THE EFFECT OF SOCIAL SERVICE AGENCIES ON CRIME RATES
IN KANSAS CITY, MISSOURI

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THE EFFECTS OF SOCIAL SERVICE AGENCIES ON CRIME RATES IN

KANSAS CITY, MISSOURI

Cynthia Gordon, Candidate for the Master of Arts Degree
University of Missouri-Kansas City, 2012

ABSTRACT

This thesis examines whether social service agencies mediate the effects of social disorganization and subculture on crime in Kansas City, Missouri. Variables from social disorganization and subculture theory are combined in order to spatially and statistically examine the variation in the crime rates across the Kansas City area, and if these changes correlate with the presence of social service agencies. The thesis relies on the analysis of crime and census data at the census tract level that involved multiple tools of GIS, GeoDa, SPSS and other basic statistics; this multiple step approach allowed the data to visually and statistically portray relationships and patterns between the crime rates, the location and presence of social service agencies and the socioeconomic predictors. The results indicate that the combination of social disorganization and subculture theory have explanatory power in the prediction of the crime rate; however social service agencies do not mediate these effects. The research suggests that the value social service agencies offer to disorganized communities is not simply found in their spatial presence, and needs further investigation.
The faculty listed below, appointed by the Dean of the College of Arts and Sciences have examined a thesis titled “The Effect of Social Service Agencies on Crime Rates in Kansas City, Missouri,” presented by Cynthia Gordon, candidate for the Master of Arts degree, and certify that in their opinion it is worthy of acceptance.

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CHAPTER 1
INTRODUCTION

In the beginning of 2009, the Kansas City Star published a three part article with the title *Murder Factory: 64130, the zip code of notoriety in Missouri* (Rizzo, 2009). The reason that the zip code 64130 was gaining so much attention came from the fact that many of the violent crimes within Kansas City, MO came from individuals that list 64130 as their residential zip code. The article goes on to claim that 64130 houses more people convicted of murder and voluntary manslaughter than any other place in the state (Rizzo, 2009, p.1). This is startling because as you read further the article explains that Kansas City residents make up only 6% of the state’s population; but 20% of the prison inmates convicted of a violent crime (Rizzo, 2009). The *Star* (Rizzo, 2009) interviewed offenders, residents, neighbors and officials to try and grasp what formula of variables was/is happening to make this particular area of Kansas City produce such violent individuals.

The article presents several suggestions and thoughts ranging from fatherless homes to the poverty that plagues the majority of this zip code. But it also brings up examples of other cities around the United States that have been victim of extreme crime, and have successfully brought the crime rate down. One of these examples took place in Boston, with the model of “community engagement” (Rizzo, 2009). Boston incorporated social service agencies, police enforcement and the residents of the crime ridden area to create a relationship that focused on changing the perception of the high crime areas. Boston city officials focused on residents regaining faith in the police force as well as faith in their community; this community engagement helped Boston significantly lower their crime rates. Through all the suggestions and opinions that the article puts forth, the overriding theme is that Kansas City is lacking in several areas; ranging from homes that have present fathers, available jobs, better schools, a more involved superintendent etc. It also focuses a lot on social programs that could possibly benefit the area such as fatherhood involvement and youth programs. All of these
programs usually take place in social service agencies around the community; which happens to be exactly what Boston used as a resource while combating their own violence issues.

While each city is unique, and explaining the occurrence of crime in American society has proven to be very difficult, it is important to examine what has worked elsewhere. Part of this task involves discovering which behaviors and factors take part in either deterring or perpetuating crime. While crime may actually happen because an individual or group performs a deviant act; this act affects the community as a whole. Communities well being depends on all of its parts; which includes not only the residents but also the population of businesses, parks and agencies within that community. Trying to understand crime means that you also must recognize that crime is not strictly an individual phenomenon but a collective phenomenon in that characteristics of the community play a significant, if not dominate role. The stability and function of the community impact the behavior of its residents and therefore can be the starting point for criminal behavior. It is important to recognize which of these community factors are the perpetuating forces in criminal behavior of the residents. In particular, a great deal of literature suggests that social service agencies can act as a force to counteract socioeconomic variables that in the past have contributed to a high rate of crime. The goal of this thesis is to examine the different characteristics that are making Kansas City more susceptible to criminal activity and specifically focus on the role that the current social service agencies are having on their environment. By doing this, it will become clearer whether following the footsteps of other community efforts will be beneficial for Kansas City.

The questions that I will look at in order to address the goals of this thesis will first be to answer; does the combination of variables between social disorganization theory and subculture theory provide a reliable list of socioeconomic predictors of the crime rate? And secondly, do social service agencies have an effect on the crime rate? Is the effect that they have positive or negative? And lastly do social service agencies seem to be an intervening variable that provides a change in the crime rates of the research area? Social Disorganization and Subculture theories will aid in the investigation of these questions by utilizing their main concepts; such as residential mobility,
population density and homogeneous subgroups. These concepts have proven to be indicators of crime in communities and they will allow for the investigation of whether social service agencies are an intervening force between these factors and a high crime rate. Secondary data that was gathered from the US Census Bureau and crime data that was accessed through the Center for Economic Information (CEI) (this data was originally gathered from local and federal government agencies and was based on crime that was reported to the different departments) will also be used. A spatial analysis will be conducted to expose any patterns and/or relationships between indicators, social service agencies and areas of high/low crime rates. This research is important because it is addressing an issue that is currently happening in the Kansas City area, and also setting a possible layout for further research on what combination of variables perpetuates high rates of crime.
CHAPTER 2
LITERATURE REVIEW

This chapter is divided into 3 different parts. The first portion explores my first sociological perspective; Social Disorganization through theory, followed by empirical studies. The second portion of this chapter looks at the theory and empirical studies of my second sociological perspective; Subculture theory. The chapter will end by looking at my research questions and a conceptual model.

In order to better understand why Kansas City, Mo is experiencing such high crime rates it was important to first theoretically understand the actual community. To do this, two key perspectives are thoroughly examined. Social disorganization and Subculture theory are two theories that highlight the importance of community context, and how community is a key factor in the occurrence of crime. Social disorganization breaks down the different aspects of a community and examines the factors that will contribute to high crime rates, such as residential mobility and low socioeconomic status. Subculture theory looks at the influence that being in an urban environment has on crime; high concentrations of people splitting off into homogeneous groups within the larger population. Subculture and Social disorganization theory are essential to the exploration of crime in the community, because they are focusing on the impact that the community as a whole has on crime rather than focusing on individual involvement. Social disorganization theory is a strong theory in itself but by combining it with subculture theory it will provide a more conclusive look at what is happening with certain communities, such as Kansas City, to make them more criminally active. This review of literature will focus on why it is so important to look at the influence that the community as a whole plays on individuals, and puts the emphasis on different factors that the community can offer in controlling the criminal behavior of its residents. And further this will explore why the combination of social disorganization theory and subculture theory is needed, and
also the different aspects within each theory that have an important impact on the criminal activity of a community.

**Social Disorganization Theory**

Social disorganization theory is defined as the ability of community members to achieve shared values or to solve jointly experienced problems (Bursik, 1988). It focuses on the way that a community deals with values that are common to its inhabitants and the realization of whether these values are allowing for control in the social structure (Sampson & Groves, 1989). Social disorganization theory comes from the structural functionalist’s perspective and therefore looks at the way that a society functions as a whole, each part in turn, affects another part. One of the main goals of social disorganization is to highlight aspects of a neighborhood that are causing it to be more prone to violent behavior. Robert J. Bursik (1988) was an important contributor to social disorganization theory and believed that there were three variables that would contribute to the stability of a neighborhood; social cohesion, peer relationships and homogeneous neighborhoods. Social cohesion points to the idea that once an individual moves to a neighborhood, they will stay there for quite some time. Bursik (1988) points out that residents of poverty ridden neighborhoods are often looking to leave the first chance they get, so developing social cohesion is difficult. This kind of residential mobility does not offer stability to an environment. Secondly, the development of lasting peer relationships could lead to community stability, as well as community pride. Again, developing relationships is difficult with a changing population, and lastly, if the neighborhood is comprised of a heterogeneous population it could be difficult for communication and common ground to occur; therefore Bursik (1988) finds that a homogeneous population communicates more effectively. Without the combination of these factors a neighborhood does not possess the necessary resources to function. The first variable that Bursik (1988) presented also highlights the impact of class. Low income areas sometimes have a disproportionately lower amount of resources than other areas, and violence has continually been linked to low socioeconomic status (SES) areas. This link exists not because of the direct linear relationship between low SES and crime but instead because of the
economic issues that come along with low SES. These economic issues include a lack of resources to survive on and unsatisfactory living conditions that make criminal activity more appealing to those living in these conditions. This review of literature will further address this point in reviewed empirical studies. Social disorganization theory has several concepts and general theories that use its basic principles in their own argument and several are important to look at for the purpose of this research.

**Social Control Theory and Collective Efficacy within Social Disorganization**

One of the main concepts that social disorganization theorists believe can combat an unstable neighborhood is social control. And while social control is a variable within social disorganization theory it also has a general theory from a criminological perspective that is important for this review. Social control theory is based off of social disorganization but is more of a general theory on crime from an individualistic approach rather than from the community. Social control theory is concerned with the attachment that an individual has for their community and/or fellow community members (Hirschi, 1969; Wiatrowski, Griswold & Roberts, 1981; Janowitz, 1975). The definition of social control theory is the capacity of individuals to control themselves according to the desired principles and values of the community, or large social group (Janowitz, 1975). This definition shows that the focal point is on the individual and how they behave inside the community, whereas social disorganization puts the focus on the community and how the community can control the individual’s behavior. Travis Hirschi (1969) was an important contributor to social control theory, and found that an individual’s ties and attachments to his or her community is one of the main indicators of their involvement with crime. If the individual fails to form or maintain a bond to their community then they are at risk of taking part in activities that have been defined by the larger community as deviant (Hirschi, 1969 in Wiatrowski et al., 1981). It is important to recognize this theory because it provides an individualistic perspective on criminal activity within the community, and describes the importance of community attachment from a different focal point. While this review of literature is
focused on the way that the community affects the individual; individual behavior and attachment is also important to recognize.

As previously stated social control theory shows the importance of individual attachment to a community. Community in this theory acts as a spatial location, and a thing that each resident can attach to. Social disorganization theory on the other hand showcases the community as a social group that offers control over the behavior of its residents, making it clear which behaviors will be accepted and which will not. The theory does this by focusing on all aspects that control has to offer; which come in the form of informal and formal means. Formal and informal controls come from different perspectives and when combined can have a very important impact on stopping negative behavior and promoting and continuing positive behavior. Examples of formal controls are things such as social institutions, government and police involvement, while informal controls come from the perspective of peers and family members. The combination of informal and formal control can provide structure and balance to a society and can also serve as a third watch in the community.

When informal and formal controls are working together and strongly, then the community is more likely to be in a stable position, where all pieces of the society are affecting each other in a positive way (Bursik, 1988). Social disorganization theory is recognizing that while it is important for individuals to have an attachment to the community (social control theory) the first step in getting this attachment is for the community as a social group to offer something for the individual to get attached too. This is why social disorganization theorists believe that the more local social institutions that are present in a community, the more likely the structure will be stable. (Sampson, 2004a; Anderson, Sabatelli & Kosutic, 2007; Roman & Moore, 2004). Social institutions offer stability to a neighborhood because it is the belief that they “foster public safety by integrating formal and informal controls” (Sampson, 2001, p 89). Social institutions can be the common ground for key resources of a successful community to become established. Throughout this review of literature local social institutions will continue to be a productive resource in formulating controls in neighborhoods, and empirical studies will support this.
Along with social control, another main variable of social disorganization theory is social cohesion. Social cohesion can happen when the communities’ values are known, understood and enforced. When this happens there is a common consciousness that the community can function under, and therefore there is no confusion about what kind of behavior is acceptable. When social cohesion is present, collective efficacy has the opportunity to form. Collective efficacy is a term used to describe the social cohesion among neighbors combined with their willingness to intervene on behalf of the common good (Sampson, 2004a). Collective efficacy is able to highlight the importance of informal control, and the influence that the residents themselves can have on the safety and well being of the community. The combination of collective efficacy, and formal controls, such as social institutions and law enforcement, brings about a social control that helps residents achieve order in their community themselves. Collective efficacy and social cohesion within the social disorganization perspective can be seen as the main goal that unstable communities are striving for. Functionalist and disorganization theorists thoroughly express the need for both social control and cohesion to be present in a community in order for it to function in a stable and safe way, and empirical studies will further support this idea as well.

Collective efficacy and social cohesion can be conceptualized as outcomes of social organization. Two other concepts that offer insight into social disorganization theory are opportunity and fear of crime. The two concepts can be seen as opposing views or work together in a sequential manner. Fear of crime looks at the society’s reaction to criminal and deviant behavior and then how they deal with it (Liska & Warner, 1991). Although there are several reactions that communities can have towards crime these are two most frequent reactions. The first reaction to crime is fear of whatever criminal activity is taking place in the neighborhood, and the reaction of the community is punishment. The community comes together collectively and decides on what action they will partake in to let others know that the behavior they are engaging in is unacceptable and will not be tolerated. When this fear of crime happens, the communities interaction increases therefore building social cohesion and the level of crime will in turn, decrease. The second reaction to crime is again
fear but what changes is the action the community takes. In this situation the individuals of the community become isolated; they stay in their homes trying to separate themselves from whatever crime is taking place in and around their neighborhood. This kind of isolation further separates the community, making the formation or maintenance of social cohesion to be almost impossible.

The second concept, opportunity, refers to the routine activities that individuals take part in everyday, which could either open the door for criminal activity or deter it. The definition of the concept opportunity “…suggests that offenders make rational choices and thus chose targets that offer a high reward with little effort and risk” (Liska & Warner, 1991, p. 91). A large part of opportunity focuses on how variation in life-style or routine activities affects the opportunities for crime (Hindelang, Gottfredson, & Garofalo 1978; Cohen & Felson 1979; Cohen, Felson & Land 1980 within Liska & Warner, 1991). Opportunity feeds off of fear of crime in the sense that it responds to the reaction of the community. Some theorists (Cohen & Felson, 1979) see that when individuals have strong social bonds with their community members and their routine activities lead them outside of the home, leaving their possessions unguarded, that opens up the opportunity for crime. They believe that if an individual is staying isolated in their home, then the opportunity for crime is low; their possessions are constantly being guarded and the individual is not exposing themselves to possible situations that could cause them harm. Other theorists (Liska & Warner, 1991) believe that if social cohesion is high and community members are constantly interacting, then crime will go down. The opportunity for crime to take place is lowered and the thought that other community members will be watching out for you, and will intervene if they see any kind of suspicious behavior taking place. The model that Liska and Warner (1991) present, displays collective efficacy which was discussed earlier and this seems to deter criminal activity in a more effective way, according to the social disorganization theory.

The combination of fear of crime and opportunity that results in community cohesion, such as Liska and Warner’s (1991) model, brings in some of the key functions of community stability and also combats some of the main issues that social disorganization theorists highlight when talking
about neighborhood crime. This combination of key functions is also true when it comes to the combination of informal and formal controls. The combination of informal and formal controls can be essential to the maintained stability and organization of a community. However, the question of which type of control is more powerful within the community residents is debatable. Although social disorganization theorists find that the combination of these controls is best, several empirical studies have been done in order to further understand the importance of each individually; and combined.

**Empirical Studies with Social Disorganization Theory**

There has been extensive empirical research that has explored the validity of social disorganization theory and many theorists believe that social disorganization theory does the best and most accurate job in understanding the occurrence of crime in communities. As discussed previously, social disorganization theory takes variables such as low socioeconomic status, residential mobility and ethnic heterogeneity (Bursik, 1988) as the main variables that will predict the occurrence of crime in a neighborhood. Robert J. Sampson and W. Byron Groves (1989) did a study that tested the effectiveness and validity of social disorganization theory using variables such as local friendship networks, street-corner teenage peer groups, and prevalence of organizational participation in communities of Great Britain (Sampson & Groves 1989). They were able to prove through statistical analysis that in areas that have low local friendship networks and organizational participation, and high participation in street-corner teenage peer groups, have disproportionately higher levels of crime and delinquency. This analysis backs up the validity of social disorganization theory, by showing that when informal controls (low local friendship networks) and formal controls (local organization) are not present or not utilized crime goes up. In this particular study the only social cohesion is present in the form of gangs, which is not promoting of a stable community.

In another empirical study Sally Engle Merry (1981) uses social disorganization theory as a platform, and also utilizes the combination of fear of crime and opportunity to demonstrate how isolation can perpetuate the occurrence of crime and weaken social cohesion. Merry (1981) showcases this in an ethnographic study she performed in a racially mixed housing project called
“Dover Square.” The housing project was ethnically heterogeneous as a whole, being comprised of Chinese, black, white and Hispanic. Each ethnicity had formed its own subculture and rarely interacted with one another. Each subculture held its own set of morals and values and because of this the housing project was in a state of complete disorganization. Crime was also out of control, it was an impoverished area to begin with and each group dealt with the disorganization in a different way. Fear of crime was the most common attitude with the Chinese and white, and they rarely left their house or valuables and did not create relationships with others. This kind of behavior created opportunity for deviant behavior because the ethnic subcultures did not know each other and it created a sense of anonymity when committing criminal acts. “Criminals in Dover Square actively fostered their appearance of anonymity, of detachment, in order to escape punishment from their victims” (Merry, 1981, pg 119). Although Dover Square was ethnically heterogeneous, it was made up of homogeneous subcultures that lacked the desire to interact with one another which not only created an ethnic boundary but also distance and isolation between community members. The way the individual handled their fear of crime perpetuated the opportunity for the crime to continue to happen, and therefore made Dover Square a dangerous place to live.

Dover Square is a perfect example of a community that lacks collective efficacy, social controls (both formal and informal) and any kind of social cohesion. The residents did not feel that their individual involvement would do anything for the community as a whole so they instead did nothing, which in turn made things worse. From all of the ethnographic data that Merry (1981) collected in this study she found fear of crime with the reaction of isolation to be the most common perspective among the residents, and the social distance that the heterogeneity of the population created made for a lack of social cohesion which is almost an exact match to the variables that Bursik (1988) found to be the biggest cause of criminal behavior. The fear of crime that was discussed in this study argues that deviance can destroy and disable any kind of cohesion that did exist or could exist in a community. When there is a fear of deviance or crime in the community, people do not want to go outside, and therefore do not create relationships with their neighbors. From the fear of
crime prospective, collective efficacy is impossible to achieve when violence is taking place, because neighbors are not taking an active role in the well being of the community; they are staying isolated which is exactly what was taking place in Dover Square.

The findings that Merry (1981) found in Dover Square matches what Allen E. Liska and Barbara D. Warner (1991) presented earlier in this review, that the combination of fear of crime and opportunity presents the most accurate picture of a community’s response and reaction to crime. The way that Liska and Warner came to this conclusion was by performing a study on 26 large U.S. cities and surveying around 20,000 individuals aged 12 and older. The variables included were social intervention and societal reaction to crime (fear). They tested social intervention by asking questions like “how often do residents go out in the evening for entertainment?” or “have you changed your routine activities because of crime?” Societal reaction to crime (fear) was measured by asking “do you feel safe alone in your neighborhood at night (day)?” Liska’s and Warner’s findings were that crime diminished in areas where residents were so isolated to their homes that there was less opportunity for criminals to perform deviant acts. This process (Liska & Warner, 1991) diminished crime and deviance but, at the same time separated the community and diffused any kind of cohesion. Social disorganization theory shows that a community with low amounts of social cohesion does not present an environment that is stable. The results also showed that smaller places (rural areas) would react better to this lack of opportunity because they generally have a lower rate of crime to begin with and it is easier to create cohesion. But in a highly populated area, such as an urban area, the lack of opportunity translated into separation from the community which made social cohesion suffer.

Empirical studies that we have already reviewed have demonstrated that developing social cohesion and collective efficacy has obstacles in any neighborhood, but the formation of these variables experience even more problems when the neighborhood is already in a state of disorganization. Stephen A. Anderson, Ronald M. Sabatelli and Iva Kosutic (2007) used an ecological view and collective efficacy as their main concept within the social disorganization theory to further examine this struggle. Their case study used adolescents in inner city Connecticut to see if
certain social contexts would have a positive outcome on their achievement. The sample consisted of 1,406 mostly minority inner city adolescents and examined them against their three social contexts; family, neighborhood youth centers and peer relationships. They tested this by using secondary data, personal interviews and phone interviews. They then tested these social contexts against the adolescents’ achievement orientation; emotional regulation and attitude towards school. What the authors found was that the neighborhood youth centers were the most promoting individually of the three social contexts for achievement in the adolescents. However, the combination of all three social contexts presented the strongest achievement.

The authors go on to describe that the neighborhood youth center did two different things for the adolescents; bonding and bridging. Bonding is a function that brought these adolescents (and most likely their parents at some point) with similar backgrounds (low SES, residential location, etc.) together in a common area where they could bond over these similarities. Bridging on the other hand was a function that promoted a kind of give and take process. As it is has been stated before, neighborhoods and communities that are in poverty, resources are sometimes very hard to come by. The neighborhood youth center created a place where the youth could share resources such as information about their community and civic engagement, positive peer associations and also gave the adolescents access to non-parental role models (Anderson, Sabatelli & Kosutic, 2007). They brought attention to the fact that there is no perfect variable that it is going to create a peaceful and successful neighborhood, but more the combination of several resources and giving residents the opportunity to achieve collective efficacy. The basic results of this study was that family connections through monitoring and support in combination with neighborhood youth centers created a positive outcome for the youth living in that area. The community was able to take a formal control (neighborhood youth center) and let informal control thrive inside of it, which in turn created social cohesion. This demonstrates the positive outcome that a local social institution can have on a community and also backs up the idea that social disorganization theory presented earlier in this review of literature. Local social institutions can provide a common area for controls to flourish.
Catherina Gouvis Roman and Gretchen E. Moore (2004) also investigated the role that local neighborhood institutions play in the community in Washington D.C. Social disorganization theorists have expressed the importance of social institutions in the community, because they can offer a common ground for residents to create social cohesion. The authors used secondary data (which included listings of community organizations from existing organizations and a compilation of statistics from National Center for Charitable Statistics), telephone interviews and in person surveys to fully understand how the individuals in the D.C. neighborhoods felt about their living environment and the presence of a local institution. The way that the authors went about finding this was first the presence, number or density, of organizations, institutions and businesses related to the surrounding community. They also looked at the location in terms of distance, in other words, how close in proximity does an institution have to be in order for it to still affect the community. And lastly whether the residents felt that the presence of an institution factored into the well being of their community. Through the data the authors were able to find that the institutions offered a form of social capital for the residents in the lower income neighborhoods. The institution as social capital created strong social networks and a form of social organization that would have otherwise been more difficult to collectively create.

This finding affirms the functionalist view because the neighborhood was using the social institution as a point of equilibrium to positively affect other points of their environment as well. An interesting point that the D.C. residents brought up was that although the presence of a community organization is mostly positive, there is a difference with the organization being in the neighborhood and for the neighborhood (Roman & Moore, 2004). This was common when it came to churches that also housed community events and organizations. Most if not all of the church members and clergy traveled into the church and were not from the neighborhood that the church resided in. So although the churches were present and close in proximity, there was a disconnection from the residents of the neighborhood and the members of the church. And while this may be a limitation of studying the effectiveness of social institutions because it offers a relationship that in reality is weak, the authors
still found that the social capital that the local neighborhood institutions offered was extremely positive. “Neighborhoods that had organizations nearby had higher levels of collective efficacy, social control, reciprocated exchange and block satisfaction” (Roman & Moore, 2004, p 11). The authors also stated that because of these factors that the social institutions created, public safety and the reduction of violence was also present (Roman & Moore, 2004). The authors looked at this research as a first step to really understanding what local neighborhood institutions can offer to the community. This research backs up what social disorganization theorists (Sampson, 2001) believe that social institutions can offer a community.

Along with the belief that social institutions are positive forces in a neighborhood, neighborhood watch is also something that many neighborhoods rely on for safety. In middle class neighborhoods with low levels of social disorganization, neighborhood watch is extremely effective in deterring delinquency and crime, but this is not the case in low SES neighborhoods (Rosenbaum, 1987). Rosenbaum was able to demonstrate that Neighborhood Watch works better in middle class neighborhoods than impoverished neighborhoods because constant participation in the weekly meetings stays consistent, while in impoverished neighborhoods it does not. Using social disorganization theory and the fear of crime concept, the author measured participation in the neighborhood watch programs from initial participation and maintained participation. Rosenbaum also found that an inverse effect happened in the low income areas because the program was not able to create any kind of social interaction between the neighborhood members, instead a fear of the possibility of crime was created. The fear was created due to the irregularity of neighborhood attendance, forcing people to stay inside rather than creating relationships with their neighbors. This is very similar to what we saw happen at Dover Square. So instead of crime prevention and social control spreading, fear of crime contagiously spread with a reaction of isolation. What Rosenbaum argues is that instead of advocating for groups that do not work in low income areas (Neighborhood Watch) we need to focus on what does work in preventing crime in low income areas and put money and energy towards those programs and or institutions.
Informal vs. Formal Controls: Richard C. Hollinger and John P. Clark (1982) did an empirical study to assess the importance of formal and informal controls within a formal organization, their subjects being the employees within the organization. The authors came from a functionalist perspective and hypothesized that the behavior of the employees would be more influenced by the reaction of their peers (informal controls), over the reaction from the company or criminal justice system (formal controls). The researchers gave likert surveys to 9175 employees at 47 different organizations in the Minneapolis-St. Paul, Dallas-Fort Worth and Cleveland areas. When measuring formal control they asked things such as “for each of the following activities what would be the most common reaction of persons in authority be?” reactions ranged from reward or promote to inform the police. For informal control they asked things like “What would be the most common reaction of your fellow worker be?” with reactions ranging from encourage to inform the police. After scoring the surveys they found that their hypothesis was correct. Employee deviance was more constrained by informal social controls (reaction from their peers), than the threat of formal controls (management or criminal justice system). The employees wanted the acceptance from their fellow workers so much that the thought of performing a deviant act and losing those relationships was a bigger consequence. In this situation informal controls are more influential in establishing normative limits and behaviors. This study shows that informal control within this structure is much more important than the rules and regulations that the formal structure has created. Although the study was performed on employees the findings can easily translate to a neighborhood or community.

Another study that looks at formal and informal controls was performed by Sarah L. Boggs (1971), and instead of using employees, Boggs (1971) was concerned with occurrence of crime in neighborhoods. Boggs’ sample consisted of 848 people from urban, suburban and rural neighborhoods in Missouri. Boggs constructed surveys that asked how likely the respondent felt that a crime would happen in their own neighborhood. She also asked questions about whether the respondent thought that their neighbors would call the police if they saw something questionable, how they felt about the protection they received or would receive and whether they took precautions of
their own to protect themselves from crime. The respondents from the central city overwhelmingly reported that crime would happen in their neighborhood, while respondents from the suburban and rural areas did not think that it was likely. From all three areas respondents expected their neighbors to call the police, but central city was the lowest with 1 in 7 respondents saying that they didn’t know if their neighbor would call. Formal protection (police) was satisfying to suburban and rural residents but unsatisfying to urban residents, especially African American urban residents. City residents also showed that they relied more heavily on their own precautions to crime in their neighborhoods, over any formal or informal controls. Based on these results Boggs concludes that rural and suburban areas rely more heavily on informal controls (because of the trust that they feel for their neighbors to react) while urban rely more on formal, even though the urban residents still feel the best precaution is one that they create for themselves. This is interesting because urban members were unsatisfied with formal control, yet they rely most heavily on it.

Both of these empirical studies bring up interesting points on the need for both formal and informal controls, and the impact that they can have on individuals. It seems that urban residents in the second study seem unsatisfied with both informal and formal controls and that is why they rely on their own precautions instead of others. This type of individualistic approach showcases some of the isolation that urban neighborhoods are experiencing because of their lack of faith in the controls that are present and most likely fear of crime. These studies also bring attention to the importance of community context, things that work in suburban areas do not always work in urban areas; and when informal control is weak, it also affects formal control. Although these studies were trying to show the importance of one control over another it still seems clear that both need to be present in a community. The combinations of informal and formal controls present the most success in combating the variables of a disorganized neighborhood.

In sum, from the evidence that has been presented from the empirical studies reviewed, social disorganization theory is a valid and important theory when looking at the occurrence of crime in a community. It offers several different concepts and is able to highlight variables and different
characteristics that go into understanding why some communities are more susceptible to criminal behavior. Throughout this review of literature it has continually shown that the combination of several variables and theories can sometimes present the most accurate and wide picture of different phenomenon’s, such as neighborhood crime. Social disorganization theory has presented that one of the variables that goes into predicting the occurrence of crime is heterogeneity of residents. However, in the study of Dover Square, that Sally Engle Merry (1981) presented several homogeneous subcultures existed in the overall heterogeneous population. This environment was still very criminally active, even though according to the social disorganization perspective the homogeneous groups should have offered high levels of cohesion, without language and commonality obstacles. Social disorganization theory is not able to offer an explanation of this behavior, because social disorganization deals with homogeneity in the form of SES, but not cultural homogeneity. Subculture theory is able to more accurately address problems of cultural homogeneity, therefore offering a different perspective on crime in neighborhoods like Dover Square.

**Subculture Theory**

Subculture theory is important to the study of crime in neighborhoods because it attempts to describe and understand areas or groups of people that have a high crime rate; a goal very similar to that of social disorganization theory. Claude Fischer (1995), an important contributor to the theory, defines subcultures as “a large set of people that share a defining trait, associates with one another, are members of institutions associated with their defining trait, adhere to a distinct set of values, share a set of cultural tools and take part in a common way of life (Fischer, 1995, p 544). This definition is very similar to the definition of a neighborhood; a collection of people and institutions occupying a subsection of a larger community (Sampson, Raudenbush & Felton 1997). Neighborhoods can be seen as a subgroup of the larger culture and may hold and follow different norms and rules than the larger society that they belong to. Subcultures are a product of urbanism and the theory deals with the way that neighborhoods and groups are created, and the way that they interact with one another in the city and neighborhoods spanning from that.
Subculture theory gets its influence from both deterministic and compositional approaches and finds itself somewhere in the middle. Deterministic Theorists (Wirth, 2009) find that urbanism has a relatively negative effect on the residents of cities. Wirth finds that the fast paced, high density lifestyle of the city makes it impossible for residents to form interpersonal relationships, which therefore affects the social cohesion of the city as a whole. Compositional Theorists on the other hand (Gans, 2009) are on the other end of the spectrum from deterministic theorists. Compositional theorists, which is contrast to social disorganization theorists, do not believe that the urban environment has an effect on the residents that live there, but instead find that the only characteristic difference spans from lifecycles and lifestyles. Subculture theory sits in the middle of these two theories, with the belief that being located in an urban environment does have an effect on residents, but not to the extent that deterministic theory presents.

Subculture theory believes that interpersonal relationships can exist and because there is such a large population, people with unique goals and attitudes have more of an opportunity to find others with similar interests and create interpersonal bonds. Fischer (2009) calls the large population “critical mass,” which is another product of urbanism, and this critical mass is a factor that supports the formation of subcultures. As subcultures become more established their unique goals can become more important than the universal morality of the larger community. These subcultures can produce both positive and negative aspects. In the positive sense, it can create a setting where neighborhoods can create a sense of community that is personalized to their viewpoints, and things such as social cohesion and control can flourish. A consequence that can come from the formation of subcultures is the generation of negative behavior within the subculture, such as deviant and criminal behavior. This consequence of subculture formation also means that it could be difficult for a community to find social control and cohesion, which could further mean an unstable community. This is what happened in Dover Square, although the formation of subcultures were homogeneous in racial composition, there unique behavior was deviant in nature.
Similar to social disorganization theory, subculture theory has a general criminological theory related to it; social learning theory. It is also important for this review of literature to become familiar with the theory.

**Social Learning Theory:** Social learning theory looks at the way that behaviors are transferred from peer to peer, including the way that criminal behavior is transferred throughout the community (Bandura, 1977). Social learning is the exposure of a behavior to other individuals, and the way that individuals rationalize, evaluate, and assign right and wrong to specific behaviors (Akers, Krohn, Lanza-Kaduce & Radiosevich, 1979). Social learning theory highlights that one of the most important resources in strengthening or weakening a behavior is by reinforcement. A community can use reinforcement as a way of exposing to its members which behaviors are appreciated and positive, and which behaviors are unacceptable. Social learning theory is important to look at specifically with subculture theory because it also brings up the topic of diffusion. Diffusion of behavior is defined as “embodying some reactive/strategic response to decisions observed on the part of partners/neighbors in a social network” (Fosco, Marsili & Vega-Redondo, 2010, p 201). This is very similar to social learning but instead looks at the way that behaviors pass from neighborhood to neighborhood rather than from individual to individual. This review of literature recognizes the importance of individual involvement in the community, but as stated before, is focused on the functioning of the community as a whole. That is why diffusion is important to understand. Subcultures are a piece of a larger population, and need to be concerned with the behavior of the surrounding communities, the diffusion of behavior between neighborhoods and communities can affect the overall stability. Subcultures may be smaller communities with the larger critical mass, but there is no boundary that physically separates them from the behavior of the larger community.

**Empirical Research for Subculture Theory**

In social disorganization theory, fear of crime served as the variable that could lead to isolation from the community, but subculture formation can also lead to isolation. Because each
subculture is typically made up of homogeneous individuals it may be difficult for subculture members to experience the benefits that the larger population has to offer. To demonstrate the isolation that subculture can create, Martin T. Katzman (1969) explores subcultures of different ethnic groups and their economic performance in an urban environment. He took three different age groups (14-24, 25-44, and 45+) from 14 ethnic groups living in large metro areas and performed linear regressions on their economic achievement. What he found was that the larger and younger the ethnic subculture was, the more successful they were economically, such as owning their own business and holding high positions in corporations. The difference between the age groups within the ethnic groups was overwhelmingly based on the amount of education that was present. The older immigrant groups were less educated and seemed to be receiving, or perceived that they were receiving more discrimination from other subcultures. The amount of education also seemed to be the factor that was dividing the ethnic groups into their various subcultures, allowing for some to continue being more successful while others continued to struggle. “Performance of the group is very sensitive to the economic opportunities that they live in. Being unevenly distributed among metro regions, ethnic groups face different opportunities” (Katzman, 1969, p 366).

Katzman (1969) is reinforcing the fact that when subcultures do not have the tools available to be successful in their environment, their opportunity to be successful is limited. In this case the subculture that had a low amount of education was holding back the individuals from being economically successful and staying isolated from the success that other ethnic subcultures were receiving. This study is demonstrating that while subcultures can be created based on similarities, this can also hold the individuals back from exploring other options and learning from different people. The common characteristic in this case was not being educated, which was not providing the members a lucrative environment to become economically successful.

Steven F. Messner (1983) also looked at the effects of the composition of different subcultures in the southern portion of the United States. Messner wanted to explore whether or not the racial composition of subcultures in the south would have any effect on the homicide rates,
compared to racial subcultures in non southern states. It has been demonstrated that subcultures adopt different norms than the larger culture that they belong to, including violent and deviant behavior. Messner hypothesized that racial composition would have a different effect on the homicide rate based on what region of the country the subculture was located in. Messner used official homicide rates from 204 Standard metropolitan Statistical Areas (SMSA’s) from the FBI in the years 1969-1971. His independent variable was a compilation of different factors that was collectively called the structural poverty index, which included things like one parent homes, infant mortality rate, and other demographics. What Messner found confirmed his original hypothesis that in southern states the percent black has no significant effect on the homicide rate, while in non southern states percent black is the most important determinant of the homicide rate. This study shows that the spatial location of a subculture is also important to recognize. A universal definition of what a deviant subculture looks like is not an accurate way to address problems of crime. And as the concept of diffusion explained earlier, subcultures are extremely influenced by their surrounding environments which were shown here by racial composition.

From the concept of spatial diffusion that was discussed with social learning theory, exposure to crime is discussed in a study by Roy L. Austin (1980) who looks at the formation of adolescent subcultures of violence. Austin wanted to explore what draws people to join subcultures that behave defiantly. In order to test this he sampled juniors and seniors from the Contra Costa County in California. The sample consisted mostly of males and did not include institutionalized adolescents. The boys were then asked a series of questions that included things such as “have any of your friends ever been picked up by the police?” or “is it all right to get around the law if you can get away with it?” and “what is your father’s occupation?” What the author found was that boys that were members of a subculture were more likely to take part in violence and that the rules of the deviant subculture were more important to the boys then the formal rules outside the subculture.

The most interesting thing that Austin (1980) discovered was that out of all the variables poor relationships with teachers and parents seemed to be the most significant predictor of whether or
not an adolescent boy would take part in a deviant subculture. Another point is that the father’s occupation did not have a direct correlation with the boy’s involvement with the subculture. With that being said in this particular study, the social control that came from the relationships with parents and non parental role models were more influential then class. This study is extremely powerful because it demonstrates the influence that membership to a subculture can have on an individual and how diffusion and also social learning are extremely influential on behavior. This can also be translated to a local social institution. Although the social institution may be located in a low SES area, the relationships that could form inside of it would be a very beneficial form of social capital.

Subculture theory is important to this research because it provides a deeper understanding of the smaller social groups that develop within the critical mass, but it also leads to a deeper understanding of the obstacles that urban neighborhoods experience. Subculture theory also showcases that spatial location is important, and that surrounding areas are influential to the well being of the neighborhood. Like social learning theory has explained, diffusion of behavior is a variable that can be a deciding factor on the stability of the neighborhood. Social disorganization theory explains the challenges of having a heterogeneous population (Bursik, 1988), and subculture is able to fill the gap and explain why at the other end of the spectrum, homogeneous populations are not always the answer either. While subculture theory adds a lot of important information, like the other theories that have been discussed for this particular study it is more beneficial to combine the theoretical information of subculture and social disorganization theory to present a more formative explanation of what is happening in low income areas that are criminally active. The combination of these theories strengthens the explanatory power of each individual theory in the quest to understand criminal activity in urban neighborhoods. The combination of these theories also strengthens the idea that local neighborhood institutions provide a positive force on low income neighborhoods, in the form of a wide variety of examples and studies showing its positive force on criminal activity.
Hypothesis and Conceptual Model

As this review of literature has presented, it is a daunting task to create and maintain a neighborhood in an urban environment that offers enough social control and cohesion to keep crime rates down. As several of the empirical studies have shown, there is no universal answer to criminal activity in high poverty areas. But the studies have also shown that there are steps that can be taken in order to start repairing areas of social disorganization. Fear of crime is something that plagues areas of poverty and prevents social control and cohesion to happen in urban neighborhoods. A way to deal with the fear of crime is to create a common and safe area for community members to go and network. This was successfully demonstrated in Connecticut with inner city youth in the empirical study that was reviewed by Anderson, Sabatelli and Kosutic (2007). Providing a space such as a local neighborhood institution provides social capital to an area that is lacking in most resources. The neighborhood institution provides formal control because behavior will be monitored and informal control can thrive there because community members will network and interact in a safe environment. Not only will this help to build cohesion and collective efficacy but it will reinforce ties to the neighborhood that they belong to.

Throughout this review of literature social disorganization theory has shown that in order for a community to function it needs to have strong formal controls and informal controls. Many of the empirical studies demonstrated that at least one type of control was missing if not both. An example of this was the study that Rosenbaum (1987) did with Neighborhood Watch. Although neighborhood watch works in some instances, Rosenbaum (1987) was able to demonstrate that the lack of informal and formal controls made the program inadequate for the neighborhood. But in the places that had a local social institution control was restored or created in a positive way. Another example was in the Roman and Moore (2004) study in Washington D.C. when the presence of a local social institution created a positive level of organization in the community. Local neighborhood institutions offer a place for both of these types of control to formulate and also provide a place for positive diffusion of behavior to travel out to the surrounding community.
This review of literature has also shown that while it is important for an individual to have an attachment to the community, it is impossible for this attachment to take place in a community that is without control. The community as a whole can be looked at as the solution to crime filled neighborhoods, and by establishing a physical “place” (local social institution) where people can begin to value their community and also change behaviors. Based on the information that has been presented, two different hypotheses have been formulated. The first hypothesis states that residential stability, lack of social resources and population density from social disorganization theory and homogeneous subcultures from subculture theory will be predictors of the crime rate in the Kansas City Mo area. And secondly, the effects that the socioeconomic factors previously listed have on the crime rate will be counteracted by the presence of social service agencies.
Figure 2.1 Social Control and Cohesion in Neighborhoods: Shows the obstacles that are present in a neighborhood when it is disorganized, and what the presence of a local institution can do to combat these obstacles. Leaving a community that is in a more stable place.
CHAPTER 3
RESEARCH DESIGN

This chapter will describe the data that was used during this research. The first portion of the chapter will explore how I obtained my secondary crime data at a census tract level as well as examine the spatial analysis used in this research design. The second portion of this chapter will be a description of how the variables related to the different theories used during the review of literature and how the concepts were measured. The chapter will conclude by looking at how the data was analyzed in both SPSS statistically and spatially with GeoDa.

Data

Dependent Variable: Crime

In order to obtain the dependent variable, crime, I went on the City Scope website, located within the Center for Economic Information at UMKC (Center for Economic Information, 2012). I then downloaded data for the Kansas City metro area into an excel file, in the form of total number of violent, property and RAAB (rape, aggravated assault and burglary) crimes. The crime data was collected at the smallest level of measurement with the U.S. census, (block level). Block level data within the Census gives exact numbers and counts for small groups and areas (American Fact Finder).

While census blocks do allow for counts at neighborhood scale studies, they do not have access to most socioeconomic variables; only basic demographics. In order to avoid this limitation it was important to utilize other geographic units of measurement available through the census. The next level of census geography was the census tract, which is also a widely used measurement level when dealing with neighborhoods. I was able to aggregate the crime data up to the census tract level by utilizing the MABLE database. The Master Area Block Level Equivalency file (MABLE) provides geographical codes that match different levels of spatial units. (Missouri Census Data Center, 2010). In this case I wanted to get to the census tract level so that I would be able to match
crime data with demographic variables from Summary File 3; which will be explained later. For this data matching I needed to make a unique census tract ID that would be compatible with other census information (for the sake of joining demographic information within GIS). I completed this task by manipulating formulas in excel to create a unique census tract that would match with other information that I would later create in GIS. Once I had an aggregated dataset at the tract level, I needed to find the sum of crime in each tract; I then made a category of total crime which combined the violent, property and RAAB categories together. With this combination it will be easier to compare the tracts to one another.

Demographic and Socioeconomic Data: The variables that I used to help investigate my hypothesis were gathered within Summary File 3 located on the United States Census website. Summary File 3 (SF3) is a dataset of detailed population and housing information for selected areas. The smallest measurement that SF3 utilizes is tract level data and is collected from the long form questionnaire that the United States census distributes every ten years (American Fact Finder). SF3 allows you to identify trends, changes and patterns within a population and see changes over time. It also gives you more demographic and socioeconomic variables to choose from, compared to other summary files, which aids in investigation in regards to this research.

Research Area: As discussed previously, my research area is restricted to Kansas City, Mo; within Jackson County. This is the area that contains the featured zip code of 64130, and also surrounding tracts for comparison. The population that my research question deals with is males and females of all ages and races.

Measurement: As discussed in the review of literature, different theories present variables that aid in the understanding of relationships that may be present between crime and social service agencies. The following section will describe the role that each variable from the previously discussed theories plays in the investigation of data.

Social Disorganization: In order to properly measure the social disorganization of the Kansas City Mo area, I picked out several concepts. One of these concepts is residential stability;
which is an important indicator of social cohesion and community functionality because if there is a high turnover rate within the population it is difficult to create relationships, therefore creating a higher possibility of isolation. In order to properly measure this concept “vacant housing” units were downloaded from SF3. Vacant housing units in an area means that the population is fluctuating and residents are leaving quicker than they are coming. If there are a lot of housing units vacant rather than occupied, then this perpetuates the opportunity for a higher level of residential mobility. I also downloaded housing status; rent or own property from the census website. It will be beneficial for this thesis to take a closer look at the ownership of housing; whether the house is being rented or is owned can be also translated into residential mobility. Another concept that represents social disorganization is a lack of social resources. When a population does not have resources that are essential to their livelihood, then the desire for criminal behavior goes up. In order to properly measure this; income and proportion of people below poverty was downloaded from SF3. Higher rates of income mean that there is the greater chance that resources will be available in the area. On the other hand if there is a large population of people in poverty, then resources are less likely to be available. The last concept that was used for social disorganization was population density. Population density is similar to residential stability in the sense that the larger the population the more difficult it is to make intimate and lasting relationships with peers. In order to test this concept, population density was downloaded from SF3.

Subcultures: In order to measure the effect that the creation of subcultures played on predicting the crime rate several concepts were looked at. As previously stated small subcultures of homogeneous populations within the larger population can create isolation, which could in turn create deviant behavior. I downloaded the variable race (which is based on self identification) from the Census Bureau and used the percent black to represent a subculture of race in the Kansas City area.

Social Service Agencies: The placement of social service agencies within the Kansas City area is a key element to the exploration of what affects crime in this area of Jackson County, Mo; and further acts as an intervening variable when measuring the affects of the independent variables with
crime. Because there are so many different organizations and businesses in the Kansas City area it was important to gather and maintain a set of agencies that were all held to the same standard when being defined as social service agencies. In order to properly do this I gathered a list of social service agencies from the United Way of Greater Kansas City 2-1-1 database and located the guidelines that United Way uses to grant agencies funding (Apply for United Way Funding, 2009). The guidelines that United Way uses are very similar to the way Sampson described the functions of a social service agency (Sampson, 2001). According to Sampson (2001) each agency provides a common ground for positive resources to be created and or multiplied. Along with providing common ground for resources, United Way also wants to know exactly what community need the agency will address. Whether that is community involvement, child care or education, the agency has to be doing something that will affect the community in a positive way. Another important guideline that United Way focuses on is the target population; the placement and demographics of the area that the agency is in matter to what goal they are ultimately working towards. Along with working with a specific population, United Way also wants to know that the accessibility of the agency, to the population that they will be serving, is easy. Along with being accessible to others, the agency also has to provide the method of advertising to the public that will alert individuals in the community that they are around and what they offer. Lastly, the agency has to present past research that whatever program, idea, or end goal they are working for has some sort of value and has been shown to offer positive effects on the community (Apply for United Way Funding, 2009). The guidelines that United Way has presented follow ideas and concepts that were visited in the theories described in the review of literature. Because of these similarities, it was reasonable to adopt their guidelines when composing a list of agencies that would be appropriate for this particular project.

I was able to obtain a list of social service agencies from the United Way of Greater Kansas City 2-1-1 Database, which is 24/7 call center that provides assistance in locating resources in the community. The list contained 1,847 social service agencies in the Jackson County Missouri area. I then took that list of almost 2,000 agencies and pulled out the ones that were specifically located in
the Kansas City, Missouri area. This left me with 414 social service agencies that were located in my research area. In order to properly use this data set, I had to GeoCode the addresses and turn them into spatial data. After downloading a street map of Jackson County from the United States Census website I then created an address locater and turned each address into a spatial location on the map. Now that I had a spatial dataset of agencies I was able to set this aside until I was ready for further investigation.

Below is a table that represents the variables used to investigate the relationship between social disorganization, subcultures and social service agencies and how they all affect the crime rate.

Table 3.1: Variables and Measurements

<table>
<thead>
<tr>
<th>Variable</th>
<th>Concept</th>
<th>Data Source</th>
<th>Theory</th>
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<tr>
<td>Dependent Variable</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Total Crime</td>
<td>Crime Rate</td>
<td>CEI</td>
<td></td>
</tr>
<tr>
<td>Independent Variable</td>
<td></td>
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<td>Vacancy Residential Mobility</td>
<td>US Census Bureau, SF3</td>
<td>Social Disorganization</td>
<td></td>
</tr>
<tr>
<td>Income Social Resources</td>
<td>US Census Bureau, SF3</td>
<td>Social Disorganization</td>
<td></td>
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<tr>
<td>Percent Black Racial Subcultures</td>
<td>US Census Bureau, SF3</td>
<td>Subculture</td>
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<td>Own/Rent Home Residential Mobility</td>
<td>US Census Bureau, SF3</td>
<td>Social Disorganization</td>
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<td>Population Density Urban Environment</td>
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<td>Intervening Variable</td>
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<td>Social Service Agencies Formal and Informal Control</td>
<td>United Way 2-1-1</td>
<td>Subculture and Social Disorganization</td>
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</table>
Analytical Scheme

In order to visualize my variables GIS (Geographic Information Systems) was utilized to create visual maps of the relationships that were created. Each map was created as a visual representation of the variables from the theories as well as social service institutions and occurrences of crime. Some of the maps were used to show the distribution of population density, distribution of race and distribution of income. Other maps were used to compare and contrast the variables. For example a map that showed the amount of crime in an area was overlaid on a map that showed the distribution of social service agencies. This visually showed a relationship between the amounts of crime in an area compared to the amount of social service agencies in the same area. While this visual representation of the data is important and telling, it was also important to statistically analyze the data. Statistically analyzing the data would allow for control in extraneous relationships being created and giving false associations.

Spatially exploring the data through mapping allowed to visually explore patterns and associations between the variables, and also highlight important relationships. To further explore the relationships that mapping exposed it was important to statistically measure the variables in SPSS. Using statistical analyses can show which of the relationships that were exposed during the mapping process are strong and present; and which ones were not. An example of why this is important is by looking at total crime. While a tract may show up dark in color (meaning that it has a high number of total crimes) it may not actually have a lot of crimes when compared with the total population of the tract.

The first step that was taken, was to pull a report of all the variables that are being used in the study to understand the crime rate; house vacancy, race, income, population, amount of social service agencies and of course the crime rate. I was able to pull this report from the output table that is created with each map that was previously created in GIS. From the report I had the totals and averages of my dependent and independent variables. I then took this information from the output report and went through each tract and created a table that included several percentages and numbers.
The percentages were created so that each tract was held against its own population; allowing the makeup of that specific tract to come through. I created the percentages by using simple math equations to see what percentage of the population was part of my independent variable.

Example using total crime:

\[
\frac{\text{total crime}}{\text{total population}} = \text{percent of people that will experience a crime in that tract (crime rate)}
\]

This calculation was performed on total crime, the number of residents below poverty, total white population, and total black population. Also included in this table was total number of vacant homes per tract and total number of social service agencies. While going through and performing these equations with each tract, I ran across a few tracts that had missing information that ended up skewing the percentages. These tracts were excluded from the overall comparison because the results were not accurate. Now that I had a comprehensive statistical table for each tract in my research area, I created a table that included the minimum and maximum basic statistics; maximum/minimum incidents of crime, total number of tracts, etc. Between these two tables I had a comprehensive look at what my research area was composed of.

Once I had the basic descriptive statistics for my research area as well as each tract, I highlighted twenty values on each end of the spectrum; the ten with the highest crime rate and the ten with the lowest crime rate. While taking out the top twenty I also went back to the report that I had received from GIS and added the total average income, total population and the breakdown of what kind of crime was happening in the tract. Along with putting in these descriptive numbers for the tract I also calculated how many social service agencies would be available per 100 people in the tract. I had previously created percentages of total crime for each tract, and making this further calculation with social service agencies allowed for me to look at how many social service agencies were there compared with the total population.

\[
\frac{\text{total number of social service agencies}}{\text{total population}} \times 100 = \text{total social service agencies per 100 people}
\]
I created these tables to get a closer look at my most extreme cases, hoping that a pattern would emerge that would help me to understand why those certain tracts had that amount of crime. My next steps were going into statistical analysis with SPSS and begin to compare the variables against one another.

**Correlation:** I used the correlation analysis in SPSS to check if a relationship exists between the dependent variable (total crime) and the independent variables (house vacancy, number of social service agencies, race, population density and income). By using the correlation analysis I tested each of my independent variables against my dependent variable to see if a relationship existed, and if so; what kind. Correlation analysis is also useful in the sense that you can create a graph with a line of best fit, to see how many outliers are possibly skewing the data. When performing the analysis you are first looking towards the significance level, if the value is less than .05 then you look towards Pearson’s r to tell you about the relationship. The value tells you how strong the relationship is as well as the direction of the relationship (positive or negative).

**Regression, ANOVA and Multicollinearity:** The regression analysis was important to use because unlike correlation analysis, regression shows the likelihood that an event will occur, and how much explanatory value a model has. Because regression analysis has the ability to look at explanatory power I wanted to look a little closer at the role that racial subcultures played, so I also manipulated the variable, black population into a percent, for this specific regression. Multiple regressions were performed on each of the independent variables against total crime so it was possible to evaluate the significance and explanatory power of each variable on total crime alone. The second regression brought all of the independent variables together against total crime; excluding the intervening variable of social service agencies. The last regression that was performed included all of the variables being measured; including social service agencies.

The final two statistical analyses that I performed on my data was ANOVA and the multicollinearity test. Multicollinearity is a test that you perform in order to make sure that the variables you are testing are not redundant of one another. By utilizing this test you are making sure
that each one of the independent variables you are testing has its own possible explanatory power, rather than being similar to one of the other variables in the test. After performing this test with my own variables, it was shown that multicollinearity is not present in my analysis.

ANOVA was the last statistical test that I performed on my data. The reason for this test was to take a final look at the way that crimes, and the focus of this research, social service agencies, interact with one another. With ANOVA I was able to take a closer look at the how the number of social service agencies interacted with the total amount of crime for that area. Before I started I had to turn my independent variable, social service agencies, into a categorical variable. I did this by creating three different groups, group 1 (1-5 social service agencies) group 2 (6-10 social service agencies) and group 3 (11-17 social service agencies) and then there was also a category that took the tracts that had zero social service agencies. These specific categories were created based on the minimum and maximum number of social service agencies that could be present in a tract, which was pulled from GIS earlier. After I had created the groups, I ran the ANOVA test, which created several outputs that showed which independent variables had a relationship with each other and with total crime.

**GeoDa**

The last step was one of the most important steps in analyzing my data; spatial analysis in GeoDa. GeoDa is a program that lets you spatially explore your data. There are several different ways that you can utilize the program, but I chose to run the parallel coordinate plot (PCP) and Local Indicator of Spatial Associations (LISA).

Parallel coordinate plots (PCP), allows you to see the relationship between several different variables; visually rather than statistically. Lines that stand for the different tracts connect horizontally across the different variables showing the patterns and connections between the variables. You can also use a brushing technique that changes one or several of the lines a different color so that you can see one particular tract and how it connects to the other variables. With PCP I used the technique that I used with Linear Regression, one independent variable per figure so that I
could visually analyze the significance it had. Once I had made a figure with each one of the independent variables I created a figure that had all of the independent variables; except for social service agencies. Once that figure was created I added in social service agencies and was able to analyze what the variable did to the pattern.

LISA is another spatial analysis that visually portrays the relationships between the variables (Anselin, Syabri, & Kho, 2006). The main feature that LISA offers to the research is the type of clusters that happen, and where they happen. LISA shows were high concentrations of a variable are located and also if that area, or tract in our case, is surrounded by other tracts that also have the same high concentration. This map is important because it can show us the “hot spots” of variables.
CHAPTER 4

RESULTS

The following chapter is the explanation of results split up into three sections; results from descriptive statistics, correlation and multivariate analysis and exploratory spatial analyses with GeoDa.

Descriptive Results

Descriptive statistics assist in analyzing and understanding the data that is being researched. And while it is important to perform special analyze over the variables it is also important to look at the basic data you have before it is manipulated. A report was generated from GIS during the mapping process that laid out the basic descriptions of the variables in question. This data was organized into the table below in order to look the minimum and maximum occurrences of the different variables and also the standard deviation and mean of the different variables. My total research area included 138 tracts, and the values below are based on the values per tract. The minimum value of each tract across the board was zero occurrences while the other values vary. Table 4.1 shows that property crime was the crime that was committed most often and violent crime was committed the least.
Table 4.1: Descriptive Statistics of Dependent, Independent and Intervening Variables

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum Value per tract</th>
<th>Maximum Value per tract</th>
<th>Total Value per tract</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Crime</td>
<td>160.62</td>
<td>207.03</td>
<td>0</td>
<td>953</td>
<td>34854</td>
</tr>
<tr>
<td>Property Crime</td>
<td>78.62</td>
<td>95.54</td>
<td>0</td>
<td>415</td>
<td>17060</td>
</tr>
<tr>
<td>Violent Crime</td>
<td>35.80</td>
<td>50.98</td>
<td>0</td>
<td>223</td>
<td>7769</td>
</tr>
<tr>
<td>RAAB Crime</td>
<td>44.21</td>
<td>60.05</td>
<td>0</td>
<td>267</td>
<td>9594</td>
</tr>
<tr>
<td>Social Service Agencies</td>
<td>1.91</td>
<td>2.71</td>
<td>0</td>
<td>17</td>
<td>414</td>
</tr>
<tr>
<td>Home Vacancy</td>
<td>110.7</td>
<td>86.34</td>
<td>0</td>
<td>503</td>
<td>13219</td>
</tr>
<tr>
<td>Total Income</td>
<td>$45,418</td>
<td>$19,558</td>
<td>$11,250</td>
<td>$120,715</td>
<td>N/A</td>
</tr>
<tr>
<td>% Black</td>
<td>N/A</td>
<td>N/A</td>
<td>0</td>
<td>100%</td>
<td>N/A</td>
</tr>
<tr>
<td>Population Density</td>
<td>3252.5</td>
<td>2536</td>
<td>5</td>
<td>13513</td>
<td>705808</td>
</tr>
</tbody>
</table>

The mapping process is extremely important because not only does is visually provide you with evidence of relationships between the variables; but it also provides valuable statistics about the research area. Several maps were created based on the descriptive statistics and patterns that I thought would be present. But before any maps were overlaid to expose patterns, a map was created to visualize each variable individually. Once the single variable maps were created it was appropriate to begin to overlay the variables and see which relationships were presented. Patterns and area hot spots were quickly established and I was able to focus on a distinct area within Kansas City, Mo. Figure 4.1 shows the total crime for Kansas City, overlaid with the variable percent black. The left side of the map that shows a color gradient and is within the rectangle is the research area of Kansas City MO, the map outline is all of Jackson County.
Figure 4.1: Overlaid Map of Percent Black and Total Crime in Kansas City, MO

The darkest black is a tract that had a high count of total crime; including violent, property and RAAB. It appears from the map that the center of the city has the highest concentration of crime. It is fairly consistent that the border of Kansas City has a light shade of gray which means that the highest count of crime was 160 occurrences. This map showed what tracts that I need to pay attention to further on in the investigation of my variables. The percent black variable also seems to be
concentrated in the same area of high crime, although there does seem to be some differences between hot spots of data. Figure 4.2 shows the total crime again, but this time overlaid with population density.

Figure 4.2: Overlaid map of population density and total crime in Kansas City MO.

Figure 4.2 is consistent with the one that was created with percent black. The area that holds the highest counts of crime and percent black also seems to have the highest population density. The last
map that is important to bring attention to is the map that was created from Geocoding the addresses of the social service agencies. This process made it so we could take something like an address and turn it into a dot that symbolized a social service agency; this map was also overlaid with the total crime of the research area in question. The color of total crime for this map was changed to highlight the points created from Geocoding. By using the address locator function in GIS I was able to get visual perspective of where the social service agencies were actually located.

Figure 4.3: Overlaid map of total crime and social service agencies in Kansas City, MO.

When comparing Figure 4.2 to Figure 4.3, it seems that the majority of the social service agencies are located in an area that does not have a huge population; this is most likely due to the fact that this area
has a lot of businesses rather than residential areas. It is also interesting to recognize at this time that the area in Figure 4.3 that shows the most concentrated cluster of social service agencies does not appear to have a high number of crime incidents, when comparing to Figure 4.1; although it is too soon to tell if this is actually the case.

**Basic Statistics**

Creating maps in GIS allowed for a visual perspective of where crime was taking place and where different social service agencies were located in Kansas City. GIS also created a report that allowed me to know the details for all the tracts in my research area, which created the min and max table presented earlier. From this same report I was also able to gather the tracts that had the most and least criminal activity. Below are two tables that each highlights the tracts with either the highest counts of crime or the lowest.

Table 4.2: Tracts with the highest crime rates

<table>
<thead>
<tr>
<th>Tract ID</th>
<th>Income</th>
<th>Population</th>
<th>Total Crime</th>
<th>Crime Rate</th>
<th># of Social Service Agencies</th>
<th>Social Service Agencies per 100 people</th>
</tr>
</thead>
<tbody>
<tr>
<td>29095003200</td>
<td>21250</td>
<td>433</td>
<td>142</td>
<td>32.7%</td>
<td>4</td>
<td>.92</td>
</tr>
<tr>
<td>29095004900</td>
<td>41974</td>
<td>1330</td>
<td>451</td>
<td>33.9%</td>
<td>4</td>
<td>.30</td>
</tr>
<tr>
<td>29095006800</td>
<td>26364</td>
<td>917</td>
<td>281</td>
<td>30.9%</td>
<td>10</td>
<td>10.0</td>
</tr>
<tr>
<td>2909500400</td>
<td>29375</td>
<td>433</td>
<td>129</td>
<td>29.7%</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>2909500501</td>
<td>35938</td>
<td>131</td>
<td>54</td>
<td>31.7%</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td>2909501000</td>
<td>22933</td>
<td>3485</td>
<td>953</td>
<td>27.3%</td>
<td>6</td>
<td>.17</td>
</tr>
<tr>
<td>2909501200</td>
<td>58500</td>
<td>601</td>
<td>158</td>
<td>26.2%</td>
<td>13</td>
<td>2.1</td>
</tr>
<tr>
<td>2909503100</td>
<td>46250</td>
<td>130</td>
<td>56</td>
<td>43.0%</td>
<td>13</td>
<td>10.0</td>
</tr>
<tr>
<td>2909505000</td>
<td>17143</td>
<td>2434</td>
<td>657</td>
<td>26.9%</td>
<td>3</td>
<td>.12</td>
</tr>
<tr>
<td>2909505500</td>
<td>27250</td>
<td>1281</td>
<td>315</td>
<td>24.5%</td>
<td>1</td>
<td>.07</td>
</tr>
</tbody>
</table>
Table 4.3: Tracts with the lowest crime rates

<table>
<thead>
<tr>
<th>Tract ID</th>
<th>Income</th>
<th>Population</th>
<th>Total Crime</th>
<th>Crime Rate</th>
<th># of Social Service Agencies</th>
<th>Social Service Agencies per 100 people</th>
</tr>
</thead>
<tbody>
<tr>
<td>29095010201</td>
<td>30313</td>
<td>2436</td>
<td>5</td>
<td>.2%</td>
<td>2</td>
<td>.08</td>
</tr>
<tr>
<td>29095012904</td>
<td>61875</td>
<td>2541</td>
<td>7</td>
<td>.2%</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>29095013003</td>
<td>40213</td>
<td>5156</td>
<td>3</td>
<td>.01%</td>
<td>3</td>
<td>.05</td>
</tr>
<tr>
<td>29095014300</td>
<td>67700</td>
<td>3835</td>
<td>9</td>
<td>.2%</td>
<td>2</td>
<td>.05</td>
</tr>
<tr>
<td>29095013408</td>
<td>60109</td>
<td>4999</td>
<td>1</td>
<td>.02%</td>
<td>3</td>
<td>.06</td>
</tr>
<tr>
<td>29095012503</td>
<td>69879</td>
<td>3703</td>
<td>16</td>
<td>.4%</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>29095013204</td>
<td>35603</td>
<td>3004</td>
<td>8</td>
<td>.2%</td>
<td>1</td>
<td>.03</td>
</tr>
<tr>
<td>29095009900</td>
<td>42857</td>
<td>2202</td>
<td>8</td>
<td>.3%</td>
<td>5</td>
<td>.22</td>
</tr>
<tr>
<td>29095013405</td>
<td>26813</td>
<td>1684</td>
<td>6</td>
<td>.3%</td>
<td>1</td>
<td>.05</td>
</tr>
<tr>
<td>29095013407</td>
<td>90953</td>
<td>2493</td>
<td>8</td>
<td>.3%</td>
<td>1</td>
<td>.04</td>
</tr>
</tbody>
</table>

Looking at the tracts in this way takes the explanatory power of the maps one step further, because now each one of these tracts is held against itself. Population density is controlled and we can really see which tracts have the highest amount of crime with regards to how dense the tract is. I created these tables to get a closer look at my most extreme cases, hoping that a pattern would emerge that matched with some of the patterns that were displayed during the mapping process. Unfortunately a clear pattern was not presented in the table 4.2 and 4.3, the amount of social service agencies, total vacancies and makeup of the population varied significantly. In regards to number of social service agencies, all of the tracts in the lowest crimes rates show that they did not even have one social service agency per 100 people. This pattern is not something that I was expecting, considering that the visual maps made it appear that most of the social service agencies were in an area that had small amounts of crime.

**Correlation and Multivariate Analysis**

This portion of the analysis was very important because up until this point the results were mixed and inconclusive as to the effectiveness of social service agencies. The first analysis that was performed was correlation analysis which examined the existence of a relationship between the independent and dependent variables. All of the variables showed significance levels lower than .05 meaning that they do have a connection with the dependent variable of total crime. The strength and
type of the relationship varied with each variable. The table below summarizes the relationships that I found while performing the correlation analysis.

Table 4.4: Correlation Analysis Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Value of r</th>
<th>Outliers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>-.403*</td>
<td>Present, but not a big issue</td>
</tr>
<tr>
<td>Vacant Homes</td>
<td>.552*</td>
<td>Few</td>
</tr>
<tr>
<td>Poverty</td>
<td>.699*</td>
<td>Few</td>
</tr>
<tr>
<td>Population Density</td>
<td>.633*</td>
<td>Several outliers, this could have skewed the outcome of the relationship.</td>
</tr>
<tr>
<td>Race; White</td>
<td>-.423*</td>
<td>Several outliers, possibility of skewed data</td>
</tr>
<tr>
<td>Race; Black</td>
<td>.590*</td>
<td>Several outliers, possibility of skewed data</td>
</tr>
<tr>
<td>Social Service Agencies</td>
<td>.363*</td>
<td>Several outliers, possibility for skewed data</td>
</tr>
</tbody>
</table>

*: Denotes statistical significance

Table 4.4 shows the different variables and what their connection is to total crime. Most of the variables produced results that were expected; as income goes up, crime goes down; as vacant houses go up so does total crime. Individuals being below poverty and population density showed to have the strongest relationship, in correlation with total crime. The strong relationship that population density displayed is a representation of what Louis Wirth (2009) theorized in Deterministic Theory. He explained that people that lived in the city were exposed to a high population density and this would end up causing more crime. This correlation analysis is proven to be true in the Kansas City area. The second variable that produced surprising results was social service agencies. This variable produced an r value of .363 which creates a linear relationship; as the number of social service agencies goes up, so does crime. The graph for this variable however does show a lot of outliers, and no real pattern between the different cases which could mean the data is skewed (Figure 4.4)
The next analysis was linear regression, which is able to show how much explanatory power a model has and also the likelihood that an event will occur. I took advantage of this analysis and performed several regressions: each independent variable against the dependent, all of the independent variables excluding the intervening, and lastly all of the variables together. All of the independent variables turned out to be significant and their explanatory power (adjusted $R^2$) and strength (Beta) varied significantly, similar to the results of the correlation analysis. The two variables that showed the most explanatory power and the strongest relationship were the variables of population density and number of vacant homes. Population density has the most explanatory power with an adjusted $R^2$ of .398 along with the strongest Beta value (.633). Vacant housing had an adjusted $R^2$ of .302, and a strong Beta value of .552. While seeing the power and the relationship that the independent variables had individually with total crime; the main point of focus was how strong
the model would be when ran together; with the intervening variable and without. Table 4.5 shows the results of both regressions.

Table 4.5: Linear Regression Results on Crime with Exclusion of Social Service Agencies (Model 1), and Inclusion of Social Service Agencies (Model 2)

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>Sig Level</td>
<td>Standard Error</td>
<td>Coefficient</td>
</tr>
<tr>
<td>%Black</td>
<td>.353</td>
<td>.000</td>
<td>31.671</td>
<td>.240</td>
</tr>
<tr>
<td>Own Home</td>
<td>.008</td>
<td>.889</td>
<td>.019</td>
<td>.046</td>
</tr>
<tr>
<td>Income</td>
<td>-.166</td>
<td>.002</td>
<td>.001</td>
<td>-.161</td>
</tr>
<tr>
<td>Vacant Housing</td>
<td>.391</td>
<td>.000</td>
<td>.179</td>
<td>.390</td>
</tr>
<tr>
<td>Population Density</td>
<td>.353</td>
<td>.000</td>
<td>.005</td>
<td>.334</td>
</tr>
<tr>
<td>Social Service Agencies</td>
<td></td>
<td></td>
<td></td>
<td>.118</td>
</tr>
<tr>
<td>R2</td>
<td></td>
<td>.580</td>
<td></td>
<td>.589</td>
</tr>
</tbody>
</table>

When the regression was run with all of the independent variables, the variable renting was no longer significant; so it seems that in the case of Kansas City renting a home does not have a strong relationship with the crime rate. Surprisingly, the intervening variable social service agency does not have high explanatory power and the strength of the relationship is just fair. Comparing the two regression tests shows that the majority of the dependent variable total crime is explained by the independent variables, in absence of the intervening variable social service agencies. The linear
regression analysis has displayed that the population density and number of vacant houses have a much higher influence in explaining the crime rate than the number of social service agencies.

The last statistical analysis that was performed was the ANOVA test. This test was performed last because it focused on the way that the intervening variable of social service agencies, and total crime interacted with one another. And it was important to see if there was a difference in significance with the number of social service agencies present. The one-way analysis of variance rendered an F value of 26.508, which was associated with a significance level <.05. This meant that the analysis was significant and further, the descriptive statistics that were generated revealed a wide variety of means. The means that were produced stood for the mean number of crimes for each categorical group that was made from the variable social service agencies. This brought up interesting results because group 2 (6-10 agencies) actually had the highest mean number of crimes (318.05), while the least number of crimes took place in the group that didn’t have any social service agencies (39.43). While having no social service agencies produced the smallest count of criminal acts, group 3 (11-17) had the next smallest count (203.33), even though there was a significant jump in the number of crimes. Because the output showed that the amount of social service agencies does have an effect on the total number of crimes it was appropriate to do another test; the Post Hoc test.

This test brings attention to any patterns that might not have been visible with just the ANOVA test. The Post Hoc test breaks down each comparison so you can actually see which groups compared against each other are significant. One of the most significant patterns that this test revealed was that groups were only significant when compared against the group that had no social service agencies present. This was however, not the truth when it came to comparing against group 3 (11-17), which contained the most social service agencies. All of the comparisons made against the group 3 (11-17) were not of significance. Table 4.6 shows the results found in the Post Hoc test.
Table 4.6: Post Hoc Results; Social Service Agency Comparison

<table>
<thead>
<tr>
<th>Social Service Agency Group</th>
<th>Mean Difference</th>
<th>Standard Error</th>
<th>Sig Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 1</td>
<td>-203.81</td>
<td>23.86</td>
<td>.000</td>
</tr>
<tr>
<td>Group 2</td>
<td>-278.61</td>
<td>59.05</td>
<td>.001</td>
</tr>
<tr>
<td>Group 3</td>
<td>-163.89</td>
<td>101.31</td>
<td>.519</td>
</tr>
<tr>
<td>Group 1 (1-5 agencies)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 2</td>
<td>203.81</td>
<td>23.86</td>
<td>.000</td>
</tr>
<tr>
<td>Group 3</td>
<td>-74.80</td>
<td>61.80</td>
<td>.627</td>
</tr>
<tr>
<td>Group 3 (6-10 agencies)</td>
<td>39.92</td>
<td>102.94</td>
<td>.976</td>
</tr>
<tr>
<td>Group 2 (6-10 agencies)</td>
<td>278.61</td>
<td>59.05</td>
<td>.001</td>
</tr>
<tr>
<td>Group 3</td>
<td>74.80</td>
<td>61.80</td>
<td>.627</td>
</tr>
<tr>
<td>Group 3 (11-17 agencies)</td>
<td>114.72</td>
<td>116.25</td>
<td>.766</td>
</tr>
<tr>
<td>Group 3</td>
<td>-39.92</td>
<td>102.94</td>
<td>.976</td>
</tr>
<tr>
<td>Group 2</td>
<td>-114.72</td>
<td>116.25</td>
<td>.766</td>
</tr>
</tbody>
</table>

Consistently through the results it has shown that the smaller the number of social service agencies, the smaller the total counts of crime will be as well. Several significant differences were revealed when observing the Post-Hoc pair wise comparison. Specifically when compared against not having any social service agencies at all. Having zero social service agencies was the only variable that was significant when compared to the other groupings of social service agencies. It seems that when compared against groups 1(1-5) and 2 (6-10) it was significant; however it was still showing that there was more crime in the areas that had social service agencies. What is the most interesting is the fact that belonging to group 3 which had the most social service agencies and the second lowest means of crimes committed was not significant when compared against the groupings that had fewer agencies. It appears puzzling that having more social service agencies means that the area will most likely also have a higher amount of crime.

**GeoDa**

The exploration of my spatial data was done in a similar fashion to the way that the linear regression was performed; a graph was created for each of the variables before they were combined.
The most important part of the process however was when the graph was created that held all of the independent variables; except for social service agencies.

Figure 4.5: Parallel Coordinate Plot of Variables, absent of social service agencies

Figure 4.5 shows a pattern that is consistent with the results that we have been getting so far. There seem to be a lot of activity in the center of the graph, which is to be expected because most of the extreme cases are outliers anyway. While there are definite tracts that go against the pattern, there does seem to be a pattern present; now we need to look at what happens with social service agencies are added to the equation.
Figure 4.6: Parallel Coordinate Plot of Variables of Variables, including social service agencies

With the addition of social service agencies, it appears that the variable seems to mirror the pattern that percent black had created. Even though a pattern is still visible in the figure, it is also visible that there are many tracts that are all over the place. There doesn’t seem to be very much bunching or cohesion between the way that the tracts react to the inclusion of social service agencies. This visual representation of the minimal change that social service agencies created is a confirmation of the explanatory power of the model that was created in the linear regression.

The last test that was utilized to look at my model was LISA, which examines significant spatial association. Crime is a phenomenon in the sense that occurrences are clustered together in space, and LISA is able to visual this occurrence. This is an important spatial test to perform because previously in the literature review, it was explained that events that take place in one tract can affect behavior that happens in another. The first map showcases the dependent variable; the cluster of total crimes in the Kansas City area.
LISA depicts the clusters of a variable by labeling them “high-high,” or “low-low” etc. In the case of figure 4.7 that used total crime, the area “high-high” means those tracts with high crimes are surrounded by other tracts with high crimes. A LISA maps were also created for the intervening variable of social service agencies.
The “high-high” clusters in this map are minimal, suggesting that there are not very many tracts that have high counts of social service agencies in close proximity. When comparing this to the first LISA map of total crime, it appears that the “high-high” clusters are located in different spots; meaning that social service agencies are not located in areas of high crime. The last two LISA maps that were created were the two variables that have been showing the most explanatory power throughout the analyses of data; population density (figure 4.9) and vacant homes (figure 4.10).
Figure 4.9: LISA results; Population Density
These two maps show that the two “high-high” clusters happen in the same area of Kansas City that also had the “high-high” clusters of total crime. Although the vacant housing clusters are much smaller than the clusters that population density creates it is interesting that they are in the same area. These two variables are showcasing here that not only do they have the most explanatory power that was addressed before; they also take place in the same area. When comparing all of the LISA figures, the “high-high” clusters of total crime area is much larger than the “high-high” clusters in the population density and vacant homes. But as linear regression explained; the model as a whole only explains just over half of the occurrences of crime in Kansas City.
CHAPTER 5

CONCLUSION

This chapter will be set up in two different sections. First, I will discuss how the findings relate to the theories of interest; second I will address the limitations and possible agenda for future research.

Discussion of Findings

The first thing that needs to be addressed is what my results mean to my original hypotheses. My hypothesis stated that the combination of the two theories (Social disorganization and Subculture theories) would suggest which neighborhood variables are related to a high crime rate and therefore indirectly point to what key factor was missing or what factor was present; and that key factor would be social service agencies. My first hypothesis turned out to be supported by the results. The variables from the two theories have significant explanatory power towards knowing what kind of crime rate a neighborhood will have. My second hypothesis, however, did not turn out as expected. Instead of social service agencies showing up as a resource that helped bring crimes rates down, it was positively related to high crime rates. The more social service agencies that were present also meant a high crime rate. This research has been based on the thought that social service agencies would bring a sense of control to neighborhoods where control is lacking, and the outcome of this control would come in the form of a low crime rate. However, through all of the statistical and spatial analysis; it appears that this is not the case. The presence of social service agencies was continually linked with higher rates of crime. While these were not the results that I expected, they do expose a lot about what could possibly be causing high crime rates in Kansas City and the different values that socials service agencies offer to the Kansas City area.

The two main theoretical perspectives that were focused on for this research were again, social disorganization theory and subculture theory. Social disorganization theory focused on the community as a whole, functioning together in a way that produced a controlled and cohesive environment, while Subculture theory looked at the way a community functions in an urban setting.
In order to test Social disorganization theory the variable of vacant housing represented “residential stability;” income represented itself, renter status represented community stability and population density represented itself. In the case of Kansas City, all four of these variables were significant in relation to the crime rate. Renter status however had a very weak relationship and did not seem to really have a lot of influence on whether or not a neighborhood would have a lot of crime. Income, as expected, had a negative relationship with crime. The more income that was present in an area, the less crime there was. This was expected because with a higher level of income that usually means that there will also be a lot of access to resources, and as Bursik (1988) explained previously also translates to more control. Vacant housing was one of the most significant variables when explaining the occurrence of crime in the Kansas City area. It had a positive relationship showing that the more vacant housing units that were present, the more incidents of crime there would be as well. Population density proved to be the most significant predictor of crime in the Kansas City area, of all the variables. This could mean that because of the dense population individuals have a harder time accessing resources or make it more difficult to get involved with the community.

The variable that was used to represent Subculture theory was homogeneous subgroups, represented by the variable of percent black. Percent black was a significant predictor throughout the research; the more subcultures that were present, the higher the crime rate was. Theoretically this shows that in regards to the Kansas City area the higher the population density and the more homogeneous subgroups that are present; the more secluded and isolated they become from the larger community.

The last and most important variable in regards to this research was social service agencies. This variable was an intervening variable and was thought to affect the crime rate in the Kansas City area. The article that was presented at the beginning of this thesis (Rizzo, 2009) brought attention to the positive features that social service agencies offer and examples from other communities where they have helped to bring the crime rate down. The combination of the Social Disorganization and Subculture theory presented an explanatory power of .589 (58.9%), which means that 41.1% of the
crime in Kansas City is still unexplained; and social service agencies had very little to do with explaining crime.

In order to better understand this puzzling result on the role of social service agencies in Kansas City I used a random process and picked five social service agencies from my list by using every 20th agency listed in my research area and studied their demographics. I did this in order to get a true look at the different social service agencies, and not just picking an agency from the tracts with the least amount of crime.

Table 5.1 displays the different agencies that I investigated and besides the Full Employment Council all of the agencies are located in areas that have low income and a high crime rate along with a high number of vacant houses. Because of this information it is hard to speculate what the agency is actually doing. In order to better understand I looked into what each agency offers and how long they have been located in that area. YMCA has been in the Greater Kansas City area for just over 150 years, and is a nonprofit organization dedicated to enrich the quality of individuals and family life (YMCA of Greater Kansas City, 2011). There is a fee to belong however, which could make it difficult for some individuals to utilize the services. The Together Center offers a food pantry, clothing closet and a program during the summer for youth; it might however also be difficult for residents in the area to utilize these services because they require a referral from another agency before they can offer assistance (United Way 2-1-1). Saint Mary’s Episcopal Church has been “serving the urban core since 1857” (St Mary’s Episcopal Church), and offers a no boundaries food pantry for area residents as well as a long list of services and programs provided through the actual church. Uplift Organization has only been around since 1990 and defines itself as a homeless outreach program (Uplift Organization Inc.). They are completely run by volunteers and also take part in homeless awareness through presentations in the community. Uplift provides services to all of Jackson County and the only requirement is that individuals must be homeless and at least 16 years of age. The last agency that I looked at was the Full Employment Council (FEC), which helps under and unemployed residents in the Jackson County area gain employment. The organization is free of
charge and open to anyone, FEC also works in conjunction with other community based organizations to make sure that their clients are aware of all possible opportunities in the community (Full Employment Council). All of these organizations focus on different needs within the community and all seem like their mission statements and focus is to help the community and the residents living there function at their highest potential; which is what Social Disorganization theory and Subculture theory state that a community needs. Granted a few of the organizations have small barriers to access but considering three of the agencies I randomly picked are in the same tract, it seems like there would be plenty of options. Also, the Uplift Organization seemed to present an interesting case because it had a relatively low crime rate in an area with a high percentage black and a lot of vacant homes. This showed that social service agencies may be having an effect on the area that they are surrounding that doesn’t show up in the statistical data.

In order to look into this further I wanted to randomly pick out three other agencies to look at (which are the last three agencies in table 5.1).

Table 5.1: Social Service Agencies in Kansas City

<table>
<thead>
<tr>
<th>Agency</th>
<th>Address</th>
<th>Tract</th>
<th>Crime Rate</th>
<th>Vacant Homes</th>
<th>% Black</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>YMCA of Quality Hill</td>
<td>1051 Washington Street</td>
<td>Tract 10</td>
<td>27.3%</td>
<td>232</td>
<td>34.3%</td>
<td>22933</td>
</tr>
<tr>
<td>Together Center</td>
<td>1112 E. 10th Street</td>
<td>Tract 10</td>
<td>27.3%</td>
<td>232</td>
<td>34.3%</td>
<td>22933</td>
</tr>
<tr>
<td>Saint Mary’s Episcopal Church</td>
<td>1307 Holmes Rd</td>
<td>Tract 10</td>
<td>27.3%</td>
<td>232</td>
<td>34.3%</td>
<td>22933</td>
</tr>
<tr>
<td>Uplift Organization</td>
<td>1516 Prospect Ave</td>
<td>Tract 18</td>
<td>16%</td>
<td>272</td>
<td>25.5%</td>
<td>22827</td>
</tr>
<tr>
<td>Full Employment Council</td>
<td>1740 Paseo Blvd</td>
<td>Tract 44</td>
<td>11%</td>
<td>85</td>
<td>23.6%</td>
<td>51875</td>
</tr>
<tr>
<td>Whatsoever Community Center</td>
<td>1201 Ewing Street</td>
<td>Tract 22</td>
<td>14.5%</td>
<td>226</td>
<td>35.4%</td>
<td>25718</td>
</tr>
<tr>
<td>Saint Catherine of Siena</td>
<td>4101 E. 105th Terrace</td>
<td>Tract 102.3</td>
<td>.5%</td>
<td>32</td>
<td>25.9%</td>
<td>55877</td>
</tr>
<tr>
<td>Della Lamb</td>
<td>500 Woodland Ave.</td>
<td>Tract 3</td>
<td>9.8%</td>
<td>130</td>
<td>17.1%</td>
<td>25930</td>
</tr>
</tbody>
</table>

58
These agencies present a very different case than the previous set. Each agency is located in a tract with a fairly low crime rate. Saint Catherine of Siena, which focuses on community assistance in the form of financial assistance and a food pantry (Saint Catherine of Siena Parish, 2012), is located in a tract with extremely low crime, a low count of vacant homes and a fairly high income. The Whatsoever Community Center states that their mission is about making the lives of the community members more satisfying through youth services and education (Whatsoever Community Center) is located in an area with low income but the crime rate is not very high. The last agency, Della Lamb, has a low crime rate as well as a low median income (Della Lamb Community Services, 2011). Picking out these agencies and looking closely at the tract that they are in has brought attention to the fact that even though as a whole social service agencies aren’t intervening in high crime rates, they are doing something to their community. It might be on a small scale and working very slowly, but it takes a long time for social service agencies to achieve their goals and generate positive effects for the community.

I also began observing my research area first hand. Taking a drive down 31st street; starting in on the border of Kansas City and Independence and ending up on Main Street in downtown Kansas City; I passed by several of the agencies that were listed in my study and really observed the area that I was in. There were a lot of individuals traveling on foot and a majority of the houses were abandoned or extremely run down. It has been shown that vacant housing is a huge predictor of high crime rates. So if a social service agency is located in this area, then of course they are going to be indirectly associated with high crime rates; but that doesn’t mean that there are not contributing to the community in some way. The volunteer run Uplift Organization has only been in the area since 1990, so it is possible that small changes have been happening, but because the area had such a high crime rate to start out the change will be slow. It was also important to look back at the success story that the Kansas City Star presented, after looking further into the success in Boston I found that it was nicknamed “the Boston Miracle.” The “miracle” took place after a collaboration between social service agencies, police and the community joined together to change the mindset of the urban core
and stop the violence. And it worked; because not only were informal and formal controls coming together but the community as individuals were choosing to change their behavior and lose the apathy that had been created from years of dealing with violent behavior. The article also spoke about an important collaboration that took place between African American churches and the police; letting the African American community find faith in the police department again (Berrien, McRoberts & Winship, 2002). The success that this collaboration found in Boston could be because social service agencies, and the collaboration of law enforcement and other city entities was able to narrow the focus of their efforts onto the population of high risk offenders. This population could be identified from information gathered at the city level and then once the population is known, efforts could be specifically aimed at giving them the necessary things to succeed while at the same time enforcing a message of strict punishment if criminal activity continues. This type of procedure would allow for social service agencies to have a narrower focus on chronic offenders and crime prevention in the Kansas City, MO area. This research has brought light on the fact that simply having a social service agency present, is not enough to intervene with the crime rate, but by focusing the resources on the population that is contributing to this high crime rate the most, could prove to be the most beneficial (Engel, Tillyer & Corsaro, 2011)

**Further Research**

This research showed that the combination of Social Disorganization and Subculture theory can accurately identify predictors of high crime areas. However this research also showed that social service agencies have little to do with crime rates, instead just the opposite is true; they are instead correlated with high crime rates. Several things could go into why these results happened and what further research could follow in order to really understand the impact that social service agencies have on the community. From the eight social service agencies that I pulled from my research to further investigate, it appears that all of them have the resources and mission to help bring control and social capital to the area. It may be more beneficial in understanding what resource social service agencies are to a disorganized community by focusing on each specific agency; rather than only on their
presence. It could also be valuable to look at how the current clients of social service agencies are benefitting from the agency; are the clients obtaining the resources that they need to succeed? And further, are the social service agencies providing residents with the skills and encouragement to bypass participation in criminal activity and instead actively participate in the community in positive ways? This research has suggested that the value of social service agencies may lie in areas other than the crime rate, and these questions could help to articulate what that value is and how it can be translated into affecting the crime rate, and deterring residents in criminal participation. Another strategy that could be utilized is by revisiting any needs assessments or completing one in disorganized communities.

Relying on secondary data could have been a limitation to this study and by completing a needs assessment; the researcher would have primary data to analyses against other social factors. This needs assessment would also allow the researcher to recognize whether the spatial presence of a social service agency translated into the community that it occupied. For example, some churches are located in a neighborhood, but all of the members and clergy members travel in; so they are not actively involved in the community that they reside in. Lastly, in future research, it might be beneficial to not generalize crime into “total crime,” and instead have separately defined acts of crime; violent, property and RAAB. It is possible that social service agencies have a positive effect on violent crime rates, but not property crime rates and having this distinction of what “kind of crime” may highlight this difference.

This research was able to show that social disorganization and subculture theory are sufficient in predicting whether or not that an area will have a high crime rate, and was also able to show that while social service agencies are a valuable resource to a community, the mere presence of the agency is not enough to help a disorganized community battle crime. These findings suggests that more research should be done in order to fully understand the value that social service agencies can have on the Kansas City area, and how the resources that they have can be utilized in bringing the crime rate down.
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VITA

On August 8, 1986, Cynthia Gordon was born in Pittsburgh, Pennsylvania. She lived there for nine years before relocating with her family to Fort Wayne, Indiana. The Gordon family lived there for a little under a year before settling down in Castle Rock, Colorado. While in Colorado, Cynthia interned at a drug and alcohol treatment center and worked part time while receiving her Bachelor’s degree in Sociology from the University of Northern Colorado in 2009.

With her completed undergraduate degree, Cynthia made the decision to further her education and try out a new place; which landed her in Kansas City, MO. While working part time Cynthia completed an M.A. in Sociology at the University of Missouri-Kansas City in 2012. During this time she got involved with the Big Brothers, Big Sisters program and worked full time through a local nonprofit. Cynthia is anxious to focus on her career and down the road hopes to travel the world.