

Symposium on Juvenile Crime: Policy Proposals on Guns & Violence, Gangs, & Drugs

Patterns of Illegal Gun Carrying Among Urban Males

Alan J. Lizotte

Gregory J. Howard

Marvin D. Krohn

Terence P. Thornberry

Recommended Citation

Alan J. Lizotte, Gregory J. Howard, Marvin D. Krohn, and Terence P. Thornberry, *Patterns of Illegal Gun Carrying Among Urban Males*, 31 Val. U. L. Rev. 375 (1997).

Available at: <http://scholar.valpo.edu/vulr/vol31/iss2/4>

This Symposium is brought to you for free and open access by the Valparaiso University Law School at ValpoScholar. It has been accepted for inclusion in Valparaiso University Law Review by an authorized administrator of ValpoScholar. For more information, please contact a ValpoScholar staff member at scholar@valpo.edu.



PATTERNS OF ILLEGAL GUN CARRYING AMONG YOUNG URBAN MALES

**ALAN J. LIZOTTE,*
GREGORY J. HOWARD,**
MARVIN D. KROHN***
& TERENCE P. THORNBERRY******

Abstract

This paper uses data from the Rochester Youth Development Study, an ongoing panel study of urban youth, to examine the phenomenon of illegal gun carrying among young males. The analysis assesses the magnitude of gun carrying among these subjects and considers the consistency in carrying over the life course of the subjects from about fifteen years of age until about age twenty. It also examines the correlates of gun carrying. Depending upon their age, between 6% and 10% of subjects carry hidden guns at a given point in time, but carrying is rather sporadic. Carrying hidden guns is associated with high rates of many types of delinquency. Peer protection gun ownership, drug selling, and gang membership are the primary correlates of illegal gun carrying.

I. INTRODUCTION

Since the mid-1980s the homicide rate for those fifteen to twenty-one years of age has increased rather substantially. The increase has been most dramatic for the nation's minority youth. For example, the homicide rate for fifteen to nineteen-year-old African American males more than tripled between 1984 and 1991.¹ This increase has, for the most part, been due to the dramatic rise in homicides in which a firearm was used.² Despite the link between guns and youth homicide we know very little about the ownership, carrying, and use of

* Director, Hindelang Criminal Justice Research Center, School of Criminal Justice, University at Albany. This article was prepared under Grant 86-JN-CX-0007 (S-3) from the Office of Juvenile Justice and Delinquency Prevention, Office of Justice Programs, U.S. Department of Justice; Grant 5 R01 DA05512-02 from the National Institute on Drug Abuse; and Grant SBR-9123299 from the National Science Foundation. Points of view or opinions in this document are those of the authors and do not necessarily represent the official position or policies of the funding agencies.

** Ph.D. Candidate, School of Criminal Justice, University at Albany.

*** Professor, Department of Sociology, University at Albany.

**** Professor, School of Criminal Justice, University at Albany.

1. Alfred Blumstein, *Youth Violence, Guns, and the Illicit-Drug Industry*, 86 J. CRIM. L. & CRIMINOLOGY 10 (1995). In recent years the homicide rate for young people has leveled off and even dropped somewhat.

2. *Id.* at 24.

firearms in the adolescent population. In particular, our knowledge about the carrying of firearms, a critical precondition for their use in crime, is especially deficient.

In this paper we examine factors associated with carrying illegal guns during the adolescent and young adult years using data from an ongoing panel study of urban males. Because of the dearth of knowledge on this phenomenon, we provide descriptive information on: (1) the degree to which urban male adolescents carry guns for different reasons; (2) the relationship between carrying an illegal gun and involvement in various types of delinquent behavior; and (3) the correlates of carrying an illegal gun, focusing specifically on gang membership and drug selling. The longitudinal nature of the data also allows for an examination of the stability of carrying illegal guns across time, as well as changes in factors related to gun carrying. We begin the investigation with a review of prior research on gun ownership and carrying among teenagers and young adults.

II. PRIOR RESEARCH

Much of the information on youth and firearms focuses on the issue of gun ownership. Although not all youths who own guns carry them, some overlap between ownership and illegal carrying is expected. Estimates of the number of youth who own guns of any type vary from 83% of incarcerated juvenile offenders to 22% of high school students who have ever owned³ and 15% of eighteen-year-old urban males.⁴ While a substantial number of adolescents have owned a gun at some point in their lives, there is recent evidence that gun ownership among young people is rather sporadic. Wright's study found that 25% of inner city male high school students who had owned a gun in the past did not own one currently.⁵ Similarly, with a small sample, Cook's study found that boys moved in and out of gun possession rather quickly.⁶

Research has indicated that the type of firearms owned and the reason for owning them have important implications for how they are used. Sheley and Wright found that juvenile inmates overwhelmingly owned handguns and sawed off shotguns for protection from crime and to commit crime.⁷ A study by Lizotte and colleagues and another by Bjerregaard and Lizotte have found that

3. JOSEPH F. SHELEY & JAMES D. WRIGHT, NATIONAL INST. OF JUSTICE, GUN ACQUISITION AND POSSESSION IN SELECTED JUVENILE SAMPLES (1993).

4. Beth Bjerregaard & Alan J. Lizotte, *Gun Ownership and Gang Membership*, 86 J. CRIM. L. & CRIMINOLOGY 37 (1995).

5. James D. Wright et al., *Kids, Guns, and Killing Fields*, 30 SOC'Y 84 (1992).

6. Philip J. Cook et al., *Regulating Gun Markets*, 86 J. CRIM. L. & CRIMINOLOGY 59 (1995).

7. SHELEY & WRIGHT, *supra* note 3, at 6.

male teenagers who own guns for sport are quite distinct from those who own for illegitimate purposes.⁸ In their sample, about 6% of sixteen-year-old boys own guns for sport. Sport owners tend to own rifles and shotguns. They typically have parents who also own guns for sport and who socialize them into sporting gun use. These teens are unlikely to be involved in criminal activity. On the other hand, about 9% own illegal guns. These tend to be handguns, sawed-off rifles and shotguns. The parents of these illegal owners do not own guns for sport. Rather, these boys are socialized into gun use by friends who also own illegal guns. These teenagers tend to be in gangs, to sell drugs, and to be involved in an array of illegal activities.

Sheley and Wright have convincing data indicating that, among youthful offenders, gun carrying is associated with "self-protection and self-preservation." For example, juvenile inmates carried guns when their friends also carried, when doing drug deals, when doing crime, and when they thought they needed protection.⁹ These findings are consistent with Blumstein's recent hypothesis that an increase in gang membership, combined with gang involvement in the drug trade, results in the spread of guns throughout urban areas as guns are effective tools in facilitating such activity.¹⁰ One unfortunate consequence of this proliferation of illegal guns is higher homicide rates for young people.

Compared to the issue of ownership, we know much less about illegal gun carrying on the part of young people, the specific focus of this article. A few surveys have asked high school students if they have carried a gun in the recent past or if they know someone who has carried a gun. The Centers for Disease Control report that more than 4% of students in grades nine through twelve have carried a gun in the last thirty days.¹¹ Of those that did carry, 35% carried six or more times during that period. Sheley and Wright found that 55% of juvenile inmates and 12% of high school students routinely carried guns. In addition, another 23% of high school students carried occasionally.¹² Finally, a Harris survey found that 15% of seventh to twelfth grade students had carried a handgun in the past thirty days.¹³

8. Alan J. Lizotte et al., *Patterns of Adolescent Firearms Ownership and Use*, 11 JUST. Q. 51 (1994); Bjerregaard & Lizotte, *supra* note 4, at 51.

9. SHELEY & WRIGHT, *supra* note 3, at 7.

10. Blumstein, *supra* note 1, at 30.

11. Centers for Disease Control, *Weapon-Carrying Among High School Students—United States, 1990*, 40 MORBIDITY & MORTALITY WKLY. REP. 681 (1991).

12. SHELEY & WRIGHT, *supra* note 3, at 5.

13. Cook et al., *supra* note 6, at 62.

While we are beginning to gain some estimate of the frequency of gun carrying among adolescents from these recent surveys, we know virtually nothing about the causes and correlates of gun carrying. The current study builds on past research in an attempt to provide some detailed information about the phenomenon of adolescent gun carrying. In the analysis we use data from the Rochester Youth Development Study to examine the prevalence of gun carrying, distinguishing between types of guns (sport versus protection). We consider the effect of illegal gun carrying on the propensity to commit crime. We also examine the correlates of gun carrying, focusing specifically on friends' ownership of guns, gang membership, and drug selling. The consistency of illegal gun carrying over a five year period is also examined as well as whether the correlates of gun carrying change as respondents age.

III. METHODS

The Rochester Youth Development Study is an ongoing panel study investigating the development of delinquent behavior, drug use, and related behaviors among urban adolescents. Sample members and the adult primarily responsible for their care (overwhelmingly their mothers) have been interviewed since the 1987-88 school year when the subjects were in the seventh and eighth grades. In Waves 1 through 9 subjects were interviewed every six months while there was a two and one half year gap between Waves 9 and 10. Data on subjects are also collected from school, police, courts, and social service agency records.

A. Sample

The sample was selected from among seventh and eighth grade public school students in Rochester, New York—a city with a diverse population and a high crime rate. The sample was stratified to over-represent youth at high risk for serious delinquency and drug use in the following way. First, males were over-sampled (75% male versus 25% female) because they are more likely to engage in serious delinquency.¹⁴ Second, students from high crime areas of the city were over-sampled on the premise that subjects living in such areas are at greater risk for offending. To identify high crime areas, each census tract in Rochester was assigned a resident arrest rate reflecting the proportion of the tract's total population arrested by the Rochester Police in 1986. All eligible students from the census tracts in the highest third of the distribution of resident arrest rates were asked to participate in the study. Students in the remaining census tracts were selected at a rate proportionate to their tract's contribution to the overall arrest rate in Rochester. Once the number of students to be selected

14. ALFRED BLUMSTEIN ET AL., CRIMINAL CAREERS AND "CAREER CRIMINALS" (1986).

from a tract was determined, the student population in the tract was stratified by sex and grade, and students were selected from those strata at random.

Based on these procedures, a panel of 1000 students and their families was selected for the study. Because the true probability of each adolescent being selected is known, the sample can be weighted to represent all Rochester public school students. The sample is weighted in the analysis to follow.¹⁵

Interviews were conducted in person by project staff. Adolescents were generally interviewed in private rooms at their school. Subjects who could not be interviewed at school were interviewed at home, as were all caretakers. Interviews with adolescents and their caretakers each lasted about one hour.

Current analysis is based on the 615 young men in the study who remained in the sample in Waves 4 through 10. Wave 4, conducted when the subjects were fifteen years old on average, is the first interview to collect detailed data on firearms ownership and use. By Wave 10, when the subjects averaged twenty years of age, the study retained 85% of the males in the original panel, an acceptable retention rate seven years from the onset of the study. Of these young men, 386 are African American, 108 are Hispanic, and 121 are white.

B. Measurement

Table 1 shows the coding of variables used in this analysis. Variable names are in the first column, the coding categories are in the second, and descriptive statistics for each wave used in the analysis are in the remaining columns.

In Wave 4 through Wave 9, subjects were asked whether they had carried a hidden weapon since the time of the last interview. The recall period for Wave 10 was one year. Those respondents who answered in the affirmative were then asked to identify the type of weapon that they had carried. Subjects who said that they had carried a firearm are designated as *Carrying Any Hidden Gun*. Carrying a hidden gun is illegal. On this measure, subjects do not necessarily own the firearm that they carried.

15. For more detailed discussions of sample selection and case attrition, see Terence P. Thornberry et al., *The Consequences of Respondent Attrition in Panel Studies: A Simulation Based on the Rochester Youth Development Study*, 9 J. QUANTITATIVE CRIMINOLOGY 127 (1993); Marvin D. Krohn & Terence P. Thornberry, *Retention of Minority Populations in Panel Studies of Drug Use*, DRUGS & SOC'Y (1997) (unpublished manuscript, on file with author).

Table 1. Coding of Variables

		<u>Mean (and Standard Deviation) of Variables at Wave:</u>						
<u>Variables</u>	<u>Coding</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
1. Carrying Any Hidden Gun	0=No 1=Yes	.06(.25)	.07(.26)	.06(.24)	.06(.23)	.08(.27)	.08(.28)	.10(.30)
2. Carrying a Protection Gun	0=No 1=Yes	.04(.18)*	.05(.22)**	.03(.17)**	.05(.21)*	.04(.19)*	.06(.22)*	.05(.21)*
3. Carrying a Sport Gun	0=No 1=Yes	.01(.14)*	.02(.18)**	.01(.13)**	.02(.18)*	.02(.17)*	.03(.18)*	.03(.20)*
4. Peer Protection Gun Ownership	0=No 1=Yes	.33(.47)	.40(.49)	.53(.50)	.37(.48)	.38(.49)	.40(.49)	.45(.50)
5. Gang Membership	0=No 1=Yes	.10(.30)	.09(.29)	.09(.29)	.07(.26)	.05(.22)	.05(.21)	.04(.20)
6. Drug Selling	0=No 1=Yes	.06(.23)	.04(.20)	.06(.24)	.06(.23)	.07(.26)	.06(.24)	.12(.33)
7. Delinquent Values	0=Low 1=High	.46(.50)	.48(.50)	.50(.50)	.50(.50)	.50(.50)	.47(.50)	————
8. Parental Income	0=Low 1=High	.49(.50)	Measured at Wave 4 Only					
9. African American	0=No 1=Yes	.63(.48)	Same for All Waves					
10. Hispanic	0=No 1=Yes	.18(.38)	Same for All Waves					
11. Mean Age		15	15.5	16	16.5	17	17.5	20

*Gun owned by subject

**Gun owned by subject or other household member

In addition to the former measure of gun carrying, we also measure carrying associated with gun ownership. Two variables are created: *Carrying a Protection Gun* indicates if the respondent carries a gun that is owned for protection; and *Carrying a Sport Gun* indicates if the respondent carries a gun that is owned for sport. At these ages, carrying a gun for protection is illegal. The construction of these variables allows respondents to indicate whether they carry guns which they own for either reason.

This study employs six variables as correlates of illegal gun carrying at each of seven points in time. Peer protection gun ownership, gang membership, and drug selling are expected to be highly correlated with carrying guns. We also include measures of delinquent values, parental income, and race/ethnicity because these variables are often related to delinquent behavior such as illegal gun carrying.

Peer Protection Gun Ownership is included because subjects who carry illegal guns might be socialized into doing so by their friends who own protection guns¹⁶ or because subjects feel a need for a protective response because they associate with peers who have guns.¹⁷ Respondents are asked if any of their friends own a gun for protection. The guns owned by these peers may be handguns or long guns, and the peers may or may not carry these guns on their person outside of their homes.

Gang Membership is included as a correlate of gun carrying because gangs may foster illegal gun activity and because they may supply the guns. The present study utilizes a self-report measure of the respondents' participation in a street gang. Respondents who identified themselves as gang members were considered to be members for purposes of this analysis. This measure has been shown to have high predictive validity; respondents who indicate that they are gang members have much higher rates of delinquent behavior than those who are not gang members.¹⁸

Drug Selling on the part of the respondent is included because it is an inherently dangerous activity. Drug sellers need guns to protect themselves from others who may want either their drugs or the large sums of money associated with selling. Subjects were asked, at each wave, if they had sold hard drugs (heroin, cocaine, crack, etc.) or if they had sold marijuana since the time of the last interview. The recall period for Wave 10 was one year.

16. Lizotte et al., *supra* note 8, at 66.

17. SHELEY & WRIGHT, *supra* note 3.

18. Terence P. Thornberry et al., *The Role of Juvenile Gangs in Facilitating Delinquent Behavior*, 30 J. RES. CRIME & DELINQ. 55 (1993).

Delinquent Values measures how wrong the subject thinks it is to engage in each of ten delinquent acts.¹⁹ The scale exhibits high reliability in each of the waves, with standardized alphas ranging from .88 in Wave 4 to .92 in Wave 9. This scale is not available for Wave 10. For purposes of this analysis, the scale has been dichotomized at the median which is between 1.1 and 1.4 depending upon the wave.

Parental Income measures the total after tax income reported by the caretaker of each subject in the Wave 4 interview. Income from employment and government assistance is included in this measure, which ranges from \$0 to \$96,000. For this analysis, the scale was dichotomized at the median (about \$16,000).

Two indicator variables are used to represent the race/ethnicity of each young man in the study. Table 1 shows that 63% of the males are *African American* and 18% are *Hispanic*. The remainder are white.

Delinquency is measured by a wide array of self-reported items, ranging from relatively minor public disorder offenses to serious assaultive behavior and gun crimes. Indices are constructed by grouping delinquent acts into categories that include general, serious, moderate, minor, street, violence, serious violence, property, serious theft, public disorder, and gun crime. Involvement in one or more delinquent acts in a given index is coded as 1; no involvement is coded as 0.²⁰

IV. RESULTS

The present analysis addresses a number of issues regarding the distribution, stability, and correlates of carrying guns. We begin with a description of the prevalence of gun carrying across seven data collection points. The first row of Table 1 provides the percentage of respondents who carry a hidden firearm. At Wave 4, when the mean age of the respondents is fifteen, 6% carry a hidden firearm. This percentage increases slightly so that at Wave 10, when the respondents are twenty years old, 10% carry a firearm.

Prior studies often ask about gun ownership or carrying only firearms that are owned by the respondent or his family. The second and third rows of Table 1 provide percentages of respondents who indicated that they both owned and carried protection guns and sport guns, respectively. It is important to note that asking respondents only about carrying guns that they own masks a lot of illegal

19. See *infra*, APPENDIX, for a list of the items that comprise this scale.

20. For a presentation of the specific items included in each index, see *infra* APPENDIX.

gun carrying. For example, at Wave 4 only 4% of the respondents report carrying a protection gun that they also own, as compared to 6% who report carrying any hidden gun. By Wave 10 the disparity is even larger: 5% report carrying a protection gun they also own, compared to 10% who report carrying a hidden gun. Another way of looking at this disparity is to correlate carrying a gun owned for protection and carrying a hidden gun. At Wave 4, for example, this correlation is only .10. Although the relationship is statistically significant, it suggests that those who own for protection and carry are only a small subset of illegal carriers. Apparently, many subjects carry guns that they do not own.

In addition, sport gun owners are not very likely to carry these guns. The rate of carrying sport guns that the respondent owns varies from 1% at Wave 4 to 3% at Waves 9 and 10. Also, sport gun owners are not very likely to carry illegal guns. The correlation between carrying a gun for sport and carrying one for protection is essentially zero. Similarly, the correlation between carrying a sporting gun and carrying a hidden gun is zero. This suggests that sport carriers are not illegal gun carriers.²¹

The next question addressed concerns the stability of gun carrying. Do the same respondents who carry a hidden gun in one wave report carrying a hidden gun in subsequent waves? Of the subjects who carry hidden guns, Table 2 shows the percentage who carry them from one wave to the next. Surprisingly, only about one-third of these subjects carry from one wave to another and this percentage is about the same regardless of the length of time between waves. This data suggests that gun carrying is intermittent. It also suggests that the probability of carrying again does not fade in time. Rather, the probability of reoccurrence is moderate and consistent over time. For example, 37% carry at both Waves 4 and 5, while 37% also carry at both Waves 4 and 9.

21. The sport owners who carry guns are no more likely than non-owners and non-carriers to be involved in crime.

Table 2. Percent Carrying a Hidden Gun from Wave to Wave
(Wave 4 Through Wave 10)

Carrying a Hidden Gun at:	<u>Percent Carrying Hidden Gun at Wave:</u>					
	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
Wave 4 (n=33)	37	25	33	21	37	18
Wave 5 (n=37)	---	34	29	29	29	32
Wave 6 (n=30)	---	---	19	30	36	27
Wave 7 (n=26)	---	---	---	35	40	45
Wave 8 (n=34)	---	---	---	---	49	34
Wave 9 (n=38)	---	---	---	---	---	37

Table 3 shows the numbers of waves that subjects carry hidden guns. Very few subjects carry illegal guns consistently over this five year period. For example, while 22% of all subjects carried an illegal gun at some point, more than half (53.2%) did so in only one wave. Moreover, only about 25% of those who ever carried did so in more than two waves. Recall from Table 1 that between 6% and 10% of subjects carry in any particular wave. This contrasts sharply with Table 3 which shows 22% of the sample carrying an illegal gun at some point. In other words, the number of illegal guns being carried remains fairly constant in the teenage years but the people who carry change from wave to wave. This may suggest that there is a small number of guns that are being passed between members of this cohort.

Table 3. Percent Carrying a Hidden Gun by Number of Waves
(Wave 4 Through Wave 10)

Number of Waves Carrying a <u>Hidden Gun</u>	<u>n</u>	<u>Percent of Sample</u>	<u>Percent of Those Who Ever Carried a Hidden Gun</u>
0	448	78.0	----
1	67	11.7	53.2
2	26	4.5	20.6
3	15	2.6	11.9
4	11	1.9	8.7
5	5	0.9	4.0
6	2	0.4	1.6
7	0	0.0	0.0

Carrying illegal guns is expected to be related to various forms of delinquent behavior. The relationship between carrying a hidden gun and eleven forms of delinquent behavior is shown in Table 4. It is clear that, regardless of the measure of delinquency, those who carry hidden guns are much more likely to be involved in delinquency than those who do not carry.²² For example, 85% of those who carried hidden guns in Wave 10 have been involved in general delinquency, while only 36% of those who did not carry reported involvement in general delinquency. Gun carrying seems to enhance all forms of delinquency whether serious assaultive behavior, property crimes, or relatively minor delinquency and public disorder offenses.

22. None of these delinquency indices include gun carrying.

Table 4. Percent Involved in Various Types of Delinquency at Wave 10 by Those Who Carry and Those Who Do Not Carry Hidden Guns at Wave 10

<u>Type of Delinquency:</u>	<u>Does Carry Hidden Gun</u> (n=48)	<u>Does Not Carry Hidden Gun</u> (n=534)
General	85	36
Serious	31	7
Moderate	67	29
Minor	59	21
Street	71	15
Violence	51	15
Serious Violence	24	5
Property	39	11
Serious Theft	28	9
Public Disorder	67	27
Gun Crime	22	3

The final issue examined concerns the correlates of carrying a hidden firearm. On what dimensions do carriers and non-carriers differ? Table 5 reports the percentage of subjects that carry hidden guns within each category of the other variables for each wave of data.

Table 5. Characteristics of Adolescents Who Carry Hidden Guns at Waves 4 through 10

<u>Variables**</u>	<u>% Carrying Hidden Gun at Wave:</u>						
	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
1. Parental Income							
Low	7.1	8.2	8.4	5.7	7.0	10.3	8.3
High	5.3	5.1	2.7*	3.6	5.1	4.5*	8.1
2. African American							
No	5.5	4.8	4.0	2.6	4.4	4.2	5.1
Yes	6.7	8.0	6.4	6.2*	7.3	9.7*	10.9*
3. Hispanic							
No	4.4	5.6	5.4	4.4	5.8	6.4	8.7
Yes	14.1*	10.5*	5.0	5.1	6.7	10.7	5.8
4. Delinquent Values							
Low	4.0	3.2	1.9	2.1	3.9	4.2	----
High	8.6	10.0	8.7*	7.0*	8.0*	10.4*	----
5. Peer Protection Gun Ownership							
No	2.5	1.4	3.1	0.4	1.2	1.7	3.9
Yes	14.5*	16.2*	8.3*	13.8*	16.6*	18.0*	15.0*
6. Gang Membership							
No	2.6	4.4	3.5	3.2	4.8	6.0	7.5
Yes	37.6*	31.9	26.3*	24.3*	29.1*	31.5*	23.5*
7. Drug Selling							
No	4.6	4.2	3.8	2.4	3.2	4.9	3.9
Yes	33.8*	58.2*	27.4*	51.0*	43.1*	41.4*	38.1*
n	552	563	531	550	544	540	545

*Variables are measured at each wave, except parental income (measured only at Wave 4) and race/ethnicity (same for all waves).

**p .05(one-tailed)

Parental income and race/ethnicity are not consistently related to carrying an illegal gun. In other words, illegal gun carrying knows no class or racial boundaries.

Delinquent values are significantly related to carrying a hidden gun across the six waves for which these data are available. For example, at Wave 4, 8.6% of the respondents who measure high on delinquent values carry guns, while only 4% of those low on delinquent values carry guns.

Ownership of protection guns by peers, gang membership, and drug selling have been suggested to be particularly important in increasing the probability of carrying a hidden gun. Our data confirm those hypotheses.

Table 5 shows that at Wave 4 about 14.5% of subjects who have peers who own protection guns carry illegal guns themselves. However, of those who do not have peers who own protection guns, only 2.5% carry illegal guns. This difference is statistically significant. There is a similar impact of peer protection gun ownership on a subject's gun carrying for the other waves of data. Apparently, our subjects find it important to carry a hidden gun when their friends own protection guns.

Gang membership significantly increases the likelihood of carrying a gun. Depending upon the wave, between a quarter and a third of gang members carry hidden guns, compared with between 3% and 8% of non gang members. Once again, these differences are statistically significant. In other words, being in a gang increases the probability of gun carrying seven or eight-fold. However, as Table 1 indicates, it is important to note that the probability of gang membership falls rather rapidly from 10% in Wave 4 to only 4% in Wave 10. Therefore, while gang membership is a consistent correlate of hidden gun carrying, these boys are less likely to be in gangs as they age.

The impact of drug selling is also statistically significant at every wave. Its impact is larger than the impact of gang membership, increasing the likelihood of hidden gun carrying more than ten-fold in some waves. It is also clear from Table 1 that drug selling increases with age. So, unlike the diminishing role of gangs, drug selling grows as the subjects get older and this enhances hidden gun carrying.

V. CONCLUSION

Although the contribution that guns make to our society's violent crime rate has been recognized, surprisingly little research has been done on the possession and use of firearms among the population that is most at risk for violent crime, young males. The research that is available focuses primarily on the issue of gun ownership. The carrying of hidden or illegal guns is a more direct precursor to violent behavior and, therefore, should be an important focus of research. Unfortunately, there has been very little research on this topic. The

present analysis has begun to address this void by examining illegal gun carrying among a sample of young urban males.

The current research finds that a substantial percentage of young men carry illegal guns at some point between fifteen and twenty years of age. In fact, 22% of our subjects have carried between these ages. While a high percentage of subjects carry illegal guns, most do so only for a short period of time. Since there is little overlap between legal gun ownership and carrying hidden, illegal guns, we might speculate that illegal gun carriers have relatively little socialization into the safe use of guns. Given the high percentage of carrying and the apparent lack of training, it is no wonder that the homicide rate for young people is so high.

We find that roughly the same number of people carry for each wave of data, but the carriers tend to be different people. This suggests that a relatively small number of illegal guns may be passed around in the cohort. Of course, more research would need to be conducted to determine if this suggestion is true.

People who carry illegal guns are much more likely to be involved in all sorts of delinquent behavior than those who do not. This elevated delinquency runs the gamut from public disorder offenses to property crime to the most serious violent offenses. This fact suggests that the gun enhances criminal behavior among these subjects.

The analysis shows that having friends who own protection guns is a powerful correlate of the subject's illegal gun carrying. Whether this situation is due to the need related to associating with violent armed people, or due to socialization, or both, is unclear. However, either way, it suggests that convincing these individuals to give up their guns will not be easy since it appears to have peer support and reinforcement.

The analysis also shows that being a gang member is an inducement to carrying an illegal gun. The impact of selling drugs on carrying illegal guns is even stronger than gang membership. Moreover, drug selling continues to have a very strong impact on gun carrying at least through age twenty.

All of this data suggests that dealing with illegal gun carrying among young people will not be easy. Peer protection gun ownership is a powerful motivator and breaking or lessening the importance of these deviant friendship networks can be difficult. In addition, different strategies may be necessary at different points in the life course of young people. For the very young, anti-gang programs may be more effective; interdicting drug activity may be more important for slightly older gun carriers.

VI. APPENDIX

A. *Delinquent Values*

Question: How wrong do you think it is to . . .

(Very wrong, Wrong, A little bit wrong, Not wrong at all)

1. Steal something worth \$100?
2. Use hard drugs such as crack, heroin, cocaine, LSD, or acid?
3. Use marijuana, reefer, or pot?
4. Drink beer, wine, or liquor?
5. Use a weapon or force to get money or things from people?
6. Attack someone with a weapon with the idea of seriously hurting them?
7. Hit someone with the idea of hurting them, for example, fist fighting?
8. Take a car or motorcycle for a ride without the owner's permission?
9. Steal something worth \$50?
10. Damage or destroy someone else's property on purpose?

B. *Delinquency Indices*

Question: Since we interviewed you last time, have you . . .

General:

1. Been loud or rowdy in a public place where someone complained and you got in trouble?
2. Been drunk in a public place?
3. Damaged, destroyed, marked up, or tagged somebody else's property on purpose?
4. Set fire on purpose or tried to set fire to a house, building or car?
5. Gone into or tried to go into a building to steal or damage something?
6. Tried to steal or actually stolen money or things worth \$5 or less?
7. Tried to steal or actually stolen money or things worth \$5-\$50?
8. Tried to steal or actually stolen money or things worth \$50-\$100?
9. Tried to steal or actually stolen money or things worth more than \$100?
10. Tried to buy or sell things that were stolen?
11. Taken someone else's car or motorcycle for a ride without the owner's permission?
12. Stolen or tried to steal a car or other motor vehicle?
13. Forged a check or used fake money to pay for something?

14. Used or tried to use a credit card, bank card, or automatic teller card without permission?
15. Attacked someone with a weapon or with the idea of seriously hurting or killing them?
16. Hit someone with the idea of hurting them?
17. Been involved in gang or posse fights?
18. Thrown objects such as rocks or bottles at people?
19. Used a weapon or force to make someone give you money or things?
20. Been paid for having sexual relations with someone?
21. Physically hurt or threatened to hurt someone to get them to have sex with you?
22. Sold marijuana, reefer or pot?
23. Sold hard drugs such as crack, heroin, cocaine, LSD or acid?

Serious:

1. Gone into or tried to go into a building to steal or damage something?
2. Tried to steal or actually stolen money or things worth \$50-\$100?
3. Tried to steal or actually stolen money or things worth more than \$100?
4. Stolen or tried to steal a car or other motor vehicle?
5. Attacked someone with a weapon or with the idea of seriously hurting or killing them?
6. Been involved in gang or posse fights?
7. Used a weapon or force to make someone give you money or things?
8. Physically hurt or threatened to hurt someone to get them to have sex with you?

Moderate:

1. Been drunk in a public place?
2. Damaged, destroyed, marked up, or tagged somebody else's property on purpose?
3. Tried to steal or actually stolen money or things worth \$5-\$50?
4. Taken someone else's car or motorcycle for a ride without the owner's permission?
5. Forged a check or used fake money to pay for something?
6. Used or tried to use a credit card, bank card, or automatic teller card without permission?
7. Hit someone with the idea of hurting them?
8. Thrown objects such as rocks or bottles at people?

Minor:

1. Been loud or rowdy in a public place where someone complained and you got in trouble?
2. Tried to steal or actually stolen money or things worth \$5 or less?
3. Taken part in illegal gambling, such as shooting dice, betting on cards, or playing the numbers?

Street:

1. Gone into or tried to go into a building to steal or damage something?
2. Stolen someone's purse or wallet or picked someone's pocket?
3. Stolen something from a car that did not belong to you?
4. Tried to buy or sell things that were stolen?
5. Stolen or tried to steal a car or other motor vehicle?
6. Attacked someone with a weapon or with the idea of seriously hurting or killing them?
7. Been involved in gang or posse fights?
8. Used a weapon or force to make someone give you money or things?
9. Sold marijuana, reefer or pot?
10. Sold hard drugs such as crack, heroin, cocaine, LSD or acid?

Violence:

1. Attacked someone with a weapon or with the idea of seriously hurting or killing them?
2. Hit someone with the idea of hurting them?
3. Been involved in gang or posse fights?
4. Thrown objects such as rocks or bottles at people?
5. Used a weapon or force to make someone give you money or things?
6. Physically hurt or threatened to hurt someone to get them to have sex with you?

Serious Violence:

1. Attacked someone with a weapon or with the idea of seriously hurting or killing them?
2. Been involved in gang or posse fights?
3. Used a weapon or force to make someone give you money or things?
4. Physically hurt or threatened to hurt someone to get them to have sex with you?

Property:

1. Damaged, destroyed, marked up, or tagged somebody else's property on purpose?
2. Set fire on purpose or tried to set fire to a house, building, or car?
3. Gone into or tried to go into a building to steal or damage something?
4. Tried to steal or actually stolen money or things worth \$5 or less?
5. Tried to steal or actually stolen money or things worth \$5-\$50?
6. Tried to steal or actually stolen money or things worth \$50-\$100?
7. Tried to steal or actually stolen money or things worth more than \$100?
8. Tried to buy or sell things that were stolen?
9. Taken someone else's car or motorcycle for a ride without the owner's permission?
10. Stolen or tried to steal a car or other motor vehicle?
11. Forged a check or used fake money to pay for something?
12. Used or tried to use a credit card, bank card, or automatic teller card without permission?

Serious Theft:

1. Gone into or tried to go into a building to steal or damage something?
2. Tried to steal or actually stolen money or things worth \$50-\$100?
3. Tried to steal or actually stolen money or things worth more than \$100?
4. Tried to buy or sell things that were stolen?
5. Stolen or tried to steal a car or other motor vehicle?

Public Disorder:

1. Been loud or rowdy in a public place where someone complained and you got in trouble?
2. Been drunk in a public place?
3. Driven while under the influence of drugs, beer, wine, or liquor?

Gun Crime:

1. Used a gun in a gang or posse fight?
2. Attacked someone with a gun?
3. Used a gun to make someone give you money or things?

