FIGURE 6. BOY HOMICIDE VICTIMS BY AGE GROUP, CHICAGO, 1965-1995

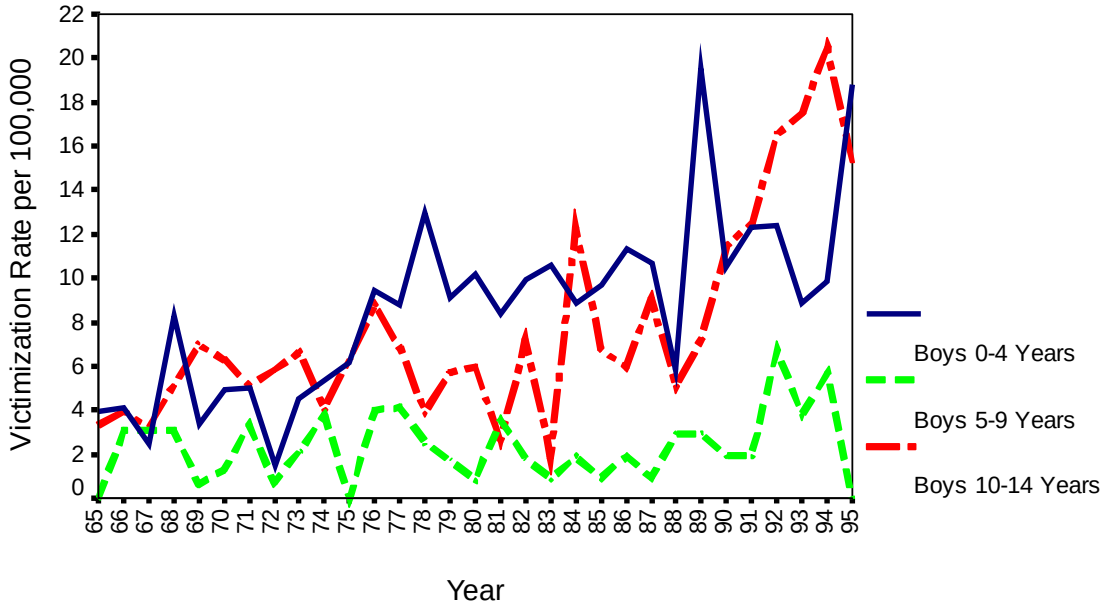
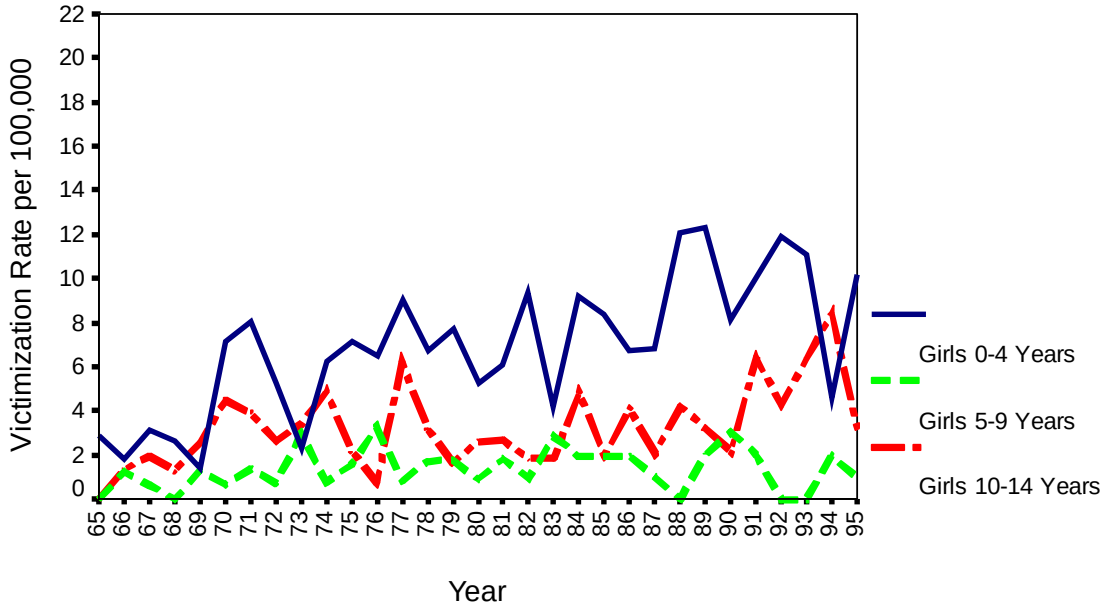


FIGURE 7. GIRL HOMICIDE VICTIMS BY AGE GROUP, CHICAGO, 1965-1995



The maximum number killed in an incident was seven. All the incidents with six or seven victims were arsons; all of the incidents with five victims were arsons except one, in which the children were smothered and then set on fire. Of the 19 incidents with four victims including at least one child aged 14 or younger, 11 were arsons (often committed to cover up the murder of someone else), two involved secondary arson to cover up the child's murder, and the other six were not arson (in all of the six, children were murdered together with their parent or parents in a home invasion). Of the 24 incidents with three victims, 8 were arsons, three involved secondary arson, and 13 were not arson.

The circumstances and weapon differ when there are multiple victims. Arson is commonly the weapon killing more than one victim. Arson was the cause of death for 38% of young children killed together with other victims, compared to 1% of other children. In contrast, for primary and middle schoolage youngsters but not for younger children, a firearm is more likely to be the weapon when there was only one victim (67%) compared to multiple victims (33%). For younger children, the opposite was the case — a firearm was somewhat more likely to be the weapon when there were multiple victims (11%) compared to one victim (6%). In addition, 26% of the children killed together with another person or persons were killed in an intimate partner confrontation, compared to 2% of other children.

Similarly, the circumstances and weapon differ when there are multiple offenders. Overall, 44% of young children killed by multiple offenders were killed in a gang-motivated homicide, compared to 9% of other children. For middle schoolers, the proportions were 61% versus 27%, respectively. Further, the cause of death was much more likely to be a firearm when there were multiple offenders (60% versus 26%). This was true for infants (25% versus 2%), toddlers and preschoolers (15% versus 8%), and for primary schoolers (49% versus 20%), but there was little difference for middle schoolage children (79% versus 71%).

Relationship of the Offender to the Child Victim

The most frequent offender of murdered children was a natural parent, with 16.2% killed by the mother alone, 13.3% by the father alone, and 0.7% by both parents together.[6] It was much more common for younger children to be killed by one or both natural parent—77% of infants (32% by the father alone, 44% by the mother alone, and 1.3% by both) and 42% of toddlers and preschoolers (20% by the father alone, 21% by the mother alone, and 1.3% by both) compared to 21% of primary schoolers and less than 3% of middle schoolers.

[6] Missing cases have been excluded in the calculation of these percentages. Offender relationship information is missing for 7% of child victims overall, and is higher for middle schoolers (11%) and primary schoolers (9%) than for infants, toddlers or preschoolers (all 4%). Typical relationship-missing cases are the following: the body of a baby found in a garbage can, victims of a random shooting through a restaurant window, a gang-motivated shooting of people sitting on a porch, mother and children strangled in their home by an unknown person, and young girls found molested and strangled.

However, young murdered children are often killed by a caretaker who is not their natural parent. To examine this possibility, we looked at the case narratives for every young child who was not killed by either a natural parent, a step-parent, a foster parent, a parent's boyfriend or girlfriend, or a babysitter. (We assumed that all of the above categories of relationship constituted people in caretaking relationships with the child victim.) For each case, we coded the relationship as "other caretaker" when the offender was caring for the child at the time of the fatal incident. Examples of "other caretaker" coding are the following:

- A baby's uncle "was babysitting and stated he put the child in the tub for a bath and later found her dead. Cause of death: internal injuries due to extreme discipline."
- A four-year-old girl's 12-year-old brother "requested the victim to get a diaper while he was changing the baby. When the victim refused, he became angry and beat her to death."
- A three-year-old girl died when a 22-year-old male coded as "an acquaintance" in the MAR "beat the child with a belt to discipline her." The Medical Examiner reported "trauma to stomach with lacerations to liver, intestines and vagina."

We did not assume that non-parent relatives, such as an uncle, brother or cousin, were necessarily caring for the child at the time of the incident. Many of the killers of primary schoolage children are relatives, but not caretaking relatives. The 15 primary schoolage victims killed by a non-caretaking relative provide examples of how an offender can be a relative, yet not a caretaking relative.

- Five of the 15 were killed by a brother, one by a half-brother, and one by a brother-in-law. Two of these were killed in an arson fire set by their nine-year-old brother in revenge for being spanked by his mother's boyfriend. The mother and her boyfriend also died in the fire. A 26-year-old offender argued with his stepfather, stabbed him and his six-year-old half-brother, waited until his mother came home from work and stabbed her to death as well. A child killed by his brother-in-law was killed as a witness to a sexual attack on his sister. The other "brother" murders were sibling conflicts — a six-year-old shot by his seven-year-old brother "in the course of an argument," an eight-year-old beaten to death by his 16-year-old brother in an "argument over a bike," and an eight-year-old girl shot by her 14-year-old brother because she refused to get out of his room.

- Six of the remaining eight children were killed by an adult relative who was mentally ill (a cousin, a sister, an uncle), as part of an attack on adults in the family (revenge for calling the police on an uncle, an intimate partner attack on the child's sister, an arson fire set by an uncle in retaliation after an "argument over money." A 22-year-old uncle killed his nine-year-old nephew because the child refused to apologize for stepping on his foot, and a 25-year-old uncle who had a key to their apartment came over and beat an eight-year-old girl, her ten-year-old brother and 12-year-old sister to death with a baseball bat, for reasons unknown.

Overall, 95% of infants and 82% of toddlers and preschoolers were killed by some caretaker (Table 2); this is not overly surprising given that parents are the primary caretakers of very young children. This percentage drops drastically for children in their primary school years (35%) or their middle school years (6%). These older children, however, are increasingly at risk of being killed by a friend or acquaintance (20% of primary schoolage children and 33% of middle schoolage children), or a stranger (19% and 17%, respectively). When a child reaches middle school age, the risk of being killed in a gang or in a drug confrontation becomes very high (34%). In addition, it is during the middle schoolage years when we first see children being killed by their intimate partner (3%) or by a sexual rival (1%).

Table 2
OFFENDERS RESPONSIBLE FOR MURDERS OF YOUNG CHILDREN BY THE CHILD'S AGE GROUP

Percent of Children Killed by their . . .	Child's Developmental Age Group			
	Infants (to 11 months) N = 189	Toddler, Preschool (1 to 4) N = 378	Primary School age (5 to 9) N = 124	Middle School age (10 to 14) N = 352
Father	33.3%	20.9%	7.3%	2.0%
Mother	45.5%	22.5%	13.7%	.6%
Stepfather	3.7%	11.4%	5.6%	1.7%
Stepmother	.0%	.5%	.0%	.3%
Mother's Boyfriend	4.2%	11.1%	6.6%	1.1%
Foster Father	.5%	.0%	.0%	.0%
Foster Mother	.5%	.8%	.8%	.0%
Other Male Caretaker	3.6%	10.2%	.7%	.0%
Other Female Caretaker	1.5%	2.3%	.0%	.0%
Total: any Caretaker[7]	95.2%	82.3%	34.7%	5.7%
Other relative, not taking care of child	1.6%	2.1%	12.1%	3.4%
Other acquaintance of parent	1.1%	4.2%	4.0%	1.1%
Friend, acquaintance	.0%	3.7%	20.2%	32.7%
Child's intimate partner	.0%	.0%	.0%	2.6%
Child's sexual rival	.0%	.0%	.0%	.6%
Gang member, drug dealer	.0%	3.2%	9.7%	34.1%
Stranger	.5%	4.5%	19.4%	17.3%
Total: non-caretaker	4.8%	17.7%	65.3%	94.3%

Most of the caretakers killing young children, other than the child's natural parent, were male (Table 3). Although 77% of infant victims were killed by a natural parent, 18% were killed by other caretakers. Similarly, though 42% of toddlers and preschoolers were

[7] Percents may add to more than 100%, because some children were killed by multiple offenders.

killed by a natural parent, over 40% were killed by other caretakers. Males working alone committed 76% of the "other caretaker" murders of infants and 87% of the "other caretaker" murders of toddlers and preschoolers. Although there are fewer older children killed by "other caretakers," male offenders still predominate. For all age groups, the proportion of offenders who are male is very similar for child victims killed by "other caretakers" and child victims killed by non-caretaking offenders. Of the 29 children who were killed by their babysitter, 76% were killed by a man. Of the 61 children killed by a stepparent, 97% were killed by a man. Although 56 children were killed by their mother's boyfriend, none were killed by their father's girlfriend. Of the 61 children killed by another relative or friend who was watching the child, 79% were killed by a man. This preponderance of males among caretakers who murder young children has implications for prevention and intervention.

Table 3
GENDER OF CARETAKERS RESPONSIBLE FOR MURDERS OF YOUNG CHILDREN, BY THE CHILD'S AGE GROUP[8]

Gender of Offender(s) in Child Homicides	Child's Developmental Age Group			
	Infants (to 11 months) N = 34	Toddler, Preschool (1 to 4) N = 152	Primary Schoolage (5 to 9) N = 17	Middle Schoolage (10 to 14) N = 11
Natural parent:				
Father	41.1%	46.5%	34.6%	77.8%
Mother	56.8	43.4	61.5	22.2
Both mother and father	2.1	10.1	3.8	.0
Total victims of natural parents	100.0% 146	100.0% 159	100.0% 26	100.0% 9
Other caretakers:				
Male (all offenders)	76.5%	87.5%	94.1%	90.9%
Female (all offenders)	20.6	12.5	5.9	9.1
Male and female offenders	2.9	.0	.0	.0
Total victims of other caretakers	100.0% 34	100.0% 152	100.0% 17	100.0% 11
Non-caretakers				
Male (all offenders)	75.0%	80.0%	95.1%	93.3%
Female (all offenders)	12.5	14.3	2.5	5.2
Male and female offenders	12.5	5.7	2.5	1.5
Total victims of non-caretakers	100.0% 8	100.0% 70	100.0% 81	100.0% 343

[8] Percents add to more than 100%, because some children were killed by multiple offenders.

DISCUSSION

Using the wealth of detailed information available in the Chicago Homicide Dataset, we have been able to address many questions related to the characteristics of child homicide victimization. Our investigation of the data found, similar to previous research (Alder & Polk, 2001; Finkelhor & Ormrod, 2001; Lord, Boudreaux, Jarvis, Waldvogel & Weeks, 2002), that risk of victimization varies with developmental age group of the child. Similar to Finkelhor and Ormrod and Lord et al.'s findings using national level data, we found that the pattern of risk is bimodal, with infants and middle school age children at greatest risk of death. Over the 31-year time span, the risk of child homicide victimization in Chicago increased dramatically, particularly for children under the age of five. The risk was greatest for non-Latino black children in all age groups, and the gap among the three racial/ethnic groups grew over time.

Implications for Risk Reduction

Given our findings, what types of protective measures can we take to reduce the risks of homicide victimization in young children? In cases of homicide involving children under the age of five, we must look at possible changes in the social and economic supports available to parents, given that they are the most common offenders in these cases. Parents, particularly young mothers, may be experiencing greater levels of social isolation than in the past, with no place to turn when they experience the strains of parenting. In addition, the levels of greater social mobility that are a part of life today in the United States may contribute to weakened social ties to support networks in the community and the extended family. There may be fewer opportunities for parents of young children to develop a social safety net. The startlingly steady increase in risk of victimization for children under the age of five points to changes in the level of protection provided to young children.

Boudreaux et al. (2001) and Alder and Polk (2001) discuss the possibility that children are competitors for affection and resources, which increases their vulnerability. Parents often expect their infant, toddler or preschooler to behave or perform at levels that are above their developmental abilities. When the child does not meet these unrealistic expectations, the resulting frustration in the parent or caretaker may have dangerous consequences for the children, such as the many cases of fatal child abuse reviewed here.

Because of the high risk of fatality in child abuse situations with very young children, these cases deserve careful assessment and concern. Resources such as classes in infant and child development, childcare and even readily available emergency respite care could provide support for parents. Given our finding that males, particularly caretakers and stepparents/boyfriends, are often the perpetrators in cases of fatal child abuse, it would be particularly prudent to address ways in which we can support a culture of caring as it relates to males and childcare. At the cultural level, supporting ideals of masculinity that incorporate values encouraging males to be nurturing and caring with regard to children could be part of a valuable long term prevention strategy. This could

include changing expectations regarding the idea that males and females are both capable of the care of children, rather than labeling males as inept caretakers.

Reducing the risk of victimization in primary school age children would be best addressed keeping in mind the gender differences in risk related to circumstances such as sexual assault, children having access to firearms, and situations of intimate partner violence where children are used as tools of revenge. Alder and Polk (2001) discuss the idea that primary school age children are at lowest risk of victimization at any time during the lifespan, because they are connected to a larger socially protective network (school and social activities outside the home) that provides a safe haven from the vulnerability of earlier childhood. Yet at the same time, the risks that children in this age group face often come from acquaintances within these social networks (Christoffel et al., 1983).

Children in primary school are also at risk of victimization by parents and relatives suffering mental distress. Resources that address the needs of adults suffering mental and emotional distress may prevent situations from deteriorating to the point that children become victims. Because many primary school age and younger children are at risk of victimization in domestic assaults, prevention and intervention efforts should be aimed at making women aware of the potential dangers of child victimization (as a form of retaliation or revenge homicide) when domestic and custody battles heighten.

It is very clear that the access to firearms and increased levels of social competition, such as gang-related conflict are related to the sharp increase in victimization of middle school age youth. In addition, middle school age girls, in particular, begin to suffer the effects of intimate partner violence that are a hallmark of adult homicide. Programs that teach youth alternative conflict resolution skills, and decrease access to firearms have proven successful in reducing the risk of homicide for youth.

REFERENCES

Alder, C. M. & Polk, K. (2001). *Child victims of homicide*. Cambridge, UK: Cambridge University Press.

Block, C. R. & Block, R. (1993). The Chicago homicide dataset. Pp. 97-122 in *Questions and answers in lethal and non-lethal violence, Vol. 1* NCJ 142058, edited by C.R. Block and R. Block. Washington, DC: National Institute of Justice.

Boudreaux, M. C., Lord, W. D. & Jarvis, J. P. (2001). Behavioral perspectives on child homicide: the role of access, vulnerability and routine activities theory. *Trauma, Violence, & Abuse,* 2, 56-78.

Bousfield, M. V. (2002). *Intercensal population estimates by age, race, and gender city of Chicago: 1990-2000.* Chicago, IL: Department of Planning and Development. Electronic data file.

Bousfield, M. V. (1998). *Intercensal population estimates by age, race, and gender city of Chicago: 1950-1990.* Chicago, IL: Department of Planning and Development.

Chew, K. S. Y., McCleary, R., Lew, M. A. & Wang, J. C. (1999). The epidemiology of child homicide in California, 1981 through 1990. *Homicide Studies*, 3,151-169.

Christoffel, K. K., Anzinger, M. K. & Amari, M. (1983). Homicide in childhood: distinguishable patterns of risk related to developmental levels of victims. *American Journal of Forensic Medicine and Pathology,* 4, 129-137.

Crittenden, P. M. & Craig, S. E. (1990). Developmental trends in the nature of child homicide. *Journal of Interpersonal Violence,* 5, 202-216.

Finkelhor, D. (1997). The homicides of children and youth: A developmental perspective. Pp. 17-34 in Kaufmann, G. K. & Jasinski, J. L., ed., *Out of the Darkness: Contemporary Research Perspectives on Family Violence*. Thousand Oaks, CA: Sage.

Finkelhor, D. & Ormrod, R. (2001). *Homicides of children and youth.* Washington, DC: USDOJ, Juvenile Justice Bulletin #187239.

Jason, J., Gilliland, J. C. & Tyler, C. W. (1983). Homicide as a cause of pediatric mortality in the United States. *Pediatrics,* 72, 191-197.

Krug, E. G., Mercy, J. A., Dahlberg, L. L. & Powell, K. E. (1998). Firearm and non-firearm-related homicide among children: An international comparison. *Homicide Studies*, 2, 83-95.

Lord, W. D., Boudreaux, M. C., Jarvis, J. P., Waldvogel, J. & Weeks, H. (2002). Comparative patterns in life course victimization. *Homicide Studies* 6, 325-347.

National Center for Health Statistics. (1995). *Health, United States, 1994*. Hyattsville, MD: Public Health Service.

Smithey, M. (1998). Infant homicide: Victim/offender relationship and causes of death. *Journal of Family Violence,* 13, 285-297.

Zahn, M. A. & McCall, P. L. (1999). Trends and patterns of homicide in the 20th century United States. Pp. 9-23 in Smith, M. D. & Zahn, M. A., eds., *Homicide: A sourcebook of social research*. Thousand Oaks, CA: Sage.

HOMICIDES INVOLVING CHILDREN
HRWG PARTICIPANTS' DISCUSSION
Recorded by Wendy C. Regoeczi, Cleveland State University

Paul Blackman: Kathleen and Tom, has the FBI ever considered having more useful categories for circumstances? The unknown and other categories account for a large number of cases.

Kathleen Heide: The categories for circumstances are not very helpful. I'm unaware of any changes being implemented because it would be too costly.

Tom Petee: When NIBRS comes on line things may improve.

Paul Blackman: Becky and Kim, did you separate out neonates?

Kim Vogt: That is going to be the focus of our next paper.

Paul Nieuwbeerta: Kim and Becky, I'm intrigued by the trends in your graphs showing a growing rate, especially for children 0-4 years of age who have Black parents. Am I interpreting this trend correctly? If so, what has happened among Black families in Chicago over the last 40 years?

Becky Block: That is our question, too. We have plans to go back and ask if there are any changes in resource variables over time. We have the necessary population data to do this. In the past, when you looked at patterns over a long period of time you would see spurts in the homicide rate, which can be explained by gang wars, changes in weaponry, and so on. However, if you have a long term steady rise, it suggests that the explanation is not simple, and it also suggests that it may be difficult to reverse the trend.

Paul Nieuwbeerta: Becky, do you have any sense of what is going on from living in Chicago?

Becky Block: There have also been spurts in the homicide rates for Latina kids. It doesn't appear to be a matter of flight to the suburbs. It might be due to decreases in resources to young parents. You have to specify where the problem is to know the right questions to ask. In this case, we can focus on risk to infants, and look for possible causes that might not be the same as the causes of homicide trends for older kids, who are moving out into the street and subsequently increasing their risk of victimization. Infants are different.

Catrien Bijleveld: Kathleen and Tom, can you guess what percentage of your incidents are assisted suicide?

Kathleen Heide: We don't know, as there is no code to represent those types of incidents. You can try and get at that indirectly by looking at offenders who are 60 years

of age and older, which implies they killed elderly parents, but it is not possible to discern which are euthanasia. However, NIBRS may be able to assist with that.

Becky Block: We do have that in the Chicago Homicide Project data. Some are mercy killings. But it is not always known right away in the investigation.

Janice Clifford-Wittekind: Kim and Becky, I notice your figures show that the increase begins around 1988. Have you looked at the social climate? U.S. divorce rates increased in the mid- to late 1980s, as well as a continued increase in single parent families. Looking at resources to families, is that related to the fact that there are now more families seeking resources?

Kim Vogt: We plan to get and analyze data on the divorce rate, and on single parent families.

Janice Clifford-Wittekind: Can you obtain family status/structure data on these specific cases?

Becky Block: In some cases we know, for example, that the case involved a child being killed by the mother's boyfriend.

Janice Clifford-Wittekind: It would be useful to look at whether there had been any change in the home situation preceding the killing.

Becky Block: We don't have that level of detail.

Vanessa Leggett: Does the Chicago Homicide Project data contain a code for adoptive parents?

Becky Block: There is no code for that, although sometimes they have foster parent. There are some cases that are initially coded as babysitter, and then you read the narrative and find out that the "babysitter" is actually the mother's boyfriend or the child's father.

Kathleen Heide: Becky and Kim, have you looked at kids who are more into their adolescence, such as those over the age of 14?

Kim Vogt: Yes, we have analyzed older kids, but we are now focusing on younger kids, because they are often ignored in the literature and because their situations are very different from older kids. In most of the literature, especially the public health literature, the cutoff is age 15.

Becky Block: We initially looked at patterns for each individual age, and for many different age groups, but we found the biggest differences for these four developmental groups.

Tim Metzger: How about teenage pregnancy rates? Also, is there a geographic component to it?

Joe Shulka: Do you see these cases in clusters, suggesting a pattern of contagion?

Becky Block: No, but this is something we could look at geographically.

APPENDIX I
Program for the 2003 Homicide Research Working Group Symposium

HOMICIDE RESEARCH WORKING GROUP
2003 ANNUAL MEETING

SACRAMENTO, CALIFORNIA
JUNE 5-8

PUBLIC HEALTH AND CRIMINAL JUSTICE APPROACHES
TO HOMICIDE RESEARCH

Thursday June 5, 2003

5:30 PM - 6:45 PM **REGISTRATION**

7:00 PM - 8:30 PM **OPENING PRESENTATION**

VIOLENCE RESEARCH AND POLICY

Moderator
Roger Trent, Epidemiology and Prevention for Injury Control Branch,
California Department of Health Services

Presenters

Susan Sorenson, University of California, Los Angeles, School of Public Health

Alex Kelter, Epidemiology and Prevention for Injury Control Branch,
California Department of Health Services

Paul Seave, Crime and Violence Prevention Center, California Department of Justice

Eric Gorovitz, Policy Director for the Coalition to Stop Gun Violence

8:30 PM-10:00 PM **RECEPTION**

Friday June 6, 2003

8:00 AM ***BREAKFAST AVAILABLE IN FRONT OF MEETING ROOM***

8:30 AM - 10:00 AM **PANEL SESSION**

METHODOLOGICAL AND STATISTICAL ISSUES IN STUDYING HOMICIDE AND VIOLENCE

Moderator

Chris Dunn, ICPSR

Papers

Self-Report Data on Youth Violence Over Time: Surprising Results Using Monitoring the Future Surveys

Gary Jensen, Vanderbilt University

Perspectives of Terror Homicides in the Uniform Crime Reporting Program

James H. Noonan, James A. Woods, Federal Bureau of Investigation

Criminal Careers of Homicide Offenders in the Netherlands

Paul Nieuwbeerta, NSCR Netherlands Institute for the Study of Crime and Law Enforcement

10:00 AM - 10:15 AM **BREAK**

10:15 AM - 11:00 AM **POSTER - DEMO - LITERATURE DISPLAY SESSION**

Organizer

Carolyn Rebecca Block, Illinois Criminal Justice Information Authority

Literature Display and Computer Demonstration: National Database of GLBT Homicide: 1970-2003

Dallas S. Drake, Joe Shulka, Minnesota Gay Homicide Study

Literature Display: Resources of the Inter-University Consortium for Social Research (ICPSR) and the National Archive of Criminal Justice Data (NACJD)

Chris Dunn, Kaye Marz, National Archive of Criminal Justice Data

Literature Display: NIJ Resources and Research on Lethal and Non-Lethal Violence

Kara Emory, National Criminal Justice Reference Service (not attending)

Poster: NIOSH Research on Workplace Violence
Lynn Jenkins, National Institute for Occupational Safety and Health

Poster and Literature Display: A Strategic Effort to Reduce Homicides in Chicago
Tim Metzger, the Chicago Project for Violence Prevention

Poster: Los Angeles Homicides per 100,000, 1830-2000
Eric Monkkonen, University of California, Los Angeles

Poster: San Francisco Homicides per 100,000, 1850-2000
Kevin Mullen, San Francisco Police Department (Ret.)

Poster and Literature Display: What's New at the FBI: Integrating Geographic Information System Capability into the UCR, and an SHR Annual Publication
James H. Noonan, Federal Bureau of Investigation

Literature Display: Bureau of Justice Statistics
Michael Rand, Bureau of Justice Statistics (not attending)

Poster: Descriptive Analysis of Homicides on College Campuses
Dawn C. Roberts, Courtney Cameo, Sandra M. Roth, and Brandi Booth

Literature Display: Canadian Centre for Justice Statistics Reports on Lethal and Non-Lethal Violence
Josée Savoie, Canadian Centre for Justice Statistics

Poster: Public Health Surveillance of Violence-Related Injuries
Thomas R. Simon, Centers for Disease Control and Prevention

Poster: The Black Forest & Space City: Comparative Characteristics of German and U.S. Homicide
Victoria Titterington, Sam Houston State University, Volker Grundies, Max-Planck-Institute (not attending)

Literature Display: JRSA's Incident-Based Reporting Resource Center
Lisa Walbolt, Justice Research and Statistics Association (not attending)

Literature Display: Compiling and Using Comparable Cross-National Data on Violence: WODC, the European Sourcebook and EUCPN
Paul Smit, WODC Research & Documentation Center, Ministry of Justice

11:00 AM - 12:30 PM **PANEL SESSION**

PTSD, FATAL AND NON-FATAL VIOLENCE

Moderator
Gregory A. Leskin, National Center for PTSD

Papers

Crime-Related PTSD as a Public Health Issue: PTSD Diagnosis, Prevalence in Forensic Settings, and Implications for Reducing Future Violence
Christine Mathiesen, Atascadero State Hospital

PTSD Evaluations in Death Row Appeals: Case Study Approach to Understanding the Relationship Between Traumatic Stress and Homicide
Claudia Baker, National Center for PTSD

Ethnic Differences in PTSD and Intimate Partner Violence
Gregory Leskin, National Center for PTSD
Rebecca Block, Illinois Criminal Justice Information Authority
Jacquelyn Campbell, Johns Hopkins University

12:30 PM - 1:30 PM **LUNCH**
(BUFFET PROVIDED)

1:30 PM - 3:00 PM **PANEL SESSION**

PUBLIC HEALTH APPROACHES AND LETHAL VIOLENCE

Moderator

Victoria Titterington, Sam Houston State University

Papers

Toward an Integration of Sociological and Public Health Perspectives in the Study of Violence

William A. Pridemore, University of Oklahoma

Workplace Homicides in California: Comparing Workplace and Other Homicides

Marc Riedel, Southern Illinois University

Studying The Relationship Between Medical Resources and Homicide Rates in an Urban Community

Wendy C. Regoeczi, Cleveland State University

3:00 PM - 3:15 PM **BREAK**

3:15 PM - 4:45 PM **PANEL SESSION**

LEARNING FROM EXPERIENCE: UNDERSTANDING THE OBSTACLES, CHALLENGES, AND ACCOMPLISHMENTS OF DOMESTIC VIOLENCE DEATH REVIEW TEAMS

Moderator

Myrna Dawson, University of Guelph

Papers

No Longer a Secret: Examining Domestic Violence Deaths

Kate M. Foulke, Columbus Health Department

The Los Angeles County Domestic Violence Death Review Team: Some Barriers to Effective Implementation

Billie P. Weiss, Violence Prevention Coalition of Greater Los Angeles

Community Review of Homicides of Women: Findings from the Philadelphia Women's Death Review Team

Caroline G. West, Philadelphia Women's Death Review Team

4:45 PM - 5:00 PM **BREAK**

5:00 PM - 6:00 PM **BUSINESS MEETING**

Saturday June 7, 2003

8:00 AM ***BREAKFAST AVAILABLE IN FRONT OF MEETING ROOM***

8:30 AM - 10:00 AM **PANEL SESSION**

SUBTYPES OF HOMICIDE

Moderator

Paul H. Blackman, National Rifle Association

Papers

Co-Worker Robbery Homicide: A New Typology

Patrick D. Walsh, David R. Kent, William E. Thornton, Loyola University New Orleans

Civilian Justifiable Homicides in California: Testing an Extension of Routine Activities Theory

Marc Riedel, Southern Illinois University
Wendy C. Regoeczi, Cleveland State University

Arson-Associated Homicide in Chicago: 1965-1995

Dallas S. Drake, Minnesota Gay Homicide Study
Carolyn Rebecca Block, Illinois Criminal Justice Information Authority

10:00 AM - 10:15 AM **BREAK**

10:15 AM - 11:15 AM **POSTER - DEMO - LITERATURE DISPLAY SESSION**

See Friday June 6 for description

11:15 AM - 11:30 AM **BREAK**

11:30 AM - 12:30 PM **PANEL SESSION**

RISK FACTORS IN HOMICIDE

Moderator
Thomas A. Petee, Auburn University

Papers

Gun Violence in Chicago: Are Incidents with Traced Guns Similar to those without Traced Guns?
Richard Block, Darryl Brice, Loyola University of Chicago

Increasing Evidence for the Relationship Between Alcohol Consumption and Homicide in Russia
William A. Pridemore, University of Oklahoma

12:30 PM - 1:30 PM **LUNCH**
(BUFFET PROVIDED)

1:45 PM - 3:15 PM **PANEL SESSION**

RESEARCH ISSUES WITH CASE-BASED HOMICIDE IN POPULAR LITERATURE

Presenter
Vanessa Leggett, University of Houston-Downtown

Moderator
Lin Huff-Corzine, University of Central Florida

Discussants
Richard Block, Loyola University of Chicago
Paul H. Blackman, National Rifle Association
Thomas A. Petee, Auburn University

3:15 PM - 3:30 PM **BREAK**

3:30 PM - 5:00 PM **PANEL SESSION**

THE CONTINUUM OF VIOLENCE

Moderator

Wendy C. Regoeczi, Cleveland State University

Papers

Differences Between Convicted Violent Offenders: Completed and Attempted Homicides and Serious Assaults

Paul Smit, WODC Research & Documentation Center, Ministry of Justice
Catrien Bijleveld, NSCR Netherlands Institute for the Study of Crime and Law Enforcement
Marisca Brouwers, WODC Research & Documentation Center, Ministry of Justice
Rolf Loeber, University of Pittsburgh
Paul Nieuwbeerta, *NSCR Netherlands Institute for the Study of Crime and Law Enforcement*

Predicting Lethal Versus Non-Lethal Violence Against Children: A Contextual Analysis of NIBRS Data

Janice E. Clifford-Wittekind, Auburn University
Jay Corzine, Lin Huff-Corzine, University of Central Florida
Greg S. Weaver, Thomas A. Petee, Auburn University
John Jarvis, Federal Bureau of Investigation

The Spectra of State-Sanctioned Homicide in the American South

Paul H. Blackman, National Rifle Association

Sunday June 8, 2003

8:30 AM - 9:30 AM **PANEL SESSION**

HOMICIDES INVOLVING CHILDREN

Moderator

Marc Riedel, Southern Illinois University

Papers

Parents Who Get Killed and the Children Who Kill them: An Examination of a Quarter of a Century of Data

Kathleen M. Heide, University of South Florida
Thomas A. Petee, Auburn University

Child Homicide Victimization in Chicago, 1965-1995

Kimberly A. Vogt, University of Wisconsin - La Crosse
Carolyn Rebecca Block, Illinois Criminal Justice Information Authority

9:30 AM - 9:45 AM **BREAK**

9:45 AM - 10:45 AM **BUSINESS MEETING**

APPENDIX II
Participants in the 2003 Homicide Research Working Group Symposium

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