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An Assessment of the Impacts of Relocation on Public Housing Youth

Emily Zupo
University of South Florida

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An Assessment of the Impacts of Relocation on Public Housing Youth

by

Emily Zupo

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Arts
Department of Geography
College of Arts and Sciences
University of South Florida

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Beverly Ward, Ph.D.
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Keywords: Deconcentration, Poverty, HOPE VI, GIS, Neighborhood Effects

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An Assessment of the Impacts of Relocation
on Public Housing Youth

Emily Zupo

ABSTRACT

This paper will explore the social and economic impacts of public housing revitalization on households with minor children. The research traces the relocations of families from two public housing complexes to other public housing complexes or market housing, using Housing Choice formerly Section 8 vouchers. We contrast and compare the socioeconomic characteristics of the original neighborhoods to the relocation sites from the census tract level, exploring changes in resources available to families.
CHAPTER 1    INTRODUCTION

The most distressing fact in the present world is poverty; not absolute poverty, because some folks are rich and many are well-to-do; not poverty as great as some lands and other historical ages have known; but poverty more poignant and discouraging because it comes after a dream of wealth; of riotous, wasteful and even vulgar accumulation of individual riches, which suddenly leaves the majority of mankind today without enough to eat; without proper shelter; without sufficient clothing.

-- W.E.B. Du Bois

Poverty and its effects are experienced differently in different environments. How a farmer in India experiences poverty is different from how an American might feel the effects of poverty. Likewise, how a poor family living in working class neighborhood experiences poverty will be different from how an urban poor family experiences poverty in a public housing neighborhood (Johnston et al. 2000). Many scholars (Jargowsky and Bane 1990, Goering et al. 2003) chronicle the detrimental consequences of persistent poverty: families that remain poor for long periods of time and usually pass this financial state and
resulting “behaviors” on to their children, a cycle which teaches children to grow up like their parents and believe that living a ghetto lifestyle is acceptable. The harmful learned behaviors “appear especially severe for children whose behavior, choices, and prospects appear uniquely susceptible to neighborhood characteristics, including limited resources, peer group influences, school quality, and violent crime” (Goering et al. 2003, 3). Children are influenced by the environment in which they grow up. Early behaviors of mimicking their elders, which at first help young children develop into functioning adults can backfire in these concentrated poverty settings: the results of which are not only passed on to the next generation and so on but are deleterious to current society (Case and Katz 1991). In his book The Truly Disadvantaged, William Julius Wilson (1987) postulates that allowing youth to live in this cycle of poverty leads to many negative societal effects: youth becomes “not only a factor in crimes; it is also associated with out-of-wedlock births, female-headed homes, and welfare dependency” (14).

1.1.1 Stereotypes

Increasingly the popular perception promoted by media and government, is that the persistent poverty of today is the result of largely atypical behavior by a minority group outside the mainstream society (Bane 1989). This perception is popularized by conservative
think tanks, such as the Heritage Foundation or the Manhattan Institute, and commonly influences both perception and policy. In their book *The Urban Underclass*, Christopher Jencks and Paul E. Peterson talk about what they feel are popular misconceptions. They contest that many people commonly believe that the percentage of the population who live in persistent poverty is large and rapidly escalating, that more and more underage unmarried females are bearing children, and that “welfare rolls are exploding” (Jencks and Peterson 1991, Preface). Jencks and Peterson (1991) claim that popular belief is that crime is on the rise, “young people are dropping out of school in record numbers, and higher percentages of the population are withdrawing from the labor force.” Additionally, the poor are said to be gradually more isolated by ghettos at the centers of our urban areas (Preface). “When figures on black crime, teenage pregnancy, female-headed families, and welfare dependency are released to the public without sufficient explanation, racial stereotypes are reinforced” (Wilson 1987, 21).

This is the perception of poverty that people who follow stereotypes in the media mistakenly share: lazy, immoral, or undeserving individuals who are responsible for their living conditions. The reasons for the urban poor’s persistent poverty are commonly misunderstood, and can even be misunderstood by those that run the
government: this, in turn affects the government’s view on poverty and, consequently, policies enforced to aid those living in poverty. In reality, there are many different and unique theoretical explanations for the existence of poverty that have been offered by scholars (Wilson 1987, Glasmeier 2002), but an economist, Schiller (2001) asserts that all these arguments can be broken down into two categories: restricted opportunity and flawed character. Flawed character refers to those individuals who lack ambition or ability to move up from an impoverished state. Restricted opportunity suggests that “the poor are poor because they do not have access to good schools, jobs, and income, because they are not furnished with a fair share of government protection, subsidy, or services” (Schiller 2001).

1.2 Neighborhood Effects

Two schools of thought diverge on mitigation strategies to concentrated poverty. One answer is to bring more public services to public housing residents (Bennett et al. 2006, Greenbaum 2008); the second answer is to deconcentrate urban poor residents and encourage them to live better lives through example of low poverty neighborhoods. The first mitigation technique has long underlay government policy and some scholars believe this kept public housing residents from improving themselves (Wilson 1987). The second mitigation technique mentioned above is somewhat more current
government policy; however, it is still disputed in many locations as to whether or not it can be successful (Varady and Walker 2003, Greenbaum et al. 2008, and Popkin et al. 2008). The unfortunate truth of public housing is that it is the catch-all for America’s poorest citizens and it is probably for the best to deconcentrate poverty in order to give the urban poor an opportunity at a better quality of life. Public housing is cheaply made and most often in disrepair (Turner et al. 2007). Some scholars (Wilson 1987, Jargowsky and Bane 1990, Goering et al 2003, and Buron et al. 2007) believe that by deconcentrating the urban poor and dispersing them to lower poverty neighborhoods, they will benefit in a number of ways. The theory of neighborhood effects states that families that live near disadvantaged neighborhoods will experience adverse effects on child development through exposure to crime and violence, poor peer influences, absence of positive role models, and lack of school, community, and health care resources (Wilson 1987, Goetz 2003, Kling and Leibman 2004). Conversely, if families live near affluent neighborhoods, they will have the opportunity to experience positive effects though exposure to better job opportunity, less crime and violence, positive role models, and better quality of schools, communities, and health care resources. They have the potential to create social networks that “will be conductive to economic self-sufficiency” (Clampet-Lundquist 2004,
According to Ellen and Turner (2003) neighborhood effects is facilitated in one of two ways: the epidemic model or the relative deprivation model. The epidemic model assumes ‘like begets like.’ The relative deprivation model assumes that “people judge their success or failure by comparing themselves with others around them” (Jencks and Mayer 1990, 116). However, the neighborhood effects theory is controversial because it cannot be proven and cannot take into account personal or familial issues.

Recent public policies, discussed in more detail below, have aimed to move these residents out of concentrated poverty areas in the hope that they learn to improve their lives by the example of upper-class neighbors. In Clearing the Way: Deconcentrating the Poor in Urban America, professor Edward Goetz (2003) questions this deconcentration strategy: “is deconcentration about moving people out of a particular neighborhood because the neighborhoods have been declared dysfunctional, or is it about providing housing choices for a class of people who have not had them in the past?” (Goetz 2003, 7) Varady and Walker (2003) would argue that it is about the latter: giving urban poor the opportunity to live in any neighborhood they choose regardless of racial or economic discrimination.

The first section will review research concerning impacts of public housing relocation, including the Moving to Opportunity social
experiment, HOPE VI and Section 8/Housing Choice Vouchers. The second section will provide a summary of the research design including the research question this thesis seeks to answer as well as an overview of the study areas. The third section will describe the data gathering process and related methodology this paper will use in its assessment. The fourth section will report and discuss results. Finally, the fifth section will discuss conclusions, and limitations based on this particular case study.

1.3 Literature Review

Impacts of relocation of public housing residents have been studied in social science (Duncan and Rodgers 1991, Crane 1991, Clampet-Lundquist and Massey 2008), economic (Datcher 1982, Case and Katz 1991, Schiller 2001), anthropological (Greenbaum et al. 2008), public policy (Kaufman and Rosenbaum 1992, Briggs 1997, Buron et al. 2007), law (Briggs and Turner 2006, Duncan and Zuberi 2006), and geographical (Jargowsky 1997, Glasmeier 2002) literature. This literature can be generally classified into two distinct categories: qualitative assessment and quantitative assessment. Research concerned with qualitative assessment is usually conducted over extended time intervals to compare participant's responses from public housing origins to relocation neighborhoods using personal interviews, participant observation, surveys, and archival document analysis. This
type of study evaluates primarily intangible aspects such as thoughts and feelings that the researcher believes can contribute to a better understanding of quality of life improvements. Many scholars prefer this type of research method because conclusions can be drawn for specific individuals and individual analysis can be made. Research which focuses on quantitative methods focus on datasets which have been compiled and usually describe socio-economic characteristics: attributes that are usually more tangible such as median household income, which can be used to compare different neighborhoods and make generalized statements about a group of residents based on generic characteristics. Not as many scholars prefer this type of research method but it adds its own intrinsic value to an overall assessment of the research topic. Statements that can be made are not as specific as their qualitative counterpart, but conversely quantitative research can draw more general conclusions that qualitative research cannot. Both types of studies have merit, but quantitative research will be the focus for this study.

1.3.1 Assessing Concentrated Poverty

Wilson’s (1987) controversial opinion is that the exodus of middle- and working-class families from ghetto neighborhoods after the Fair Housing Act of 1968 removed an important “social buffer” that deflected the impact of unemployment that began to plague the inner
city neighborhoods around the same time. In other words as anti-discrimination laws came into effect from the Fair Housing Act of 1968, it gave the opportunity for middle- and working-class black families to leave inner-city neighborhoods where all black families were segregated. This left lower- and under-class black residents without, as Wilson (1987) calls it, working role-models. In the United States, the Fair Housing Act of 1968 came from a political movement armed at outlawing discrimination in all aspects of housing. The primary purpose of the Fair Housing Act of 1968 was to protect the individual from landlord discrimination. The goal was a united housing market in which a person's background, as opposed to financial resources, did not restrict access (Sidney 2001).

Wilson argues for deconcentration because by relocating urban poor to a lower poverty neighborhood, and the social buffer of working class and middle class residents were to be put back in place it would create more of a stable long term environment by providing contagious ideals: “mainstream role models that help keep alive the perception that education is meaningful, that steady employment is a viable alternative to welfare, and that family stability is the norm, not the exception” (56). In this manner, the youth of the impoverished neighborhoods would not only see unemployed welfare dependant families but also families that are industrious, go to work every
morning, and attend school regularly thereby demonstrating a connection between “education and meaningful employment” (Wilson 1987, 56). But because this social buffer is lacking, this absence has the potential to create a myriad of social and economic problems that is more than the sum of its parts—a concentration of urban poor people that creates what Wilson calls “concentration effects.” Most scholars know it as “neighborhood effects” (Crane 1991, Goetz 2003, Kling et al. 2004). The idea of neighborhoods effects, as it will be called in this paper, is the theory that a severe concentration of disadvantages and poor behavior choices will, in turn beget more neighborhood and individual dysfunction. This theory suggests that the neighborhood environment plays a critical role in determining individual opportunities, experiences, and behaviors (Goetz 2003). These concentrated neighborhoods of urban poor families are inundated with these problems as determined by researchers (Brooks-Gunn et al. 1993, Kling and Liebman 2004) and as such “have become increasingly isolated from mainstream patterns of behavior” (Wilson 1987, 58).

In their book, Choosing a Better Life? Evaluating the Moving to Opportunity Social Experiment, Goering et al. (2003) suggest that deconcentration through the Moving to Opportunity Experiment (MTO) may have important social, educational, and economic benefits. MTO
was loosely based on the Gautreaux program in Chicago, IL. In fact, they begin their book with a look at the history of public housing policy and the Gautreaux program, a court-ordered racial desegregation program, which assisted racially isolated families with housing vouchers and counseling to move to lower poverty, racially mixed neighborhoods. Early results from this program suggested that children were the greatest beneficiaries of this deconcentration effort: in moving to lower poverty neighborhoods, they were less likely to drop out of school, were more likely to take college preparatory classes, and were also more likely to attend a four year college or become employed full time as opposed to their public housing peers. Other qualitative results of the Gautreaux program showed further evidence that deconcentrating the urban poor could lead to potentially successful outcomes for families and their children. The Gautreaux program was successful most likely because there were such stringent requirements on the relocation sites for the original public housing residents and a myriad of support services for before and during the relocation.

In his book, *Clearing the Way: Deconcentrating the Poor in Urban America*, Goetz (2003) takes a comprehensive look at concentrated urban poverty in Minneapolis. His assessment begins with a critical time in public housing policy and a turning point in the
case of Hollman v. Cisneros: a case that not only had a huge impact on public housing policy but also ideas of voluntary and involuntary deconcentration. Hollman v. Cisneros was the first desegregation case in Minneapolis which argued that the city was deliberately building public housing in the most destitute parts of the city which reinforced segregation. Hollman v. Cisneros alleged that the city was segregating public housing residents deliberately, not only from more affluent neighbors, but also segregating black public housing residents from white public housing residents. Studies conducted on Minneapolis housing at the time concluded that “concentrating and isolating low income families headed by primarily unemployed single parents intensified social problems” (Goetz 2003, 139). A settlement was reached which laid out an aggressive plan of deconcentration. Urban poor families were provided both monetary assistance and counseling in choosing their relocation neighborhood and in the place of the former distressed public housing, a mix of public housing, subsidized housing and market rate housing was built (Goetz 2003). Those that chose not to relocate voluntarily were eventually forcibly relocated when the distressed public housing communities were torn down in favor of mixed-income development. Goetz studied these two groups individually to asses if there were a difference in relocation outcomes.
Other programs in other cities have tried to imitate the Gautreaux program’s success, but have experienced mixed results. These programs usually fall under the auspices of the federally funded S8 / Housing Choice and HOPE VI (Housing Opportunities for People Everywhere). These programs have seen mixed results, for a number of reasons. One reason that the Gautreaux program was successful was because it was court ordered and monitored closely by state agencies. These agencies set up the stringent application process, the relocation process, and the counseling involved before these families could relocate. Secondly, these individuals were monitored as closely as possible to see how they adjusted to their new living conditions in the relocation areas: these families were counseled and monitored every step of the way to study the success of the move. And thirdly, they were asked to stay in their relocation neighborhood for the remainder of the redevelopment project on their former public housing. This allowed those monitoring the relocatees to assess the changes brought about by the new opportunities of the relocation neighborhoods.

Ideally, every program wants the success that the Gautreaux program enjoyed, but that type of funding on the federal level is not always possible (Varady and Walker 2003). Local Housing Authority programs started with federal funding that try to imitate the
Gautreaux program are usually not as thorough as the court-mandated based process in Chicago: whether due to lax application guidelines, a lack of rigorous counseling, or lack of a requirement to stay in the relocation neighborhood for a set period of time to assess neighborhood impacts. “Physically redistributing the poor [is] probably necessary. . . but instead of coaching them and then carefully spreading them out among many more-affluent neighborhoods, most cities gave them vouchers and told them to move in a rush with no support” (Rosin 2008, 17).

1.3.2 HOPE VI

The federal program this case study will focus on is the HOPE VI program in Tampa, Florida. HOPE VI in Tampa endeavors to deconcentrate the urban poor much like any other federally funded HOPE VI program in other cities.

HOPE VI has its origins in 1992 when Congress authorized $300 million to create the program which was meant to rebuild the most physically “distressed” public housing in the country. According to the U.S. Office of Management and Budget and Federal agencies distressed public housing in this case is defined as subjecting the families residing in them to extreme poverty and intolerable conditions. It was anticipated that HOPE VI would reshape distressed neighborhoods and surrounding areas by changing the physical
environment and the social classification (Smith 2002). HOPE VI has a
generic methodology followed in each city that gets funding: residents
are relocated either to other public housing complexes or lower-
poverty areas with a voucher, buildings are demolished or
“substantial[ly] renovated” and a portion of the original residents are
allowed to move back into the renovated housing (Smith 2002). The
HOPE VI program was designed to alleviate the concentration of
poverty and the resulting negative behaviors associated with
concentrated poverty by not only dispersing impoverished households
but also by assuring that original public housing residents are allowed
the opportunity at a lower-poverty neighborhood (Clampet-Lundquist
2004). The HOPE VI program is a radical and ambitious urban
redevelopment program with idealistic intentions.

   Since 1992, HUD has awarded 446 HOPE VI grants in 166 cities.
To date, 63,100 severely distressed units have been demolished
and another 20,300 units are slated for redevelopment. By the
end of 2002, 15 of 165 HOPE VI programs were fully complete.
The billions of federal dollars spent on this reconstruction have
leveraged billions more in other public, private, and philanthropic
investments.

   --Popkin et al. 2004, 15
This program has “transformed the way public housing is designed, financed, and managed. Many of the new developments offer high-quality, mixed-income living environments and are contributing to the health and vitality of surrounding neighborhoods. What happens to the former residents of the demolished HOPE VI projects is vital in understanding the success of this program” (Popkin et al. 2004, 19).

Most scholars argue that there is a need for site-by-site analysis in order to understand the efficacy of the local programs in place to deconcentrate poverty. From this overview of qualitative and quantitative research on public housing resident relocation, it is evident that youth relocation can benefit from a quantitative location assessment in Tampa, Florida.
CHAPTER 2 RESEARCH QUESTIONS

The purpose of this thesis is to assess the extent to which origin and relocation neighborhoods differ for housing authority participants. A second purpose is to determine whether the families who moved out of distressed public housing to relocation neighborhoods indeed moved to areas with improved opportunity at a better quality of life measured by key census variables. A third objective of the research is to determine whether the families who moved out of public housing to relocation neighborhoods have better quality schools for their children and to determine if they relocated to areas with lower federally mandated Part 1 crime rates.

2.1.1 Hypothesis

Deconcentrating poverty and relocating youth out of their original distressed public housing neighborhood will improve their opportunity for a better quality of life by placing them in higher quality of life neighborhoods measured by variables such as racial heterogeneity, low poverty, high median income, low instances of female head of household, high employment rates, low rates of renter occupancy, lower percentage of zero vehicles per household, better quality schools, and lower crime.
2.2 Research Design

2.2.1 Study Area

The study area that will be considered in this thesis is in the city of Tampa, illustrated in Figure 1, which belongs to the Metropolitan Statistical Area of Tampa Bay; the second largest metropolitan area in the State of Florida. The city of Tampa had a population of 303,447 in 2000. The U.S. census data estimate that there are approximately 18.1 percent of people living at or below the poverty level in 1999 (State of the Cities Data System, 2005). The poverty field is an estimate of people for whom poverty status is determined to be living below the federally mandated poverty level. Poverty level is defined in 2001, as having two components: household income, and number of people living off that income in the household. The 2000 census data for poverty is actually a measure of poverty based on 1999 income data (Dalaker 2001).
Two neighborhoods in Tampa, FL are the main origin study areas in this assessment. The original neighborhoods are the sites of public housing where youths and their families in the Tampa Housing Authority database can be traced back to as early as 1999. These neighborhoods as revealed in Figure 2 are the Ponce de Leon and the College Hill public housing neighborhoods. Further neighborhoods were defined by census tract, as the youths and their families are traced from the original public housing neighborhoods to the final relocation neighborhoods in 2007. In order to standardize comparison between
origin neighborhoods and relocation neighborhoods in terms of socio-economic characteristics census tracts are commonly considered acceptable (Jargowsky 1997), and will be used to compare origin neighborhoods, or the distressed public housing neighborhoods in which the youth were first located in 1999, to relocation neighborhoods, or the final neighborhoods that the youth relocated to: through the Section 8 / Housing Choice Voucher program, or other public housing communities in 2007.
Figure 2. Family Location in Origin Census Tracts

Legend
- Origin Family Locations
- Origin Census Tracts
- Census Tracts

Source: Census Data provided by the United States Census Bureau.
Major Roads provided by Hillsborough County GIS department.
Geo-coding provided by Dr. Beverly Word.
Map Projection: Florida West State Plane NAD 83
Production Date: February 2009
Census tracts 31, 33, and 34 are associated with the origin dataset, which correspond to the Ponce de Leon (census tracts 31 and 33) and College Hill (census tract 34) public housing neighborhoods, shown in Figure 2. Detailed in Table 1, these neighborhoods had an approximate population of 6,873 in 2000, and, in Table 2, on average 36.4 percent of individuals living in this area were living in poverty. The overall poverty rate in the City of Tampa was 18.1 percent, and not shown here in a table, the overall poverty rate in the United States as of the 2000 census was 11.3 percent. Table 1 and Table 2 below show the classification of each original public housing neighborhood in terms of the socio-economic variables that are discussed in this paper compared to overall City of Tampa characteristics.
Table 1. Selected Socio-economic Characteristics of the Origin Neighborhood

<table>
<thead>
<tr>
<th>TRACT</th>
<th>Population</th>
<th>% White</th>
<th>% Black</th>
<th>% Hispanic</th>
<th>% Population Under 18</th>
<th>% Population Over 60</th>
<th>% High School Graduate</th>
<th>% Employed</th>
<th>Median Household Income</th>
<th>% Poverty</th>
<th>% Female Head of Household</th>
<th>% Renter</th>
<th>% Zero Vehicle Household</th>
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<td>31</td>
<td>2,498</td>
<td>33.3</td>
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<td>47.5</td>
<td>$22,177</td>
<td>30.2</td>
<td>37.1</td>
<td>39.4</td>
<td>20.2</td>
</tr>
<tr>
<td>33</td>
<td>1,987</td>
<td>21.0</td>
<td>68.2</td>
<td>27.0</td>
<td>28.5</td>
<td>18.7</td>
<td>38.8</td>
<td>47.1</td>
<td>$21,250</td>
<td>32.7</td>
<td>33.3</td>
<td>49.5</td>
<td>32.1</td>
</tr>
<tr>
<td>34</td>
<td>2,388</td>
<td>1.7</td>
<td>95.2</td>
<td>1.1</td>
<td>34.7</td>
<td>16.9</td>
<td>56.0</td>
<td>43.0</td>
<td>$14,538</td>
<td>46.2</td>
<td>42.7</td>
<td>47.6</td>
<td>39.2</td>
</tr>
<tr>
<td>Total</td>
<td>6,873</td>
<td>18.7*</td>
<td>73.0*</td>
<td>23.0*</td>
<td>31.9*</td>
<td>17.4*</td>
<td>48.5*</td>
<td>45.9*</td>
<td>$19,322*</td>
<td>36.4*</td>
<td>37.7*</td>
<td>45.5*</td>
<td>30.5*</td>
</tr>
<tr>
<td>City of Tampa</td>
<td>303,447</td>
<td>64.2</td>
<td>26.1</td>
<td>20.6</td>
<td>27.1</td>
<td>16.0</td>
<td>77.0</td>
<td>45.6</td>
<td>$34,415</td>
<td>18.1</td>
<td>17.5</td>
<td>42.8</td>
<td>12.9</td>
</tr>
</tbody>
</table>

*Average of the three tracts
(Source: 2000 U.S. Census SF 1 and SF 3)
2.2.2 Significance of the Problem

Neighborhoods matter. Economic and social environments of concentrated poverty neighborhoods may have an ongoing influence on the life course of those who live there. Jargowsky (1997) believes that poor neighborhoods have an impact on social and economic outcomes of residents even after taking into account their family and personal traits. “Of greatest concern are the effects that harsh neighborhood conditions have on children, whose choices in adolescence can have lifelong consequences. If teenagers drop out of school or bear children out of wedlock in part because of neighborhood influences, then the study of neighborhood poverty is important” (4). The study of neighborhood effects in Tampa, FL is equally important because not much is known about the effects of relocation on public housing youth. This suggests that researchers have limited knowledge of the overall success of Section 8 / Housing choice vouchers on a key age group in the Housing Authority program.

2.2.3 Problem Statement

A poorly addressed area of public housing resident relocation is the impact on youth in Tampa, Florida. This assessment could potentially show, through the Neighborhood Effects argument, that relocation will improve the chance at a better quality of life by
measuring quantitative variables such as a more racial heterogeneous mixture, lower instances of female head of household, lower rate of renters, higher median income, lower poverty rate, lower percentage of zero vehicle households, lower instances of crime, and better quality schools.

2.2.4 Research Purpose

My contribution will be an understanding of how relocation of urban poor youth and their families from distressed public housing to areas of improved opportunity will have the potential to improve the quality of life for these individuals. This will lead to a better understanding of the success of HOPE VI, and Section 8 / Housing Choice vouchers in Tampa, Florida.
CHAPTER 3 DATA AND METHODS

This section describes the data sources that will be used and the methodology that will be followed in order to assess the impacts of relocation on public housing youth in Tampa, Florida. First and foremost, the source of the resident data and the process that will be used to derive the cleaned data are outlined. Then the socio-economic variables that will be used in this study are defined and described, along with their data sources. Finally, the use of census tracts for reporting results will be discussed and a methodology for the case study will be outlined to give an idea of how the assessment will be conducted. A visual flowchart of this process can be seen in Figure 3.

Figure 3. Visual Flow Chart for Methodology
3.1 Data, Data Sources, and Collection

Quantitative data features were chosen by researching comparable case studies conducted by other scholars. Many other researchers, in the attempt to assess quality of life or well-being of relocated residents cannot definitively state whether these relocated residents are living with a better quality of life, but most agree that they are able to take quantitative variables and through the neighborhoods effects argument say that these residents have been given the opportunity at a better quality of life because of these quantitative changes.

For example, Larry Buron and his cohorts (2007) operationalize quality of life by housing quality, lower poverty, perceived safety in neighborhoods, financial burden, mental or physical health, improvements in children’s behavior, and job opportunity. Jeanne Brooks-Gunn, a formative author on children and poverty, operationalizes well-being improvements as being related to quality of schools, health factors including mental health, the quality of the neighborhood community, and instances of crime; she does not discount the fact that what goes on in a family situation might affect a child’s well-being as well (1995, 1997).
A study by census tract was conducted with 1990 census data for all census tracts with 40 percent or more residents living at or below the poverty level by Paul Jargowsky (1997) in his book, *Poverty and Place: Ghettos, Barrios, and the American City*. Jargowsky conducted his research at the national level and reported his chosen variables at the individual census tract level. Researchers commonly use GIS-based methodology to delineate neighborhood conditions (Jargowsky and Bane 1991, Finkel and Buron 2001, Glasmeier 2002, Smith 2002, Ward and Spalding 2008). This case study differs in that rather than reporting every client that can be traced from the origin neighborhood to a relocation neighborhood in terms of census tracts; they will be compared by the distance they reside from the original ‘distressed’ public housing neighborhood. This methodology was decided upon when it was determined that census variables were very different between those neighborhoods that were located inside the City of Tampa limits and outside city limits but still within Hillsborough County. This prompted two questions: how far did a family have to relocate to have the opportunity at a better quality of life, and along those same lines, does the potential for a better quality of life increase with distance from the origin neighborhood? This distance-based method, which will be described in greater detail shortly, not only
accounts for all relocated families, but also attempts to answers these questions.

3.1.1 Census

In keeping with a quantitative assessment focus, Paul Jargowsky has sought to assess the impacts of poverty by using all census indicators. He operationalizes quality of life by measures such as race / ethnicity concentrations, poverty rate, median year built of all housing units, vacant units, percent home-ownership, percent employed, occupation classification, source of income, percent living with disability, average travel time to work, percent of female head of household, and highest level of education attained (1990, 1997). Jargowsky argues that all these attributes recorded by the census play key roles in the negative effects of persistent and concentrated poverty. This choice of data source will never provide a rich description of the urban poor like qualitative research would be able to do. Nevertheless, what this quantitative method “lacks in depth it makes up in breath” (Jargowsky 1997, 91). This broad range of variables paint a generalized picture for each of the concentrated poverty neighborhoods-- with startlingly similar results across the county in Jargowsky’s study.
For this case study, factors such as a more heterogeneous racial mixture, lower instances of female head of household, lower renter rates, higher median household income, lower poverty rate, and lower zero vehicle households along with other variables will be used to assess the original public housing neighborhoods and the relocation neighborhoods. This case study will draw these variables from the 2000 census for its assessment. This available data has both merit for the wealth of information collected by the census and certain disadvantages: one disadvantage in particular, that will be mentioned on more than one occasion in this case study, which is that the census is only measured every ten years and in a way is a rather static type of data, that does not take into account the dynamic nature of a moving, changing population.

Census respondents have the option to self-identify as any one of the races listed. Hispanic data are obtained as an ethnicity and census respondents have the option to choose some other category as their race. Hispanic totals are therefore not reflective of total population in the neighborhood study area as they have already been counted racially elsewhere, but have merit in consideration.

Poverty data, average median household income, single female head of household, employment status, number of renters, number of
High School or equivalent graduates, and number of vehicles per household will be obtained from Summary Tape File 3 of the 2000 census. Approximately one-in-six census respondents self-report detailed population and housing data which are then weighted to represent the total population (United States Census Bureau 2007).

The poverty field is a percentage of people living in poverty divided by the total number of people living in the census tract. Median household income is measured as an average of self-reported total incomes as a response to open ended questions that were given to one in six census respondents. Female head of household, employment status, and number of vehicles per household are measured as a percentage of those respondents who chose to identify themselves as single mothers, employed, and how many vehicles a household had access to (United States Census Bureau 2007).

### 3.1.2 Crime

Hanratty et al. (2003) conducted a case study in Los Angeles with the Moving to Opportunity experiment and found that studying crime in origin and relocation neighborhood shed some light on not only the perception of safety, but improved quality of life in terms of mental well-being, and quality of living environment (e.g. quality of housing, pride in neighborhood).
Crime was chosen as a variable for this case study because it was available for the origin year, 1999, and the relocation year, 2007. It should give an idea of the relative safety of the relocation neighborhoods in comparison to the safety of the origin neighborhood. Like Hanratty’s (2003) study, this could show a relationship between resident’s choice of relocation neighborhood, and a safer community choice, which could lead to some generalized conclusions on resident quality of life, based on standardized crime rates. Unlike the Hanratty (2003) study distance from the origin neighborhood and the presence of city limits will be taken into account in this assessment to determine if lower crime rates occur either farther away from the origin neighborhood or outside city limits.

Crime Summary Statistics for the years 1999 and 2007 were obtained from the Tampa Police Department’s website in a portable document format. The year 1999 was the last complete year that all original public housing residents resided in the ‘distressed’ origin neighborhood. The year 2007 is the year when all the relocations for residents were complete. Data were collected by grid, and the origin neighborhood crime grids are illustrated in Figure 4. Crime in this case study is measured by standardized per capita figures expressed as per 1000 population. For the purposes of this study, totals per capita of
crime for the origin study neighborhood are reported here in Table 2 and include all Part 1 crime, including murder, sexual battery, robbery, aggravated assault, burglary, larceny, and auto theft. Sexual battery includes rape, sodomy, and fondling. Larceny is comprised of pick pocketing, purse snatching, shoplifting, larceny from a building, larceny from coin operated machinery, and larceny from a vehicle. Crime grids for the origin neighborhood are 97, 98, and 108, and are located in Tampa Police Department crime grid.

Crime summary statistics were also obtained from the Hillsborough County Sheriff’s Department in shapefile format. Data are collected and organized into FBI-mandated Part 1 crime classifications like the City of Tampa’s Police Department: murder, sexual battery, robbery, aggravated assault, burglary, larceny, and auto theft. Total number of crimes per capita was calculated like the City of Tampa Police Department’s crime statistics.
Figure 4. Family Locations in Origin Crime Grids

Legend
- Origin Family Locations
- Origin Crime Grid
- Crime Grid

Source: Crime Data provided by Tampa Police Department, Geo-coding provided by Dr. Beverly Ward.
Map Projection: Florida West State Plane NAD 83
Production Date: February 2009
Table 2. Origin Neighborhood: Total Crime per capita (1999)

<table>
<thead>
<tr>
<th>Crime Grid</th>
<th># of Families</th>
<th>Total 1999 Crime Per Capita*</th>
<th>Range 1999 Crime Per Capita*</th>
</tr>
</thead>
<tbody>
<tr>
<td>97</td>
<td>128</td>
<td>109</td>
<td></td>
</tr>
<tr>
<td>98</td>
<td>63</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>108</td>
<td>104</td>
<td>296</td>
<td></td>
</tr>
<tr>
<td>Total (Average)</td>
<td>295</td>
<td>168</td>
<td>100 - 296</td>
</tr>
</tbody>
</table>

*Per capita expressed as per 1000 population
(Source: TPD Department)

The totals listed in Table 2 are a measure of the per capita total crime in the origin study by crime grid and a total of per capita crime for the origin neighborhood. The total (average) is an average of the total per capita crime for that origin neighborhood area and will be used to compare the relocation neighborhoods total crime per capita.

3.1.3 School

Jargowsky (1997) attempted to assess socio-economic differences in high poverty neighborhoods by looking at the percentage of adults living in that census tract over 25 who had graduated high school. While this factor might be a good indicator of quality education and will be included in this study, school quality grades for Hillsborough County might provide a better indicator of the quality of schools case study youth have the opportunity to attend. School data were collected from the Hillsborough County School Board based on catchment area (often called school district or attendance
boundaries) for origin neighborhoods in 1999 and the relocation neighborhoods in 2007.

Again, school quality grades were chosen for the complete year the residents occupied the origin neighborhood and the relocation neighborhood: school years 1999—2000 and 2007—2008. This aspect of the case study will be treated slightly different, however, because while it’s possible to determine what schools these youth had access to, there is neither a guarantee that the school is located close to the neighborhood of residence (and therefore not determinate of the quality of the neighborhood), nor that the youth chose to attend said school (e.g. satellite schools, which play a large role in the initial results of the origin neighborhood school assessment). Therefore, the best possible means of determining school quality will be to assess school quality grades for every school these youth had the opportunity to attend on an individual level. While the list is lengthy, in conjunction with the school quality grade maps, the results should illustrate neighborhood relocation versus quality of school. Thus it should be possible to generally conclude if school quality played a part in the relocation decision by how many families moved into what school districts.

School quality grades are based on FCAT testing averages, and setting and making certain learning goals among specific groups of
students: all students, students who are in the 25% lowest FCAT scores, and students who are minorities. These school quality grades will be used to assess the types of school the urban poor youth had the opportunity to attend. School attendance boundaries were not available in shapefile format for the 1999 – 2000 school year, however, school quality grades were obtained in excel file format and address location of public housing residents was the determining factor in selecting out the appropriate schools.

Table 3 shows the school quality grade from each school the youth from the origin neighborhood had the opportunity to attend. Most elementary schools, with the exception of one, were A and C quality grade schools. This is because the Hillsborough County School Board uses satellite school districts to evenly desegregate schools while offering low quality school neighborhoods the opportunity to have a better education at a higher school quality graded school. This origin neighborhood was a site of numerous satellite locations for elementary schools, sometimes as far away as a 30 minute or 40 minute ride by bus: in other words, very few youth from the origin neighborhood would actually have had the chance to attend a local neighborhood school. The one exception, the only D quality grade school, was a local elementary school. The middle schools and high schools that the youth were assigned to attend in the school year
1999—2000 were also satellite schools but had less remarkable results, and were rated “C” or “B” quality.

Table 3. School Quality Grades for Origin Neighborhood

<table>
<thead>
<tr>
<th>Origin Neighborhood Elementary Schools</th>
<th>Grade 99-00</th>
<th># of Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>BELLAMY ELEMENTARY</td>
<td>A</td>
<td>70</td>
</tr>
<tr>
<td>ESSRIG ELEMENTARY SCHOOL</td>
<td>A</td>
<td>63</td>
</tr>
<tr>
<td>LOCKHART ELEMENTARY MAGNET</td>
<td>D</td>
<td>51</td>
</tr>
<tr>
<td>NORTHWEST ELEMENTARY</td>
<td>A</td>
<td>34</td>
</tr>
<tr>
<td>CITRUS PARK ELEM</td>
<td>C</td>
<td>26</td>
</tr>
<tr>
<td>MILES ELEM SCHOOL</td>
<td>A</td>
<td>25</td>
</tr>
<tr>
<td>SCHWARZKOPF ELEMENTARY SCHOOL</td>
<td>A</td>
<td>24</td>
</tr>
<tr>
<td>LITHIA SPRINGS ELEMENTARY</td>
<td>C</td>
<td>2</td>
</tr>
</tbody>
</table>

*School Locations and number of families visually interpreted from image

<table>
<thead>
<tr>
<th>Origin Neighborhood Middle Schools</th>
<th>Grade 99-00</th>
<th># of Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>OAK GROVE MAGNET SCHOOL</td>
<td>unavailable</td>
<td>130</td>
</tr>
<tr>
<td>WALKER MIDDLE SCHOOL</td>
<td>B</td>
<td>86</td>
</tr>
<tr>
<td>HILL MIDDLE SCHOOL</td>
<td>C</td>
<td>73</td>
</tr>
<tr>
<td>MANN MIDDLE SCHOOL</td>
<td>C</td>
<td>6</td>
</tr>
</tbody>
</table>

*School Locations and number of families visually interpreted from image

<table>
<thead>
<tr>
<th>Origin Neighborhood High Schools</th>
<th>Grade 99-00</th>
<th># of Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>SICKLES HIGH SCHOOL</td>
<td>C</td>
<td>204</td>
</tr>
<tr>
<td>GAITHER HIGH SCHOOL</td>
<td>C</td>
<td>85</td>
</tr>
<tr>
<td>RIVERVIEW HIGH SCHOOL</td>
<td>C</td>
<td>6</td>
</tr>
</tbody>
</table>

*School Locations and number of families visually interpreted from image

3.2 Methodology

Empirical researchers typically measure neighborhoods by census tracts, well-defined units of spatial analysis through which much data are reported. However, census tracts may fail to accurately represent the neighborhood boundaries that make a difference in people’s lives.

--Ellen and Turner 2003, 314
This section addresses the question of the use of census tracts as neighborhoods and discusses the methodology that will be used for the rest of this case study. While most social scientists (Jargowsky 1997, Ward 2007) agree that the use of census tracts is acceptable, other researchers (Jencks and Mayer 1990, Ellen and Turner 2003) recognize the limitations in using a system of aggregation that the common man knows little about, may not accurately represent a homogeneous population and that is essentially static—being measured only every ten years. And yet, the level of detail one gets at the census tract level is invaluable in assessing an area in which a person resides. How to combat this dilemma?

One method would be to create an artificial neighborhood or "buffer" (in this case a 1 mile buffer) around an individual location and then take an average of a particular variable from all the census tracts that are located inside this buffer. This method was briefly examined and the attempt determined that this is not the method to use because the results are too similar to looking straight at census tract data and that is not the purpose of this study.

To answer the questions above, and to think about neighborhood attributes as more than just characteristics of a census tract, a few data classifications can be utilized. First distance bands from the centroid (center) of the origin neighborhood can be used to determine
an average of an attribute, which could explain if there is a potential increase at a better quality of life the further one moves away from the origin neighborhood, for both census attributes and standardized per capita crime rates. This methodology uses descriptive statistics to show that census and crime variables are more than just an attribute of a tract or a grid respectively. The benefit of this methodology is that this case study can investigate each relocated family in relation to the original neighborhood without putting them in a static box of their census tract / crime grid and without having to talk about each family individually. Some other ways to classify the data that will be used in this methodology are an organization of those families who relocated within the City of Tampa and those families who relocated outside city limits. This result can play an important role for the future of this program, when determining the relocation of future clients and their families. Finally, the last classification in this dataset will be to demarcate the variation of those families who relocated into census tracts with certain poverty characteristics. The idea for this final classification was taken from the Moving to Opportunity experiment in which clients were obligated to move to census tracts with a less than ten percent poverty rate. The relocated families in this case study will be examined similarly in terms of poverty rates-- all relocation census tracts with: less than ten percent poverty, less than twenty percent
poverty, and greater than 20 percent poverty to determine if the potential quality of life can be different for those families that relocated into certain poverty classes.

3.2.1 Census

To begin, the 1999 origin dataset from the Tampa Housing Authority (THA) was cleaned to “ensure consistencies in spellings, remove erroneous addresses beyond the boundaries of the study area, and to convert the data to a format that could be read by the GIS software” (Ward 2007, 2). It was then geo-coded a “process of matching an address with a geographic location,” by address to street centerlines from Hillsborough County to determine the actual location of the original public housing residents and the surrounding neighborhood (Ward 2007, 2). “For the purposes of this research, address matching was limited to the boundaries of Hillsborough County” (Ward 2007, 2).

In the study of the Moving to Opportunity program in New York City, Leventhal and Brooks-Gunn (2003) stated that almost all parents interviewed reported a strong desire to move away from neighborhoods with gangs, drugs, and violence. This too was an important aspect in the design of this study, as the focus concentrated on families with children. All THA clients who had at least one child under 18 as of 2007 were to be considered a part of the family dataset.
The THA dataset from 1999 with the original public housing residents only had head of household listed in their data. The 2007 THA dataset had all family members and all those members shared a client number. We took those client numbers from the 2007 relocation dataset with a known set of children and compared them to names and client numbers from the 1999 origin dataset to determine origin and relocation neighborhoods. This was ultimately carried out through a “join by attribute” function. This brought a low success rate and it was necessary to manually review those records for which there were missing client numbers or an un-standardized name: names could then be standardized and client numbers carried over. Sometimes client names changed but birthdates and client numbers remained the same, while other times client names and birthdates remained the same and client numbers changed. Correcting the data inconsistencies was a very arduous process that took approximately 6 months, tracing as many clients (and their families) as possible. It could finally then be determined what percentage of families with children stayed in public housing and what percentage of families chose to relocate elsewhere, how far away they relocated, and into what neighborhoods (census tracts and crime grids).

Once the original public housing neighborhood and relocation neighborhoods were determined, in order to make a concise
comparison from the origin neighborhood to the relocation
neighborhoods by distance, it was determined that distance bands and
cut distances had to be configured in such a way that the distance
bands had approximately the same number of relocated families.
These distance bands are used instead of reporting every census tract
in which these families relocated. Quantitative variables of the census
tracts which comprise these neighborhoods with children were
assessed and compared (descriptive statistics such as range, average,
weighted average, average percent change from the origin, and
standard deviation) in terms of social characteristics such as race /
ethnicity, key population age groups (population of the age group
under 18 and population of the age group 60 and over), family
structure such as instances of single female head of house, educational
attainment such as those with a High School degree or equivalent, and
economic characteristics such as percentage of individuals living in
poverty, employment rate, median household income, percentage of
renters living in occupied housing, and average number of vehicles
owned.

3.2.2 Crime

Crime is treated much like the census analysis. Standardized
total per capita Part 1 FBI mandated crime was evaluated for both the
origin neighborhood location and the relocation neighborhoods in a
series of distance bands, within and without city limits and by poverty classifications. The standardized total per capita crime rates of each of the crime grids falling into a particular distance band were described in terms of their descriptive statistics (range, average, percent change from the origin neighborhood) to get an understanding of the safety of a neighborhood. The benefit to this portion of the analysis, is that while the census results talk about origin and relocation yet only use one census year, the crime is measured at the actual year the families lived in the origin neighborhood (1999) and the final relocation neighborhoods (2007).

Crime grids for the relocation neighborhood comprise of over 100 crime grids: for a detailed listing of total standardized crime per capita by relocation crime grid, see Appendix A. Unfortunately, the Tampa Police Department (TPD) and Hillsborough County Sheriff’s Office (HCSO) divided the City of Tampa and the rest of Hillsborough County respectively into arbitrary grids that don’t really give crime data in any meaningful way. In order to determine the necessary grids for each study area, a GIS shapefile was downloaded from the City of Tampa’s GIS website and a shapefile was requested from HCSO: both were brought into Arc Map 9.2. Crime grids from TPD and HCSO are arbitrary grids, yet both agencies take into account census boundaries, major roadways and natural features in determining crime grid
boundaries. Crime grids were determined by selecting those grids that completely contained the relocated families in their census tract neighborhoods. Crime data from 1999 and 2007 was joined separately with the crime grid data and exported as shapefiles with grid information and crime detail for each year.

3.2.3 School Quality

Finally, quality of schools measured by a school quality grade was examined on a county-wide scale visually to determine the quality of the schools that these youth had the opportunity to attend. This portion of the analysis cannot be conducted like the census or crime methodology for a few reasons: one being that no shapefiles were available for the origin neighborhood and another reason being that the Hillsborough County School Board approves the use of satellite school districts. While I can say with precision that a family in 2007 was assigned to a certain school district and that district has a certain school quality grade, this does not take into account whether the school is a local school or not, therefore distance from the origin neighborhood or being within or without city limits cannot ever be a determining factor in school quality grades.
CHAPTER 4  RESULTS / DISCUSSION

The purpose of this exercise was to provide an overall perspective of where original Ponce de Leon and College Hill residents relocated to within the bounds of Hillsborough County. The scope of this study was intended as a descriptive assessment. Some scholars (Wilson 1987, Jargowsky and Bane 1990, Goering et al. 2003, and Buron et al. 2007) believe that we are influenced by those people and experiences around us. They describe this idea as being the theory of ‘neighborhood effects’ in which a person has the potential to adopt the dominant traits of the surrounding community. Likewise, the opposite can also be true, where deleterious attributes can have a pernicious effect on a person as well—especially in areas of concentrated poverty. The ‘distressed’ public housing projects of this case study, by definition, represent such harmful communities. Most important is the effect these areas can have on a child’s development and the behaviors and attitudes that a child will come to find acceptable will be influenced by whatever environment in which they are raised.

The federal HOPE VI program was motivated by such concerns. HOPE VI emphasizes the benefits of poverty deconcentration for its
participants. It is therefore worthwhile to assess the differences between where these families come from and the new neighborhoods to which they relocate; whether they end up in neighborhoods in which the potential for a better quality of life (measured in this case by census variables, standardized crime statistics, and school quality) have improved.

The extent to which origin and relocation neighborhoods differ for families warrants serious study for several reasons. First, there was little to no counseling for these families as they chose their relocation neighborhoods. Consequently, it is useful to ask whether the final location in 2007 was based on availability of housing (did the residents 'hear it from the grapevine' that available housing was located in certain neighborhoods?), or whether they actually sought to give youth a better opportunity at a better quality of life (i.e. safer neighborhoods, better schools, lower poverty)? These guidelines inform the design of the research as we query whether distance from the original blighted neighborhood, being inside city limits versus outside, or relocating to certain areas with distinctly lower poverty rates might play a role in the opportunities that new neighborhoods offer relocated families. Will certain characteristics of the relocation neighborhoods enhance or impede opportunity for youth? My research tracks these 'distressed'
public housing families, describes conditions in their new neighborhoods to find any potential improvements and finds mixed results.

Because the HOPE VI voucher program depends upon existing housing, rather than building new developments, it is the least costly approach for making housing affordable to low-income families, and it has the added benefit of giving participants an extensive range of housing alternatives, and what location is most suitable for them. Unlike federal housing construction programs such as public housing, which often have the effect of clustering low-income families in a few distressed neighborhoods, vouchers generally allow participants to disperse more widely, and to live in potentially healthier neighborhoods (Popkin et al. 2004). However, due to the subjective nature of site-by-site assessments most researchers cannot come to a definitive conclusion about the benefits of relocation. This further complicates the neighborhood effects argument because not all benefits of relocation are perceived in every study area. Most studies on relocation assessment have also had mixed results (Katz et al. 2000, Smith 2002, Leventhal and Brooks-Gunn 2003, Ludwig et al. 2003, Kling et al. 2004) while other researchers find clear positive results (Duncan and Zuberi 2006, Turner and Briggs 2008), and others
find outcomes that seem disheartening to HOPE VI advocates (Goetz 2003, Greenbaum et al. 2008).

This section describes the results of the Ponce de Leon and College Hills resident relocations as of 2007 and discusses them in order to compare the original ‘distressed’ public housing neighborhood to relocation neighborhoods based on the distance from the origin neighborhood. First, for all variables (census, crime and school quality) a map of the relocation census tracts detailing a particular variable is presented to give a visual representation of the diversity of the relocation neighborhoods. Then, for the census variables, a scatter plot of a variable versus the distance from the origin neighborhood is presented and discussed to attempt to detect general trends between distance from the origin neighborhood and key census characteristics. Finally, for census variables and crime variables a table with detailed descriptive statistics is presented, which includes the key distance bands, the variable measurements inside and outside the city limits, and the variable differences within the key poverty classification groups. The descriptive statistics include: range, average, weighted average, average percent change from origin average, and standard deviation. Weighted average takes an average of a variable within a certain classification and weighs the variable input from each census
tract by how many families resided in said tract. So in a weighted average, in any given variable input, a census tract will naturally have more weight in the average by how many families reside in that census tract. This weighted average will only be calculated for the census variables because the point to this average is that by having more families move into a particular census tract it should give a variable that much more influence over a youth and their family. This cannot be said for standardized crime statistics, and school quality grades cannot be averaged at all.

Results will be discussed in terms of these classifications, with the underlying assumption that the farther a family moves away from the blighted origin neighborhood, living outside the city limits, and living in a census tract with a low poverty rate will increase the chance at a better quality of life.

4.1 Relocation Statistics

Christopher Jencks and Susan E. Mayer (1990) have found through their evaluations that “children who live in affluent neighborhoods . . . get into less trouble with the law and have fewer illegitimate children than children who live in poor neighborhoods” (111). This seems like a very promising result. On the other hand, Popkin et al. (2008) have discovered in their assessment of Boston,
Baltimore, and New York City that the benefits of moving to low-poverty neighborhoods could not be determined five years after relocation, and while they do argue that the feelings of safety and mental well-being have increased (for women and girls only), they state that relocation may yet have some long term benefits that cannot be assessed at this time.

The results of the relocation assessment reveal that 295 families were able to be traced to a final location in 2007 from the original public housing neighborhoods of Ponce de Leon and College Hill as seen in Figure 5. The 295 families all had at least one child under 18 as of 2007. These 295 families relocated into 64 different census tracts, 101 different crime grids, and 83 different school districts. Of all the families I was able to trace, 23 families or seven percent moved back to Belmont Heights, the HOPE VI housing community that replaced the distressed public housing, and 12 families moved back to the surrounding area crime grids and census tracts but not into the Belmont Heights neighborhood. When the 295 families were summarized by census tract, the majority of families, or 229 families were still located inside city limits. Table 4 shows these neighborhood relocation results, based on the distance moved in miles away from the origin neighborhood, classification by living inside city limits or
outside city limits, and classification by key poverty groups (poverty less than ten percent, poverty less than 20 percent, and poverty greater than 20 percent). It was determined that these classifications represented all 295 families or 100 percent of all relocated families. The number of dependents that a head of household was responsible for ranged between one and eight, with an average of three dependants.

**Table 4. Descriptive Statistics for Relocation Classifications**

<table>
<thead>
<tr>
<th>Relocation by Distance from Origin Neighborhood</th>
<th># of Census Tracts</th>
<th>Families</th>
<th>Range</th>
<th>Average</th>
<th>Public Housing</th>
<th>Section 8 / Housing Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>within 1 mile</td>
<td>9</td>
<td>56 (19%)</td>
<td>1 to 8</td>
<td>3</td>
<td>19 (6%)</td>
<td>37 (13%)</td>
</tr>
<tr>
<td>1 to 2 miles</td>
<td>15</td>
<td>69 (23%)</td>
<td>1 to 8</td>
<td>4</td>
<td>30 (10%)</td>
<td>39 (13%)</td>
</tr>
<tr>
<td>2 to 3 miles</td>
<td>10</td>
<td>52 (18%)</td>
<td>1 to 8</td>
<td>3</td>
<td>19 (6%)</td>
<td>33 (11%)</td>
</tr>
<tr>
<td>3 to 4 miles</td>
<td>14</td>
<td>50 (17%)</td>
<td>1 to 7</td>
<td>3</td>
<td>5 (2%)</td>
<td>45 (15%)</td>
</tr>
<tr>
<td>4 to 6 miles</td>
<td>11</td>
<td>35 (12%)</td>
<td>1 to 6</td>
<td>3</td>
<td>1 (&lt;1%)</td>
<td>34 (12%)</td>
</tr>
<tr>
<td>6 or more miles</td>
<td>17</td>
<td>33 (11%)</td>
<td>1 to 5</td>
<td>3</td>
<td>0 (0%)</td>
<td>33 (11%)</td>
</tr>
<tr>
<td>within City of Tampa</td>
<td>229 (78%)</td>
<td>1 to 8</td>
<td>3</td>
<td>74 (25%)</td>
<td>221 (75%)</td>
<td></td>
</tr>
<tr>
<td>Outside City Limits</td>
<td>66 (22%)</td>
<td>1 to 5</td>
<td>3</td>
<td>2 (3%)</td>
<td>64 (97%)</td>
<td></td>
</tr>
<tr>
<td>Census Tracts &lt; 10% Poverty</td>
<td>12 (4%)</td>
<td>1 to 5</td>
<td>2</td>
<td>0</td>
<td>12 (100%)</td>
<td></td>
</tr>
<tr>
<td>Census Tracts &lt; 20% Poverty</td>
<td>48 (16%)</td>
<td>1 to 6</td>
<td>3</td>
<td>3 (6%)</td>
<td>45 (94%)</td>
<td></td>
</tr>
<tr>
<td>Census Tracts &gt; 20% Poverty</td>
<td>247 (84%)</td>
<td>1 to 8</td>
<td>3</td>
<td>72 (29%)</td>
<td>175 (71%)</td>
<td></td>
</tr>
</tbody>
</table>

(Source: Tampa Housing Authority)
Figure 5. Relocation Neighborhoods by Census Tract

Legend
- Relocated Family Locations
- Distance Bands
- Origin Census Tracts
- Relocation Census Tracts
- City of Tampa Boundary
- Census Tracts

Source: Census Data provided by the United States Census Bureau, Major Roads provided by Hillsborough County GIS department
Geocoding provided by Dr. Beverly Ward and Emily Zupo
Map Projection: State Plane NAD 83
Production Date: June 2009
The most important aspect of these results to keep in mind in reviewing the following assessment is that, regardless of location, the census attributes were determined from the 2000 decennial census. At this time, there is no way to determine how these census tracts changed from 1999 to 2007 with regards to the re-introduction of this public housing population, the addition of a mixed income community, or any other changes that may have occurred during the 8 year interval of time. Sections 4.2.1 through 4.2.9 illustrate some key census variables and their differences among the origin neighborhood, and the relocation neighborhoods.

4.2 Census

Many scholars place importance on different census variables. Brooks-Gunn et al. (1993) determined statistically that the most important variables in the neighborhood effects argument were median household income, employment, and two parent households: those variables and more will be examined shortly. Some interesting variables for this case study have a wide range difference from origin neighborhood to relocation neighborhoods, within and without the city, and within certain poverty classifications.
4.2.1 Race

The first census variable results to be extrapolated on will those dealing with race and ethnicity: white population (%), black population (%), and Hispanic ethnicity (%).

In an ideal society, the optimal neighborhood to raise a family would be a neighborhood that isn’t racially segregated. Keeping this in mind, an ideal percentage of white population might be around 50 percent. Figure 6 shows that most of the relocation census tracts within the City of Tampa limits remain low in the percentage of white population and it appears that a more optimal percentage is not reached until about 3 miles away from the origin neighborhood. This observation is backed by both the scatter plot in Figure 7 and the Table 5.

The scatter plot shows a general trend towards an increase in white population the further one gets from the origin neighborhood. The numbers look a bit confusing but think the bigger the increase in white population the more negative the number in this case and imagine the slightly parabolic line super-imposed on the plot.
Figure 6. Choropleth of White Population (%)
Figure 7. Scatter plot of Distance from Origin Neighborhood and Change in White Population

Table 5. White Population Comparison

<table>
<thead>
<tr>
<th>White Population Comparison</th>
<th># of Families</th>
<th>Average (%)</th>
<th>Weighted Average (%)</th>
<th>Average Change</th>
<th>Range (%)</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Origin Neighborhood</td>
<td>295</td>
<td>18.7</td>
<td>25.6</td>
<td>1.7 - 33.3</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Relocation by Distance from Origin Neighborhood</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within 1 mile</td>
<td>56 (19%)</td>
<td>21.0</td>
<td>20.3</td>
<td>+2.3</td>
<td>1.7 - 47.2</td>
<td>16.1</td>
</tr>
<tr>
<td>1 to 2 miles</td>
<td>69 (23%)</td>
<td>20.4</td>
<td>22.2</td>
<td>+1.7</td>
<td>3.1 - 74.6</td>
<td>16.2</td>
</tr>
<tr>
<td>2 to 3 miles</td>
<td>52 (18%)</td>
<td>23.3</td>
<td>30.5</td>
<td>+4.6</td>
<td>8.4 - 78.6</td>
<td>17.1</td>
</tr>
<tr>
<td>3 to 4 miles</td>
<td>50 (17%)</td>
<td>43.0</td>
<td>38.4</td>
<td>+24.2</td>
<td>27.7 - 81.8</td>
<td>18.3</td>
</tr>
<tr>
<td>4 to 6 miles</td>
<td>35 (12%)</td>
<td>54.4</td>
<td>46.0</td>
<td>+35.7</td>
<td>21.7 - 87.1</td>
<td>13.0</td>
</tr>
<tr>
<td>6 or more miles</td>
<td>33 (11%)</td>
<td>61.3</td>
<td>58.4</td>
<td>+42.6</td>
<td>29.6 - 92.8</td>
<td>20.5</td>
</tr>
<tr>
<td>Other Measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within City of Tampa</td>
<td>229 (78%)</td>
<td>44.4</td>
<td>+25.7</td>
<td>1.7 - 87.1</td>
<td>27.1</td>
<td></td>
</tr>
<tr>
<td>Outside City Limits</td>
<td>66 (22%)</td>
<td>58.1</td>
<td>+39.4</td>
<td>10.9 - 92.8</td>
<td>24.1</td>
<td></td>
</tr>
<tr>
<td>Census Tracts &lt; 10% Poverty</td>
<td>12 (4%)</td>
<td>82.8</td>
<td>+64.1</td>
<td>72.3 - 92.8</td>
<td>7.7</td>
<td></td>
</tr>
<tr>
<td>Census Tracts &lt; 20% Poverty</td>
<td>48 (16%)</td>
<td>70.4</td>
<td>+51.7</td>
<td>21.7 - 92.8</td>
<td>17.8</td>
<td></td>
</tr>
<tr>
<td>Census Tracts &gt; 20% Poverty</td>
<td>247 (84%)</td>
<td>34</td>
<td>+15.3</td>
<td>1.7 - 76.8</td>
<td>20.4</td>
<td></td>
</tr>
</tbody>
</table>

(Source: United States Census Bureau)
In Table 5, both the average and weighted average confirm that the further away from the origin neighborhood, the higher the white population increases. Furthermore, while living within the city limits or outside the city limits brought similar results this time for white population, living in a low poverty census tract greatly increases the percent of white population in a census tract. However, more than 50 percent of the population relocated within three miles of the origin neighborhood, or in a census tract with a poverty rate of greater than 20 percent and are not living with a much larger white population percent than they started with.

Again, in an ideal society, the optimal neighborhood to raise a family would be a neighborhood that isn’t racially segregated. So likewise, the ideal percentage of a black population should be around 50 percent. Figure 8 shows that most of the relocation census tracts within the City of Tampa limits have higher numbers of black population and it appears that a more optimal percentage is not reached until about 3 miles away from the origin neighborhood. This observation is backed by both the scatter plot in Figure 9 and the Table 6.
Figure 8. Choropleth of Black Population (%)
Figure 9. Scatter plot of Distance from Origin Neighborhood and Change in Black Population

Table 6. Black Population Comparison

<table>
<thead>
<tr>
<th>Black Population Comparison</th>
<th># of Families</th>
<th>Average (%)</th>
<th>Weighted Average (%)</th>
<th>Average Change</th>
<th>Range (%)</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Origin Neighborhood</td>
<td>295</td>
<td>73.0</td>
<td>77.4</td>
<td>55.4 - 95.2</td>
<td>16.6</td>
<td></td>
</tr>
<tr>
<td>Relocation by Distance from Origin Neighborhood</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within 1 mile</td>
<td>56 (19%)</td>
<td>70.9</td>
<td>72.4</td>
<td>-2.1</td>
<td>41.0 - 95.2</td>
<td>20.3</td>
</tr>
<tr>
<td>1 to 2 miles</td>
<td>69 (23%)</td>
<td>72.7</td>
<td>70.8</td>
<td>-0.3</td>
<td>6.0 - 94.3</td>
<td>18.8</td>
</tr>
<tr>
<td>2 to 3 miles</td>
<td>52 (18%)</td>
<td>68.9</td>
<td>61.4</td>
<td>-4.1</td>
<td>13.0 - 80.9</td>
<td>17.0</td>
</tr>
<tr>
<td>3 to 4 miles</td>
<td>50 (17%)</td>
<td>47.7</td>
<td>52.9</td>
<td>-25.3</td>
<td>6.1 - 66.6</td>
<td>19.5</td>
</tr>
<tr>
<td>4 to 6 miles</td>
<td>35 (12%)</td>
<td>33.8</td>
<td>43.9</td>
<td>-39.2</td>
<td>5.6 - 69.7</td>
<td>11.9</td>
</tr>
<tr>
<td>6 or more miles</td>
<td>33 (11%)</td>
<td>27.9</td>
<td>30.8</td>
<td>-45.1</td>
<td>2.6 - 67.3</td>
<td>19.3</td>
</tr>
<tr>
<td>Other Measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within City of Tampa</td>
<td>229 (78%)</td>
<td>45.6</td>
<td>-27.4</td>
<td>5.6 - 95.2</td>
<td>29.9</td>
<td></td>
</tr>
<tr>
<td>Outside City Limits</td>
<td>66 (22%)</td>
<td>32.9</td>
<td>-40.1</td>
<td>2.6 - 86.1</td>
<td>24.4</td>
<td></td>
</tr>
<tr>
<td>Census Tracts &lt; 10% Poverty</td>
<td>12 (4%)</td>
<td>10.3</td>
<td>-62.7</td>
<td>2.6 - 19.1</td>
<td>6.3</td>
<td></td>
</tr>
<tr>
<td>Census Tracts &lt; 20% Poverty</td>
<td>48 (16%)</td>
<td>20.6</td>
<td>-52.4</td>
<td>2.6 - 69.7</td>
<td>17.7</td>
<td></td>
</tr>
<tr>
<td>Census Tracts &gt; 20% Poverty</td>
<td>247 (84%)</td>
<td>56.1</td>
<td>-16.9</td>
<td>6.0 - 95.2</td>
<td>24.4</td>
<td></td>
</tr>
</tbody>
</table>

(Source: United States Census Bureau)
The scatter plot in Figure 9 shows a general trend towards a decrease in black population the further one gets from the origin neighborhood. The numbers look a bit confusing but think the bigger the decrease in black population the more positive the number in this case and imagine the slightly parabolic line super-imposed on the plot.

Much like the results from examining the table of white population, Table 6 for the black population (%) shows similar results, leading to the conclusion that these two variables are probably in some way correlated. Statistical analysis shows a Pearson’s correlation coefficient of 0.59: a moderately strong correlation. As one moves away from the origin neighborhood, the lower the percentage black population becomes. Also, being that more than 50 percent of the families relocated within three miles of the origin neighborhood (or similarly to a census tract with more than 20 percent poverty), they still moved to neighborhoods which had high percentages of black population. If neighborhood racial heterogeneity were an equal mix of white and black populations, over 50 percent of the families failed to move into an optimal living environment with racial desegregation. These local results further confound the possibility of a positive outcome because the majority of the families in this program were of black racial background.
Figure 10. Choropleth of Hispanic Population (%)
Figure 11. Scatter plot of Distance from Origin Neighborhood and Change in Hispanic Population

Table 7. Hispanic Population Comparison

<table>
<thead>
<tr>
<th>Hispanic Population Comparison</th>
<th># of Families</th>
<th>Average (%)</th>
<th>Weighted Average (%)</th>
<th>Average Change</th>
<th>Range (%)</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Origin Neighborhood</td>
<td>295</td>
<td>23.0</td>
<td>31.8</td>
<td></td>
<td>1.1 - 40.8</td>
<td>16.5</td>
</tr>
<tr>
<td>Relocation by Distance from Origin Neighborhood</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within 1 mile</td>
<td>56 (19%)</td>
<td>21.1</td>
<td>17.2</td>
<td>-1.9</td>
<td>1.1 - 43.4</td>
<td>17.1</td>
</tr>
<tr>
<td>1 to 2 miles</td>
<td>69 (23%)</td>
<td>13.1</td>
<td>15.2</td>
<td>-9.9</td>
<td>3.4 - 61.8</td>
<td>9.8</td>
</tr>
<tr>
<td>2 to 3 miles</td>
<td>52 (18%)</td>
<td>13.0</td>
<td>14.3</td>
<td>-10.0</td>
<td>7.8 - 31.0</td>
<td>4.7</td>
</tr>
<tr>
<td>3 to 4 miles</td>
<td>50 (17%)</td>
<td>16.2</td>
<td>15.4</td>
<td>-6.8</td>
<td>7.8 - 64.9</td>
<td>10.0</td>
</tr>
<tr>
<td>4 to 6 miles</td>
<td>35 (12%)</td>
<td>19.4</td>
<td>16.6</td>
<td>-3.6</td>
<td>11.9 - 32.1</td>
<td>4.7</td>
</tr>
<tr>
<td>6 or more miles</td>
<td>33 (11%)</td>
<td>17.2</td>
<td>17.0</td>
<td>-5.8</td>
<td>4.1 - 30.1</td>
<td>7.7</td>
</tr>
<tr>
<td>Other Measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within City of Tampa</td>
<td>229 (78%)</td>
<td>22.8</td>
<td></td>
<td>-0.2</td>
<td>1.1 - 64.9</td>
<td>15.2</td>
</tr>
<tr>
<td>Outside City Limits</td>
<td>66 (22%)</td>
<td>15</td>
<td></td>
<td>-8.0</td>
<td>4.1 - 32.1</td>
<td>6.6</td>
</tr>
<tr>
<td>Census Tracts &lt; 10% Poverty</td>
<td>12 (4%)</td>
<td>14.1</td>
<td></td>
<td>-8.9</td>
<td>8.8 - 31.0</td>
<td>7.1</td>
</tr>
<tr>
<td>Census Tracts &lt; 20% Poverty</td>
<td>48 (16%)</td>
<td>18.3</td>
<td></td>
<td>-4.7</td>
<td>4.1 - 64.9</td>
<td>12</td>
</tr>
<tr>
<td>Census Tracts &gt; 20% Poverty</td>
<td>247 (84%)</td>
<td>19.7</td>
<td></td>
<td>-3.3</td>
<td>1.1 - 61.8</td>
<td>12.9</td>
</tr>
</tbody>
</table>

(Source: United States Census Bureau)
The Hispanic ethnicity population from the choropleth map shows most of Hillsborough County to have a very low percent ethnicity in most census tracts and the rest of the population seems to be highly concentrated in certain tracts. Visually, they appear to be located in the 3 to 4 mile distance band, but this can be verified in the Hispanic comparison table shortly. The scatter plot in Figure 11 shows that there appears to be no trend in the change of Hispanic population the further one gets from the origin neighborhood.

This ethnic variable in Table 7 has what some may construe as negative results were a good proportion of Hispanic population be necessary for and optimal living environment. Some may argue that a neighborhood that is not only racially diverse, but ethnically diverse should play a role in an optimal living environment to give youth the best possible chance at a better quality of life. All relocation classifications above experienced a decrease in the percentage of Hispanic ethnicity population.

4.2.2 Age Results

The next set of census variables to examine will be the key age groups of population under 18(%) and population 60 years old and over (%).

Figure 12 shows the variation in population of people under 18. There appears to be no visual pattern to the concentration or absence
of this key age group. In an optimal living environment, the percentage of individuals under 18, or youth, should never exceed one-third percent of the population. This would give every one youth two adults ideally. Visually, there are very few relocation census tracts that exceed this percentage.

The results in the scatter plot from Figure 13 show a wide variation of change in population values (%) within 20,000 feet, or 3 miles from the origin neighborhood. This variation in the under 18 population change decreases the further one gets from the origin neighborhood.
Figure 12. Choropleth of Population under 18 (%)
Figure 13. Scatter plot of Distance from Origin Neighborhood and Change in Population under 18

![Figure 13: Scatter plot of Distance from Origin Neighborhood and Change in Population under 18](image)

Table 8. Population under 18 Comparison

<table>
<thead>
<tr>
<th>Under 18 Population Comparison</th>
<th># of Families</th>
<th>Average (%)</th>
<th>Weighted Average (%)</th>
<th>Average Change</th>
<th>Range (%)</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Origin Neighborhood</td>
<td>295</td>
<td>31.9</td>
<td>35.6</td>
<td>28.5 - 34.7</td>
<td>2.6</td>
<td></td>
</tr>
<tr>
<td>Relocation by Distance from Origin Neighborhood within 1 mile</td>
<td>56 (19%)</td>
<td>31.7</td>
<td>33.3</td>
<td>-0.2</td>
<td>27.1 - 34.7</td>
<td>2.3</td>
</tr>
<tr>
<td>1 to 2 miles</td>
<td>69 (23%)</td>
<td>35.3</td>
<td>33.4</td>
<td>+3.4</td>
<td>24.6 - 44.6</td>
<td>7.2</td>
</tr>
<tr>
<td>2 to 3 miles</td>
<td>52 (18%)</td>
<td>35.9</td>
<td>33.9</td>
<td>+4.0</td>
<td>15.9 - 45.9</td>
<td>7.9</td>
</tr>
<tr>
<td>3 to 4 miles</td>
<td>50 (17%)</td>
<td>33.4</td>
<td>32.3</td>
<td>+1.5</td>
<td>16.5 - 40.9</td>
<td>7.8</td>
</tr>
<tr>
<td>4 to 6 miles</td>
<td>35 (12%)</td>
<td>28.5</td>
<td>31.4</td>
<td>-3.4</td>
<td>20.7 - 34.4</td>
<td>3.9</td>
</tr>
<tr>
<td>6 or more miles</td>
<td>33 (11%)</td>
<td>27.5</td>
<td>27.5</td>
<td>-4.4</td>
<td>16.0 - 38.1</td>
<td>3.8</td>
</tr>
<tr>
<td>Other Measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within City of Tampa</td>
<td>229 (78%)</td>
<td>29</td>
<td>-2.9</td>
<td>16.5 - 45.9</td>
<td>7.2</td>
<td></td>
</tr>
<tr>
<td>Outside City Limits</td>
<td>66 (22%)</td>
<td>27.4</td>
<td>-4.5</td>
<td>15.9 - 38.1</td>
<td>4.8</td>
<td></td>
</tr>
<tr>
<td>Census Tracts &lt; 10% Poverty</td>
<td>12 (4%)</td>
<td>23.6</td>
<td>-8.3</td>
<td>16.0 - 28.7</td>
<td>3.9</td>
<td></td>
</tr>
<tr>
<td>Census Tracts &lt; 20% Poverty</td>
<td>48 (16%)</td>
<td>24.9</td>
<td>-7.0</td>
<td>15.9 - 38.1</td>
<td>5.2</td>
<td></td>
</tr>
<tr>
<td>Census Tracts &gt; 20% Poverty</td>
<td>247 (84%)</td>
<td>31.1</td>
<td>-0.8</td>
<td>21.2 - 45.9</td>
<td>5.5</td>
<td></td>
</tr>
</tbody>
</table>

(Source: United States Census Bureau)
It appears from Table 8 that most relocation neighborhoods contained about the same percentage of under 18 population as the origin neighborhood. In fact, within all classifications, there is just a -8.3 to 4.0 percent range difference. Statistical analysis shows a Pearson’s correlation coefficient of 0.784 between percent population under 18 and percent poverty: a strong correlation.

Figure 14 shows that most of the relocation census tracts had a very low population of people aged 60 and over, or the elderly. Visually, there appears to be no pattern to the percentage of elderly across the relocation census tracts. As for the scatter plot in Figure 15, there also appears to be not set pattern to the change in elderly population across the relocation census tracts. This is verified by Table 9 which shows that the average change ranged from -6.2 to 0.3 percent. There appears to be very little difference in the average population of elderly from inside the city limits to outside city limits. There also appears to be no pattern between the poverty classifications and the average percentage of elderly population. Statistical analysis shows a Pearson’s correlation coefficient of -0.174 between percent population 60 and over and percent poverty: a weak negative correlation.
Figure 14. Choropleth of Population 60 and over (%)
Figure 15. Scatter plot of Distance from Origin Neighborhood and Change in Population 60 and over

Table 9. Population 60 and over Comparison

<table>
<thead>
<tr>
<th>Over 60 Population Comparison</th>
<th># of Families</th>
<th>Average (%)</th>
<th>Weighted Average (%)</th>
<th>Average Change</th>
<th>Range (%)</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Origin Neighborhood</td>
<td>295</td>
<td>17.4</td>
<td>20.0</td>
<td></td>
<td>16.8 - 18.7</td>
<td>0.9</td>
</tr>
<tr>
<td>Relocation by Distance from Origin Neighborhood</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within 1 mile</td>
<td>56 (19%)</td>
<td>17.7</td>
<td>16.3</td>
<td>+0.3</td>
<td>14.1 - 20.9</td>
<td>1.7</td>
</tr>
<tr>
<td>1 to 2 miles</td>
<td>69 (23%)</td>
<td>15.0</td>
<td>15.9</td>
<td>-2.4</td>
<td>7.8 - 31.5</td>
<td>6.2</td>
</tr>
<tr>
<td>2 to 3 miles</td>
<td>52 (18%)</td>
<td>12.3</td>
<td>13.0</td>
<td>-5.1</td>
<td>7.7 - 23.2</td>
<td>4.1</td>
</tr>
<tr>
<td>3 to 4 miles</td>
<td>50 (17%)</td>
<td>11.3</td>
<td>12.4</td>
<td>-6.1</td>
<td>7.4 - 33.1</td>
<td>5.0</td>
</tr>
<tr>
<td>4 to 6 miles</td>
<td>35 (12%)</td>
<td>12.3</td>
<td>11.3</td>
<td>-5.1</td>
<td>8.5 - 26.1</td>
<td>4.0</td>
</tr>
<tr>
<td>6 or more miles</td>
<td>33 (11%)</td>
<td>11.2</td>
<td>11.7</td>
<td>-6.2</td>
<td>4.2 - 19.9</td>
<td>4.7</td>
</tr>
<tr>
<td>Other Measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within City of Tampa</td>
<td>229 (78%)</td>
<td>17</td>
<td></td>
<td>-0.4</td>
<td>7.8 - 33.1</td>
<td>6.2</td>
</tr>
<tr>
<td>Outside City Limits</td>
<td>66 (22%)</td>
<td>12.4</td>
<td></td>
<td>-5.0</td>
<td>4.2 - 21.9</td>
<td>4.9</td>
</tr>
<tr>
<td>Census Tracts &lt; 10% Poverty</td>
<td>12 (4%)</td>
<td>13.8</td>
<td></td>
<td>-3.6</td>
<td>5.2 - 23.2</td>
<td>6.4</td>
</tr>
<tr>
<td>Census Tracts &lt; 20% Poverty</td>
<td>48 (16%)</td>
<td>14.9</td>
<td></td>
<td>-2.5</td>
<td>5.2 - 33.1</td>
<td>6.4</td>
</tr>
<tr>
<td>Census Tracts &gt; 20% Poverty</td>
<td>247 (84%)</td>
<td>14.6</td>
<td></td>
<td>-2.8</td>
<td>4.2 - 31.5</td>
<td>5.8</td>
</tr>
</tbody>
</table>

(Source: United States Census Bureau)
4.2.3 High School Graduate or Equivalent

Most scholars would agree that the presence of high school graduates (or equivalent degree) in a neighborhood is very important. This variable is a measure of the percentage of individuals aged 25 or over who reported having at least obtained a High School diploma or equivalent degree (Dalaker 2001). In an ideal neighborhood, the optimal number of High School graduates would be 100 percent. Sadly, this figure never seems to be reached within Hillsborough County, let alone the relocation census tracts. The origin neighborhood had a little over half of its residents who did not graduate high school. Figure 16 reveals a disproportionate number of relocation centrally located census tracts that also have that problem. Visually, there appears to be no pattern to the location of census tracts with a low percentage of High School graduates, but this can be verified shortly from Table 10.
Figure 16. Choropleth of High School Degree (%)
Figure 17. Scatter plot of Distance from Origin Neighborhood and Change in High School Degree

The scatter plot in Figure 17 shows a positive result of moving away from the origin neighborhood location. There is a general trend in the increase in percentage of High School graduates (or equivalent) the further one moves out from the origin neighborhood. This shows that the further one moves the more likely it will be to give youth a positive role model of a high school graduate and this has been known to keep youth from dropping out of school (Jencks and Mayer 1990). These results are corroborated in Table 10.
Table 10. High School Graduate or Equivalent Comparison

<table>
<thead>
<tr>
<th>High School Graduate Comparison</th>
<th># of Families</th>
<th>Average (%</th>
<th>Weighted Average (%)</th>
<th>Average Change</th>
<th>Range (%)</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Origin Neighborhood</td>
<td>295</td>
<td>48.5</td>
<td>32.7</td>
<td>38.8 - 56.0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Relocation by Distance from Origin Neighborhood</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within 1 mile</td>
<td>56 (19%)</td>
<td>54.3</td>
<td>56.5</td>
<td>+5.8</td>
<td>38.8 - 68.3</td>
<td>8.6</td>
</tr>
<tr>
<td>1 to 2 miles</td>
<td>69 (23%)</td>
<td>57.5</td>
<td>58.3</td>
<td>+9.0</td>
<td>40.6 - 79.4</td>
<td>7.3</td>
</tr>
<tr>
<td>2 to 3 miles</td>
<td>52 (18%)</td>
<td>57.5</td>
<td>62.1</td>
<td>+9.0</td>
<td>39.1 - 79.4</td>
<td>14.4</td>
</tr>
<tr>
<td>3 to 4 miles</td>
<td>50 (17%)</td>
<td>68.1</td>
<td>66.6</td>
<td>+19.6</td>
<td>60.5 - 87.5</td>
<td>8.2</td>
</tr>
<tr>
<td>4 to 6 miles</td>
<td>35 (12%)</td>
<td>74.3</td>
<td>70.8</td>
<td>+25.8</td>
<td>62.2 - 90.0</td>
<td>7.5</td>
</tr>
<tr>
<td>6 or more miles</td>
<td>33 (11%)</td>
<td>76.2</td>
<td>77.0</td>
<td>+27.7</td>
<td>59.7 - 94.0</td>
<td>8.0</td>
</tr>
<tr>
<td>Other Measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within City of Tampa</td>
<td>229</td>
<td>62.8</td>
<td></td>
<td>+14.3</td>
<td>38.8 - 87.3</td>
<td>12.6</td>
</tr>
<tr>
<td>Outside City Limits</td>
<td>66 (22%)</td>
<td>75.1</td>
<td></td>
<td>+26.6</td>
<td>59.7 - 94.0</td>
<td>10.5</td>
</tr>
<tr>
<td>Census Tracts &lt; 10% Poverty</td>
<td>12 (4%)</td>
<td>86.5</td>
<td></td>
<td>+38</td>
<td>79.4 - 94.0</td>
<td>5.2</td>
</tr>
<tr>
<td>Census Tracts &lt; 20% Poverty</td>
<td>48 (16%)</td>
<td>77</td>
<td></td>
<td>+28.5</td>
<td>59.7 - 94.0</td>
<td>10.1</td>
</tr>
<tr>
<td>Census Tracts &gt; 20% Poverty</td>
<td>247</td>
<td>61.5</td>
<td></td>
<td>+13</td>
<td>38.8 - 79.1</td>
<td>11.1</td>
</tr>
</tbody>
</table>

(Source: United States Census Bureau)

Supposing that the ideal percentage of High School Graduates in a census tract would be 100 percent, Table 10 shows that none of the relocation census tracts reach that value. There does appear to be a positive relationship between the distance away from the origin neighborhood and increase in High School graduates (or equivalent). There also appears to be a positive relationship between living outside the city limits and having a higher average of High School graduates. Lastly, within the poverty classifications there too appears to be a positive relationship. Since this relationship can statistically be tested, a statistical analysis for multi-colinearity between High School graduates (or equivalent) and poverty reveals a Pearson’s correlation coefficient of 0.075: a very weak correlation. So statistically there is
very little correlation between those High School graduates in a
relocation census tract and those individuals who reported living at a
certain poverty level (less than 10 percent, less than 20 percent, or
over 20 percent).

4.2.4 Employment

The next variable to be assessed is percent of employed
individuals. This percentage is a measure of those aged 16 and over
who reported being employed as of 1999 (Dalaker 2001). One
surprising discovery was that the stereo-typical idea that those who
live in public housing communities are jobless is not as widespread as
one might think. And yet, in an ideal neighborhood the number of
employed individuals should be pretty high. What would be an optimal
percentage? That can probably not be quantified but as a generalize
guess and to account for those that are unable to work, the stay at
home parents, and those youth who choose not to work: an optimal
number would maybe be around 70 percent. The origin neighborhood
area, had on average a 45.9 percent employment rate, and while that
means that a little over a half of the residents in those origin census
tracts reported being jobless in 2000, the results from the figures and
tables will show that employment rates increased no matter what
relocation classification one belonged to, another positive result in this
census assessment.
Figure 18 shows an alarming number of centrally located census tracts with high percentages of unemployed individuals. Visually, it appears that the percentage of employed does not really increase past 50 percent until the 3 to 4 mile distance band. This can be verified in Table 11 below.

The scatter plot in Figure 19 reveals a general trend towards an increase in employment rate in all relocation census tracts the further one gets from the origin neighborhood.
Figure 18. Choropleth of Employment (%)
**Figure 19. Scatter plot of Distance from Origin Neighborhood and Change in Employment**

![Scatter plot showing the relationship between distance from origin neighborhood and change in employment.](image)

**Table 11. Employment Comparison**

<table>
<thead>
<tr>
<th>Employed Comparison</th>
<th># of Families</th>
<th>Average (%)</th>
<th>Weighted Average (%)</th>
<th>Average Change</th>
<th>Range (%)</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Origin Neighborhood</td>
<td>295</td>
<td>45.9</td>
<td>53.0</td>
<td></td>
<td>43.0 - 47.5</td>
<td>2</td>
</tr>
<tr>
<td>Relocation by Distance from Origin Neighborhood</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within 1 mile</td>
<td>56 (19%)</td>
<td>48.4</td>
<td>50.4</td>
<td>+2.5</td>
<td>43.0 - 63.5</td>
<td>5.4</td>
</tr>
<tr>
<td>1 to 2 miles</td>
<td>69 (23%)</td>
<td>51.3</td>
<td>50.9</td>
<td>+5.4</td>
<td>40.5 - 67.5</td>
<td>6.5</td>
</tr>
<tr>
<td>2 to 3 miles</td>
<td>52 (18%)</td>
<td>51.8</td>
<td>57.1</td>
<td>+5.9</td>
<td>25.8 - 67.5</td>
<td>11.5</td>
</tr>
<tr>
<td>3 to 4 miles</td>
<td>50 (17%)</td>
<td>64.0</td>
<td>61.8</td>
<td>+18.1</td>
<td>52.0 - 75.3</td>
<td>4.5</td>
</tr>
<tr>
<td>4 to 6 miles</td>
<td>35 (12%)</td>
<td>66.5</td>
<td>64.4</td>
<td>+20.6</td>
<td>54.2 - 76.4</td>
<td>5.9</td>
</tr>
<tr>
<td>6 or more miles</td>
<td>33 (11%)</td>
<td>64.7</td>
<td>65.7</td>
<td>+18.8</td>
<td>57.5 - 85.5</td>
<td>6.4</td>
</tr>
<tr>
<td>Other Measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within City of Tampa</td>
<td>229 (78%)</td>
<td>56</td>
<td></td>
<td>+10.1</td>
<td>37.9 - 73.8</td>
<td>9.6</td>
</tr>
<tr>
<td>Outside City Limits</td>
<td>66 (22%)</td>
<td>64.7</td>
<td></td>
<td>+18.8</td>
<td>25.8 - 85.5</td>
<td>10.3</td>
</tr>
<tr>
<td>Census Tracts &lt; 10% Poverty</td>
<td>12 (4%)</td>
<td>69.4</td>
<td></td>
<td>+23.5</td>
<td>59.2 - 85.5</td>
<td>8.5</td>
</tr>
<tr>
<td>Census Tracts &lt; 20% Poverty</td>
<td>48 (16%)</td>
<td>64.8</td>
<td></td>
<td>+18.9</td>
<td>25.8 - 85.5</td>
<td>10.6</td>
</tr>
<tr>
<td>Census Tracts &gt; 20% Poverty</td>
<td>247 (84%)</td>
<td>56.2</td>
<td></td>
<td>+10.3</td>
<td>37.9 - 71.4</td>
<td>9.4</td>
</tr>
</tbody>
</table>

(Source: United States Census Bureau)
A little more than half the origin census tracts were unemployed on average. From the results in Table 11 a move to any location outside the origin census tract would have brought youth and their families into contact with a larger percentage in the workforce. As mentioned earlier, William Julius Wilson (1984) believes that these role models of the working class will have a positive influence on these families. Within the breakdown of the distance bands the percentage of employed individuals increased as little as 2.5 percent and as great as 20.6 percent. Within the census tracts with less than 10 percent poverty, the percent of individuals who were employed increased on average 23.5 percent. Even a move to a census tract with less than 20 percent poverty would have increased the percentage of the workforce by an average of 18.9 percent. Statistical analysis for multi-collinearity between poverty and employment returned a Pearson’s correlation coefficient of -0.703: a strong correlation.

4.2.5 Median Household Income

The next variable to be discussed is Median Household income. This variable is measured in United States dollars. This is another variable that is obviously important for a better quality of life but that cannot be precisely quantified (though there may be a way around trying to guess at an optimal number for and ideal living environment). This will be addressed when we discuss the tabular results for this
variable. Visually, the spatial variation in Figure 20 of the relocation census tracts show very low median households incomes centrally located to the origin neighborhood again. This spatial concern persists until about the 2 to 3 mile distance band. The scatter plot in Figure 21 depicts a -$10,000 to $20,000 range of change in median household income, all within 20,000 feet or approximately 3 miles of the origin neighborhood. The positive result is that this range of change concentrates and increases the further one moves away from the origin neighborhood.
Figure 20. Choropleth of Median Household Income ($)
Figure 21. Scatter plot of Distance from Origin Neighborhood and Change in Median Household Income

Table 12. Median Household Income Comparison

<table>
<thead>
<tr>
<th>Median Household Income Comparison</th>
<th># of Families</th>
<th>Average</th>
<th>Weighted Average</th>
<th>Average Change</th>
<th>Range</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Origin Neighborhood</td>
<td>295</td>
<td>$19,322</td>
<td>$23,210</td>
<td></td>
<td>$14,538 - $22,177</td>
<td>$3,404</td>
</tr>
<tr>
<td>Relocation by Distance from Origin Neighborhood</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within 1 mile</td>
<td>56 (19%)</td>
<td>$20,885</td>
<td>$20,667</td>
<td>$1,563</td>
<td>$14,538 - $26,250</td>
<td>$3,969</td>
</tr>
<tr>
<td>1 to 2 miles</td>
<td>69 (23%)</td>
<td>$19,477</td>
<td>$20,727</td>
<td>$155</td>
<td>$10,026 - $35,625</td>
<td>$6,349</td>
</tr>
<tr>
<td>2 to 3 miles</td>
<td>52 (18%)</td>
<td>$20,425</td>
<td>$23,411</td>
<td>$1,103</td>
<td>$9,461 - $35,525</td>
<td>$8,221</td>
</tr>
<tr>
<td>3 to 4 miles</td>
<td>50 (17%)</td>
<td>$26,786</td>
<td>$23,908</td>
<td>$7,464</td>
<td>$21,700 - $38,164</td>
<td>$4,988</td>
</tr>
<tr>
<td>4 to 6 miles</td>
<td>35 (12%)</td>
<td>$30,865</td>
<td>$28,488</td>
<td>$11,543</td>
<td>$20,789 - $49,851</td>
<td>$8,238</td>
</tr>
<tr>
<td>6 or more miles</td>
<td>33 (11%)</td>
<td>$33,725</td>
<td>$33,918</td>
<td>$14,403</td>
<td>$20,789 - $56,699</td>
<td>$12,875</td>
</tr>
<tr>
<td>Other Measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within City of Tampa</td>
<td>229 (78%)</td>
<td>$24,809</td>
<td></td>
<td>$5,487</td>
<td>$9,461 - $35,625</td>
<td>$7,706</td>
</tr>
<tr>
<td>Outside City Limits</td>
<td>66 (22%)</td>
<td>$35,305</td>
<td>$15,983</td>
<td>$19,708 - $56,699</td>
<td>$11,724</td>
<td></td>
</tr>
<tr>
<td>Census Tracts &lt; 10% Poverty</td>
<td>12 (4%)</td>
<td>$48,658</td>
<td>$29,336</td>
<td>$35,525 - $56,699</td>
<td>$8,051</td>
<td></td>
</tr>
<tr>
<td>Census Tracts &lt; 20% Poverty</td>
<td>48 (16%)</td>
<td>$37,984</td>
<td>$18,662</td>
<td>$19,708 - $56,699</td>
<td>$9,671</td>
<td></td>
</tr>
<tr>
<td>Census Tracts &gt; 20% Poverty</td>
<td>247 (84%)</td>
<td>$22,753</td>
<td>$3,431</td>
<td>$9,461 - $39,726</td>
<td>$6,455</td>
<td></td>
</tr>
</tbody>
</table>

(Source: United States Census Bureau)
The results of those census tracts within a certain poverty range are highly and obviously collinear, and therefore do not have applicable results to discuss. When a Pearson’s correlation coefficient test was conducted, the coefficient returned for these two variables was -0.855 (at the 0.01 level of significance): a strong negative correlation, which is to be expected. It would be lax not to mention this relationship and discuss the results of the poverty classification in this case study. However, this correlation can give us an idea of an ideal Median household income by looking at the poverty classifications and determining that an ideal poverty rate (be it less than 20 percent of individuals living in poverty, or even less than 10 percent of individuals living in poverty) would lead to an ideal median household income.

4.2.6 Poverty

The next census variable to examine is poverty. Poverty is quite possibly the most important census variable this case study assesses because so many scholars agree that the key to a chance at a better quality of life lies in deconcentrating poverty (Wilson 1987, Jargowsky and Bane 1990, Goering et al. 2003). ‘Distressed’ neighborhoods, concentrated poverty are mentioned in the literature and this variable is where that attribute comes from. Most agree that approximately 40 percent poverty in a census tract determines concentrated poverty.
Figure 22. Choropleth of Poverty (%)
Figure 23. Scatter plot of Distance from Origin Neighborhood and Change in Poverty

Table 13. Poverty Comparison

<table>
<thead>
<tr>
<th>Poverty Comparison</th>
<th># of Families</th>
<th>Average (%)</th>
<th>Weighted Average (%)</th>
<th>Average Change</th>
<th>Range (%)</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Origin Neighborhood</td>
<td>295</td>
<td>36.4</td>
<td>38.9</td>
<td></td>
<td>30.2 - 46.2</td>
<td>7</td>
</tr>
<tr>
<td>Relocation by Distance from Origin Neighborhood</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within 1 mile</td>
<td>56 (19%)</td>
<td>34.6</td>
<td>36.9</td>
<td>-1.8</td>
<td>22.2 - 46.2</td>
<td>7.5</td>
</tr>
<tr>
<td>1 to 2 miles</td>
<td>69 (23%)</td>
<td>42.4</td>
<td>37.1</td>
<td>6.0</td>
<td>14.8 - 71.9</td>
<td>17.7</td>
</tr>
<tr>
<td>2 to 3 miles</td>
<td>52 (18%)</td>
<td>38.4</td>
<td>33.3</td>
<td>+2.0</td>
<td>9.4 - 68</td>
<td>21.0</td>
</tr>
<tr>
<td>3 to 4 miles</td>
<td>50 (17%)</td>
<td>29.3</td>
<td>27.2</td>
<td>-7.1</td>
<td>10.5 - 43.1</td>
<td>12.5</td>
</tr>
<tr>
<td>4 to 6 miles</td>
<td>35 (12%)</td>
<td>20.9</td>
<td>25.5</td>
<td>-15.5</td>
<td>9.1 - 31.2</td>
<td>6.1</td>
</tr>
<tr>
<td>6 or more miles</td>
<td>33 (11%)</td>
<td>19.5</td>
<td>19.6</td>
<td>-16.9</td>
<td>1.8 - 31.8</td>
<td>11.3</td>
</tr>
<tr>
<td>Other Measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within City of Tampa</td>
<td>229 (78%)</td>
<td>29.8</td>
<td></td>
<td>-6.6</td>
<td>9.4 - 71.9</td>
<td>15.5</td>
</tr>
<tr>
<td>Outside City Limits</td>
<td>66 (22%)</td>
<td>16.7</td>
<td></td>
<td>-19.7</td>
<td>1.8 - 33.3</td>
<td>9.2</td>
</tr>
<tr>
<td>Census Tracts &lt; 10% Poverty</td>
<td>12 (4%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Census Tracts &lt; 20% Poverty</td>
<td>48 (16%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Census Tracts &gt; 20% Poverty</td>
<td>247 (84%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Source: United States Census Bureau)
Figure 22 shows the spatial location of all the relocation census tracts with different percentage poverty classifications. The census tracts with 30 percent poverty or greater are all centrally located within the relocation area. Most low poverty census tracts (at least less than 20 percent poverty) occur at least approximately two miles away from the origin neighborhood. Most extremely low poverty census tracts (less than ten percent poverty) occur at least four miles away from the origin neighborhood. There is a distinct difference in the percentage of people living in poverty who live in the city limits compared to those who live outside city limits. This can be verified by Table 13.

Figure 23 is the scatter plot of the variation in change of poverty from the origin neighborhood percentage. Within the first 20,000 feet or approximately three miles, the change in poverty varies from the origin neighborhood value by -40 to +50 percent. This wide range of variation condenses the further one gets from the origin neighborhood and around 50,000 feet or approximately nine miles the range of change is between +20 to +30 percent.

A shocking result located in Table 13, which confirms the visual estimation of location of poverty census tracts inside City of Tampa limits is the average percent of poverty. Some scholars (Bane and Elwood 1989, Jargowsky 1997) would most likely consider the City of
Tampa to be living in a stressed condition, close to the concentrated poverty level with an average of 29.8 percent.

### 4.2.7 Female Head of Household

Female head of household is another key variable that has significance in this research. Concentrated poverty areas tend to have higher percentages of female head of households. Visually, when comparing the spatial location of female head of household (%) in Figure 24, one can see the relationship to the location of the higher poverty census tracts located in Figure 22. Beyond that relationship, there appears to be no pattern to where the spatial variation of female head of household exists.

The scatter plot of the change in female head of household (%) by distance from origin neighborhood in Figure 25 appears to follow the same shape and curve as the poverty scatter plot in Figure 23.

Results from average change in Table 14 confirm that there is no distance strong distance related pattern to the location of percentage female head of household, though it still appears to be tied in some way to the poverty classifications (less than ten percent poverty, less than 20 percent poverty, and greater than 20 percent poverty). Statistical analysis reveals multi-collinearity between poverty and female head of household. The Pearson’s correlation coefficient was 0.850: a strong correlation.
Figure 24. Choropleth of Female Head of Household (%)

Legend:
- City of Tampa Boundary
- Census Tracts < 10% Poverty
- Census Tracts < 20% Poverty
- Distance Bands

Note: Number in polygon is number of families who relocated to that census tract.
Source: Census Data provided by the United States Census Bureau,
Geo-coding provided by Dr. Beverly Ward and Emily Zupo
Map Projection: State Plane NAD 83
Production Date: June 2009
Figure 25. Scatter plot of Distance from Origin Neighborhood and Change in Female Head of Household

Table 14. Female Head of Household Comparison

<table>
<thead>
<tr>
<th>Female Head of Household Comparison</th>
<th># of Families</th>
<th>Average (%)</th>
<th>Weighted Average (%)</th>
<th>Average Change</th>
<th>Range (%)</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Origin Neighborhood</td>
<td>295</td>
<td>37.7</td>
<td>41.8</td>
<td></td>
<td>33.3 - 42.7</td>
<td>3.9</td>
</tr>
<tr>
<td>Relocation by Distance from Origin Neighborhood</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within 1 mile</td>
<td>56 (19%)</td>
<td>37.8</td>
<td>39.7</td>
<td>+0.1</td>
<td>30.2 - 44.9</td>
<td>4.6</td>
</tr>
<tr>
<td>1 to 2 miles</td>
<td>69 (23%)</td>
<td>42.7</td>
<td>40.2</td>
<td>+5.0</td>
<td>22.5 - 58.4</td>
<td>9.8</td>
</tr>
<tr>
<td>2 to 3 miles</td>
<td>52 (18%)</td>
<td>42.0</td>
<td>38.6</td>
<td>+4.3</td>
<td>20.4 - 53.6</td>
<td>9.1</td>
</tr>
<tr>
<td>3 to 4 miles</td>
<td>50 (17%)</td>
<td>35.3</td>
<td>35.5</td>
<td>-2.4</td>
<td>14.2 - 44.6</td>
<td>9.7</td>
</tr>
<tr>
<td>4 to 6 miles</td>
<td>35 (12%)</td>
<td>28.4</td>
<td>32.8</td>
<td>-9.3</td>
<td>17.9 - 34.6</td>
<td>4.6</td>
</tr>
<tr>
<td>6 or more miles</td>
<td>33 (11%)</td>
<td>25.2</td>
<td>26.0</td>
<td>-12.5</td>
<td>13.2 - 31.1</td>
<td>5.3</td>
</tr>
<tr>
<td>Other Measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within City of Tampa</td>
<td>229 (78%)</td>
<td>31.5</td>
<td></td>
<td>-6.2</td>
<td>14.2 - 58.4</td>
<td>10.6</td>
</tr>
<tr>
<td>Outside City Limits</td>
<td>66 (22%)</td>
<td>26.2</td>
<td></td>
<td>-11.5</td>
<td>13.2 - 40.7</td>
<td>6.9</td>
</tr>
<tr>
<td>Census Tracts &lt; 10% Poverty</td>
<td>12 (4%)</td>
<td>18.3</td>
<td></td>
<td>-19.4</td>
<td>13.2 - 21.7</td>
<td>3</td>
</tr>
<tr>
<td>Census Tracts &lt; 20% Poverty</td>
<td>48 (16%)</td>
<td>22.5</td>
<td></td>
<td>-15.2</td>
<td>13.2 - 31.1</td>
<td>4.7</td>
</tr>
<tr>
<td>Census Tracts &gt; 20% Poverty</td>
<td>247 (84%)</td>
<td>34.6</td>
<td></td>
<td>-3.1</td>
<td>17.9 - 58.4</td>
<td>8.7</td>
</tr>
</tbody>
</table>

(Source: United States Census Bureau)
4.2.8 Renter

The next key census variable to observe the changes in, is percent renters. Percent renter is reported as those people who identify themselves as renters of an occupied domicile (Dalaker 2001). No part of this variable takes into consideration un-occupied or abandoned homes. This variable has importance because renting is often associated with income level, and income level obviously determines poverty level. In an idea living environment the optimal percentage of renters would be low for this type of metropolitan area. Tampa is not as densely built as say New York City and so the opportunity to own your own home is greater in this type of sprawling life style. It is interesting to view the changes spatially and within the tabular classifications below to determine if youth and their families will be exposed to more home owners (more home owners may equal more responsible adults and better role models).

Figure 26 delineates the spatial variation of percentage renters. It appears that there is no spatial variation to the location of high or low percentages of renters. Surprisingly, there are a few centrally located census tracts with low numbers of renter (i.e. high numbers of home owners).
Figure 26. Choropleth of Renters (%)
Figure 27. Scatter plot of Distance from Origin Neighborhood and Change in Renters

Table 15. Renters Comparison

<table>
<thead>
<tr>
<th>Renter Comparison</th>
<th># of Families</th>
<th>Average (%)</th>
<th>Weighted Average (%)</th>
<th>Average Change</th>
<th>Range (%)</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Origin Neighborhood</td>
<td>295</td>
<td>45.5</td>
<td>51.1</td>
<td></td>
<td>39.4 - 49.5</td>
<td>4.4</td>
</tr>
<tr>
<td>Relocation by Distance from Origin Neighborhood</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within 1 mile</td>
<td>56 (19%)</td>
<td>41.6</td>
<td>45.0</td>
<td>-3.9</td>
<td>27.3 - 56.5</td>
<td>8.8</td>
</tr>
<tr>
<td>1 to 2 miles</td>
<td>69 (23%)</td>
<td>55.0</td>
<td>46.7</td>
<td>+9.5</td>
<td>18.1 - 93.8</td>
<td>24.1</td>
</tr>
<tr>
<td>2 to 3 miles</td>
<td>52 (18%)</td>
<td>56.7</td>
<td>50.4</td>
<td>+11.2</td>
<td>12.8 - 97.1</td>
<td>28.2</td>
</tr>
<tr>
<td>3 to 4 miles</td>
<td>50 (17%)</td>
<td>49.9</td>
<td>46.7</td>
<td>+4.4</td>
<td>25.0 - 72.5</td>
<td>11.3</td>
</tr>
<tr>
<td>4 to 6 miles</td>
<td>35 (12%)</td>
<td>52.2</td>
<td>51.8</td>
<td>+6.7</td>
<td>15.9 - 91.6</td>
<td>20.8</td>
</tr>
<tr>
<td>6 or more miles</td>
<td>33 (11%)</td>
<td>55.0</td>
<td>55.1</td>
<td>+9.5</td>
<td>7.0 - 98.3</td>
<td>29.7</td>
</tr>
<tr>
<td>Other Measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within City of Tampa</td>
<td>229 (78%)</td>
<td>48.3</td>
<td></td>
<td>+2.8</td>
<td>12.8 - 97.1</td>
<td>20.7</td>
</tr>
<tr>
<td>Outside City Limits</td>
<td>66 (22%)</td>
<td>43.8</td>
<td></td>
<td>-1.7</td>
<td>7.0 - 98.3</td>
<td>24.9</td>
</tr>
<tr>
<td>Census Tracts &lt; 10% Poverty</td>
<td>12 (4%)</td>
<td>28.7</td>
<td></td>
<td>-16.8</td>
<td>7.0 - 65.2</td>
<td>22.8</td>
</tr>
<tr>
<td>Census Tracts &lt; 20% Poverty</td>
<td>48 (16%)</td>
<td>35.8</td>
<td></td>
<td>-9.7</td>
<td>7.0 - 72.5</td>
<td>18.9</td>
</tr>
<tr>
<td>Census Tracts &gt; 20% Poverty</td>
<td>247 (84%)</td>
<td>55.3</td>
<td></td>
<td>+9.8</td>
<td>22.1 - 98.3</td>
<td>22.1</td>
</tr>
</tbody>
</table>

(Source: United States Census Bureau)
The scatter plot in Figure 27 of percentage change in renters confirms the lack of pattern in location of renters. And in fact when examining the location of percentage renters in Table 15, the percentage of renters increases with distance from the origin neighborhood! The results of average percentage of renters within city limits versus outside the city are remarkably about the same. The only interesting relationship from the table is within the classifications of poverty relocation census tracts. The percentage of renters actually decreases in the relocation census tracts with the decrease in poverty; the range also condenses slightly. When a Pearson’s correlation coefficient test was conducted between poverty and renters, it was discovered that the correlation was rather strong (0.704). What is strange about this number is that being a renter shouldn’t mean that one is impoverished. Perhaps this is a phenomenon caused by urban sprawl and the American dream of white picket fences and owning your own home. Renting does not have to be associated with poverty: people can be successful financially and still rent their dwelling.
Figure 28. Choropleth of Zero Vehicle Households (%)
Figure 29. Scatter plot of Distance from Origin Neighborhood and Change in Zero Vehicle Households

Table 16. Zero Vehicle Households Comparison

<table>
<thead>
<tr>
<th>Zero Vehicle Households Comparison</th>
<th># of Families</th>
<th>Average (%)</th>
<th>Weighted Average (%)</th>
<th>Average Change</th>
<th>Range (%)</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Origin Neighborhood</td>
<td>295</td>
<td>30.5</td>
<td>32.4</td>
<td></td>
<td>20.2 - 39.2</td>
<td>7.8</td>
</tr>
<tr>
<td>Relocation by Distance from Origin Neighborhood</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within 1 mile</td>
<td>56 (19%)</td>
<td>26.4</td>
<td>26.6</td>
<td>-4.1</td>
<td>11.7 - 39.2</td>
<td>9.3</td>
</tr>
<tr>
<td>1 to 2 miles</td>
<td>69 (23%)</td>
<td>30.0</td>
<td>25.9</td>
<td>-0.5</td>
<td>5.3 - 55.2</td>
<td>15.0</td>
</tr>
<tr>
<td>2 to 3 miles</td>
<td>52 (18%)</td>
<td>29.4</td>
<td>22.9</td>
<td>-1.1</td>
<td>4.8 - 62.6</td>
<td>22.3</td>
</tr>
<tr>
<td>3 to 4 miles</td>
<td>50 (17%)</td>
<td>17.0</td>
<td>16.4</td>
<td>-13.5</td>
<td>6.8 - 31.6</td>
<td>5.5</td>
</tr>
<tr>
<td>4 to 6 miles</td>
<td>35 (12%)</td>
<td>14.6</td>
<td>15.7</td>
<td>-15.9</td>
<td>2.4 - 29.4</td>
<td>8.0</td>
</tr>
<tr>
<td>6 or more miles</td>
<td>33 (11%)</td>
<td>14.1</td>
<td>14.0</td>
<td>-16.4</td>
<td>1.4 - 29.4</td>
<td>10.7</td>
</tr>
<tr>
<td>Other Measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within City of Tampa</td>
<td>229 (78%)</td>
<td>22.5</td>
<td>-8.0</td>
<td>4.8 - 62.6</td>
<td>14.7</td>
<td></td>
</tr>
<tr>
<td>Outside City Limits</td>
<td>66 (22%)</td>
<td>11.3</td>
<td>-19.2</td>
<td>1.4 - 29.4</td>
<td>8.1</td>
<td></td>
</tr>
<tr>
<td>Census Tracts &lt; 10% Poverty</td>
<td>12 (4%)</td>
<td>3.4</td>
<td>-27.1</td>
<td>1.4 - 5.5</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>Census Tracts &lt; 20% Poverty</td>
<td>48 (16%)</td>
<td>8.8</td>
<td>-21.7</td>
<td>1.4 - 18.5</td>
<td>5.5</td>
<td></td>
</tr>
<tr>
<td>Census Tracts &gt; 20% Poverty</td>
<td>247 (84%)</td>
<td>24.4</td>
<td>-6.1</td>
<td>6.2 - 62.6</td>
<td>13.6</td>
<td></td>
</tr>
</tbody>
</table>

(Source: United States Census Bureau)
4.2.9 Zero Vehicles per Household Results

Percentage of zero vehicle households is the last census variable to be examined and this variable is also closely tied to estimating the type of relocation neighborhood a family relocates to. In an ideal situation the most favorable percentage of zero vehicle households would have to be pretty low. Tampa, being the sprawling metropolitan area that it is, it is not feasible for most households to take public transportation, and therefore it is necessary to own at least one car per household.

It was interesting to discover that there are no census tracts in Hillsborough County where every household owns a car. Likewise, the highest rate of zero vehicle households was 62.6 percent: where well over half the people in a census tract do not have a vehicle in their household. Figure 28 illustrates the spatial variation to percentage of zero vehicle households and again, it appears that there is no pattern to the location of zero vehicle households, although the highest relocation census tracts with the highest percentage of zero vehicle census tracts were centrally located. These results look very similar to the spatial variation of female head of household and poverty.

The scatter plot in Figure 29 confirms the shape and curve of the scatter plot of change in zero vehicle households to the shape and
curve of the poverty scatter plot. Within 20,000 feet or approximately three miles, the change in zero vehicle households ranged from -40.0 to +40.0 percent. This scatter plot has a strange pattern to point out that occurs between 20,000 feet and 40,000 or approximately 3 to 7.5 miles: the range of change condenses greatly and then expands again.

Table 16 shows the location of average percent of zero vehicle households behaving more normally than the scatter plot in Figure 29. As expected, the average percentage of zero vehicle households decreases with distance from the origin neighborhood. The average percent of zero vehicle households is noticeably smaller outside city limits than inside. Finally, like the female head of household results, zero vehicle households decrease greatly with the decrease of poverty census tracts. This seems logical and the Pearson’s correlation coefficient test resulted in the correlation between poverty and zero vehicle households being 0.893: a very strong association. When considering what zero vehicle households (%) is actually measuring—households with no vehicle this makes perfect sense.

Briefly to make sense of all these census variables, it appears to have a great difference on the potential for a better neighborhood on how far away you moved from the origin neighborhood location, whether you lived inside or outside the city limits, and not surprisingly, what the poverty level was in the census tract one relocated to. This
will be discussed with the rest of the variable results at the conclusion of Chapter 4.

4.3 Crime

Another important variable to take into consideration is crime, specifically, standardized crime per capita. Examining crime for these relocation neighborhoods has many benefits to understand the potential for a better quality of life. First and foremost, these data are more dynamic than the census data. While the census is recorded only every ten years, crime is recorded on a daily basis with a very specific location attributes. These data can be combined in multiple ways to create the outputs for different types of analysis.

Another benefit to working with crime data is that it captures the issue of resident safety. No census variable measures the safety aspect of a living environment. This is important to understand because an ideal neighborhood would be a neighborhood with little to no crime.

The crime data used for this analysis was taken from recorded instances of FBI-mandated Part 1 crime statistics measured by crime grid. Crime grids are arbitrary grids that are places through out an area, and where its boundaries could either exactly square or follow features of some sort (census tracts, popular streets, rivers etc.). Standardized crime for the origin neighborhood derived from in
instances from the 1999 Tampa Police Department crime dataset. Standardized crime for all the relocation neighborhoods was derived from the 2007 crime dataset. The 2007 crime dataset is a combination of city-wide data from the Tampa Police Department and outside city limits from the Hillsborough County Sherriff’s Office. Both of these datasets were measured according to the FBI-mandated Part 1 crime standards and so there was no need to standardize the way the crime was measured before combining the two datasets into one dataset. However upon examination, the difference in the total instances of crime has greatly decreased for the entirety of Hillsborough County from 1999 to 2007. This made comparing instances of crime or even crime rates nearly useless from one year to another. A way to ameliorate this problem is to standardize the crime values.

Commonly, crime is standardized as a per capita figure meaning it is standardized as a figure per 1000 people. This method would standardize the crime to a set number (the population). This method was calculated through areal interpolation, a process by which population values from the 2000 census were interpolated to the size shape and location of the crime grids. The population numbers were then used to standardize total crime figures for each crime grid. Standardized crime per capita is commonly calculated for larger areas, such as a county or a city, so this method could only feasibly work on
the total numbers of crime rather than the other detailed crime values. Never-the-less, once crime was standardized per capita, it was then possible to compare the new values across years to get an accurate idea of the standardized numbers of crimes within a particular location controlling for population.

Goering et al. (2003) determined that for the Moving to Opportunity Experiment, not only did those families who moved to a lower poverty, more racially heterogeneous neighborhood feel safer, they also experienced less instances of violent crime. “Given these extreme levels of violent crime, neighborhood safety is arguably one of the most important metrics of the program’s impact on family well-being” (Hanratty et al. 2003, 255).

Figure 30 shows the spatial variation in standardized crime per capita for the relocation census tracts. There appears to be no pattern to the location of high crime areas, and low crime areas can be found as close to the origin neighborhood as one to two miles out. This can be verified by Table 17, where total standardized crime per capita in the relocation census tracts have appreciably lower results than the total standardized number of crime per capita for the origin neighborhood despite controlling by population to prevent a drastic difference.
Figure 30. Relocation Neighborhoods by Crime per Capita

Table 17. Crime per Capita Results (1999 and 2007)
<table>
<thead>
<tr>
<th>Crime Comparison</th>
<th># of Families</th>
<th>Average 1999 Crime Per Capita*</th>
<th>Average 2007 Crime Per Capita*</th>
<th>Average Change in Crime Per Capita*</th>
<th>Range 1999 Crime Per Capita*</th>
<th>Range 2007 Crime Per Capita*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Origin Neighborhood</td>
<td>295</td>
<td>168</td>
<td></td>
<td></td>
<td>100 - 296</td>
<td></td>
</tr>
<tr>
<td>Relocation by Distance from Origin Neighborhood</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>within 1 mile</td>
<td>56</td>
<td>58</td>
<td>-110</td>
<td></td>
<td>28 - 103</td>
<td></td>
</tr>
<tr>
<td>1 to 2 miles</td>
<td>69</td>
<td>45</td>
<td>-123</td>
<td></td>
<td>7 - 100</td>
<td></td>
</tr>
<tr>
<td>2 to 3 miles</td>
<td>52</td>
<td>34</td>
<td>-134</td>
<td></td>
<td>6 - 93</td>
<td></td>
</tr>
<tr>
<td>3 to 4 miles</td>
<td>50</td>
<td>22</td>
<td>-146</td>
<td></td>
<td>0 - 71</td>
<td></td>
</tr>
<tr>
<td>4 to 6 miles</td>
<td>35</td>
<td>18</td>
<td>-150</td>
<td></td>
<td>0 - 71</td>
<td></td>
</tr>
<tr>
<td>6 or more miles</td>
<td>33</td>
<td>29</td>
<td>-139</td>
<td></td>
<td>0 - 100</td>
<td></td>
</tr>
<tr>
<td>Within City of Tampa</td>
<td>229 (78%)</td>
<td>36</td>
<td>-132</td>
<td></td>
<td>0 - 103</td>
<td></td>
</tr>
<tr>
<td>Outside City Limits</td>
<td>66 (22%)</td>
<td>25</td>
<td>-143</td>
<td></td>
<td>6 - 100</td>
<td></td>
</tr>
<tr>
<td>Census Tracts &lt; 10% Poverty</td>
<td>12 (4%)</td>
<td>26</td>
<td>-142</td>
<td></td>
<td>0 - 71</td>
<td></td>
</tr>
<tr>
<td>Census Tracts &lt; 20% Poverty</td>
<td>48 (16%)</td>
<td>26</td>
<td>-142</td>
<td></td>
<td>0 - 93</td>
<td></td>
</tr>
<tr>
<td>Census Tracts &gt; 20% Poverty</td>
<td>247 (84%)</td>
<td>41</td>
<td>-127</td>
<td></td>
<td>7 - 103</td>
<td></td>
</tr>
</tbody>
</table>

*Per capita expressed as per 1000 population
(Source: TPD and HCSO Departments)

Overall these results appear to have more of an impact on the potential well-being of youth and families than any other relocation result because this table shows actual standardized crime rates in the neighborhoods they were living in as of 2007 compared to actual standardized crime rates in their original neighborhood in 1999. This decrease in crime for all relocation neighborhoods shows definitively that these neighborhoods are safer places to raise children in.

Neighborhoods appear to be safer the farther out one moves from the origin neighborhood (the exception being out past 6 miles). Living
outside the City of Tampa appears safer than living inside city-limits, and living in a lower poverty area appears to definitely make a difference in the amount of crime that occurs. Popkin et al.’s (2004) research on HOPE VI at the national level suggests that moving to neighborhoods with low levels of crime not only reduces stress, but promotes mental and physical health, improves youths outcomes, “and ultimately leads to better educational and employment outcomes” (23).

4.4 School Quality

Evaluating the school quality grades relocation sites was very important to this study. Not only did it give a clearer picture than the census variable of percentage of adults 25 or older with a High School degree or equivalent, it showed for all school levels, the quality of school these youth had the opportunity to attend. School districts (attendance boundaries) are such an important aspect of a child’s life in terms of learning opportunities, Jencks and Mayer (1990) actually defined local neighborhoods by elementary school attendance boundaries under the theory that the boundaries, smaller than census tracts closely aligned with people’s idea of a local neighborhood.

Through a personal conversation with a member of the Hillsborough County School Board, it was estimated that about 75 to 80 percent of youth actually attend the school they are assigned to. School quality grades are a better reflection of potential education
attainment than the static high school education census variable.

School quality grades for the 1999 – 2000 school year were assessed for the origin neighborhood and school quality grades for the 2007 – 2008 school year were assessed for the relocation neighborhoods. The reasoning behind that choice was that the children in the origin neighborhood were most likely still in the origin school as of 2000 before they relocated and were definitely in the relocation schools by the end of the 2007 – 2008 school year for the final relocation. Figures 31, 32, and 33 below show the location and distribution of school attendance boundaries for elementary, middle, and high schools for all relocation neighborhoods. Table 18 had the most interesting differences between origin elementary schools and relocation elementary schools that required further discussion with my contact at the Hillsborough County School Board.
Figure 31. Choropleth of Relocation Elementary School Quality
Table 18. Elementary School Quality Comparison

<table>
<thead>
<tr>
<th>Relocation Neighborhood Elementary Schools</th>
<th>Grade</th>
<th># of Families</th>
<th>School Year 2007 - 2008</th>
<th>Grade</th>
<th># of Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>POTTER ELEMENTARY SCHOOL</td>
<td>C</td>
<td>31</td>
<td>MORT ELEMENTARY SCHOOL</td>
<td>C</td>
<td>10</td>
</tr>
<tr>
<td>JUAN ELEMENTARY</td>
<td>D</td>
<td>29</td>
<td>IPPOLITO ELEMENTARY SCHOOL</td>
<td>C</td>
<td>6</td>
</tr>
<tr>
<td>OAK PARK ELEMENTARY SCHOOL</td>
<td>C</td>
<td>23</td>
<td>BING ELEMENTARY SCHOOL</td>
<td>A</td>
<td>5</td>
</tr>
<tr>
<td>BROWARD ELEMENTARY SCHOOL</td>
<td>F</td>
<td>21</td>
<td>JAMES ELEMENTARY SCHOOL</td>
<td>C</td>
<td>5</td>
</tr>
<tr>
<td>SULPHUR SPRINGS ELEMENTARY SCHOOL</td>
<td>F</td>
<td>21</td>
<td>FOLSOM ELEMENTARY SCHOOL</td>
<td>B</td>
<td>4</td>
</tr>
<tr>
<td>ROBLES ELEMENTARY SCHOOL</td>
<td>D</td>
<td>20</td>
<td>HUNTER'S GREEN ELEMENTARY SCHOOL</td>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>EDISON ELEMENTARY SCHOOL</td>
<td>C</td>
<td>16</td>
<td>MILES ELEMENTARY SCHOOL</td>
<td>C</td>
<td>3</td>
</tr>
<tr>
<td>GRAHAM ELEMENTARY SCHOOL</td>
<td>C</td>
<td>14</td>
<td>SCHMIDT ELEMENTARY SCHOOL</td>
<td>A</td>
<td>3</td>
</tr>
<tr>
<td>FOREST HILLS ELEMENTARY SCHOOL</td>
<td>C</td>
<td>11</td>
<td>CLAIR-MEL ELEMENTARY SCHOOL</td>
<td>C</td>
<td>2</td>
</tr>
<tr>
<td>BT WASHINGTON ELEMENTARY SCHOOL</td>
<td>D</td>
<td>11</td>
<td>ELEMENTARY @ MOSI</td>
<td>B</td>
<td>2</td>
</tr>
<tr>
<td>FOSTER ELEMENTARY SCHOOL</td>
<td>C</td>
<td>10</td>
<td>TEMPLE TERRACE ELEMENTARY SCHOOL</td>
<td>A</td>
<td>2</td>
</tr>
<tr>
<td>SHEEHY ELEMENTARY SCHOOL</td>
<td>C</td>
<td>8</td>
<td>BAY CREST ELEMENTARY SCHOOL</td>
<td>A</td>
<td>1</td>
</tr>
<tr>
<td>SHAW ELEMENTARY SCHOOL</td>
<td>C</td>
<td>6</td>
<td>CITRUS PARK ELEMENTARY SCHOOL</td>
<td>A</td>
<td>1</td>
</tr>
<tr>
<td>CLEVELAND ELEMENTARY SCHOOL</td>
<td>C</td>
<td>4</td>
<td>COLLINS ELEMENTARY SCHOOL</td>
<td>A</td>
<td>1</td>
</tr>
<tr>
<td>OAK GROVE ELEMENTARY SCHOOL</td>
<td>B</td>
<td>3</td>
<td>CORR ELEMENTARY SCHOOL</td>
<td>B</td>
<td>1</td>
</tr>
<tr>
<td>CLARK ELEMENTARY SCHOOL</td>
<td>A</td>
<td>2</td>
<td>KENLY ELEMENTARY SCHOOL</td>
<td>C</td>
<td>1</td>
</tr>
<tr>
<td>TAMPA BAY BOULEVARD ELEMENTARY SCHOOL</td>
<td>C</td>
<td>2</td>
<td>KINGSWOOD ELEMENTARY SCHOOL</td>
<td>B</td>
<td>1</td>
</tr>
<tr>
<td>DESOTO ELEMENTARY SCHOOL</td>
<td>C</td>
<td>1</td>
<td>LOPEZ ELEMENTARY SCHOOL</td>
<td>A</td>
<td>1</td>
</tr>
<tr>
<td>LAMIER ELEMENTARY SCHOOL</td>
<td>A</td>
<td>1</td>
<td>PALM RIVER ELEMENTARY SCHOOL</td>
<td>C</td>
<td>1</td>
</tr>
<tr>
<td>MITCHELLE ELEMENTARY SCHOOL</td>
<td>A</td>
<td>1</td>
<td>SUMMERFIELD CROSSINGS ELEMENTARY</td>
<td>A</td>
<td>1</td>
</tr>
<tr>
<td>PIZZO ELEMENTARY SCHOOL</td>
<td>C</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROLAND PARK K-8 SCHOOL</td>
<td>C</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Source: Hillsborough County School Board)
It was determined that for the origin neighborhood that all schools in that area were satellite attendance neighborhoods with one exception: the only D quality school the children could have attended. Distance (measured by time) from the origin neighborhood to the actual elementary schools ranged from 2 minutes to the D school, and 30 to 40 minutes for the A and C quality schools. The quality of schools changed dramatically with the relocation elementary schools for the 2007 – 2008 school year. For the majority of the relocation neighborhoods, children were assigned to local neighborhood schools. This produced a vivid difference for the families who relocated inside city limits: before youth had access to A and C quality school, after they had access to primarily C, D, and F quality elementary schools. Outside city limits, relocated families had slightly better results: a variety of A, B, C, and one D quality grade elementary schools. It appears that 43 families or 15% of the relocated families were assigned to the two F quality Elementary schools in the relocation area.
Figure 32. Choropleth of Relocation Middle School Quality
<table>
<thead>
<tr>
<th>Origin Neighborhood Middle Schools</th>
<th>Grade 99-00</th>
<th># of Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>OAK GROVE MAGNET SCHOOL</td>
<td>unavailable</td>
<td>130</td>
</tr>
<tr>
<td>WALKER MIDDLE SCHOOL</td>
<td>B</td>
<td>86</td>
</tr>
<tr>
<td>HILL MIDDLE SCHOOL</td>
<td>C</td>
<td>73</td>
</tr>
<tr>
<td>MANN MIDDLE SCHOOL</td>
<td>C</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relocation Neighborhood Middle Schools</th>
<th>Grade 07-08</th>
<th># of Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCLANE MIDDLE SCHOOL</td>
<td>C</td>
<td>61</td>
</tr>
<tr>
<td>SLIGH MIDDLE SCHOOL</td>
<td>C</td>
<td>38</td>
</tr>
<tr>
<td>FRANKLIN MIDDLE MAGNET SCHOOL</td>
<td>C</td>
<td>26</td>
</tr>
<tr>
<td>STEWART MIDDLE MAGNET SCHOOL</td>
<td>B</td>
<td>26</td>
</tr>
<tr>
<td>MADISON MIDDLE SCHOOL</td>
<td>C</td>
<td>25</td>
</tr>
<tr>
<td>VAN BUREN MIDDLE SCHOOL</td>
<td>C</td>
<td>21</td>
</tr>
<tr>
<td>MONROE MIDDLE SCHOOL</td>
<td>C</td>
<td>20</td>
</tr>
<tr>
<td>GRECO MIDDLE SCHOOL</td>
<td>C</td>
<td>13</td>
</tr>
<tr>
<td>ADAMS MIDDLE SCHOOL</td>
<td>A</td>
<td>11</td>
</tr>
<tr>
<td>BUCHANAN MIDDLE SCHOOL</td>
<td>B</td>
<td>10</td>
</tr>
<tr>
<td>GIUNTA MIDDLE SCHOOL</td>
<td>B</td>
<td>10</td>
</tr>
<tr>
<td>JENNINGS MIDDLE SCHOOL</td>
<td>C</td>
<td>7</td>
</tr>
<tr>
<td>BARTELS MIDDLE SCHOOL</td>
<td>A</td>
<td>5</td>
</tr>
<tr>
<td>LIBERTY MIDDLE SCHOOL</td>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>MEMORIAL MIDDLE SCHOOL</td>
<td>C</td>
<td>4</td>
</tr>
<tr>
<td>EISENHOWER MIDDLE SCHOOL</td>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>BENITO MIDDLE SCHOOL</td>
<td>A</td>
<td>2</td>
</tr>
<tr>
<td>DOWDELL MIDDLE SCHOOL</td>
<td>C</td>
<td>2</td>
</tr>
<tr>
<td>BURNETT MIDDLE SCHOOL</td>
<td>A</td>
<td>1</td>
</tr>
<tr>
<td>RODGERS MIDDLE SCHOOL</td>
<td>A</td>
<td>1</td>
</tr>
<tr>
<td>ROLAND PARK K-8 SCHOOL</td>
<td>C</td>
<td>1</td>
</tr>
<tr>
<td>WEBB MIDDLE SCHOOL</td>
<td>C</td>
<td>1</td>
</tr>
<tr>
<td>WILSON MIDDLE SCHOOL</td>
<td>A</td>
<td>1</td>
</tr>
</tbody>
</table>

Middle School evaluations did not seem to bring up and outstanding results. Most youth had the opportunity to attend a B or C grade quality school for the origin neighborhood, an A, B, or C grade quality school for the relocation neighborhoods: although it is worth mentioning that the only A grade quality schools families had an
opportunity at were for those families who relocated outside the city of Tampa.

High School evaluations were also an interesting attribute to review. Youth had the opportunity to attend C grade quality schools in the origin neighborhood and remarkable range of grade quality schools for relocation neighborhoods. One very important factor to note for these results is that both Hillsborough High School, in the city of Tampa, and King High School, outside city limits, contain International Baccalaureate Schools which will definitely skew the results of the FCAT and therefore the resulting school quality grade. Taking these two schools out of the assessment leaves one C quality grade school and mostly D quality grade schools for those youth to potentially attend in the top ten relocation neighborhoods in the city of Tampa and mostly A and C quality grade schools for youth to have the opportunity to attend outside city limits.
Figure 33. Choropleth of Relocation High School Quality
Table 20. High School Quality Comparison

<table>
<thead>
<tr>
<th>High School Quality Grades</th>
<th>Origin Neighborhood High Schools</th>
<th>Grade 99-00</th>
<th># of Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>SICKLES HIGH SCHOOL</td>
<td>C</td>
<td>204</td>
<td></td>
</tr>
<tr>
<td>GAITHER HIGH SCHOOL</td>
<td>C</td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>RIVERVIEW HIGH SCHOOL</td>
<td>C</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relocation Neighborhood High Schools</th>
<th>Grade 07-08</th>
<th># of Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIDDLETON HIGH SCHOOL</td>
<td>D</td>
<td>80</td>
</tr>
<tr>
<td>BLAKE HIGH SCHOOL-MAGNET</td>
<td>D</td>
<td>49</td>
</tr>
<tr>
<td>HILLSBOROUGH HIGH SCHOOL</td>
<td>A</td>
<td>39</td>
</tr>
<tr>
<td>CHAMBERLAIN HIGH SCHOOL</td>
<td>C</td>
<td>34</td>
</tr>
<tr>
<td>KING HIGH SCHOOL</td>
<td>B</td>
<td>28</td>
</tr>
<tr>
<td>FREEDOM HIGH SCHOOL</td>
<td>A</td>
<td>19</td>
</tr>
<tr>
<td>WHARTON HIGH SCHOOL</td>
<td>B</td>
<td>14</td>
</tr>
<tr>
<td>SPOTO HIGH SCHOOL</td>
<td>C</td>
<td>11</td>
</tr>
<tr>
<td>BRANDON HIGH SCHOOL</td>
<td>C</td>
<td>3</td>
</tr>
<tr>
<td>EAST BAY HIGH SCHOOL</td>
<td>C</td>
<td>3</td>
</tr>
<tr>
<td>JEFFERSON HIGH SCHOOL</td>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>PLANT HIGH SCHOOL</td>
<td>A</td>
<td>3</td>
</tr>
<tr>
<td>ARMWOOD HIGH SCHOOL</td>
<td>C</td>
<td>2</td>
</tr>
<tr>
<td>BLOOMINGDALE HIGH SCHOOL</td>
<td>A</td>
<td>2</td>
</tr>
<tr>
<td>ALONSO HIGH SCHOOL</td>
<td>A</td>
<td>1</td>
</tr>
<tr>
<td>RIVERVIEW HIGH SCHOOL</td>
<td>A</td>
<td>1</td>
</tr>
<tr>
<td>ROBINSON HIGH SCHOOL</td>
<td>B</td>
<td>1</td>
</tr>
<tr>
<td>SICKLES HIGH SCHOOL</td>
<td>A</td>
<td>1</td>
</tr>
</tbody>
</table>

Jencks and Mayer (1990) discovered in their assessment that “children from affluent schools know more, stay in school longer, and end up with better jobs than children from schools that enroll mostly poor children” (111). While the schools in Hillsborough County are said to receive equal funding, a theory for the difference between city school quality and outside city limits school quality may be due to the affluence of the neighborhood: affluence could mean many things but in this case, with the census variables at hand, could mean fewer renters, higher median household income, or lower poverty rates.
When school quality grades were compared to percent renters, median household income, percent poverty for the same neighborhood, no conclusive results could be determined. Could percentage of people who live in poverty affect local quality of schools in some way? There is no way for this case study to determine this relationship.

What is interesting is the high multi-collinearity between poverty and most of the other census variables. What can be determined is that is there a relationship to distance from the origin neighborhood and more ideal neighborhood environments, in terms of optimal census tract attributes. It also appears more likely that living outside the City of Tampa limits will improve one’s chance at a better quality of life. Lastly, in conjunction with the results found in the Moving to Opportunity Experiment, living in lower poverty census tracts also appears to give optimal living conditions for all measured variables. If the neighborhood effects theory is correct, then some of these relocated families will “find social networks that encourage them to find employment” and the youth will live in a neighborhood that provides “role models that encourage them to stay in school” (Popkin et al. 2004).
CHAPTER 5  CONCLUSIONS

Patterns of neighborhood effects, which have been purported to be found in other case studies (Jencks and Mayer 1990, Jargowsky 1997) have encouraged social scientists, policy analysts, and other scholars that a neighborhood’s composition really may have an influence on a child’s life opportunities. The purpose of this exercise was to provide a quantitative perspective of where original Ponce de Leon and College Hill families relocated to, within the bounds of Hillsborough County and the prospective opportunities available to them through the argument of neighborhood effects. The scope of this study was intended as a descriptive assessment and has found mixed results. “Even if better data were available, the debate about resident outcomes would be difficult because there is no consensus about how to define success” (Popkin et al. 2004).

Qualitative assessment of the impact of relocation on public housing youth can not really compare generalized results from one census neighborhood to the other, nor can qualitative investigation determine how a relocation neighborhood has the potential to impact youth and their families: they can only gauge personal opinions, feelings, and beliefs (Jencks and Mayer 1990). Ultimately, these
results highlight the potential complexity of the relocated families’ experiences (Varady and Walker 2003). According to Varady and Walker (2003), in their assessment of federal policy, the goal of current policy has been to encourage families to relocate low-poverty neighborhoods, but most often this goal has not been achieved. Many families make short-distance moves, often to areas of concentrated poverty with high proportions of minorities. Because of re-clustering in particular communities, many residents, civic leaders, and politicians have expressed concern “that clusters of Section 8 households can destabilize neighborhoods, bringing drugs, crime, and antisocial behavior and precipitating a cycle of neighborhood disinvestment and decline” (Turner et al. 2000, 9). “The Chicago HOPE VI research implies that the subgroup of residents who had the most complex personal problems are having difficulty making the transition to either private housing or revitalized HOPE VI developments” (Varady and Walker 2003, 24).

Families who relocated from the ‘distressed’ public housing of Ponce de Leon and College Hill relocated because Tampa Housing Authority believed they suffered intolerable conditions, and hopefully it was the intent of Tampa Housing Authority that they benefit from this relocation. Ultimately, “the housing authority—and society—has an obligation to ensure that at a minimum, original residents do no end
up worse off than they were before” (Popkin et al. 2004, 27). Clearly however, there seemed to be no rhyme or reason to the choice of relocation neighborhood: there certainly was no counseling on relocation neighborhoods—that is certain from the results. Advocates for urban poor families and research for other HOPE VI studies “have cited issues regarding inadequate relocation services, particularly lack of information and support during the relocation process that have resulted in residents ending up in less than ideal circumstances or experiencing hardship after they move” (Popkin et al. 2004, 33). Throughout this assessment, I searched for patterns. Did families choose lower poverty census tracts to raise their children in? It does not appear so. Did families choose neighborhoods with better schools or lower crime rates for their children? It does not appear so. And yet, I can say with some certainty, that however they arrived at their new neighborhoods, some families have a better opportunity for a better quality of life. Distance from the origin neighborhood seemed to play a small role in more optimal living conditions as best as I could estimate them along the way. Families that relocated outside city limits achieved noteworthy reductions in neighborhood crime instances, and increased opportunity at a better quality of life through better school districts and more ideal census variables. Lastly, there was a remarkable difference when one examined the variables associated
with low poverty census tracts. This may be the key result in assessing the success of the program.

“Housing programs that do not require families to move to lower poverty areas may condemn the children of movers to the least-effective schools” (Ladd and Ludwig 2003). School results were mixed, but leaned towards better school grade quality outside city limits rather than inside the city of Tampa boundaries. Comparing school grade qualities to census variables to determine if there was a connection between supposed affluent neighborhoods and quality of schools brought uncertain conclusions.

5.1 Limitations

What exactly is the optimum scale for conducting this type of research? Do there appear to be measurable positive benefits to these variables? It is too early to say and will definitely require further study, some aspects of which have already been discussed and will be discussed in the section below.

This research is limited for a variety of reasons from choice of data to methods employed to assumptions made with expected results. Firstly, the clearest limitation of these results is that the use of the static census data from 2000 limits the census results. The origin neighborhood and the relocation neighborhoods all share the variables from the 2000 census, yet we know the introduction of the HOPE VI
mixed-income housing has dramatically changed the composition of those particular origin area census tracts. It will be interesting to see how this case study’s results would change with the substitution of the 2010 census when it is released. An additional limitation is the use of a 40 percent poverty rate in the assessment of the poverty variable as concentrated poverty for the census tracts. This standard has the potential to be flawed because poverty from the census is measured by a federal standard which does not take into account the difference in cost of living around the country. In place of the federal standard, Swanstrom et al. (2008) recommend using a relative measure of poverty which takes into account the median household income for a particular study area. Their analysis “shows that using a relative standard generates a very different picture of the extent, geographic distribution, and trends in concentrated poverty” (287).

A potential limitation is limited success at locating all housing authority youth throughout each database. The Tampa Housing Authority databases are poorly managed and not all include names and / or birthdates. Some families were probably unable to be located due to a variety of reasons: dropping out of the housing program, moving out of county, head of household death, homelessness, or geo-coding error.
Next, this case study is limited in that in order to assess the quantitative variables, it is necessary to use some sort of enumeration areas that are homogeneous in some form or another: in this case, the census tract. It’s unfortunate that a study of this extent could not have been done on a more intimate basis, but that would have changed the scope of the research and taken it in a completely different direction. Thus working with census tracts limits the results in two related ways. The ecological fallacy seems to be the necessary limitation to this case study and quite similar to the theory of neighborhood effects. In order to conduct this research, it was assumed that the individuals would or will exhibit characteristics of the group they previously or currently belong to: it was essential in this case study to assume that the children from public housing displayed the characteristics of the concentrated poverty neighborhood census tracts; likewise that they will adopt the behaviors of the new relocation neighborhoods. Crime grids also share in this limitation in terms of the Modifiable Area Unit Problem. The crime grids are based on census tract boundaries, major road boundaries and other landform boundaries, yet are for the most part square in shape and arbitrary. Thus the crime results are dependent on the size and shape of the grid and may change in some way if crime were to be recorded in a different manner.
This leads, of course, to the neighborhoods effects argument, which presents another yet similar limitation. Though popular with renowned scholars, neighborhood effects cannot explain all of the detrimental effects of concentrated poverty and cannot guarantee that an urban poor family will have a better quality of life if moved to a neighborhood far away from the origin neighborhood, outside city-limits, or a lower poverty neighborhood. “While most studies find evidence that neighborhoods matter, they suffer from data limitations that make it difficult to pinpoint causality” (Ellen and Turner 2003, 313). This assessment does not take into account the possibility that there are unobserved differences between the group that started off in public housing and the subsequent relocation group that might otherwise be related to their residential status (Jargowsky and Bane 1990). This was ameliorated by trying to simply describe differences in neighborhood characteristics, speculating on ideal conditions for a better quality of life, and possible reasons for these differences. “Understanding what is inside the ‘black box’ of neighborhood effect is critical to evaluate” in order to determine its efficacy (Ellen and Turner 2003, 313).

From a scientific methods perspective, the best way to estimate neighborhood effects would be to conduct controlled experiments in which families were randomly assigned to different neighborhoods, to
persuade each family to remain in its assigned neighborhood for an extended period, and then to measure each neighborhood’s effects on the children involved (Goering et al. 2003).

Moving to a lower-poverty neighborhood does not guarantee educational improvements. Another limitation to this data is the uncertainty that parents moved their children to their new assigned schools: “some parents may have found ways to send their children to schools outside local school districts, others may have rotated children among relatives living in different school districts, or children may have been expelled from school” (Ladd and Ludwig 2003). Even if children did enroll in schools with higher grades and more overall resources, their educational opportunities might not have improved. “They might have been placed in less demanding classes, been assigned to classes disproportionately attended by low-income or minority students, or been put in classes with less able teachers than the school’s average classroom” (Ladd and Ludwig 2003 119).

5.2 Future Research

“Thus, a priority for future research should be to move beyond the question of whether neighborhoods matter and to attack the more difficult question of how they make a difference and for whom” (Ellen and Turner 2003). This assessment tried to accomplish just that. However, so much more can be done to draw more definitive
conclusions. The goal for this project was to assess living conditions by local neighborhood area (census tract, crime grid, and school district) and potential outcomes for as many families that relocated as possible. It was determined that the best way to do this was to look not only at the census tract level, but also in distance based bands from the center of the origin neighborhood outwards, within and without the city limits, and in certain poverty classification census tracts.

In terms of census variables; it would be interesting to see how the 2010 census will change the relocation census tract outcomes, “because it may take some time for improvements to manifest themselves” (Popkin et al. 2004). It would be interesting as a continuation of this project to formulate a study of neighborhoods with ideal conditions (low poverty, low crime, good schools) and to have it used in future HOPE VI relocations. Another area of interest would be to study the revitalization of the original ‘distressed’ neighborhood quantitatively to assess if that portion of HOPE VI was more successful than the mixed results found here.
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