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PUBLIC HOUSING RELOCATION AND ITS EFFECT ON RESIDENTS' SELF-ESTEEM AND SELF-EFFICACY

by

AMANDA DORRINGTON

Under the Direction of Dr. Erin Ruel

ABSTRACT

In 2008, Atlanta was the first city in the United States to completely eliminate its high-rise public housing projects. Georgia State University professors Drs. Ruel, Oakley, and Reid undertook a three-year study to determine the health, behavior, and attitudes of residents both before and after relocation. This study sought to determine whether residents' self-esteem and self-efficacy improved after relocation into areas that have lower levels of social disorder and poor housing conditions. Overall, results show that while housing conditions, social disorder, and fear of crime had little or no significant effect on changes in residents' self-esteem, an improvement in these indicators in residents' new neighborhoods had a significant effect on self-efficacy. The significance of decreased social disorder and poor housing conditions, as well as fear of crime on residents' self-efficacy (but not self-esteem) has important implications for future research regarding neighborhood and housing effects as well as public housing relocation.

INDEX WORDS: Public housing, Self-esteem, Self-efficacy, Neighborhood effects, Social disorder, Housing conditions, Relocation

# PUBLIC HOUSING RELOCATION AND ITS EFFECT ON RESIDENTS' SELF-ESTEEM AND SELF-EFFICACY

by

AMANDA DORRINGTON

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Arts

in the College of Arts and Sciences

Georgia State University

2014

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Amanda Dorrington
2014

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by

AMANDA DORRINGTON

Committee Chair: Erin Ruel

Committee: Deirdre Oakley

Donald Reitzes

Electronic Version Approved:

Office of Graduate Studies

College of Arts and Sciences

Georgia State University

May 2014

# DEDICATION

This thesis is dedicated to my husband, Chet Powell, for encouraging me, inspiring me, and pushing me to keep going. His unwavering belief in me and my abilities is what inspired me to go to graduate school in the first place. Jag älskar dig, min själ!

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# 1 INTRODUCTION

Public housing in the United States has been characterized by densely populated high-rise buildings in predominately minority neighborhoods. These public housing projects, as they are known, are often hotbeds of poverty, crime, and other indications of disorder (Belle 1990; Bennet, Smith, & Wright 2006; Boardman & Robert 2000; Boston 2005; Burton 2004; Eiseman, Cove, & Popkin 2005; Popkin, Buron, Levy, & Cunningham 2000; Popkin, Levy, Harris, Comey, Cunningham, & Buron 2004; Schill 1993; Wilson 1987). Conditions such as these could take a toll on the residents who live there, including an increase in fear and a lack of control over one's environment. Over the last two decades, there has been a push by the federal government to demolish public housing and replace the units with mixed-income housing, while moving public housing residents into the private market. This idea was developed with the idea of deconcentrating poverty and reducing crime in these areas (Bennett, Smith, & Wright. 2006).

The federal government granted funds to cities with distressed public housing projects to demolish the current structures and relocate the residents to the private market through the Housing Opportunities for People Everywhere (HOPE VI) program (Bennett et al. 2006; Brooks, Zugazaga, Wolk, & Adams 2005). The main goals of HOPE VI were to improve the living environment of public housing sites, revitalize the distressed communities into mixed-income housing, deconcentrate poverty, and build sustainable communities (Brooks et al. 2005; Popkin, et al. 2000). With HOPE VI demolition all residents were relocated out of public housing projects, and some received vouchers to move into the private market. Theoretically, residents were given the opportunity to move back into renovated units, although most residents either did not qualify or chose not to do so (Popkin et al. 2000, 2004).

Following on the heels of HOPE VI, in Atlanta, Georgia, the Atlanta Housing Authority demolished twelve public housing buildings under section 18 of the 1937 Housing Act. The original Housing Act of 1937 (Section 18) stated that the demolition of any public housing unit must be replaced with an equal number of units (Ruel, Oakley, Ward, Alston, & Reid 2012). This is otherwise known as the "one-for-one" rule. This section of the 1937 Housing Act was repealed in 1998 through the Quality Housing and Work Responsibility Act, and subsequent public housing demolitions were no longer obligated to replace the units demolished (Fraser & Oakley 2011; U.S. Department of Housing and Urban Development 1999). This type of demolition was similar to HOPE VI in that it utilized government funds for demolition, relocated all residents regardless of desire to move, and shared similar goals (such as deconcentration of poverty and increasing the quality of life for public housing residents) (U.S. HUD 1995, 1999). With this process, cities could distribute rental vouchers to public housing residents, with the recipients of these vouchers subject to intense scrutiny and a strict approval process (U.S. HUD 1995).

With the Section 18 demolition plans in place, the Atlanta Housing Authority began the evacuation of the residents of twelve public housing projects. By late 2009, all of these public housing communities were demolished. At this time, none have been scheduled for revitalization. With this demolition, all family public housing communities were eliminated, and most former public housing residents have relocated into the private market. There has been little research conducted on Section 18 demolitions, but as the HOPE VI process of demolition and relocation is similar, I have based much of this thesis on findings from scholars who have analyzed public housing relocation and demolition, both at a micro and macro scale. Much of the research that has been conducted on the HOPE VI program has focused on policy-level

objectives, while failing to acknowledge the social-psychological impact that these involuntary relocations have had on the residents who lived in Atlanta's public housing communities. The Section 18 relocations and the HOPE VI program are not designed entirely for the benefit of the residents, but rather for the larger community. However, the relocated residents are the ones most affected by this program.

Prior research has shown that the social and physical characteristics of neighborhoods can affect individual development (Haney 2007; Robert 1998). Indications of neighborhood disorder, including high levels of crime, violence, abandoned buildings, roaches and rats, and overall physical deterioration can lead to increased levels of fear and uncertainty (Robert 1998). Increased fear of a neighborhood can lead to feelings of loss of control over one's surroundings. In neighborhoods where indications of neighborhood disorder are prevalent, it is possible that the individuals living in such an environment would be subject to lower levels of self-esteem and self-efficacy. Indeed, much of the literature regarding public housing relocation indicates that there may be a negative association between levels of disorder and levels of self-esteem and self-efficacy among former public housing residents (Belle 1990; Belle & Doucet 2003; Goetz 2010; Harris & Kaye 2004; & Sousa-Briggs, Popkin, & Goering 2010).

## 1.1 Research Problem

How does relocating into a new neighborhood affect residents' self-esteem and self-efficacy, given that they are leaving neighborhoods high in crime and disorder? Do they feel more in control of their lives? Many residents have lived in public housing for several years. Now, after the relocation, they are in charge of their own affairs. This could be a drastic change for some individuals. Some studies (in other cities) have shown that many relocated public housing residents often move into other public housing communities, indicating that residents

tend to move into living situations that they know and are familiar with (Boston 2007; Katz, Kling, & Leibman 2001). In Atlanta, moving to other public housing projects is not an option, because all family public housing projects have been demolished. The few exceptions are senior resident public housing buildings, where a few were retained after the 2008 public housing relocation and demolition process. What happens when public housing no longer exists? The housing "safety net" has been removed. If public housing residents are unable to find housing in the private market, they lose their housing subsidy and could end up homeless or in a shelter (Oakley, Ruel, & Reid 2010b). Does being relocated into the private market affect former Atlanta public housing residents' self-esteem and self-efficacy? Bandura (1986, p. 391) describes self-efficacy as "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances." Likewise, self-esteem is defined by Rosenberg (1976) as the totality of the individual's thoughts and feelings with reference to himself as an object. Both concepts are described in greater detail below. This thesis examines how former residents' feelings of efficacy and self-esteem may change based on the conditions of their new neighborhoods.

### 1.2 Contribution

This thesis contributes to the literature regarding changes in self-esteem and self-efficacy of public housing residents after relocation. It differs from previous studies due to the fact that Atlanta has eliminated all of their family public housing communities, and the residents have no other fallback public housing options available to them. Many mental health studies of public housing residents (before and after relocation) have focused on the prevalence of depression existent in this population (Belle 1990; Belle et al. 2003; Goetz 2010; Harris & Kaye 2004; Leventhal & Brooks-Gunn 2003; Sousa-Briggs et al. 2010). This study differs also in that I

focus mainly on the changes in self-esteem and self-efficacy of former public housing residents, specifically as it regards changes in residential neighborhood disorganization. I argue that there are improvements to former public housing residents' self-esteem and self-efficacy when they relocate into areas that they perceive to be less disorganized than their former public housing projects.

There is a gap in the literature regarding public housing relocation and its effects on self-esteem and self-efficacy. Thus, I contribute to the field of social psychology by testing the self-esteem and self-efficacy of a unique population in regards to environmental and residential change, by moving to new locations that have presumably lower levels of indicators of poor housing conditions and social disorganization.

My study analyzes data obtained from a survey study of relocated Atlanta public housing residents interviewed pre- and post-relocation. The first interview was conducted approximately one year before the residents moved out of public housing, and the second was conducted six months after relocation. With this information, I model how changes in self-esteem and self-efficacy are associated with change in neighborhood characteristics using paired-sample t-tests and first difference ordinary least squares regression methods.

In the next chapter, I present and discuss theories of how relocating into areas of lower levels of disorganization may impact self-esteem and self-efficacy, based on previous literature on the subject. To begin, I discuss the ideas of self-esteem and self-efficacy, and how these concepts come together to create the self. Next, I examine theories of community disorganization, including how disorder is defined and what concepts are included in the idea of neighborhood disorganization. Third, I bring the concepts of self-esteem, self-efficacy, and community disorganization together to show how levels of community disorganization can affect

individuals. This is developed further in the fourth section, where I discuss the history of public housing, as well as how living in public housing is indicative of high levels of community disorganization, and its subsequent effects of public housing residents' self-esteem and self-efficacy. Fifth, I examine literature regarding public housing relocation to discuss how other residents have fared in regards to their housing conditions, social disorganization, and mental health. I also look at the concept of public housing tenure to determine whether it has any effect on residents' self-esteem or self-efficacy after relocation. With this information, I argue that residents who relocate into neighborhoods that they perceive to be less socially disorganized and with improved housing conditions experienced an increase in their self-esteem and self-efficacy. In the sixth section, I outline the methodology used in the data collection, along with the hypotheses and variables to be tested. Finally, I conduct statistical analyses of the data through paired sample t-tests and multivariate panel data regressions. With this data, I expect to determine whether there are statistically significant differences in residents' self-esteem and self-efficacy after relocation due to a perceived decrease in their housing conditions, their neighborhood's social disorder, their levels of fear of crime, and length of housing tenure.

# 2 BACKGROUND AND THEORETICAL FRAMEWORK

## 2.1 The Self-Concept

Morris Rosenberg (1979, p. 7) defines the self-concept as "the totality of the individual's thoughts and feelings with references to [the] self as an object." The self-concept consists of three types of self: the extant self, the desired self, and the presenting self (Rosenberg 1979). See Figure 2.1 for a model of the three types of self. The extant self is how an individual perceives that society perceives them. The desired self consists of the images individuals want to portray, such as fantasy images, goal images, or moral images (Rosenberg 1979). The self-concept is a function of interacting social and biological processes throughout the life span, and is also subject to reflexivity. Charles Cooley defines reflexivity through his ideas of the "looking-glass self": "the imagination of our appearance to [an]other person; the imagination of his judgment of that appearance, and some sort of self-feeling" based on that judgment (Cooley 1902, p. 184).

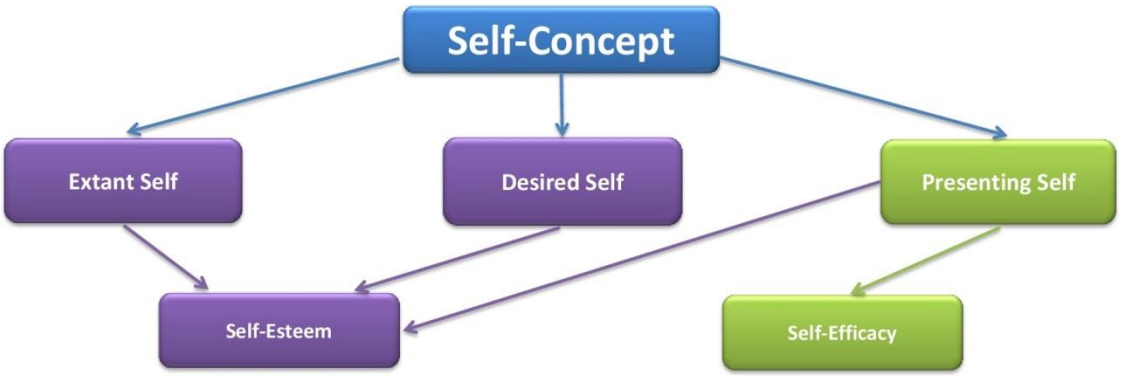


**Figure 2.1 Types of Self**

The "self" is a process of reflexivity, which develops and is reinforced through social interaction (Gecas 1982). The self-concept develops out of the reflexive process of the self, and is the concept the individual has of himself as a physical, social, and spiritual or moral being (Gecas 1982, 1986). By creating this self-concept through social interaction, an individual is

motivated to maintain it through continued reflexivity (Gecas 1986). In other words, reflexivity occurs when an individual assesses social interactions between themselves and society and, through this assessment, adjusts or reiterates his or her opinion of them. One example of the concept of reflexivity could involve a basketball playing teenager. He believes he is a good basketball player. At basketball games, the crowd cheers him on and reinforces the idea that he is a very good basketball player. In response to the adoration he received at the game, he practices at home and at school more often because he is motivated to maintain his reputation as a good basketball player. Because of increased practice, his basketball skills improve and he becomes a better basketball player.

To recap, the self-concept can be broken down into the three types of self: the extant self, the desired self, and the presenting self. These three types of self have a further effect on individual's self-esteem and self-efficacy, which are explained in greater detail below.

## 2.2 Self-Esteem

The idea of self-esteem was first developed by William James (1918). He argued that self-esteem could be seen as a ratio: the proportion of a person's successes to their aspirations (Cast et al. 2002; James 1918). Though James coined the phrase 'self-esteem' and is credited for the development of the concept, the person responsible for developing self-esteem as a measure is Morris Rosenberg.

One of the major figures in the development of self-esteem processes was Morris Rosenberg. Along with his significant contributions to the overall idea of self-esteem, he created the Rosenberg self-esteem scale in 1965 (1979). Since then, it has been used in innumerable studies as a way to assess self-esteem in populations ranging from teens to seniors, men and women, and people of different ethnicities and races (Robins, Hendin, & Trzesniewski 2001). It

has even been used in recent years as a baseline measure with which to compare newer scales of self-esteem, due to its high levels of reliability and validity.

Self-esteem, according to Rosenberg, is how a person feels about him- or herself; this perception can be either positive or negative. Self-esteem is defined by Rosenberg (1976) as the totality of the individual's thoughts and feelings with reference to himself as an object. Self-esteem can also be seen as "the evaluative component of the self-concept that is typically used to refer to the individual's positive or negative feelings about self" (Staples, Schwalbe, & Gecas 1984, p. 86). Self-esteem derives from the human desire to view him- or herself in a positive light and to therefore act in such ways as to maintain or increase that favorable view of the self (Gecas 1986; Reitzes & Mutran 2006). As Gecas (1984) states, the more highly others think of us, the more highly we are likely to think of ourselves. This is a process that is constantly being evaluated and adjusted to help align an individual's self-perceptions with their self-evaluations.

Social structure plays a role in affecting an individual's self-esteem. However, the effect of social structure on self-esteem can vary depending on the extent to which the situation is central to one's self-concept (Gecas & Seff 1990). For example, the influence and beliefs of family and friends close to an individual generally have a greater impact on one's personal self-esteem than larger scale social structural variables (Hughes et al. 1989; Staples et al. 1984). These observations are generally true for the general population, but research has shown that this is especially true for black Americans (Hughes et al. 1989).

Prior literature has demonstrated that the self-esteem of black Americans tends to be insulated from social systems of racial inequality (Hughes et al. 1989). In fact, black people have demonstrated a higher self-esteem than whites in multiple studies (Gecas 1982; Hughes et al. 1989). Researchers have hypothesized that black Americans would have a lower self-esteem due

to challenges within social structure, but Hughes et al. (1989) state that this is erroneous, because reflected appraisals important to black self-esteem are not those of the larger, predominately white society but rather those of family, friends, and teachers within the black community. Blacks also do not tend to use whites as a standard in social comparisons, nor do they tend to attribute personal responsibility for the status of black people in American society (Hughes et al. 1989). It is interesting to note, however, that the self-efficacy of black Americans does not necessarily hold to the same pattern as self-esteem (Hughes et al. 1989). Given that the sample population in my study is predominately African-American, it will be interesting to see if the results Hughes et al. (1989) found hold for this study. Will self-efficacy be affected the same way as self-esteem?

### 2.3 Self-Efficacy

The idea of self-efficacy was developed primarily by Leonard Pearlin. Self-efficacy is strongly related to coping mechanisms, or behaviors that protect people from being harmed from problematic social experiences (Pearlin & Schooler 1978). Self-efficacy is "the extent to which one regards one's life-chances as being under one's own control" (Pearlin et al. 1978, p. 5). Further, it is the belief that an individual has the power to produce the results that they desire (Bandura & Locke 2003). The Pearlin Mastery Scale was developed as a way to measure an individual's feelings of control of their environment. This feeling of control comes from the assumption that people actively respond to the forces imposed upon them, to the extent to which they are able (Pearlin et al. 1978).

Self-efficacy is the second component of the self and is also a considered to be a motivational concept. Motive and motivation indicate the desire to work toward and achieve goals. It consists of human agency, mastery, and control (Gecas 1989). As Gecas states, self-

efficacy consists of “the motivation to perceive oneself as a causal agent in the environment” and is “a generalized belief in one’s own efforts to control desired outcomes” (Gecas 1983, p. 79, 1986, p. 139; Downey & Moen 1987). In other words, gaining and demonstrating mastery of a subject or situation increases self-efficacy, whereas failure in gaining or demonstrating mastery can decrease one’s self-efficacy.

For an individual, it is important to note that it is not solely the actions of a person that determine their self-efficacy, but also the motivations that drive the individual to complete those actions. In order to conduct efficacious actions within the social environment, self-efficacy provides the desire to perceive oneself as a causal agent in the environment (Gecas 1983, 1986). The efficacious self does not derive its focus from the perceived conceptions of others, but rather from the inner sense of causal impact and its consequences (Gecas 1983). An individual comes to know himself through the experience (or lack) of effective performance, as well as the ensuing belief that one can successfully perform the activity desired for the development of self-efficacy (Gecas 1982; Hughes et al 1989).

Self-efficacy is influenced by contexts of action, social situations within which people function. The main three functions of contexts of action are: the degree of constraint on individual autonomy, the degree of individual control, and the available resources to the individual (Gecas 1983). These factors are interrelated, influence each other, and affects one’s self-efficacy. Individual autonomy is strongly influenced by social position. Those who occupy a higher position in society tend to have more personal decision-making powers than those who are lower on the social position scale (Gecas 1983; Staples et al. 1984). The degree of individual control is related to the extent of control that an individual has over their environment; those who perceive lower control in their lives can often feel that they are unable to accomplish as much as

those who have more control over their circumstances (Downey et al. 1987; Gecas 1986, 1989). Finally, the available resources to the individual are also indicative of one's status in the social structural hierarchy. Freedom to move independently with available resources helps increase individual control and enables individual autonomy (Gecas 1983). These three factors within the contexts of action can either constrain or facilitate self-efficacy within social structure.

Social structure itself enables and constrains opportunities to increase self-efficacy in an individual. As stated above, social class is a strong predictor of personal efficacy, and while people are born into the social class of their parents, efficacy can also be generated through experiences within systems of social inequality (Hughes et al. 1989). Extremely limited social structures that deny autonomy and control impede the development of self-efficacy (Gecas 1983). An example of this is evident in individuals who are extremely poor, where resources (such as money, education, or networks) and autonomy (such as job opportunities or housing choices) are limited. On the other end of the spectrum are the extremely wealthy and the extremely powerful. Power consists of social relations that deal with influence and control (Gecas 1983). In the social structural hierarchy, those at the top have more contexts for action – more access to resources as well as increased control and autonomy (Gecas 1983). Those on the bottom of the hierarchy have less autonomy, control, and access to resources. Thus, those on the top have more power to influence those around them, while those on the bottom have little to no power to influence others, or even themselves (Gecas 1982). Overall, social structure has considerable influence on the motivational opportunities to increase efficacy, which can be detrimental for those lowest on the social structural hierarchy.

Given this significant influence in the development of self, characteristics of the physical and social environment where an individual lives can greatly impact one's self-esteem and self-

efficacy. Thus, it is important to demonstrate how characteristics of the physical and social environment have an effect on the development of an individual's efficacy-based self-esteem. Using a theoretical framework developed primarily from the works of Robert Sampson, I demonstrate how neighborhood disorder can impact the development of self-esteem and self-efficacy, and therefore the overall self-concept.

### 2.4 Community Disorder Theory

In the past couple of decades, there has been increasing emphasis on the importance of neighborhood characteristics on the development of individual behaviors. A neighborhood is a subsection of a larger community, defined by Park (1916) as a collection of both people and institutions occupying a spatially defined area influenced by ecological, cultural, and sometimes political forces. Sampson and Raudenbush (2004) have a similar definition: neighborhoods are ecological units nested within successively larger communities. For the purposes of this thesis, neighborhood is defined using Park's (1916) designation, with a focus on the two blocks surrounding the residence of interest.

The social and housing characteristics of neighborhoods can affect individual development. Neighborhood disorder consists of housing and social factors in the community that affect the behavior of the people who reside there. Neighborhood disorder predictors that are common to many negative social outcomes include: concentration of poverty, racial isolation, single parent families, and low rates of home ownership (Sampson, Morenoff, & Gannon-Rowley 2002). As Haney (2007, p. 968) states, "blighted and decaying urban neighborhoods are read as disinvestments both by residents and by city governments, and therefore, these images are internalized and incorporated into residents' psychological makeup." Thus, indications of neighborhood disorder could have a significant effect on an individual's self-esteem and self-

efficacy, because the residents have incorporated indications of disorder into who they see themselves to be (Haney 2007). Research has shown that people who feel they have little control over their neighborhood can suffer psychologically, which can result in lower levels of self-esteem and self-efficacy (Haney 2007). One of the major theories of community disorder is social disorganization theory, developed by Robert Sampson. Sampson's theories are analyzed in detail below.

The main theme of social disorganization theory is that social and housing characteristics of a neighborhood (such as concentrated poverty, mixed land-use, or housing conditions) are significantly associated with housing and social disorder (Sampson and Raudenbush 1999). Public disorder and violent crimes are thus related, and are consequently explained by the same constructs at the larger neighborhood level (Sampson et al. 1999).

Prior research regarding disorganization at the neighborhood level combines social and housing disorganization as one variable, and is referred to as community disorganization, or simply disorder. Overall, community disorder as one combined variable is problematic because it takes many very different indications of disorder and weights them equally in analysis. It is possible that litter on the streets or vandalism on the buildings can have a different effect on an individual than high rates of crime or other criminal behaviors, for example. One indicator could outweigh the other variables significantly. Bundling the variables into one 'community disorder' variable places a broad blanket on an issue that could be better explained by picking apart the variables that make up neighborhood-level organization. Thus, for this thesis, neighborhood disorder is broken down into two main categories: housing conditions and social disorganization.

## 2.5 Housing Conditions

In neighborhoods where indications of poor housing conditions are prevalent, it is possible that the individuals living in such an environment could be subject to lower levels of self-esteem and self-efficacy. Public housing has been undergoing an extensive transformation in the last twenty years, with an implementation of policies focusing on a deconcentration of poverty and dispersal of public housing residents into the private market.

Public housing units throughout the country often did not meet safety standards, and were generally unsafe, unsanitary, poorly managed, and rife with atrocious physical conditions (Boston 2005; Schill 1993). Common complaints regarding the infrastructure of public housing include lack of heating, a lack of insulation, poor plumbing, poor water quality, peeling paint, the existence of lead pipes and paint, and the presence of radon (Bennett et al. 2006; Eiseman et al. 2005; Popkin et al. 2004; Schill 1993; Shaw 2004). Another major physical issue with public housing was the prevalence of pests. Public housing projects were often infested with roaches, ants, rats, mold, and other creatures (Bennett et al. 2006; Eiseman et al. 2005; Oakley, Ruel, & Wilson 2008; Popkin et al. 2004; & Shaw 2004). Overcrowding was also a concern in public housing, leading to the very real possibility of fire (Shaw 2004). Finally, high density public housing was prone to deterioration and vandalism, including elevator breakdowns, long waits for maintenance, and little to no security for the building (Schill 1993).

These conditions tie back into the earlier discussion of self-esteem and self-efficacy through the contexts of individual action. Problems with disorder in public housing projects are often a result of the degree of constraint on individual autonomy, the degree of individual control, and the resources available to the individual. In other words, there are few resources through which individuals can prevent disorder caused by others, as well as a lack of individual

control through which to control the actions of others. Along with the stresses generated by these indicators of disorder, public housing residents are also faced with numerous social issues within their community.

After relocation, are residents moving to areas characterized by improvements in housing conditions and social disorganization, which could lead to increased self-esteem and self-efficacy? Much of the literature regarding public housing relocation indicates that there may be an inverse association between levels of social and housing disorder and levels of self-esteem and self-efficacy among former public housing residents (Belle 1990; Belle et al. 2003; Goetz 2010; Harris et al. 2004; Sousa-Briggs et al. 2010).

### 2.6 Social Disorder

Social disorganization is comprised of multiple social factors that can introduce disorder into a neighborhood. Common indicators of social disorganization include crime, delinquency, school drop-out rates, child abuse, verbal harassment, prostitution, public intoxication, and evidence of gangs (Sampson et al. 1999, 2002). As Wilson (1982) states, once social disorganization is introduced into a neighborhood, it can be a slippery slope into an unstable and inhospitable community. The strongest evidence of neighborhood dissatisfaction, according to Sampson (1999), is the presence of crime. The fear of crime can affect how people move through their neighborhoods, and can affect the level of control an individual feels they have in their community (Perkins & Taylor. 1996). Research has shown that perceptions of disorder correlate strongly with fear, and that this fear may reflect broader conditions in the community (Perkins et al. 1996). Consequently, indications of social disorganization have been shown to negatively impact individual perceptions of their neighborhood, as well as their own abilities to confront and control these aspects of disorder.

For residents living in public housing, there are many social threats to their personal security (Eiseman et al. 2005). In fact, threats are far more prevalent in the public housing community than are benefits or rewards (Eiseman et al. 2005). One of the biggest threats to an individual living in public housing is community violence. Residents are disproportionately exposed to violent acts such as shootings, assaults, and robberies (Atkinson & Kintrea 2004; Belle 1990; Boston 2005; Burton 2004; Schill 1993). Children are especially vulnerable to community violence, being both exposed to violence and crime in the community as well as limiting time outdoors for the same reasons (Bennett et al. 2006; Burton 2004). The population density of most public housing high rises can exacerbate violence in the community (Eiseman et al. 2005). People living in public housing learn quickly to keep their head down and "not get into others' business" (Atkinson et al. 2004). Again, this lack of control is a context of action in the self-concept framework that prevents an individual from successfully increasing or maintaining their levels of self-esteem and self-efficacy, which is influenced by the overall social structure of the public housing community. Crime is also a prevalent social issue in the public housing community. Crime rates in public housing communities are generally much higher than in the larger population (Bennett et al. 2006; Boston 2005; Eiseman et al. 2005; Popkin et al. 2000; Popkin et al. 2004; Ruel, Oakley, Wilson, & Maddox 2010; Schill 1993). In public housing communities, there are also higher rates of drug and substance abuse and distribution as well as gang presence in the community (Bennett et al. 2006; Eiseman et al. 2005; Popkin et al. 2000; Popkin et al. 2004; Ruel et al. 2010; Schill 1993).

In addition to the social problems listed above, there are also several socioeconomic struggles that plague public housing residents. In these communities, there are often low rates of employment and market attachment, low education, high school drop-out rates, high levels of

teen pregnancy and parenthood, and extremely high levels of poverty (Bennett et al. 2006; Boston 2005; Popkin et al. 2004; Schill 1993; Shaw 2004). These socioeconomic issues can lead to social and physical isolation, defined by Holt-Jensen (2000, p. 281) as "multi-dimensional disadvantage which is of substantial duration and involves disassociation from the major social and occupational milieu of society." Other effects of isolation and socioeconomic disadvantage are stigmatization and discrimination from the outside community (Atkinson et al. 2004; Belle 1990).

All in all, there are multiple housing and social problems in the public housing community that negatively affect the perceptions of an individual regarding their self-esteem and self-efficacy. As suggested in the self-concept framework, the lack of control over one's environment, as well as inadequate resources and low individual autonomy work against the maintenance of an individual's levels of self-esteem and self-efficacy. Thus, stress and fear are significant problems in extremely disadvantaged neighborhoods, and these issues can create numerous mental health problems among public housing residents.

## 2.7 Public Housing and Mental Health

Mental health is defined by Gross and Muñoz (1995, p. 155) as "being able to work creatively and productively, to relate to others in a way that is mutually satisfying, and to feel comfortable when alone, usually by developing a rich and fulfilling inner life." Depression, fear, and anxiety are indicators of poor mental health that feed off of and reinforce each other (Goetz 2010).The negative mental health impact of living in public housing is generally well documented and understood (Belle et al. 2003). The concentration of social problems, especially those listed above, can have serious effects on mental health, and in fact there is a positive association between poverty and mental health problems (Belle 1990; Sousa-Briggs et al. 2010).

Manjarrez, Popkin, and Guernsey (2007) determined that 29% of all public housing residents indicated poor mental health and a tendency toward depression. Living in distressed areas increases anxiety and depression, as well as insecurity (Harris et al. 2004; Leventhal et al. 2003; Shaw 2004). Along with depression, public housing residents also have higher rates of domestic violence and alcohol and substance abuse (Popkin et al. 2000). Depression is a chronic mental illness common in the public housing community (Belle 1990; Goetz 2010; Harris et al. 2004). Depression particularly affects women in this population, and poverty is a very consistent indicator of depression in women, especially those with strained finances and without confidants, daycare, or employment (Belle 1990; Belle et al. 2003).

Stress and fear run rampant in the public housing community due to the physical and social problems mentioned earlier. Popkin et al. (2004) found that the constant stress of living in dangerous and substandard housing exacts a toll on physical and mental well-being. Dunn (2000) agrees, stating that living in a substandard dwelling represents an independent and added source of stress to those of lower income. Overall, numerous researchers have determined that living in public housing, with all of the social and physical problems it entails, increases fear, anxiety, stress, and suspicion in individuals (Dunn 2000; Eiseman 2005; Goetz 2010; Harris et al. 2004; Popkin et al. 2004). Stress and fear can wreak havoc on an individual's concept of personal self-esteem and efficacy.

Poverty has been described as "having no options" (Belle et al. 2003). Thus, poverty can often negatively affect an individual's level of self-efficacy. High efficacy has positive effects on the individual, while low efficacy can lead to maladaptive social consequences (Boardman et al. 2000). Neighborhood-level socioeconomic status can also affect an individual's self-efficacy. Jencks and Mayer (1990) state that an individual's self-efficacy comes from the people around

them, and that a concentration of low-socioeconomic status individuals in a neighborhood would also indicate a concentration of individuals with low self-efficacy. Other research shows that high levels of neighborhood unemployment and public assistance are also associated with low levels of self-efficacy above and beyond individual level socioeconomic status (Boardman et al. 2000). Similar to depression, lower levels of self-efficacy are more prevalent among women than men (Belle 1990). Poor women experience more uncontrollable and threatening situations than in the general population, leading to feelings of low efficacy (Belle et al. 2003). This research shows that an individual's self-esteem and self-efficacy is intricately related to the neighborhood-level socioeconomic status.

Public housing is housing subsidized by the government in an attempt to provide shelter for all Americans. People move to public housing for many reasons, including poor health, unemployment, or previous homelessness (Ruel, Oakley, Wilson, & Maddox 2010). Some research states that public housing was originally meant to be a stepping stone for Americans and not a barracks for the poor (Sousa-Briggs et al. 2010). Other literature, however, claims that public housing was always intended to house predominately minority and extremely poor residents (Burton 2004; Goetz 2003). Public housing policy has had a turbulent past, and the people who are affected most by these policies are the residents of public housing themselves.

## 2.8 The History of Public Housing

Public housing, known today to be characterized by large communities in high poverty, racially segregated neighborhoods, originally began with the Public Works Administration in 1933 (Fraser et al. 2011). This organization was the first to create funded housing, and the first public housing project was built in Atlanta in 1937. The Housing Act of 1937 was the beginning of a widespread plan for the creation of public housing projects throughout the United States,

although few were actually built until after World War II (Burton 2004; Fraser et al. 2011; Schill 1993). In this Housing Act, responsibility for public housing units was relegated to local housing authorities, who built, owned, and operated public housing. These units were economical, and built purposefully to be less desirable than private sector homes, in an attempt to appease private builders and contractors (Fraser et al. 2011; Schill 1993). Public housing was concentrated in the cities, and in an attempt to increase rent revenues, were built at high-density in numerous high-rises that were geographically very close to one another (Schill 1993). Thus, often public housing was grouped into dense apartment buildings with small units and little green space, but with many residents living together in one building.

While public housing buildings were exempt from property taxes, there was no provision in the Housing Act for maintenance or modernization of public housing units. Public housing associations were not allowed to stockpile monetary reserves; thus, these entities were not able to save for renovations of their public housing units (Schill 1993). Over the years, many public housing units fell into disrepair, while appliances and plumbing features became obsolete (Schill 1993). So while public housing was originally designed to be less attractive than private homes, it became even more so as the years went on and there were no funds to renovate or repair older public housing buildings.

Per Section 18 in the Housing Act of 1937, whenever one substandard (slum) unit was demolished, one public housing unit was required to be constructed to replace it. In this way, no net housing was lost; this was the beginning of the “one-for-one” rule that lasted until 1998. Public housing was generally required to be built in the same areas that slum units were located. Suburban locations were often excluded from the growth of public housing due to the lack of

slum units to replace in these areas. Consequently, most public housing buildings in the United States were concentrated in urban neighborhoods.

Even though the idea of public housing emerged in the Housing Act of 1937, it wasn't until after World War II and the implementation of the Housing Act of 1949 that public housing really began to emerge onto the urban landscape. The Housing Act of 1949 expressed an individual's right to a decent home and a suitable living environment (Frasier et al. 2011; Oakley & Burchfield 2009). Decent housing involved the quality of the home itself, while the suitable living environment was concerned with the quality of the surrounding neighborhood (Oakley et al. 2009). With this Act, almost half of all public housing units were located in large buildings with over 200 apartments each, with a total of 810,000 units (Fraser et al. 2011; Schill 1993). With these public housing high-rises came distress through physical deterioration and increased social issues such as violence and crime (Schill 1993). The Housing and Community Development Act of 1974 attempted to alleviate issues of housing conditions and social disorganization, and was the first Act to consider the idea of poverty deconcentration and decreased segregation (Schill 1993). At this point, there was a moratorium on creating new public housing buildings, and an increase in popularity for tenant-based subsidies (Fraser et al. 2011) This Act was essentially reversed by the Housing Act of 1981, and public housing quality continued to deteriorate, with no provision made in any of the Housing Acts for renovations of public housing units.

In 1966, living in public housing high-rises had become so dangerous, poverty-ridden, and segregated that a group of people living in public housing projects in Chicago sued the Chicago Housing Authority (*Gautreaux vs. Chicago Housing Authority*) (Sousa-Briggs et al. 2010). The end result of this lawsuit was the beginning of the dispersal of public housing

residents into the private market (Bennett et al. 2006). While early results of these relocations showed improvements in the situations of some of the residents, it was not successful on a large scale (Bennett et al. 2006). Only twenty percent of the population moved, and a large proportion of the residents simply moved into other public housing projects (Bennett et al. 2006).

### 2.9 The End of Public Housing

By the late 1980s, public housing was generally deemed a failure (Brooks et al. 2005). By this time, public housing was cited as "the most destructive type of poverty," resulting in a population that received a very low income, a high rate of public assistance, was extremely segregated and isolated, and with high rates of crime and violence (Blank 1997; Fraser et al. 2011; Oakley et al. 2008; Schill 1993). Public housing had been strategically placed in the poorest, most highly segregated urban neighborhoods, and the residents were objectified as the "urban underclass" (Bennett et al. 2006; Goetz 2003). Public housing residents were seen by outsiders as people who must be acted upon, and were thus reduced to a reactionary position, rather than being in control of their own situations (Bennett et al. 2006). In 1989, the National Commission on Severely Distressed Public Housing was created to develop a plan to eradicate distressed public housing (Schill 1993). The policy makers and scholars who helped shape this plan believed that high concentrations of very low income households in public housing led to negative physical and social outcomes (Popkin et al. 2004). Thus, elimination of traditional public housing in favor of tenant based subsidies which placed public housing residents into the private market was deemed to be the most favorable response to the problem of distressed public housing communities in urban neighborhoods (Goetz 2003).

The goals for public housing demolition were to deconcentrate poverty and improve the quality of life for public housing residents (Oakley, Ruel, Reid, & Sims 2010a). There was both a

program and a study implemented by the federal government in an attempt to alleviate public housing struggles. The first was the Moving to Opportunity Study. This was a program implemented by the United States Department of Housing and Urban Development (HUD) in 1994. This was a randomized experiment which facilitated the mobility of residents into areas with more affluent neighbors and fewer potential social issues (Katz et al. 2001; Leventhal et al. 2003). Volunteers were grouped into one of three categories: the experimental group, the comparison group, and the control group. Those placed in the experimental group were provided a limited voucher that was only valid in neighborhoods with less than ten percent poverty (Leventhal et al. 2003; Sousa-Briggs et al. 2010). The comparison group was also given a voucher to move in to the private market, but the voucher did not limit where the resident could choose to move to. Finally, the control group stayed in public housing (Leventhal et al. 2003; Sousa-Briggs et al. 2010). The results of the Moving to Opportunity experiment showed that the experimental group had the highest levels of satisfaction with their new neighborhoods, and that the neighborhoods themselves were considered to be of higher quality with improved housing conditions and less social disorder than the public housing units they moved from (Leventhal et al. 2003). The comparison group also did well, but their levels of satisfaction with the quality of their new neighborhoods was not quite as high (Leventhal et al. 2003). Sousa-Briggs et al. (2010) note however, that five years after the implementation of the Moving to Opportunity study, most experimental and comparison group residents had moved back to either high-poverty areas or to other public housing projects in the city.

There were implementation and analysis issues with the Moving to Opportunity Study. It is important to note that this study was voluntary, and public housing residents were not required to move. Less than fifty percent of residents were able to move using this program. Given this

information, while voluntary relocated residents did experience improvements in their housing situations, there is the potential for selection bias in that there may be characteristics of individuals who volunteered compared to those who did not volunteer that were not included in the analysis of the data. To get a different idea of the effects of relocation on the public housing community, the federal government initiated the HOPE VI program, which required the involuntary relocation of public housing residents into the private market.

The HOPE VI program was instituted on a much larger scale than the Moving to Opportunity study, and consisted of federal grants to local authorities to demolish and revitalize the most distressed public housing developments (Brooks et al. 2005; Fraser et al. 2011). The implementation of HOPE VI was the most strenuous of all government efforts to transform public housing, because it required the relocation of every public housing resident in a housing complex, regardless of the individual's desire to move (Bennett et al. 2006; Popkin et al. 2004). HOPE VI was an attempt to move from project-based housing assistance and promote mixed-income housing units (Bennett et al. 2006; Oakley et al. 2010a).

The goals for HOPE VI were generally positive and straightforward. Implementation of HOPE VI was to improve the living environment for residents, revitalize public housing sites into mixed-income areas, deconcentrate poverty by creating a mixture of incomes and socioeconomic backgrounds, and build sustainable communities (Brooks et al. 2005; Fraser et al. 2011; Popkin et al. 2000). Criticisms of HOPE VI include a decrease in housing stock – all of the relocated residents would not be able to find housing in the revitalized units. There was also a strict screening process for entry into mixed-income communities, discrimination in the receiving neighborhoods of former public housing residents, and the failure of HOPE VI to establish a significant decrease in poverty for the residents affected by relocation (Boston 2005;

Fraser et al. 2011; Popkin et al. 2004). Policy makers defended HOPE VI, stating that relocated public housing residents perceived real improvements in their new neighborhoods, with a decrease in crime and increased satisfaction in their neighborhoods. They also showed that former public housing residents demonstrated improvement in mental health (Popkin et al. 2004).

The HOPE VI Panel Study and the HOPE VI Resident Tracking Study were the two most comprehensive sources of information on the effects of relocation on former public housing residents. Their results showed that the actual effects of relocation into the private market lie somewhere between the criticisms and defenses of the HOPE VI program. Initial findings of these studies showed that people experienced real benefits from relocation and were living in better housing (Bennett et al. 2006). However, the receiving neighborhoods for most residents were still extremely poor and racially segregated (Bennett et al. 2006; Oakley et al. 2009). Other results showed that when given the option, residents are more likely to move back into a public housing project than to continue living in the private market (Bennett et al. 2006). However, this is not an option in Atlanta, where all family public housing projects were demolished. The only option given to public housing residents was a voucher subsidy for rental units in the private market (Oakley, Ruel, & Reid 2013). Thus, while some residents do experience beneficial results from relocation, it is by no means a general result for all residents.

### 2.10 Public Housing and Relocation

Relocating from public housing can be a stressful event. Research has shown that involuntary relocation can result in physical and emotional stress reactions that can cause a decrease in morale (Fullilove & Fullilove 2000; Heller 1982). The effects of involuntary relocation are similar to symptoms of grief, including feelings of physiological, social, and

somatic stress and helplessness as well as a loss of control (Fullilove et al. 2000; Heller 1982). Socially, relocating can accentuate feelings of dissatisfaction, loneliness, and depression (Heller 1982). After relocation, however, HOPE VI policy makers had expected that individual benefits would have included an increased feeling of safety, less stress, anxiety, and depression, increased social capital, increased chances for employment, and increased control over one's life (Goetz 2010).

When public housing residents relocated from their original projects, they tended not to move too far away (Goetz 2010). However, most former public housing residents perceive real improvements in neighborhood conditions over the projects that they had left (Bennett et al. 2006; Goetz 2010). Neighborhoods tend to have less graffiti and fewer abandoned buildings (Oakley et al. 2010a). Receiving neighborhoods also tend to have greater amenities, including local parks for children to play outside (Burton 2004). Along with an improved neighborhood environment, researchers state almost unequivocally that residents believe their housing is better than their previous public housing units (Bennett et al. 2006; Brooks et al. 2005; Goetz 2010; Manjarrez et al. 2007; Popkin et al. 2004). Overall, the housing conditions in the receiving neighborhoods tended to be much nicer than the public housing communities they had left, even if residents relocated near their old homes.

The social characteristics of the receiving neighborhoods are also markedly improved from the original public housing buildings residents moved from. Generally, the new neighborhoods tend to have a higher overall median income and lower percentages of people living in poverty (Goetz 2003; Goetz 2010; Oakley et al. 2010a). However, compared to the general population, the areas where relocated residents move to can still be considered very poor (Bennett et al. 2006; Burton 2004; Goetz 2003; Goetz 2010; Oakley et al. 2010a; Popkin et al.

2004). On the positive side, receiving neighborhoods tend to have less neighborhood disorder, less crime, and reduced segregation (Bennett et al. 2006; Boston 2005; Goetz 2003; Goetz 2010; Katz et al. 2001; Oakley et al. 2010a). However, much like with poverty rates above, reduced crime and segregation rates are lower only by comparison to the original public housing projects; these rates are still much higher than the general population (Bennett et al. 2006; Burton 2004; Goetz 2003; Goetz 2010; Katz et al. 2001; Popkin 2004). One of the best social benefits of relocating into the private market, residents say, is the increased feelings of safety in their new homes. In almost every study regarding public housing resident relocation, residents felt safer and more secure in their new neighborhoods (Burton 2004; Cunningham, Popkin, & Burt 2005; Goetz 2010; Katz et al. 2001; Popkin et al. 2004; & Sousa-Briggs et al. 2010). Finally, residents saw increased employment opportunities after relocation. The receiving neighborhoods demonstrated decreased welfare assistance and increased employment (Brooks et al. 2005; Katz et al. 2001). However, former public housing residents themselves showed little improvement in employment rates after relocation (Oakley et al. 2010a). Overall, relocation creates some benefits for former public residents, and some were able to escape poverty (Goetz 2003). Poor housing conditions and social disorganization are decreased in receiving neighborhoods, which should lead an increase in self-efficacy and self-esteem for former public housing residents.

Research has shown that public housing residents who relocated into the private market showed significant increases in self-esteem and self-efficacy (Boston 2005). Most residents report feeling freedom from fear and an increased sense of control and mastery after relocation (Goetz 2003; Sousa-Briggs et al. 2010). Finally, former public housing residents demonstrated increased flexibility and efficacy in their new neighborhoods (Brooks et al. 2005). In general, the

mental health of public housing residents improves after relocation into the private housing market.

Based on previous literature and statistical results, the self-esteem and self-efficacy of former public housing residents is heightened upon initial relocation into the private market from public housing. Upon this first relocation, people are generally happy where they have been relocated. This study is an attempt to add to the literature regarding the individual psychological effects of eliminating public housing and relocating into the private market. While the population and situation for this study is very similar to the Boston (2005) study named above, it differs in that Boston focused on residential mobility rather than sociopsychological changes in residents' perceptions. Further, it also provides a unique perspective into Atlanta's section 18 relocation situation, whose population and demographics are unlike many other cities in the United States where public housing residents were relocated. Because Atlanta was the first city in the United States to completely eliminate its high-rise public housing projects, it will be interesting to see if public housing relocation positively affects the self-esteem and self-efficacy of the former residents in their new neighborhoods.

### 2.11 Hypotheses

Theories of self-esteem and self-efficacy demonstrate that individuals develop and maintain positive self-esteem through actions that preserve or increase positive feelings of themselves, and that these actions are contingent on the resources, autonomy, and level of control that an individual feels they have in their environment. Using this framework as a guide for this thesis, I have developed multiple hypotheses to test the idea that a decrease in poor housing conditions and social disorganization in residents' neighborhoods after relocation can

have a significant impact on residents' levels of self-esteem and self-efficacy. Please see Table 2.1 for a list of all hypotheses that have been tested.

Based on previous research, the first hypothesis states that the neighborhoods that former public housing residents move into have decreased levels of poor housing conditions than their previous public housing projects. Perceptions of poor housing conditions improve upon relocation. The second and third hypotheses follow the structure of the first, but focus on improvements in social disorder and fear of crime after relocation. The second hypothesis states that residents perceive decreased levels of social disorder in their new neighborhoods compared to their former neighborhoods. The third hypothesis says that fear of crime decreases upon relocation into the private market.

**Table 2.1 Hypotheses Tested**

| | |
|---|---|
| **1.** | **Neighborhoods that former public housing residents move to have lower levels of housing condition disorder than their previous public housing projects.** |
| **2.** | **Neighborhoods that former public housing residents move to have lower levels of social disorder than their previous public housing projects.** |
| **3.** | **Neighborhoods that former public housing residents move to have lower levels of fear of crime among their residents than when they lived in their public housing projects.** |
| **4.** | **Perceived improvement in housing conditions post-relocation is associated with an increase in self-esteem and self-efficacy after relocation.** |
| **5.** | **Perceived improvement in indications of social disorganization post-relocation is associated with an increase in self-esteem and self-efficacy after relocation.** |
| **6.** | **Perceived improvement in indications of fear of crime post-relocation is associated with an increase in self-esteem and self-efficacy after relocation.** |
| **7.** | **Lower tenure of residents in public housing results in higher levels of self-esteem and self-efficacy after relocation.** |

The fourth, fifth, and sixth hypotheses are also interrelated. They follow on the heels of the first three, and are indeed contingent on the significance and support of these hypotheses. The fourth hypothesis states that perceived improvement in housing conditions post-relocation is associated with an increase in self-esteem and self-efficacy. The fifth and sixth hypotheses state

that improvements in social disorder and fear of crime, respectively, are associated with increases in self-esteem and self-efficacy.

Finally, there may be a connection between public housing tenure and the self-esteem and self-efficacy of residents after relocation. I hypothesize that people who live in public housing for a lesser period of time experience higher levels of self-esteem and self-efficacy after relocation.

With this data, I propose to test the above variables and their effects, if any, on the self-esteem and self-efficacy of former public housing residents. Based on the literature, there should be at least some significant effect on self-esteem and self-efficacy due to changes in some of the variables. The methodology and analysis, as shown next, help determine whether these hypotheses are supported by the data.

# 3 METHODOLOGY

The Urban Health Initiative is a longitudinal survey study with three waves of data: a pre-relocation wave, a six month post-move wave, and a 24 month post-move wave. The study takes the form of a prospective survey. Respondents are limited in their responses for most of the items on the questionnaire, as they are in the form of closed-ended questions, allowing for a valid quantitative analysis. The analysis I conducted uses data from the baseline survey and the six month post move survey to determine whether the housing and social characteristics of their new neighborhoods are significantly associated with a change in former public housing residents' self-esteem and self-efficacy.

There were 382 participants in the original study (Oakley et al 2008). All respondents were eighteen years of age or older, and more than 90% of the residents interviewed were leaseholders (Ruel et al. 2012). Initially, the sampling strategy was random, but after achieving a response rate of only 49% due to interference from the Atlanta Housing Authority, the study was opened up to volunteers who wished to participate (Ruel et al. 2012). Of the 382 participants, 224 were randomly chosen and 158 were not, but there are no significant differences between these residents on any variables (Oakley et al 2008). Finally, the residents were chosen from four different family housing projects and two senior and disabled community high rise projects. There was a third senior high rise where the residents did not relocate, and this group acts as a control group to the relocated residents. Of the original 382 participants, 72 of them were senior residents who did not relocate.

The second wave of interviews was conducted six months after relocation into the private market, at a time when their living situations were new and residents were just getting used to living in their neighborhoods. The second survey included 311 of the original baseline interview

respondents with a response rate of 88% (Ruel et al. 2012). The questions asked in the second wave of study were similar to the first, and addressed the same issues listed above.

For this analysis, I am using a sample size of 198 of the original 382 in the first wave of data collection. In achieving this sample, I eliminated the senior control group who did not relocate (n=54 at wave 2 of data collection). Next, I dropped the cases of people who did not complete the interview at the six-month wave (n=71). As I had no responses from these residents regarding their experiences six months after relocation, I could not include them in the analysis. The rest of the cases that were eliminated from this analysis failed to complete enough questions in the survey to allow their representation in this analysis (n=59). For example, in creating the self-esteem scale, there are ten questions directly related to self-esteem. If a resident failed to answer three or more questions in the scale of ten questions, they were eliminated from consideration. If they failed to answer one or two questions, answers were achieved using mean imputation to retain cases. Finally, the original sample consisted of an over-representation of senior public housing residents. To counter this in my analysis, I utilized weights to bring the sample characteristics back to the representativeness of the population from which the sample was drawn.

## 3.1 Constructs

### *3.1.1 Dependent Variables*

#### Self-Esteem

The scale variable of self-esteem was created by summing all of the values of the ten questions from the Rosenberg self-esteem scale. This was done for both wave 1 and wave 2. Half of the questions in the Rosenberg scale are reversed (in that the focus of the question is negative

rather than positive), so those five questions have been reverse-coded. In this way, all of the questions are headed in the same direction, with lower values representing lower self-esteem and

**Table 3.1 Self-Esteem Survey Questions and Measures**

| ***Full Survey Question*** | ***Measure*** |
|---|---|
| **I Feel that I'm a Person of Worth** | **Likert Scale (1=Strongly Disagree – 5=Strongly Agree)** |
| **I Feel I Do Not have Much to be Proud Of** | **Likert Scale (1=Strongly Disagree – 5=Strongly Agree), Negatively Coded** |
| **I Feel that I Have a Number of Good Qualities** | **Likert Scale (1=Strongly Disagree – 5=Strongly Agree)** |
| **I am Inclined to Feel that I am a Failure** | **Likert Scale (1=Strongly Disagree – 5=Strongly Agree), Negatively Coded** |
| **I am Able to Do Things as Well as Most People** | **Likert Scale (1=Strongly Disagree – 5=Strongly Agree)** |
| **I Certainly Feel Useless at Times** | **Likert Scale (1=Strongly Disagree – 5=Strongly Agree), Negatively Coded** |
| **I Take a Positive Attitude Toward Myself** | **Likert Scale (1=Strongly Disagree – 5=Strongly Agree)** |
| **I Wish I Could Have More Respect for Myself** | **Likert Scale (1=Strongly Disagree – 5=Strongly Agree), Negatively Coded** |
| **At Times I Think I am No Good at All** | **Likert Scale (1=Strongly Disagree – 5=Strongly Agree), Negatively Coded** |
| **On the Whole, I am Satisfied with Myself** | **Likert Scale (1=Strongly Disagree – 5=Strongly Agree)** |

higher values representing higher self-esteem. The individual self-esteem responses range from 1 to 5, where one means 'Strongly Disagree' and five means 'Strongly Agree.' Combined, an individual could score from 10 to 50 on the overall self-esteem scale. For this scale in particular, there were four cases eliminated from analysis for not completing 75% of the scale questions, and there were thirteen mean imputations between both waves one and two for those cases who completed more than 75% of the responses, but were missing one or two questions.

The self-esteem scale was created once it was determined that the questions that composed the scale fit together reliably. I conducted a Cronbach's alpha on these questions, and

for the first wave, I obtained a Cronbach's alpha of 0.817. In the second wave, the Chronbach's alpha was 0.833.

**Self-Efficacy**

The self-efficacy scale was created in the same way as the self-esteem scale, but instead using seven questions from the Pearlin mastery scale. As before, these seven items were summed for each wave. Five of the seven questions in the Pearlin mastery scale were reversed, so these items were reverse-coded to keep all responses flowing in the same direction. Thus, lower values indicated lower levels of self-efficacy, while higher values indicated higher levels of self-efficacy. In other words, the higher the score a resident achieves on the self-efficacy scale, the higher their perceived self-efficacy. The responses for the self-efficacy questions range from 1 (strongly disagree) to 5 (strongly agree). The summed responses could range from 7 to 35.

**Table 3.2 Self-Efficacy Survey Questions and Measures**

| ***Full Survey Question*** | ***Measure*** |
|---|---|
| **There is Really No Way I can Solve Some of the Problems I Have** | **Likert Scale (1=Strongly Disagree – 5=Strongly Agree), Negatively Coded** |
| **Sometimes I Feel that I am Being Pushed Around in Life** | **Likert Scale (1=Strongly Disagree – 5=Strongly Agree), Negatively Coded** |
| **I have Little Control over the Bad Things that Happen to Me** | **Likert Scale (1=Strongly Disagree – 5=Strongly Agree), Negatively Coded** |
| **I Can Do Just about Anything I Really Set my Mind to** | **Likert Scale (1=Strongly Disagree – 5=Strongly Agree)** |
| **I Often Feel Helpless in Dealing with the Problems of Life** | **Likert Scale (1=Strongly Disagree – 5=Strongly Agree), Negatively Coded** |
| **What Happens to Me in the Future Mostly Depends on Me** | **Likert Scale (1=Strongly Disagree – 5=Strongly Agree)** |
| **There is Little I Can Do to Change Many of the Important Things in My Life** | **Likert Scale (1=Strongly Disagree – 5=Strongly Agree), Negatively Coded** |

There were seven cases that were eliminated from this scale by not completing at least 75% of the responses for the seven questions. Between both waves of data, there were eleven impute cases, where the respondents completed at least 75% of the questions, but not 100%. The

reliability of the self-efficacy scales for waves 1 and 2 are acceptable. The Cronbach's alpha for wave 1 was 0.747 on seven items, and 0.710 for wave 2. Please see Table 3.2 for all self-efficacy questions in the Pearlin Mastery Scale.

### *3.1.2 Independent Variables*

**Housing Conditions**

Respondents were asked to self-report on nine possible housing conditions, which include the conditions of their home, and whether they have certain basic necessities (pest-free homes, workings stoves and refrigerators, good plumbing, etc.). There were nine questions in this scale, with responses ranging from '0' – no evidence of poor housing conditions to '1' – evidence of poor housing conditions. One issue with the creation of the housing conditions scale was that for wave 1, the question regarding pests in the household was one question, whereas for wave 2, it was broken up into two questions. I combined the wave 2 data into a single variable, where evidence of roaches, rats, or both were marked as '1' and absence of such evidence was marked with a '0'. There were no eliminated cases due to a lack of response, but there were eight imputed cases, where residents completed over 75% of the scale questions, but did not finish them completely. The reliability for the housing condition scales is on the very edge of acceptable. The Cronbach's alpha for wave 1 was 0.645 and 0.688 at wave 2. Table 3.3 lists all of the housing conditions questions asked of the residents.

**Table 3.3 Housing Conditions Survey Questions and Measures**

| ***Full Survey Question*** | ***Measure*** |
|---|---|
| **Do You Have a Leaky Roof or Ceiling?** | **0=No, 1=Yes** |
| **Is there a Sink, Toilet, Water Heater, or Other Plumbing that Doesn't Work in Your Apartment or Home?** | **0=No, 1=Yes** |
| **Are there Broken Windows in Your Apartment or Home?** | **0=No, 1=Yes** |
| **Are there Exposed Electrical Wires or Other Electrical Problems in Your Apartment or Home?** | **0=No, 1=Yes** |
| **Are there Pests, such as Cockroaches, Mice, or Rats, in or Around Your Apartment or Home?** | **0=No, 1=Yes** |
| **During the Last 12 Months, has there been Water Damage to the Floors or Walls from Leaks, etc.?** | **0=No, 1=Yes** |
| **Is there a Stove or Refrigerator that Doesn't Work in Your Apartment or Home?** | **0=No, 1=Yes** |
| **Is there Peeling Paint in your Home or on its Exterior?** | **0=No, 1=Yes** |
| **Is there a Furnace or Heater that Works Poorly or Doesn't Work at All?** | **0=No, 1=Yes** |

**Social Disorder**

The questions that comprise the social disorder scale measure evidence of social disorder in the community, and are derived from Sampson's (2002) work on neighborhood disorder. These questions address social characteristics of neighborhoods such as crime, unemployment, and availability of public transportation. There are seven questions in the social disorder scale, and the scale was created as all others named above, by summing the values. Responses for these questions were in a Likert scale that ranged from 1 (strongly disagree) to 5 (strongly agree). High scores on this scale indicate higher levels of social disorder as perceived by the residents. There were quite a few people who did not complete at least 75% of the questions for the social disorder scale, and thus had to be eliminated. There were fifty-five mean imputations (between both waves of data). The reliability of the social disorder scales is on the low end of acceptable for the purposes of this study. For wave 1, the Cronbach's alpha is 0.699, while at wave 2 it is 0.752 for seven items.

**Table 3.4 Social Disorder Survey Questions and Measures**

| *Full Survey Question* | *Measure* |
|---|---|
| **People Do Not Respect Rules or the Law Here** | **Likert Scale (1=Strongly Disagree – 5=Strongly Agree)** |
| **There is Too Much Crime and Violence in this Neighborhood** | **Likert Scale (1=Strongly Disagree – 5=Strongly Agree)** |
| **Too Many Abandoned or Run-Down Buildings Here** | **Likert Scale (1=Strongly Disagree – 5=Strongly Agree)** |
| **The Police are Usually Not Available around Here when You Actually Need Them** | **Likert Scale (1=Strongly Disagree – 5=Strongly Agree)** |
| **There is Not Enough Public Transportation in this Area** | **Likert Scale (1=Strongly Disagree – 5=Strongly Agree)** |
| **Parents Do Not Supervise Their Children around Here** | **Likert Scale (1=Strongly Disagree – 5=Strongly Agree)** |
| **Too Many People Here Cannot Find Jobs** | **Likert Scale (1=Strongly Disagree – 5=Strongly Agree)** |

**Fear of Crime**

There are twelve questions on the public housing survey that discuss fear of crime at wave 1 and wave 2. These fear of crime questions were adapted from Ferraro's (1995) fear of crime scale. These questions discuss topics such as being attacked, having their home broken into, having their car stolen, or being murdered. The range of responses for the fear of crime questions range from 1 (not at all afraid) to 5 (very afraid). Higher scores on this scale indicate higher levels of fear of crime. For this scale, two cases were eliminated because they failed to complete at least 75% of the responses in the fear of crime questions, and twenty cases were imputed because they were missing between 1-25% of their responses for these questions. One other issue with this scale was the question "How afraid are you of having your car stolen?" For a majority of the residents, this question was non-applicable because they do not own a car. However, because I did not want to lose a significant number of cases due to this one question, I simply replaced 'not applicable' with 'not at all afraid' in both waves of data. The reliability of

the fear of crime scale was extremely high for both waves 1 and 2. For wave 1, the Cronbach's alpha was 0.931 on eight items. At wave 2, the Cronbach's alpha was 0.943, indicating an extremely high reliability between questions for this scale.

**Table 3.5 Fear of Crime Survey Questions and Measures**

| ***Full Survey Question*** | ***Measure*** |
|---|---|
| **Having Someone Break into Your Home while You are Away** | **Likert Scale (1=Not at all Afraid – 5=Very Afraid)** |
| **Having Someone Break into Your Home while You are At Home?** | **Likert Scale (1=Not at all Afraid – 5=Very Afraid)** |
| **Having Something Taken from You by Force** | **Likert Scale (1=Not at all Afraid – 5=Very Afraid)** |
| **Being Threatened with a Weapon** | **Likert Scale (1=Not at all Afraid – 5=Very Afraid)** |
| **Being Beaten by a Stranger** | **Likert Scale (1=Not at all Afraid – 5=Very Afraid)** |
| **Having Your Car Stolen?** | **Likert Scale (1=Not at all Afraid – 5=Very Afraid)** |
| **Finding Out that Someone was Robbed Near Your Home** | **Likert Scale (1=Not at all Afraid – 5=Very Afraid)** |
| **Being Robbed or Mugged on the Street** | **Likert Scale (1=Not at all Afraid – 5=Very Afraid)** |
| **Finding Out that Someone was Murdered Near Your Home** | **Likert Scale (1=Not at all Afraid – 5=Very Afraid)** |
| **Being Murdered** | **Likert Scale (1=Not at all Afraid – 5=Very Afraid)** |

### Tenure in Public Housing

The final independent variable is the continuous variable of public housing tenure. This variable is defined by the number of years an individual has lived in public housing. The responses for this question range from a quarter of a year to thirty-eight years. The average length of tenure for this sample is a little over six years, while the median is four years living in public housing. A higher response on this question indicates that the resident has lived in public housing longer.

### *3.1.3 Control Variables*

The two continuous control variables are income and age. Income is not a true continuous variable, rather it is categorized into ten categories, which for the purposes of ordinary least squares regression, can be interpreted in the same way as a continuous variable. The range for income is between one and ten, where one indicates a monthly income of $125 and ten is a monthly income of more than $3000. The higher the response for this variable, the higher the monthly income is for the resident. Age is the only true continuous variable in this analysis. The average respondent in this study was 46 years old, with the youngest respondent being 19 years old and the oldest respondent being 81 years old. The higher the response for this variable, the older the resident is. Please see Table 3.6 for a list of all control variables and their associated survey questions.

The next four control variables are dichotomous variables. Most of these variables were dichotomized to reduce skew in the distribution. The first is education. For the purposes of this analysis, I dummied this variable into two categories: resident earned a high school diploma (or GED) or resident did not earn a high school diploma (or GED). The second dummied variable was the presence of children. As originally presented in the distribution, this variable is skewed. However, once I created the dummy variable of presence of children/no presence of children, the skew was reduced and the results were very nearly even. The third dichotomous variable is marital status. The original dataset had a categorical response set for marital status. I combined the married and cohabiting respondents into the ‘married’ category, while all others were placed in the ‘not married’ category. The final dichotomous variable is sex, which for the purposes of

**Table 3.6 Control Variables**

| ***Full Survey Question*** | ***Measure*** |
|---|---|
| **EDUCATION – What is the Highest Grade or Year of School You Completed?** | **0-20 Years** |
| **NUMBER OF CHILDREN – How Many Children less than 18 Years of Age Live in Your Household?** | **0-9 Children** |
| **MARITAL STATUS – Are You Currently . . .** | **1 – Married**<br>**2 – Divorced**<br>**3 – Widowed**<br>**4 – Separated**<br>**5 – Never Married**<br>**6 – Living with Someone, but Not Married** |
| **INCOME* – Is Your Monthly Earnings (Before Taxes) . . .**<br><br>***Median Value** | **1 – $125**<br>**2 – $375**<br>**3 – $625**<br>**4 – $875**<br>**5 – $1125**<br>**6 – $1375**<br>**7 – $1750**<br>**8 – $2250**<br>**9 – $2750**<br>**10 – More than $3,000** |
| **AGE – How Old are You?** | **18-99 Years** |
| **SEX – Are you Male or Female?** | **0 – Female**<br>**1 - Male** |

this study, were fairly straightforward. The respondents could only choose between ‘male’ and ‘female’. Over 80% of the respondents in this study were female, while 17.2% of the respondents were male.

All of the scales were standardized to allow comparisons across variables. The standardization occurred directly before the regression analyses, once the final sample size was determined and all scales had been constructed. These scales and variables are used independently to determine whether there are effects on one’s self-esteem and self-efficacy beyond the relocation process. In other words, controlling for these variables ensures that the

maximum amount of variance in levels of self-efficacy and self-esteem are explained by the independent variables.

### 3.2 Analysis

To analyze the data, I first conducted a univariate descriptive analysis for each variable, and based on the type of information sought, conducted a paired samples t-test and/or a first difference model using an ordinary least squares (OLS) regression estimator. I conducted three paired samples t-tests for the variables of housing conditions, social disorder, and fear of crime. There are eight regression equations, but overall nineteen regressions were run. Each hypothesis was tested separately, once as a bivariate regression and again with the control variables added. The models are nested within each dependent variable, but are displayed together to show differences in the effects of the independent variables on self-esteem and self-efficacy.

The first strategy used to analyze the data is a descriptive analysis of each variable. For this, I have determined the unstandardized means, medians, and standard deviations of each variable, as well as determined the extent of normal distribution through kurtosis and skew. As well as giving information about each scale and variable, it also sets up assumption testing for the regression analysis. Along with the descriptive statistics, I used two basic analytical statistical strategies. The first is a paired samples t-test. This is a strategy of comparison, and is used to determine whether there is a difference among groups of variables between different time periods.

The second strategy is a first difference ordinary least squares (OLS) model. This type of analysis is used to determine difference over time by determining successive differences of each variable, rather than comparing values to the variable mean. This type of analysis is useful when there are unknown or unnamed variables that do not change over time but are not accounted for

in the equation (Wooldridge 2000). Using this form of regression, it is possible to determine the extent to which the independent variable influences the dependent variable, while controlling for a measure of the dependent variable at an earlier point in time, in addition to other factors which may exist.

When using a first difference model with an OLS estimator, there are a number of assumptions that need to be met to ensure proper analysis. The first assumption states that all scores of a variable should either be dichotomous or quantitative. To ensure that this is not violated, I created dummy variables for all variables that are categorical, such as marital status, and ensured that the categorical variable of income had enough categories to be interpreted as a continuous variable. The second assumption is that the results of the variables should be reasonably normally distributed. To meet this assumption, I examined univariate histograms and scatterplots to assure reasonable normal distribution, and created dummy variables for those that were skewed or kurtostic. Third, for each pair of variables, the joint distribution should be bivariate normal as well as linear. I conducted a visual evaluation of the normal distribution to ensure that this is the case. Fourth, I conducted an analysis of scatterplots of the standardized residuals and predicted residuals of the variables to make sure the variables do not violate the assumption of homoscedasticity.

Finally, to ensure that this model of analysis is the best fit for the data, I used R-squared and ANOVA F-test statistics. The significance threshold for these tests and for all other variable significance tests is at alpha $\leq 0.05$. Significant $R^2$ and ANOVA results indicate that the observed $R^2$ is a reliable measure in the population from which the sample was drawn, while $R^2$ itself determines the percentage of variance in the dependent variable that is explained by the

overall model. On the whole, these analyses provide a reliable and appropriate technique to ensure I am using the correct statistical analysis for this data.

For this first difference model, the regression equations regress each variable individually while controlling for all other variables. A generic regression equation is as follows: $\hat{Y} = b_0 + b_1X_1 + b_2X_2 + \ldots + b_kX_k$, where $\hat{Y}$ is the predicted value of the dependent variable, $b_0$ is the intercept where the slope meets the Y axis, and each variable is designated as $b_yX_y$, where $b_y$ is the predicted change in Y for a one-unit increase in $X_y$, controlling for all other variables. There are eight regression equations utilized in this study. The first determines the effects of housing conditions, social disorganization, fear of crime, and public housing tenure on residents' self-esteem that predicts self-esteem at wave 2 based on self-esteem at wave 1 as well as the independent variable at wave 2. The regression equation is as follows:

$$\hat{Y}_{\text{self-esteemW2}} = b_0 + b_1X_{\text{self-esteemW1}} + b_2X_{\text{housing conditionsW2}} + b_3X_{\text{education W1}} + b_4X_{\text{children W1}} + b_5X_{\text{marital status W1}} + b_6X_{\text{income W1}} + b_7X_{\text{age W1}} + b_8X_{\text{sex W1}}.$$

**Figure 3.1 Regression Equation for Hypothesis 4.**

where $\hat{Y}_{\text{self-esteemW2}}$ is the predicted value of a resident's self-esteem at wave 2 of data collection. Self-esteem at wave 1 ($b_1X_{\text{self-esteemW1}}$) eliminates the overlap in self-esteem from waves 1 and two and leave the other variables to predict residents' self-esteem at wave 2. The second regression equation under this same hypothesis looks at the same independent variables, but in this case, is regressed on predicted self-efficacy after relocation, rather than self-esteem. The regression equation for self-efficacy is below.

$$\hat{Y}_{\text{self-efficacyW2}} = b_0 + b_1X_{\text{self-efficacyW1}} + b_2X_{\text{social disorganizationW2}} + b_3X_{\text{education W1}} + b_4X_{\text{children W1}} + b_5X_{\text{marital statusW1}} + b_6X_{\text{income W1}} + b_7X_{\text{age W1}} + b_8X_{\text{sex W1}}$$

**Figure 3.2 Regression Equation for Hypothesis 5.**

where $\hat{Y}_{\text{self-efficacyW2}}$ is the predicted value of a resident's self-efficacy at six months post-relocation, and $b_1X_{\text{self-efficacyW1}}$ removes the overlap in self-efficacy in both waves of data and allows the other variables in the model to predict self-efficacy at wave 2.

The regression equations for the remaining hypotheses follow the same format as those shown above, substituting the variables of fear of crime, and length of public housing tenure into the equation to predict their effects on self-esteem and self-efficacy after relocation.

This method of analysis is useful in determining the change in self-esteem and self-efficacy among public housing residents from the wave 1 study, which occurred before relocation and the wave 2 study that happened six months after relocation. With these two tactics, I was able to reliably assess whether significant changes in self-esteem and self-efficacy exist for those who have been relocated out of public housing and into the private market.

# 4 RESULTS AND FINDINGS

## 4.1 Univariate Descriptive Analysis

The results of the univariate descriptive analysis are displayed in Table 4.1. For the dependent variable of self-esteem, at wave 1 the unstandardized mean score was 40.68 with a median score of 41. The self-esteem scores at wave 1 ranged from 22 to 50. At wave 2, the unstandardized mean score for self-esteem increased to 41.82, while the median score increased by one and in total ranged from 19 to 50. The dependent variable of self-efficacy followed a similar pattern. At wave 1, the unstandardized mean score for self-efficacy was 25.48, with a median score of 26 and a range from 15 to 35. At wave 2, the unstandardized mean score for self-efficacy increased to 25.91, with no change to the median score or the range from wave 1. What is interesting to note in the descriptive statistics is that both self-esteem and self-efficacy did rise after relocation. This shows that in general, residents did experience an increase in self-esteem and self-efficacy after relocating into the private market.

For indications of housing conditions, at wave 1 the unstandardized mean score was 1.930 with a median score of 1 and a range from 0 to 7. At wave 2, the unstandardized mean decreased to 0.732 while the median score decreased to 0 and the range decreased to 0 and 6. For indications of social disorder, at wave 1 the unstandardized mean score was 22.53 with a median of 23 and a range from 9 to 35 unstandardized indicators of social disorder. At wave 2, the unstandardized mean decreases to 18.19, while the median decreased to 18 and the range decreased to 7 and 31 unstandardized indicators. Finally, for fear of crime, at wave 1 the unstandardized mean score is 25.87, with a median of 27.50 and a range from 8 to 40. At wave 2, the unstandardized mean score decreases to 23.29 with a median score of 24 and a range

**Table 4.1 Descriptive Statistics of Variables before Standardization**

| Variable | Wave | Mean | Median | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|---|---|
| **Dependent Variables** | | | | | | |
| Self-Esteem | | 40.68 | 41 | 6.319 | 22 | 50 |
| | | 41.82 | 42 | 5.743 | 19 | 50 |
| | | **1.14*** | **1** | **-0.576** | **-3** | **0** |
| Self-Efficacy | | 25.48 | 26 | 5.275 | 15 | 35 |
| | | 25.91 | 26 | 4.727 | 15 | 35 |
| | | **0.43** | **0** | **-0.548** | **0** | **0** |
| **Independent Variables** | | | | | | |
| Housing Conditions | | 1.930 | 1 | 1.691 | 0 | 7 |
| | | 0.732 | 0 | 1.159 | 0 | 6 |
| | | **-1.198*** ** | **-1** | **-0.532** | **0** | **-1** |
| Social Disorder | | 22.53 | 23 | 5.399 | 9 | 35 |
| | | 18.19 | 18 | 5.432 | 7 | 31 |
| | | **-4.34*** ** | **-5** | **0.0021** | **-2** | **-4** |
| Fear of Crime | | 25.87 | 27.5 | 10.48 | 8 | 40 |
| | | 23.29 | 24 | 11.09 | 8 | 40 |
| | | **-2.58*** ** | **-3.5** | **0.61** | **0** | **0** |
| Tenure in Public Housing | | 6.346 | 4 | 6.616 | 0.25 | 38 |
| **Control Variables** | | | | | | |
| Age | | 46.07 | 48 | 15.88 | 19 | 81 |
| Income | | 3.67 | 3 | 1.776 | 1 | 10 |
| Sex (1=Female) | | 0.83 | 1 | 0.378 | 0 | 1 |
| Education (1=HS Diploma) | | 0.56 | 1 | 0.498 | 0 | 1 |
| Children (1= Has Children) | | 0.51 | 1 | 0.501 | 0 | 1 |
| Marital Status (1=Married/Cohabiting) | | 0.10 | 0 | 0.295 | 0 | 1 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| **Total N = 198** | | | | | | |

*p ≤ .05 **p ≤ .01 ***p ≤ .001 (two-tailed, n=198)

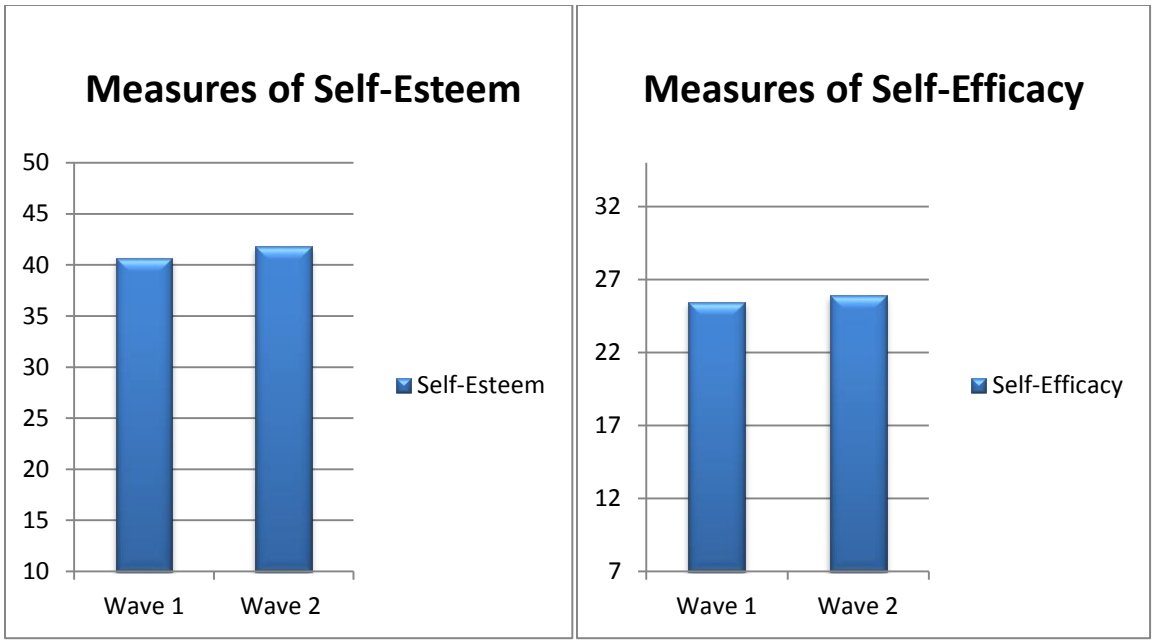


**Figure 4.1 Unstandardized Means of the Dependent Variables**

unchanged from wave 1. For all of the independent variables, the mean scores were very close to the median scores, indicating a fairly normal distribution. Please see Figures 4.1 and 4.2 for a chart representation of the unstandardized means of the dependent and independent variables.

Along with the dependent and independent variables, there were six control variables. The first is income. As this variable was categorized, the mean value shows that the average resident brought home an average income of $625 each month. The median value was the in the same category as the mean, while the range varied from less than $250 to more than $3000 a month. The second control variable is age. The mean age of public housing residents was 46.07 with a median age of 48. The residents ranged in age from 19 to 81. As explained in the constructs section, the final four control variables were created as dummy variables. For education, 43.9% of the residents surveyed did not complete their high school education, while 56.1% of the residents did. The presence of children in the household was split evenly, with

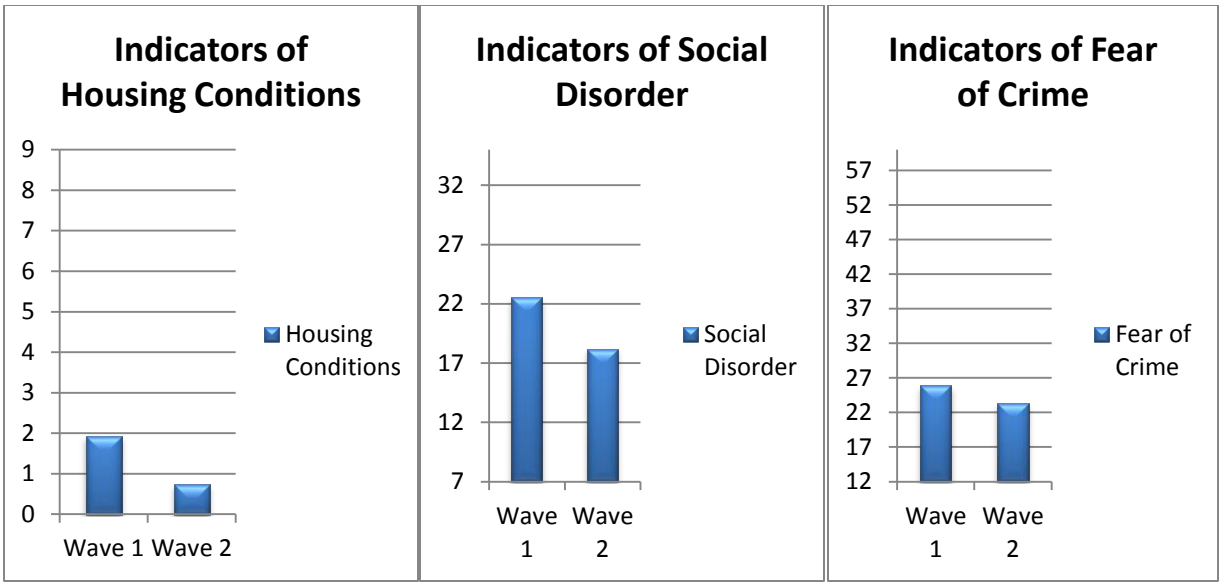


**Figure 4.2 Unstandardized Means of the Independent Scaled Variables**

49.5% of the residents not having children and 50.5% with children at home. Nearly all of the residents interviewed were unmarried (90.4%), while only 9.6% of residents were either married or cohabiting. Finally, for sex 17.2% of the residents interviewed were male while 82.8% were female.

### 4.2 Paired Sample T-Tests and Multivariate Regressions

To begin, I ran a series of paired-sample t-tests on the first three hypotheses to determine whether there are significant differences among the independent scaled variables between wave 1 and wave 2. The scales in this analysis are weighted but unstandardized. The results of the paired samples t-tests are displayed in Table 4.2 below.

**Table 4.2 Paired Samples T-Test of the Scaled Variables**

| | | | | 95% Confidence Interval | | |
|---|---|---|---|---|---|---|
| | **Mean** | **Standard Deviation** | **Standard Error of the Mean** | **Lower** | **Upper** | **Significance (2-tailed)** |
| **Housing Conditions** | 1.261 | 1.992 | 0.142 | 0.982 | 1.540 | .000 |
| **Social Disorder** | 5.401 | 6.627 | 0.471 | 4.472 | 6.330 | .000 |
| **Fear of Crime** | 3.054 | 12.305 | 0.874 | 1.330 | 4.779 | .001 |

*Lower Housing Condition Disorder, Social Disorder, and Fear of Crime in New Neighborhoods*

The t-tests conducted above help to test the first, second, and third hypotheses. As Table 4.2 shows that for housing conditions, residents perceived a significant difference between indications of housing condition disorder in their public housing community and their new neighborhoods. For social disorder, there was a significant difference (at $p \leq .05$) between perceptions of social disorder in residents' public housing communities and in their new neighborhoods. Finally, residents perceived a significant difference in levels of fear of crime between their new neighborhoods and their public housing residences. All three hypotheses are supported by the paired-sample t-test analysis.

*Lower Housing Condition Disorder, Social Disorder, and Fear of Crime are Associated with an Increase in Self-Esteem and Self-Efficacy*

The fourth, fifth, and sixth hypotheses are associated with the hypotheses above. In fact, these hypotheses were contingent on the statistical significance of the above paired-sample t-tests. As all three of the first hypotheses were significant, the second three hypotheses can be analyzed. The fourth hypothesis states that perceived improvement in housing conditions post-relocation is associated with an increase in self-esteem and self-efficacy. To test this hypothesis,

I conducted both a bivariate regression analysis and a multivariate regression analysis to determine the effects of perceived changes in housing conditions on residents' self-esteem and self-efficacy. Table 4.3 shows the regression results of housing conditions at wave 2 and its effects on self-esteem and self-efficacy at wave 2. Table 4.4 does the same, but displays the regression results of perceived social disorder on self-esteem and self-efficacy at wave 2. Table 4.5 looks at the first difference OLS regression results of fear of crime and its effects of self-esteem and self-efficacy at wave 2. Finally, Table 4.7 displays the results of all scaled variables combined within one model to determine their results on residents' self-esteem and self-efficacy.

*Perceived Improvement in Housing Conditions Post-Relocation is Associated with an Increase in Self-Esteem and Self-Efficacy*

The first two models in Table 4.3 look at the effects of housing conditions on relocated residents' self-esteem at wave 2, while controlling for the residents' self-esteem at wave 1, or in other words, on residents' changes in self-esteem after relocation. In the first model, the $R^2$ is 0.283, indicating that the overall model explains approximately 28.3% of the variance in the dependent variable of self-esteem at wave 2. The model as a whole was significant at $p \leq .001$, indicating that the model is a good fit for the data. However, perceived improvement in housing conditions did not have a significant effect on residents' self-esteem.

In the second self-esteem model, I regressed the control variables of education, presence of children, marital status, monthly income, age, and sex along with the independent variable of housing conditions on changes in residents' self-esteem to ensure that these variables were not mediating the relationship between housing conditions and self-esteem. Again, perceived improvement in housing conditions did not have a significant effect on residents' self-esteem.

However, one control variable, age, demonstrated significance on self-esteem at the $p \leq .01$ level. For each additional year of age, residents' self-esteem decreases by 0.086 standard deviations, net of all other variables.

The second set of models in the table show the effects of a perceived improvement in housing conditions on the changes in self-efficacy of relocated public housing residents. As with the first set, the first model regresses housing conditions at wave 2 on self-efficacy at wave 2, while the second model integrates the control variables into the regression equation. Both models demonstrate that they are good fits for the data at $p \leq .001$, and that the first model explains 23.5% of the variance in the dependent variable, while the second model explains 26.2% of the variance in in self-efficacy. The results of this regression analysis show that there is a significant increase in residents' self-efficacy due to a perceived decrease in poor housing conditions in residents' new neighborhoods. In model 1, for every one standard deviation increase in housing conditions in residents' new neighborhoods, on average, self-efficacy decreases by 0.193 standard deviations, controlling for residents' self-efficacy at wave 1. This significance persists even after all of the control variables are added in model 2, and indeed, the significance increases from $p \leq .01$ to $p \leq .001$. In the second model, for every one unit increase in perceived housing conditions at wave 2, self-efficacy decreases by 0.216 units, on average, controlling for all other variables. Age is also significant in this model; on average, for every one year increase in age, residents' self-efficacy decreases by 0.066 units, net of all other variables. Overall, the results show that housing conditions at wave 2 do not have a significant effect on residents' self-esteem after relocation. However, perceived improvement in housing conditions does have a significant impact on residents' self-efficacy at wave 2, even after controlling for numerous other variables. Does the same hold true for social disorganization? The fifth hypothesis states that perceived

**Table 4.3 First Difference Regressions and Housing Conditions**

| | Self-Esteem Model 1 | Self-Esteem Model 2 | Self-Efficacy Model 1 | Self-Efficacy Model 2 |
|---|---|---|---|---|
| Self-Esteem (Wave 1) | 0.525*** | 0.481*** | | |
| | [0.531] | [0.487] | | |
| | (0.060) | (0.062) | | |
| Self-Efficacy (Wave 1) | | | 0.420*** | 0.383*** |
| | | | [0.450] | [0.410] |
| | | | (0.059) | (0.059) |
| Housing Conditions (Wave 2) | -0.078 | -0.074 | -0.193** | -0.216*** |
| | [-0.053] | [-0.051] | [-0.198] | [-0.221] |
| | (0.089) | (0.091) | (0.061) | (0.062) |
| Education | | 0.127 | | 0.898 |
| | | (0.010] | | [0.109] |
| | | (0.783) | | (0.529) |
| Children | | -0.1778 | | -0.989 |
| | | [-0.143] | | [-0.119] |
| | | (1.022) | | (0.698) |
| Marital Status | | -0.699 | | 0.477 |
| | | [-0.032] | | [0.033] |
| | | (1.350) | | (0.959) |
| Monthly Income | | 0.200 | | -0.161 |
| | | [0.061] | | [-0.073] |
| | | (0.203) | | (0.139) |
| Age | | -0.086** | | -0.066** |
| | | [-0.214] | | [-0.247] |
| | | (0.032) | | (0.022) |
| Sex | | 2.309 | | 0.789 |
| | | [0.123] | | [0.063] |
| | | (1.220) | | (0.840) |
| Intercept | -8.74e-15 | 2.015 | 7.468e-16 | 2.851 |
| | (0.372) | (2.345) | (0.257) | (1.606) |
| R-Squared | 0.283 | 0.333 | 0.235 | 0.292 |
| Adjusted R-Squared | 0.276 | 0.305 | 0.227 | 0.262 |
| ANOVA F-Test | 38.542*** | 11.797*** | 29.912*** | 9.747*** |

Note: Unstandardized coefficients (b) are listed first; standardized coefficients (β) appear in brackets; standard error ($SE_b$) appear in parentheses
*p ≤ .05 **p ≤ .01 ***p ≤ .001 (two-tailed, n=198)

improvement in social disorganization post-relocation is associated with an increase in self-esteem and self-efficacy. See Table 4.4 for the results of the analysis of changes in social disorder on residents' self-esteem and self-efficacy after relocation.

*Perceived Improvement in Social Disorganization Post-Relocation is Associated with an Increase in Self-Esteem and Self-Efficacy*

The first two models in Table 4.4 display the effects of perceived social disorder at wave 2 on changes in residents' self-esteem after relocation, first as a bivariate regression and second with the control variables included to determine their effects on self-esteem. In model 1, the ANOVA f- test is significant, indicating that the model is a good fit for the data. The $R^2$ is 0.298, which means that 29.8% of the variance in the dependent variable can be explained by this model. As for the effects of social disorder itself on changes in residents' self-esteem at wave 2, there is a significant difference, so for every one standard deviation increase in perceptions of social disorder in one's new neighborhood, on average, there is a corresponding decrease of 0.190 on the residents' self-esteem score, controlling for the resident's self-esteem score at the first wave.

Unfortunately, this significance does not hold up when the control variables are introduced into the model. The second model continues to be a good fit for the data, and the effects of the independent variable and the control variables explain 34.2% of the variance in changes in residents' self-esteem. The effects of perceived social disorder on changes in self-esteem at wave 2, though, are no longer significant. As seen in the housing conditions model, the only variable that is significant in the model is that of age. For each one year increase in age, self-esteem decreases on average by 0.080 units, controlling for all other variables.

**Table 4.4 First Difference Regressions and Social Disorder**

| | Self-Esteem Model 1 | Self-Esteem Model 2 | Self-Efficacy Model 1 | Self-Efficacy Model 2 |
|---|---|---|---|---|
| Self-Esteem (Wave 1) | 0.489*** | 0.456*** | | |
| | [0.495] | [0.462] | | |
| | (0.061) | (0.063) | | |
| Self-Efficacy (Wave 1) | | | 0.360*** | 0.333*** |
| | | | [0.385] | [0.356] |
| | | | (0.057) | (0.058) |
| Social Disorder (Wave 2) | -0.190* | -0.157 | -0.309*** | -0.293*** |
| | [-0.135] | [-0.112] | [-0.330] | [-0.313] |
| | (0.087) | (0.088) | (0.057) | (0.058) |
| Education | | 0.026 | | 0.709 |
| | | [0.002] | | [0.086] |
| | | (0.779) | | (0.515) |
| Children | | -1.598 | | -0.596 |
| | | [-0.128] | | [-0.072] |
| | | (1.021) | | (0.682) |
| Marital Status | | -0.690 | | 0.263 |
| | | [-0.032] | | [0.018] |
| | | (1.319) | | (0.884) |
| Monthly Income | | 0.191 | | -0.154 |
| | | [0.058] | | [-0.071] |
| | | (0.201) | | (0.134) |
| Age | | -0.080* | | -0.049* |
| | | [-0.199] | | [-0.185] |
| | | (0.032) | | (0.021) |
| Sex | | 2.230 | | 0.617 |
| | | [0.118] | | [0.049] |
| | | (1.213) | | (0.814) |
| Intercept | -9.240e-15 | 1.802 | -2.686e-16 | 2.147 |
| | (0.038) | (2.317) | (0.245) | (1.546) |
| R-Squared | 0.298 | 0.342 | 0.301 | 0.337 |
| Adjusted R-Squared | 0.290 | 0.314 | 0.294 | 0.309 |
| ANOVA F-Test | 41.312*** | 12.271*** | 42.057*** | 12.010*** |

Note: Unstandardized coefficients (b) are listed first; standardized coefficients (β) appear in brackets; standard error ($SE_b$) appear in parentheses
*p < .05 **p < .01 ***p < .001 (two-tailed, n=198)

The second two models in Table 4.4 show the results of perceived social disorder at wave 2 and its effects on the changes in residents' self-efficacy after relocation. Both models demonstrate goodness-of-fit, and explain up to 33.7% of the variance in the dependent variable. In the first model, a bivariate regression shows that increases in social disorder are significantly associated with a decrease in residents' self-efficacy after relocation. For every one standard deviation increase in social disorder, there is a 0.309 standard deviation decrease in former public housing residents' self-esteem score at wave 2, controlling for residents' self-esteem at wave 1. In the second model, the control variables are introduced. The effects of perceived social disorder at wave 2 remain significant in the second model. For every one standard deviation increase in perceptions of social disorder, there is a 0.293 standard deviation decrease in residents' self-efficacy score, on average, controlling for all other variables. As with the previous models, only the control variable of age has a significant impact on residents' self-efficacy at wave 2. For every one year increase in age, there is a 0.049 unit decrease in self-efficacy at wave 2 for former public housing residents. Overall, it appears that indications of social disorder have a stronger impact on residents' self-esteem and especially self-efficacy than the effects of housing conditions.

*Perceived Improvement in Fear of Crime Post-Relocation is Associated with an Increase in Self-Esteem and Self-Efficacy*

The sixth hypothesis states that perceived improvement in the fear of crime pre- and post-relocation is associated with an increase in self-esteem and self-efficacy. Prior research has shown that residents note a considerable decrease in the amount of crime in their new

**Table 4.5 First Difference Regressions and Fear of Crime**

| | Self-Esteem Model 1 | Self-Esteem Model 2 | Self-Efficacy Model 1 | Self-Efficacy Model 2 |
|---|---|---|---|---|
| Self-Esteem (Wave 1) | 0.528*** | 0.474*** | | |
| | [0.534] | [0.479] | | |
| | (0.063) | (0.065) | | |
| Self-Efficacy (Wave 1) | | | 0.377*** | 0.339*** |
| | | | [0.403] | [0.362] |
| | | | (0.062) | (0.062) |
| Fear of Crime (Wave 2) | 0.013 | -0.016 | -0.083* | -0.085* |
| | [0.014] | [-0.018] | [-0.138] | [-0.141] |
| | (0.058) | (0.058) | (0.040) | (0.040) |
| Education | | 0.167 | | 0.910 |
| | | [0.014] | | [0.111] |
| | | (0.787) | | (0.543) |
| Children | | -1.817 | | -1.054 |
| | | [-0.146] | | [-0.127] |
| | | (1.023) | | (0.711) |
| Marital Status | | -0.906 | | -0.080 |
| | | [-0.041] | | [-0.005] |
| | | 1.325 | | (0.927) |
| Monthly Income | | 0.224 | | -0.084 |
| | | [0.068] | | [-0.038] |
| | | (0.202) | | (0.141) |
| Age | | -0.084* | | -0.060** |
| | | [-0.209] | | [-0.225] |
| | | (0.032) | | (0.022) |
| Sex | | 2.389 | | 1.106 |
| | | [0.127] | | [0.088] |
| | | (1.237) | | (0.865) |
| Intercept | -8.729e-15 | 1.792 | 6.080e-16 | 2.104 |
| | (0.373) | (2.337) | (0.260) | (1.629) |
| R-Squared | 0.281 | 0.331 | 0.213 | 0.265 |
| Adjusted R-Squared | 0.273 | 0.303 | 0.205 | 0.234 |
| ANOVA F-Test | 38.040*** | 11.686*** | 26.407*** | 8.512*** |

Note: Unstandardized coefficients (b) are listed first; standardized coefficients (β) appear in brackets; standard error ($SE_b$) appear in parentheses
*p ≤ .05 **p ≤ .01 ***p ≤ .001 (two-tailed, n=198)

neighborhoods and tend to feel safer in relocated areas. Do these results have an effect on residents' self-esteem and self-efficacy after relocation? The results are displayed in Table 4.5.

In the first two models analyzing the effects of fear of crime on self-esteem, the ANOVA f-tests are significant, indicating that the models fit well with the data. However, in neither model is fear of crime significantly associated with residents' self-esteem at wave 2. The only significant variable is age in model 2. On average, for every one year increase in age, self-esteem decreases by 0.084 units, controlling for all other variables.

As with previous models and hypotheses, self-efficacy is significantly associated with changes in residents' perceived fear of crime at wave 2. Overall, the models as a whole are significant, with significant ANOVA f-test results. In the first self-efficacy model, the model explains 21.3% of the variance in residents' self-efficacy after relocation. Fear of crime itself has a significant effect on residents' self-efficacy after relocation. For every one standard deviation increase in a residents' fear of crime after relocation, there is a 0.083 standard deviation decrease in residents' self-efficacy after relocation, on average, while controlling for residents' self-efficacy before relocation. In the second model of self-efficacy, fear of crime continues to have a significant impact on changes in residents' self-efficacy at wave 2, even after controlling for all control variables. In this model, for every one standard deviation increase in fear of crime, on average, residents' experience a 0.085 standard deviation decrease in self-efficacy, net of all other variables. Again, age is the only significant control variable. With every one year increase in age, self-efficacy decreases by 0.060 units, controlling for all other variables.

*Lower Tenure of Residents in Public Housing Results in Higher Levels of Self-Esteem and Self-Efficacy after Relocation*

The final hypothesis states that lower tenure in public housing results in higher levels of self-esteem and self-efficacy. As shown above, prior research demonstrates that those who live in public housing for less time tend to have higher levels of self-esteem and self-efficacy. Does this hold true for relocated public housing residents in Atlanta? The results from the regression analysis are displayed in Table 4.6.

For the first three models regressing public housing tenure against self-esteem and self-efficacy, while the models themselves are significant and constitute a good fit for the data, the variables themselves are not significant, with the exception of a significant association between age, sex, and self-esteem, and education, age, and self-efficacy. For these associations, for every one year increase in age, there is an 0.079 unit decrease in self-efficacy, on average and controlling for all other variables. Sex is also significant; on average, the self-esteem for females is 2.410 units higher than for males, controlling for all other variables. Interestingly, for self-efficacy, public housing tenure becomes significant only after the introduction of the control variables. For every one year increase in public housing tenure, self-efficacy increases by 0.095 standard deviations, controlling for all other variables. Education is significant; those with a high school diploma have a self-efficacy that is 1.254 units higher than those without of a high school diploma, on average, net of all other variables. Age is also significant at $p \leq .01$, indicating that for every one year increase in age, self-efficacy decreases by 0.068 units, controlling for all other variables.

**Table 4.6 First Difference Regressions and Public Housing Tenure**

| | Self-Esteem Model 1 | Self-Esteem Model 2 | Self-Efficacy Model 1 | Self-Efficacy Model 2 |
|---|---|---|---|---|
| Self-Esteem (Wave 1) | 0.524*** | 0.483*** | | |
| | [0.530] | [0.488] | | |
| | (0.060) | (0.062) | | |
| Self-Efficacy (Wave 1) | | | 0.418*** | 0.371*** |
| | | | [0.448] | [0.398] |
| | | | (0.060) | (0.060) |
| Public Housing Tenure | -0.063 | -0.041 | 0.064 | 0.095* |
| | [-0.072] | [-0.047] | [0.110] | [0.162] |
| | (0.053) | (0.055) | (0.037) | (0.038) |
| Education | | 0.116 | | 1.254* |
| | | [0.009] | | [0.152] |
| | | (0.786) | | (0.538) |
| Children | | -1.759 | | -1.175 |
| | | [-0.141] | | [-0.141] |
| | | (1.023) | | (0.709) |
| Marital Status | | -1.033 | | -0.063 |
| | | [-0.047] | | [-0.004] |
| | | (1.329) | | (0.928) |
| Monthly Income | | 0.199 | | -0.046 |
| | | [0.061] | | [-0.021] |
| | | (0.203) | | (0.142) |
| Age | | -0.079* | | -0.068** |
| | | [-0.197] | | [-0.256] |
| | | (0.033) | | (0.023) |
| Sex | | 2.410* | | 0.675 |
| | | [0.128] | | [0.054] |
| | | (1.224) | | (0.855) |
| Intercept | 0.414 | 1.932 | -0.425 | 1.951 |
| | (0.510) | (2.338) | (0.359) | (1.625) |
| R-Squared | 0.286 | 0.333 | 0.208 | 0.271 |
| Adjusted R-Squared | 0.278 | 0.304 | 0.200 | 0.240 |
| ANOVA F-Test | 38.982*** | 11.777*** | 25.569*** | 8.792*** |

Note: Unstandardized coefficients (b) are listed first; standardized coefficients (β) appear in brackets; standard error ($SE_b$) appear in parentheses
*p ≤ .05 **p ≤ .01 ***p ≤ .001 (two-tailed, n=198)

*All Scales Combined*

The final regression table shows the results of an OLS regression analysis with every independent, dependent, and control variable in one analysis. The results are displayed in Table 4.7. The results of this regression analysis are interesting. As with the previous hypotheses, there are four models, two of which assess the association between the independent variables on self-esteem, and two which assess the effects of the independent variables on self-efficacy. In the self-esteem models, the ANOVA f-tests are significant, indicating that the model is a good fit for the data. In the first model, the $R^2$ is 0.310, indicating that 31% of the variance in the dependent variable can be accounted for by the independent variables. In the second model, the control variables are introduced, and the explained variance rises to 34.6%. In the first model, social disorder is significant, indicating that for every one unit increase in social disorder, self-esteem decreases by 0.242 units, controlling for all other variables. However, this association does not hold once the control variables are introduced. In the second model, none of the independent variables are significantly associated with self-esteem. Age and sex are the only significant control variables. For every one year increase in age, on average, self-esteem decreases by 0.08 units, controlling for all other variables. Females have on average, score 0.074 points lower on the self-esteem scale than males, controlling for all other variables.

The effects of the combined independent variables on self-efficacy tell a somewhat different story. Both models are significant, and in the first model, the independent variables explain 31.8% of the variance in the self-efficacy of residents at wave 2. In the second model, the explained variance increases to 36.6%. Indications of perceived social disorder have a significant effect on residents' self-efficacy at wave 2 in both models, even after controlling for all control variables. Surprisingly, housing conditions become significant at the $p \leq .05$ in the second self-

efficacy model. For every one standard deviation increase in poor housing conditions, self-efficacy decreases by 0.125 standard deviations. Also in the second self-efficacy model, for every one standard deviation increase in social disorder, there is a 0.246 unit decrease in self-efficacy, controlling for all other variables. Age is also significant. For every one year increase in age, there is a 0.062 unit decrease in self-efficacy, controlling for all other variables. Overall, the combined model shows that social disorder in particular has a significant impact on residents' self-esteem and especially self-efficacy, even after introducing the other independent and control variables into the model.

**Table 4.7 First Difference Regressions of All Scales and Variables**

| | Self-Esteem Model 1 | Self-Esteem Model 2 | Self-Efficacy Model 1 | Self-Efficacy Model 2 |
|---|---|---|---|---|
| Self-Esteem (Wave 1) | 0.509*** | 0.471*** | | |
| | [0.515] | [0.477] | | |
| | (0.063) | (0.065) | | |
| Self-Efficacy (Wave 1) | | | 0.376** | 0.345** |
| | | | [0.402] | [0.369] |
| | | | (0.058) | (0.059) |
| Housing Conditions (Wave 2) | -0.027 | -0.035 | -0.091 | -0.125* |
| | [-0.019] | [-0.024] | [-0.093] | [-0.128] |
| | (0.093) | (0.096) | (0.062) | (0.063) |
| Social Disorder (Wave 2) | -0.242* | -0.179 | -0.281*** | -0.246*** |
| | [-0.173] | [-0.128] | [-0.301] | [-0.263] |
| | (0.101) | (0.103) | (0.067) | (0.067) |
| Fear of Crime (Wave 2) | 0.084 | 0.039 | 0.009 | 0.000 |
| | [0.093] | [0.043] | [0.015] | [-0.001] |
| | (0.063) | (0.065) | (0.042) | (0.043) |
| Public Housing Tenure | -0.072 | -0.053 | 0.048 | 0.071 |
| | [-0.083] | [-0.060] | [0.082] | [0.121] |
| | (0.053) | (0.055) | (0.035) | (0.036) |
| Education | | -0.065 | | 0.774 |
| | | [-0.005] | | [0.094] |
| | | (0.797) | | (0.516) |
| Children | | -1.469 | | -0.702 |
| | | [-0.118] | | [-0.085] |
| | | (1.032) | | (0.675) |
| Marital Status | | -0.736 | | 0.769 |
| | | [-0.034] | | [0.053] |
| | | (1.353) | | (0.890) |
| Monthly Income | | 0.141 | | -0.144 |
| | | [0.043] | | [-0.066] |
| | | (0.206) | | (0.136) |
| Age | | -0.074* | | -0.062** |
| | | [-0.183] | | [-0.231] |
| | | (0.033) | | (0.022) |
| Sex | | -0.074* | | 0.490 |
| | | [-0.183] | | [0.039] |
| | | (1.246) | | (0.819) |
| Intercept | 0.478 | 2.100 | -0.317 | 2.276 |
| | (0.507) | (2.351) | (0.336) | (1.541) |
| R-Squared | 0.310 | 0.346 | 0.318 | 0.366 |
| Adjusted R-Squared | 0.292 | 0.308 | 0.300 | 0.329 |
| ANOVA F-Test | 17.289*** | 8.964*** | 17.869*** | 9.771*** |

Note: Unstandardized coefficients (b) are listed first; standardized coefficients (β) appear in brackets; standard error ($SE_b$) appear in parentheses
*p ≤ .05 **p ≤ .01 ***p ≤ .001 (two-tailed, n=198)

# 5 DISCUSSION AND CONCLUSION

In this thesis, the main objective was two-fold. The first was to determine whether the neighborhoods that public housing residents moved to were perceived by the residents as having lower levels of poor housing conditions, social disorder, and fear of crime. Do residents feel they live in areas that have significantly reduced levels of the above factors? The second was to determine that if significant differences in disorder existed, did that translate to significant changes in residents' self-esteem and self-efficacy? To answer this question, I utilized Robert Sampson's theory of community disorder to develop scales of poor housing conditions, social disorder, and fear of crime before and after relocation. I then determined the extent to which these changes affected residents' self-esteem and self-efficacy after relocation.

For all types of disorder (housing conditions, social, and fear of crime), residents perceived a significant decrease in their new neighborhoods compared to their public housing residences. Thus, the first, second, and third hypotheses are justified by the data. I conclude that perceptions of improvements in housing conditions, social disorder, and fear of crime had significantly increased upon relocation into the private market for public housing residents, on average, in the public housing population from which the sample was drawn.

These results support prior research that states that public housing residents, once relocated, find themselves in neighborhoods that they perceive as higher quality with lower levels of poor housing conditions and social disorder (Leventhal et al. 2003). Almost universally, residents believe that their new residences are better than their previous public housing projects (Bennett et al. 2006; Boston 2005; Goetz 2003; Goetz 2010; Katz et al. 2001; Oakley et al. 2010a). Decreases in fear of crime found in this research are also consistent with prior literature. For many residents, their new neighborhoods made them feel safer and more secure than their

former residences (Burton 2004; Cunningham et al. 2005; Goetz 2010; Katz et al. 2001; Popkin et al. 2004; & Sousa-Briggs et al. 2010). Overall, this research unequivocally supports the literature in determining that there is a significant decrease in poor housing conditions, social disorder, and fear of crime in public housing residents' new neighborhoods.

For self-esteem, the descriptive results show that upon relocation, self-esteem does increase, albeit very slightly. For the fourth hypothesis, a perceived increase in quality of housing conditions does not have a significant impact on changes in residents' self-esteem. For social disorder, the results are much the same. Self-esteem appears to be significantly impacted by perceived improvements in social disorder, but once the control variables are introduced, the significance of social disorder on self-esteem dissipates. Finally, for the sixth hypothesis, the results show that perceived improvement in levels of fear of crime also do not significantly impact residents' self-esteem after relocation. Thus, for housing conditions, social disorder, and fear of crime, I must conclude that there is no significant association between these scales and changes in self-esteem, on average, in the population from which the sample is drawn.

Measuring significant changes in self-esteem due to public housing relocation is difficult, because there is not a lot of research that examines this concept. Rather, much of the public housing relocation literature that does focus on mental health focuses on depression and anxiety. However, some of literature does address self-esteem and relocation, even if it is not a focus of the article. The results of this research do not support much of the literature that examines self-esteem and relocation. Other authors have stated that indications of social disorder and fear could have a detrimental effect on self-esteem, and that changes in these factors could significantly improve self-esteem (Haney 2007; Perkins et al. 1996). These results were suggested in prior research, but not expressly tested. The results of this thesis show that this may not be the case.

There is one article that addresses self-esteem among African-Americans that could be more pertinent to my research. Hughes et al. (1989) show that the self-esteem of black Americans is more dependent on the appraisals of the important people in their lives rather than the overall, predominately white society. Further, black people tend not to compare themselves to whites in terms of their self-esteem, nor do they accept personal responsibility for the status of black people in American society (Hughes et al. 1989). Because nearly all of the respondents in the public housing study are African-American (94%), this could help explain why self-esteem was not significantly affected by relocation into the private market.

Self-efficacy, on the other hand, tells a much different story. Self-efficacy, similar to self-esteem, does improve upon relocation into the private market, although the difference is slight. The fourth hypothesis states that perceived improvement in housing conditions post-relocation is associated with an increase in self-esteem and self-efficacy. While self-esteem was non-significant, changes in self-efficacy started out significant and actually became more significant once the control variables were introduced. The fourth hypothesis stated that improvement in perceptions of social disorder is also associated with an increase in self-efficacy. As with housing conditions, this hypothesis is supported by the data. Decreases in social disorder are significantly associated with an increase in self-efficacy. Finally, improved perceptions of fear of crime were also significantly associated with an increase in self-efficacy. For all three disorder scales, I must conclude that improved perceptions of housing conditions, social disorder, and fear of crime were, on average, significantly associated with an increase in self-efficacy in public housing residents from which the sample was drawn.

Prior research regarding self-efficacy is more available than for self-esteem. The results of this research support the literature in that self-efficacy has shown to be significantly impacted

by improvements in housing conditions, social disorder, and fear of crime. Problems with housing conditions and social disorder in public housing projects were often indicative of the degree of constraint on individual control as well as the resources available to the individual (Gecas 1983). However, in their new neighborhoods, residents often found that there was more they could do to care for their own space and secure themselves against the outer community, if necessary. Haney (2007) found that people who feel that they have little control over their neighborhood can suffer from lower levels of self-efficacy. It is possible that if people find themselves in a position where they have more control over their situation, they will exhibit higher levels of self-efficacy. In this research, self-efficacy significantly increased when every indicator of disorder decreased.

The seventh hypothesis stated that lower tenure of residents in public housing results in higher levels of self-esteem and self-efficacy after relocation. Interestingly, public housing tenure was only significant in the second self-efficacy model, after the introduction of the control variables. It did not have a significant effect on self-esteem at all. Thus, I reach the same conclusion as before. Public housing tenure was not significantly associated with an increase in residents' self-esteem but was significantly associated with an increase in residents' self-efficacy, on average.

The results of this research show that all scaled indications were significantly associated with residents' self-efficacy after relocation. However, none of the scaled indicators of disorder either achieved or maintained significance in terms of self-esteem. Overall, relocated residents' self-efficacy has been more positively impacted by perceived improvements in housing conditions and social disorder in their new neighborhoods, than self-esteem. Residents feel more in control of their lives and feel they can accomplish the goals they set for themselves. Thus, I

would conclude that self-efficacy is much more greatly affected by housing conditions, social disorder, and fear of crime than self-esteem.

There are a few limitations associated with this study. The first is that there was a substantial decrease in the number of applicable cases due primarily to individuals who did not complete the interview at wave 2 of data collection. Other reasons cases were excluded included individuals who did not answer a majority of the questions in each scale construction. The baseline data had a sample size of 382 individuals, while I was only able to retain 198 of these individuals for my analysis. The second limitation involves the homogeneity of the respondents, which could affect the generalizability of these results to other public housing residents throughout the country. The vast majority of individuals interviewed before and after public housing relocation in Atlanta were African-American, unmarried, and female. Thus, can this information be reliably generalized to the overall public housing community, or is it relatable only to the residents who relocated in Atlanta? Future research could focus on increasing the generalizability of the results to a larger population.

This study presents opportunities for future research. Future research could examine the effects of positive indications of social organization on self-esteem or self-efficacy. Does the presence of safe parks and sidewalks, visible security, or neighborhood watch associations increase individuals' self-esteem or self-efficacy? Future research could also determine whether the increases in self-esteem and self-efficacy persist years after relocation. The results of this study can influence future policy to determine whether public housing relocation is the best for everybody involved, from the residents to policy makers, and everyone in between. It can also serve to determine whether options such as renovation, voluntary relocation, or re-institution of

the “one for one” rule (building an equal number of subsidized units for those demolished) should be considered in future public housing demolition cities.

## Conclusion

In 2007, the Atlanta Housing Authority announced that ten family housing projects and two senior and disabled housing projects would be demolished under Section 18 of the 1937 Housing Act. With this demolition, public housing residents were relocated into the private market. The difference between Atlanta’s Section 18 public housing relocation and other cities that have participated in public housing relocation programs is that Atlanta has eliminated all of their family public housing projects. The residents do not have the opportunity to re-enter public housing in the future, at least not in Atlanta. Prior research of public housing relocation show that residents who are relocated from public housing are in initial shock, then experience an increase in self-esteem and self-efficacy as they are getting used to their new residences, and finally maintain an even keel that is only slightly higher than their original levels about a year after relocation (Bennett et al 2006; Heller 1982; Sousa-Briggs et al. 2010). The results of this study corroborate previous research, to an extent. Self-esteem and self-efficacy both rise after relocation. However, only self-efficacy is significantly impacted by perceived improvements in housing conditions, social disorder, and fear of crime. Improvements in self-esteem after relocation cannot be explained by perceived changes in the above scaled variables. In conclusion, public housing demolition and relocation has a significant effect on residents’ self-esteem and self-efficacy, and these results should be taken into consideration when determining the fate of future public housing projects in cities throughout the United States.

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