

The Effects of Police Effectiveness on Neighborhood Attachment

by

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ABSTRACT

Individuals with high levels of neighborhood attachment provide a multitude of positive factors to neighborhoods. Research has demonstrated that increases in informal social controls, maintaining a well-kept area, and positive social ties are improved with higher levels of neighborhood attachment. Identifying the factors that lead to higher levels of neighborhood attachment has thus become an area in the literature that scholars have frequently studied. One aspect of neighborhood life that has been neglected in research is the role of police on neighborhood attachment. This study addresses the gap by exploring the role of police in influencing levels of neighborhood attachment. Data from the Seattle Neighborhood and Crime Survey are used to examine perceptions of police effectiveness on overall levels of neighborhood attachment, and the three different sub-concepts of neighborhood attachment. Results demonstrated that perceptions of police effectiveness had a positive relationship on all forms of neighborhood attachment. Suggestions for the roles of police in developing neighborhood attachment will be discussed, as well as the theoretical applications for future testing of neighborhood attachment. This study demonstrates the influence of police on daily neighborhood life.

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INTRODUCTION

Today, the role of police in neighborhoods is greater than it has been in the past. Previous research in policing has shown that police practices impact the behaviors of individuals in neighborhoods (Tyler & Fagan, 2008; Kochel, 2012). Residents' willingness to cooperate with police, and the role they play in crime reduction efforts are impacted by police actions (Tyler, 2004). Due to these reasons, it is likely that police impact individuals' feelings of attachment to their neighborhood.

Current research on neighborhood attachment, however, has failed to examine the role of police in how individuals form neighborhood attachment. It is a significant oversight because it is possible that individuals' perceptions of the police and their effectiveness in the community impacts how residents form neighborhood attachment. In examining the role of police in effecting individuals' overall neighborhood attachment, current research would be in a better position to understanding the formation of neighborhood attachment more generally. With the importance of police in neighborhoods (Tyler & Fagan, 2008; Kochel, 2012), this study will break ground by determining whether one aspect of policing – police effectiveness – predicts neighborhood attachment and its various components.

Neighborhood attachment is an individual level concept measuring the emotional and sentimental connection one feels towards their neighborhood (Woldoff, 2002). Individuals' neighborhood attachment is based on both the physical surroundings (i.e., houses, restaurants, parks, sidewalks, etc.) and social settings (i.e., social ties, interactions, neighbors, etc.) of the neighborhood. Much of the neighborhood attachment literature has been concerned with the factors that promote or decrease levels of

attachment, for instance residential mobility, participation in neighborhood activities, crime, and perceived disorder (Woldoff, 2002; Brown et al., 2003; Austin & Baba, 1990; Comstock et al., 2010). The factors above influence how individuals perceive the quality of the neighborhood they live in and the social ties being formed in the area.

While the impact of police on neighborhood attachment is unknown, police do impact other areas of neighborhood life related to neighborhood attachment. Studies have found that negative experiences with police influence neighborhood functions such as willingness to exhibit informal social controls, perceptions of the neighborhood as a safe place, and informal interactions with neighbors (Kochel, 2012; Renauer, 2007). Negative experiences with police, such as procedures associated with order-maintenance policing, negatively impact crime control efforts and damage residents' views of police (Gau & Brunson, 2010). This may impact how individuals view the quality of life in the neighborhood, which is a predictor of overall levels of neighborhood attachment. Past studies show that police impact various neighborhood experiences and perceptions of residents, thus, it is highly possible that police have an impact on individuals' overall levels of neighborhood attachment.

The purpose of this study is to examine the relationship between perceptions of police effectiveness and neighborhood attachment. To do this, I conduct secondary data analysis using the Seattle Neighborhoods and Crime Survey conducted in 2002-2003 and OLS regression models with neighborhood fixed-effects. A set of items to address the lack of the police role in the neighborhood attachment research is provided by the data. A series of regression models without a police effectiveness variable will be used, alongside a second series of regression models including a police effectiveness variable.

Conducting side-by-side tests will demonstrate the presence and depth of influence of police effectiveness on neighborhood attachment.

The significance of this study is addressing individual's perceptions of police within the study of neighborhood attachment, an area which no previous study has explored. Neighborhood attachment influences residents' abilities in reducing crime levels in the neighborhood (Brown et al., 2004). Research has shown policing behaviors to impact residents' willingness to cooperate with police in efforts to reduce crime (Tyler, 2004). By testing perceptions of police effectiveness on neighborhood attachment, it will demonstrate if the role of police in the neighborhood may be greater than previously understood. After analysis is conducted, a discussion will address the future of police in neighborhood attachment research.

LITERATURE REVIEW

Neighborhood attachment is the attitudes and behaviors of individuals towards the neighborhood they live in (Bolan, 1997). The neighborhood attachment literature can be viewed as examining the individual's ability and willingness to participate in positive improvements to the neighborhood. Researchers have identified several significant factors of neighborhood attachment that motivate residents to stay in their neighborhood and participate with improvements to the neighborhood (Hays & Kogl, 2007; Bolan, 1997). Such factors included are: owning or renting a home, involvement in neighborhood organizations, time lived in area, and social ties to the area (Austin & Baba, 1990; Comstock et al., 2010). These components influence residents' neighborhood attachment, and encourages participation to improve their neighborhood. Residents' willingness to solve local problems, participate in neighborhood

organizations, and maintain a well-kept neighborhood enhance feelings of neighborhood attachment (Brown et al., 2003; Comstock et al., 2010). However, changes in one's neighborhood attachment can naturally occur with decreases in the overall quality of the neighborhood (Brown et al., 2003). One such decrease may be declines in the physical appearance of a neighborhood (Skogan, 1986). An increase in residential mobility, and less effort by residents in maintaining quality of life can occur in these instances. While individuals with higher neighborhood attachment can still occupy such spaces, the amount of individuals with low levels of neighborhood attachment increase through the negative neighborhood characteristics that come with declining areas.

Neighborhoods with a plethora of residents with low neighborhood attachment often experience crime and perceived disorder (Hawkins, 1995). Also, residential mobility, upkeep of area, and levels of trust with neighbors are negatively affected when neighborhood attachment worsens among residents (Brown et al., 2003). In relation to the issue of crime, residents with lower levels of neighborhood attachment do not perform behaviors that exert informal social controls (Burchfield, 2009). By being more attached to the neighborhood, residents are more likely to report crime, confront delinquents, and participate in neighborhood watch activities (Woldoff, 2002). Individuals with higher levels of neighborhood attachment are more likely to engage in informal social control and other pro-social neighborhood life activities (Comstock et al., 2010). Lower-socioeconomic neighborhoods, which experience more neighborhood problems, can benefit from residents with higher levels of neighborhood attachment, as neighborhood attachment is associated with positive neighborhood activity and problem-solving (Grief,

2009). Residents with high neighborhood attachment can promote residents to be more engaged in the neighborhood, and participate in efforts that improve neighborhood life.

Previous and Current Measurement of Neighborhood Attachment

Behaviors of neighborhood residents is influenced by the multidimensional makeup of the physical and social characteristics of the neighborhood (Burchfield, 2009). Social organization frameworks have incorporated multiple concepts into neighborhood theories, as simple organization theories cannot properly explain the variation in neighborhood characteristics (Burchfield, 2009; Woldoff, 2002). Neighborhood attachment has experienced similar issues, with older conceptions being too simple to capture individuals' overall neighborhood attachment. This has generated a need to develop new concepts to increase the scope and breadth of neighborhood attachment theories (Woldoff, 2002).

Neighborhood attachment is primarily measured through surveys. Early efforts in measuring neighborhood attachment asked respondents the degree that they felt emotionally attached, or the amount of sentiment they felt in the area (Ringel & Finkelstein, 1991); however, these simple constructs made it difficult to measure and understand conceptually the multiplex concept of neighborhood attachment. Research ignored the behaviors of individuals in the neighborhood that expressed different levels of neighborhood attachment (Woldoff, 2002). Ringel and Finkelstein (1991) for instance, examined the role of resident's behaviors in the neighborhood with sentimental feelings towards the area. They identified that social interactions with neighbors, and participation of organizations in the neighborhood, is related to the emotional bonds felt by individuals to the area. Research has since viewed individual behaviors as contributing to feelings of

neighborhood attachment, and has continued to examine the role of behaviors in developing attachment (Scannell & Gifford, 2010).

Additional studies have examined the role problem solving behaviors and the physical environment have in neighborhood attachment concepts (Comstock et al., 2010; Raymond et al., 2010). Problem solving behaviors influence neighborhood attachment by increasing one's sentimentality towards their community through their actions. Also, problem solving behaviors can be viewed as a reflection of one's neighborhood attachment, as a willingness to engage in behaviors that positively impact the neighborhood (Woldoff, 2002). Additionally, the physical appearance of neighborhoods influences residents' perceptions of the neighborhood being a positive place to live in (Mesch & Manor, 1998). This impacts how individuals view the quality of life in the area, and the investments they put forward to maintain a certain level of quality in the neighborhood.

Past studies highlighted the benefits of including additional items in measuring neighborhood attachment, as one or two questions did not provide enough information to researchers. Woldoff (2002) produced a multidimensional concept that addressed the issues highlighted in past research (Comstock et al., 2010; Grief, 2009). The new approach allowed for greater identification of sources of attachment in individuals, greater explanation in changes in neighborhood attachment, and the role of stressors in reducing neighborhood attachment (Woldoff, 2002). Woldoff's neighborhood attachment is comprised of three sub-concepts 1) attitudinal attachment 2) behavioral attachment through neighboring, and 3) behavioral attachment through problem solving. The following will be an explanation of the three sub-concepts previously mentioned.

Attitudinal attachment is individuals' sentimental feelings and evaluations of the neighborhood (Woldoff, 2002). Sentimental connections to the neighborhood are viewed as how emotionally connected one feels towards their neighborhood, and is influenced through a variety of factors. Time lived in the area, the social ties in the neighborhood, and financial investment in the neighborhood all influence emotional feelings in the neighborhood (Austin & Baba, 1990). These influence how individuals feel bonded to an area. Spending more time in the neighborhood, and social interactions for instance, build the emotional connection to the neighborhood through the daily interactions experienced by residents (Mesch & Manor, 1998). Also, how one evaluates the neighborhood is a component of attitudinal attachment. Viewing the neighborhood in a positive manner has an impact on the overall attitudes of the neighborhood. Positive perceptions of the quality of life, and physical appearance of the neighborhood, influence these attitudes towards the neighborhood.

Behavioral attachment is the informal behaviors that individuals perform in the neighborhood, that are indicative of overall levels of neighborhood attachment (Woldoff, 2002). Behaviors are typically measured as the informal social interactions with other residents of the neighborhood. Social interactions increase social ties to the neighborhood that positively impact levels of neighborhood attachment. Additionally, behaviors are reflective of one's level of neighborhood attachment. The interactions with neighbors shows a level of social connection to the neighborhood, a key aspect in overall neighborhood attachment.

Attachment through problem solving is behaviors that individuals perform to reduce local issues in the neighborhood, and positively impact the neighborhood. These

include participating in neighborhood organizations such as neighborhood watch, informally assisting neighbors in solving problems, and performing behaviors to reduce local stressors. Individuals engaging in problem solving in the neighborhood are viewed as a reflection of their neighborhood attachment. Individuals with higher attachment to the neighborhood, are more willing to engage in behaviors to maintain the quality of life in the neighborhood, and confront negative influences in the neighborhood (Woldoff, 2002).

Woldoff displayed the usefulness of using a multi-part approach to neighborhood attachment, by providing a better explanation into the factors influencing individuals' neighborhood attachment. Neighborhood attachment researchers have followed this trend of a multi-conceptual approach, by combining the behavioral and emotional attributes of neighborhood life (Brown et al., 2003; Wallace, 2015). While the concept of neighborhood attachment is being broadened, there are still gaps in explaining formations of neighborhood attachment. Such gaps include the lack of attention to police in formations of neighborhood attachment, which is an important aspect of neighborhood life.

The Police Role in Neighborhood Attachment

Given that police play a large role in the day to day life of neighborhood residents, it is likely police influence residents' neighborhood attachment. While there are many policing concepts to explore with neighborhood attachment, police effectiveness is an appropriate topic to start with, and will be the focus for this study. Below I discuss why individuals who view the police as effective may impact how attached they are to their neighborhood (Hinds & Murphy, 2007).

Briefly, police effectiveness can be considered how individuals view police in combating crime and solving issues in the neighborhood (Dowler, 2003). Should residents view the police as effective, it leads to greater trust of police, and willingness to contact police to deal with local issues when called upon by residents (Tankebe, 2008; Kochel et al., 2013).

As part of neighborhood attachment, attitudinal attachment measures the sentimental and evaluation feelings of residents. Negative perceptions of police may undermine these attitudes and feelings towards the neighborhood (Schafer et al., 2003). Individuals may see the police as not just a protection from major crime, but that police are to curtail small incivilities that undermine a neighborhood's quality. Witnessing instances of police not performing adequately over time, may lead to negative perceptions of the quality of the neighborhood. Evaluations of the neighborhood can be affected by believing a neighborhood institution (police) is failing in its duties. Additionally, an aggressive approach by police may produce negative perceptions that affect neighborhood attachment (Gau & Brunson, 2010).

Order maintenance policing strategies have been found to increase negative feelings of police in neighborhoods, especially among minority youth (Gau & Brunson, 2010; Waddington & Braddock, 1991). Order-maintenance policies have the police targeting small forms of disorder in the neighborhood with the goal of reducing more serious crimes (Wilson & Kelling, 1982). These policies however, have been found to produce negative feelings of police being "bullies" to residents, and a level of harassment by police (Gau & Brunson, 2010). Policies, such as stop-and-frisk in New York City, have shown a level of bias with police in stopping minorities for searches of criminal

activity (Gelman et al., 2012). This may impact how residents view the police as effective in the area. Feelings of mistreatment by police, have been shown to undermine perceptions of police effectiveness by individuals (Tyler, 2005). Individuals are likely to view overly-aggressive policing as being personally targeted, and that priorities of police are in the wrong place. These negative interactions are likely to influence individuals' evaluations and sentimental feelings to the neighborhood. Negative experiences such as crime and victimization in the neighborhood can undermine individuals' emotional bonds to the neighborhood (Brown et al., 2004). Negative experiences with police in the neighborhood may have a similar effect, as individuals may feel a form of mistreatment or injustice while in their neighborhood.

As a contrast, though, police may also influence positive changes in neighborhood attachment, due to the police ability in reducing crime and perceptions of disorder. Neighborhood attachment research views perceptions and experiences of the neighborhood as an important part of individual changes in neighborhood attachment (Rollero & Piccoli, 2010). Additionally, police can increase attitudinal attachment, by being perceived as effective in the neighborhood. Positive evaluations of the police may increase through positive perceptions that a neighborhood institution is performing well. Additionally, police effectiveness may impact the residential mobility of an area, a high correlate to neighborhood attachment. Residents may take police in consideration when wanting to move from an area, especially if they feel the neighborhood is not adequately looked after by police. With crime and disorder influencing the decision to move from an area, residents' views that police are ineffective in dealing with these local stressors may be a contributing factor.

Attachment through problem solving has been found to increase feelings of attachment, as it demonstrates a commitment to the neighborhood (Woldoff, 2002). Participation in formal settings for instance, has been found to elicit emotional connections to the neighborhood by upkeep of places of pride and identity (Crenshaw & St. John, 1989; Brown et al., 2004). Participation in neighborhood organizations may be influenced by perceiving the police as effective. Neighborhood watch groups for example, may see lower participation if individuals lack faith in police (Hawdon & Ryan, 2011). Neighborhood watch groups tends to work with police in combating issues in the neighborhood, and reporting of observed incivilities (Kang, 2015). Low belief in the police may see such neighborhood organizations weaken, through the perceptions that cooperating with police is not effective.

While viewing police as effective may increase problem solving, lower levels of perceived effectiveness may as well increase problem solving behaviors. Woldoff (2002) found that victimization and perceptions of crime levels had a positive relationship with behavioral attachment through problem solving. When residents are confronted by a criminal act, they may feel a need to confront the problem. These findings suggest that when residents are confronted with a criminal problem they may act on their own accord, instead of contacting police. Lower perceptions of police effectiveness may be a contributing factor to residents dealing with local stressors personally, rather than contacting police. Believing the police are ineffective may influence individuals to deal with local stressors personally, as the police are not believed to be adequate to solve the issue. Exploring the role of police effectiveness on problem solving may offer insight into the relationship of victimization and perceived crime with neighborhood attachment.

Neighborhood Attachment, Police, and Crime

A significant amount of neighborhood research is concerned with how to increase residential participation in improving aspects of the neighborhood (Sampson et al., 1997; Woldoff, 2002; Comstock et al., 2010). Prior studies have found that participation in neighborhood activities such as neighborhood organizations and interactions with neighbors, can increase levels of neighborhood attachment (Woldoff, 2002). These activities enable residents to have greater social ties with neighbors and engage in behaviors that benefit the neighborhood. As such, residents with higher neighborhood attachment being more willing to participate in residential projects (Manzo & Perkins, 2006). Additionally, policy makers attempting to improve a neighborhood have greater success when residents are involved in the revitalization process (Manzo & Perkins, 2006). Higher attached residents see such efforts to revitalize the neighborhood favorably, as they care for the well-being of the neighborhood. One important aspect of improving neighborhood conditions is efforts to reduce local forms of crime and disorder. With research highlighting the importance local police have in this process, interactions between police and residents has seen increased attention into combating crime (Lyons, 2002; Gill et al., 2014).

Police departments' combat local crime and similar issues in neighborhoods, and are becoming more involved with citizen cooperation in reducing crime (Somerville, 2009). Numerous departments are increasing efforts to establish community-based programs, with residential participation, to reduce local forms of disorder (Howell, 2009). Residents with higher levels of neighborhood attachment have the ability to improve such programs, as they are more likely to participate in activities that promote problem-solving

behaviors in the neighborhood (Woldoff, 2002). With higher attached individuals increasing the success of revitalization efforts in other contexts, their role with police efforts may see similar success. Also, there is reason to believe residents with higher neighborhood attachment can further aid police in combating crime and disorder. Crime and perceived disorder are such issues in neighborhoods that negatively impacts residents' overall neighborhood attachment (Brown et al., 2004). These forms of disorder lower the quality of life in the neighborhood, and increase negative experiences had by residents within the neighborhood (Sampson & Groves, 1998). Police are the formal institution in charge of dealing with crime and greatly impact residents' view of crime in the neighborhood (Montolio & Planells-Struse, 2015). With police departments shifting towards community policing techniques, this increase in community policing can be aided by higher attached residents.

Individuals who have high levels of neighborhood attachment have been found to engage in behaviors that can lower perceptions of disorder, reduce crime, and increase informal social controls (Brown et al., 2003; Burchfield, 2009). Burchfield (2009) found that neighborhood attachment had a positive relationship with informal social controls exhibited by residents in their neighborhoods. Social ties between residents, and levels of sentiment and evaluation of the neighborhood, were found to contribute the greatest to increases in informal social controls. Such behaviors might be resident's participation in neighborhood watch organizations, willingness to confront small incivilities occurring in the neighborhood, or efforts to improve deteriorating areas of the neighborhood (Brown et al., 2003; Bolan, 1997).

Neighborhood attachment is also correlated with neighborhood-level abilities in exhibiting informal social controls (Comstock et al., 2010; Burchfield, 2009).

Neighborhoods' abilities to enforce these social controls is an important function to maintain the quality of an area, and prevent local stressors from occurring. Additionally, police may enhance informal social controls with residents' having higher levels of neighborhood attachment. Silver and Miller (2004) found that neighborhood attachment and satisfaction with police had a significant positive relationship with informal social controls. Individuals with higher neighborhood attachment may see greater amounts of informal social controls, due to the belief that police will assist residents' in combating local forms of disorder. While Silver and Miller (2004) demonstrated neighborhood attachment and police satisfaction increased informal social controls, the relationship between the two is not clear.

With high levels of neighborhood attachment reducing crime and disorder, a reciprocal relationship exists between these local stressors and neighborhood attachment (Brown et al., 2004). Crime and disorder have been found to reduce feelings of attachment in certain individuals, and individuals with low levels of neighborhood attachment are not willing to perform tasks to reduce disorder (Brown et al., 2003). Scholars have identified the effects crime has on neighborhoods in terms of lack of upkeep, residential mobility, and reductions of sentiment to the neighborhood (Sampson et al., 1997). Effects of crime and disorder may also be increased in neighborhoods marked with greater number of residents with low levels of attachment. Local stressors have been found to break down cohesion between neighbors, decrease sentimental feelings to the area, and lead to inability to exercise social controls (Sampson et al.,

1997; Woldoff, 2002). Also, it is more difficult for police to be effective in neighborhoods that are plagued with crime issues. Such neighborhoods have smaller number of residents exercising informal social controls to combat crime in the area (Warner et al., 2010). This makes policing efforts to engage residents in crime control efforts more difficult, and less leads to participation in community policing programs (Renauer, 2007).

CURRENT RESEARCH

The goal of this study is to test if perceptions of police effectiveness impact levels of neighborhood attachment. Using Woldoff's (2002) conceptualization of neighborhood attachment, this study will examine whether a relationship exists between police effectiveness and overall neighborhood attachment, as well as, with the three sub-concepts of neighborhood attachment: behavioral attachment, attitudinal attachment, and attachment through problem-solving. With prior research demonstrating the impact of local stressors, like disorder, crime and victimization on neighborhood attachment, examining perceptions of police effectiveness in conjunction with neighborhood attachment may help explain why individuals differ in their levels of neighborhood attachment.

Predicated on this idea that police are an important part of how individuals' experience their neighborhood, this study begins with the following premise: Individuals with higher levels of perceptions of police effectiveness will have higher levels of overall neighborhood attachment. Because police effectiveness is related to police legitimacy—or individuals' trust and belief in the police as a formal authority (Kochel et al., 2013)—high levels of police effectiveness are likely highly related to neighborhood attachment

generally. The study examines four forms of neighborhood attachments. The hypotheses about these forms of attachment are as follows:

Hypothesis 1: Individuals with higher perceptions of police effectiveness will have higher levels of overall neighborhood attachment.

Hypothesis 2: Individuals with higher perceptions of police effectiveness will have higher levels of behavioral attachment.

Hypothesis 3: Individuals with higher perceptions of police effectiveness will have higher levels of attitudinal attachment.

Hypothesis 4: Individuals with higher perceptions of police effectiveness will have higher levels of attachment through problem solving.

Hypothesis 1 of perceptions of police effectiveness increasing overall neighborhood attachment is likely, due to police abilities in influencing behaviors and characteristic of the neighborhood. Hypothesis 2 is based on police effectiveness likely influencing individuals' behavior with neighbors, by viewing the neighborhood as a safe place to interact with others. Hypothesis 3 of testing attitudinal attachment, will likely be effected by police effectiveness through increases in positive perception of the overall quality of the area. Hypothesis 4 of testing attachment through problem solving, will likely be effected through a higher belief that future interactions with police will produce positive results. The next sections will describe the data used in the models, along with

the specific analysis being conducted. By using Woldoff's (2002) conceptual definition of neighborhood attachment, four series of OLS regression models are run testing each of the three sub-concepts of neighborhood attachment, and overall neighborhood attachment.

METHODS

Data

Data used in this study are from the Seattle Neighborhoods and Crime Survey, 2002-2003 conducted by Ross Matsueda (ICPSR 28701). Collected in Seattle, the survey assesses theoretical concepts of neighborhoods, perceptions of crime in neighborhoods, and individuals level of victimization in their neighborhoods. Researchers randomly selected households from 123 census tracts in the city of Seattle. Households were selected from block groups within the census tracts, to obtain a population living in different neighborhoods within Seattle (Matsueda, 2003). The response rate was 51 percent, with a cooperation rate of 97 percent (Matsueda, 2003). Respondents were contacted by telephone for participation in the study asking a series of questions about crime in their neighborhood, victimization, and neighborhood characteristics.

Descriptive statistics of the sample are presented in Table 1 (n=3,306 respondents). The mean age in the sample was 48 years of age, with 84.15% of respondents identifying as white. The majority of the sample was college educated, and had an annual household income between \$25,001 and \$74,999 (51.42%).

This sample from Seattle is different from populations of other major metropolitan areas in the United States. The city on average has a higher household income compared to other major cities, and lower poverty rate. The testing of

Table 1

Demographic Information of Control Variables

	N	%
<i>Race</i>		
White	2,782	84.15
Hispanic	148	4.48
Black	181	5.47
Asian	198	5.99
Other	356	10.77
<i>Gender</i>		
Male	1,733	52.47
Female	1,573	47.58
<i>Years Lived at Current Address</i>		
≤2 years	796	24.13
3-7 years	998	30.25
8-17 years	772	23.4
≥18 years	733	22.22
<i>Own or Rent Home</i>		
Yes	2,238	67.72
No	1,068	32.3
<i>Highest Grad of Formal Education Completed</i>		
Less than a College Degree	1,028	31.1
College Degree or Higher	2,269	68.82
<i>Resident's Annual Household Income</i>		
≤\$25,000	431	14.52
\$25,001-\$74,999	1,526	51.45
≥\$75,000	1,011	34.06
<i>Age</i>		
17-24	99	3.03
25-35	700	21.33
36-45	722	22.01
46-55	879	26.79
56-65	451	13.75
≥66	430	13.11

neighborhood level theories, like neighborhood disorder, social disorganization, and the broke windows theory, has generally been undertaken in Chicago (Sampson et al, 1997; Sampson & Raudenbush, 2004). Using different cities, such as Seattle, provides a chance to test the generalizability of neighborhood attachment (Wallace, 2015).

One aspect of the study is to test items such as crime and disorder on neighborhood attachment in the city of Seattle. The Seattle Neighborhood and Crime data set also offers the opportunity to test neighborhood attachment concepts with policing items. The data set also offers neighborhood attachment items that have been used in previous neighborhood attachment studies. Victimization and perceptions of disorder are important factors influencing attachment, and testing these alongside police effectiveness will demonstrate if policing items should be included in future research.

Dependent Variables

Behavioral attachment is operationalized by questions surrounding the amount, and types of behaviors, one has with neighbors. These include six questions asking about “How often watched a neighbor’s property?” “How often borrowed items from a neighbor?” “How often discussed personal things with neighbors?” “How often had dinner with a neighbor?” “How often do you say hello or talk with neighbors?” These five items are measured with a three-point Likert scale of 1=Often, 2=Sometime, and 3=Never. A final question included asks a respondent, “The amount of neighbors you know on a first name basis?” measured by 1=All of them, 2=Most of them, 3=Some of them, and 4=None of them. The Cronbach’s alpha for behavioral attachment is .773, and was factored using principal components analysis with an Eigen-value of 3.48. The factor loadings for the six items ranged from .613 to .735.

Attitudinal attachment is measured with three items asking individuals a series of questions on opinions of neighbors and likelihood of missing the neighborhood. With the social realm of the neighborhood affecting attitudes of an area, questions assessing the level of trust and opinions of one's neighbors are included. The three questions used are, "What is the likelihood of missing neighborhood if forced to leave?" which is measured on a 4 point Likert-scale of 1= Very Likely, 2= Likely, 3= Unlikely, and 4= Very Unlikely; "People in this neighborhood can be trusted" and "People in this neighborhood are willing to help neighbors" measured on a 4 point Likert-scale of 1= Strongly Agree, 2= Agree, 3= Disagree, and 4= Strongly Disagree. The Cronbach's alpha for the three items was .600. Finally the items were factored using principal components analysis with an Eigen-value of 2.27. The factor loadings for the three items ranged from .624 to .834.

Attachment through problem solving is measured as the willingness of individuals to engage in problem solving behaviors and participation in organization. Respondents were asked three questions, "How often participated in block activity sponsored by police?" "How often participated in other block activity?" and "How often participated in neighborhood association?" These three items were measured on a three-point Likert scale of 1=Often, 2=Sometime, and 3=Never. The Cronbach's alpha for the three items was .646. The items were factored using principal components analysis with an eigenvalue of 1.940. The factor loadings for the three items ranged from .730 to .803.

Overall neighborhood attachment is constructed with three sub-concepts of: behavioral attachment, attitudinal attachment, and attachment through problem solving. Overall neighborhood attachment will consist of all items used in the three sub-concepts, which were outlined in the above sections. Principal components analysis was conducted

on the 12 items used in the sub-concepts to produce overall neighborhood attachment. Cronbach's alpha for overall neighborhood attachment is .807, and had an eigen-value of 3.94. The factor loadings for the 12 items ranged from .468 to .683.

Independent Variable

Police Effectiveness is the independent variable in the study. Three items based on previous studies are used (Dowler, 2003), with two questions being, "Police are doing a good job in dealing with problems that concern people in this neighborhood" and "In this neighborhood police hassle residents rather than help." These two items are measured on a four-point Likert scale of 1=Strongly agree, 2=Agree, 3=Disagree, and 4=Strongly Disagree. The last item asking, "How effective is it contacting the police?" is measured on a three-point Likert scale of 1=Highly Effective, 2=Somewhat Effective, and 3=Not at all Effective. The three items have a Cronbach's alpha of .552, and were factored using principal components analysis with an eigen-value of 1.59. The factor loadings for the four items ranged from .673 to .804.

Control Variables

Demographic characteristics have an influence on levels of neighborhood attachment and will also be controlled for. The following are dummy variables coded as follows: *male* (1=yes), *own home* (0=yes), *education* (0=College Degree or higher), and *married* (0=currently married). The decision to dummy code education in this way was made because the majority of respondents (68.82%) responded to receiving a college degree or higher. An *Age* variable was included and coded as the year the respondent was born, subtracted by the date the survey was conducted in 2003. Level of *income* was an ordinal measurement of annual household income being 1= ≤ \$25,000, 2=\$25,001-

\$74,999, and 3= \geq \$75,000. I included race as a series of dummy variables with a ‘yes’ response to a certain race indicating the respondent’s identified race. These are *black* (1=yes), *Hispanic* (1=yes), *Asian* (1=yes), and *other race not included* (1=yes). White was the reference category in the regression models with 1=yes to this question.

Previous literature on neighborhood attachment has revealed that certain neighborhood characteristics can have an effect on neighborhood attachment; specifically, prior victimization and perceived disorder have been found to have an effect on neighborhood attachment (Woldoff, 2002; Brown et al., 2003). These two variables will thus be controlled for in this study. *Perceived disorder* was measured with five questions asking respondents, “Problem with groups of teenagers hanging around the street in this neighborhood?” “Problem with litter and trash on the streets in this neighborhood?” “Problem with graffiti in this neighborhood” “Problem with abandoned buildings in this neighborhood?” and “Problem with noise by neighbors in this neighborhood?” Each question was measured on a 3 point Likert scale of 1=Not a Problem, 2=A Small Problem, and 3=A Big Problem. Cronbach’s alpha for perceived disorder was .761, and was created into an index by averaging the separate questions together into one variable. Operationalizing perceived disorder is based on previous research using similar measures (Wallace, 2015; Woldoff, 2002).

Prior victimization also influences an individuals’ level of neighborhood attachment (Woldoff, 2002). Due to this, victimization will be controlled for. Three questions asking respondents of previous victimization experiences in the area such as, “Number of times verbally threatened in past two years?” “Number of times physically assaulted in past two years?” and “Number of times property has been destroyed or

damaged in past two years?”. These three questions are measured on the frequency of each of the incidents that have happened to the individual. The average number of previous incidents of victimization for the data set was 3.58 when all three measures were averaged together into one variable.

Modeling

This paper employed fixed-effects of census tract information with OLS regression models, or within-neighborhood models, to test the effect of perceptions of police effectiveness on neighborhood attachment and the three sub-concepts of neighborhood attachment. Neighborhoods differ in terms of the police working the areas, and neighborhood characteristics differ as well. By using fixed-effects, perceptions of police effectiveness will be influenced by the individual, with the neighborhood being controlled for. A series of baseline models, not including the variable of police effectiveness, uses OLS regression on the four dependent variables of overall neighborhood attachment and the three sub-concepts. A second series of OLS regression models will be conducted with the inclusion of the police effectiveness variable. Running baseline models will replicate prior models in testing influences of neighborhood attachment, and will compare results with models including police effectiveness. VIF tests were conducted to test for multicollinearity with a VIF score of 1.73, and there is no concern of multicollinearity.

RESULTS

Results for testing first hypothesis are shown in Table 2. The models for table 2 included OLS regression with fixed-effects for neighborhoods, and examines the relationship of police effectiveness with overall neighborhood attachment. Findings in

model 1, which do not include the police effectiveness variable, are similar to past research of neighborhood attachment. Owning a home, marital status, education, and time lived in residence, all had a positive relationship with neighborhood attachment. Items that did not show to have a significant relationship with neighborhood attachment are

Table 2

OLS Regression of Overall Neighborhood Attachment with Police Effectiveness

	Model 1		Model 2	
	B	SE	B	SE
Police Effectiveness			0.122***	0.021
Hispanic	0.198	0.103	0.209*	0.105
Black	0.108	0.108	0.084	0.110
Asian	0.263**	0.098	0.264**	0.099
Other	-0.033	0.076	-0.066	0.079
Male	0.152***	0.040	0.161***	0.041
Age	0.003	0.002	0.003	0.002
Highest Grade of Formal Education Completed	0.052**	0.018	0.052**	0.018
Respondent's Annual Household Income	0.059	0.036	0.051	0.037
Years Lived at Current Address	0.006**	0.002	0.006**	0.002
Own or Rent Home	0.547***	0.055	0.547***	0.056
Marital Status	0.288***	0.045	0.253***	0.045
Victimization in Neighborhood	-0.045*	0.020	-0.058**	0.021
Perceived Disorder in Neighborhood	0.011	0.024	-0.022	0.024
Constant	-1.623***	0.202	-1.608***	0.208
R-Squared	0.223		0.237	

* P <.05 **P <.01 ***P <.001

perceptions of disorder. The effects of perceived disorder are mixed within the literature. Brown et al. (2003) demonstrated disorder to have a significant effect, with Woldoff (2002) finding this factor to have no effect. The current study shows that disorder does not have an effect on neighborhood attachment with a sample from Seattle.

Findings in model 2 shows that the independent variable of police effectiveness was significantly related to the level of overall neighborhood attachment (b=.122,

se=.021, $p < .001$). Results support hypothesis 1 for perceptions of police effectiveness to have a positive relationship with overall neighborhood attachment. Neighborhood attachment levels may be affected in this way through police impacting how individuals view the quality of life in the neighborhood, decrease in crime, and belief that a neighborhood institution is performing well. Additionally, including the police effectiveness variable saw small changes in coefficients of other variables in model 2. The adjusted R-squared in the models was .223 for model 1, and .237 for model 2.

Testing on the three sub-concepts of neighborhood attachment used similar procedures with the first series of models.

Results for hypothesis 2 of testing behavioral attachment are shown in Table 3. Findings shown in Model 3, without the police effectiveness variable, demonstrate the effects the control variables have on behavioral attachment. Similar to the first series of models on overall neighborhood attachment, owning a home and marital status had a positive and significant relationship with behavioral attachment. Additionally, victimization shows significance with behavioral attachment. This may be due to victimization experiences influencing individuals' informal social behaviors within the neighborhood. Model 3 however, sees Hispanic and Asian groups having a significant positive relationship with behavioral attachment (which was not present in overall neighborhood attachment). Also, length of residency did not show significance with behavioral attachment.

Table 3

OLS Regression of Behavioral Attachment with Police Effectiveness

	Model 3		Model 4	
	B	SE	B	SE
Police Effectiveness			0.067**	0.022
Hispanic	0.240*	0.104	0.253*	0.11
Black	0.058	0.11	0.043	0.112
Asian	0.290**	0.097	0.303**	0.100
Other	-0.027	0.078	-0.038	0.080
Male	0.137**	0.041	0.144**	0.041
Age	-0.001	0.002	0.000	0.002
Highest Grade of Formal Education Completed	0.055**	0.018	0.053**	0.018
Respondent's Annual Household Income	0.042	0.036	0.051	0.037
Years Lived at Current Address	0.004	0.002	0.004	0.002
Own or Rent Home	0.502***	0.055	0.503***	0.07
Marital Status	0.281***	0.045	0.246***	0.046
Victimization in Neighborhood	-0.059**	0.02	-0.076**	0.021
Perceived Disorder in Neighborhood	-0.039	0.024	-0.045	0.025
Constant	-1.200***	0.203	-1.280***	0.211
R-Squared	0.147		0.175	

* P <.05 **P <.01 ***P <.001

The inclusion of the police effectiveness variable in Model 4 showed a significant and positive relationship between police effectiveness and behavioral attachment (b=.067, se=.022, p<.01). The inclusion of police effectiveness also increased the coefficients of owning a home, Asian, and Hispanic demographic groups. It did decrease the coefficients for marital status, education, and victimization. Additionally, the adjusted R-squared increased from .147 to .175, indicating a greater level of variability in behavioral attachment was explained with the police effectiveness variable included in this model. The results from Model 4 support hypothesis 2, with police effectiveness having a positive relationship with behavioral attachment. By including the perceptions of police effectiveness variable, individuals are shown to engage in social behaviors in the neighborhood more frequently. It is likely that perceptions of police effectiveness

promote feelings of a safe area, and foster greater trust between neighbors. While multiple factors go into promoting social behavior in the neighborhood, perceptions of police effectiveness likely play a role in increasing such behaviors.

Results for hypothesis 3 of attitudinal attachment being the dependent variable are shown in Table 4. The baseline model, Model 5, shows marital status, owning a home, and perceived disorder have a significant relationship with attitudinal attachment. Marital status and owning a home were shown to be significant in overall neighborhood attachment and behavioral attachment. Unlike the two previous tests with overall neighborhood attachment and behavioral attachment, perceptions of disorder had a significant relationship with attitudinal attachment. It is likely that disorder in the neighborhood influences how individuals view the quality of life in the neighborhood, and the evaluations of the neighborhood. Local forms of disorder, such as graffiti or litter, can diminish positive evaluations individuals have of the neighborhood. These forms of disorder are likely to impact residents' internal attitudes of the neighborhood.

Model 6 includes the independent variable of police effectiveness, and shows a significant and positive relationship between police effectiveness and attitudinal attachment ($b=.225$, $se=.021$, $p<.001$). Results support hypothesis 3 of higher levels of police effectiveness increasing attitudinal attachment. Police effectiveness likely influences trust between neighbors, and influences positive views of the quality of life in the neighborhood. Internal feelings for the neighborhood are shown to be influenced by perceptions of police effectiveness.

Table 4

OLS Regression of Attitudinal Attachment and Police Effectiveness

	Model 5		Model 6	
	B	SE	B	SE
Police Effectiveness			0.225***	0.021
Hispanic	-0.004	0.105	0.023	0.105
Black	0.131	0.111	0.086	0.110
Asian	0.103	0.100	0.079	0.100
Other	-0.040	0.080	-0.085	0.076
Male	0.145***	0.041	0.142***	0.041
Age	0.003	0.002	0.001	0.002
Highest Grade of Formal Education Completed	0.021	0.018	0.023	0.018
Respondent's Annual Household Income	0.012	0.037	-0.008	0.037
Years Lived at Current Address	0.001	0.002	0.002	0.002
Own or Rent Home	0.300***	0.056	0.302***	0.056
Marital Status	0.189***	0.045	0.142**	0.045
Victimization in Neighborhood	-0.017	0.020	0.001	0.021
Perceived Disorder in Neighborhood	-0.273***	0.024	-0.232***	0.024
Constant	-0.600**	0.205	-0.505*	0.208
R-Squared			0.242	

* P <.05 **P <.01 ***P <.001

Additionally, the R-squared for Model 5 was .193, and .242 for Model 6. The increase in the R-squared by .049 does show a greater level of variability in attitudinal attachment being explained when including police effectiveness into the regression model. Including police effectiveness did increase the coefficients of certain control variables, but were slight changes.

Results for hypothesis 4 are shown in Table 5, with attachment through problem solving as the dependent variable. Findings in Model 7 show that all control variables had a significant relationship with attachment through problem solving except for Hispanic, Blacks, Other races, and victimization. Results in past studies have demonstrated that victimization leads to a greater likelihood in participating in problem-solving behaviors (Woldoff, 2002). This is because individuals that are victimized are likely to engage in behaviors to minimize the risk of being victimized again. Results in this study did not

support this, and may be due to a lower level of victimization experiences in Seattle.

Variables that did have a significant relationship with attachment through problem

Table 5

OLS Regression of Attachment through problem solving and Police Effectiveness

	Model 7		Model 8	
	B	SE	B	SE
Police Effectiveness			0.065**	0.022
Hispanic	0.057	0.104	0.103	0.107
Black	0.109	0.110	0.093	0.112
Asian	0.240*	0.097	0.196*	0.099
Other	0.016	0.079	-0.006	0.081
Male	0.115**	0.040	0.108**	0.041
Age	0.009***	0.002	0.009***	0.002
Highest Grade of Formal Education Completed	0.049**	0.018	0.052**	0.018
Respondent's Annual Household Income	0.080*	0.036	0.073	0.037
Years Lived at Current Address	0.010***	0.002	0.009***	0.002
Own or Rent Home	0.423***	0.055	0.419***	0.057
Marital Status	0.192***	0.045	0.190***	0.046
Victimization in Neighborhood	0.020	0.020	0.024	0.021
Perceived Disorder in Neighborhood	-0.130***	0.024	-0.133***	0.025
Constant	-2.090***	0.201	-2.064***	0.21
R-Squared	0.172		0.171	

* P <.05 **P <.01 ***P <.001

solving is perceived disorder. This is likely due to residents who experience forms of disorder are motivated to engage in problem-solving behaviors to curtail forms of disorder. When residents do not experience local forms of disorder, they are likely to be less interested in joining organizations with the goal in reducing disorder in the neighborhood.

Model 8 shows perceptions of police effectiveness did have a significant relationship with attachment through problem solving (b=.065, se=.022, p<.01), and supports hypothesis 4. Perceptions of police effectiveness likely influence levels of

attachment through problem solving by residents believing there is an institution to assist in improving the neighborhood. Neighborhood watch organizations, for instance, typically work with police in surveying the neighborhood (a form of problem solving). Perceiving the police as effective may motivate more residents to participate in these behaviors, as there is belief that participating in such organizations will be effective in the neighborhood.

DISCUSSION

Neighborhood attachment research has been concerned with the factors that influence individual's level of sentimental and emotional connection to the neighborhood. Time spent in the neighborhood, financial investments in the neighborhood, and local forms of disorder are examples of concepts influencing one's neighborhood attachment (Brown et al., 2003). While previous research has identified such concepts as contributing to or diminishing neighborhood attachment, policing concepts have largely been ignored. Currently, research exists that tests policing concepts on neighborhood characteristics and functions. From police legitimacy impacting public cooperation to quality policing enhancing collective efficacy, police play a part in the neighborhood experience (Kochel, 2009; Tyler 2004). However, the impact of police on neighborhood attachment has not previously been studied. With research identifying important aspects of the police role, examining perceptions of police effectiveness on neighborhood attachment contributes to research of police impacting neighborhood functions. This study tests individuals' perceptions of police effectiveness on their subsequent levels of neighborhood attachment. Results from this study show that perceptions of police effectiveness have an effect on overall neighborhood attachment

and the three sub-concepts that comprise neighborhood attachment. With new factors needed to assess neighborhood attachment, police effectiveness should be considered in future efforts in addressing levels of neighborhood attachment.

Testing overall neighborhood attachment and the three sub-concepts allowed for a specific look into how perceptions of police effectiveness influenced the different aspects of neighborhood attachment. Perceptions of police effectiveness had a positive influence on all forms of neighborhood attachment in this study, and supported the four hypotheses. Viewing the police as effective in the neighborhood thus positively impacts levels of neighborhood attachment. Additionally, police effectiveness influencing the three sub-concepts of neighborhood attachment displays the multiple aspects of neighborhood life affected by police. This further lends support for the police role in neighborhoods to be greater than just a crime fighting institution.

Police effectiveness has a significant, positive influence on behavioral attachment, or the informal social behaviors of residents in the neighborhood. It is possible that police effectiveness also has an indirect effect on neighborhood attachment by influencing behaviors that lowering perceptions of crime and disorder in a neighborhood. Previous research has shown positive perceptions of police effectiveness to lower fear of crime levels in individuals (Dowler, 2003). Higher fear of crime levels causes residents to withdraw from neighborhood life through the risk of victimization (Rader et al., 2007). Positive perceptions of police effectiveness lowers fear of crime levels, which in turn can promote the social vitality of a neighborhood. It is thus likely that police effectiveness influences behavioral attachment by reducing fear of crime levels in the neighborhood. Exploring this indirect effect of police effectiveness on behavioral attachment in future

efforts may offer more information on how police can influence the behaviors of individuals.

With police effectiveness influencing social behaviors of residents, viewing the police as effective in the neighborhood also shows individuals to have higher levels of attitudinal attachment. Perceptions of police effectiveness likely increase individuals' belief that the neighborhood is a safe and positive place to live. Viewing a neighborhood institution (police) as effective in their jobs likely leads to higher evaluations of the neighborhood and increases in the sentimental feelings that one has towards the neighborhood. As previously mentioned, police effectiveness likely reduces how individuals view a level of disorder and crime within the neighborhood. Prior research has demonstrated that a negative relationship of crime and disorder on neighborhood attachment (Brown et al., 2003). The influence of police effectiveness may also work by impacting how individuals view crime and disorder, rather than individuals holding positive evaluations of a neighborhood institution. Police effectiveness may also impact attitudinal attachment in both of these ways, through positive evaluations of the institution itself and the decrease in perceived crime and disorder.

The last aspect of neighborhood attachment, attachment through problem solving, also had a significant and positive relationship with police effectiveness. Perceptions of police effectiveness likely influence attachment through problem solving in a number of ways, most notably through participation in neighborhood organizations. Participating in neighborhood organizations is a key part of attachment through problem solving, as most organizations are concerned with improving or maintaining certain aspects of the neighborhood. Neighborhood watch groups, for instance, cooperate with police in

surveillance of the neighborhood. Perceiving the police as effective is likely to increase participation by residents in such organizations, as individuals would not otherwise participate if the police are not able to effectively deal with crime issues in the neighborhood. Again, determining whether the effect of police effectiveness is direct or indirect on problem solving behaviors needs to be addressed. Police effectiveness may promote participation in neighborhood organizations that leads to attachment through problem solving.

An important aspect of this study was to replicate models of neighborhood attachment on the city of Seattle. The testing of the generalizability of theories in the fields of sociology and criminology is an important aspect in explaining phenomena of human behaviors (Bennet, 1980). With neighborhood attachment, generalizability becomes even more important, due to the addition of items in recent years to neighborhood attachment concepts (Woldoff, 2002; Comstock et al., 2010).

Running baseline OLS Regression models without police effectiveness found similar findings to past research in the neighborhood attachment. For Seattle residents, owning a home, higher education status, and length of residency had a significant positive relationship to overall levels of neighborhood attachment. These variables influence individuals' feelings of investment to the area, and provide a greater amount of time to develop sentimental attitudes towards the neighborhood. There were differences in findings with other control variables however. Victimization has been found to have a positive association with attachment through problem solving, as the event of being victimized promotes the individual to engage in problem solving behaviors to reduce the risk of victimization again (Woldoff, 2002). Other studies have found that victimization

has a negative relationship with neighborhood attachment, as it reduces individuals' neighborhood attachment by a negative experience in the neighborhood (Brown et al., 2003). Results from this study did not support either claim, with victimization having no effect on attachment through problem solving. This may be due to a lower level of individuals victimized in the city of Seattle, or residents engage in other behaviors not measured in attachment through problem solving to reduce risk. This study highlights the need for future efforts to identify the exact role victimization has on neighborhood attachment.

There are several limitations in the study. The Seattle Neighborhoods and Crime Survey was over eighty-percent white, and over sixty-percent College educated. Due to the sample being less diverse, generalizability of police effectiveness in the study suffers when being compared to other large cities in America. Additional limitations were with the lack of items for attitudinal attachment and attachment through problem solving used in the study. Neighborhood attachment ideally uses more items than were currently used in this study. Attitudinal attachment typically has multiple items to assess the sentimental connection an individual has to the neighborhood. This study used four items in the construction of attitudinal attachment, with one item representing the sentimental feelings of attitudinal attachment and, the additional three items representing the evaluations by the individual towards the neighborhood. Ideally, additional items to measure the sentimental component of attitudinal attachment would be included. Also, attachment through problem solving would have additional items that measure the individual's problem-solving behaviors in the neighborhood. The construct of attachment through problem-solving in this study mainly used items that represented the participation in

neighborhood organizations, with one item indicating individual behavior in problem solving. Again, there may need to be additional items that represent the individuals' willingness to engage in informal acts of problem solving in the neighborhood.

The current study demonstrates that the police play a role in individuals' formation of neighborhood attachment. However, additional questions on the police role in neighborhood attachment were formed by the findings of this study. Results showed that police effectiveness positively influences neighborhood attachment. Due to police effectiveness likely influencing other aspects of neighborhood life, it cannot be definitively stated that police effectiveness has a direct effect on neighborhood attachment. Further examinations on the effect of police effectiveness on neighborhood attachment can benefit from the use of structural equation modeling and path analysis to determine the exact relationship.

What this study does highlight, is the need for future research to test policing concepts with neighborhood attachment. There are multiple policing concepts that may impact neighborhood attachment differently than police effectiveness. Procedural justice and police legitimacy are two such concepts that have dominated the literature in how individuals perceive and change behaviors towards police (Tyler, 2004; Tankebe, 2009). Also, examining other policing concepts may explain if police have a direct or indirect effect on neighborhood attachment. Police effectiveness as used in this study, measures the perceptions individuals have of police effectiveness. For instance, procedural justice measures deal with direct interactions of police and residents. Procedural justice may offer more insight into how police directly impact individuals' feelings of the neighborhood, and changes in social behaviors in the neighborhood.

In conclusion, this study offers a greater perspective on what items influence individuals' neighborhood attachment. The lack of policing concepts was addressed, and provides an argument for the future inclusion of such concepts. With neighborhood decline taking place in urban settings across the country, more importance should be placed on ways to increase individuals' attachment to the neighborhood. With other works identifying the need to increase public satisfaction with police, this study shows an additional aspect of the effect of perceptions of police in neighborhoods has on neighborhood attachment. There are additional research concepts that are believed to impact neighborhood attachment, and begs for additional research on the subject.

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