Abstract

In order to assess the causes for youth gang membership, an analysis of data from interviews with inmates in Texas prison were conducted. The variables of individual characteristics, actual and perceptual neighborhood qualities were included as potential causes of youth gang membership in the analysis. Unemployment from individual characteristics variables and perception toward neighborhood qualities were found to have significant relationship with gang membership. The findings of this study suggest that the problem of youth gang can be addressed to some extents by providing more employment opportunities and implementing positive perceptions on neighborhood qualities as well as the efforts of improving the actual qualities of neighborhood.

Introduction

As a perennial phenomenon of modern life, gangs and gang members have always existed throughout history (Asbury, 1927). Although the exact number of gangs and
gang members in the entire United States is almost impossible to project, researchers have been trying to estimate the number of them based on different definitions of gang (Spergel, 1995). For example, Miller (1982) concluded that there were approximately 2,285 gangs and 97,940 gang members across the nation based on his survey over 286 U.S. cities. Ten years later, Curry, Fox, Ball, and Stone (1992) estimated the number of gangs to be 4,881 and the number of gang members to be approximately 249,324. More recently, Reiboldt (2001) reported that gangs were estimated to include 4,800 with 250,000 to 650,000 gang members across the United States.

In 2001, the Texas Attorney General's Office conducted a survey on the gang issues to 1,453 police chiefs, officers in school district police departments, county sheriffs, district attorneys, and county attorneys across the state. Among those law enforcement officers, 429 (29.5%) responded to the survey and 37% of the respondents reported that the gang issue was a problem in their jurisdictions with 7% reporting that gangs were a serious problem. The police chiefs and officers in school district police departments estimated that there are almost 3,000 gangs while sheriffs and prosecutors estimated 2,165 gangs active in the state of Texas only. The survey found the total number of gang members in Texas to be around 97,600 (Texas Office of Attorney General, 2001).

The more serious issues that may occur are the problems of delinquency and crime that always accompany gang. Numerous gang studies have shown that gang members are involved with more delinquent and criminal activities than non-gang member youths (Cohen, 1969; Decker, 1996; Esbensen & Huizinga, 1993; Huff, 1996; Klein, 1995; Klein & Maxon, 1989). Types of crimes committed by gang members include almost all possible types of crime ranging from trivial offenses such as shoplifting to serious crimes such as robbery, rapes, and homicides. Moreover, gang members become victims of crime often times. According to Decker, Katz, & Webb (2008) gang members were found to become victims of crime by their own gang members as well as by other gang members more often than non-gang members.

With such awareness on the seriousness of gang problems, criminological theories have attempted to find out the causes for youth gang membership. Among those theories, Shaw and McKay's (1927) social disorganization theory provided a good theoretical explanation on causes of gang membership arguing that weakened social control as a result of neighborhood disorganization may lead youth in such areas into becoming gang members. Based on their theoretical foundation, this study explored a question of why youth join gangs by examining relationship between ecological factors such neighborhood qualities and gang
membership. Neighborhood qualities were divided into two different sets of qualities; actual and perceptual qualities.

Actual neighborhood qualities are defined as objective neighborhood qualities that may be expressed in the form of official statistics such as census data, while perceptual neighborhood qualities are the concepts that are measured by respondents’ perceptions of their own neighborhoods’ qualities. Surprisingly, this study found that the perceptual neighborhood qualities rather than the actual neighborhood qualities have significant impact on the gang membership among youths. In other words, how youths perceive the qualities of their neighborhoods no matter how actually bad or good the objective qualities of their neighborhood are makes a difference when it comes to the decision-making moment whether or not to commit delinquent behavior including gang membership.

**Gang issues from social disorganization perspectives**

Social ecologists such as Shaw and McKay (1929) and Thrasher (1927) were the scholars who first studied the issues involving the gangs. They assumed that gang membership among urban youths was facilitated by weakened social control that is caused by social disorganization in economically devastated neighborhoods (Shaw & McKay, 1929; Thrasher, 1927). Observing that crime rates in neighborhoods remained relatively stable in spite of ethnic or racial changes, Shaw and McKay (1929) concluded that crime and delinquency might be the result of neighborhood characteristics rather than the characteristics of people who live in those areas. They explained that neighborhood characteristics that affect crime and delinquency in certain areas included socioeconomic disadvantage, neighborhood instability, and ethnic heterogeneity. However, neighborhood characteristics (ecological qualities) were not the direct causes for crime or delinquency to them. Rather, it was social disorganization accompanied by a lack of social control that is the product of poor neighborhood qualities (Shaw & McKay, 1929). Although Shaw and McKay’s explanation did not directly attribute the causes of crime and delinquency to the neighborhood economic conditions as Bursik pointed out (1986), it still influenced future ecological studies and research on the conditions of ecological areas in relation to crime and delinquencies.

Recognizing that the sense of personal safety and potential victimization is mainly determined by knowledge of dangerous and safe places rather than that of individual offenders, Reiss (1986) argued that much more attention should be paid to neighborhood qualities as important factors for crime and delinquency. He proposed that the merger between individual and community oriented approaches
must be conducted in order to better explain causes of crimes. To achieve this, he insisted that existing data sources were inadequate, and there should be a new strategy that requires government and private scholars to collect individual, organizational, and community-level information (Reiss, 1986).

Reviewing the previous works related to ecological explanations of crime and delinquency, Stark (1987) provided a set of 30 propositions that hypothesized the influence of neighborhood characteristics on crime and delinquency which included 5 essential factors: “(1) density, (2) poverty, (3) mixed use, (4) transience, and (5) dilapidation” (p. 895). Stark hypothesized that increased levels of those 5 factors combined with neighborhood citizens’ responses increased crime and delinquency rates by (a) attracting deviant and crime-prone people to a neighborhood, (b) driving innocent people out, and (c) weakening social control. Stark concluded that rather than clinging to individual traits only for causes of crime and delinquency, it is more insightful to take ecological factors into consideration at the same time.

McGahey (1986) also paid attention to the fact that community economic conditions impact neighborhood crime rates. More specifically, McGahey (1986) found that unstable households and limited youth employment opportunities caused by consistent unemployment of adult residents bring about a lack of informal social control which, in turn, leads to high crime rates in the community. He argued that there must be a strong link between criminal justice and economic and social institutions in order to improve community conditions and safety. In addition, he emphasized that the incorporation of disciplines including economics, sociology, and urban anthropology and history should be encouraged for questions concerning “the dynamics of urban neighborhoods, their economics, and crime” (McGahey, 1986, p. 263).

Many researchers have tested social disorganization theory empirically. For example, Lander (1954) analyzed the relationship between social and economic data for census tracts and delinquency rates in Baltimore, Maryland, replicating Shaw and McKay’s earlier Chicago study. In support of Shaw and McKay’s thesis, Lander (1954) found that delinquency was dynamically related to the community and that anonymity of modern life made social control loose which, in turn, caused delinquency. Conversely, Lander (1954) did not find support for Shaw and McKay’s social disorganization theory given that his analysis did not provide evidence implying the relationship between city growth and delinquency rates. Furthermore, Lander (1954) argued that the association between delinquency and poverty, poor housing conditions, room density, and propinquity to the city center was only superficial. In other words, home ownership and the Black population were consistently found to be significant in predicting delinquency. Lander’s
interpretation was confirmed by Bordua (1958-1959). As with Lander’s study, home ownership and overcrowding were the only consistent variables found to be predictors to the delinquency.

Chilton (1964) analyzed data from Indianapolis, Indiana. In addition to those variables of home ownership and overcrowding in Lander’s (1954) and Bordua’s (1958-1959) studies, Chilton (1964) found that traditional social disorganization variables including transiency, poor housing conditions, and certain economic variables were significantly related to the youth delinquency. Taylor and Covington (1988) found that rapid ecological changes such as gentrification of neighborhoods and expansion of underclass neighborhoods caused increases in violent crime rates in Baltimore neighborhoods in the 1970’s. They attributed the increase of violent crime to social disorganization and relative deprivation.

After comparing the original data of Shaw and McKay’s Chicago study to data collected in the 1950s and 1960s, Bursik and Webb (1982), however, criticized Shaw and McKay’s (1929) thesis for statistical issues. They suggested that the assumed stability of delinquency or crime in transitional zone needed revisions considering that the instability of delinquency or crime in some areas near the city’s center as the result of abrupt social and economic changes was also frequently observed even though they admitted they still supported Shaw and McKay’s main theme of social disorganization (Bursik and Webb, 1982). They also concluded that there is an association between changes of neighborhood conditions and delinquency rates with the findings that indicated delinquency rates were highest between 1950 and 1960 when the most rapid social and economic changes were undergoing in those areas and were lowest between 1960 and 1970 at a time when there were fewer changes.

Analyzing British national datasets from 1982 and 1984, Sampson and Groves (1989) tested the validity of social disorganization theory and supported the proposition of social disorganization theory in terms of a relationship between neighborhood qualities and delinquency and crime rates. However, they found that some dimensions of social disorganization, namely “sparse friendship networks, unsupervised teenage peer groups, and low organizational participation” showed a disproportionately higher impact on crime and delinquency rates with mediating effects on traditional community structural characteristics including “low economic status, residential mobility, ethnic heterogeneity, and family disruption” (Sampson & Groves, 1989, p. 799).

Meanwhile, the social disorganization perspective has been further expanded to include more independent variables. In addition to the economic disadvantages as a central theme of social disorganization, Wilson (1987) argued that a more
complex web of factors including an influx of migrants, a change in age structure of urban minorities, and class transformation in urban areas should be considered as causes of crime from the social disorganization perspective. Sampson and Groves (1989) introduced family structure/disruption as another measure for social disorganization (Pratt & Cullen, 2005). Putting these factors together, becoming a gang member as a type of deviant or criminal behavior can be attributed to poor structural neighborhood conditions including ethnic diversity, poverty level and instability, and family structure/disruptions.

Most studies on gangs under the social disorganization perspective have focused on the impact of neighborhood qualities on general delinquent or criminal activities by the gang members rather than the impact of neighborhood qualities on gang membership specifically. Cartwright and Howard (1966) were those rare researchers who attempted to provide empirical evidence based on the social disorganization perspective in terms of causes of gang membership. Although the study was later found to have some methodological issues, they suggested potential impacts of poor neighborhood qualities on the gang membership (i.e., having more renters and substandard housing, more children than adults, and more neighborhood residents with lower incomes).

Hagedorn (1988) argued that gang development in a small city could be explained by Thrasher’s (1927) theory on gang formation in his study of Milwaukee youth gangs. He explained the gang problems in Milwaukee were more related to the poverty-ridden areas with underclass issues, rather than the problems affected by the diffusion of Chicago gangs to Milwaukee. In addition, Curry and Spergel (1988) found a direct association between “ecological factors” such as poverty level, unemployment rates, mortgage investments, and gang formation or gang activities including crimes such as homicide, robbery, and burglary. Curry and Spergel (1988) concluded that economic variables best-predicted delinquency rates, while gang homicide was best predicted by social disorganization variables.

Fagan (1989) also found an association between the “social ecology” of urban areas and gang participation and gang activities arguing that the marginality of social areas with the highest rates of gang problems was caused by lack of robust social institutions. The weak social institutions failed to provide adequate social controls which, in turn, brought about gang problems in those areas (Fagan, 1989). Spergel (1990) argued that the interaction of social disorganization and the lack of legitimate resources were the main causes for formation of deviant group under various conditions including family, the school, politics, organized crime, and prisons.
In the 1990s, the studies on causes of gang membership revived the social disorganization tradition through an examination of social disorganization theory's function with social disadvantage and economic inequality (Hill, Howell, Hawkins, Battin-Pearson, 1999). Social disorganization theory states that structural factors including economic disadvantage, high residential mobility, and high ethnic heterogeneity diminish the social control ability which, in turn, affects the neighborhood's collective efficacy (Bursik & Grasmik, 1993). Bursik and Grasmik (1993) explained neighborhood gangs as an example of collective inefficacies. More specifically, Sampson (1993) argued that weakened social disorganization will lower a community's ability to supervise and control the youth population that will, in turn, cause gang formations in such socially disorganized areas.

Recently, Tita, Cohen, & Engberg (2005) re-examined the relationship between place and gang formation following Thrasher (1927/2000). Their work was the first ecological study of a direct relationship between place and gang formation since Thrasher’s. They analyzed violent youth gang problems in relation to “the social, economic, and physical organization of places.” Identifying the “gang set space” as being very small or even much smaller than neighborhoods or census tracts, they found that “informal social control” diminished by devastating community factors represented an important predictor of gang formation in urban areas. They affirmed the validity of the thesis on the relationship between place and gang membership.

Objective and subjective neighborhood qualities

One's knowledge of the environment can be formulated as either “the world as it is” or “the world as cognized” based on the position of epistemological perspectives, empiricists, or rationalists, respectively (Gergen, 1985, p. 269). In other words, depending on how a person receives and interprets environmental information, the world can be viewed either objectively as it is or as subjectively to the extent in which the information is internalized. In addition, the social constructivist perspective strengthens the distinction between objective and subjective worldviews. According to the extreme social constructivism, the world as created by perception is approximated beyond the world as cognized. Bruner (1957) argued that perception is something “beyond the information given.” People sometimes ignore, exaggerate, or even create a subjective “reality” that is more or less information given by actual reality. For some people, the world is built upon a certain amount of errors and biases (Jussim, 1991). Based upon these premises,
neighborhood qualities can be perceived differently accordingly to the ways people receive and interpret the information given to them by surrounding environments. Some people will accept neighborhood qualities as they actually are, while others will do so with subjectivity caused by different way of interpretation of those qualities or certain amount of errors and biases. No matter how different, erroneous, or biased an individual's perception is toward his or her neighborhood qualities, the moment they are perceived in such a way, perceptual neighborhood qualities become a person's reality. An individual's behaviors are based upon that reality since “if men define situations as real, they are real in their consequences” (Thomas & Thomas, 1928, p. 572).

Within the spectrum of realities of these two opposite extremes, objective, and subjective neighborhood qualities, there are also two different approaches concerning the studies related to the influence of neighborhood qualities on an individual's behavioral development. The first approach focuses on the effects of objective characteristics (actual neighborhood qualities) using neighborhood statistics based on census tracts and zip codes. The other approach, however, conceptualizes the respondents' perceptions (perceptual neighborhood qualities) as a measure of the neighborhood effects on individuals' behaviors (Burton & Jarrett, 2000).

A majority of researchers who have examined the effects of neighborhood qualities on an individual's behavior adopted the first approach that uses objective neighborhood characteristics as variables. Consequently, many individuals' developmental behaviors including juvenile delinquency have been studied by the analysis of actual neighborhood qualities with data from census tracts or zip code data that have objective indicators of neighborhood qualities such as income level, unemployment rates, heterogeneity level, residential mobility, job market structure, family compositions, and housing policies (Byrnes, Chen, Miller, & Maguin, 2007; Elliott, Wilson, Huizinga, Sampson, Elliot, & Rankin, 1996). In fact, researchers have found some support for the effects of actual neighborhood qualities on deviant behaviors or crimes (Bursik & Grismick, 1993; Curry & Spergel, 1988; Papachristos & Kirk, 2006; Peterson & Krivio, 2005; Rosenfeld, Bray, & Egley, 1999).

Using actual neighborhood qualities for studies on an individual's behavioral development, however, has been criticized for two reasons. First, census tracts commonly utilized by researchers as units of measurement have been regarded as inappropriate for being much larger than individuals' perceptions of neighborhood boundaries (Burton & Price-Spratlen, 1999). Second, other important and somewhat subjective concepts of neighborhood qualities, namely collective efficacy or social control, cannot be easily measured by objective census-based data (Byrnes
et al., 2007). By employing such broad and objective only neighborhood characteristics, it is criticized that studies are destined to find weak effects on individual developmental outcomes or behaviors (Elliott et al., 1996).

Although most studies related to neighborhood qualities and criminality focused on actual neighborhood qualities, recently researchers began to pay attention to the subjective aspects of neighborhood qualities and conducted the studies on the effects of perceptual neighborhood qualities on delinquent behaviors. For example, Lambert, Brown, Phillips, and Ialongo (2004) found that perceived neighborhood disorganization was associated with later substance use among urban African American adolescents such as tobacco, alcohol, and marijuana. Lambert et al. (2004) said that the more negative perceptions that African American adolescents have concerning their neighborhoods in terms of safety, violence, and drug activity, the more likely they are to use substances in the future. In a research on the relationship between fear of crime and behavioral problems, May (2001) also found similar relationship between perception and delinquent behavior. He argued that perceptions of neighborhood disorder, association with pro-delinquency peers, and carrying guns are the predictors of violent behavior among youths (May, 2001). In terms of neighborhood perceptions and gang membership specifically, May (2001) concluded that incivilities in the neighborhoods were significantly related to gang membership.

Further, Lane (2009) found that a sample of both male and female youths generally do not easily perceive the disorder or disorganization of their neighborhoods, however, when they do, they will typically resort to protective behaviors including carrying guns, avoiding certain areas, joining a gang, or hanging out with gang members. Using the data based on a survey comprised of 2,414 inmates, Fox, Lane, and Akers (2010) found that perceived social disorganization had significant effects on both offending and victimization. Focusing more on positive neighborhood processes rather than on social disorganization factors, Yonas, Lewis, Hussey, Thompson, Newton, English, & Dubowitz (2010) found that social cohesion and informal social control perceptions were significantly related to reducing aggressive behaviors. According to Yonas et al. (2010), if youths perceive of their neighborhood in a positive manner, they will be less likely to become involved in aggression thus indicating the importance of positive neighborhood perceptions in terms of crime and delinquency.

Methodology
The objective of this research is to assess why individuals join gangs by focusing on actual and perceptual neighborhood qualities. Data collected from the Texas Gang Victimization Survey\(^3\) were analyzed to examine the following research questions: (1) whether there exists any actual and perceptual difference in terms of neighborhood qualities, and (2) if there is such difference, how actual and perceptual neighborhood qualities influence gang membership.

**Sample**

A survey was conducted in order to measure the prevalence of inmates’ victimization in relation to gang membership in a transitional correctional facility in Texas. Participation was on a voluntary basis whereby all inmates registered in a correctional facility were invited, and 217 agreed to participate. The respondents were male prison inmates between the ages of 18 and 65 at the time of the interview. Of those 217 interviewees, 198 inmates who responded to the question related to zip codes that were initially selected as the sample since the study required zip codes as actual neighborhood qualities related information. After eliminating 8 respondents who provided with false zip codes, the initial sample were composed of 190 respondents.

Comparing the demographic characteristics of age and race of the sample to those of national statistics of male prisoners in the year 2009 (Bureau of Justice Statistics, 2010), the sample was found to be little bit younger than the national male prisoner population. The sample had a larger number of younger age groups (19 to 24) than the national population (64.7% vs. 49.9%, respectfully). In terms of race, the current sample and national male prisoner population showed a similar composition for Whites (34.2% vs. 33.8%) African Americans (37.9% vs. 39.0%), and Hispanic groups (24.2% v. 21.0%) (Bureau of Justice Statistics, 2010).

**Dependent Variable**

Gang membership was the primary dependent variable of interest in this study. As the numerous previous researchers used the self-report method for identifying gang membership (Decker & Curry, 2000; Esbensen & Huizinga, 1993; Miller & Brunson, 2000; Webb, Katz, & Decker, 2006; Winfree, Fuller, Vigil, & Mays, 1992), this

\(^3\) Data were drawn from the larger Texas Gang Victimization Survey by the Crime Victim Institute (CVI) of Sam Houston State University (SHSU).
study also used self-report method for identifying gang membership. The question concerning gang membership prior to the entrance into prison was included in the survey. The initial question included in the interview was “Were you a gang member?” Therefore, gang membership, the dependent variable, was coded as a dichotomous variable (0 = No, 1 = Yes).

Respondents who answered yes to gang membership affiliated themselves to a variety of gangs including notorious national gangs. The largest gangs they claimed to be affiliated with were Bloods ($n = 11$; 16.1%) and Crips (17.6%) followed by other local Texan gangs comprised of 59 Bounty Hunters ($n = 5$; 7.3%), Aryan Brotherhood of Texas ($n = 3$; 4.4%), Texas Syndicate ($n = 2$; 2.9%), and Latin Kings ($n = 2$; 2.9%). The remaining respondents were found to be or had been affiliated with other smaller local gangs.

**Table 1** Individual Characteristics of the Sample (N=190)

<table>
<thead>
<tr>
<th>Variables</th>
<th>$N$ (%)</th>
<th>National Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gang Membership</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>72 (37.9%)</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>118 (62.1%)</td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19-24</td>
<td>54 (28.4%)</td>
<td>232,900 (16.2%)</td>
</tr>
<tr>
<td>25-34</td>
<td>69 (36.3%)</td>
<td>486,600 (33.7%)</td>
</tr>
<tr>
<td>35-44</td>
<td>43 (22.6%)</td>
<td>203,900 (29.9%)</td>
</tr>
<tr>
<td>45 and above</td>
<td>24 (12.6%)</td>
<td>189,200 (20.1%)</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>65 (34.2%)</td>
<td>479,000 (33.8%)</td>
</tr>
<tr>
<td>African American</td>
<td>72 (37.9%)</td>
<td>563,500 (39.0%)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>46 (24.2%)</td>
<td>303,500 (21.0%)</td>
</tr>
<tr>
<td>Other</td>
<td>7 (3.7%)</td>
<td></td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than High School</td>
<td>75 (39.5%)</td>
<td></td>
</tr>
<tr>
<td>High School (GED)</td>
<td>75 (39.5%)</td>
<td></td>
</tr>
<tr>
<td>Some College</td>
<td>24 (12.6%)</td>
<td></td>
</tr>
<tr>
<td>College or Above</td>
<td>16 (8.4%)</td>
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</tbody>
</table>
**Employment before prison**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>138</td>
<td>(72.6%)</td>
</tr>
<tr>
<td>No</td>
<td>52</td>
<td>(27.4%)</td>
</tr>
</tbody>
</table>

**Family Income**

<table>
<thead>
<tr>
<th>Income Level</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $25,000</td>
<td>47</td>
<td>(24.7%)</td>
</tr>
<tr>
<td>$25,000 to $49,999</td>
<td>55</td>
<td>(28.9%)</td>
</tr>
<tr>
<td>$50,000 to $99,999</td>
<td>33</td>
<td>(17.4%)</td>
</tr>
<tr>
<td>$100,000 or more</td>
<td>9</td>
<td>(4.7%)</td>
</tr>
<tr>
<td>Don't Know</td>
<td>46</td>
<td>(24.3%)</td>
</tr>
</tbody>
</table>

**Independent Variables**

Respondents’ individual characteristics, actual neighborhood qualities, and perceptual neighborhood qualities were included as independent variables in this study. The variables are operationalized and coded below.

**Neighborhood.** The neighborhood in this study was defined as blocks located in a zip code area. However, the zip code and neighborhood may not be identical in that zip codes are generally broader concepts than those of neighborhoods, and zip codes lack the historical and sociological meanings that neighborhoods traditionally have. Therefore, since zip codes typically contain a large number of inhabitants and heterogeneous communities, it is generally recommended that its use must be “an option of last resort” (Kreiger, Williams, & Moss, 1997). Nevertheless, as the neighborhood was conceptualized with U.S. Census data at the zip code level as “an option of last resort” since zip codes were the only available geographical identifiers for neighborhood qualities, this study also had no choice but to use zip code areas as the concepts for neighborhood. There are precedents in which studies have also used zip codes as alternative concept of neighborhood (Byrnes et al., 2007). In addition to the actual neighborhood qualities based on data at the zip code level, the neighborhood was measured in another dimension, perceptual qualities which were measured by the respondents’ perceptions toward their own neighborhood qualities.

**Actual neighborhood qualities.** Actual neighborhood qualities were measured using the 2000 American Community Survey (ACS) and 2000 Uniform Crime Reports (UCR) based on zip code information provided in the survey. A total of 130 different zip codes were identified in the survey. Since the ACS does not provide more recent
information (2005-2009) in the form of Zip Code Tabulation Area (ZCTA) data, all neighborhood information was collected for the year 2000 ZCTA. Social disorganization variables such as poverty, unemployment rate, ethnic heterogeneity, residential mobility, and family disruption were included as indicators for actual neighborhood qualities.

Table 2 Actual Neighborhood Qualities Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Label</th>
<th>Coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neighborhood Income</td>
<td>MHI</td>
<td>Median household income</td>
</tr>
<tr>
<td>Unemployment Rates</td>
<td>UNE</td>
<td>Unemployment rates in zip code area</td>
</tr>
<tr>
<td>Ethnic Heterogeneity</td>
<td>ETH</td>
<td>$1 - (P_{\text{NH}}^2 + P_{\text{H}}^2)$, where $P_{\text{NH}}$ = proportion of non-Hispanic population</td>
</tr>
<tr>
<td>Residential Mobility</td>
<td>MOB</td>
<td>Percentage of people who lived in different addresses within 5 years</td>
</tr>
<tr>
<td>Family Disruption</td>
<td>FAM</td>
<td>Percentage of households with single parent</td>
</tr>
</tbody>
</table>
Perceptual Neighborhood Qualities. Along with actual neighborhood qualities, perceptual neighborhood qualities that represented respondents’ perceptions of their neighborhoods were measured and included in the analysis. Three indicators including perceived neighborhood quality, perceived neighborhood dangerousness, and perceived neighbors looking out for each other were used to measure respondents’ perceptual neighborhood qualities by asking questions concerning how they perceived such indicators in their neighborhoods.

Individual characteristics. In addition to those neighborhood variables, a set of variables that represent the following individual characteristics of respondents including, race, education, employment, and family income were also included as control variables.

Table 3. Perceptual Neighborhood Qualities Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Label</th>
<th>Coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception of Neighborhood Quality</td>
<td>PNQ_O</td>
<td>0 = Very Poor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 = Poor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 = In Between</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 = Good</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 = Very Good</td>
</tr>
<tr>
<td>Perception of Neighborhood Dangerousness</td>
<td>PND_O</td>
<td>0 = Very Dangerous</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 = Dangerous</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 = In Between</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 = Safe</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 = Very Safe</td>
</tr>
</tbody>
</table>
Perception of Neighbors
Looking Out for Each Other

<table>
<thead>
<tr>
<th>PNL_O</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>1</td>
<td>Disagree</td>
</tr>
<tr>
<td>2</td>
<td>In Between</td>
</tr>
<tr>
<td>3</td>
<td>Agree</td>
</tr>
<tr>
<td>4</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

For analysis of those independent variables' influence on the gang membership, a logistic regression with backward elimination method was used.

**Findings and Discussion**

The individual characteristics in this study included race, education, employment, and income variables. Among those individual characteristics, one variable — employment history — was found to have a significant relationship with gang membership. In other words, the negative regression coefficient shows that being employed before prison was related to gang membership in negative way. The exponentiated coefficient reveals that the odd ratio of employment was 2.832 \((1/0.353)\) in negative way. In other words, the odds of becoming a gang member were 2.832 times less likely for the respondents with employment experience than those who had never been employed.

Surprisingly, race was not found to have any significant relationship with gang membership in the logistic regression model, although a significant and negative relationship was expected given that the relationship between those two has long been empirically supported by previous studies (Esbensen & Winfree, 1998; Klein, 1995; Knox, 2000; Thrasher, 1927; Vigil, 2002). However, in a bivariate analysis only between race and gang membership showed a there is a significant relationship between those two indicating that non-White respondents (43.6%) were more likely to join a gang than their White counterparts (27.9%). In addition, despite the fact that the relationship between education/income and deviant behavior have been long supported by many empirical researches (Horowitz, 1983; Klein & Maxon, 1989; Taylor, 1990; Winfree, Backstrom, & Mays, 1994), no significant relationship between education/income and gang membership was found with the sample in this study.

For analysis of actual neighborhood variable's influence on the gang membership, five variables including median annual household incomes (MHI),
unemployment rates (UNE), ethnic heterogeneity (ETC), residential mobility (MOB), and family disruption (FAM) were included in the logistic regression analysis. None of those variables were found to have any significant relationship with the gang membership in both bivariate and logistic regression analyses. This was an unexpected result, considering previous studies showed some significant relationship between actual neighborhood quality variables and gang membership. Although there was no significant relationship between the actual neighborhood qualities and gang membership, the logistic regression analysis of perceptual neighborhood variables showed some significant associations with gang membership.

For the analysis of perceptual neighborhood variables' relationship with the gang membership, three perceptual neighborhood quality variables such as perception on the neighborhood quality, perception on the neighborhood dangerousness, and perception on the neighbors looking out for each other were included. Among all those perceptual neighborhood variables, perception on the neighborhood quality was found to have a significant and negative relationship with the gang membership. The analysis shows respondents who perceive their neighborhood quality as “in between” were 3.816 times ($\exp(B) = .262, 1/.262 = 3.816$) less likely to become gang members. Those who believed their neighborhood quality as either good or very good were 6.3 times less likely to become a gang member compared to those who perceive their neighborhood quality “bad” or “very bad.”

Table 4 Results of Logistic Regression

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>-1.042</td>
<td>.428</td>
<td>5.935</td>
<td>1</td>
<td>.015</td>
<td>.353</td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>.179</td>
<td>.099</td>
<td>7.972</td>
<td>1</td>
<td>.070</td>
<td>1.196</td>
</tr>
<tr>
<td>Perception on Neighborhood Qualities</td>
<td>13.866</td>
<td>4</td>
<td>.008</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>-.783</td>
<td>.708</td>
<td>1.233</td>
<td>1</td>
<td>.269</td>
<td>.457</td>
</tr>
<tr>
<td>In Between</td>
<td>-1.341</td>
<td>.575</td>
<td>5.441</td>
<td>1</td>
<td>.020</td>
<td>.262</td>
</tr>
</tbody>
</table>
The perception on the neighborhood quality among perceptual neighborhood variables was found to have a significant relationship with gang membership while none of actual neighborhood quality variables was found to have any significant relationship. This finding implies that it is perception not the actual objective qualities of the neighborhood that influences and decides individual’s behaviors. Thus, no matter objectively bad qualities a neighborhood has, residents in it perceive it good or better than it actually is; there will be less deviant behaviors in that area, and/or vice versa. As social disorganization theory argued, the neighborhood qualities matters when it comes to the problems of delinquency, specifically gang membership, in this study. However, it is not the objective and actual neighborhood but the subjective perception towards the neighborhood. In that sense, the finding of this study also supports the social constructionist argument that the world as created by perception approximates beyond the information given by the objective world as Bruner (1957) argued.

**Conclusion**

The influence of individual characteristics, actual neighborhood qualities, and perceptual neighborhood on youth gang membership was examined by analysis of the data collected by interviews with inmates in Texas prisons. In addition, the United States 2000 Census data were incorporated into the Crime Victim Institute dataset to determine the characteristics of neighborhoods by zip code areas with the following purposes of: (a) assessing predictors on youth gang membership and...
(b) examining how respondents' perceptions of neighborhood qualities interact with the actual reality of neighborhoods and influence gang membership. Multiple theories with an emphasis on social disorganization theory were used as a theoretical framework to develop and assess the hypotheses.

Findings of a significant relationship between perceptions of neighborhood quality and gang membership suggest that when neighborhood qualities are discussed as one of predictors of gang membership, a careful attention to the perceptual neighborhood qualities must be given along with the attention to the objective and actual neighborhood qualities. Although there is still a room for improvement in the study, the finding suggest that when developing policies against gang problems, there must be discussion on how to enhance perceptual aspects of neighborhood qualities. However, as Hagedorn (1991) pointed out, in order to address the gang issues properly, public and private sectors must be able to use their funding focusing on dealing with the most impoverished areas so that the objective neighborhood qualities would be raised to at least the minimum level required for immediate and long-term positive perceptual development by individuals living in such areas. Therefore, the improvement of objective and actual neighborhood qualities must accompany and/or precede the endeavor to change the perception of the youths towards their neighborhoods, because when devastated neighborhood qualities are improved to a certain level, the number of individuals with positive neighborhood perceptions would also increase, which, in turn, would reduce the number of youth involved in delinquency.

Although positive attitudes are believed to be most affected by innate personality traits (Campbell, 1963; Heider, 1958), they may also be modified to some extent by environmental factors — one of which may be education. Although educational level was found to have no direct significant effect on gang membership in this study, the quality education may have indirect influence on the perceptions of youths as long as it provides visions for better future to the youths. Otherwise, perhaps an indirect effect of education on the gang membership through the employment issue was overlooked in this study. Actually, education has been identified as means by which individuals shape and develop their perceptions and attitudes (Collins, 1971; Parkin, 1979; Rinehart, 2001). Considering the importance of education with its capacity to shape and develop perceptions and attitudes, more attention should be given to how to provide good quality education to the youths across the nation.

With the findings of significant relationship between employment and gang membership, providing decent employment opportunities can be another policy implication for gang problems. Researchers also suggested that the quality of
employment in addition to the quantity of job opportunities is an important factor to avoid youth’s involvement in delinquencies. Sullivan (1989) pointed out that there is a significant relationship between quality and availability of neighborhood jobs and adolescent crime rates. Although Hagedorn (1991) were skeptical about availability of good paying entry level jobs to the youths, he still emphasized that the better job opportunities directed toward youths will be a good solution to the problems of gang. In addition, wage levels (Allan & Steffensmeier, 1989) and duration of employment (Mihalic & Elliott, 1997) were also suggested as important aspects of employment that should be considered when dealing with youth delinquency and crime. Endeavors from both public and private sectors concerning how to increase quality jobs should be put forward to address youth gang problems properly.

This study, however, includes some limitations. In this study, zip code areas were used as measurement for neighborhood qualities. The decision to use zip code areas as the unit for neighborhood was inevitable choice because there was no other data available that provide measures of the neighborhood qualities. Zip code areas may not be a perfect unit for the concept of neighborhood given that they are generally larger than concept of neighborhood individuals usually perceive. And zip code areas may lack homogeneity, and historical and sociological meanings that neighborhoods generally have. Although previous researchers conceptualized zip code areas as neighborhoods (Byrnes et al., 2007), there is still a warning that they should be used only as an option of last resort (Kreiger et al., 1997). Therefore, the conceptualization and operationalization for better neighborhood concept that may replace zip code areas and represent actual neighborhood qualities better are recommended for future study.
References


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