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THE EFFECTS OF PEERS, FAMILY, AND THE ENVIRONMENT ON JUVENILE HANDGUN OWNERSHIP

By

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ABSTRACT

THE EFFECTS OF PEERS, FAMILY, AND
THE ENVIRONMENT ON JUVENILE HANDGUN OWNERSHIP

By

Regan Marie Suhay

A strong gun subculture exists within the United States of America, and in recent years the number of juveniles participating in this phenomenon has been quite high. Social learning theory contends that juveniles who are surrounded by significant others who support the gun subculture will likely acquire these same beliefs. Thus, youths' involvement with firearms is encouraged by influential groups, such as peers, the family, and their environment. Results indicate that juveniles are significantly affected by these three socializing forces. In short, juveniles who come from families that display pro-gun values, who have peers who exhibit pro-gun behavior, and who live in environments characterized by a high gun prevalence are much more likely to own handguns than juveniles who are not exposed to these influences.

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Introduction

The United States of America is a nation with a pronounced gun subculture. The Bureau of Alcohol, Tobacco, and Firearms estimates in 1993 there were 223 million firearms in America (Bureau of Justice Statistics, 1995). This figure includes 79 million rifles, 77 million handguns, and 66 million shotguns (BJS, 1995). The report also notes that the number of seized, destroyed, lost, or inoperable firearms is unknown. In addition, some 211,000 handguns and 382,000 long guns were stolen in noncommercial thefts in 1994 alone (National Institute of Justice, 1997). The FBI's National Crime Information Center stolen gun file contains over two million reports, sixty percent of which are reports of stolen handguns (BJS, 1995).

In recent years, America has witnessed an increasing number of juveniles owning, possessing, and carrying firearms (Ash, Kellermann, Fuqua-Whitley, & Johnson, 1996; Zimring, 1996). Along with the rise of firearm contact, there has also been a marked increase in the number of juveniles committing crimes with guns and the number of juvenile deaths caused by firearms. In 1996, 33,436 juveniles were arrested for possessing a weapon (United States Department of Justice, 1997). Gun-related mortality accounts for almost half of all deaths among African-American teens (Ash et al., 1996). In addition, more US teenagers die from gunshot wounds than from all natural causes of disease combined (Ash et al., 1996). Just as gun possession has increased in recent years, so has the use of guns in homicides committed by juveniles from 57% in 1978 to 78% in 1992 (Zimring, 1996).

It is evident that juveniles are becoming increasingly involved with firearms. Not only are youths owning guns at a higher rate than ever before, but they are also committing more offenses and dying more often as a result of this heightened level of gun contact (Center to Prevent Handgun Violence, 1993). Juveniles are obtaining guns from peers, family members, gangs, theft, and street persons (Sheley & Wright, 1995).

In order to stop this trend, research must be conducted to determine why youths are choosing to participate in the gun subculture. Once policy makers are educated about the matter, proactive changes may be implemented to stop the corruption of American youth.

Social learning theory contends that individuals learn deviant attitudes and behaviors in the same way as they do conforming attitudes and behaviors (Hansell & Wiatrowski, 1981; Sutherland, 1939). Furthermore, learning occurs within intimate groups made up of those who hold significant meaning in one's life (Burgess & Akers, 1966). Differential association theory expands upon these statements and offers a more specific explanation as to how a person becomes delinquent. The theory states that a person becomes delinquent because of an excess of definitions favorable to law violation over definitions unfavorable to law violation (Sutherland, 1947). Significant others include peers, the family, environment, school, and church. These groups impact an individual's acquisition of attitudes and, ultimately, his or her decision to act lawfully or unlawfully.

A great deal of research has found relationships between these groups and youths' pro-delinquent attitudes and behaviors (Elliot, Huizinga, & Ageton, 1985; Inciardi, Horowitz, & Pottieger, 1993; Winfree, Backstrom, & Mays, 1994). Researchers have repeatedly found that peers influence youths' decisions, especially with regard to firearm habits (Emler & Reicher, 1995; Inciardi et al., 1993; Jensen & Rojek, 1992; Lizotte, Tesoriero, Thornberry, & Krohn, 1994; Sheley & Wright, 1995; Sutherland & Cressey, 1978; Winfree et al., 1994). Additional research has stressed the role of the family on a child's socialization (Lizotte et al., 1994; Loeber & Dishion, 1983; Patterson, DeBaryshe, & Ramsey, 1989). The family is crucial to youths' learning process, as it can encourage juveniles to act legally or illegally (Ash et al., 1996). Cao, Cullen, & Link (1997) found that the family actively affects a youth's socialization with respect to firearms.

A third factor, the environment, serves as an important socializing force as it introduces youths to the gun subculture. The atmosphere in which a youth is raised may contain its own set of rules, norms, values, and consequences that affect juvenile gun ownership (Staples, 1982). As a result, the youth's surroundings require definitions, attitudes, and behaviors which are radically different from greater society's. This is the case with urban America, as the inner-city has it's own "code of the streets" by which youths must learn to live (Wilkinson & Fagan, 1996).

The purpose of this thesis is to further explore the inter-connectedness of peers, family, environment, and juveniles' firearm behavior. Specifically, the youths' peers, families, and neighborhoods are examined to determine whether they are supportive of the youths' use of firearms. The findings produced will shed light onto the individual and combined impact each of these socializing factors have on juvenile handgun ownership.

Hypotheses

Alternative: Juveniles who are exposed to families, peers, and environments which encourage gun ownership are likely to own handguns.

Null: Juveniles who are not exposed to families, peers, and environments which encourage gun ownership are not likely to own handguns.

Chapter 1 — Differential Association Theory

Over the years, many different theories have attempted to explain why people engage in delinquent behavior. The spectrum of theories ranges from those that claim criminal acts are freely chosen, to others that state they are a result of outside forces. In recent years, sociological explanations have emerged as the leading frame of thought in the field (Jensen, 1981). These sociology-based theories strive to determine the influences in a deviant's life, namely his/her family, peers, school, church, and neighborhood. The central thesis of the sociological school is that criminal behavior results from the same social processes as does conforming behavior (Sutherland & Cressey, 1978; Vold & Bernard, 1986). In order to explain why a person complies with or deviates from the status quo, researchers from this school examine the relationships between the individual and the significant others who influence his/her life. It is these agents that lead a person to acquire either pro-deviant or anti-deviant attitudes and behaviors (Akers, Krohn, Lanza-Kaduce, & Radosevich, 1979; Burgess & Akers, 1966; Sutherland, 1947; Winfree et al., 1994).

Social learning theory is an explanation of delinquency focusing on the ways in which deviance is learned. This frame of thought contends that learning deviant attitudes and behaviors occurs in the same way that one would learn conforming attitudes and behaviors (Sutherland, 1939). The social ability model proposes that delinquents are like nondelinquents, in that they share similar learning processes and capabilities (Hansell & Wiatrowski, 1981). Additional assumptions held by this model are that delinquents operate similary to non-delinquents in respect to concerns about social appearance, prestige, and social status (Hansell & Wiatrowski, 1981). Furthermore, the two adolescent groups are alike in that they both can master group roles and exchange influence and rewards (Hansell & Wiatrowski, 1981). In short, both groups learn, internalize, and maintain beliefs and behaviors in a similar fashion.

Learning occurs within intimate groups, through the process of interacting with other people (Burgess & Akers, 1966; Inciardi et al., 1993; Sutherland, 1947). Much of the research in this area states that behavior, whether delinquent or non-delinquent, is learned from those who carry high meaning in one's life (Akers et al., 1979; Burgess & Akers 1966; Smith & Brame, 1994; Sutherland, 1947; Sutherland & Cressey, 1978; Winfree et al., 1994). Sutherland & Cressey (1978) suggest that criminal behavior is learned through the symbolic interaction of intimate groups that have incorporated criminal values. These groups provide social opportunities to learn criminal patterns and definitions favorable to law violation, in addition to teaching skills necessary to commit crimes (Sutherland & Cressey, 1978). Social learning theory is comprised of direct conditioning, imitations, definitions, differential associations, and differential reinforcement (Akers et al., 1979).

Learning occurs in two ways, through direct conditioning and imitation or modeling (Akers et al., 1979). Direct conditioning is a result of direct observation, whether through abusive parents, delinquent peers, or violent images witnessed in society, and leads to pro-delinquent attitudes and behaviors (Goldstein, 1991). Akers (1985) contends that some learning is nonsocial, but the majority of learning relevant to delinquent behavior is the result of social interaction or exchanges in which words, responses, and behavior of other persons directly conditions the youth to acquire definitions favorable to deviance. Modeling and imitation may occur in the home, school, or "on the streets" and becomes more formalized in the teenage years (Monti, 1993).

Imitation takes place when a youth is exposed to admired models who act in a delinquent manner (Akers, 1985). The observer may imitate the modeled behavior if they "like or respect the model, see the model receive reinforcement, see the model give off signs of pleasure, or are in an environment where imitating the model's performance is reinforced" (Baldwin & Baldwin, 1981, p.181). As one can see, there

are numerous fashions in which learning occurs, each offering an opportunity for a youth to develop pro-delinquent beliefs.

It is the acquisition of definitions which shape a person's opinions and determine what is and is not acceptable; however, what is acceptable to an individual may not be acceptable in the eyes of the law. Definitions are "normative meanings which are given to behavior; that is, they define an action as right or not right" (Akers, 1985, p.49). One may acquire positive or negative definitions that shape his/her attitudes and, consequently, his/her behavior.

Differential association has been called the single most important explanatory concept of social learning theory (Akers et al., 1979; Sellers & Winfree, 1990). Ultimately, the concept resulted in the creation of differential association theory, first outlined by Edwin H. Sutherland (Vold & Bernard, 1986). The theory of differential association is a variation of social learning theory and contains many of the same components. The crux of differential association theory is that a person becomes delinquent because of an excess of definitions favorable to law violation over definitions unfavorable to law violation (Sutherland, 1947). Differential association stresses the peer relationship as being the most influential, more so than any of the other influencers previously listed.

Over the years, a great deal of research has supported the basic premises of differential association theory (Ball, 1957; Burgess & Akers, 1966; Burkett & Jensen, 1975; Winfree et al., 1994). Differential association has also been successfully used to explain delinquency in terms of adolescent drug and alcohol behavior (Akers et al., 1979; Krohn, 1974). Upon completion of their study, Akers et al. (1979) stated that the theory of social learning will be extremely beneficial to research focusing on all types of delinquent behavior.

Like any theory, differential association has encountered its share of opposition. Some researchers admit confusion about what comes first, association with delinquent

peers, definition formation, or reinforcement (Gottfredson & Hirschi, 1990). Others found that delinquent peers had little effect on a person's law-abiding and law-violating definitions (Short & Strodbeck, 1965). Another concern of the theory is that it ignores major influential forces such as the family, school, church, and environment. In this thesis, I will attempt to include some of these other influential groups as I believe they also affect the formation of definitions. In addition to focusing on peer relationships and deviance, indicators focusing on the family, environment, and youth gang involvement and their effects on attitudes favorable to delinquency and actual delinquent behaviors will be explored.

Differential association theory proposes that peer relationships have the greatest impact on a youth's development of pro-delinquency definitions. Research has found that peers are one of the most important groups in an adolescent's life (Akers et al., 1979; Inciardi et al., 1993; Jensen & Rojek, 1992). Inciardi et al. (1993) state that during the teenage years the primary group shifts from parents to peers as youths spend more time with their friends, struggle to achieve parental independence, and strive to be treated as an adult.

Differential association, adopting the basic premise of social learning theory that learning occurs within intimate groups, contends that peers, whether delinquent or not, greatly influence youths' definitions, values, and actions (Sutherland, 1947). Much of the research in this area has found a relationship between delinquent peers and a youth's own pro-delinquent attitudes and behaviors (Elliot et al., 1985; Inciardi et al., 1993; Jensen & Rojek, 1992; Winfree et al., 1994). Winfree et al. (1994) have suggested that knowing about friends' involvement in delinquency is a better predictor of the youth's own involvement than personal characteristics such as race, sex, or living situation.

Differential associations depend on the frequency, duration, priority, and intensity of a relationship (Sutherland, 1947). For this reason, differential association

theory has a natural link to gang research. Gang membership results in expanded socialization characterized by heightened peer relationships which, almost always, involves pro-delinquent definitions, attitudes, and behaviors. This statement is supported by a great deal of research which has found that gangs are characterized by high levels of delinquent activity (Bjerregaard & Lizotte,1995; Monti, 1993; Esbensen & Huizinga, 1993; Jensen & Rojek, 1992; Sheley, Zhang, Brody, & White. 1995). While Gottfredson and Hirschi (1990) state that a "gang" is merely a gathering of individuals pursuing their own individual criminality, a greal deal of research supports the claim that gangs, and the collective atmosphere produced by such a group, strongly influence their individual members (Esbensen & Huizinga, 1993; Howell, 1997; Sheley et al., 1995). Thus, an individual may very likely acquire and/or maintain pro-delinquent attitudes and behaviors as a result of joining a gang.

Gang members are subjected to accelerated peer relationships as the gang often acts as protector, friend, and surrogate family (Monti, 1993). A great deal of time is spent with the gang; therefore, the frequency of gang contact is quite high (Vigil, 1988). The typical age range of gang members spans a large period, from age 8 to age 22 (Oehme, 1997). Historically, gang membership was a relatively short lived period due to member maturation; however, in recent years a new trend has emerged where youth actively participate in gang activities for a longer period of time (Maxson, Gordon, & Klein, 1985; Spergel, 1983). As a result, the duration of gang relationships is lengthening.

A look at gang research depicts members as being extremely loyal to their gang, often referring to it as the most important thing in their life (Padilla, 1992). Research often highlights the intense bond between members and the organized gang (Padilla, 1992; Vigil, 1988). Due to these reasons, I believe that gang membership must be examined when studying differential association and delinquent youth.

There is evidence that differential association can explain gun ownership among juveniles. Cao et al. (1997) found that people who have been in social situations supporting pro-gun values often results in the individual acquiring these same beliefs. These same authors also found that when an individual is trained in firearm handling, he/she is likely to own a gun. A significant amount of research has indicated that juveniles are likely to own a gun if their peers own a gun (Blumstein & Cork, 1996; Inciardi et al.,1993; Sheley & Wright, 1995; Smith, 1996).

Beyond the peer relationship, several authors have examined the parent-youth relationship and they have found that family atmospheres that foster definitions and actions favorable to law violation often produce delinquent children (Santman et al., 1997; Sutherland & Cressey, 1978). Adolescent gun ownership is more likely when parents possess and encourage the use of guns (Caetano, 1979; Lizotte et al., 1994). Although the concept of "environment" is not typically used when studying social learning thoery, it is, nonetheless, an important factor. Wilkinson & Fagan (1996) refer to the "code of the streets" and Osofsky (1995) mention CCV, chronic community violence, when describing the effect one's surroundings has on his/her socialization. The inner-city is regarded as a high crime, dangerous, and unstable environment often characterized by gang presence (Stark, 1987). In addition, Bjerregaard and Lizotte (1995) report that there is a positive relationship between gang membership and gun ownership.

As previously stated, differential association is a component of social learning theory. While differential association focuses on peer relationships and delinquency, social learning theory includes any group which serves as a significant other to the individual. This may include, but is not limited to, peers, organizations, family, school, and church. In this paper, the first three factors (peers, gang membership, and family) will be examined, but the fourth and fifth factors (school and church) will not be included due to data limitations which will be outlined in the Data and Methods chapter

of this thesis. In addition to the typical groups being analyzed, the concept of "environment" is included because a youth's surroundings is an important socializing factor.

The theory of differential association explains delinquency as a result of an excess of definitions favorable to law violation over definitions unfavorable to law violation (Sutherland, 1947). This component of social learning theory focuses on why a person develops deviant attitudes and why he/she initially becomes delinquent, but does not explain why delinquent behaviors are maintained. Burgess and Akers (1966) amended Sutherland's theory of differential association to further the scope of explanation. These authors are in agreement with Sutherland as to why a person initially enters the realm of delinquent actions, their contribution to the theory was to outline why delinquent behaviors are maintained over time. Behavior continues dependent upon the effects, outcomes, or consequences it has on a person's environment (Akers, 1985).

Specific to this paper, differential association explains the acquisition of pro-gun definitions, which, consequently, explains why juveniles choose to own handguns. Differential reinforcement would have been used to explain juvenile handgun ownership which exists beyond the initial behavior; however, due to data limitations maintained handgun ownership cannot be examined. Inciardi et al. (1993) contend that actual behavior is more important than attitude; thus, peer, parental, gang, and environmental factors will be measured to gauge their effects on juvenile handgun ownership.

Chapter 2 — Juvenile delinquency measures

The backbone of differential association theory states that a person becomes delinquent because of an excess of definitions favorable to law violation over definitions unfavorable to law violation (Sutherland, 1947). While this theory focuses primarily on youths' peer groups, there are other influencing agents which effect juveniles' lives. These impressionistic groups include not only peers, but also the youth's family, church, school, and environment. The data used in this thesis do not provide measures of the juveniles' church or school histories, but do include items relevant to peer, family, and environmental influence.

Research has determined that juveniles do, in fact, own firearms and they often own multiple guns (Ash et al., 1996; Fagan, 1990; Inciardi et al., 1993; Lizotte, Howard, Krohn, & Thornberry, 1997; Wright et al., 1992). This thesis will only include handguns (revolvers and pistols); rifles and shotguns will be excluded. Juveniles tend to prefer concealable, large caliber guns (Biskup & Cozic, 1992; BJS, 1995). Research has found that handguns are the gun most commonly used in juvenile crime and that juveniles are attracted to this type of gun (Center to Prevent Handgun Violence, 1993; BJS, 1995). DeFronzo (1979) limited his study to handguns because they are more likely to used for crime, protection, or inflicting injury upon someone than shotguns or rifles.

Today, the concept of the traditional family is almost extinct. Instead, families include many varying types including dual parent, single parent, and guardianship. Whatever the living situation may be, there is a consensus among researchers that the family is crucial to a child's socialization (Akers et al., 1979; Caetano, 1979; Hirschi, 1969; Lawrence, 1998; Lizotte et al., 1994; Loeber & Dishion, 1983; Nye, 1958; Santman, Myner, Cappelletty, & Perlmutter, 1997). Just as the family is important to socialization that results in a youth's conforming behavior, such is the case with deviant

behavior (Larzelere & Patterson, 1990; Patterson et al., 1989). Researchers have found that the family does affect youths' pro-gun socialization and that most juveniles were given their first gun by a peer, older youth, or relative (Ash et al., 1996; Cao et al., 1997). In addition, a study by Wright et al (1992) found that 79% of inmates and 70% of students who previously owned guns at one time came from families where male relatives owned guns. Because of the large amount of research pointing to the importance of family variables and their affect on youth attitude acquisition and behaviors, the family will be included as an independent variable.

Youths who feel rejected by their parents often turn to their peers for support (Lawrence, 1998). At some point in every youth's life, friends begin to have an influence equal or greater to that of their parents (Lawrence, 1998). A great deal of social science research asserts that friends significantly influence a youth's attitudes and behaviors (Akers et al., 1979; Hallinan & Williams, 1990; Inciardi et al., 1993; Jensen & Rojek, 1992; Sutherland & Cressey, 1978; Winfree et al., 1994). Emler & Reicher (1995) interviewed a number of delinquent youth as to why they broke the law, each youth, in some way, highlighted the importance their peers had in their decision. Giordano, Cernkovich, & Pugh (1986) found that delinquents care more about what their friends think of them, often influencing their actions as they attempt to win peer approval. Mason, Cauce, Gonzales, & Hiraga (1994) suggest that African-American youth are more subject to peer influence, which is often negative, as peers become surrogate parents early in life for low-income African-American youth.

Previous research has found a positive relationship between peer gun ownership and juvenile gun ownership (Inciardi et al., 1993; Lizotte et al., 1994). When asking juveniles if they were respected by their friends if they owned a gun, 40% of the respondents who were gang affiliated responded affirmatively while 28% of non-gang youth responded affirmatively (Decker, Pennell, & Caldwell, 1997). In a related study, Wright et al. (1992) found that 90% of juvenile inmates who owned guns and 57% of

students who owned guns had friends who owned guns. An even stronger relationship has been found between juvenile gang membership and gun ownership, as gang members are more likely to own firearms than non-gang youth (Curry et al., 1994; Sheley et al., 1995). The impact of gang membership on adolescent gun ownership will be addressed further in the following chapters.

The concept of environment is defined as the aggregate of social and cultural conditions that influence the life of an individual or community (Mish et al., 1990). Much of the research focusing on juvenile gun ownership has found that youths who own guns come from an environment where firearms are readily available (Decker et al., 1997; Wright et al., 1992). Another common characteristic found in similar studies is the high level of violence present in the juveniles' neighborhoods. The inner-city is a dangerous and explosive environment marked by a high crime rate (Stark, 1987; Wilkinson & Fagan, 1996). In addition, gang problems are common within American cities, both small and large, and exaggerate the crime rate because of heightened levels of juvenile violence (Curry, Ball, & Fox, 1994).

Many studies have exposed a high rate of victimization in urban America, with many youth reporting they have been personally threatened, personally know someone who has been threatened, and have witnessed violence (Ash et al., 1996; Wright et al, 1992). Exposure to high levels of violence becomes a way of life for inner-city adolescents (Wilkinson & Fagan, 1996). Anderson (1994) argues that simply living in such an environment considerably increases the risk of young people falling victim to aggressive behavior. This phenomenon is so real that the term chronic community violence (CCV) has been coined to describe the pronounced risks which accompany inner-city life (Osofsky, 1995). Chronic community violence is defined as frequent and continual exposure to guns, knives, drugs, and random violence, conditions which exist in all urban environments (Osofsky, 1995).

The vast majority of research concerning juvenile gun ownership has continually found that the primary reason listed for owning a firearm is personal protection (Decker et al., 1997; Hemenway, Prothrow-Stith, Bergenstein, Ander, & Kennedy, 1996; Lizotte et al., 1994; Sheley & Wright. 1993: Wright et al., 1992). Juvenile gun ownership may be a direct result of environmental instability which promotes violence and fear of victimization. To determine the influence the environment has over juveniles residing within an environment characterized by CCV, gun accessibility and community violence will be used as measures of the overall level of violence present in the juveniles' neighborhoods. These measures will be scaled and examined to determine how they affect juvenile gun ownership.

Throughout the course of this paper, juveniles' attitudes concerning firearms will be examined to determine what effect they have, if any, on actual gun ownership. Attitudes are important to include in analysis because they illustrate youths' pro-gun or anti-gun beliefs which result from prior socialization. Some researchers contend that it is more important to study behavior than attitudes, because behavior is what determines delinquency (Inciardi et al., 1993). Hence, this thesis will study the relationships among a juvenile's family, peers, and environment to determine what effects they have on juvenile handgun ownership. In order not to complicate, cloud, or misconstrue any possible relationships which may emerge, the youths' sex, age, race, gang membership, and incarceration status will be controlled for so as not to misrepresent any of the findings.

Chapter 3 — Data & Methods

Data

These data were gathered to study violence committed by and against inner-city juveniles (see Sheley et al., 1991). The sample population consists of two groups: inner-city public high school students in grades nine through twelve and incarcerated youths held in detention facilities near the schools' locations. A total of ten inner-city high schools and six detention facilities were targeted in four states: California, Illinois, Louisiana, and New Jersey. Questionnaires were distributed to 835 male inmates and 1,663 male and female students. Data collection took place from January 1991 through April 1991. The two questionnaires differed slightly between the two populations (students and inmates), but covered the same core subjects for each sample group. Items questioned the respondents about their demographic characteristics, school experiences, firearm habits, victimization histories, gang membership, neighborhood descriptions, delinquent patterns, drug use, and attitudes concerning guns, general delinquency, and violence. The site selection purposely targeted cities with high gun-related activities.

Table 1. Respondents' demographic characteristics (N = 1641)

Mean age	16.69 years
Percent race distribution	7.7 White
	60.3 Black
	24.2 Hispanic
	8.0 Other
Percent of sample incarcerated	50.9
Percent of sample claiming gang membership	50.3
Percent of sample owning handgun	56.0

Originally, data were gathered from 835 male inmates and 1,663 male and female high school students. Because of the absence of comparative female inmate data, the 904 female students were removed from analysis which resulted in a sample size of 1594 male respondents. From this sample, 133 cases consisting of persons who indicated they owned handguns for the purpose of hunting were deleted because juveniles in some states are legally permitted to own guns for hunting. By excluding those respondents, the reliability is increased. The final sample size is 1461 respondents. Table 1 describes the respondents' demographic characteristics, including their age, race, incarceration status, gang membership and handgun ownership.

Independent Variables

The independent variables used in this thesis will be scales measuring family gun habits, peer approval of gun ownership, peer gun behavior, gun prevalence in neighborhoods, and gun attitudes. Scales offer two benefits; they increase the complexity of the level of measurement of variables, and they avoid reliance on any single response item. As a result, they provide a more exact measurement of a concept. Scales are summarized in Table 2.

Table 2. Reliabity Analysis for Independent and Control Variables

Family gun habits scale	
Item	Mean
1. Do any of your siblings own a gun	.3756
2. Have any of your siblings ever given you a gun	.1634
3. Do any of your male relatives own a gun	.7484
4. Have you ever gone shooting with a relative	.3803
Reliability coefficient	.5827
Sample size	1065

Peer approval of gun ownership scale		
Item	Mean	Percent Agree
1. Friends would look down on me if I didn't own gun	1.5188	9.6
2. No respect from peers if didn't own gun	1.5848	11.5
Reliability coefficient	.7713	
Sample size	1197	

Peer gun behavior scale		
Item	Mean	Percent Agree
1. How many of your friends own guns	2.1860	68.3
2. How often have you gone shooting with friends	3.0387	48.8
Reliability coefficient	.7417	
Sample size	1188	

Gun prevalence in neighborhood scale

Item	Mean	Percent Agree
1. Have you been threatened with a gun	1.8863	64.0
2. There are lots of guns in my neighborhood	2.4565	79.2
3. How easy is it to get gun	2.3649	75.7
4. Need gun to defend myself	2.4432	75.4
Reliability coefficient	.6036	
Sample size	1047	

Gun attitude scale

Item	Mean
1. Guns make me feel better	.5962
2. Guns are fun	.4076
3. It is OK to shoot someone who has hurt you	.4867
4. It is OK to shoot someone who doesn't belong	.2057
5. It is OK to shoot someone to get what you want	.2495
Reliability coefficient	.7381
Sample size	1050

Gang Influence scale

Item	Mean
1. Many gang members carry guns	.7057
2. There are many guns around when gang meets	.6743
3. Must own a gun to join my gang	.0943
4. Must show you can use a gun to join my gang	.1743
Reliability coefficient	.6068
Sample size	700

Family

A youth's family is an important factor in his decision to participate in or abstain from delinquent activities (Akers et al., 1979; Nye, 1958). A great deal of research shows that a child's family is crucial to his/her socialization (Hirschi, 1969; Loeber & Dishion, 1983; Nye, 1958). In accordance with learning theory, if a child is raised in a family which supports pro-delinquent beliefs and actions, he/she is likely to exhibit pro-delinquency tendencies. Research has found that delinquency is more probable among youths whose family members are criminalistic (Santman et al., 1997; Sutherland & Cressey, 1978). In addition, youths who own firearms often come from families which support pro-gun beliefs and behaviors (Ash et al., 1996; Cao et al., 1997; Wright et al., 1992). For these reasons, I intend to include the youth's family as an independent variable to determine if is affects the adolescents' delinquent habits, namely gun ownership.

There are several items measuring family delinquency and pro-gun attitudes. The family gun habits scale includes four items, "have any of your siblings ever owned

a gun", "have any of your siblings ever given you a gun", "do any of the males in your family own guns" and "have you ever gone shooting with a relative". The items in the scale are dummy coded (0 = no, 1 = yes). From the scale it is apparent that 37.56% have siblings who own guns, 16.34% have been given a gun by a sibling, 74.84% report that there is at least one male in their family who owns a gun, and 38.03% have been shooting with a family member. The .5827 alpha level suggests that the scale measuring family gun habits is moderately reliable. The sample size of 1065 is somewhat lower than the 1461 participating in the study. The reason for the discrepancy is that a number of respondents did not answer the questions (refer to Table 2).

Peers

A great deal of research exploring all forms of juvenile delinquency has found that youths are significantly affected by their peers (Akers et al., 1979; Inciardi et al., 1993; Sutherland & Cressey, 1979; Winfree et al, 1994). In the adolescent years, youths often strengthen peer bonds in an attempt to establish parental independence (Inciardi et al., 1993). When the friends of juveniles hold attitudes favorable to law violation, the juveniles often also hold these beliefs (Hallinan & Williams, 1990). The scope of peer influence exceeds mere attitude acquisition as many researchers have found that delinquent youth often have delinquent peers (Akers et al., 1979). Juveniles often act in a delinquent manner in an attempt to gain peer approval (Emler & Reicher, 1995; Giordano et al, 1986).

Specific to gun violations, it is likely for juveniles to own guns when their peers are actively involved with firearms (Inciardi et al., 1993; Lizotte et al., 1997). Decker et al. (1997) questioned youths and found that a significant amount of them receive respect from friends if they own a gun. These figures are more dramatic in the case of

gang members and inmates as a greater percent of these juveniles report peer approval of gun ownership (Decker et al., 1997; Wright et al., 1992).

The first peer scale includes the following questionnaire items, "my friends would look down on me if I did not carry a gun" and "in my crowd, if you don't have a gun, people don't respect you". These two items are coded in a fashion that is similar the Likert scale (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree) and produce a .7713 reliability (alpha) level. Looking at Table 2, the percentage breakdown for the first item is as follows, 62.7% disagreed strongly, 27.6% disagreed, 4.6% agreed, and 5.0% agreed strongly. In terms of the second item, 58.7% disagreed strongly, 29.7% disagreed, 5.8% agreed, and 5.7% agreed strongly. The difference between the number of cases in the scale and the total number of respondents is due to some of the juveniles failing to answer the item.

The second peer scale, peer gun behavior, includes "how many of the people do you hang out with own guns" and "have you ever gone shooting with friends". These items are scaled from 1 through 3, with 1 representing the lowest value and 3 the highest. Of the respondents, 23.1% don't have any friends who own guns, 26.7% have some friends who own guns, and 41.6% have a lot of friends who own guns. When asked if they had ever shot guns with friends, 36.3% said they had never, 6.2% had gone shooting a few times, and 42.6% had been shooting with friends many times. The peer gun behavior scale carries a .7417 alpha level. The number of valid cases is smaller than the total number of respondents due to missing data.

Environment

Wilkinson & Fagan (1996) have found that the "code of the streets" has a strong influence over children, adolescents, and young adults. An environment can have a subculture of its own, complete with values, norms, and rules which may differ from the rest of society (Miller, 1958). As a result, the environment can act as an

influencing agent, affecting what is learned. Rodney Stark (1987) found that certain neighborhoods continually have high rates of crime and deviance despite complete residential turnover, suggesting that the environment actively influences its population. Staples (1982) contends that in the ghetto the highest level of esteem and respect is reserved for the best streetfighter in the neighborhood and that older males encourage children to develop aggressive tendencies. Environments characterized by gang presence result in many youths being informally socialized into the gang subculture at a very early age (Shelden, Tracy, & Brown, 1997). Youths living in urban America have been raised in a subculture which is characterized by guns, drugs, crime, and victimization (Wright et al., 1992). Wilkinson & Fagan (1996) contend that youths must adapt to this lifestyle and learn to act in accordance with the norms, values, and realities present in the inner-city. The prevalence of firearms and the ease of accessibility also affect juvenile gun ownership (Blumstein & Cork, 1996) Due to these findings, the concept of environment should be operationalized and examined to determine what effect it has on juvenile delinquency.

In an attempt to measure the affect one's environment has on his or her decision to act in a delinquent manner, several items will be entered into a scale. The gun prevalence scale (see Table 2) measures the level of perceived and actual risk present in the youths' neighborhoods. The first item measures the frequency the respondents have been threatened with a gun in their neighborhoods. The responses are coded from 1-3; with 1 = never; 2 = a few times, and 3 = many times. The percentage of juveniles answering never is 36.0%, a few times is 47.0%, and many times is 17.0%. The second and third scale items measure gun accessibility within the juveniles' neighborhoods. The second item has three possible values, 1 = very hard to obtain guns, 2 = moderately easy, 3 = very easy, and asks the youths how easy it is to get guns in their neighborhoods. The answers are as follows, 20.7% think it's very hard, 16.7% moderately easy, and 62.5% very easy. The third item, "there are lots of

guns in my neighborhood; it's easy to get guns", reports that 24.4% of the juveniles believe the statement is false and that it is difficult to get guns, 19.3% agree with the statement and believe it's fairly easy to get guns, and 56.4% of the juveniles feel strongly about the statement and say it's very easy to get guns. The fourth scale item is, "the importance of carrying a weapon for self-defense", and is coded from 1-3. An answer of not important = 1, somewhat important = 2, and very important = 3. Of the youths who answered the question, 16.5% answered 1, 24.9% answered 2, and 50.5% answered 3. The missing cases for the four scale items equal 103, 249, 205, 203 respectively; this results in a sample size of 1047 valid cases.

Attitude

Differential association asserts that youth become delinquent when they have an excess of definitions favorable to law violation over definitions unfavorable to law violation (Sutherland, 1947). Youths' attitudes are influenced by those who carry significant meaning in their lives, namely family, peers, and environment. Attitudes, in turn, affect one's behaviors. A youth who has pro-delinquent attitudes often exhibits delinquent behavior as a result.

A number of items regarding the juveniles' gun beliefs are entered into an attitudinal scale to create a reliable measure. These survey items include, "feeling better is an important reason as to why I own guns", "guns are fun, I like guns", "it is OK to shoot a person if they have done something to hurt or insult you", "it is OK to shoot somebody who doesn't belong in your neighborhood", and "it is OK to shoot a person if that's what it takes to get something you want". Each of these six items are dummy coded with 0 = not important and 1 = important for the first question (rrfelbet) and 0 = disagree and 1 = agree for the four other items. Looking at Table 2 it is evident that 59.62% of the juveniles feel better when having a gun, 40.76% think that guns are fun, 48.67% believe it's OK to shoot someone who hurts you, 20.57% say it's OK to shoot

someone who doesn't belong in your neighborhood, and 24.95% affirm that it's OK to shoot someone if they have something you want. A reliability analysis shows that the scale carries a .7381 alpha level which is fairly high. There are 1050 valid cases in this scale.

Dependent Variable

Gun Ownership

In the United States, it is illegal for minors (persons under the age of 18) to own firearms. There are several exceptions to this general rule and include provisions such as hunting, having written parental consent, and military privilege. While the number of inner-city juveniles who fall under these categories is probably rather small, an effort will be made to exclude all possible cases. These exceptions will be discussed later. This thesis will only include handguns (revolvers and pistols); rifles and shotguns will be excluded. Research has found that handguns are the firearm most commonly used in crime (BJS, 1995). Additional research has suggested that juveniles are attracted to handguns, largely because of the ease of obtaining the gun (Center to Prevent Handgun Violence, 1993). DeFronzo (1979) limited his study to handguns because they are more likely to used for crime, protection, or harming someone than either shotguns or rifles.

It is unclear from the data whether any of the gun owning youth have written parental consent or military privilege; however it is unlikely that either condition is satisfied. While youths may own firearms with expressed, documented parental permission, the number of cases of inner-city adolescents who meet this requirement is probably minimal. Furthermore, the majority of respondents, 70.1%, are under the age of 18, and therefore are not permitted to join the military. The juveniles who make up the other 29.1% are either incarcerated or attending high school, this suggests that they are not actively involved with the armed forces. Information concerning firearm

ownership for hunting purposes is provided, all persons who indicated they owned handguns for the reason of hunting (n = 133) will be dropped from the study; this decision is supprted by past research which also chose to eliminate hunters from analysis (Hill, Howell, & Driver, 1985). Because the number of cases dropped is small, 8%, the sample size is not affected as it changes from 1594 male respondents to 1461 male respondents.

The variable "gun ownership" is derived from the responses given to questions asking if the youth "has ever owned" either a pistol or a revolver. The answers to these items have been collapsed into one measure (ohandgun) which is dummy coded where 0 = no, I have never owned a handgun and 1 = yes, I have owned a handgun. A frequency of the variable reveals an almost equal distribution with 56.0% of the respondents indicating that they have owned a handgun at some time.

Control Variables

When examining the effect family, peers, and the environment have on youths' gun attitudes and gun ownership, it is necessary to control for rival influencing variables. This is done to prevent the emergence of spurious relationships and inaccurate results. The following variables will be controlled for so they will not influence the relationships between the independent variables, gun attitudes, and gun ownership. In this paper, females will be excluded from analysis largely because of the absence of female data. Ideally, both sexes would be included so that results may generalized to all youths and not just males However, this does not pose too large of a problem as many delinquency researchers elect to focus solely on male subjects. Excluding females is a common occurrence because males are considerably more criminalistic than females at all ages and with regard to nearly every type of criminal offense (Anderson, 1994; Emler & Reicher, 1995; Steffensmeir & Allan, 1991; Sutherland & Cressey, 1978). Specific to this particular form of delinquency (juvenile

gun ownership) males are more likely to be involved with firearms (Anderson, 1994; Bjerregaard & Lizotte, 1995; Cao et al., 1997; Shelley, Brody, Wright, & Williams 1994; T. Smith & R. Smith, 1995).

Age

The age of the juveniles in this study will be controlled to determine which age group is more likely to hold pro-gun attitudes and exhibit pro-gun behavior. Older youths have been socialized longer and therefore, may be more likely to be affected by influencing agents. These data include youths as young as 11 years of age and as old as 24 years of age. The majority (96.9%) fall within the range of 14 to 19 years of age, with a mean of 16.73 years and a median and mode of 17 years.

Race

Another variable which will be controlled for is the respondents' race or ethnicity. The inner-city, which is characterized by a high rate of criminal incidence, is predominantly made up of minority residents (Curry et al., 1994). As a result, lower-income black children are exposed to violence at very early ages (Staples, 1982). Thus, the environment and race of the respondents may interact to affect juveniles' attitudes and behaviors concerning firearms. Research shows that blacks are more likely to own guns than whites (Ash et al., 1996; Bjerregaard & Lizotte, 1995). It is for all of these reasons that race must be controlled for when examining the effects of family, peers, and the environment on gun attitudes and ownership.

Research has suggested that minority youth may experience different family and peer socializations than non-minority youth (Mason et al., 1994). This may be related to where the family lives since urban settings are usually characterized by high crime rates, high victimization rates, and as a result, the family must adapt to inner-city life in order to survive (Anderson, 1994; Curry et al., 1994). Minority youth may also be

more highly influenced by peers than non-minority youth (Mason et al., 1994; Watts & Jagers, 1997). Juvenile gun ownership research has found that black youths are more likely to own guns than white youths (Ash et al., 1996; Bjerregaard & Lizotte, 1995). In addition, black males are over-represented in the criminal justice system (McGarrell, 1993; Sutherland & Cresey, 1978).

In order to account for these variations, race will be controlled so that the independent variables and their effect on gun ownership may be accurately measured. Much of the research on this topic examines only black and white gun owning habits, by controlling for race, we can see how prevalent gun ownership is amongst other racial groups. The racial breakdown of these data are the following, 7.7% of the sample is White, 60.3% Black, 24.2% Hispanic, and 8.0% Other.

Gang Measures

A third controlling variable is gang membership. Many varying definitions of a "gang" have been offered over the years, and still no consensus has been reached (Knox, 1991; Oehme, 1997). Knox (1991) contends that a group qualifies as a gang when it is involved in criminal or delinquent activity which benefits the members. This researcher, and others, note that the benefits may take many forms and are individualistic to each member (Jankowski, 1991; Knox, 1991; Shelden et al., 1997). Gangs are often present in urban environments characterized by a low socio-economic standing, high unemployment, and a large minority population (Bjerregaard & Lizotte, 1995; Curry et al., 1994; Santman et al., 1997).

Each of the four states included in this study, California, Illinois, New Jersey, and Louisiana have cities which report having a gang problem (Curry et al., 1994). Gangs offer youth acceptance, a sense of belonging, and a place of protection (Lawrence, 1998). Consequently, the gang has considerable influence over its members, more so than the influence of other highly delinquent non-gang peers

(Howell, 1997). Youths claiming gang membership are more criminal than non-gang youth (Esbensen & Huizinga, 1993; Howell, 1997; Sheley et al., 1995). Also, gang members are more likely to be involved with guns than are non-gang members (Bjerregaard & Lizotte, 1995; Fagan, 1990; Lizotte et al., 1997; Sheley et al., 1995).

In this thesis, two gang measures will be included as control variables. The first measure, "are you a gang member", includes 50.3% of the juveniles responding "yes". The second measure will be used to determine the strength of pro-gun influences gangs have over their members (see Table 2). The following binary variables comprise the second measure and have been used to create a scale, "most of the people in my gang carry guns", "there are always lots of guns around whenever the gang gets together", "you have to have a gun to join my gang or group", and "you have to show you can use a gun to be in my gang". The percent of juveniles who answer affirmatively to these measures are 70.57%, 67.43%. 9.43%, and 17.43% respectively. The .6086 alpha level suggests that this scale moderately measures the influence gangs have on juveniles' decisions to own guns. A sample size of 700 may be problematic; however, it coincides with the number of juveniles in the study claiming to be gang members.

Status

The final factor which must be controlled for to prevent reporting misleading results is whether the respondent is currently incarcerated or a student currently attending high school. There are two reasons why this must be taken into account. First, inmates are known to have been delinquent; therefore, they have a higher rate of criminality than non-delinquents (Inciardi et al., 1993). Second, research has shown that inmates are more likely to own and/or carry firearms than are non-inmates (Ash et al., 1996; Decker et al., 1997; Smith, 1996; Wright et al., 1992).

Much of the research on juvenile delinquency suggests that delinquent youth, more often than non-delinquent youth, have friends and family members who are criminal (Sheley et al., 1995). With regard to firearm habits, inmates are more likely to have a higher degree of gun contact than are non-inmates (Ash et al., 1996; Decker et al., 1997; Wright et al., 1992). This thesis will control for the status of the respondent (student verse inmate). Within this sample, 49.1% of the juveniles are inner-city high school students and 50.9% of the juveniles are inmates being held in detention facilities relative to the high schools' locations (see Table 1).

Methods

First, bivariate analysis will be conducted to examine the influence each of the independent variables has on the dependent variable using analysis of variance. Second, multivariate analyses will be implemented to look at the effect the independent variables have on pro-gun attitudes and pro-gun behavior (ownership), while controlling for possible competing factors. Because the dependent variable is dichotomous, it has only two possible values, the ordinary least squares regression model is inappropriate (Bachman & Paternoster, 1997). The dependent variable, juvenile gun ownership, must be dummy coded with 0 = "no" and 1 = "yes" so that the logistic regression model can be used for multivariate analyses (Bachman & Paternoster, 1997). Logistic regression uses a nonlinear model called the maximum-likelihood method to estimate the data parameters. From this model, an equation is obtained in order to estimate the probability of the dependent variable occurring based on the independent variables (Bachman & Paternoster, 1997).

Chapter 4 — Results

Bivariate Analysis

This study uses a dichotomous dependent variable, juvenile gun ownership, and a number of both categorical and continuous independent and control variables. Analysis of variance was used to test whether or not the group means of the variables are equal to zero. If the reported significance level is below .05, then the dependent variable and the independent variable are significantly related to one another. In the cases where there are more than two means, a post hoc Bonferroni test was used to determine which means were significantly different from the others. The findings of these analyses are presented in Table 3.

Table 3. Bivariate analysis (ANOVA)
The effects of the independent and control variables on juvenile handgun ownership

Variable	N	Mean	Significance
Age			.000
11-14	74	.3243	
15-17	934	.5482	
18-older	431	.6241	
Missing	22		
Race			.134
White	111	.6486	
Non-white	1336	.5524	
Missing	14		
Student Status			.000
Inmate	743	.7725	
Student	718	.3398	
Missing	0		
Gang Membership			.000
Gang Member	701	.7660	
Non-gang Member	692	.3497	
Missing	48		

Variable	N	Mean	Significance
Gang Influence			.000
No gang influence	153	.4052	
Gang influence	547	.8464	
Missing	761		
Family Gun Habits			.000
0 - low	201	.2090	
1	297	.4377	
2	310	.6258	
3	169	.8166	
4 - high	88	.9432	
Missing	396		
Peer Gun Approval			.001
2 - low	598	.5033	
3	218	.5872	
4	230	.6522	
5	54	.6296	
6	38	.6316	
7	25	.7200	
8 - high	34	.6471	
Missing	264		
Peer Gun Behavior			.000
2 - low	267	.1199	
3	189	.2857	
4	157	.5287	
5	160	.7375	
6 - high	415	.9133	
Missing	273		
Gun Environment			.000
1 - low	56	.1250	
2 - moderate	245	.4041	
3 - high	513	.8207	
Missing	647		
Gun Attitudes			.000
0 - low	256	.2539	
1	233	.4335	
2 - high	561	.7986	
Missing	411		

Beginning with two of the control variables, age and race, one can see that only the former is statistically related to handgun ownership. In this analysis, a juvenile's race does not affect his decision to own a handgun. Age has been coded into three categories; the first category includes respondents aged 11-14, the second includes 15-17 year olds, and the third is made up of individuals over the age of 18 years. As seen in Table 3, the older the respondent, the more likely he is to own a handgun. The Bonferroni post hoc test confirms the initial findings and further clarifies the relationship. The differences in gun ownership between age groups are statistically significant from one another.

Bivariate analysis of the third control variable, student status, reveals that inmates are more likely to own handguns than students (77% compared to 34%). In this sample, being an inmate more than doubles the likelihood of handgun ownership. Being a member of a youth gang significantly increases the probability of owning a gun, as 76% of members own a handgun while only 35% of non-members own a handgun. The relationship between gang membership and handgun ownership is statistically significant. The influence exerted by a gang over its members to own a handgun is also important; juveniles who experience gang influence are more than twice as likely to own handguns than those who are not subjected to gang influence.

Family gun habits is measured using a scale which ranges from zero to four, where zero represents an absence of gun socialization within the home, and four represents a high level of pro-gun socialization within the home. There is a definite, positive relationship between family gun habits and juvenile handgun ownership. Specifically, the greater the level of pro-gun socialization present in the home (as defined by sibling and relative gun possession, whether siblings had ever given the respondent a gun, and frequency of shooting guns with family members), the more likely juveniles will own handguns. When gun exposure is present in the home, juveniles tend to follow that example.

Items that measure the importance of peer approval in a juvenile's decision to own a handgun were combined in a scale. Respondents' scores vary from two through eight, where a value of two indicates that peer approval is not important to the juvenile, and a value of eight means that peer approval is very important to the juvenile with regard to handgun ownership. While an ANOVA produces a significance level of .001, the Bonferroni test indicates that only two groups are significantly different from one another (group 2 and group 4). The importance of this variable should be questioned, since there is no obvious pattern to the relationship.

While the effects of peer approval on gun ownership are inconclusive, peer behavior and the effect it has on juvenile handgun ownership is very clear. This scale is made up of items describing gun ownership among the juveniles' close friends, and the frequency with which juveniles and their peers have gone shooting together. There is a steady positive relationship, as the level of peer gun behavior increases, so does juvenile handgun ownership. The relationship is statistically significant; juveniles who have few friends owning guns are less likely themselves to own handguns than juveniles who have many friends who own guns (12% compared to 91%). The difference is striking, and the Bonferroni test reveals that the categories are all significantly different from each other.

The gun prevalence scale was created using measures of the level of violence and gun accessibility in the juvenile's neighborhood. The possible values of this scale range from one through three, where one signifies a low level of gun presence in the immediate environment, 2 represents a moderate level of gun presence, and 3 shows a high level. As the level of firearm prevalence and accessibility increases, so does the frequency of juvenile handgun ownership. There is a significant difference in handgun ownership among youths who live in relatively gun-free neighborhoods versus youths who live in an environment characterized by a moderate level of gun prevalence and youths who live in highly volatile areas with a pronounced firearm subculture. Looking

at Table 3, the mean level of juvenile handgun ownership for respondents living in a neighborhood characterized by a low level of firearm presence is .12, compared to .40 in a moderate gun environment, and .82 in a atmospheres containing a high level of firearm prevalence. In other words, the neighborhood in which the respondent lives directly impacts the likelihood of him owning a handgun.

Finally, the relationship between juveniles' pro-gun attitudes and gun ownership was examined. Adolescents who do not harbor many attitudes favoring guns have a significantly lower rate of handgun ownership than youths who have attitudes moderately or highly favorable to firearms. Once again, there is a positive relationship present, and the Bonferroni analysis indicates that each category of pro-gun attitudes (high, moderate, low) is significantly different from the others.

Multivariate Analysis

This thesis uses a dichotomous dependent variable, thus linear regression is not an option when conducting multivariate analysis. When the dependent variable can have only two values, the premise supporting ordinary least-squares regression will not hold true because it is not possible to assume that the distribution of errors is normal. Instead, logistic regression will be used to estimate the probability that an even occurs. This model requires fewer assumptions than linear regression and still provides accurate, reliable data. Because this type of regression analysis is not linear by nature, the parameters of the model are set using the maximum-likelihood method. The log-likelihood provides information as to how well this model fits the data; in other words, do the independent variables adequately measure the dependent variable.

In accordance with logistic regression, the odds ratio coefficient is included to show the probability of an event occurring. The odds ratio coefficient reveals the increase or decrease in the odds of the dependent variable occurring with a one unit change in the independent variable. Thus, if the number in the odds column is greater than one, the independent variable increases the odds of juvenile handgun ownership. Conversely, if the number is less than one, the independent variable decreases the odds of juvenile handgun ownership. Also, if the odds column equals zero, the independent variable does not affect the dependent variable. The odds ratio was chosen over the log odds coefficient because of personal preference; both accurately describe the data. The Nagelkerke R Square statistic signifies how much of the variation in the dependent variable, juvenile gun ownership, is explained by the independent variables. Throughout this section the odds coefficient will be used to describe the relationship between the independent and dependent variables. This statistic was chosen because it is easier to interpret than the log odds statistic.

Table 4. Logistic Regression: The effects of the control and independent variables on juvenile handgun ownership

Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
	N = 1360	N = 1157	N = 1153	N = 1019	N = 1017	N = 1036	N = 799
Age	1.036	1.029	1.007	0.989	1.050	1.045	1.014
White (1)	0.698	0.747	0.769	0.770	0.706	0.420 **	0.460 *
Student (1)	0.223 **	0.185 **	0.414 **	0.229 **	0.232 **	0.174 **	0.316 **
Gang member (1)	3.486 **	3.180 **	1.711 **	2.257 **	2.261 **	2.720 **	1.450
Peer gun approval		1.127 *					0.940
Peer gun behavior			2.360 **				1.738 **
Gun environment				1.489 **			1.140 *
Pro-gun attitudes					1.659 **		1.157
Family gun habits						2.329 **	1.557 **
Nagelkerke R_2	0.241	0.263	0.396	0.447	0.445	0.485	0.569

Note.
*p<.05. **p<.001.

In Table 4, a number of models are presented. There are several reasons for including these models, the most influential being the large number of missing cases found throughout the data. When looked at individually, the separate independent variables are missing for a small percentage of cases; however, once all of the relevant variables are included in the model, there is a large number of missing cases. In order to safeguard against unrepresentative findings as best as possible, the results are offered both individually and as a whole so that the reader may be alerted to the phenomenon of missing data. It is important to note that the independent variable "gang influence" has not been included in multivariate analysis. The reason behind this decision is that this variable had a high number of missing cases (761), thus it interfered with the results produced in logistic regression.

The first model contains only the four control variables, age, race, student status, and gang membership. Model 1 has the highest possible sample size present during multivariate analysis, 1360 respondents out of a possible 1461 respondents. In addition, this model highlights the effect of the control variables on juvenile handgun ownership and serves as a basis for comparison as other variables are entered into the equation. In short, Model 1 reveals that age and race are not significantly related to juvenile handgun ownership. An odds coefficient of 3.486 was produced for gang membership; thus, being a gang member significantly increases the odds of a juvenile owning a handgun. In addition, students, as opposed to incarcerated juveniles, are significantly less likely to own a handgun (.223). Both of the significant variables, gang membership and student status produce p values less than .001. The Nagelkerke coefficient is the preferred R Square statistic; in this model is reveals that .241 (or 24.1%) of the variation in juvenile handgun ownership is explained by the youth's age, race, student status, and gang membership.

Models 2-5 produce similar results and will be discussed below. Each of these models contain the four control variables mentioned above, and each model contains one of the independent variables. This was done to examine the effect of that particular independent variable on the dependent variable, juvenile handgun ownership. In each of these analyses, the general effects of the various independent variables were the same on the control variables, with the strength of the odds varying slightly.

Model 2, which contains peer approval of gun ownership as the independent variable (N = 1157). The overall findings are similar to Model 1 with age and race not related to handgun ownership. Once again, gang membership significantly increases the odds ratio of juvenile handgun ownership (3.180), and students are significantly less likely than inmates to own handguns (.185). The independent variable, peer approval of gun ownership, reveals that as gun approval rises, so does the likelihood of juvenile handgun ownership. The relationship is significant ($p < .05$) with an odds coefficient of 1.127. The Nagelkerke R_2 for Model 2 (.263) is similar to Model 1 (.241), thus the inclusion of peer gun approval by itself does not explain much more variance in juvenile handgun ownership.

The third model includes peer behavior in order to examine the effect peer gun ownership has on a juvenile's decision to own a handgun. Peer behavior is a measure of two items: how many of the juveniles' friends own guns, and the frequency that the juvenile had gone shooting guns with his friends (see Table 4). The original effects the control variables have on juvenile handgun ownership are the same as those described in Model 1. The odds coefficients for age, race, student status, and gang membership are 1.007, .769, .414, 1.711 respectively. The major difference between Model 3 and Models 1 and 2 is that the strength of the effect of gang membership on juvenile handgun ownership is reduced. Whereas the first two models produced odds coefficients of 3.486 and 3.180, the third model only produces an odd coefficient of

1.711. Although it remains significant, the strength has decreased noticeably. From this analysis, one can see that having friends who actively participate in the gun subculture greatly increases the likelihood of a juvenile exhibiting the same behavior. Juveniles who have a large number of peers owning and firing guns are significantly (2.360) more likely to own a handgun. In this model, the Nagelkerke R_2 increases as 39.6% of the variation in juvenile handgun ownership is explained by age, race, student status, gang membership, and peer gun behavior. This figure is notably larger than the R_2's produced in Models 1 and 2.

Model 4 (N = 1019) examines the influence a juvenile's environment has on his decision to own a handgun. The environment variable was created using measures of the prevalence and ease of accessibility of firearms, the need for guns to provide protection, and the frequency of gun victimization and/or threat within the juveniles' neighborhoods. This drop in strength is not significant and therefore it may be ignored. Being a student significantly decreases the odds of juvenile handgun ownership (.229), while being a gang member significantly increases the odds of juvenile handgun ownership (2.257). These results are similar to those reported above. The independent variable, gun prevalence in the juveniles' environment, significantly increases the odds of juvenile handgun ownership (1.489). Thus, juveniles who live in areas characterized by high levels of firearm activity are dramatically more likely to own handguns than juveniles living in relatively gun-free atmospheres. Models 4 and 5 have similar Nagelkerke findings; 44.7% and 44.5% of the variation found in juvenile handgun ownership is explained by the independent variables found in these respective models.

The fifth model produces much of the same odds coefficients as the previous models with age (1.05) and race (.706) not affecting likelihood of gun ownership. Similarly, being a student significantly decreases the probability of gun ownership (.232) while gang membership significantly increases the probability of gun ownership

(2.261). The attitudes a juvenile has towards guns significantly effects the odds of that juvenile owning a handgun. Adolescents who feel that guns are fun, who indicate that having a gun makes them feel better, and who are able to justify the use of guns against others are significantly more likely to own a handgun (1.659) than juveniles who express reserve and uncertainty about firearms.

The last independent variable, family gun habits, is included in Model 6. A sample size of 1036 respondents is slightly higher than the sample sizes of Models 4 and 5 (N = 1019, 1017 respectively). In this analysis, the results for three out of the four control variables mimic those described above: age is not related to juvenile handgun ownership, while inmate status and gang membership both increase the likelihood of ownership. A change in the relationship between race and owing guns occurs when family gun habits are entered into the regression model. Controlling for the gun subculture found in the home, white juveniles are significantly less likely to own handguns than non-white juveniles (.420). Model 6 produces a slightly higher Nagelkerke R_2 statistic as 48.5% of the variation found in juvenile handgun ownership is explained by the independent variables.

Model 6 is the first model where race becomes a significant factor affecting juvenile handgun ownership. Further analysis in the form of an independent samples t-test (which is not presented in this paper) reveals that white youth are significantly more likely than black youth to come from families which support the use of firearms. Further explanation of this phenomenon will be offered in Chapter 5. The independent variable, family gun habits, significantly affects the odds ratio of a juvenile owning a handgun (2.329). Juveniles who are raised in homes where family members own guns, have given them a gun, and/or have taken them shooting are socialized to accept guns; therefore, they are more likely to own a handgun.

Model 7 contains all four of the control variables and each of the five independent variables. When these nine variables are combined into one logistic

regression model, the sample size drops to a mere 799 respondents. Steps were taken to try and increase this sample size, including or excluding certain variables, altering scales, and substituting items, but nothing resulted in a higher number of cases. Again, age is not related to juvenile handgun ownership and students are significantly less likely than inmates to own handguns (.316); these two relationships have been constant throughout the models. This model results in several changes with regard to two of the control variables; race plays a significant role in terms of juvenile handgun ownership and gang membership loses its significance. In this model, the odds of white juveniles owning handguns are significantly lower than the odds of non-white juveniles owning handguns (.460). In the six previous models, gang membership was highly related to juvenile handgun ownership. In Model 7, this relationship disappears (1.45). Additional analysis was conducted to examine this phenomenon; an independent samples t-test revealed that gang membership is significant across each individual category of the five independent variables. The reason why this relationship disappears when they are all combined can only be that these five variables (peer gun approval, peer gun behavior, gun prevalence in the neighborhood, gun attitudes, and family gun habits) explain why juveniles join a gang. This will be further explored in the next chapter.

Three independent variables, peer gun behavior, gun prevalence in the neighborhood, and family gun habits all significantly increase the odds of a juvenile owning a handgun (1.738, 1.140, 1.557 respectively). Thus, juveniles who have a large number of friends active in the gun subculture, are surrounded by firearms in their immediate environment, and who are socialized in families where pro-gun beliefs are present are much more likely to own a handgun. While pro-gun attitudes increase the odds of juvenile handgun ownership, this relationship is not significant (1.157). The only independent variable which does not increase the odds of the dependent variable occurring is peer gun approval (.940). In Model 7, 56.9% of the variation found in

juvenile handgun ownership is explained by the juvenile's age, race, student status, gang membership, peer gun approval, peer gun behavior, gun environment, pro-gun attitudes, and family gun habits (as reported by the Nagelkerke R_2). This figure is notable higher than that produced by any of the other six models.

Chapter 5 --- Conclusion

Social learning theory is based on the idea that people learn deviant attitudes and behaviors the same way they learn conforming attitudes and behaviors. Delinquency theories which follow this basic premise stress the similarities found between delinquents and non-delinquents; namely, both groups share learning capabilities and internalization patterns (Hansell & Wiatrowski, 1981). Learning occurs within intimate groups made up of significant others (Inciardi et al., 1993; Sutherland, 1947). Thus, delinquent behavior is learned through the individual's interaction with influential groups that have embraced non-conforming, criminal values. The definitions learned and the meanings attached to certain acts are the consequence of where learning occurred. Individuals acquire definitions which label certain attitudes and behaviors as being acceptable or unacceptable. It is these definitions which will determine a person's actions.

Differential association has been called the single most important explanatory concept of social learning theory (Akers et al., 1979; Sellers & Winfree, 1990). The crux of Sutherland's differential association theory is that a person becomes delinquent because of an excess of definitions favorable to law violation over definitions unfavorable to law violation (Sutherland, 1947). While this extension of social learning theory proposes that peer relationships have the greatest impact on a youth, it is important not to ignore the effects other significant groups have on a child's development. Because differential associations depend on the frequency, duration, priority, and intensity of a relationship, other influencing agents must be included in analysis (Sutherland, 1947). Besides peers, the family and the environment both serve as powerful agents which shape youths' definitions, attitudes, and behaviors.

Data Findings

This thesis examines the effects which a juvenile's peers, family, and environment have on his decision to own a handgun. In an attempt to safeguard against reporting misleading findings, certain characteristics were controlled for such as the youths' age, status (whether he was a student or an inmate), gang membership, and race. Both bivariate and multivariate analyses were conducted. Analysis of variance was the method of bivariate statistics used; this procedure resulted in every variable, both control and independent, being significant except the youth's race. In order to further elaborate upon these preliminary findings, logistic regression was used to examine the effect one independent variable has on the dependent variable while controlling for all other competing variables. Table 4 highlights the relationships found in this analysis. Model 1 (which consists of the four control variables) serves as a base model which each of the other, more complicated models may be compared to in order to determine the changes the independent variables produce on the odds of a juvenile owning a handgun. Here, neither age nor race are significant; however, both student status and gang membership are significant. Only age and student status will maintain the original findings produced in Model 1, gang membership and race will undergo changes once other variables are introduced.

A surprising effect produced in logistic regression was found when examining the control variable "gang membership". The association of a juvenile with a youth gang and his subsequent involvement with delinquency has been found to be important in a great deal of research (Bjerregaard & Lizotte, 1995; Monti, 1993; Esbensen & Huizinga, 1993; Jensen & Rojek, 1992; Sheley et al., 1995). Models 1-6 in Table 4 found similar results; however, Models 7 and 8 found conflicting results. In the first six regression models, gang membership was consistently found to be significant below the .001 p-level. In each of these models (beside the first which only looked at the control variables) only one independent variable was introduced into analysis. Model 7

consists of regression analysis which includes all five independent variables, family gun habits, peer gun approval, peer gun behavior, gun prevalence in the environment, and gun attitudes. When these independent variables are all included, gang membership is no longer significant. Perhaps the reason for this occurrence is that these five variables explain gang membership; in other words, it is these characteristics which determine whether or not a juvenile will join a gang. This analysis does not prove this statement, it only points to it as a possibility. Nevertheless, this finding is important as it suggests that gang membership should be included in future research.

Another unexpected finding produced in Table 4 is the apparent relationship between a juvenile's race and his family's gun habits. Throughout Table 4, race is not significant except when family gun habits is included in analysis. An independent samples t-test was conducted to further elaborate upon this finding. This analysis showed that white males are more likely to come from a family which is supportive of a gun subculture. Although this finding is not significant (X_2 = .05), it is important to note. In this study, including family gun habits in analysis results in race becoming significant as white males are dramatically less likely to own a handgun than black males. This finding is surprising, and I have no way to explain this phenomenon.

Several independent variables were used in this thesis, these measures were constructed for the purpose of measuring the three main significant groups which affect a juvenile's socialization; family, peers, and the environment. The concept of family gun habits measures the extent to which a juvenile's family is supportive of the gun subculture. When controlling for other factors, this variable has a significant effect on the odds of a juvenile owning a handgun. This finding is supported by research which has found similar results (Caetano, 1979; Lizotte et al., 1994; Santman et al., 1997). Thus, juveniles raised in pro-gun households are more likely to own a handgun than juveniles not raised in this type of home.

Two measures of peer influence were used in this paper; peer approval of gun ownership and actual peer gun ownership. The variable labeled peer approval was found to have virtually no effect on the odds of a juvenile owning a handgun. This suggests that juveniles who own handguns are not swayed by their friends' outward approval of this behavior. Conversely, peer behavior (in the form of owning guns) significantly affects the likelihood of a juvenile owning a handgun. Youths who have a large number of friends who own guns are dramatically more likely to own a handgun than youths who do not have a large number of gun-owning friends. This relationship is prevalent even when controlling for other rival factors such as family, gang, and environmental influences. Just as other researchers have noted, juveniles are likely to own a gun if their peers own a gun (Blumstein & Cork, 1996; Sheley & Wright, 1665; Smith, 1996).

Researchers have suggested that a person's environment shapes his life experiences (Osofsky, 1995; Wilkinson & Fagan, 1996). These same authors note that inner-city environments are often explosive, unstable, and characterized by a high crime rate. The effects which an environment has on a person may be long-term and significant, such is the findings of this research. Juveniles who live in neighborhoods marked by a high prevalence of firearms and victimization are significantly more likely to own a handgun than juveniles who do not live in this type of neighborhood. A youth's environment is often overlooked in research, this mistake should not be continued. The neighborhood which a juvenile lives in may have its own set of rules, norms, and values. This phenomenon is often referred to as the "code of the streets" (Wilkinson & Fagan, 1996). It is important for researchers to recognize, measure, and analyze the effect the environment has on a person's criminal behavior.

Also included in this paper was the independent variable measuring the attitudes which juveniles have towards firearms. Attitudes often precede behaviors, thus it is assumed that juveniles who harbor pro-gun attitudes are likely to own guns.

Although the existence of pro-gun attitudes increases the odds of a juvenile owning a handgun in this study, this relationship is not significant. This finding is intriguing and should be further examined in future research efforts.

The overall findings of this thesis are that juveniles who are exposed to socializing agents which encourage gun ownership are likely to own handguns. In short, juveniles who are raised by families, with peers, and in environments which favor firearms are significantly more likely to own a handgun. These results shed light on why American juveniles are participating in the gun subculture, and may be used to address this trend.

Data Limitations

This study encountered a number of obstacles, most notable is the issue of missing cases. However, other limitations included the normal hindrances associated with secondary data analysis. First, the original researchers neglected to find a sample of incarcerated female juveniles thus comparisons between female students and female inmates were impossible. This is often the case with criminal justice research. Because males are more likely to be involved with illicit activities than females, male subjects are often the focus of research while females, and their criminal involvement, are often ignored. Another concern with secondary data is the differing purposes for which it was collected. The original researchers had different hypotheses in mind, thus the questionnaires contained items relevant to their research problems. Because of this, a number of questions which would have complemented this study were not included due to shortcomings in the data.

Beyond these relatively minor considerations is the issue of missing data. Because the study was restricted to male juveniles, 904 females cases were automatically deleted which resulted in a sample size of 1594 male respondents. This sample was decreased by 133 cases, for reasons which will be explained below,

leaving a sample size of 1461 participants. Students and inmates were handed questionnaires to be completed by themselves. The questionnaires varied in length from 73 items for students and 84 items for inmates, with many of the items having multiple parts to answer. For whatever reason, some items were left largely unanswered. As a result, several of the questions which made up scale items had a large number of missing cases.

The sample sizes for both the bivariate and multivariate analyses conducted in this thesis were always recorded (see Table 3 and Table 4) so that the reader may be aware of the number of cases being included in analysis. The problem is more apparent in logistic regression and is the reason behind presenting eight models. The first model, containing only the four control variables, has a strong sample size of 1360 cases. This number declines as more variables are entered into analysis. Typically, when only one independent variable is included with the control variables, the sample size averages 1076 cases (Models 2-6). However, when all of the control and independent variables are entered into regression, the sample size plunges to 799 cases. Due to the dilemma of missing cases, one of the original independent variables could not be included in analysis. Gang influence was excluded from regression because of the enormously high number (761) of missing cases.

The issue of defining juvenile handgun ownership as a delinquent act is another concern of this study. Persons under the age of 18 are not allowed to own handguns in the United States without having written parental consent, except for the purposes of hunting or military training. While it is largely assumed that the majority of inner-city males participating in this study do not have written parental consent authorizing them to own handguns, it is not positively known as the original researchers made no attempt to gather this information. In addition, because 50.9% of the sample is incarcerated, it is safe to assume that they do not have military privileges which permit gun ownership. While it is possible that some of the remaining respondents have the ability to legally

own a handgun because of military permission. it is not likely that this number is large enough to affect the research findings.

This study was limited to handgun owners in order to exclude all juveniles who indicated they owned a gun for hunting purposes (this is why the 133 cases mentioned above were excluded). It was the intention of this thesis to differentiate between minors (juveniles below the age 18) and adults; however, missing cases did not allow this to occur. Of the 1461 respondents, 431 of the males are eighteen years of age or older. When these cases were deleted from analysis, the dilemma of missing data was greatly exaggerated. As a result, some of the individuals included in this thesis may legally own a handgun; however, it is the presumption of this paper that the number of these persons is minute. In the end, while it is not 100% accurate to label all of these handguns owners as delinquent or criminal, the great majority of them deserve this characterization.

The final limitation presented by these data has to do with the inability to address every aspect of social learning theory. The final component of this theoretical paradigm includes the concept of differential reinforcement. Whereas differential association explains why a juvenile chooses to own a handgun, differential reinforcement explains juvenile gun ownership which exists beyond the initial behavior. Thus, differential reinforcement deals with behavior maintenance. Because these data are only a snapshot of the juveniles' lives, there is no way to measure behavior maintenance or behavior modification. Research efforts which include data over time are beneficial in that juveniles' behavior may be observed for change, thus specific efforts to treat youths in different situations may be made.

Policy Implications

The findings presented in this thesis may be quickly summarized; a youth's family, peers, and environment determine whether or not he will own a handgun. This information carries great importance, and the ramifications of its use may be profound. In light of this evidence, policymakers have a three tier approach in combating juvenile gun ownership. First, families need to be educated on what it means to have a firearm in the house. By simply keeping a gun in the home, families are supporting the gun subculture by indirectly approving of firearms. Children of these families are learning by example and, as the research suggests, are likely to mimic this behavior. If a family chooses to keep a gun in the home, parents/guardians should be encouraged to teach their children about the dangers associated with firearms. In addition, the gun should be kept unloaded and hidden from the children. Whether or not a family owns a gun, they should take steps to address the topic of guns with family members because it is likely that their sons and daughters will encounter them at some point. The family is a very strong teaching source and may be used to stress the harm linked to guns.

A second approach to curbing juvenile gun ownership may focus on a youth's friends. While the family can broach this topic, the school is an ideal forum to tackle this issue. Schools should teach children about firearms at a very early age because the majority of inner-city children are faced with the dilemma of gun participation very early in life. Also, by teaching young children about guns, the schools can include some youths which otherwise would be absent such as dropouts and incarcerated juveniles. By educating children about guns in the classroom, society could be sure that the topic is being addressed, teachers could be available for questions, and complicating matters such as peer pressure, gang membership, crime, and the law could all be included when explaining the consequences associated with firearm use. Adolescents are very susceptible to what their peers are doing, the only way to actively address this is through institutions which house their friends. In addition to schools,

efforts made by authority figures in churchs, community centers, and even detention facilities may encourage youths to avoid firearms.

The third tier, the environment, may be attacked quite actively. Efforts on this front would include passing legislation making it increasingly more difficult to obtain firearms, increasing law enforcement efforts to confiscate guns by targeting illegal suppliers, and "cleaning" up inner-city neighborhoods in an attempt to rid the environment of illicit gun dealers, drug houses, and gang hangouts. By simply getting guns off the streets, children are less likely to acquire, carry, and fire guns thereby making the neighborhood a safer place. Beyond this direct assault on the gun subculture, another approach may be taken where communities become actively involved in encouraging definitions, values, and norms contrary to those typically found in an environment characterized by a high gun prevalence. By taking a community approach, residents of inner-city neighborhoods can stress the dangers of guns and encourage youth to stay away from guns and those who use them.

If these three socializing groups were to be increasingly included in society's efforts to erase juvenile gun ownership, definite changes would likely be seen. It is up to policymakers, community leaders, children advocates, and the criminal justice system to empower the family, schools and other institutions which serve children, and the community so that these influential entities may combat the growing problem America faces. It is only then that juvenile gun ownership may be stopped.

APPENDIX

APPENDIX A

Scaling items taken from respondents' questionnaires

Family gun habits scale

1. Have any of your brothers or sisters ever owned a gun?
   Yes = 1, No = 2
2. Have any of your brothers or sisters ever given you a gun?
   Yes = 1, No = 2
3. Do any males in your family own guns?
   Yes = 1, No = 2
4. Have you ever shot guns with a relative?
   Yes = 1, No = 2

Peer gun approval scale

1. My friends would look down on me if I did not carry a gun
   Agree Strongly = 4, Agree = 3, Disagree = 2, Strongly Disagree = 1
2. In my crowd, if you don't have a gun, people don't respect you
   Agree Strongly = 4, Agree = 3, Disagree = 2, Strongly Disagree = 1

Peer gun behavior scale

1. How many of your friends own guns?
   None = 1, Some = 2, Most = 3
2. How many times have you shot guns with your friends?
   Never = 1, A few times = 2, Many times = 3

Gun prevalence in neighborhood scale

1. Have you ever been threatened with a gun or shot at?
   Never = 1, A few times = 2, Many times = 3
2. In my neighborhood there are lots of guns on the streets; they are easy to get
   Not true = 1, Somewhat true = 2, Very true = 3
3. Let's suppose you need a gun for some reason and you don't already have one, how much trouble do you think it would be for you to get the gun you wanted?
   A lot of trouble = 1, A little trouble = 2, No trouble = 3
4. How important is it to carry a gun to protect yourself?
   Not important = 1, Somewhat important = 2, Very important = 3

Gun attitude scale

1. How important is it to carry a weapon because it makes you feel better?
   Not important = 1, Important = 2
2. Guns are fun; I like guns
   Disagree = 1, Agree = 2
3. It is OK to shoot a person if they have done something to hurt or insult you?
   Disagree = 1, Agree = 2
4. It is OK to shoot somebody who doesn't belong in the neighborhood?
   Disagree = 1, Agree = 2

5. It is OK to shoot a person if that's what it takes to get something you want?
   Disagree = 1, Agree = 2

Gang influence scale

1. Most of the people in my gang or group carry guns
   Yes = 1, No = 2
2. There are always lots of guns around whenever the gang or group gets together?
   Yes = 1, No = 2
3. You have to have a gun to join my gang or group?
   Yes = 1, No = 2
4. You have to show you can use a gun to be in my gang or group?
   Yes = 1, No = 2

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