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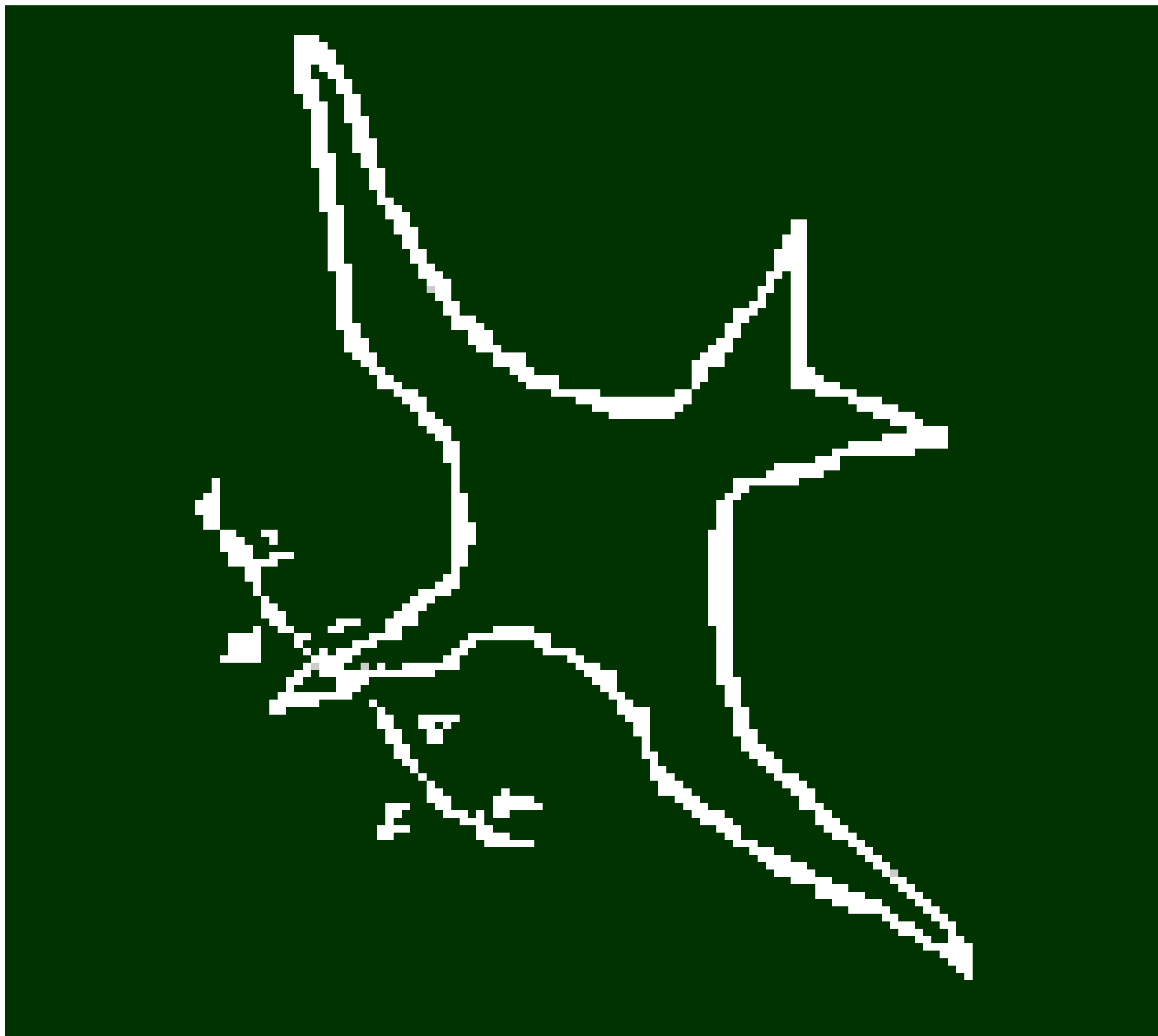

Center for the Study and Prevention of Violence

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2002

Note from Authors:
Support for this research was provided by grants from the Harry Frank Guggenheim Foundation, the Centers for Disease Control and Prevention, the National Science Foundation, the National Institute of Justice, and Temple University. We would like to acknowledge the many contributions of our interview crew and research staff.

CSPV-007

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INTRODUCTION

The current generation of American teenagers has grown up surrounded by gun violence. Whether in the central cities or more recently in the nation's rural heartlands, guns have been central to the character of youth violence for nearly 30 years (Zimring, 1999). Guns have played a significant role in shaping the developmental trajectories and behaviors of many inner-city youths, and until very recently, gun violence was a part of the everyday lives of adolescents. Although violence has been a recurrent theme for decades in urban delinquency, youth gun violence has become more prevalent and more concentrated spatially and socially in the past two decades. Starting in 1985, gun violence among teenagers rose sharply in prevalence, it diffused quickly through a generation of teenagers, it sustained a high prevalence and incidence for over five years, and it has declined steadily in the past several years. This pattern resembles nothing less than the outbreak of a contagious disease (Cook & Laub, 1998).

In this essay, we review the lessons of this epidemic of youth gun violence. We examine the role of guns in the lives of young people, and especially in the social and symbolic construction of violent events among adolescents, primarily focusing on males. First, we review studies of gun attitudes and behaviors, as well as several epidemiological studies of firearm experiences and risk factors for violence among youth. This includes studies drawn from nationally representative samples of youth, selected samples of urban youth, and target samples of criminal justice involved youth. Second, we summarize several recent studies on the trends in youth violence in relation to firearms. The intent of this paper is as a general review of what we currently know about adolescents and guns by bringing together various research findings in criminology and public health to provide an overall picture of adolescent gun attitudes and behaviors. Next, we present new findings from our original research based on in-depth interviews with 377 active gun offenders from two socially isolated inner-city neighborhoods. We present descriptive counts for the sample on several previously measured variables relating to gun acquisition and use. As specified earlier, data on the use of guns in violent events among adolescents is generally lacking in prior research. We attempt to fill that knowledge gap by presenting a summary of our more detailed analysis of a subsample of gun and non-gun use in violent events reported by 125 respondents. Finally, we present a social autopsy of ten recent multi-victim school shootings in rural and suburban communities.

THE EPIDEMIC OF ADOLESCENT GUN VIOLENCE

The epidemic of youth gun violence should be viewed in both historical and contemporary eras. Cook and Laub (1998) show that nearly all the volatility in adolescent homicide rates for the past 30 years is the result of rising and falling gun homicide rates. There were three distinct epochs of gun violence, with peaks in 1972-74, 1980, and 1992. The most recent peak was far higher than the previous peak, but its decline through 1994 was also more pronounced than either of the two earlier epidemics. More recent analyses show that the decline in youth gun homicides had continued through 1997 (BJS, 1999).

The widening gap between gun and non-gun homicides was more pronounced for older adolescents. The growth rates for gun homicides by adolescents of all age categories were similar, but rose more sharply for adolescents ages 18 to 24, compared with younger teens ages 13 to 17. Throughout this time, non-gun homicides remained nearly constant for both age groups. Moreover, the rise in the percentage of adolescent homicides by guns was pronounced for most types of non-family victim-offender relationships: gang-related homicides, robberies and other felonies, brawls and disputes, and other known and unknown circumstances (Cook & Laub, 1998, Table 6: p. 56).

By the 1990s, the relative risks of adolescents for gun homicide victimization had reached epidemic proportions. In 1990, firearm injuries accounted for one out of eight deaths of children aged 10 to14, one of every four deaths among adolescents aged 15 to 19 and young adults aged 20 to 24, and one of every six deaths among adults aged 25 to 34 (Fingerhut, 1993). Since 1984, gun homicides among adolescents ages 12 to 17 nearly tripled, from fewer than 600 victims in 1984 to a peak of more than 1,700 in 1993 (Snyder & Sickmund, 1999).

For most of the 1990s, there has been a consistent and steep decline in youth violence. The declines in youth violence during this time were most vivid in youth gun homicide: from 1993 to 1998, the juvenile arrest rate for murder declined by nearly 50 percent (BJS, 1999). But the declines were not limited to gun violence: arrests in 1998 for murder, robbery, rape and aggravated assaults were 394 per 100,000 youths ages 10 to 17, the lowest rate in over a decade (Snyder & Sickmund, 1999). Despite these steep declines in gun homicides nationally, there were twice as many victims of gun homicides in 1997 compared to 1984. Throughout this period, non-gun homicides by adolescents showed inconsistent patterns of small increases and declines, and remain virtually unchanged for more than 20 years (Snyder & Sickmund, 1999).

As we show below, this epidemic led to adaptations in the everyday lives of inner city adolescents. Estimates of gun carrying in school during this time ranges from 0.1 percent (NCVS-SS, 1995) to 15 percent (Harris, 1993). These rates of gun carrying are much higher among inner city and criminal justice involved youth (Decker, Pennell & Caldwell, 1995; Huff, 1998).

Large-Scale Samples of Youth and High School Students

Several recent studies have estimated the prevalence of gun ownership, gun carrying, and gun use among adolescents. There are generally three sources of data on adolescents and guns: (1) nationally representative samples of adolescents in schools, (2) selected (often urban) samples of adolescents in schools, and (3) target samples of criminal justice or criminally involved offenders. The school-based studies suffer from selection biases by excluding dropouts and institutionalized youths with higher rates of violence and weapons use (Fagan, Piper & Moore, 1986). The criminal justice based samples overcome the base rate problem but also suffer from selection bias.

Together, these studies provide a wide range of prevalence estimates of these three behaviors, consistent with the range of their sampling and measurement strategies. We focus below on several studies that offer detailed data on gun behaviors, and show how guns have become a central feature of the context of adolescent life. Two general data sources address these basic questions: school based studies of adolescents, and criminal justice institutional-based studies of active offenders. School based surveys of delinquency and other adolescents have recently begun collecting data on gun related behaviors. Most studies prior to 1992, failed to measure variables specifically on guns and gun use. Table 1 summarizes the noteworthy findings from the small number of studies currently available. The reader should note that the studies vary considerably in their sampling design, sampling frame, and item measurement. Reviews of several large-scale studies are presented below.

Table 1. Summary of School Based Survey Studies of Gun Experiences among Adolescents

Data Source/Studies	Sample Characteristics	Findings
LH Research (1993)	A survey of 2,508 adolescents in 96 randomly selected elementary, middle, and senior high schools. The sample was predominantly white (70%), with 16% African-American, 15% Latino, and 4% Asian or Native American students.	60% could get a handgun; 22% carried a weapon to school; 4% carried a handgun to school; 15% carried in the previous 30 days; 1/3 of respondents felt they would die young due to violence.
National Crime Victimization Survey Supplement (1989-1995)	A national representative sample of 23,933 12 to 19 years olds enrolled in school	Almost no students reported carrying a gun to school in 1995 (0.1%);12.7% know a student who brought a gun to school; 5.3% saw a student with a gun at school; students who felt that gangs were present in the schools more frequently 24.8% reported knowing a student who brought gun to school and 11.9% of those students saw a student with a gun at school; students who reported being a victim of any violent crime reported greater knowledge other students bringing a gun to school (25.9%) and seeing a student with a gun at school (15.5%).
1990 Youth Risk Behavior Survey CDC MMWR 1991; 40:681-684	11,631 9-12 graders in U.S. Schools	Nearly 20% carried some type of weapon in the prior 30 days; 31% of males & 8% of females. African American males who carried weapons carried guns 50% of the time (did not specify guns).
1993 Youth Risk Behavior Survey Kann, Warren, Collins (1995)	16,129 9-12 graders from 155 U.S. Schools	22.1 % of students carried some type of weapon in the prior 30 days; 7.9% of all students carried a gun during the prior 30 days, (13.7% of males, 1.8% of females); 12.0% of white males, 20.9% of African American males, 17.0% of Hispanic males carried a gun during the prior 30 days.
Sheley and Wright (1998)	A mail survey of 731 male 10th and 11th grade students from 53 high schools nationwide.	29% possessed a gun in previous year; 4% carried now and then while 2% carried a gun most of all of the time; 50% reported that they would have “little” or “no” trouble obtaining a gun; 14% reported weapon carrying by friends, 8% experienced threats with firearms; 13% attended social events where shots were fired; 23% had friends who have a gun-related victimization.

Table 1. Summary of School Based Survey Studies of Gun Experiences among Adolescents (continued)

Data Source/Studies	Sample Characteristics	Findings
Sheley, McGee, and Wright (1992)	Anonymous survey of 1591 male and female Inner-city high school students from 10 schools.	20% had been threatened with a gun; 12% had been shot at; 23% of students thought it would be easy to get a gun; 80% reported that other students carried weapons to school; 39% had a male relative that carried guns; 35% had friends that carried guns outside the home.
Sheley and Wright (1993) Sheley and Wright (1995)	Anonymous survey of 758 male inner-city male high students from 10 schools.	22% of students possessed a gun; 12% of males carried a gun all or most of the time; 35% of males thought it would be a lot of trouble to get a gun; 45% had been threatened with a gun or shot at en route to/from school; 10% had stabbed; 33% had been beaten up en route to/from school.
Lizotte et al. (1996) and Lizotte et al. (1994)	Longitudinal interview data on 615 Rochester males from waves 4 through 10.	22% carried guns between the ages of 15 and 20; Gun carrying is associated with having delinquent values, ownership of "protection" guns by peers, gang membership, and drug selling.
Bjerregard and Lizotte (1995)	Sample of 987 Rochester students	About 8 percent of the boys reported carrying a gun "regularly," and 4 percent reported using a gun in the past year. 33% of respondents said that one of their peers "owned" a gun for protection.
Callahan and Rivera (1992)	970 11th graders in Seattle (half of the schools)	34% had easy access to handguns; 50% of males and 22% of females; 11% of males owned handguns, 1.5% females did; 6% carried a gun to school at some point.
Webster, Gainer, and Champion (1993)	Convenience sample of inner city junior high students at two schools	25% of males reported carrying a gun for protection; 16% carried routinely. Gun carrying is related to being threatened, arrest history, greater exposure to violence, initiating fights, and attitudes supportive of shooting someone.
Schubiner (1993) Schubiner, Scott, and Tzelepis (1993)	246 African American youth – Inner city sample	30% could get a gun in an hour; another 30% could get a gun in a week; 18% carried in past 3 months; 42% had seen someone shot or knifed; 22% had seen someone killed.

The LH Research Survey

LH Research (1993) conducted a survey of 2,508 adolescents in 96 randomly selected elementary, middle, and senior high schools. The survey was a simple random sample of classrooms in public, private, non-Catholic, and Catholic schools. The self-administered anonymous questionnaires included questions on gun ownership, carrying firearms, using guns, violent injury, and perceptions of safety. The sample was divided among central city schools (30%), suburban schools (46%), and schools in small towns or rural communities (24%). The sample was predominantly white (70%), with 16% African-American students, 15% Latino students, and 4% Asian or Native American students. Most students (87%) attended public schools, with small samples from private non-Catholic schools (8%), and Catholic schools (5%). The results showed that handguns were a significant part of their everyday lives and immediate social contexts. About one in seven (15%) reported carrying a handgun in the past 30 days, and 4% reported taking a handgun to school during the year. Nine percent of the students reported shooting a gun at someone else, while 11% had been shot at by someone else during the past year. Thirty-nine percent of the youth reported that they personally knew someone who had been either killed or injured from gun fire. Twenty-two percent reported that carrying a handgun would make them feel safer if they were going to be in a physical fight. Over fifty percent of youth (59%) could get a handgun if they so desired, often within 24 hours (40%).

The presence of guns also affected their emotional well being, including fear and shortened life expectancies. For example, 42% said they worry about "being wiped out from guns" before reaching adulthood. Not surprisingly, those who worry most and those who carry guns often are the same individuals. Guns also affected the routine activities of both gun carrying and gun avoiding students: 40% reported behavioral changes to cope with violence including decisions on where they go, where they stop on the street, night time activities, what neighborhoods they walk in, and their choice of friends.

There are several important limitations of the study, however, and in the end it fails to address the disproportionate rates of gun fatalities among African American youths. The school-based sample underrepresents African American young males who are at the highest risk of mortality from guns and have the highest concentration of risk factors. Dropouts, frequent absentees, and institutionalized youths also are excluded, a source of bias since these groups have higher rates of both violence and the risk factors for violence (Fagan et al., 1986). The analyses of gun possession and carrying by subgroups (area, gender or ethnicity) were limited and selective, and the general population sample would likely yield cells too small for reliable comparisons when such controls are introduced. Nevertheless, the LH Research study suggests the pervasive influence of guns on the everyday decisions of young people in schools.

The National Crime Victimization Survey Student Supplement (1989 and 1995)

As supplement to the NCVS, a student survey was conducted in 1989 and again in 1995. The 1995 survey asked students questions about selected gun items. The nationally representative sample of 23,933 students aged 12 to 19 who were enrolled in school showed that carrying a gun to school in 1995 was very rare (only 0.1%). Nearly thirteen percent of students reported knowing a student who brought a gun to school while 5.3% reported seeing another student with a gun at school. According to students, if gangs had a presence in the schools exposure to guns in the school setting was much greater. Students who felt that gangs were present in the schools more frequently reported knowing a student who brought gun to school 24.8% and 11.9% of those students saw a student with a gun at school. Students who reported being a victim of a violent crime reported greater knowledge of other students bringing a gun to school (25.9%) as well as seeing another student with a gun at school (15.5%).

The Youth Risk Behavior Surveys 1990, 1993, 1995, and 1997

In 1990 the Centers for Disease Control and Prevention developed the Youth Risk Behavior Surveillance System (YRBSS) in order to monitor the health risk behavior of adolescents in the United States (Centers for Disease Control and Prevention, 1991). Surveys were completed by a nationally representative sample of 11,631 9th to 12th graders in American schools. The survey showed that nearly 20% of students carried some type of weapon in the prior 30 days. Gender was an important factor in distinguishing weapon carrying behaviors, specifically, 31.5% of males and 8.1% of females carried some type of weapon in the prior 30 days. The incidence of self-reported weapon carrying varied by race/ethnicity among males. Minority males were significantly more likely to carry a weapon than were white males (41.1% of Hispanic and 39.4% of African American males compared to 28.6%). 25.0% of students who carried a weapon did so one time, 32.2% two or three times, 7.4% four or five times, and 35.5% carried six or more times. The weapon of choice among carriers was a knife or razor (55.2%), a club (24.0%) and a firearm (20.8%). 54.2% of African American males who carried weapons choose to carry firearms most frequently. The results of this and subsequent YRBSS are summarized in Table 2.

Table 2. Summary of Results from the Youth Risk Behavior Surveys 1990, 1993, 1995, and 1997 on Weapon and Gun Carrying Self-Reports

	1990		1993		1995		1997	
	Any Weapon	**Gun**	**Any Weapon**	**Gun**	**Any Weapon**	**Gun**	**Any Weapon**	**Gun**
Total	19.7	N/A	22.1	7.9	20.0	7.6	18.3	5.9
Males	31.5	N/A	34.3	13.7	31.1	12.3	27.7	9.6
Females	8.1	N/A	9.2	1.8	8.3	2.5	7.0	1.5
Black Males	39.4	N/A	38.2	20.9	29.6	18.7	29.1	9.2
Hispanic Males	41.1	N/A	37.3	17.0	36.6	16.8	35.0	16.9
White Males	28.6	N/A	33.4	12.0	30.6	10.2	27.0	7.2
Black Females	N/A	N/A	18.9	3.8	15.7	4.1	14.7	2.5
Hispanic Females	N/A	N/A	11.5	3.1	13.2	4.5	9.6	2.1
White Females	N/A	N/A	6.9	1.2	5.5	1.6	4.4	0.8

Sources: CDC, 1991; Kann, Warren & Collins, 1995; Kann, Warren, Harris, Collins, Williams, Ross, & Kolbe, 1996; and Kann, Kinchen, Williams, Ross Grunbaum, Blumson, Collins, and Kolbe, 1998.

The 1993 Youth Risk Behavior Survey included 16,129 9-12 graders from 155 schools in the United States (Kann et al., 1995). Over sampling of schools with higher proportions of African American and Hispanic students was done to ensure large enough sample size for subgroup analyses. The survey found that a slightly higher rate of weapon carrying among students compared to the 1990 results. Specifically, 22.1 % of students reported carrying some type of weapon in the prior 30 days. In 1993, 7.9% of all students carried a gun during the prior 30 days, (13.7% of males, 1.8% of females). The subgroup analyses showed that 12.0% of white males, 20.9% of African American males, and 17.0% of Hispanic males carried a gun during the prior 30 days.

The Youth Risk Behavior Survey in 1995 included surveys of 10,904 9-12 graders from 110 American schools (Kann et al., 1996). Following the previously implemented methodology, the researchers oversampled schools with greater numbers of African American and Hispanic students. In 1995, 20.0% of high school students reported carrying a weapon during the previous 30-day period. When asked about gun carrying behaviors, 7.6% of youth reported having carried a gun in the past 30 days. Again, carrying behaviors varied by race/ethnicity and gender. Nearly 19% of African American male students, 10.2% of white male students, and 16.8% of Hispanic male students reported carrying a gun during the previous 30-day period.

The results from the 1997 Youth Risk Behavior Survey included 16,262 9-12 graders from 151 schools in the United States (Kann et al., 1998). Again, over sampling of schools with higher proportions of African American and Hispanic students was conducted to ensure adequate sample sizes for subgroup analyses. By 1997, the rate of weapon carrying among students compared to the earlier years had declined slightly. In particular, 18.3% of students reported carrying some type of weapon in the prior 30 days. In 1997, 5.9% of all students carried a gun during the prior 30 days, (9.6% of males, 1.5% of females). The subgroup analyses showed that 7.2% of white males, 16.3% of African American males, and 16.9% of Hispanic males carried a gun during the prior 30 days.

Looking at the results of the four Youth Risk Behavior Surveys conducted in the 1990s shows that weapon and gun carrying patterns among American high students were highest in the year closest to the peak of gun homicide fatalities. Specifically, in 1990 20% of students reported carrying some type of weapon in the preceding 30-day period, 22.1% of students had carried in the previous 30 days in 1993, in 1995 20% of students reported carrying, and in 1997, the percentage of reported weapon carrying was 18.3%. Gun carrying was reported in three of the four surveys. In 1993, 7.9% of students reported carrying a gun in the previous 30 days, 7.6% of students had carried a gun during the previous 30-day period in 1995, and 5.9% of students reported gun carrying behavior in 1997.

Single-Site Studies of Adolescents

Several single-site studies of adolescents contribute to our understanding of adolescent gun attitudes and behaviors. The studies reviewed in this section are more recent and therefore have included improved measurement of key variables.

The Sheley and Wright (1998) Survey

In order to get a better understanding of the threat of gun violence among the general youth population Sheley and Wright conducted a study of 10th and 11th grade students from 53 high schools nationwide in 1996. They employed a mail survey methodology and enjoyed a low response rate at 45 percent. Twenty-nine percent of students possessed a gun in the previous year. Six percent had carried a gun (4% carried now and then while 2% carried a gun most of all of the time) Gun availability was relatively easy. For example, 50% reported that they would have "little" or "no" trouble obtaining a gun. Weapon carrying among friends was reported by 14% of the sample while 23% of the students' friends had experienced a gun-related victimization. Adolescents reported being in settings where gun violence occurred, specifically 13% of the sample reported attending social events where shots were fired. Eight percent of students had experienced threats with firearms (Sheley & Wright, 1998).

The Sheley, McGee and Wright Student Survey

Some of the limitations in the LH Research survey were addressed in research by Sheley et al. (1993) and reanalyzed in Sheley and Wright (1995). They conducted anonymous surveys of 1591 (758 male and 833 female) students from 10 inner-city high schools in four States during the spring of 1991. They interviewed 835 male inmates in three juveniles correctional institutions in four states, complemented by surveys of 758 male high school students from ten inner-city public schools in the largest cities in each state. Both student and inmate samples were voluntary, and non-incarcerated dropouts were not included. These student surveys supplemented a larger study of incarcerated juvenile offenders allowing for important comparisons (Sheley & Wright, 1995). The results of student only surveys are summarized below for both males and females first, followed by the descriptive results for the male only sample. The sample was 75% African American, 16% Hispanic, 2% white, and 7% other. The average age for the sample was sixteen years old. Twenty-five percent of the sample reported carrying a weapon while in school while 44% carried a weapon outside of school property. Reported carrying behavior of fellow students was much higher than self-reported carrying patterns. Specifically, 80% reported that other students carried weapons to school, 66% knew someone personally who had brought a weapon to school, 39% had a male relative that carried guns, and 35% had friends that carried guns outside the home. Among high school students in the sample 23% thought it would be easy to get a gun in their neighborhood. Twenty percent of high school students in the sample had been threatened with a gun and twelve percent had been shot at.

Among males in the sample, 22% reported possessing a gun of his own. Twelve percent of males carried a gun all or most of the time. Thirty-five percent of males thought it would be a lot of trouble to get a gun. Victimization rates were higher for males compared to females. Forty-five percent of

males reported that they had been threatened with a gun or shot at en route to/from school, 10% had been stabbed, and 33% had been beaten up en route to/from school (Sheley & Wright, 1995).

The Rochester Youth Development Study

Two studies from the Rochester Youth Development Study reported on gun possession among adolescents using a prospective longitudinal design. Samples were 987 students interviewed at six-month intervals for nine waves beginning when they were in grades 7 and 8 in the 1987-88 school year. Data also were collected from the police, school and other agency records, as well as parent or caretaker interviews. The tenth wave was collected two and one-half years after wave 9. Respondents were 15 years old on average at wave 4 and twenty years old on average at wave 10. Lizotte, Howard, Krohn, and Thornberry (1996) analyzed waves four through ten of the Rochester Youth Development Study. The analysis included 615 males who remained in the panel. The sample was 62.8% African American, 17.6% Hispanic, and 19.7% white. Respondents carry "hidden guns" that they do not necessarily own. Twenty-two percent of the sample carried guns between the ages of 15 and 20 years old. Gun carrying patterns are not constant over the years, young men are likely to carry guns on an irregular basis. Of the 22 percent of carriers, 11.7% reported carrying at only one wave and another 4.5% reported carrying at only two waves of data collection. Having delinquent values, ownership of "protection" guns by peers, gang membership, and drug selling are all correlates of illegal gun carrying. Family income and race/ethnicity were not significantly related to gun carrying behaviors (Lizotte, Howard, Krohn, & Thornberry, 1996).

Lizotte et al. (1994) and Bjerregard and Lizotte (1995) report on data from waves 9 and 10 of this same survey. Data are reported only for boys since "girls rarely own guns, whether for sport or protection" (Bjerregaard & Lizotte, 1995: 43). About 8 percent of the boys reported carrying a gun "regularly," and 4 percent reported using a gun in the past year (either wave 8 or wave 9). One in three respondents' said that one of their peers "owned" a gun for protection, 10 percent said their parent(s) owned a gun for sport, and 6 percent said their parent(s) owned a gun for protection. Although gun ownership is illegal for juveniles, the youths' motives for having a gun in the home can be attributed to the parents: children who report "owning a gun for sport" are extending their parents' ownership motives to themselves, and not unreasonably (Lizotte, Tesoriero, Thornberry, & Krohn, 1994: 64). These motives turn out to be important: rates of gun crimes are nearly nine times higher for youths who "own" guns for protection, compared to sport gun owners. Rates of "street crimes" such as robbery are nearly four times higher for "protection" owners compared to sport owners, and five times higher compared to non-gun owners. In fact, crime rates for non-gun owners are consistently lower than "sport" gun owners, whose rates in turn are lower than "protection" gun owners. Extending this analysis to gang members, Bjerregard and Lizotte (1995) show that rates of "protection" gun ownership are far higher for gang members, but "sport ownership" is more common among non-gang members.

Peers have a substantial impact on "protection" gun ownership among adolescents, especially among gang members, providing an example of the type of contagion model suggested by Wright and Rossi (1986). Moreover, "protection" gun ownership often precedes gang involvement, suggest processes of social or self-selection that anticipate higher rates of delinquency once in the gang (Thornberry,

Krohn, Lizotte, & Chard-Weirschem, 1993). And, gangs appear to recruit those youths that already are involved in “protection” gun ownership.

However, it is unclear whether this contagion is borne by fear or by simple peer pressure. Whatever the motive, the results suggest that guns spread quickly within specific social networks by ages 15, contributing to the perception of danger in their social worlds.

Callahan and Rivara conducted a survey of 970 11th graders in Seattle. The sample represented one-half of the schools in Seattle in 1990. They found that 34% of students reported having easy access to handguns (50% of males and 22% of females). Eleven percent of males owned their own handguns while only 1.5% of females did. Six percent of students reported carrying a gun to school at some point in the past.

Based on a convenience sample of inner city junior high students at two schools, Webster, Gainer, and Champion (1993) found that 25% of males reported carrying a gun for protection. Sixteen percent of carriers did so routinely. They found that gun carrying is related to being threatened, arrest history, greater exposure to violence, initiating fights, and attitudes supportive of shooting someone (Webster, Gainer, & Champion, 1993).

Schubiner et al. (1993) found that 30% of respondents could get a gun in an hour and another 30% could get a gun in a week based on a study of 246 African American inner city youth. Eighteen percent of the sample carried a gun in previous 3-month period. Exposure to violence was relatively high. Forty-two percent of the sample had seen someone shot or knifed while 22% had seen someone killed.

GUN EXPERIENCES AMONG JUVENILE OFFENDERS AND INSTITUTIONALIZED SAMPLES

As shown in Table 3, studies of criminal justice involved youth demonstrate considerably higher rates of gun ownership, carrying, and use (Decker et al., 1995; Huff, 1998; Inciardi, Horowitz, & Pottieger, 1993; Sheley, Wright, & Smith, 1993). As described above, minority males and youth in inner city communities are more likely to have had experience with guns than nationally representative samples (e.g. compare the NCVS-SS with the Sheley and Wright data). Many of the surveys point to specific contexts where gun use is more likely for example, when gangs are present, when peers have and use guns, and among those involved in the drug economy (Lizotte et al., 1996; Sheley & Wright, 1995). This section summarizes the results of five studies of criminally involved adolescents.

Table 3. Summary of Studies of Gun Experiences among Juvenile Offenders and Criminal Justice Based Samples

Data Source/Investigators	Sample Characteristics	Findings
Sheley and Wright (1995)	Interviews with 835 male inmates in three juveniles correctional institutions in four states.	84% of inmates had been threatened had been threatened with a gun. 83% possessed a gun; 50% carried all or most of the time; 13% of inmates thought it would be a lot of trouble to get a gun.
Inciardi, Horowitz and Pottieger (1993)	611 youths in inner city neighborhoods in Miami as part of a study on crack cocaine and "street crime."	295 (48%) carried guns in the previous year.
Decker, Pennell, and Caldwell (1995)	An interview study of 856 juvenile arrestees from 11 U.S. cities during the first 3 months of 1995.	40% of juveniles had ever possessed a firearm; 22% carried a gun all or most of the time; rates were higher for drug dealers and gang members; 32% admitted to using a gun in crime; 55% experienced gun victimization; 50% had been shot at; 38% supported the belief that "it is okay to shoot someone who has disrespected you."
Huff (1998)	Target samples of 187 gang and 194 non-gang (at risk) youth from Denver, Aurora, Broward Cleveland.	Gang members are significantly more likely to own guns; Nearly 75% of gang members owned guns; 90% preferred powerful, lethal weapons; 25-50% of non-gang youth reported that their peers owned guns; 50% of non-gang youth preferred powerful, lethal weapons.
Wilkinson and Fagan (1999)	In-depth interviews with a purposive sample of 377 violent active gun offenders aged 16-24 from two New York City neighborhoods. The samples were drawn from four pools: recently released, jail, hospitals, and the neighborhoods.	91.8% had ever possessed a gun; 93.8% had ever fired a gun; 73.5% had used a gun in a crime; 41.8% had been arrested for a gun or gun-related offense; 28.7% carry on a daily basis; another 51.7% carry on an occasional basis; 73.2% reported access to guns is easy; the mean age of gun acquisition was 14.37; the mean age of first time firing a gun was 14.16; respondents owned an average of 3.84 guns; guns were acquired for protection by 50.4% of the sample.

The Sheley and Wright Inmate Survey

Interviews were conducted with 835 male inmates in six juvenile correctional institutions in four states. These interviews were complemented by surveys of 758 male high school students from ten inner-city public schools in the largest cities in each state (described above). Both student and inmate samples were voluntary, and non-incarcerated dropouts were not included. Most (84%) of the inmate sample reported that they had been threatened with a gun or shot at, and 83% owned a gun prior to incarceration. Over one in three inmates (38%) reported shooting a gun at someone. Over half owned three or more guns, and the age of first acquisition was 14 years old. The preferred type of gun among respondents was a "well-made handgun" of large caliber (the 9mm was the most popular).

Both the inmate and student samples described in more detail the ecology of guns within the social organization of their neighborhoods. They claimed that firearms were widely available at low costs in their neighborhoods. Distribution was informal, with guns bought and sold through family, friends, and street sources. Among incarcerated young males, 45% reported that they "had bought, sold, or traded 'lots' of guns." Stealing guns and using surrogate buyers in gun shops were infrequent sources for obtaining guns. Motivation for owning and carrying guns was reported to be more for self-protection than for status. The drug business was a critical context for gun possession: 89% of inmate drug dealers and 75% of student dealers had carried guns. So too was gang membership: 68% of inmates and 22% of students were affiliated with a gang or quasi-gang, and 72% of inmates were involved in the instrumental use of guns.

Although the Sheley et al (1993) study focused on inner cities, the voluntary samples raise concerns regarding selection bias and other measurement error. The study sampled disproportionately from states and cities with concentrations of gang activity, perhaps overstating the importance of gangs as a context for gun use. Like the LH Research survey, this study did not focus on events where guns were used, only on individuals and their patterns of gun possession and gun use.

The Decker, Pennell, and Caldwell Juvenile Arrestee Survey

Using a similar approach to the Drug Use Forecasting study, Decker and colleague studied gun acquisition, carrying, and use among 856 juvenile arrestees from 11 U.S. cities during the first 3 months of 1995. They found that 40% of juveniles had ever possessed a firearm. Twenty-two percent of juveniles carried a gun all or most of the time. Carry rates were higher for drug dealers and gang members. Thirty-two percent of juvenile arrestees admitted to using a gun in crime. The rates of gun victimization were extremely high with 55% having experienced gun victimization at some point in time. Fifty percent had been shot at. The researchers also measured respondents' beliefs about the acceptance of gun violence as a remedy for a disrespectful action of another. Specifically, 38% of juvenile arrestees supported the belief that "it is okay to shoot someone who has disrespected you" (Decker et al., 1995).

The Huff (1998) Gang Study

Target samples of 187 gang and 194 non-gang (at risk) youth from Denver, Aurora, Broward County, and Cleveland were interviewed about their involvement in a variety of gang and other criminal activities. Huff found that gang members are significantly more likely to own guns compared to non-gang members. Nearly 75% of gang members owned guns. 90% of gang members preferred powerful, lethal weapons. Between 25 and 50% of non-gang youth reported that their peers owned guns and 50% of non-gang youth preferred powerful, lethal weapons. Based on an analysis of just the Cleveland data, Huff found that rates of gun "ownership" were near 50%. Among gang members, 40.4% reported carrying guns to school, compared to 10 percent of the "at risk" youths. Similar rates of participation in drive-by shootings were reported by gang members, compared to only two percent for the non-gang youths. Collective gun carrying rates (among peers) were also far higher for gang youths (80.4% of peers carried guns in school) compared to non-gang youths (34.7%) (Huff, 1998).

Across a wide range of sampling and measurement conditions, adolescents consistently report that guns are easily obtained, that they are frequently carried and readily used, that they are necessary for self-defense and survival, and that they influence the ways that teenagers view routine social interactions. Our review shows that these trends persist even after a nearly decade-long decline in youth gun violence.

The high prevalence of gun possession among teenagers, coupled with persistently high mortality and injury rates from gun violence, has created an "ecology of danger" for many adolescents. In this developmental context, social interactions often are perceived as potentially threatening or lethal, and other teenagers (and young adults) are seen as harboring hostile intents and are willing to inflict harm (Fagan & Wilkinson, 1998). The presence of guns systemically fuels that sense of danger, contributing to the attribution of hostility in everyday social interactions and often provoking aggressive interactions.

The survey-based studies reviewed above provide a starting point for understanding adolescent attitudes and patterns of behavior related to guns and violence, however an in depth examination of the social world of at-risk adolescents is needed. Researchers need to pay special attention to the decisions that adolescent males make to arm themselves, to use weapons in potentially violent situations, and what factors affect those decisions. The Columbia University study attempts to fill an important gap in our knowledge by studying a hidden population of active violent youth in distressed urban settings.

The Columbia University Gun Study

In this section, we present data from our interview study of active violent adolescent males in New York. In-depth interviews were conducted with a purposive sample of 377 violent active gun offenders aged 16-24 from two New York City neighborhoods (data were collected from 1995-1998). The samples were drawn from four pools: recently released, jail, hospitals, and the neighborhoods. Eligible respondents were males, from 16-24 years of age, who either are convicted

of illegal possession of handguns or other violent offenses (criminal justice sample), or who, upon screening, were identified as actively involved in these behaviors in the past six months (neighborhood sample). The recently released sample consists of young men who were released from Rikers Island Academy and who, upon release, entered a membership program called Friends of Island Academy, Guys Insight on Imprisonment For Teenagers (G.I.I.F.T.). The neighborhood samples were generated using chain referral or snowball sampling techniques (Bieracki & Watters, 1981; Watters & Bierack, 1989). The hospital samples were recruited from cases who were presented to the Emergency Departments at Lincoln Hospital in the South Bronx and Kings County Hospital in East New York, Brooklyn. We purposefully sampled on the dependent variable in this study. The primary justification for including only active violent offenders in our sample was that we were interested in the social processes of violent events among individuals who had multiple events to report (to overcome the base rate problem). While the results will not be generalizable to the larger adolescent male population or even the neighborhoods, information concerning the cognitive landscapes of active violent offenders can be gained. Two neighborhoods were selected for this study primarily to control for the effects that neighborhood differences may have on violent behavior. The two neighborhoods are among the worst in terms of poverty and violent crime in the City of New York (NYC Department of Planning, 1993).

The interviews were conducted to illicit a variety of contextual and event level data. The data offer new insights on gun use among a highly active sample of adolescent males. The primary focus of the study was on the situational contexts of gun use events. In this section, we provide descriptive data similar to that provided in the survey-based studies already summarized above. In section III of the paper, we present the analysis of a subsample of 125 cases and 306 violent events. We identify some of the differences between gun and non-gun violent events among violent and gun active adolescent males (Wilkinson, 1998; Wilkinson, in press-a).

Table 4. Gun Experiences among Inner City Adolescent Males

	N Yes	% Yes	N Total
Ever had (owned or possessed) a gun	346	91.8	377
Ever fired a gun	333	93.8	355
Ever used a gun to commit a crime	230	73.5	313
Ever been arrested for a gun related offense	120	41.8	287
It is easy to buy a gun in neighborhood	210	73.4	286
I carry my gun on a daily basis	60	28.7	209
I never carry a gun	11	5.3	209

How often do you carry a gun?	N	%
Never	11	5.3
Rarely	30	14.4
Just for beef/problem	23	11.0
Just outside of my hood	6	2.9
Just at night	2	1.0
Just on weekends	3	1.4
Sometimes	46	22.0
3-5 times per week	9	4.3
Keep gun close but don't carry	19	9.1
Everyday	60	28.7
Total	209	

	N	Mean	Min.	Max.	S.D.
Mean age of first gun acquisition	291	14.33	8	22	2.03
ENY mean age of first gun acquisition	168	14.10	8	22	2.20
SB mean age of first gun acquisition	122	14.64	8	22	1.74
Mean age of first time firing a gun	285	14.11	8	22	2.29
ENY mean age of first gun acquisition	162	13.90	8	22	2.45
SB mean age of first gun acquisition	122	14.38	8	22	2.03
Mean number of guns owned	263	3.78	0	35	3.69
ENY mean number of guns owned	135	4.13	0	35	3.63
SB mean number of guns owned	128	3.41	0	35	3.72

As shown in Tables 4 and 5, 91.8% of the sample reported that they had possessed a gun at some time in the past (ever had a gun). The mean age of gun acquisition was 14.4. An even higher percentage reported that they had ever fired a gun (93.8%). The mean age of first time firing a gun was slightly younger at 14.16 years old. Respondents owned an average of 3.8 guns. 29% carry on a daily basis; another 52% carry on an occasional basis. Seventy-three percent of respondents reported easy access to guns in their neighborhood. Seventy-four percent had used a gun in a crime and 41.8% reported that they had been arrested for a gun or gun-related offense. According to 50.4% of respondents, guns were acquired primarily for protection.

Many respondents described what their first firing experiences were like. These stories reflected a curiosity about guns and a fascination with the feelings of danger and power that guns represent. Most initial gun firing situations were non-violent in nature. Many young men, for example, shot a gun for the first time either off the roof, out the window, in the stairway, in the park, in the schoolyard, at the range, etc. These firing situations were often characterized as “testing the gun,” a “rite of passage” into manhood, and an activity to do in conjunction with other kids. Holidays such as New Year’s, Halloween, and the Fourth of July are often “accepted” days to fire guns in celebration or as an expression of freedom.

Carrying patterns were described in more detail with the open-ended question format. Several interesting themes emerged. We observed that respondents’ carrying habits reflect the newness of the gun (they carry a new gun more frequently at first), the newness of having a gun, routine activities, involvement in an ongoing conflict or “beef,” and the level of police presence in the neighborhood. There is evidence in the data of an overall increased level of police presence in both neighborhoods especially when comparing the earlier interviews to those conducted in 1997. As a result of the increased police presence there was significantly less reported gun carrying in both neighborhoods over time. As an alternative, respondents keep their guns nearby or in their homes for quick access when needed. Those respondents involved in the drug trade and those with an active conflict carry guns most frequently.

Table 5. Gun Experiences among Inner City Adolescent Males by Neighborhood

Variable	South Bronx		East New York		Total	
	N	%	N	%	N	%
Ever had a gun						
Yes	156	88.6	189	94.5	345	91.8
No	20	11.4	11	5.5	31	8.2
Total	176		200		376	
Age of first gun						
8-10	3	2.5	5	3.0	8	2.8
11	2	1.7	9	5.4	11	3.8
12	5	4.1	18	10.7	23	7.9
13	19	15.6	29	17.3	48	16.6
14	24	19.7	47	28.0	71	24.5
15	32	26.2	27	16.1	59	20.3
16	25	20.5	18	10.7	43	14.8
17	7	5.7	9	5.4	16	5.5
18	3	2.5	0	0.0	3	1.0
19	1	0.8	1	0.6	2	0.7
20	1	0.8	1	0.6	2	0.7
22	0	0.0	4	2.4	4	1.4
Total	121		167		288	
Ever fired a gun						
Yes	147	89.1	185	97.9	330	93.8
No	18	10.9	4	2.1	22	6.2
Total	164		188		352	
Age of first time firing a gun						
8-10	6	4.8	13	8.1	19	6.8
11	2	1.6	7	4.3	9	3.2
12	5	4.1	17	10.5	22	7.7
13	23	18.9	31	19.1	54	19.0
14	25	20.5	39	24.1	64	22.5
15	30	24.6	25	15.4	55	19.4
16	19	15.6	13	8.0	32	11.3
17	6	4.9	8	4.9	14	4.9
18	2	1.6	2	1.2	4	1.4
19	3	2.5	2	1.2	5	1.8
20	1	0.8	1	0.6	2	0.7
21	0	0.0	1	0.6	1	0.4
22	0	0.0	3	1.9	3	1.1
Total	122		162		284	

Table 5. Gun Experiences among Inner City Adolescent Males by Neighborhood (continued)

Variable	South Bronx		East New York		Total	
	N	%	N	%	N	%
Number of guns						
0	21	16.4	7	5.2	28	10.6
1	11	8.6	16	11.9	27	10.3
2	26	20.3	29	21.5	55	20.9
3	21	16.4	23	17.0	44	16.7
4	8	6.3	8	5.9	16	6.1
5	22	17.2	30	22.2	52	19.8
6 or more	19	17.2	22	22.2	41	19.8
Total	128		135		263	
Ever used a gun for crime						
Yes	99	68.8	131	77.5	230	73.5
No	45	31.5	38	22.6	83	26.5
Total	143		168		313	
Ever been arrested for a gun or a gun-related crime						
Yes	58	44.3	62	39.7	120	41.8
No	73	55.7	94	60.3	167	58.2
Total	130		155		285	
How easy is it to buy guns In your neighborhood?						
Not Easy	38	29.5	38	24.4	76	26.7
Easy with connections	14	10.9	20	12.8	34	11.9
Easy with money	7	5.4	5	3.2	12	4.2
Very Easy	70	54.3	93	59.6	163	57.2
Total	129		155		285	
Reason to get gun						
Protection	46	39.0	93	58.9	139	50.4
Image/Reputation	15	12.7	25	15.8	40	14.5
Crime	11	9.3	8	5.1	19	6.9
Beef/Problem	19	16.1	12	7.6	31	11.2
Drug Business	14	11.9	13	8.2	27	9.8
To Have It/Love Guns	4	3.4	2	1.3	6	2.2
Raised Around Guns	0	0.0	1	0.6	1	0.4
To Get Attention	0	0.0	1	0.6	1	0.4
Fun or Excitement	0	0.0	1	0.6	1	0.4
To Feel Power	0	0.0	1	0.6	1	0.4
Everybody Has One	4	3.4	1	0.6	5	1.8
Stressed Out	1	0.8	0	0.0	1	0.4
No Need (Not Violent)	4	3.4	0	0.0	4	1.4
Total	118		158		276	

As shown in Table 5, there were significant neighborhood differences between the East New York and South Bronx samples. While both samples were highly active in gun behaviors, respondents from East New York were significantly more "gun involved" compared to those in the South Bronx. Respondents in the East New York neighborhood start possessing and firing guns at a significantly younger age. The average age of first gun possession was 14.1 for respondents from the East New York neighborhood and 14.6 for those from the South Bronx. The mean age at first time firing a gun for East New York was 13.9 while the mean age for the South Bronx sample was 14.4. Of the South Bronx sample, 16.4% had never had a gun of his own compared to only 5.2% of the East New York sample. Almost all (97.9%) of the young men from East New York had fired a gun at some point in time compared to (89.1%) of respondents from the South Bronx. Seventy-eight percent of the East New York sample self-reported using a gun in a crime compared to only 69% of young men from the South Bronx. Among young men from East New York protection is the primary reason to get a gun for 59% of respondents compared to 39% from the South Bronx (for more details see Wilkinson 1997; 1998).

Female Youth Violence and Firearms

The growing presence and influence of firearms has had minimal influences on female adolescents. Historically, female offenders have not used weapons, but girls may carry weapons for males (Moore, 1978; Moore, 1991; Quicker, 1983; Valentine, 1978; Vigil, 1988). Homicide data also show the rare involvement of both gang and non-gang females in lethal violence (Maxson, Gordon, & Klein, 1985; Sommers & Baskin, 1993; Spergel, 1995). Spergel (1995) reports that only one of 345 gang homicide offenders in Chicago between 1978 and 1981 was female; only six of 204 gang homicide victims were female. Between 1988 and 1990, two of 286 gang homicide offenders were females; three of 233 gang homicide victims in this period were females. Spergel concludes that "the youth gang problem in its violent character is essentially a male problem" (58). UCR data show that from 1976-91, male homicide rates (involving both firearm and other weapons) among 17-year olds were 11.5 times greater than female rates (Snyder & Sickmund, 1995). Female adolescents accounted for a lower percentage of homicides in 1991 (6.0%) than in 1976 (12.1%); the decline reflected stable numbers of female homicide perpetrators compared to sharply rising numbers of male offenders (Blumstein, 1995; Snyder & Sickmund, 1995).

Survey data also indicate low rates of gun or other weapon use by teenage girls. The Youth Risk Behavior Survey (U.S. Department of Health and Human Services, 1993) reported that eight percent of female high school students carried a (non-specified) weapon to school in 1990. The 1993 Youth Risk Behavior Survey found rates of gun carrying to school to be 1.8% among females (Kaan et al., 1995), in 1995 2.5% of females reported gun carrying in the previous 30 days, and in 1997 1.5% reported such behavior (see Table 2). Other studies have found similar results (Callahan & Rivara, 1992; Sadowski, Cairns, & Earp, 1989). And, Sheley, Wright, and Smith (1993) state that nine percent of the female respondents reporting having owned a revolver at some time in their lives, five percent had owned an automatic or semiautomatic weapon, and fewer than five percent owned other types of firearms. Fewer than three percent carried weapons to school, and eight percent carried them outside the home.

Cook and Laub (1998) point out that the increase in violence among adolescents since the 1960s is greater for males than females. Homicide victimization data confirm that gun homicides by female adolescents have remained stable from 1984 to 1994 (unpublished analysis by the authors). However, empirical research on girls' involvement in gun violence is quite limited, and generally limited to the gang literature. Beginning in the 1970s, violence was quite common among both males and female gang members. However, Vigil's (1988) data shows that gun violence within gangs was almost exclusively a male activity. For many years, women in gangs remained on the sidelines for most fights and other criminal activities. Women were seen as auxiliaries to men, carrying weapons (including guns) and otherwise assisting boys. However, Campbell's (1984) study of girls in New York City gangs shows that guns were a common feature of female gang life.

Other portrayals suggested that girls in gangs had become in recent years similar to males in their involvement in violence and use of guns (Taylor, 1993). Neither of these stereotypes, of course, is accurate. Gun violence by girls, whether in gangs or not, remains relatively infrequent and, as a share of all gun violence, is declining. Finally, context is extremely important in determining comparative rates of weapons offenses by gender. For example, in a survey of 1,200 high school students and school dropouts from central city neighborhoods in three cities with lengthy gang histories, Fagan (1990) found that female gang members had significantly higher participation and offending rates for weapons offenses, including firearms, compared to non-gang males or females. The Sheley, Wright, and Smith (1993) survey also reported strong links between gun possession and drug and gang involvement in both female and male respondents.

THE NATURAL HISTORY OF GUN VIOLENCE: COMPARING GUN AND NON-GUN EVENTS IN NEW YORK CITY IN THE 1990S

In this section, we identify systemic patterns that violent events follow by comparing a sample of 306 gun and non-gun events reported by 125 young males. The heterogeneity of violent events was examined focusing specifically on context, motivations, relationship to the opponent(s), the role of co-offenders in violent situations, the role of third parties, the linkages of violent events to subsequent events, and arousal states. We found many similarities and differences between and within gun and non-weapon events (Wilkinson, in press-a; Wilkinson, unpublished).

Violent events were described as public performances often with serious implications beyond the immediate interaction. Violent events where guns were involved included the active participation of "co-offenders" in 66.6% of the cases compared only 33% of the non-weapon events. The violent performances given by our respondents reflected concerns about gains or losses in individual and group status as one of many possible outcomes. Respondents were more likely to engage in gun violence with a stranger or rival rather than a friend, co-worker, or neighborhood acquaintance. Gun events are more likely to occur on street corners, in unregulated clubs or parties, or other public spaces with limited social controls. Gun use events were less common in schools or jails. Respondents frequently got involved with gun events while under the influence of alcohol or some type of drug. The ratio of being high or drunk to not being high/drunk was 3.8 for gun events vs. 1.2 for events where no weapon was involved. As expected, serious injuries were more likely in situations with firearms compared to no weapons. Situations where knives and other weapons were used also resulted in a high rate of injury. Gun events were less likely to reach resolution while fights without weapons were much more likely to achieve closure.

Respondents' Situational Definitions: Motives, Sparks, and Reasons

Violent events reflected a variety of reasons or sparks for conflict in the lives of our sample. Character contests or identity challenges are the most frequent source of conflict among the young males in the sample (42.2%). These situations typically involve the denying of personal status or identity manifested through insults, ridicule, bumps, slights, hard looks, lack of proper acknowledgment, cheating, deception, domination, cunning, unwarranted threats, or unprovoked attacks. Identity challenges include personal, material, and social attacks. One common element in these situations is the attribution of an opponent's hostile intention in the situation. Here, we see that violence is a necessary tool in sustaining one's identity or status. A number of violent events are sparked by competition over females that also had implications for social identity development and maintenance. There was no difference between gun and non-gun events that were motivated by status concerns.

Young men participate in violence to get/keep girlfriends, to protect the honor or reputation of females, to retaliate for the victimization of a female, because of gossip, and to managing tough impressions in front of relevant females 30.7%. Many violent events in the sample are motivated by robbery (19.9%), drug business transactions (17.3%), retaliation or revenge (17.3%), self-defense

(21.9%), and the defense of others (11.1%). Gun use was significantly correlated with drug business transactions and robberies.

Weapon Type and Intensity of the Threat (Level of Arousal)

Pulling a gun automatically increases the intensity of the conflict and limits the number of choices available to all parties. In conflicts where respondents outarmed opponents (either alone or with his friends), shots were fired by the respondent in 75.9% of 99 violent events. In situations where both sides of the conflict were armed with guns, the parties exchanged fire 89% of 55 situations. When two crews or cliques of young men engaged in conflict and both sides were armed, gun fire erupted in 100% of the 21 violent events. Respondents reported being unarmed and shot at in 31 situations, 20 (65.4%) of which the opponent fired a weapon while in the remaining 11 cases one of the opponent's boys had the gun. Certain actions or words warrant a violent response; if guns are available, guns are used in reply to a transgression. Actors within this context know when and where pulling out and using a gun is socially acceptable. Those who do not follow the code are either victimized or extremely stigmatized. If either actor displays a gun in a conflict situation, respondents describe the event as going to the next level (the gun level).

Prior Relationship with Knowledge of Opponent

Prior knowledge and situational impressions of the opponent are important for shaping decisions about future action. Actors use this information to calculate risk. We found that gun use is more common when the opponent is a stranger and prior knowledge about the adversary is negative or limited. Situational impressions of strangers and assessments of the "others" willingness to use lethal means to resolve conflict plays heavily in actors decision-making process. Gun threats by individuals with "large identities" are taken very seriously. Idle threats are not welcome, and may result in serious violence. The idea of "fronting" or faking a threat is a big mistake. Therefore, in the neighborhood individuals who have and carry guns must be willing to use them if the situation calls for it. Actors most frequently believe that threats by strangers are serious.

Perception of Risk and Cost

Guns play an important part in actor's decisions about the risk and cost of violent actions. One of the first and most important decisions is the extent to which one's identity would be improved or damaged by engaging or avoiding gun violence. The actor's original social identity factors heavily into how the stages of a gun event would unfold. Some respondents have more to gain or lose than others. Most "lost" or unsuccessful gun events are considered damaging to image and reputation of the loser especially if that response involves retreat. A "successful" gun event is described as identity enhancing. Inflicting harm on others or gaining total compliance over others are valued outcomes that are publicly reinforced through verbal and nonverbal displays of respect commonly referred to as "props." Gossip or after-the-fact storytelling usually amplifies the "coverage" of an event beyond the immediate setting.

Retreat could also have positive ramifications for social identity if used strategically. In some situations, retreat is used as a strategic technique when a respondent is caught off-guard (without his gun or people). In certain situations, respondents describe using their communication skills to talk their way out of getting shot or employed some other neutralization strategy in order to buy some time to arm themselves and get their people for back up. Once the subjects are "on point," they would frequently go looking for their opponent.

Peer Influences: Co-offending, Instigation, and Torch Taking

Peers are a major contributing factor to the social construction of violent events. Gun use often involves multiple shooters on both sides of a conflict. In fact, sixty-six percent of gun events involve co-offenders compared to only thirty-three percent of non-gun situations. Many of the gun events described reflected on-going "beefs" between groups or networks of young men which often meant the shooting of numerous members of rival cliques over a single dispute. Often, the reason for the original dispute seems minor; however, once gun play comes into the situation, future violence is motivated by revenge or getting justice. Avenging the shooting of one's close friends is considered honorable and necessary for future relations on the street. According to the code, the shooting of one of a young man's street family becomes personal and a disrespect, even though it may have little or nothing to do with the respondent. These uses of violence suggest a self-help dimension that illustrates Black's (1983) "quantity of law" dynamic. Black's theory of self-help argues that in the absence of access to formal social means (law enforcement) individuals will seek justice for themselves, often by using violence as a means to that end.

Perception and Influence of Bystanders (the status and identity of observers)

The influence of third parties in violent conflicts has been well documented in the literature (Decker, 1995; Felson & Steadman, 1983; Oliver, 1994). The importance of observers is most critical during the period of adolescence where young males are developing and testing their personal and social identities (Eder, Evans, & Parker, 1995; Kinney, 1993). Verbal and nonverbal expressions by others as well as the respondent's internalized "other" will have a strong impact on his decision making process. These cues help the actor decide how best to respond and what actions to anticipate from others. Others may play a central role in shaping the actor's definition of the situation and the outcome of events. The actor is concerned about how each situation will make him look to others. The "audience" as amplifier of the social identity won through violence helps to perpetuate the street code. Gossip is one of many mechanisms and the audience can often have symbolic rather than actual presence.

Absence of Social Controls

According to the data, these neighborhoods could be best characterized by an absence of effective informal and formal social controls. Both the process and outcome of violent events is significantly different when an able party gets involved to end the conflict. The majority of the events have no such agent of social control. Many of the "squashed" (avoided) events result from interventions (real or anticipated) by parties not directly involved in the violent situation such as police, school

officials, or other clique members. Some violent situations are dissolved simply because the risks of legal (and non-legal) sanctions are too great—respondents felt the costs were too high to pursue the issue further. Interrupted conflicts could dissolve temporarily or permanently depending on the street identity of the mediator, intensity of the issue sparking the situation, future opportunities to continue or re-ignite an event, or resolution of the conflict through alternative means.

Difficulties in Defining Closure

Consistent with prior research, defining closure in these situations is found to be problematic and warrants further study (Oliver, 1994). Many conflicts simply did not end. Thus, the ending of one violent event oftentimes sparked the beginning of the next. It seems that for a conflict to end with resolution a number of factors must fall into place including agreement (conveyed through verbal and non-verbal gestures) between the parties (and their associates) that the conflict is over. Again, relationships are the most powerful predictor of the type of outcome these events may have. Weapon choice is influential for determining the outcomes of violent events. As discussed above, gun events are less likely to reach closure while fights without weapons are much more likely to achieve closure.

Carrying, showing and using guns are a central part of a toolkit of behaviors that evolve in response to the widespread perception of danger. In contexts of perceived danger, guns offer teenagers the chance for safety and self-defense, reinforcing a social identity that deters attack, reinforcing a self-presentation of “toughness”, and earning “props” (respect) that ward off attacks. Teenagers select from this toolkit according to their reading of a situation, with the level of danger and lethality as their primary consideration. Violence also accords social control in these contexts, redressing grievances or preempting them before they ever begin (Wilkinson, 1998).

For some teenagers, the internalization of the scripts of gun violence shapes the development of their social identities, and can influence identities of other teens through common processes of diffusion and social interaction (Wilkinson & Fagan, 1996). These interactions animate the spread of gun violence in three ways. First is the contagion of fear. Adolescents presume that their counterparts are armed, and if not, could easily become armed. They also assume that other adolescents are willing to use guns, often at a low threshold of provocation. Second is the contagion of gun behaviors: the salience of gun violence motivates its integration within the social discourse of routine interactions among adolescents. Third is the contagion of violent identities, and the eclipsing or devaluation of other identities in socially isolated neighborhoods (Wilkinson, 1998). In the pursuit of social identity, guns trump other symbols of power and status (Fagan & Wilkinson, 1998). The accretion of these identities across peer cohorts creates a powerful influence on social norms and ultimately on the social regulation of behavior.

GUN VIOLENCE BEYOND CITIES: MULTIPLE VICTIM SHOOTINGS

Few events capture and sadden the national psyche like multiple victim shootings. When adolescents commit the shootings, the sadness compounds. Multiple shooting events involving teenagers stand in stark contrast to the overwhelming majority of gun homicides involving adolescents. Indeed, as we show elsewhere in this chapter, much of our theoretical and empirical knowledge about adolescents and gun violence comes not from the multiple shootings in suburban and rural America, but from lethal gun violence in the inner cities.

Since 1997, while adolescent homicides were sharply declining, there have been at least 10 incidents of multiple victim shootings by adolescents in the U.S. These shootings are anomalies in one sense, occurring not in areas of concentrated poverty and social isolation, nor in areas of dense population or high crime rates. They involve multiple victims, not single victims in one-to-one interactions. And, they involve white teens, not minority kids. Indeed, except for access to guns, many of the structural risk factors for gun violence are absent in these areas.

This recent rash of adolescent gun violence in suburban rural areas raises several questions. Do non-urban shootings signal an increase in gun violence outside cities? Is this increase an extension of the 1985-96 inner city epidemic to the non-urban areas, and therefore a continuation of the social production of teen homicides? If so, what is the link? Are youth homicides spreading from inner cities to suburban areas through a process of contagion or diffusion that presumes some common thread across incidents? Finally, how well these theories fit the empirical facts of multiple shootings by adolescents outside the cities is the focus of this section.

The Fact Patterns

We conducted an electronic search of published reports in periodicals and other media to develop more detailed and contextual information about these shootings. The results and facts in these cases are shown in Table 6.

Table 6. Social Autopsy of Rural and Suburban Shooting Incidents

Date	May 1999	April 1999	May 1998	May 1998	April 1998
Place	Conyers, GA	Littleton, CO	Springfield, OR	Fayetteville, TN	Edinboro, PA
Shooter	Thomas Solomon, Jr.	Eric Harris, Dylan Klebold	Kip Kunkel		Andrew Wurst
Age	15	18, 17	15	18	14
Location	High school	High school	Home, High school	High school	High school
Weapons	2 .357's, sawed off .22 rifle	Bombs, 2 sawed off 12-gauge rifles, 2 9-mm automatic weapons	.22 semiautomatic rifle	Firearm	.25 pistol, stolen from father
Relationship to Victim(s)	Schoolmates	Schoolmates and teachers	Parents, schoolmates	Ex-girlfriend, schoolmate	Teacher
Motives	Girlfriend broke up with him that week	Felt socially ostracized, hated popular athletes	Not clear	Classmate was dating ex-girlfriend	Unknown
Family	2 parents, stable	2 parent families, stable	2 parents, stable	n/a	2 parents, domestic conflict
History of Violence	None	Threats	Animal torture, loved guns	None	None, had joked about killing people
History of Emotional Problems	None, described as "average kid"	None, "outsiders"in the social hierarchy	quick temper, loved guns, talked violence	None, honor student	Loner, intense interest in nihilistic rock
Co-Offenders	None	Acted together	None	None	None
How it Happened	Opened fire in common area at high school, fled and threatened suicide	Set off bombs and entered school, masked, shot at minorities & jocks, they yelled "revenge" during shooting	Killed parents after school officials found gun in his locker, went to school next day and fired on classmates in cafeteria	Opened fire on ex-girlfriend and new classmate in parking lot of high school	Opened fire at a high school dance, killing teacher and injuring two students

Table 6. Social Autopsy of Rural and Suburban Shooting Incidents (continued)					
Date	March 1998	December 1997	December 1997	October 1997	February 1997
Place	Jonesboro, AR	Stamps, AR	Paducah, KY	Pearl, MS	Bethel, AK
Shooter	Andrew Golden, Mitchell Johnson	Joseph Colt Todd	Michael Carneal	Luke Woodham	Evan Ramsay
Age	11, 13	14	14	16	16
Location	Middle school	School	School	School	School
Weapons	30.06 hunting rifles with scopes, other rifles & guns	.22 rifle	semiautomatic pistol, 2 rifles and 2 shotguns stored	Butcher knife, .30 rifle	Shotgun
Relationship to Victim(s)	Ex-girlfriend, other classmates, teachers	Schoolmates	Schoolmates, bullies	Mother, schoolmates	School principal, schoolmate
Motives	Johnson had been rejected by girlfriend	Revenge toward bullies who had been blackmailing him	Revenge toward bullies, but victims had not bullied him	Unclear. Luke was an outsider, picked on by other students, hung with other outsiders	Principal had suspended him
Family	Both had 2 parent families, stable	2 parents, stable	2 parents, stable	Divorced	Abusive, alcoholic mother, violent father
History of Violence	Occasional threats of violence by Johnson, knife	Told Sheriff he had been "living in pain" for a time	Hyperactive, according to school officials	Killed dog	Violent ideation
History of Emotional Problems	Johnson had interest in occult	None	None	Rejected due to weight and looks, mother was possessive	Sexually abused in foster care, several foster homes, taunted and rejected by peers
Co-Offenders	Johnson was recruiter	Opened fire outside school at 7:30 AM, wounded two students	Waited in school lobby and fired on a student prayer circle in hall, urged fellow student to "shoot me"	Conspiracy? Cult plot?	None
How it Happened	Opened fire after luring students outside, targeted girls, killed teacher shielding students	Told Sheriff he had been "living in pain" for a time	Killed parents after school officials found gun in his locker, went to school next day and fired on classmates in cafeteria	Stabbed mother at dawn, wrote "manifesto," then went to school and shot nine students, targeted his ex-girlfriend	Shot and killed school principal and a student, shot two others

Several trends are evident in the shootings. First, there are at least three distinct temporal clusters in the shootings. Two occurred in Spring 1999, four in Spring 1998, and three in Fall 1997. The tenth incident took place in early Winter 1997. In contrast, teen shootings in the inner cities were a constant for nearly a decade from 1985-96. Analyses of the FBI Supplemental Homicide Reports suggests that adolescent gun homicides were a depressingly regular feature of the urban setting, with no temporal discontinuities within or across years (Cook & Laub, 1998).

Second, all these shootings took place in schools, and nearly all on school grounds. But school shootings were relatively rare in the decade before 1997 when adolescent gun violence was heavily concentrated in the cities. While many inner city shootings took place on the journey to and from school (Laub & Lauritsen, 1998), the non-urban shootings took place on school grounds. Nevertheless, both urban and non-urban events could be characterized as "public performances," but on different stages. The urban shootings were spread across many arenas of public life, from streetcorners to athletic events or parties. Indeed, there are many such stages in urban life. For adolescents in rural areas, schools are the dominant and perhaps exclusive stage where public performances are carried out, and are the crucible where status is won and lost in repeated everyday interactions.

Third, non-urban shootings during this time were often multiple victim homicides, a sharp distinction from the predominantly single victim shootings in the cities (Cook & Laub, 1998; Snyder & Sickmund, 1999). The 10 incidents described in Table 5 fit this pattern. Many of the victims often were known to the offenders as acquaintances, and a few were known as intimates, described as girlfriends or ex-girlfriends to the shooters.

The "sparks" or motives reflected a range of provocations that were consistent with the dispute-related violence described by Fagan and Wilkinson (1998) in their analysis of inner city violence. Three incidents were motivated by rejection by a girlfriend. At least four involved revenge against bullies and other peers who had persistently victimized the perpetrators over time. In Littleton, Colorado, site of the Columbine High School shooting, the shooters singled out popular athletes as their tormentors who were the targets of their revenge. One homicide involved retribution against a school principal who had suspended the youth some months earlier.

Fourth, most of these events involved some fore planning, especially in obtaining weapons and executing the shootings. Several were carefully planned events, including elaborate measures to enter the school by surprise or to attack a group of students from a distance by stealth. These shootings were quite different from the situational flashfires that characterized many urban shootings, where young men were carrying guns at the time when a situation escalated into a lethal event (Wilkinson, 1998), and where gun carrying to school and elsewhere is prevalent. Also, unlike the inner city homicides, where drugs and alcohol are important factors both in the background and foreground of violent events, none of the young males in the non-urban shootings had been intoxicated at the time of the event (Fagan & Wilkinson, 1998a).

Finally, there was no consistent evidence of mental health problems prior to the events. In evaluations after the shootings, only one, Kip Kunkel, was diagnosed with a psychiatric disorder

(schizophrenia). One of the two youths in Littleton, Colorado, was taking Luvox, an antidepressant, at the time of the shooting. And one youth, Evan Ramsay, had a documented history of child maltreatment and child sexual abuse. Overall, there is no evidence that the prevalence of emotional problems or psychiatric disorders was any greater in this small sample than in the adolescent population generally (Elliott, Huizinga, & Menard, 1989; Jessor, Donovan, & Costa, 1991).

One Epidemic or Two?

There are many similarities between the urban and non-urban events, but there also are enough discontinuities to question the claim of contagion from the inner cities to the suburbs and rural communities. Three clues lead us to this conclusion.

The events of gun violence among inner city youths often unfold through stages of decision making and escalation, a processual dynamic that was not evident in the ten non-urban multiple victim shootings. In many instances, lethal inner city violence was the culmination of lengthy ongoing disputes. The non-urban shootings were mass shootings, often with strangers as the victims if not the targets, and no acute ongoing dispute between victims and offenders. Although loosely connected as acquaintances in the diffuse social networks of schools, only in the "domestics" was there evidence of close relationships and ongoing social interactions between shooters and victims. Interaction patterns within events were quite different, with no signs of strategic decision-making.

A second difference is the temporal clustering of non-urban events. Among patterns of violent events, this temporal clustering is more similar to suicide clusters than to a short-term clustering of violent events (Gould, Wallenstein, Kleinman, O'Carroll, & Mercy, 1990). Gould's research suggests that suicides among adolescents tend to cluster within age strata and short time periods, often through imitative behaviors. Although Gould found weaker evidence of spatial clustering, she noted that adolescent suicides tend to cluster socially within social class strata. The pattern of two events in one season, four in the same season the previous year, and three more earlier in the same year, all tightly bound within one season and similar in process, are suggestive of suicide clusters. Another link to suicide exists in the words spoken by some perpetrators immediately after they were captured and subdued. Suicidal ideation was articulated by two of the youths, who begged their captors after the incident to shoot them. These utterances were not mentioned in the narratives of the inner city shootings.

The final clue is the extremely low rate of shootings by adolescents outside of cities. A direct link between inner city and non-urban homicides would predict higher rates and more frequent events outside the cities. The easy access to rifles and other guns outside cities would support higher rates of gun violence. But this was not the case.

The multiple shootings of the past three years appear instead to be only loosely connected to the epidemic of the inner cities in the preceding decade. In the cities, schools are one of many public stages where anger, fear and conflict are channeled into arousal and action. The multiple school shootings show the contrast in the daily routines of adolescents outside the cities, where schools are the most meaningful if not the only stage for the public performance of violence.

CONCLUSIONS

Research to date has provided only a limited view of the contexts of and motivations for gun violence among adolescent males. There seems to be an increase in the number of situations and contexts where conflicts arise that may escalate to lethal violence. The use of guns may reflect both an apparent lowering of the thresholds for using weapons to resolve conflicts, and increasing motivations arising from "angry aggression" (Anderson, 1999).

Recent survey research shows that offenders and high school students alike report "self-defense" as the most important reason for carrying firearms (Harris, 1993; Kennedy, 1993; Sheley & Wright, 1995). As Wright and Rossi (1986) note "self-defense" has a number of different meanings including defense against other youth in an increasingly hostile and unsafe environment as well as self-defense from law enforcement officials during the course of illegal activity (Wright & Rossi, 1986). Fear is a recurring theme in juvenile gun acquisition, and the escalating adolescent "weapons" race can be traced in the literature to the 1970s. While gun homicides among adolescents increased rapidly following the onset of the crack crisis in the mid-1980s, it is unclear whether these homicides can be traced to business violence in the drug trade, or to other situational and ecological forces during that time.

In part, the infusion of guns and the diffusion to teenagers may have had broad impacts on fear (Kennedy, Piehl, & Braga, 1996), motivating gun acquisition as a form of self-defense. But, as we have shown elsewhere, there also were impacts of the drug trade on developmental trajectories of teenage men and women whose socialization occurred in the wake of the increase in homicides and the dominating effect of drug economies on social relations and social control (Fagan & Wilkinson, 1998a). While traditional themes of toughness and identity continued to shape adolescent development in inner cities, these processes were also skewed by the diffusion of guns into the hands of adolescents who reached their teenage years in communities that increasingly were socially and economically isolated. The ways in which guns altered the processes of achieving masculine identities, in economic contexts with attenuated routes to adult roles, coupled with the perception of fear and hostile intent among their peers, contributed to a significant shift in the rules of fighting and the processual dynamics among adolescents (Fagan & Wilkinson, 1998b; Wilkinson, in press-a; Wilkinson, in press-b).

The presence of weapons also may alter the scenarios that govern conflicts and the natural rules of their resolution. They also change strategic thinking in the unfolding of conflicts or fights. Fair fights traditionally have been defined as those without weapons, but they have declined in importance with the rise of weapons (Canada, 1995; Moore, 1991). Weapons, especially guns, represent a quick and oftentimes more serious definition of conflicts. They also are the most efficient route to obtaining money or material possessions by illegal means.

The use of guns has instrumental value that is communicated through displays of dominance and urban "myths," but also through the incorporation of gun violence into the social discourse of everyday life among pre-adolescents and adolescents. Guns are widely available and frequently displayed. They are salient symbols of power and status, and strategic means of gaining status,

domination, or material goods. The current cohort of young men in their late adolescent years grew up during a time of alarmingly high rates of violence (again mostly gun) in their neighborhoods. Self-protection and personal safety became increasingly dependent on firearm possession and often use. One important development is an apparent breakdown in the age grading of behaviors, where traditional segmentation of younger adolescents from older ones, and behavioral transitions from one developmental stage to the next, are short-circuited by the strategic presence of firearms.

The crisis of youth gun violence reflects broader trends in youth violence, but also significant changes in the material conditions and social controls in the communities where gun violence is most common. Understanding youth gun violence requires that we also understand the dynamic contextualism of these neighborhoods, the influence of these social processes on socialization, social control, and behavior, and the role of guns in shaping norms and behaviors (Anderson, 1990; Anderson, 1999; Massey & Denton, 1993; Sampson & Wilson, 1995; Tienda, 1991). Youth gun violence is central to the ecological background of many neighborhoods, and also to the developmental landscape that shapes behavioral expectancies and social identities of area adolescents. By examining the extreme end of the spectrum we get a fuller understanding of the complex social processes that create and sustain environments where violence is deemed necessary.

The development of an ecology of danger reflects the confluence and interaction of several sources of contagion. First is the contagion of fear. Weapons serve as an environmental cue that in turn may increase aggressiveness (Slaby & Roedell, 1982). Adolescents presume that their counterparts are armed, and if not, could easily become armed. They also assume that other adolescents are willing to use guns, often at a low threshold of provocation. Indeed, respondents in the Columbia University study describe their neighborhoods as “war zones” where violence, especially gun violence, is very likely to erupt.

In this paper we have seen the complex interactions between gun availability, gun ownership, gun carrying, and gun use among those youth most likely to be at risk of involvement in gun violence and victims of gun violence. The epidemic pattern we observed in the first section is sustained by a process of social contagion. In the contagious dynamics of violence, the social meaning of violence is constructed through the interrelationship of its action and its context. The social meaning involves actions (violence) that have both returns (identity, status, and avoidance of attack) and expectations that, within tightly packed networks, are unquestioned or normative. Conduct impregnated with social meaning has influence on the behaviors of others in immediate proximity. The social meaning of violence influences the adaptation of behavioral norms, expected responses (scripts), and even beliefs about systems of behavior. Social norms are the product of repeated events that demonstrate the meaning and utility of specific forms of conduct. Social influence thus has a dynamic and reciprocal effect on social norms. In poor neighborhoods, social interactions are dominated by street codes, or local systems of justice, that reward displays of physical domination and offer social approval for antisocial behavior. The setting or context of contagion reflects the susceptibility of populations to the transmission of a socially meaningful behavior, and its exposure to the behavior that has acquired meaning. This can be as true for fashion and art as for problematic social behaviors such as drug use, teenage pregnancy, and gun violence.

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