

Environment Matters: The Effect of Mixed-Income Revitalization on the Socio-economic Status of Public Housing Residents: A Case Study of Atlanta

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About the Author

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Short Abstract

This study is the first large scale empirical examination of the effects of mixed-income revitalization on the socio-economic status of public housing assisted families. Using Atlanta as a case study, it finds strong evidence that the neighborhood environment contributes significantly to the socio-economic mobility of families. These research findings support the arguments of William Julius Wilson and others who maintain that de-concentrating poverty improves the life-chances of the poor.

In this report we measure the success of revitalization against a “Holistic” concept of family and neighborhood development. Specifically, we measure how redevelopment has affected the employment of families, their income, poverty status, welfare dependency and overall economic status. In addition, we examine whether revitalization has placed families in higher quality neighborhoods, specifically neighborhoods that have less poverty, welfare dependency, higher levels of educational attainment and school attendance, better quality schools, and improved home values. We also measure whether the neighborhood is more affordable and more racially diverse.

One way this study measures the change in family’s socio-economic status and neighborhood status is by using a modified version of the United Nation’s Human Development Index (HDI). We call our measure, the Quality of Life Index (QLI). The QLI differs from the HDI in two ways. First the QLI is based on the average of fifteen dimensions of a family’s socio-economic and neighborhood status while the HDI averages only three dimensions of a country’s socio-economic status. Second, the QLI is measured for each family at the micro level (i.e. family and neighborhood level) while the HDI is measured at the national level. Like the HDI however, a numerical score ranging from 0 to 1 is derived for each dimension of the index. The QLI is the average of these individual scores and it is used to compare the origin status of families to their destination status.

A growing body of research focuses on the effects of residential mobility programs that are designed to improve the socio-economic status of families who reside in distressed public housing projects. The human dimensions that are usually measured by this research include changes in employment, income, exposure to crime, educational attainment, health status, and neighborhood quality. Most examinations have used resident surveys and found that the socio-economic status of families improved when they moved away from distressed public housing projects. By contrast, more recent empirically rigorous studies have failed to find a positive association between residential mobility and socio-economic status. Unfortunately, almost no definitive research exists on the effects of the \$4.5 billion HOPE VI Program - the nation's largest residential mobility program. The main objectives of this program are to de-concentrate poverty, create more livable communities for public housing assisted families and build sustainable neighborhoods. Over the last decade, HOPE VI is the major program that has been used by Public Housing Authorities (PHA's) to transform conventional housing projects into mixed-income communities. Under HOPE VI, 98 PHA's received awards from U.S. HUD between 1993 and 2001. By 2001 only a small percentage of these sites were fully developed. However, Atlanta led the nation in the number of fully developed mixed-income revitalized communities.

As of June 2004, AHA completely revitalized seven conventional public housing projects. Most were financed with a combination of HOPE VI funds as seed money in combination with private investment dollars. The revitalized mixed-income communities contain 3,404 rental apartments; 40.6% are reserved for public housing eligible residents, 23.1% are rent subsidized and 36.3% are leased at market rates. Three more communities are being revitalized which will add 2,433 additional mixed-income rental units and 1,435 for sale homes. Less than a decade ago these communities were characterized by squalid living conditions, concentrated poverty and high crime rates. Today, they contain some of the City's most attractive rental properties.

Using a quasi-experimental design, this study longitudinally examined 2,718 families who lived in six large public housing projects in the City of Atlanta in 1995. Three of these housing projects were revitalized into mixed-income communities between 1995

and 2001 and three were not. The study examined the socio-economic status of families and the characteristics of the neighborhoods where they resided over the seven-year period.

One major concern about mixed-income revitalization is whether it leads to a greater loss of housing assistance for affected residents. Our empirical results find that, after controlling for a number of relevant factors, families who lived in public housing projects that were subsequently revitalized (i.e. the treatment group) did not experience a statistically significant difference in the loss of housing assistance in comparison to families who lived in projects that were not revitalized (i.e. the control group). In addition, over the seven-year period significantly greater improvements occurred in the socio-economic status of the treatment group and they resided in significantly better neighborhoods in comparison to the control group. A primary reason for the difference in outcome is that a much higher percentage of the treatment group moved away from public housing projects by using housing vouchers or by moving to newly constructed mixed-income communities in comparison to the control group.

The study examined families who moved from public housing projects voluntarily and those who were forced to move because of revitalization. In both cases, significant improvements occurred in socio-economic status. Families who moved voluntarily by using vouchers generally had more selective attributes. But the improvements they experienced could not be attributed only to the selectivity of their attributes. Instead, we found strong evidence that the neighborhood environment matters. The findings of this study are supported by the preliminary results of two independent research efforts underway in Atlanta; one conducted by a team of researchers at Clark-Atlanta University and a second by researchers at Georgia State University. These researchers are using resident surveys over several years to examine how two public housing projects that are currently undergoing revitalization in Atlanta are affecting the social and economic status of original residents. In both cases preliminary results indicate that a large majority of residents had greatly improved socio-economic outcomes as a result of having moved away from the distressed public housing projects.

Detailed Abstract

This study is the first large scale empirical examination of the effects of mixed-income revitalization on the socio-economic status of public housing assisted families. Using Atlanta as a case study, it finds strong evidence that the neighborhood environment contributes significantly to the socio-economic mobility of families. These research findings support the arguments of William Julius Wilson and others who maintain that de-concentrating poverty improves the life-chances of the poor.

In this report we measure the success of revitalization against a “Holistic” concept of family and neighborhood development. Specifically, we measure how revitalization has affected the employment of families, their income, poverty status, welfare dependency and overall economic status. In addition, we examine whether revitalization has placed families in higher quality neighborhoods, specifically neighborhoods that have less poverty, welfare dependency, higher levels of educational attainment and school attendance, better quality schools, and improved home values. We also measure whether the neighborhood is more affordable and more racially diverse.

In central cities across the United States some of the highest concentrations of poverty are in large, densely populated public housing projects. It is commonly believed that concentrated poverty triggers a series of social and economic problems including crime, joblessness, welfare dependency, single-parent families, and antisocial behaviors. William Julius Wilson's research has been central in focusing the nation's attention on the institutional dynamics that lead to concentrated poverty and the human consequences and social isolation that accompanies it (Wilson; 1985; 1987; 1991; 1997). He notes that while the typical social networks of residents of concentrated poverty neighborhoods do not extend beyond their immediate environment, jobs and other vehicles of economic opportunity are often long distances away. One fundamental implication of Wilson's research is that the de-concentration of poverty enhances the socio-economic mobility and life chances of the poor.

Wilson's research on concentrated poverty occupies a central point of reference for contemporary studies. Most researchers agree with his description of the characteristics and consequences of concentrated poverty. But they often differ on the mechanisms that create it and the effects of policies that are designed to reduce it (e.g. see Jacob, 2004; Oreopoulos, 2003; Goetz, 2003; Vale, 2002; Jargowsky, 1997; Ellen and Turner, 1997; Brooks-Gunn, et al., 1993).

Studies that have evaluated the effects of severely distressed public housing projects generally conclude that environments of concentrated poverty have an effect on the socio-economic mobility of residents. While individuals strive to conform to the social norm, their behaviors and attitudes are typically influenced by their peers (Oreopoulos, 2003). Thus, neighborhoods have the potential to influence social networks, job opportunities and health.

Several studies have examined the effects of residential mobility programs on the original residents of public housing projects. The human dimensions that are usually measured include changes in employment, income, exposure to crime, educational attainment, health status, and neighborhood quality. Two programs that have been examined extensively are the Gautreaux Program in Chicago that was implemented as a result of a court order and the Moving To Opportunity (MTO) program implemented in five cities as a designed experiment to test the effect of residential mobility on socio-economic outcomes.

Research that examined the outcome of the Gautreaux Program wherein households moved to less racially concentrated suburban neighborhoods usually determined that the suburban mover benefited the most from the program. Positive changes included greater employment and labor force participation and children attending higher quality schools, experiencing greater high school graduation rates and college attendance rates (Johnson, Ladd, Ludwig, 2001; Rosenbaum, 1993 and 2001; Rubinowitz and Rosenbaum, 2000; Rosenbaum and Popkin, 1989). Other research results were not as positive and only found modest positive employment outcomes for adult participants who moved to the suburbs compared to those adult participants who remained in the

city. Also, some researchers did not find an increase in wages or in the number of hours worked among suburban movers. There are some well-known shortcomings of the research design of studies based on the Gautreaux Program, including the fact that residents self-selected into the program.

The Moving To Opportunity (MTO) program was experimentally designed to determine whether an individual's neighborhood environment can change his or her life chances (Popkin, Harris, et al., 2002b). Participants were assigned to three groups. The MTO treatment group received housing vouchers (Section 8 Certificates) that could only be used in census tracts with 1990 poverty rates below 10%. The treatment group received housing mobility counseling. A second group, received housing vouchers that could be used in any location, but this group did not receive mobility counseling. Finally, the control group received project based housing assistance. There were about 9000 participants in all. Evaluations of this program reveal that the educational achievements of the experimental and Section 8 groups were higher than those of the control group and that households in the experimental group had better health outcomes than those in the control group.

By contrast, recent studies, which are based on different data sources that allow researchers to employ more rigorous empirical techniques, have failed to find a positive association between residential mobility and improvements in educational and labor market outcomes (Jacob, 2004; Oreopoulos, 2003; Musterd, Ostendorf and De Vos, 2003).

Unfortunately, very little definitive research exists on the effects of the \$4.5 billion HOPE VI Program - the nation's largest residential mobility program (Clampet-Lundquist, 2004; Popkin, Katz, et al., 2004; Brooks, Wolk and Adams, 2003; Holmes, Moody, et al., 2003; Buron, Popkin, et al., 2002; Popkin, Levy, et al., 2002). There are some researchers who are critical of the underlying rationale for HOPE VI mixed-income revitalization, yet their conclusions are not based on empirical analyses (Housing Law Project, et al., 2002; Keating, 2000).

The main objectives of this program are to de-concentrate poverty, create more livable communities for public housing assisted families and build sustainable neighborhoods. Under HOPE VI, 98 public housing authorities (PHA's) received awards between 1993 and 2001 from the U.S. Department of Housing and Urban Development (HUD). By 2001 only a small percentage of these sites were fully developed and Atlanta led the nation in the number of fully developed mixed-income revitalized communities.

In recent years, several studies have used resident surveys to longitudinally track the effect of HOPE VI mixed-income revitalization on original residents of public housing projects (Brooks, Wolk and Adams, 2003; Holmes, Moody, et al., 2003; Buron, Popkin, et al., 2002). Because these studies are designed to track residents longitudinal over a long period of time, they are not yet able to provide definitive answers to how HOPE VI has affected public housing assisted families.

Study Objectives and Methodology

This study used primary data collected by AHA on all families who received housing assistance between 1995 and 2001; a yearly average of about 20,000 families and 50,000 household members. These data were collected by the MIS Department of AHA upon the initial certification or re-certification of each family that receives housing assistance. Once compiled, the data were provided directly to the author. Multi-Family Tenant Characteristic System (MTCS) data that public housing authorities are required to report to HUD and that have often been criticized for its inaccuracy were not used in this report.

Using a quasi-experimental design, we examined families who lived in three housing projects that were revitalized and compared them to families who lived in three housing projects that were not revitalized. This consisted of 2,718 families who were divided into two groups (a treatment group and a control group). These groups were examined longitudinally between 1995 and 2001. The treatment group consisted of 1,235 families who lived in three housing projects in 1995. The demolition of these three projects and relocation of their residents occurred after the initial observation period which was December 31, 1995. The control group consisted of 1,483 families who lived in three

projects in 1995 that were not revitalized during the observation period, December 31, 1995 to December 31, 2001.

Four criteria were used to select the public housing projects that were placed in the treatment group and the control group: (1) The average characteristics of the treatment group and control group families who resided in the public housing projects in 1995 were similar. (2) Housing projects selected for the treatment group were still intact in 1995. That is, the relocation of families and demolition phase of revitalization had not started at the initial observation point; (3) Revitalization of communities in the treatment group was fully completed prior to December 31, 2001 (the end point of our data observation); and (4) Communities in the comparison group did not undergo revitalization during the seven-year study period.

The study examined five main questions:

1. Did revitalization cause families in the treatment group to lose housing assistance to an extent that was statistically significantly greater than that experienced by families in the control group?
2. Where did families in the treatment group relocate as a result of mixed-income revitalization?
3. Was the residential mobility caused by mixed-income revitalization accompanied by an improvement in the quality of the neighborhood and the socio-economic status of families in the treatment group and was the improvement in these attributes more significant than what occurred among families in the control group?
4. In general, does moving away from public housing projects by using vouchers or by moving to mixed-income communities improve the socio-economic status of families?

5. Can a significant portion of the improvement in socio-economic status accompanying residential mobility be attributed to the change in environment as distinct from the selectivity of the movers?

Mixed-income revitalization causes a dramatic change in the type of housing assistance received by families. Most of the affected families elect to use housing vouchers while the remainder moves to mixed-income communities or to other conventional housing projects. It is therefore important that we be able to gauge the change in social-economic status accompanying movements between various forms of housing assistance.

One way this study measures the change in family's socio-economic status and neighborhood status is by using a modified version of the United Nation's Human Development Index (HDI). We call our measure, the Quality of Life Index (QLI). The QLI differs from the HDI in two ways. First the QLI is based on the average of fifteen dimensions of a family's socio-economic and neighborhood status while the HDI averages only three dimensions of a country's socio-economic status. Second, the QLI is measured for each family at the micro level (i.e. family and neighborhood level) while the HDI is measured at the national level. Like the HDI however, a numerical score ranging from 0 to 1 is derived for each dimension of the index. The QLI is the average of these individual scores and it is used to compare the origin status of families to their destination status.

The fifteen dimensions of the QLI are grouped into two categories. The first category includes measures of the economic well-being of the family. The second category includes measures that gauge the quality of the immediate neighborhood where the family resides. We call these categories the Family Development Index (FDI), which has five dimensions, and the Neighborhood Development Index or (NDI), which has 10 dimensions. The average of these two indexes comprises the QLI. The dimensions of the QLI are:

A. Family Development Index: Measures the Status of Each Family by using Administrative data of AHA

- Employment Status of Household Head
- Household Income
 - Total Household Income from all sources (1/3rd weight)
 - Earned Income as a percent of Total Income (2/3rd weight)
- Poverty Status
- Income Deficit (distance below poverty line)
- Welfare Dependency

B. Neighborhood Development Index: Measures the Quality of the Family's Immediate Neighborhood by using Census Block Group Data

- Poverty Rate in Census Block Group
- Welfare Dependency Rate in Census Block Group
- School Attendance Rate (% of persons 3 yrs to 20 yrs in School)
- Educational Attainment in Block Group (% HS Grads)
- Employment Rate in Block Group (% employed)
- Quality of Employment (% employed in mgt. & prof. occupations)
- School Quality (as measured by neighborhood elementary school's 5th grade standardized test performance score)
- Home Value (median value)
- Racial Diversity (dissimilarity index)
- Neighborhood Affordability (% of families who can afford median rent)

Empirical Findings

- **Revitalization did not cause a statistically significant loss of housing assistance for affected residents**

The study used a quasi-experimental design to track families in the two groups longitudinally between 1995 and 2001. By 2001, 53% of treatment group families (i.e. those affected by revitalization) were still receiving housing assistance while 49% of control group families were still receiving assistance (i.e. those not affected by revitalization). A logistic regression was used to examine statistically the difference in odds of families in the treatment group and the control group retaining housing assistance over the seven year period. The regression controlled for family size, employment status, welfare dependency, disability status, years of age, years on housing assistance, and the gender of the head of household. After controlling for these factors, the study did not find a statistically significant difference in the retention of housing assistance between the two groups.

The result contradicts the common perception that revitalization causes a loss of housing assistance for affected families. One thing that individuals who argue this position have failed to do is account for the normal attrition that occurs among families receiving housing assistance. For example, we tracked longitudinally over a seven-year period all families who received AHA housing assistance in 1995 (16,355 families in total). We found that an average of 10.5% of these families terminated housing assistance each year between 1995 and 2001. As a result, by 2001 only 8,735 of the original 1995 cohort of 16,255 families still received assistance. The remainder had exited voluntarily or involuntarily for a variety of reasons. Therefore, it is critical to account for the normal attrition of families when evaluating the impact of revitalization on the retention of housing assistance over time.

The logistic regression found the following variables to have a statistically significant influence on the odds of retaining housing assistance: Families who receive welfare as a primary source of income (the odds of retaining assistance increases by 34% for families on welfare); The length of time the family has received housing

assistance (odds increase by 3% a year); and, Whether a family is headed by a female or a male (odds of retention increase by 70% for female headed families). In contrast, there was no statistically significant difference in the odds of retaining housing assistance between the treatment group (i.e. those families affected by revitalization) and the control group (i.e. those families not affected by revitalization) after controlling for other variables.

- **Families whose communities were affected by revitalization moved primarily to vouchers**

Starting in 1996, AHA relocated families in the experimental group to make way for the demolition phase of revitalization that subsequently occurred in the three housing projects comprising the treatment group. Seven years later, by 2001, 23% of this group had moved to other conventional housing projects, 17% lived in mixed-income communities and 60% used housing vouchers. In contrast, 63% of the control group still lived in the same housing project in 2001 as in 1995, while 12% had moved to a different housing project (therefore 75% still lived in housing projects), 24% moved away from projects through the use of housing vouchers and 1% moved to mixed-income communities.

- **A greater improvement in socio-economic status occurred among families affected by revitalization than among those not affected.**

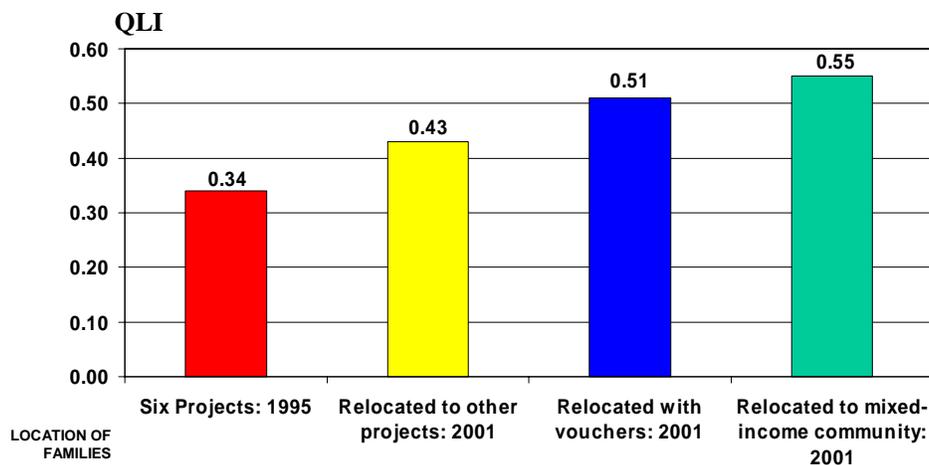
In 1995, all families of both the treatment group and the control group lived in conventional public housing projects. Between 1995 and 2001, the QLI for treatment group families increased from .33 to .49 or by 48.5%. During the same period, the QLI for control group families increased from .31 to .43 or by 38.7%. Therefore, families affected by revitalization experienced a greater improvement in socio-economic status than those not affected.

- **The socio-economic status of families who use vouchers or live in mixed-income communities is superior to that of families who live in public housing projects**

In 1995, the average QLI for families who lived in housing projects was .34. By 2001 the QLI for families who continued to live in public housing projects was .43, while it was .51 for families who relocated with housing vouchers and .55 for families who moved to mixed-income communities. The QLI of families in each housing assistance program was weighted by the percent of all families in that program.

Quality of Life Index (QLI) for AHA Families

QLI for 2,718 families who lived in Six Projects in 1995 and moved to various locations by 2001.



- **Families who moved from public housing projects to vouchers were 1.5 times more likely to be employed in the long term than were those who remained in projects. Families who moved to mixed-income communities were about 2.1 times more likely to be employed in the long-run than those who remained in projects.**

The study found that two factors are primarily associated with an improvement in socio-economic status: (1) The change in environment, and (2) The selective attributes of those who move.

Individuals with selective attributes are more likely to leave conventional housing projects and are more likely to experience greater improvements in socio-economic status. Employment is an important indicator of socio-economic status. After controlling for differences in personal attributes such as disability status, age, welfare dependency and gender, the odds of being employed were 46% higher for individuals who moved away from conventional projects by using vouchers and 114% higher for individuals who moved from projects to mixed-income communities in comparison to those who remained in conventional housing projects. Employment rates in the study were based on the housing assisted population between 16 and 62 years of age.

Many of the individuals who moved from public housing projects by using vouchers had selective attributes. But the study also found that a dramatic improvement occurred in the employment status of movers that could not be attributed to their selective attributes alone.

To distinguish the influence of selective attributes from the influence of the new environment, we identified all individuals who moved from conventional housing projects to vouchers between 1997 and 1998; 276 in total. We labeled these individuals group 1. At the same time, there were 5,961 heads of households who lived in public housing projects in 1997 and did not move to vouchers between 1997 and 1998. We labeled them group 2. Group 1, the movers, had more selective attributes than group 2, the non-movers. This can be seen by comparing the employment rates of the two groups in 1997 when both lived in public housing projects. The 1997 employment rate for group 1 was 28.3% while the rate for group 2 was 19.5%. One year later in 1998, the employment rate for group 1 had increased to 42.1%. However, the employment rate for group 2 had increased to 23.0%. While selective attributes were clearly present for members of group 1, the change in environment was also very important. If the environment did not matter, we would expect to see group 1's employment rate approaching 42% in 1997, when they lived in public housing projects. But this rate occurred only after the group moved by using vouchers. In addition, it is possible but unlikely that the selective

attributes of group 1 could have improved enough in just one year to account for this increase in employment. Therefore, we conclude that the change in environment played a significant role in improving group 1's employment status. Note that in conducting this analysis we studied persons who moved from housing projects to vouchers and not those who moved to mixed-income communities. We excluded the latter because adult residents of mixed-income communities must either work, or be enrolled in a job-training program or in school as a condition for residency.

The study concludes that mixed-income revitalization accelerated residential mobility away from conventional public housing projects and towards the use of vouchers and to mixed-income communities. These forms of mobility were accompanied by significant improvements in family socio-economic status. Contrary to popular belief, mixed-income revitalization in Atlanta did not cause a statistically significant loss of housing assistance among affected families. The findings of this study are supported by the preliminary results of two independent research efforts currently underway in Atlanta; one conducted by a team of researchers at Clark-Atlanta University and a second by researchers at Georgia State University. These researchers are using resident surveys over several years to examine how two public housing projects that are currently undergoing revitalization are affecting the social and economic status of original residents. In both cases preliminary results indicate that a large majority of residents had greatly improved socio-economic outcomes as a result of having moved away from the distressed public housing projects (Brooks, Wolk and Adams, 2003; Holmes, Moody, et al., 2003).

Part I. Introduction and Literature Review

In central cities across the United States some of the highest concentrations of poverty are in large, densely populated public housing projects. It is commonly believed that concentrated poverty triggers a series of social and economic problems including crime, joblessness, welfare dependency, single-parent families, and antisocial behaviors. William Julius Wilson's research has been central in focusing the nation's attention on the institutional dynamics that lead to concentrated poverty and the human consequences and social isolation that accompanies it (Wilson; 1985; 1987; 1991; 1997). He notes that while the typical social networks of residents of concentrated poverty neighborhoods do not extend beyond their immediate environment, jobs and other vehicles of economic opportunity are often long distances away. One fundamental implication of Wilson's research is that the de-concentration of poverty enhances the socio-economic mobility and life chances of the poor.

This study is the first large scale empirical examination of the effects of mixed-income revitalization on the socio-economic status of public housing assisted families. Using Atlanta as a case study, it finds strong evidence that the neighborhood environment contributes significantly to the socio-economic mobility of families. These research findings support the arguments of William Julius Wilson and others who maintain that de-concentrating poverty improves the life-chances of the poor.

Wilson's research on concentrated poverty occupies a central point of reference for contemporary studies. Most researchers agree with his description of the characteristics and consequences of concentrated poverty. But they often differ on the mechanisms that create it and the effects of policies that are designed to reduce it (e.g. see Jacob, 2004; Oreopoulos, 2003; Goetz, 2003; Vale, 2002; Jargowsky, 1997; Ellen and Turner, 1997; Brooks-Gunn, et al., 1993).

Studies that have evaluated the effect of severely distressed public housing projects on assisted families generally conclude that environments of concentrated poverty have negative consequences on socio-economic mobility. These environments constrain the

capacities of residents in many ways. For example, children who live in high-poverty communities do not receive proper educational guidance, and miss out on important early childhood learning experiences, recreational and after school activities, and/or other enrichment programs which help their development and lay the “foundation for success or failure in school” and in life (Heckman, 2000).

Neighborhoods influence social networks, job opportunities, health, and behavior and attitudes of residents. For example, constant exposure to crime and fear of victimization can have mental consequences and distort people’s perception of societal norms. Because individuals strive to conform to the social norm, their behaviors and attitudes are influenced by peers (Oreopoulos, 2003). Brooks-Gunn et al., (1993) have found that peer influences are significant in guiding the behavior, attitudes, and values of adolescents. They find that neighborhood with very few professional or managerial workers have higher rates of teenage out-of-wedlock births and early school leaving.

Several studies have examined the effects of residential mobility programs on the original residents of public housing projects. The human dimensions that are usually measured include changes in employment, income, exposure to crime, educational attainment, health status, and neighborhood quality. Two programs that have been examined extensively; The Gautreaux Program in Chicago that was implemented as a result of a court order, and the Moving To Opportunity (MTO) program implemented experimentally in Baltimore, Boston, Chicago, Los Angeles, and New York to evaluate the effect of residential mobility on socio-economic status.

In 1976, the U.S. Supreme Court, in the case of *Gautreaux v. Chicago Housing Authority*, rendered a final decision that found the Authority had discriminated against black tenants by concentrating them in large-scale developments that were located in poor black neighborhoods. As a result, the court ordered the Authority to make 7,100 Section 8 certificates available to current and former residents. These certificates were to be used in neighborhoods that were less than 30% black. During the 20 years following the decision, about 6,000 participants moved to less racially concentrated neighborhoods of Chicago, mainly to predominately white suburban communities

(Goetz, 2003: 53). Research that examined the outcome of these moves generally found them to have positive effects on socio-economic status. Households that moved to less racially concentrated suburban neighborhoods, as opposed to those who remained within the city, usually benefited the most from the program. Positive changes included greater employment and labor force participation and children attending higher quality schools, experiencing greater high school graduation rates and college attendance rates (Johnson, Ladd, Ludwig, 2001; Rosenbaum, 1993 and 2001; Rubinowitz and Rosenbaum, 2000; Rosenbaum and Popkin, 1989). Some research results were not as positive. For example, the analysis by Clampet-Lundquist (2004) only found modest positive employment outcomes for adult participants who moved to the suburbs compared to adult participants who remained in the city. And Rubinowitz and Rosenbaum (2000) did not find an increase in wages or in the number of hours worked among suburban movers.

There are some well-known shortcomings of the research design of studies based on the Gautreaux program. These shortcomings include the fact that residents self-selected into the program, many residents who participated in the program were not currently receiving housing assistance and most families that participated in the program did not move and those who did were likely to be the most highly motivated. Finally, "researchers were not able to track people from pre-to post move but rather conducted only post move surveys." (Popkin, Buron, et al., 2000).

The Moving To Opportunity (MTO) demonstration program is another widely researched, residential mobility program. Sponsored by U.S. HUD and conducted in five cities between 1994 and 1998, this program was experimentally designed to determine whether an individual's neighborhood environment can change his or her life chances (Popkin, Harris, et al., 2002b). The MTO treatment group received housing vouchers (Section 8 Certificates) that could only be used in census tracts with 1990 poverty rates below 10%. The treatment group received housing mobility counseling. A second group, received housing vouchers that could be used in any location, but this group did not receive mobility counseling. Finally, the control group received project based housing assistance. There were about 9,000 participants in all.

The evaluation of the Baltimore-site by Ludwig, Ladd, and Duncan (2001) revealed that the academic achievements of the experimental and Section 8 groups were higher than those of the control group. Leventhal and Brook-Gunn's (2000) preliminary analysis showed that Section 8 parents in the New York-site were more involved in their children's schooling compared to the experimental and control groups. The analysis also concluded that households in the experimental group, and in some cases the Section 8 group, in the New York-site had better health than those in the control groups (Johnson, Ladd, Ludwig, 2001).

Johnson, Ladd, Ludwig (2001) summary of research findings indicates that in the Boston-site residents in both the experimental and Section 8 groups had less self-reported crime victimizations in comparison to the control group. In addition, boys from the experimental and Section 8 groups, ages 6-15, had much lower average values on an index of criminal offending than those in the control group. An evaluation of the Baltimore-site found that violent crimes among boys were lower by one fourth and one-half for experimental and Section 8 groups, respectively, in comparison to boys from the control group. However, boys from the experimental group had property crimes rates twice as high as boys from the control group (Katz, Kling and Liebman, 2001; Ludwig, Duncan, and Hirschfield, 2001). Some researchers also found that the experimental group had lower rates of welfare dependency and better health outcomes in comparison to the control group.

By contrast, recent studies which are based on different data sources that allow researchers to employ more rigorous empirical techniques, have failed to find a positive association between residential mobility and improvements in educational and labor market outcomes (Jacob, 2004; Oreopoulos, 2003; Musterd, Ostendorf and De Vos, 2003).

Revitalization raises several critical policy questions. First, given that its objective is to de-concentrate poverty, one question is whether revitalization causes a loss of housing assistance for families affected by it. Nationally, very little information is known about this process. In fact, HUD did not track residents affected by HOPE VI revitalization

until 1998 and did not require grantees to report the location of residents until 2000. (U.S. GOA, 2003:8) Therefore, this issue continues to create concern and controversy (Schwartz and Tajbakhsh; 1997: 89).

In a recent report by the National Housing Law Project, the authors criticize the HOPE VI program. Among other things, they point out that, "HOPE VI plays upon the public housing program's unfairly negative reputation and an exaggerated sense of crisis about the state of public housing in general to justify a drastic model of large scale family displacement and housing redevelopment that increasingly appears to do more harm than good." (National Housing Law Project, 2000: pp. ii). The report asserts that empirical data to support the claims of HOPE VI is lacking.

The absence of empirical research on the socio-economic effects of HOPE VI mixed-income revitalization has led some researchers to argue its merits by pointing to the improved housing conditions and neighborhood attributes, the reduction in concentrated poverty, and decrease in crime and other indexes of neighborhood distress (Turbov and Piper, forthcoming). On the other hand, critics of HOPE VI have focused on the net loss of on-site housing for assisted residents. They argue that the loss is a direct result of mixed-income development (Keating, 2000; Keating and Flores, 2000).

Unfortunately, very little definitive research exists on the effects of the \$4.5 billion HOPE VI Program--the nation's largest residential mobility program (Clampet-Lundquist, 2004; Popkin, Katz, et al., 2004; Brooks, Wolk and Adams, 2003; Holmes, Moody, et al., 2003; Buron, Popkin, et al., 2002; Popkin, Levy, et al., 2002). The main objectives of this program are to de-concentrate poverty, create more livable communities for public housing assisted families and build sustainable neighborhoods. Under HOPE VI, 98 public housing authorities (PHA's) received awards between 1993 and 2001 from the U.S. Department of Housing and Urban Development (HUD). By 2001 only a small percentage of these sites were fully developed and Atlanta led the nation in the number of fully developed mixed-income revitalized communities.

In recent years, several studies have used resident surveys to longitudinally track the effect of HOPE VI mixed-income revitalization on original residents of public housing

projects (Brooks, Wolk and Adams, 2003; Holmes, Moody, et al., 2003; Buron, Popkin, et al., 2002). Because these studies are designed to track residents longitudinal over a long period of time, they are not yet able to provide definitive answers to how HOPE VI has affected public housing assisted families. A recently released report summarizing the state of knowledge on the effect of HOPE VI revitalization concludes the following:

The question of what has happened to the original residents of the revitalized HOPE VI developments has become a major – and contentious – focus of concern as uncertainty over the future of the program continues. To date, approximately 49,000 residents have been relocated from HOPE VI properties across the United States. Unfortunately, there is only limited information about how these residents have fared, although early analysis suggests that relatively few will return to the revitalized HOPE VI developments. The lack of consistent and reliable administrative data on housing and neighborhood outcomes for the original residents has muddied the debate about the performance of HOPE VI, and makes it difficult for policymakers to reach informed decisions about whether and how the implementation of the program should be improved. (Popkin et al., 2004:27).

Hopefully, the present research will help fill the gap regarding the effect of HOPE VI mixed-income revitalization on public housing assisted families.

Study Design and Objectives

The findings of this study are based on a longitudinal examination of families who lived in six public housing projects in Atlanta in 1995. Three of these housing projects were revitalized into mixed-income communities between 1995 and 2001 and three were not. The socio-economic status of each family was traced over the seven-year period along with the characteristics of the neighborhood where the family resided.

The study used primary data collected by AHA on all families who received housing assistance between 1995 and 2001; a yearly average of about 20,000 families and 50,000 household members. These data were collected by the MIS Department of AHA upon the initial certification or re-certification of each family that received housing assistance. Once compiled, the data were provided directly to the author. Multi-Family Tenant Characteristic System (MTCS) data, that public housing authorities are required to report to HUD and that have often been criticized for its inaccuracy, were not used in this report.

The quasi-experimental design was used to examine families who lived in the three housing projects that were revitalized in comparison to families who lived in three housing projects that were not revitalized. This consisted of 2,718 families who were divided into two groups (a treatment group and a control group). These groups were examined longitudinally between 1995 and 2001. The treatment group consisted of 1,235 families who lived in three housing projects in 1995. The demolition of these three projects and relocation of their residents occurred after the initial observation period which was December 31, 1995. The control group consisted of 1,483 families who lived in three projects in 1995 that were not revitalized during the observation period, December 31, 1995 to December 31, 2001.

Four criteria were used to select the public housing projects that were placed in the treatment group and the control group: (1) The average characteristics of the treatment group and control group families who resided in the public housing projects in 1995 were similar. (see Appendix 1 and 2). (2) Housing projects selected for the treatment

group were still in tact in 1995. That is, the relocation of families and demolition phase of revitalization had not started at the initial observation point; (3) Revitalization of communities in the treatment group was fully completed prior to December 31, 2001 (the end point of our data observation); and (4) Communities in the comparison group did not undergo revitalization during the seven year study period.

The study examined five main questions:

1. Did revitalization cause families in the treatment group to lose housing assistance to an extent that was statistically significantly greater than that experienced by families in the control group?
2. Where did families in the treatment group relocate as a result of mixed-income revitalization?
3. Was the residential mobility caused by mixed-income revitalization accompanied by an improvement in the quality of the neighborhood and the socio-economic status of families in the treatment group and was the improvement in these attributes more significant than what occurred among families in the control group?
4. In general, does moving away from public housing projects by using vouchers or by moving to mixed-income communities improve the socio-economic status of families?
5. Can a significant portion of the improvement in socio-economic status accompanying residential mobility be attributed to the change in environment as distinct from the selectivity of the movers?

Background

In October 1992, Congress established the Urban Revitalization Demonstration Program, commonly known as HOPE VI. The objective of this program is to: (1) improve the living environment for residents of severely distressed public housing through the demolition, rehabilitation, reconfiguration, or replacement of obsolete units; (2) revitalize sites where public housing is located and improve the surrounding neighborhood; (3) decrease the concentration of poverty; and (4) build sustainable communities. Between FY 1993 and 2001, The U.S. Department of Housing and Urban Development (HUD) awarded approximately \$4.5 billion in HOPE VI grants to 98 public housing authorities for the revitalization of 165 sites (U.S. GOA 2003: 2-4). Today only a small percentage of these sites are fully developed.¹ Because of this, we know very little about how the revitalization process has affected the socio-economic status of public housing assisted families.

The Atlanta Housing Authority (AHA) is currently involved in one of the nation's most ambitious attempts to revitalize distressed public housing into mixed-income communities. By the end of 2002, four of the nation's 15 fully completed HOPE VI funded sites were located in Atlanta. To date, AHA has revitalized seven conventional public housing projects and created nine new mixed-income communities in their place. These new communities contain 3,404 units of mixed-income, mixed-financed apartments. Forty and sixth-tenths percent (40.6%) of the units are reserved for public housing eligible residents, 23.1% are rent subsidized and 36.3% are leased at market rates. In addition, AHA is currently revitalizing three more conventional public housing projects that will add 2,433 mixed-income rental units; 32% of which will be reserved for public housing eligible residents, 28% will be rent subsidized and 40% leased at market rates. Accompanying these rental units, the Authority plans to construct 1,435 for sale homes; 15% of which will be affordable.

¹ A recent study indicates that as of the end of 2002, 15 HOPE VI funded sites were fully developed. (Popkin et al. 2004).

The conversion of AHA's conventional public housing properties to mixed-income communities is an enormous task considering the conditions of the properties less than a decade ago. Today, public housing communities that were once characterized by squalid living conditions, concentrated poverty and high crime rates have been transformed into mixed-income communities that are among the most attractive rental properties in the City. While the physical transformation has been astounding, this case study focuses on the human dimensions of revitalization.

A unique Quality of Life Index (QLI) is developed in this study, to measure how revitalization has affected assisted families.² In this report we judge the success or failure of mixed-income revitalization in Atlanta by whether or not it improved the socio-economic status of families and the quality of neighborhoods where they reside by an amount that is significantly greater than would have occurred in the absence of revitalization.³

The State of Public Housing

In 1989, Congress established the National Commission on Severely Distressed Public Housing. The objective was to examine factors that contribute to public housing distress and to develop strategies and a plan for remediation (Epp, 1996). The commission found many common characteristics in distressed public housing. The physical deterioration of these properties caused living spaces to be uninhabitable. In addition, the Commission found increasing concentrations of poverty, inadequate and fragmented services that reached only a small portion of the residents, and housing projects that were often located in neighborhoods as blighted as the developments

²The Quality of Life Index used in this study was developed by Thomas Boston. The Index is an adaptation of the Human Development Index (HDI) used by the United Nations Department Program (see UNDP, 2003 for a more detailed discussion). Where the HDI has three dimensions that measure the state of a country's development, the QLI has fifteen dimensions. Five dimensions are designed to measure the status of the family and ten measure characteristics of the neighborhood where the family resides.

³ Other measures of success are possible. For example, one might gauge the impact on surrounding neighborhoods, or the extent to which the private sector and market forces are involved in revitalization, or resident involvement in decision making. However, in this report we focus on the least understood dimension of revitalization; that is the change in the human condition.

themselves (Epp, 1996). The design deficiencies of these projects included poor site location, excessive density, inappropriate materials, and substandard construction.

Public housing was initiated in the 1930s to help stimulate the depressed economy, clear slums, and provide low-rent housing options. Today there are 3,400 public housing authorities (PHAs) that manage 13,900 housing projects. These projects contain 1,300,000 units and approximately 3 million persons. While most public housing is adequate, some is severely distressed and in need of substantial rehabilitation or replacement. (Schusheim, 2000:9).

Over time, the focus within public housing programs has shifted. The original Housing Act of 1937 was not specifically intended as a low-income housing program. However, by 1949, the public housing program began to focus on low-income families. The Brooke amendments of 1969, 1970, and 1971 limited the amount of rent residents were required to pay, restricted the definition of income, and set maximum rents at 25% of a household's income. This ceiling was raised to 30% in the early 1980s. Housing preference was given to those whose housing costs were above 50% of their income, those living in severely substandard housing, and those involuntarily displaced from housing. (Quercia and Galster, 1997: 538).

In 1974, the Section 8 Certificate Program was introduced. This represented a major overhaul of housing policy. Under this program, needy families were given certificates to rent space in the private rental-housing market as a way of increasing housing options and reducing costs. The program included new construction and rehabilitation components as well as a rent certificate program. It was designed to promote improved living conditions for low-income families, create more housing choices, integrate lower income and minority families into mainstream society, provide safe and sanitary housing for eligible participants, and provide an incentive to private owners to rent to lower income families by offering timely payments.

By 1998, the Section 8 Program included 894,000 units and approximately 1.4 million households. Fifty-six percent (56%) of participants in the Section 8 Program were single parents with incomes below the poverty threshold and with children under 18 years of age. The average household income was \$9,600 and the average federal expenditure was \$471 per month per household. (Schusheim, 2000: 29).

The Quality Housing and Work Responsibilities Act of 1998 (QHWRA) merged the Section 8 Program into the Housing Choice Voucher Program and, starting in 2000, phased out of the former program by recertifying Section 8 families into the new voucher program.

The Housing Choice Voucher Program allows rent to exceed the Fair Market Rent (FMR). The program also allows families to pay up to 40% of monthly-adjusted income for their rent and utilities as long as the Housing Authority determines the rent to be reasonable. In addition, the Voucher Program removed the “take one, take all” provision from the housing law which required landlords, who accepted a Housing Choice family, to lease all vacant units to available Housing Choice families.

QHWRA also includes a provision that was designed to encourage residents to increase their labor force participation by reducing the disincentive for working. It stipulates that the increased employment income received by adult family members be disregarded for 12 months after their income improves, and following the 12-month period, a rent increase is phased in over a two-year period. Instead of an income disregard, the resident may request that the Authority establish an individual savings account for the family. Also, a tenant may annually choose to pay a flat rent rather than a rent based on income. The new regulations enable PHAs to obtain police records to screen applicants and to evict residents who use drugs, abuse alcohol or whose household members engage in criminal activities. Also, PHAs are authorized to establish their own preferences regarding admission of tenants and to disregard previous federal preference for families with the most severe hardships. (Schusheim, 2000).

Public Housing in Atlanta in the Mid-1990's

In 1994, an Inspector General's Audit Report of AHA properties (conducted by HUD) found conditions so unsafe, unsanitary and poorly managed that the Authority was almost taken over by the federal government (i.e. placed in receivership). Eighty eight percent (88%) of inspected units did not meet minimum safety and sanitary standards, and 7,100 maintenance work orders were backlogged. Many units were simply boarded up, and others had missing or defective windows and doors, electrical hazards, leaking and backed up toilets, rodent infestations, and lead-based paint exposures. The poor housing conditions were compounded by extreme social and human circumstances. In the housing projects, residents lived in constant fear of gunfire and violence. The probability of being the victim of a crime was very high as one crime occurred for every 4 persons living in housing projects. By the 1980's drug traffickers operated out of the housing projects; some used small children as lookouts (Office of Audit, 1994). Only 13% of household heads 62 years of age and younger worked and 36% depended upon welfare as a primary source of income. Eighty-six percent (86.0%) of households were headed by single women, and children less than 16 years of age accounted for 49% of all residents. (See Part III of this Report).

A 1992 Atlanta Police Department crime report indicated that among the 15 largest AHA projects (each with 500 or more housing units) 5,810 crimes were committed. These included 1,031 narcotic arrests (see Figure 1). In the housing projects, the crime rate of .269 per resident was 12% higher than the per capita crime rate of the City of Atlanta; and Atlanta had one of the nation's highest rates.⁴ In the adjoining housing projects of Techwood/Clark Howell Homes (AHA's most crime plagued properties) the crime rate was .393 per capita; 69% above the City's average. In 1992, Techwood/Clark Howell projects alone accounted for 5,654 Atlanta Police Department dispatches. This was 4.9% of the City's total police responses that year. Yet the 2,170 residents of

⁴ Crime data are derived from the Atlanta Police Department Central Crime Analysis Unit and are based on the FBI Uniform Crime Reports. Totals include homicide, rape, robbery, aggravated assaults, burglary, larceny, and auto theft. To make the data compatible with City of Atlanta data, narcotic arrests, vandalism and arson are omitted from housing project totals. This omission probably causes the crime rate in AHA properties to be understated relative to the City's crime rate.

Techwood/Clark Howell represented only one-half of one percent (.5%) of the City's population (AHA, 1993: 82-83).

Figure 1.
Crime Rates at AHA Properties

1992 Crime Report, 15 Largest Projects

- Persons in 15 largest Projects 21,596
- Crimes in 15 largest Projects 5,810
- Narcotic Arrests 1,031
- Crime Rate Relative to City of Atlanta 12% higher
- Crime Rate: Techwood/Clark Howell
Relative to City 69% higher

1993 Crime Report: Techwood/Clark Howell

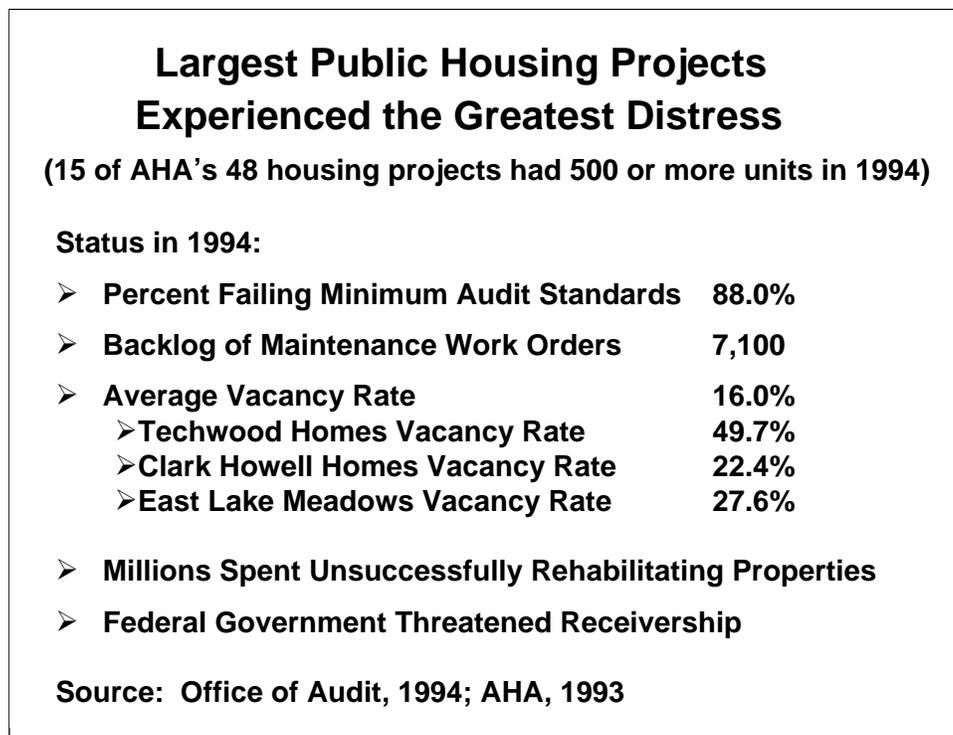
- Number of Residents 2,170
- Number of property & violent crimes 853
- Number of Police Dispatches 5,654
- Percent of all City's Police Responses 4.9%
- Percent of City's Population 0.5%

Source: AHA, 1993; Atlanta Department (APD) Center Crime Analysis Unit, FBI Uniform Crime Reports (UCR).

Throughout the 1980's and early 1990's AHA spent millions of dollars attempting to rehabilitate several of its most distressed properties. However, the properties deteriorated shortly after the improvements were made. For example, in the decade prior to 1994, the Authority spent \$18 million renovating Techwood/Clark Howell Homes. By 1994, none of these improvements were visible. The problem was compounded by the fact that the structures were obsolete and poorly designed. Thus, money was being poured into out-dated and deteriorated structures with rooms that were too small, plumbing and heating fixtures that were deficient, and doors and other fixtures that violated standards established for disabled residents. Further, the interior hallways of the buildings were poorly lit, unsanitary, and unsafe. The poor maintenance, crime, and social disorganization of the projects caused excessive vacancies. In March

of 1993, the vacancy rates at Techwood Homes, Clark Howell Homes and East Lake Meadows were 49.7%, 22.4% and 27.6% respectively (AHA, 1993:85). The uninhabitable units and high vacancy rates meant that the real number of on-site rental units was significantly less than the number of units originally constructed (see Figure 2). These conditions contributed to AHA's receiving a very poor performance evaluation by HUD.⁵

Figure 2.



⁵ The Federal audit assigned AHA a performance score of just 37% out of a possible 100% for the fiscal year ended June 30, 1994.

Part II. AHA's New Strategic Vision

In 1994, Renee Glover was appointed the new Executive Director of AHA. Under her leadership, the Authority pursued a radically different approach to providing housing services. Several elements distinguished her approach. First, she argued that conventional public housing projects had not mainstreamed families as intended. Instead, housing projects had served as “warehouses for the poor.” Second, she maintained that the population density, concentrated poverty and squalid housing conditions of the projects had produce a cycle of social disorders that was impossible to break by simply rehabilitating the housing units. Therefore, conventional public housing properties had to be demolished and revitalized mixed-income communities must be built in their place. Third, while it was absolutely necessary to reconstruct the physical environment of public housing properties, she maintained that the highest priority should be placed on improving the human condition of families. Fourth, she argued that sustainable communities could not be achieved if AHA focused on building affordable housing for the poor. Instead, the focus should be on building market rate housing with an affordable component integrated seamlessly. The market responsiveness of the properties would force management to adopt efficient policies and practices. (Glover, 2002).

Formally, AHA announced three objectives of mixed-income revitalization:

1. To de-concentrate poverty and eliminate the stigma associated with public housing.
2. To create public/private partnerships. And;
3. To rebuild communities, not just housing.

To accomplish these objectives AHA worked in concert with private development partners and leveraged a variety of HUD funds. Figures 3-6 illustrate public housing in Atlanta before and after revitalization.

Typical Facades of the Three Communities Studied in this Report

Figure 3. Before Revitalization: East Lake Meadows



Figure 4. After Revitalization: The Villages of East Lake



Figure 5. Centennial Place: Formerly Techwood/Clark Howell Homes



Figure 6. Magnolia Park: Formerly John Eagan Homes



The HOPE VI Program, authorized in 1992, liberalized mandates requiring one-for-one replacement of public housing units and encouraged creative solutions to address the crisis in the nation's distressed public housing projects. While the new federal program still fell short of the regulatory changes needed to successfully implement AHA's mixed-income revitalization program, it provided many essential elements. AHA tapped into the resources of this new program and at the same time lobbied HUD to make further regulatory changes. One important regulatory change AHA pursued successfully allowed the Authority to use Section 8 and housing choice vouchers to relocate families during the demolition of projects. This option made it possible for families to move out into the city rather than confining them to other conventional housing projects.

AHA used private development partners to design, develop and manage its mixed-income communities. The development funding sources include HOPE VI Grants and other HUD sources that were leveraged with private equity, private debt and tax credit funding.⁶ Its approach to financing revitalization has become known as the mixed-income, mixed-financed financial model. The financing strategy combines private sector and public sector resources. Development financing is accomplished by creating a real estate partnership separate from AHA. The limited partners, created through the sale of Low Income Housing Tax Credits (LIHTC), own a 97% share of the development. The management of the mixed-income communities is privatized, and AHA receives a portion of the developer's fee and a share of the net operating income. AHA enters into a 55-year ground lease of its properties. After this period, the land and all capital improvements revert back to the Authority. The conditions of the ground lease guarantee that the agreed upon percentage of rental units will be reserved for low-income families.

Accompanying the new development strategy, AHA initiated three major steps to transform its property management operations. First, it decentralized management and moved towards site-based management and project-based budgeting. Second, it

⁶ Seed funds for the revitalization have come from a variety of HUD sources including HOPE VI funds, Comprehensive Improvements Assistance Program (CIAP) funds, public housing development funds and Major Reconstruction of Obsolete Projects (MROP) funds.

selected private companies to manage the day-to-day operations and capital improvement work at its properties. Third, it restructured its departments of finance, budgeting and accounting, contracting and purchasing, and information management systems. The aim was to improve compliance and accountability.⁷

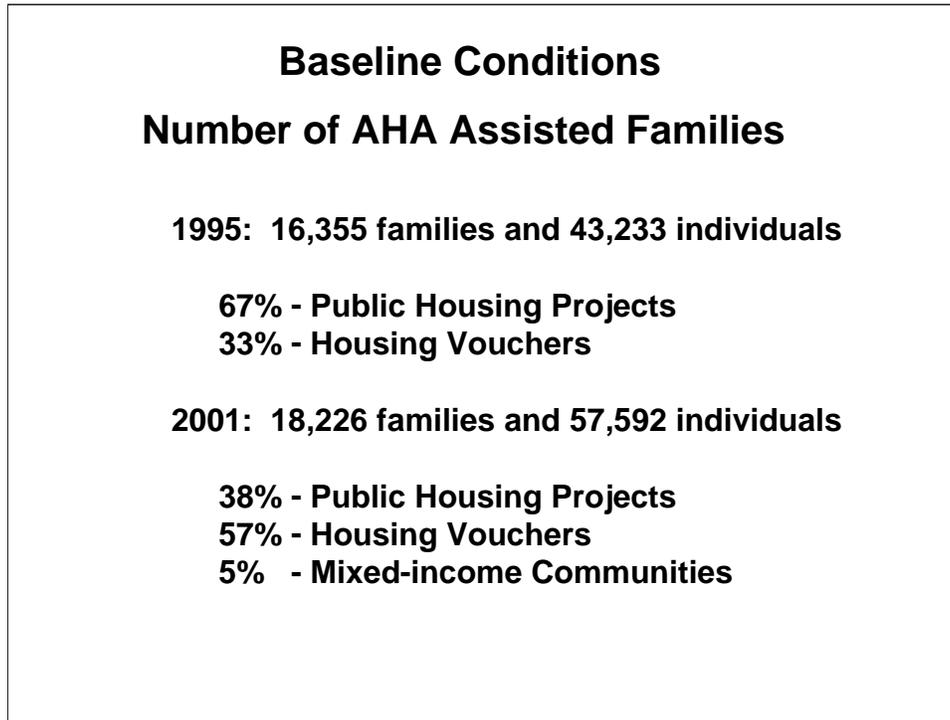
In 1996, AHA began outsourcing the management of its communities. By July 1, 2001, professional management agents were privately managing 100% of AHA's properties. These companies perform all of the management and maintenance functions (including resident services programs) and the capital improvement work at AHA-owned properties.

Once completed, revitalization in Atlanta will replace 6,418 on-site rental units designated for public housing assisted families with 5,837 mixed-income rental units; 2,256 of which are reserved for public housing eligible residents. Clearly, all the original families who lived in housing projects will not be able to move into the mixed-income communities. Families who do not move into the mixed-income communities can elect one of two options. First, they can use Housing Choice Vouchers, which will allow them to relocate to suitable rental property in the metropolitan area, or beyond—given the new portability feature of vouchers. Second they may elect to relocate to conventional housing projects that have not been revitalized. This report found that 60% of the families affected by revitalization chose housing vouchers.

AHA's uses the Housing Choice Program to supplement the loss of on-site housing resulting from mixed-income revitalization. This has accelerated the move towards housing vouchers in Atlanta. Figure 7 indicates that in 1995, 33% of assisted families used vouchers. By 2001, this had increased to 57%. During the same period, the number of persons receiving housing assistance from AHA increased by 33.1% (from 43,233 to 57,592), while the population of Fulton County increased by just 17%.

⁷ By 1998 the Authority was removed from HUD's Troubled Housing Authorities List and was recognized by HUD as a High Performing Housing Authority. In June 1999, AHA's performance score reached 100%.

Figure 7.



Part III. Baseline Characteristics and Trends in AHA Housing Assistance; 1995 to 2001

This section of the report is designed to describe the baseline characteristics of AHA residents as of 1995 and the major trends that have occurred between 1995 and 2001. Readers interested in focusing on the specific effect of mixed-income revitalization on families may skip this section without any loss in continuity. In this section, we do not attempt to explain the causal factors behind these trends or their consequences. Instead, we simply state them as fact. The major objectives of this report are examined in Part IV. Part III is simply designed to give the reader a broad overview.

a. Number of Assisted Residents

The total number of persons receiving AHA housing services each year consists of the head of household and all other related and unrelated individuals residing within the housing unit. This total consists of spouses, children and other relatives as well as unrelated individuals in the household. Figure 8 indicates that 43,233 persons received AHA housing services in 1995. By 2001, the number had increased by 33.2% to 57,592.⁸ By comparison, between 1995 and 2001 Fulton County’s population, which includes the City of Atlanta, increased by 16.5% from 700,689 to 816,638. As such, the number of AHA assisted residents grew twice as fast as the County’s population.

Figure 8. Number of AHA Assisted Persons by Program Status and Year

	1995	1996	1997	1998	2000	2001
Conventional Housing	27,248	23,755	22,540	21,645	18,845	18,226
Voucher Program	15,985	20,456	27,398	29,500	33,819	36,863
Mixed Income				338	1,905	2,503
Group Total	43,233	44,211	49,938	51,483	54,569	57,592

⁸ All results for 1999 are omitted from this reported because spurious results were created by the Y2K conversion and by AHA’s move to a different software platform.

AHA assisted residents are enrolled in three housing programs: (1) the Conventional Public Housing Program; (2) the Housing Choice Voucher Program⁹; and more recently (3) Mixed-income Communities. The percent distribution of assisted families in the three programs has changed significantly over time. Figure 8 lists the number of assisted persons in each program between 1995 and 2001 while Figures 9 and 10 list the number and percent distribution of AHA assisted families over the same period of time.

Figure 9. The Number of AHA Assisted Families by Program Status and Year

	1995	1996	1997	1998	2000	2001
Conventional Housing	10,989	9,722	9,272	8,969	8,202	7,927
Voucher Program	5,366	6,757	9,126	9,728	11,022	11,944
Mixed-Income				130	748	1,005
Group Total	16,355	16,479	18,398	18,827	19,972	20,876

Figure 10. The Percent Distribution of AHA Assisted Families by Program Status and Year

	1995	1996	1997	1998	2000	2001
Conventional Housing	67.2%	59.0%	50.4%	47.6%	41.1%	38.0%
Voucher Program	32.8%	41.0%	49.6%	51.7%	55.2%	57.2%
Mixed-Income				0.7%	3.7%	4.8%
Group Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

The total number of AHA assisted families increased by 27.6% between 1995 and 2001 (from 16,355 to 20,876). In comparison, the number of families in the Conventional Public Housing decreased significantly. At the same time, the number in the Voucher Program increased significantly. In 1995 the number in Conventional Public Housing was 10,989, or 67.2% of all AHA household heads. By 2001 there were 7,927 families

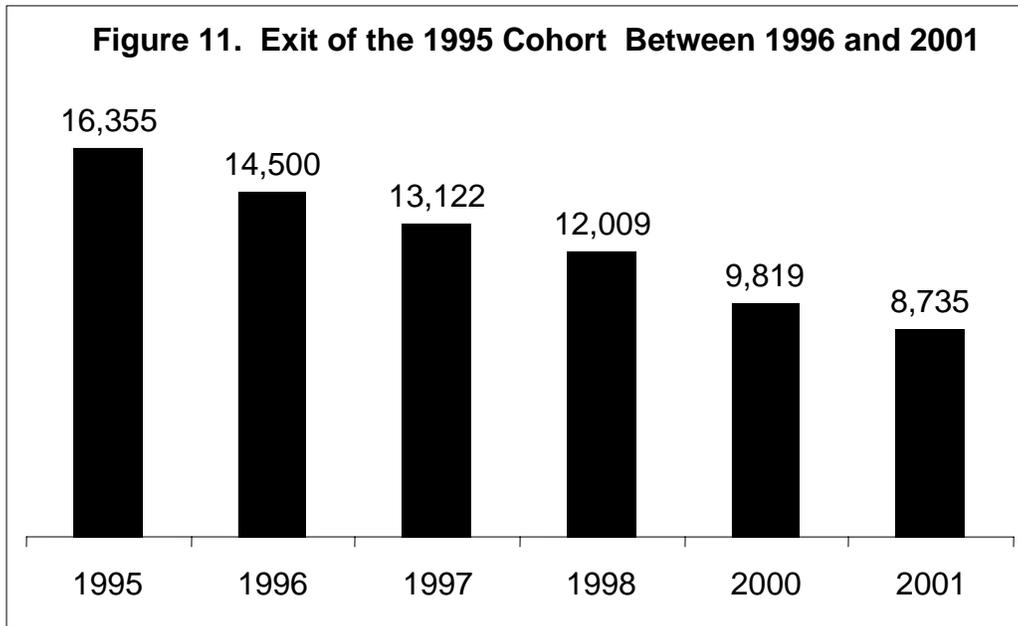
⁹Note that in 1998 and 1999 the Section 8 Program merged with the Housing Choice Voucher Program. As a result of this merger, this report will examine both programs as one entity and refer to them collectively as the “Housing Choice Voucher Program” or “Voucher Program.”

in Conventional Public Housing, or only 38.0% of all AHA families. During this time period, the percentage in the Voucher Program increased from 5,366, or 32.8% of all AHA assisted families, in 1995, to 11,944, or 57.2% of all AHA assisted families, in 2001. By 2001, mixed-income communities accounted for 4.8% of all assisted families, or 1,005.

b. Exit Rate of Families from Housing Assistance

To examine whether revitalization has caused affected residents to lose housing assistance is important to establish a baseline for the normal attrition rate of families from housing assistance. For this purpose we measured the number of families who were AHA assisted at one point in time (e.g., in 1995) and followed these families yearly to 2001.

We selected the 1995 cohort and recorded the program identification number of each family that was assisted in 1995 and remained active through the end of 2001. Figure 11 indicates that in 1995 there were 16,355 assisted families. By 2001, only 8,735 of the original 1995 cohort remained actively enrolled for AHA housing assistance. This means that the exit rate over this period was 46.6%. Or, the overall, 10.5% of the 1995 AHA cohort exited the program each year (see Figure 11).



c. Years of Tenure on Housing Assistance

In this report, tenure is measured as the number of years that a family has been assisted by AHA. This measure is based on evaluating the length of time that has expired since the head-of-household was admitted to an AHA housing program.

In 1995 the average tenure of families with AHA was 7.5 years. The average in 2001 had decreased to 5.7 years. Figures 12 illustrate the tenure distribution in various programs in 1995. Families in the Conventional Public Housing program had more years of tenure than families in the voucher program. For example, 52.7% of the families in this program had been assisted by AHA for 6 years or more. Long term assistance was also significantly greater in the conventional program as 22% had been on assistance for 16 or more years.

Figure 12. Years of AHA Housing Assistance in 1995 by Program Status

	Conventional Housing		Voucher Program		Group Total
	Number	Percent	Number	Percent	Percent
1 to 5 years	5,199	47.3%	4,584	85.4%	59.8%
6 to 10 Years	2,420	22.0%	723	13.5%	19.2%
11 to 15 Years	958	8.7%	38	0.7%	6.1%
16 to 20 Years	851	7.7%	19	0.4%	5.3%
21 Years and Greater	1,560	14.2%	1	0.0%	9.5%
Group Total	10,988	100.0%	5,365	100.0%	100.0%

d. Race of Heads-of-Households

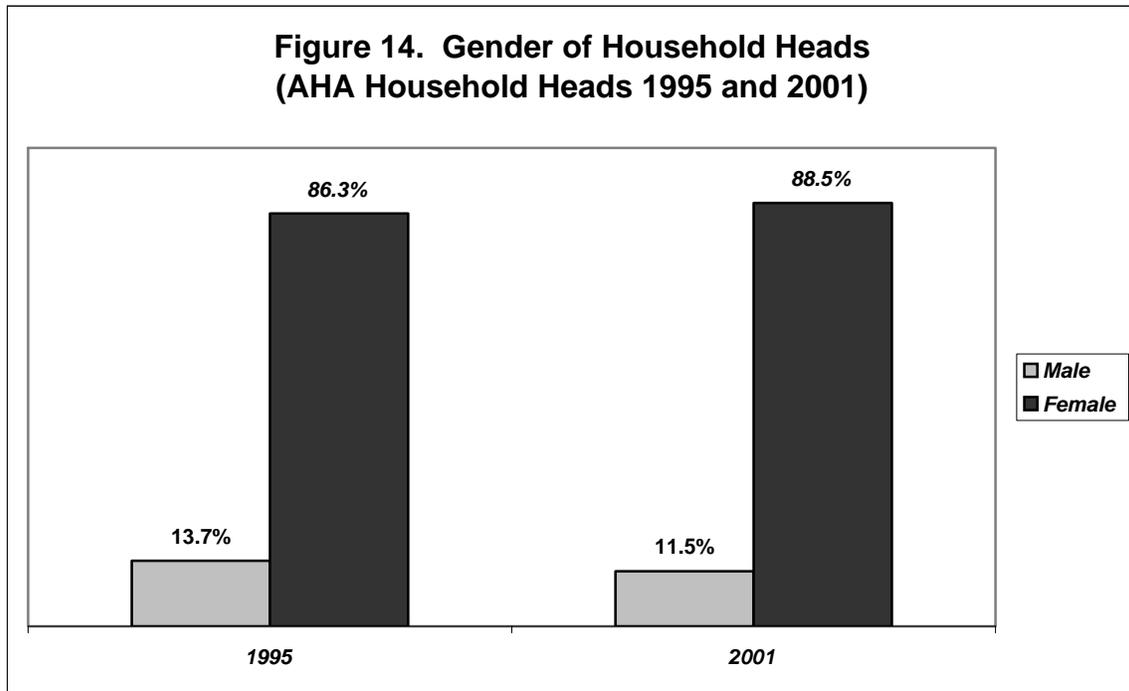
The percentage of Black Non-Hispanic heads-of-households rose from 93.9% (or 15,360 families) in 1995 to 96.1% (or 20,067 families) in 2001. The numbers of White Non-Hispanic household heads fell from 733 (4.5%) in 1995 to 585 (2.8%) in 2001. The percentage of White Hispanic household heads also decreased from 1.2% (192 persons) in 1995 to 0.5% (111 persons) in 2001. Figure 13 provides information on the number and percent of heads-of-households belonging to each racial group in 1995 and 2001.

Figure 13. Race of Household Heads in 1995 and 2001

	1995		2001	
	Number	Percent	Number	Percent
Black Non-Hispanic	15,360	93.9%	20,067	96.1%
White Non-Hispanic	733	4.5%	585	2.8%
Hispanic White	192	1.2%	111	0.5%
Hispanic Black	13	0.1%	41	0.2%
Hispanic Other	19	0.1%	8	0.0%
Native American/Eskimos	8	0.0%	12	0.1%
Asian/Pacific Islanders	28	0.2%	52	0.2%
Other	1	0.0%		
Group Total	16,354	100.0%	20,876	100.0%

e. Gender of Heads-of-Households

The number of female heads-of-households who were AHA assisted increased between 1995 and 2001 from 14,122, or 86.3% to 18,477, or 88.5%. (see Figure 14).



f. Age of Heads-of-Households

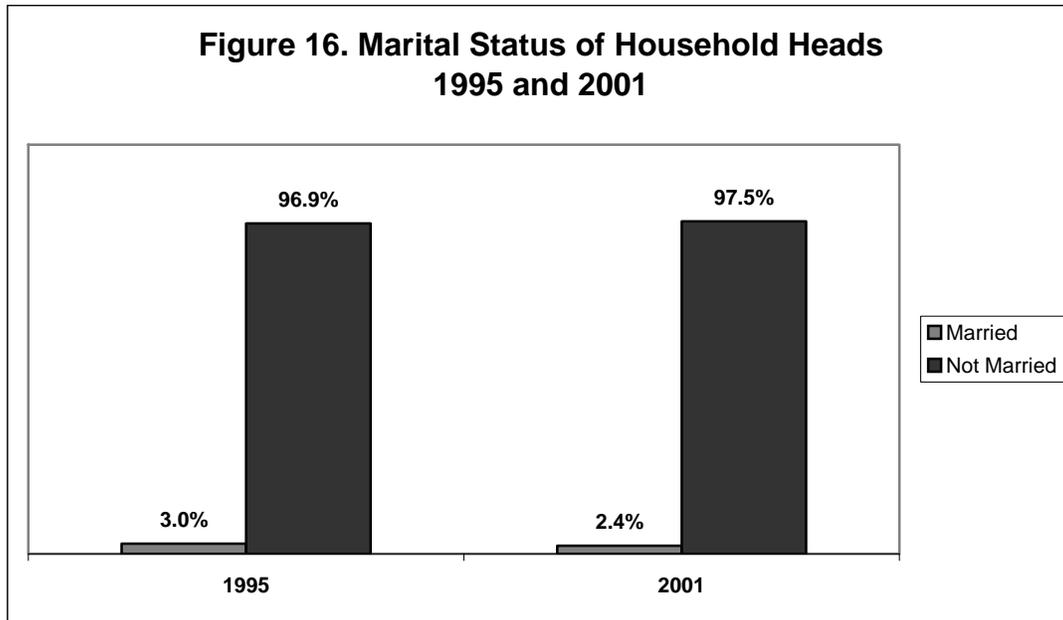
In 1995 the average age of a head of household was 43.4 years. Figure 15 gives the age distribution of all persons in 1995 and 2001. It reveals that the percent of persons 17 years and younger was 50.6% in 1995 and 52.4% in 2001. Similarly, residents 65 years and older comprised 7.5% in 1995 and 5.1% in 2001.

Figure 15. Age Distribution of All Assisted Persons, 1995 and 2001

	1995		2001	
	Percent	Number	Percent	Number
0 to 4 years	10.6%	4,587	9.3%	5,346
5 to 17 years	40.0%	17,290	43.1%	24,838
18 to 24 years	10.9%	4,727	11.0%	6,318
25 to 34 years	11.5%	4,982	11.5%	6,649
35 to 44 years	10.0%	4,337	9.7%	5,556
45 to 54 years	5.4%	2,335	6.5%	3,738
55 to 64 years	3.9%	1,701	3.8%	2,209
65 to 74 years	3.8%	1,621	2.7%	1,548
75 years and over	3.7%	1,596	2.4%	1,370
Group Total	100.0%	43,176	100.0%	55,572

g. Marital Status

The vast majority of AHA heads-of-households are unmarried—97.6% in 2001. Married household heads in 2001 numbered only 503 out of 20,652 families in the program, or 2.4% of all AHA household heads—down from the 1995 percentage of 3.0% (see Figure 16).



h. Primary Income of Assisted Families

Between 1995 and 2001, AHA assisted residents significantly improved their participation in the labor force. This increased participation is probably the result of the economic expansion that lasted from 1992 through 2001, welfare reform, increase in supportive services by AHA, the specific work requirements in mixed-income communities, and the positive influences of living in communities other than conventional public housing. In 1996 the federal government implemented welfare reform through the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA). This program abolished open-ended federal entitlements under Aid to Families with Dependent Children (AFDC) and stipulated work requirements for

recipients. Under the welfare reform initiative, the State of Georgia established a new assistance program, Temporary Assistance for Needy Families (TANF). The new program stipulates that recipients are permitted to receive cash assistance for no more than four (4) years during their lifetime. In addition, recipients must be involved in primary activities that are equivalent to 40 hours per week of employment. If individuals are unemployed but are able to work, recipients must meet applicant job search requirements and participate in the development of a Personal Responsibility and Work Plan (PRWP). To aid in job readiness, AHA established site-based development programs, including: (1) Employment Training and Counseling; (2) Employment Opportunity Identification and Job Matching Services; (3) Life Skills Development; and (4) Entrepreneurship Development. As a condition for admittance into mixed-income communities, employment able residents must work, participate in a job readiness program, or enroll in school.

The new work-related requirements in mixed-income makes it more difficult to distinguish between increases in labor force participation caused by specific neighborhood attributes of mixed-income environments and increases that are due to welfare reform and other work requirements. This issue is examined in a later section of the report.

Figure 17 lists the primary source of income for AHA assisted household heads between 1995 and 2001. Some AHA assisted residents have additional or secondary sources of income. For example, individuals may have income from TANF as a primary source and some wage earnings simultaneously.

In 1995, the largest source of income for AHA assisted residents was AFDC, 37.5%. The next income source listed most often was social security and supplemental income, which was the primary source for 34.1% of AHA assisted residents. Employment earnings in the form of wages and salaries were the primary source for 18.5% of AHA household heads, and 6.5% received unemployment benefits or workers' compensation as their primary source of income.

Welfare reform was passed in 1996. The reforms led to a reduction of AFDC and TANF as the primary sources of income after 1997. By 2001, only 22.0% of AHA assisted families listed AFDC/TANF as their primary source of income. The percentage of assisted residents who listed social security as their main source of income remained constant during this period. However, those listing earned income as their primary source increased from 18.5% in 1995 to 29.1% in 2001. Correspondingly, individuals having no reported source of income also increased from 0.5%, in 1995 to 4.6%, in 2001.

Figure 17.
Primary Source of Income; 1995-2001

	1995		2001	
	Number	Percent	Number	Percent
AFDC, TANF, General Asst.	5,908	37.5%	2,550	22.0%
Social Sec., Supplemental Security	5,360	34.1%	6,951	34.6%
Pension, Railroad Ret. , VA, Military	213	1.4%	224	1.3%
Wages, Salaries, Self-employment	2,909	18.5%	7,118	29.1%
Child Support, Alimony	239	1.5%	1,111	4.0%
Unemployment Benefits, Worker's Comp.	1,019	6.5%	1,058	4.3%
No Reported Source of Income	86	.5%	1,383	4.6%
Group Total	15,734	100.0%	20,395	100.0%

i. Employment

Figure 18 illustrates the employment of AHA heads of households 62 years of age and younger in comparison to Georgia and Metro Atlanta employment-to-population ratios. The Department of Labor (DOL) measures the employment-to-population ratio as the number of persons employed divided by total non-institutional population 16 years of age and older. We measured the employment status of AHA assisted residents as those who are household heads, 62 years of age or younger whose primary income source was wages for labor services during the current year. We recognize that the two definitions of employment differ somewhat. However, this is the closest approximation that we are able to make to the DOL's definition, given the information available on AHA assisted families.

Figure 18 indicates how employment differs among assisted residents in the three housing programs and compares these to labor forces in Metropolitan Atlanta and the State of Georgia. In 2001, employment was 21.1% for individuals in Conventional Housing, 44.6% for individuals in the Voucher Program, and 63.6% for residents in mixed-income communities. In comparison, the employment-to-population ratio was 65.3% for all Georgia employees in 2001 and 71.7% percent for employees in the Metro-Atlanta area in 2000.¹⁰

Figure 18. Employment Percentage of AHA Heads of Households in Comparison to Georgia and Metro Atlanta

Year	Conventional Housing	Vouchers	Mixed-Income	Georgia	Atlanta
1995	14.0%	12.1%		63.8%	69.6%
1996	15.4%	28.3%		64.7%	71.0%
1997	18.5%	36.5%		66.1%	70.8%
1998	21.7%	39.8%	54.0%	66.9%	71.2%
2000	21.8%	43.0%	62.7%	67.4%	71.7%
2001	21.1%	44.6%	63.6%	65.3%	n/a

Note: AHA employed population defined as Heads of Households 62 years of age and younger

j. Earnings of AHA Assisted Residents

Figures 19 and 20 list the change in nominal and real earnings received by AHA assisted families between 1995 and 2001. These figures are based on all individuals who had labor market earnings during the year as their primary source of income. In Figure 19 earnings are given in nominal dollars while the amounts in Figure 20 are converted to real or inflation-adjusted dollars.¹¹

In 2001 the annual nominal earnings of individuals in mixed-income communities was \$15,511, and their real earnings was \$13,727. These amounts exceeded the earnings of individuals in the Voucher Program (\$14,416 nominal and \$12,758 real). In addition, earnings of individuals in mixed-income communities and in the Voucher Program

¹⁰ The latest employment-to-population figures available for the Metro-Atlanta area are for 2000. Georgia DOL ceased publishing this ratio in 2001.

¹¹ Inflation is measured by the Consumer Price Index (CPI). See Georgia Department of Labor Metropolitan Economic Indicators, May 2002: 3. The CPI was converted to a base year of 1995.

exceeded those of individuals in Conventional Housing (\$11,388 nominal and \$10,078 real). Residents in mixed-income communities also experienced the greatest growth in real earnings between 1998 and 2001, 19.4% as compared to 8.3% for voucher holders and 9.1% for families in conventional public housing.

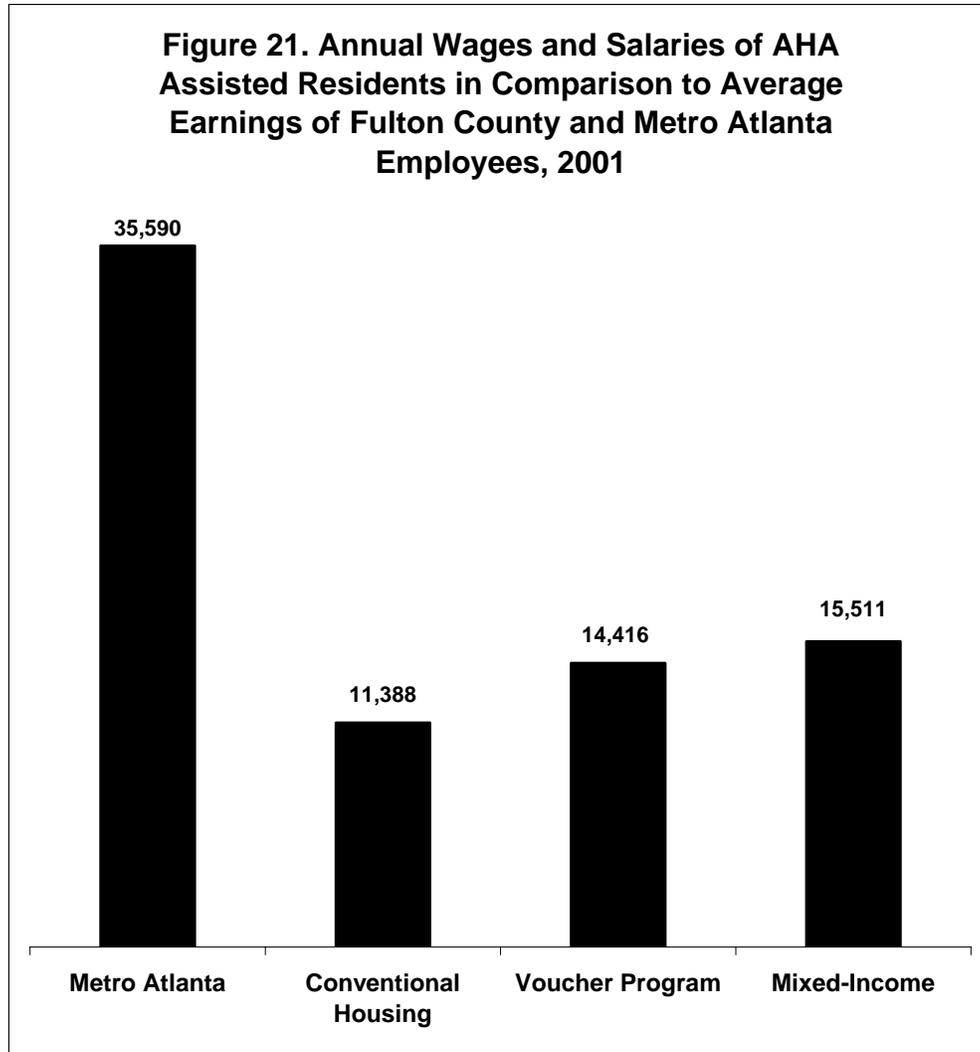
Figure 21 compares the average nominal earnings of families assisted by AHA to the average nominal earnings in Metro-Atlanta area in 2001. In 2001, the nominal earnings of AHA assisted residents in mixed-income communities was \$15,511, an annual average which represented only 43.6% of the average annual wage paid to all Metro-Atlanta workers. But the average wage of assisted residents in conventional public housing communities was only 31.9% of the Metro average, while for users of vouchers it was 40.5%.

Figure 19. Nominal Earnings of AHA Assisted Heads of Households (Dollars)

	1995	1998	2000	2001	% Increase 1998 to 2001
Conventional Housing	8,628	9,792	11,218	11,388	16.3%
Voucher Program	11,729	12,484	13,373	14,416	15.5%
Mixed Income	.	12,181	14,858	15,511	27.3%
Group Average	10,353	11,732	13,003	13,932	18.8%
CPI (1995 Base Year)	100	106	112	113	6.7%

Figure 20. Real Earnings of AHA Assisted Heads of Households (Dollars)

	1995	1998	2000	2001	% Increase 1998 to 2001
Conventional Housing	8,628	9,238	10,016	10,078	9.1%
Voucher Program	11,729	11,777	11,940	12,758	8.3%
Mixed Income		11,492	13,266	13,727	19.4%
Group Average	10,353	11,068	11,610	12,329	11.4%



Source: U.S. DOL 2001 Metropolitan Area Occupational Employment and Wage Estimates: Atlanta, GA MSA; AHA Administrative data.

k. Earned Income Distribution

Figure 22 provides information on the distribution of income of AHA assisted residents in 1995 and 2001. In 1995, 16.9% of assisted residents earned less than \$5,000, 33.7% earned between \$5,000 and \$10,000 and 33.9% earned between \$10,000 and \$15,000. Therefore, in 1995 84.6% of AHA assisted residents earned less than \$15,000. In contrast by 2001, 55.8% of residents earned less than \$15,000 and 15.4% earned \$20,000 or more. In 1995, only 4.0% earned \$20,000 or more.

The results show that individuals in the Voucher Program and residents of mixed-income communities have significantly improved labor force participation and earnings in comparison to those in conventional communities. Yet, the results also reveal that most public housing assisted residents have incomes that are so low, they still must be supported by a broad range of social services.

Figure 22. Income Distribution of AHA Assisted Household Heads, 1995 and 2001

	1995		2001	
	Number	Percent	Number	Percent
\$1.00 to \$4,999	526	16.9	536	7.0
\$5,000 to \$9,999	1050	33.7	1586	20.7
\$10,000 to \$14,999	1057	33.9	2148	28.1
\$15,000 to 19,999	356	11.4	2204	28.8
\$20,000 to \$24,999	78	2.5	919	12.0
\$25,000 and Greater	48	1.5	260	3.4
Group Total	3115	100.0	7653	100.0

I. Crime Rates at Revitalized and Non-Revitalized Housing Projects

A 1991 Department of Justice report indicates that black inner city residents were about three times more likely than white residents to cite neighborhood crime as their number one concern. Crime was ranked ahead of concerns about poor public services, housing deterioration, noise, litter and undesirable commercial property. (Bureau of Justice Statistics, 1991).

Black residents are much more likely to be victims of crime. The FBI's Uniform Crime Reports (UCR) indicates that black males, aged 16 to 19 are particularly at risk of violent crimes. Their victimization rate is almost double the rate for white males and three times that for white females. While Black males in this age category represent only 1.3% of the population, they experienced 17.2% of single-victim homicides. With a homicide rate of 114.9 per 100,000 persons, black males in this age category are 14

times more likely to be homicide victims than are members of the general population. (Bastian and Taylor, 1994).

Violent crime and poverty theft tend to be highly concentrated in particular neighborhoods. This report analyzes six conventional housing projects, three of which were revitalized into mixed-income communities (Clark Howell/Techwood Homes, John Eagan Homes and East Lake Meadows) and three were not (Grady Homes, Bowen Homes and McDaniel Glen). In neighborhoods that were revitalized, total crimes and crime rates (including violent crimes and property crimes) dropped dramatically. For example, Figure 23 indicates that in 1992, Clark Howell/Techwood, John Eagan Homes and East Lake Meadows had respectively, 1,084, 230 and 441 total crimes. For perspective, these properties had 1,195, 548 and 650 public housing units. This amounted to a crime rate per housing unit of .91 in Clark Howell/Techwood, .42 in John Eagan and .68 at East Lake Meadows, see Figure 24. In 2001, after these properties were revitalized, the total crimes were respectively 62, 27, and 33. The respective numbers of revitalized mixed-income housing units were 738, 400 and 542. Therefore the crime rates were respectively .08, .07 and .06.¹² At Centennial Place, the mixed-income development that replaced Clark Howell/Techwood Homes, the crime rate dropped by 91%. At John Eagan it dropped by 83% and at East Lake Meadows, it dropped by 91%. While the overall crime rate in the City of Atlanta decreased during this period, its decrease was far smaller than the decrease in these communities.

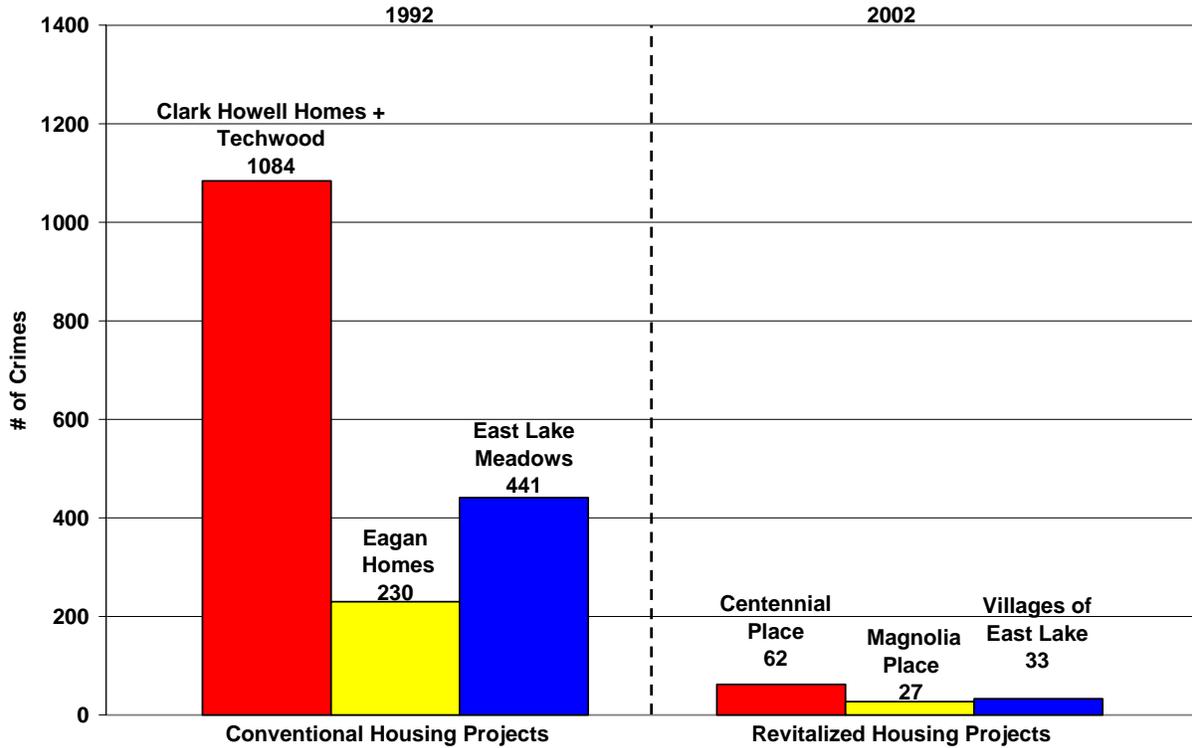
The significant drop in crime merits more extensive investigation that is beyond the scope of this report. In this report, the reduction in crime that has occurred in the revitalized mixed-income communities is simply reported as a fact and we do not examine its underlying causes.

In the three neighborhoods that were not revitalized, Grady Homes, Bowen Homes and McDaniel Glen, a significant drop in crime occurred only in Bowen Homes. Figure 25 indicates that in 1992, these three communities had respectively, 278, 690 and 610 total

¹² For comparability we calculate the crime rate based on the number of housing units rather than the number of persons. The latter may not be measure accurately for the mixed-income communities because detailed data on market rate families are not maintained by AHA.

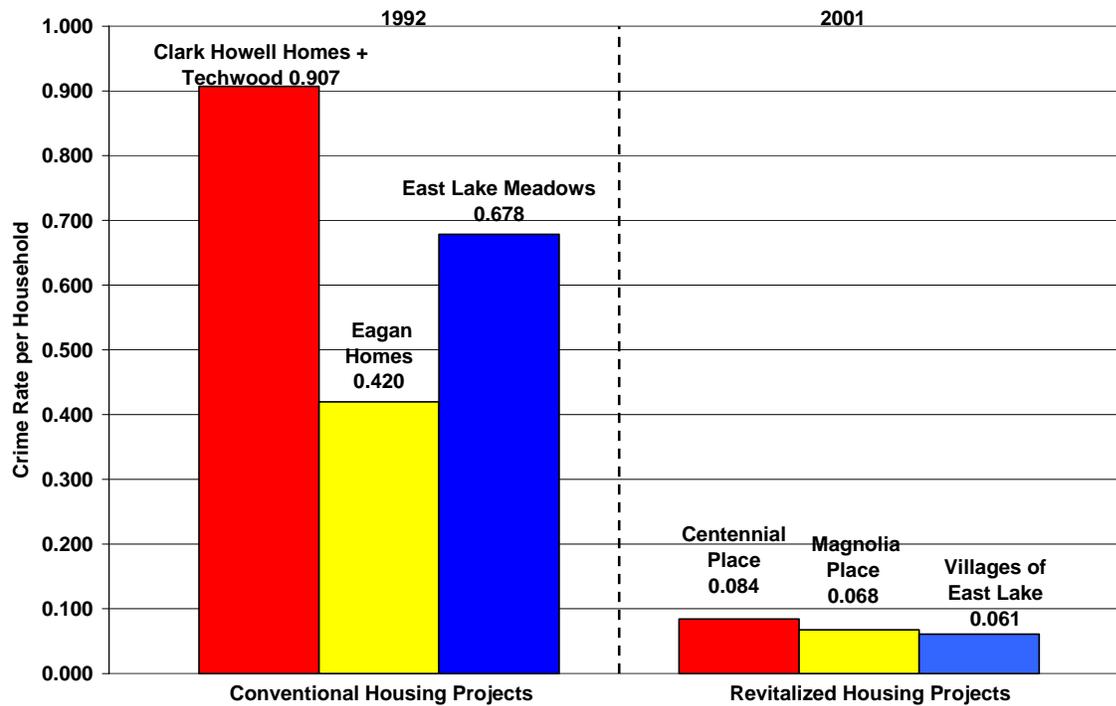
crimes. For perspective, these properties had 495, 650 and 496 housing units. This amounted to a crime rate per housing unit of .56, 1.1 and 1.2 respectively (see Figure 26). These properties were not revitalized and by 2001 they had 375, 214 and 633 crimes respectively. Therefore the crime rates were .76, .33 and 1.5 respectively. At Grady Homes the crime rate increased by 36%; at Bowen Homes it decreased by 70%; while at McDaniel Glen it increased by 22%.

Figure 23. Total Crimes in Revitalized Housing Projects: Before and After



Source: Atlanta Police Department Central Crime Analysis Unit

Figure 24. Crime Rate in Revitalized Housing Projects: Before and After



Source for both figures: Atlanta Police Department Central Crime Analysis Unit

Figure 25. Total Crimes Non-Revitalized Housing Projects

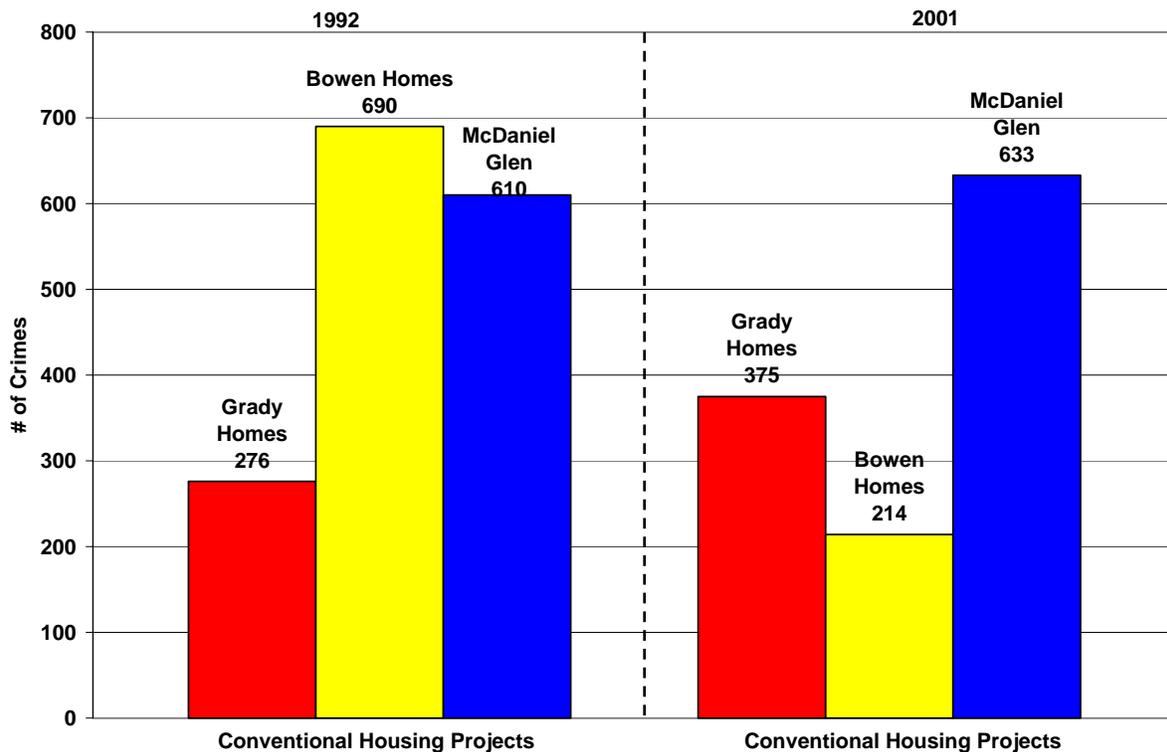
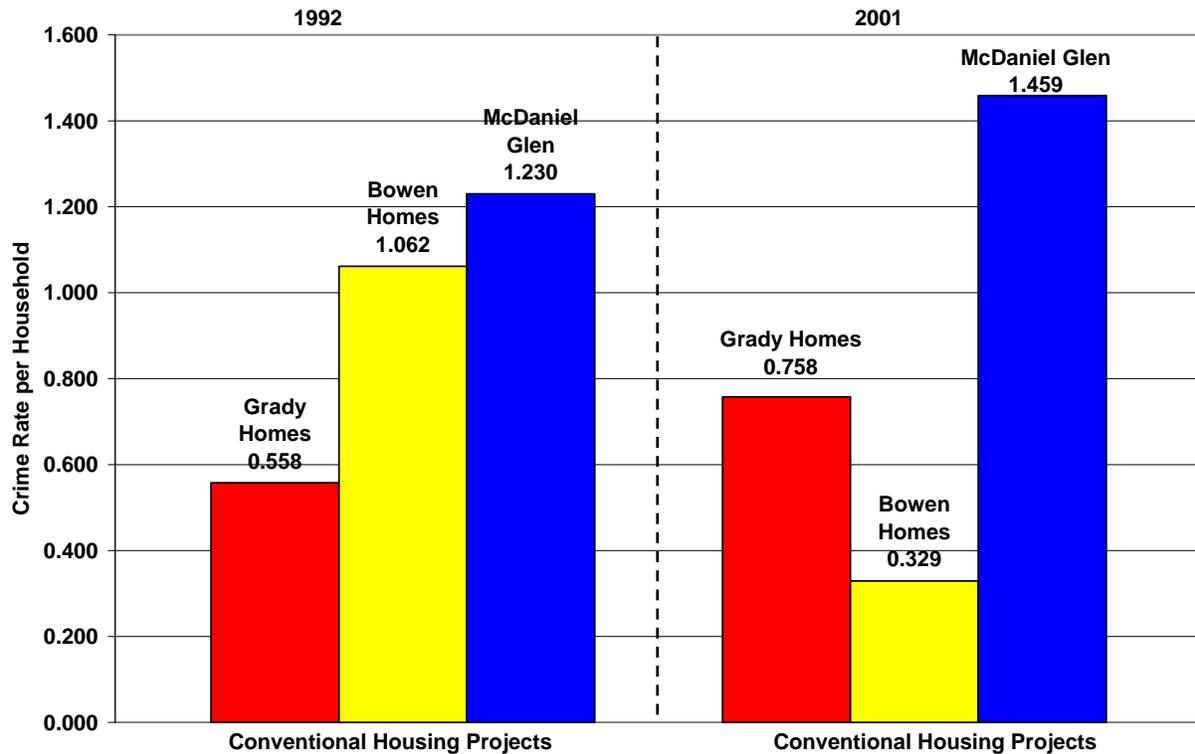


Figure 26. Crime Rate in Non-Revitalized Housing Projects



Source: Atlanta Police Department Central Crime Analysis Unit

m. School Quality in Mixed-Income Communities: Centennial Place and Drew Charter Schools

When considering long term improvements in the socio-economic status of individuals, education is perhaps the most important investment that can be made. Helen Ladd, an authority on urban schooling, has noted that a typical characteristic of American schools is that families who are restricted by low income or race to economically isolated central city neighborhoods usually end up in schools with high concentrations of disadvantaged kids, insufficient resources, low achievement levels and high dropout rates. By contrast, families with sufficient income can exercise greater school choice by electing to move to better suburban school districts or opting for private schools.

Research has shown that average achievement is highly correlated with the socioeconomic composition of the student body. Among other things, higher socioeconomic households have more parental involvement in the schooling process, have home environments that provide more support for learning, have more positive peer influences, and their schools attract higher quality teachers, more school resources, and greater parental volunteer services.

Through a working partnership between AHA and the Atlanta Public School System, new elementary schools have been constructed in each of the three revitalized communities studied in this report. Two of the three schools have operated long enough to allow one to judge whether school performance has improved accompanying the revitalized neighborhood and newly built school. These two are Centennial Place Elementary (which replaced Fowler Elementary that served the residents of Clark Howell/Techwood) and Drew Charter School (which replaced Drew Elementary in the East Lake Meadows neighborhood). Heritage Elementary was recently constructed at Magnolia Place. However, it has not operated long enough to make a comparison. By contrast significant positive changes have occurred at the other two schools. The author is currently conducting an empirical examination of the impact of revitalization on the educational performance of children of AHA assisted families.

This section simply reports the change in school performance following revitalization. It does not control for factors that might account for this outcome nor does it examine how the performance of children of assisted families has changed. We investigate these issues in a subsequent study.

As part of the master plan to revitalize Techwood/Clark Howell a new school, Centennial Place Elementary, was developed. The school was designed to improve the performance of children in assisted families and serve as a magnet to attract market rate families to the mixed-income community. The concept and driving force behind the new school was Dr. Norman Johnson, who served as Executive Assistant to the President of Georgia Tech. Using the opportunity provided by revitalization, Dr. Johnson persuaded The Atlanta School Board to allocate capital funds to construct a

new elementary facility. Additionally, Johnson was instrumental in getting faculty of Georgia Tech to help design the school's curriculum, which emphasizes science, mathematics and technology. Georgia Tech students also provide support for the school's computer-based learning. The Coca Cola Corporation, Georgia Tech and Grady Health Systems are partners with Centennial Elementary, providing it faculty and resources.

AHA's position is that to improve the socio-economic status of a community, one must not only transform the physical infrastructure, but improvements must also be made in the quality of schooling. The importance given to this objective explains why school initiatives have been included in the master plans of the mixed-income communities. Historically both Drew Elementary and Fowler Elementary were low performing schools in the Atlanta Public School (APS) System. Today, Centennial Place Elementary is one of the highest performing schools in the APS System while Drew Charter School, the first charter school in the City of Atlanta, is narrowing the achievement gap rapidly and now outperforms the APS system.

The new schools are fundamentally different from the previous one. Drew Charter School, which is a K-7 with 698 students currently enrolled, opened in August 2000 and moved into a new facility in 2001.¹³ It seeks to have small classes, reading and writing achievement, one-on-one tutoring, bilingual education, extended school hours and after school programs. The East Lake Foundation, established by philanthropist and developer Tom Cousins, spearheaded efforts to establish the new school. The foundation also played a pivotal role in revitalizing East Lake Meadows.

Centennial Place Elementary School is K-5 and currently has 515 students enrolled. It is a magnet school that is located in Centennial Place. The enrollment priority is given to children residing within the school district. Dr. Norman Johnson played the pivotal role in getting the new school constructed.

¹³ The school plans to add 8th grade.

In a recent resident survey conducted in Centennial Place, 91% of AHA-assisted residents and 77% of market-rate and tax credit residents were very satisfied with the quality of the school. (Abt Associates, 2001:36). This is a drastically different attitude for most residents of Clark Howell/Techwood housing project. Similarly, 78% of families with children attending Drew Charter expressed satisfaction with the school.¹⁴

Both schools occupy newly constructed facilities and have implemented innovative educational programs made possible through public and private support and several corporate sponsorships. Additionally, the schools have recruited committed and caring teachers and staff, significantly improved parental involvement, established rigorous standards-based curricula, implement after school programs and provided a very broad range of social and supportive services. These innovations have taken place while they have continued to serve the needs of residents of their respective communities. For example, 96% of the eligible students from The Villages of East Lake attend Drew Charter School and they comprise 65% of all students. Likewise, one-third to one-half of the students attending Centennial Elementary lives within the school district.

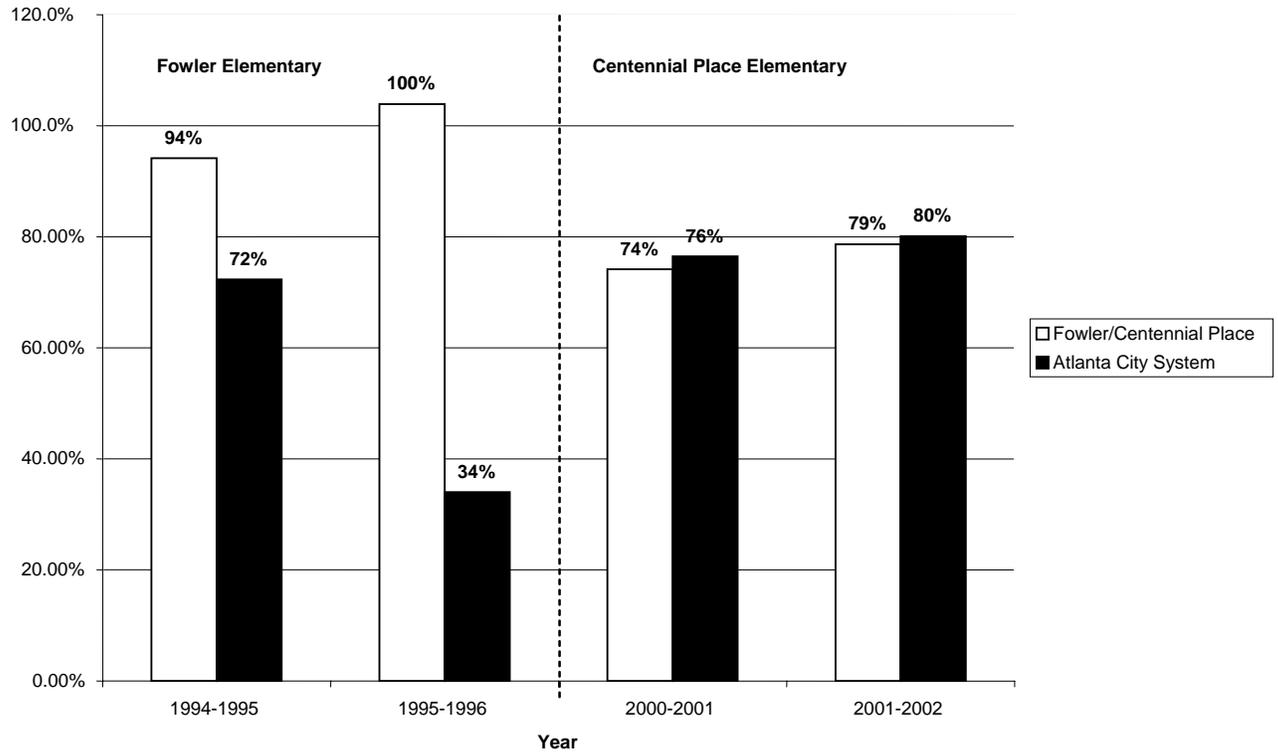
The percent of students eligible to receive free or reduced price lunches is an indication of income status of families in a school. The free and reduced price lunch eligibility guidelines are derived by multiplying the Federal Income Poverty Guidelines by 1.3 and 1.85 respectively. Figure 27 includes the percentage of eligible students at Fowler Elementary and Centennial Place Elementary as well as the percentage of eligible students for the Atlanta City School System. During the 1994/95 and 1995/96 academic years, between 90% and 100% of all students enrolled at Fowler Elementary school were eligible for free or reduced lunches. When Centennial was opened in the 1998-1999 school year, the extremely high percentage of lunch eligible students decreased. Today, the percent of eligible students at Centennial is about equal to the APS, i.e. 79% and 80% respectively.

Figure 28 indicates the percent of students eligible to receive free/reduced lunches at Drew Elementary and Drew Charter. The schools exhibit characteristics that were

¹⁴ "Report of Drew Charter school for the 2000-01 Academic Year" :1.

similar to those of Fowler/Centennial Place Elementary. Namely, for the first two years 100% of the students were eligible for free or reduced lunches. For Drew Charter Elementary in 2000 and 2001, the numbers of students that were eligible for free/reduced lunches dropped to 74% and 79% respectively. Today, it is about equal to the APS average, which is 80%.

Figure 27. Percent of Students Eligible to Receive Free/ Reduced Lunches for Fowler/Centennial Place Elementary in Comparison to the APS System



Source for both figures: Georgia Department of Education Annual Report Card

Figure 28. Percent of Students Eligible to Receive Free/Reduced Lunches at Drew Elementary relative to the Atlanta City School System

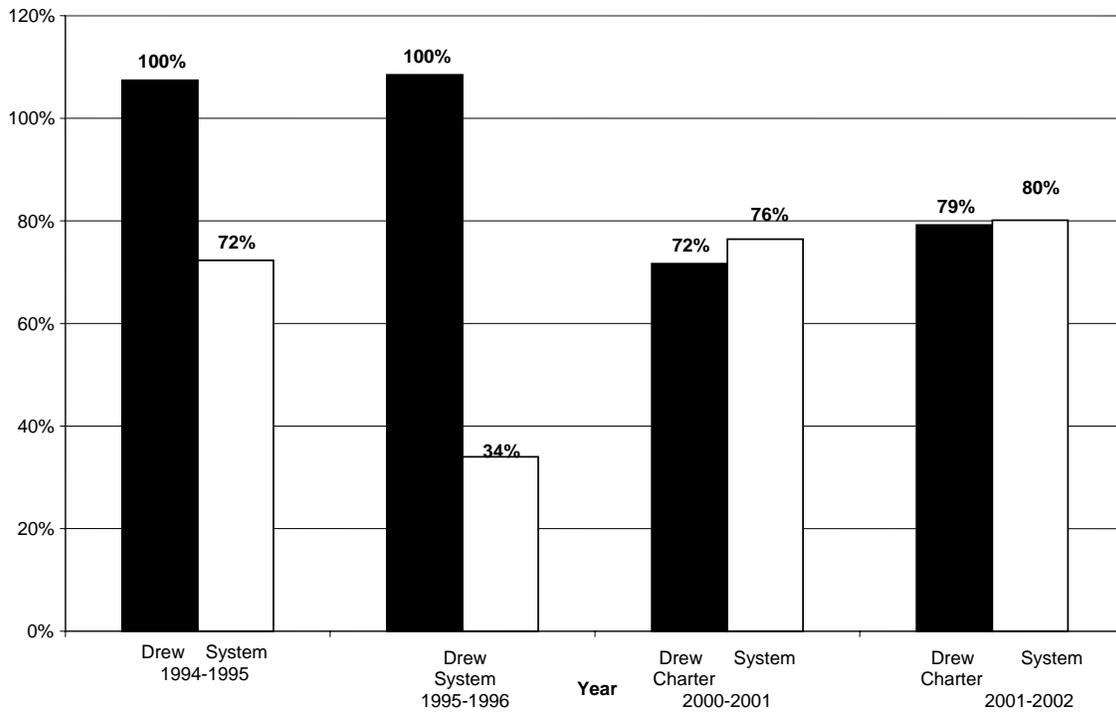


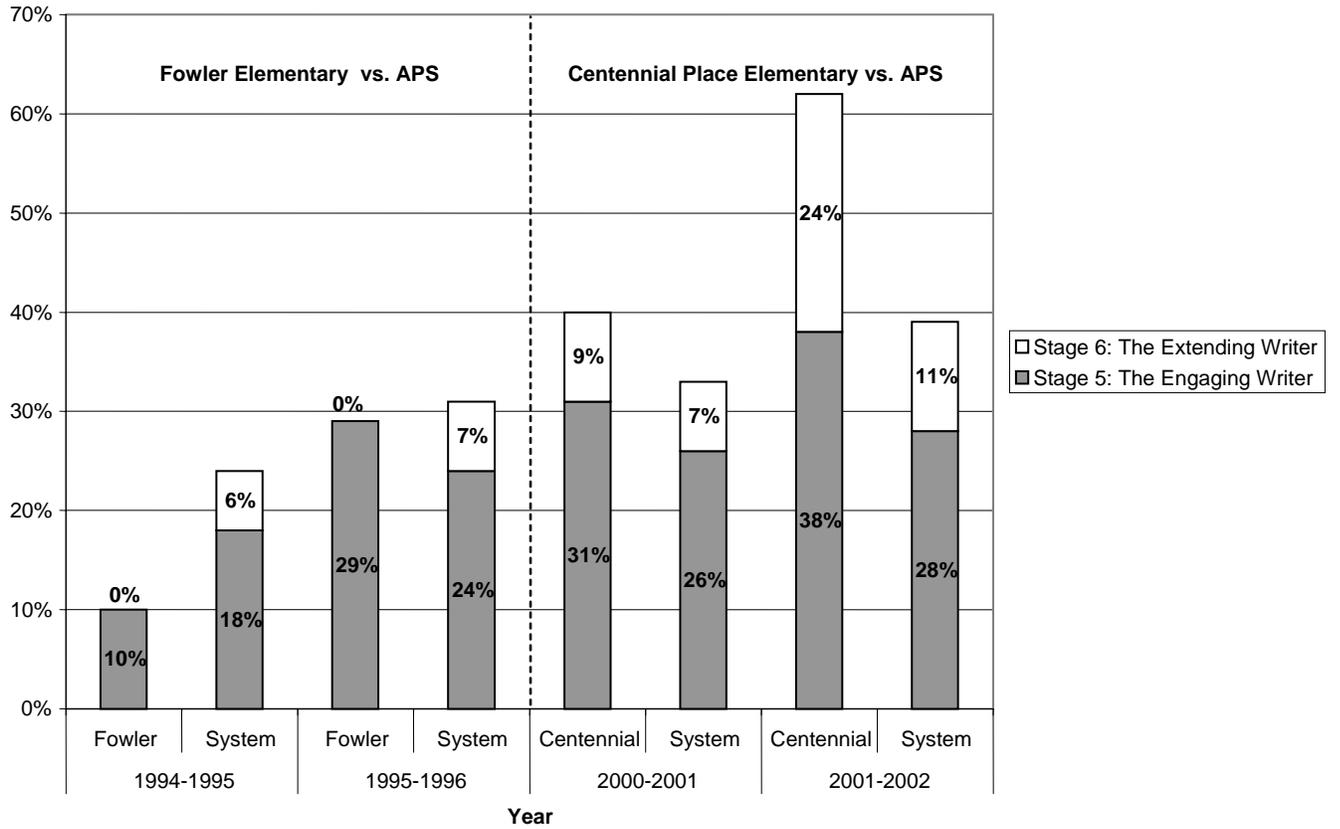
Figure 29 displays information regarding the performance of fifth graders at Fowler and Centennial who took the statewide writing assessment test. Student performance is broken into six successive categories. These categories are: the Emerging Writer (the lowest performance), the Developing Writer, the Focusing Writer, the Experimenting Writer, the Engaging Writer, and the Extending Writer (the highest performance). Each category represents a student's development towards the goal of writing a well developed and effective paper. In the grading scheme, the Extending Writers are students achieving excellence in their level of writing while the Emerging Writer encompasses students with the lowest level of writing performance. The categories form an ordinal relationship in that the higher the number for the stage the better the student's performance on the test.¹⁵

Figure 29 compares the performance of students at Fowler and Centennial to the performance of fifth graders within the Atlanta School System. The figure lists the percent of students achieving the highest two stages, i.e. Stages 5 and 6. In 1994-95 the Atlanta City System outperformed Fowler Elementary as 18% of students in the System achieved Stage 5 and 6% achieved Stage 6. Fowler had 10% in Stage 5 and no students in Stage 6. In 2001-2002, Centennial Place Elementary greatly outperformed the System with 24% in Stage 6 and 38% in Stage 5. By contrast, the System had 11% and 28% in these stages respectively.

Figure 30 provides the results for Drew Elementary and Drew Charter and compares them to the System. The figure reveals how rapidly the performance gap narrowed with the System over time. In 1994-95, none of Drew's students achieved Stage 6. Further, the percent in Stage 5 (15%) was smaller than the System's percent in Stage 5 (18%). By 2001-02, Drew Charter had 35% in Stage 5 (as compared to 28% for the System) and 6% in State 6 (as compared to 11% for the System).

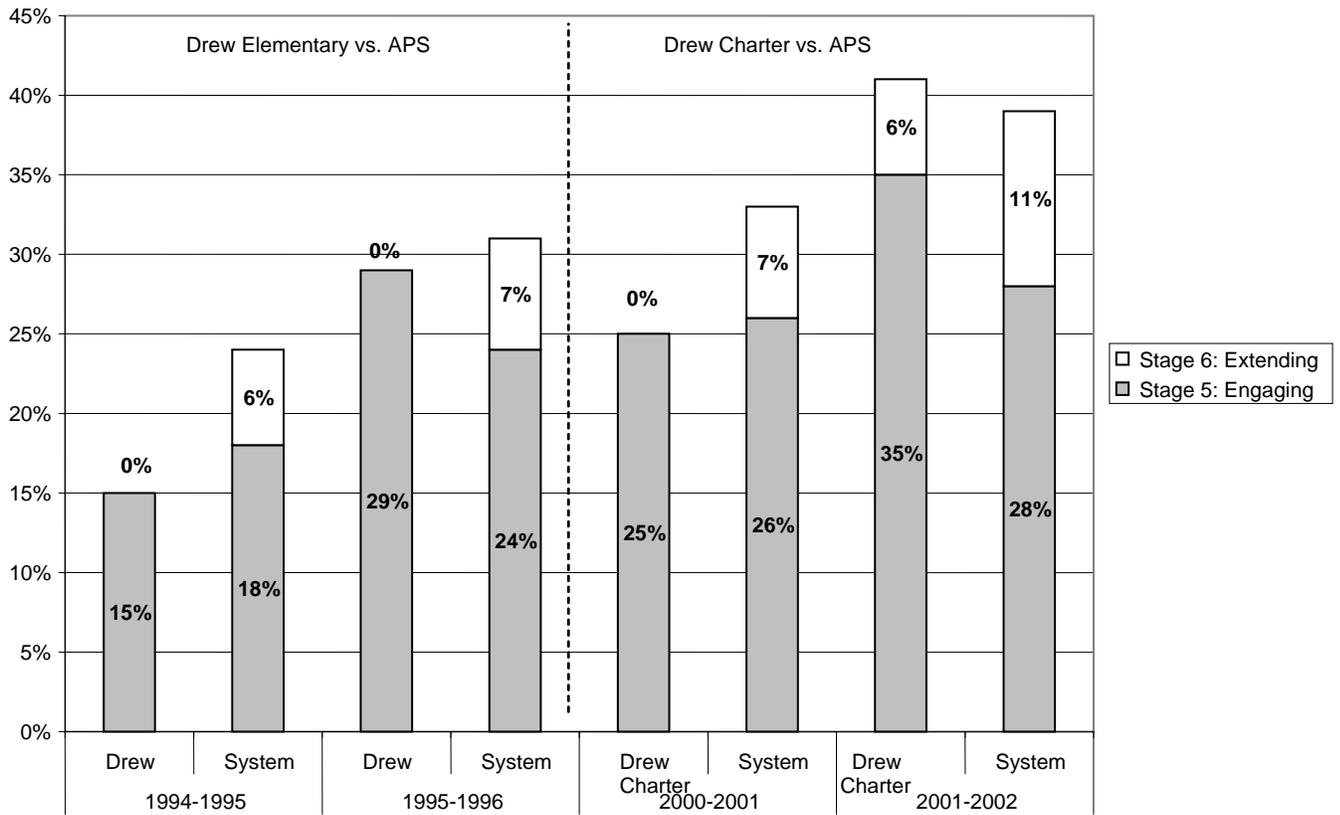
¹⁵ This statewide standardized test is generally considered to be the most objective. Additionally, it has been administered consistently over the longest period of time.

**Figure 29. Writing Assessment Fowler and Centennial Place
(% Achieving Stages 5 and 6)**



Source: Georgia Department of Education Annual Report Card

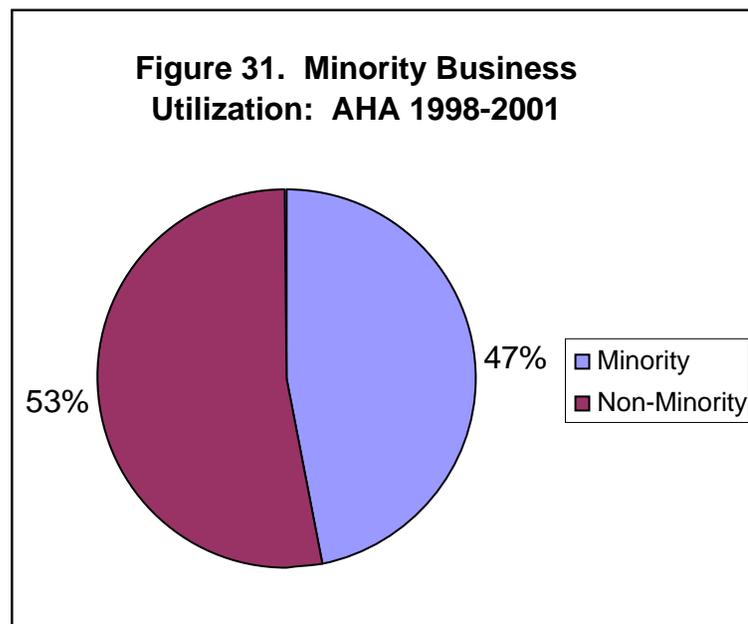
Figure 30. Grade 5 Writing Assessment Drew vs. Atlanta City System



Source: Georgia Department of Education Annual Report Card

n. Revitalization and Minority Business Opportunity

The Atlanta Housing Authority has achieved a high level of minority business participation in its revitalization activities. Over the period 1998 to 2001, minority businesses received 46.9% of AHA total procurement of goods and services. Further, it achieved this participation through voluntary policies rather than mandates based on race and gender (see Figure 31).¹⁶



Source: AHA Activity Report to U.S. HUD.

Minority business participation is a fundamental objective of the HOPE VI Program because such inclusion creates economic opportunities, jobs and income in communities with the greatest need. Revitalization requires services in the areas such as project management, master planning, architectural design, building construction, landscape design, development financing, building supplies and materials, and office supplies and equipment. Once completed there is also a need for property managers, maintenance services and landscape services. Each product or service is a potential business opportunity for minority-owned firms.

¹⁶ All data relating to AHA procurement activities are derived from an analysis of AHA's contract and subcontract activity reports to U.S. HUD.

Over the four-year period a total of 739 contracts were awarded by AHA. The service area having the largest value of awards was new construction (\$106.1 million or 46.9%). General services (\$45.3 million or 20.1%), substantial rehabilitation (\$32.0 million or 14.2%) and professional services (18.2 million or 8.1%) followed (see Figure 32). Of this total, businesses owned by Blacks were awarded \$97.3 million or 43.3% of all contracting value. Businesses owned by Asian and Pacific Islanders received \$6.3 million or 2.8%. Businesses owned by Native Americans and Hispanics received 0.1% and 0.8%, respectively.

Figure 32. Value of Contracts Awarded By Service Areas: AHA, 1998 to 2001

Service Area	Total	Percent
New Construction	\$106,077,490.38	46.9%
Substantial Rehab	\$32,048,177.02	14.2%
Repair	\$9,565,808.35	4.2%
Service	\$45,330,963.19	20.1%
Project Management	\$1,450,000.00	0.6%
Professional	\$18,200,546.00	8.1%
Education/training	\$2,397,201.00	1.1%
Arch/Eng. Appraisal	\$365,876.69	0.2%
Other	\$10,533,639.95	4.7%
Group Total	\$225,969,702.58	100.0%

Note: Value excludes contracts with for an Indefinite delivery or indefinite quantity or contracts that were revenue generating or percentage based.

Source: AHA Activity Report to U.S. HUD.

o. Economic Impact of Leveraged Development Expenditures

Through mixed-financing and public-private partnerships, AHA has leveraged \$184.0 million in HUD grants into \$907 million of direct development expenditures to revitalize six mixed-income communities today. The leveraged expenditures were invested in new mixed-income housing units, new schools, recreational centers, hotels, libraries, YMCAs, infrastructure improvements, retail and commercial establishments, health clinics and mini police precincts (see Figure 33). These expenditures and investments would not have occurred in the absence of AHA’s revitalization activities. As the \$907 million of investment expenditures rippled through the economy, it created a secondary or induced effect that added jobs, household income, new retail and industry activity, and new tax revenues to local and state governmental agencies.

Figure 33. Value of HUD Grants and Leveraged Investments in Six Mixed-Income Communities between 1994 and 2004

Original Development	HUD Grant (\$M)	Total leveraged spending (\$M)
Techwood/Clark Howell	43.0	153.0
East Lake Meadows	33.0	128.0
John Eagan Homes	21.0	140.0
John Hope Homes	17.0	150.0
Harris Homes	35.0	85.0
Capitol Homes	35.0	251.0
Totals	184.0	907.0

Source: AHA.

Each mixed-income community was financed through leveraging HOPE VI and other HUD funds with public and private resources including Low Income Housing Tax Credit (LIHTC) equity funds, an FHA-insured first mortgage from a private lender, and a second mortgage made up of HUD funds. At the same time, the City of Atlanta provided site improvements.

A key element of the economic impact analysis is the development of the multipliers through which the indirect impacts are measured. These multipliers quantify the indirect effects of spending in one time period on spending in subsequent time periods. For example, wages and salaries received by construction employees will be spent on commodities such as food, automobiles, housing and clothing. These expenditures will generate additional income that will also be spent. The initial wages, therefore, multiply as they work their way through subsequent rounds of spending. The sum of all of these subsequent rounds of spending is the indirect effect.

To estimate these indirect effects we used an input-output model that is tailored specifically to the Atlanta Metropolitan Area and which has been developed by Professor William Schaffer of Georgia Institute of Technology. The model is a 498-industry/commodity table showing the local sales and purchases of industries in the region.

The model allows one to trace how construction expenditures, originating in one sector of Atlanta's economy, flow through a complex industry structure and end up in the pockets of local businesses, residents and governments. The model traces these subsequent rounds of spending and determines the final incomes for local residents and economic units. By replicating local trade patterns, the model shows the indirect effects of initial expenditures on retail and commercial activity, personal income, local tax revenues, and jobs.¹⁷

The analysis found that the \$907.0 million of leveraged expenditures on six mixed-income communities created a total impact on Atlanta's economy that was equal to \$2.5

¹⁷ The basic purchasing patterns for local industries are derived from the most current estimates for the U.S. economy tabulated by the Bureau of Economic Analysis (BEA). In working with these data, current price deflators are used to produce a table that reflects current transactions. The "technology" table, which shows purchases of commodities without regard to their geographical origins, is reduced to reflect the size and industry mix of the local economy. This step involves estimating both gross outputs of industries using published detailed payroll data and local demands for final goods and services based on personal income and government finance statistics. The next step is to adjust the data for trade so that only transactions with local businesses are recorded in the inter-industry part of the table. The 498-industry input-output model is then aggregated into ten industry groups to determine how OLP's initial direct expenditure of \$904 million ripples through industries of the metropolitan economy in twelve successive rounds of spending.

billion (see Figure 34). The \$2.5 billion included \$628.0 million in new wages, salaries and household income and \$1.82 billion in new retail and commercial activity. The impact is the cumulative total since 1994.

The \$2.5 billion in development expenditures helped create and sustain 20,295 full-time jobs or roughly 22.5 jobs per million expended. This economic activity is estimated to have generated 89.5 million in total tax revenues (\$31.2 million in Fulton County tax revenue and \$58.3 million in State tax revenue) (see Figure 35). The industry multiplier implied by the model is 2.18, which means that for every \$1.00 of leveraged expenditures \$2.18 dollars of aggregate business activity is created. The income multiplier is 0.75 which means that \$.75 of household income is created for every \$1.00 of leveraged expenditures. Fulton County tax revenue multiplier is .037 and the State tax revenue multiplier is .069. This means that every dollar of development expenditures creates \$.037 in county tax revenue and \$.069 in State tax revenue.

**Figure 34.
Total Economic Impact of Revitalization in Six Mixed-Income
Communities**

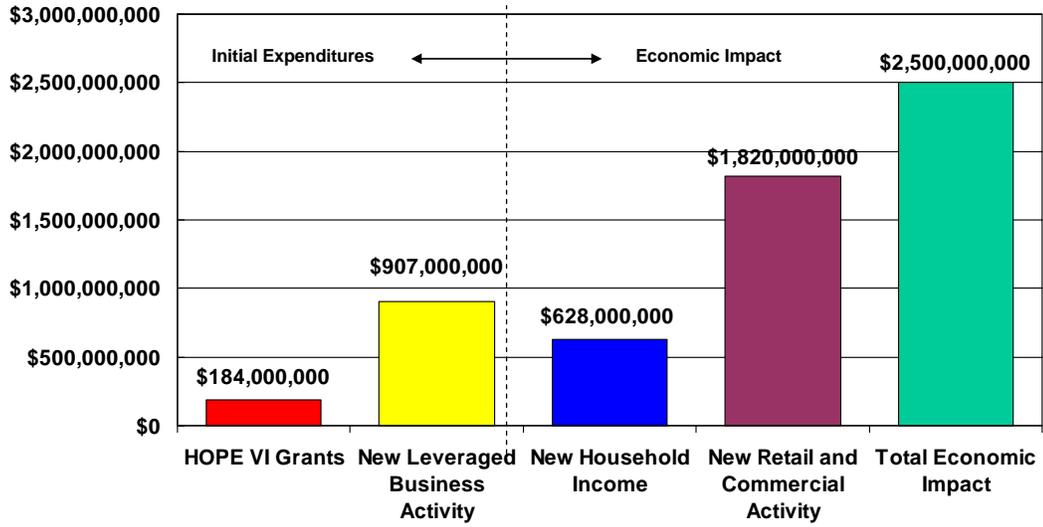
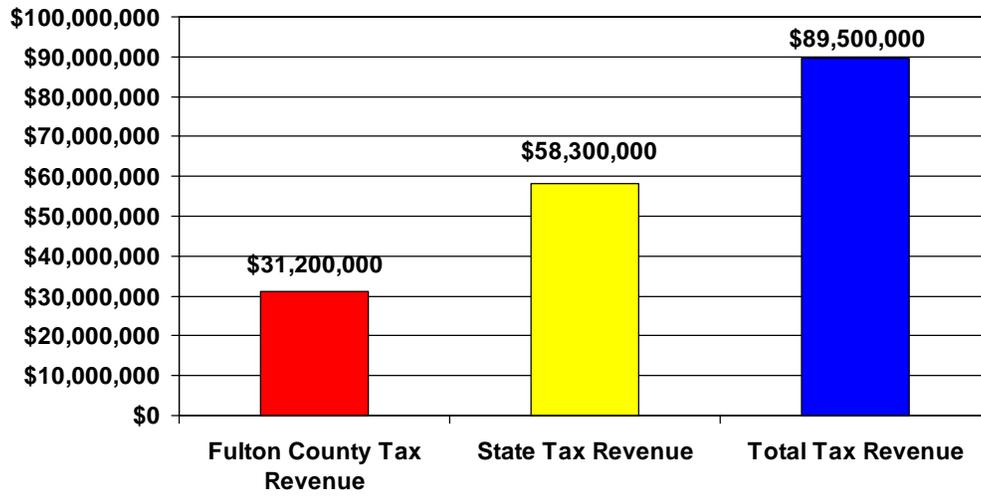


Figure 35. Effect of Revitalization Expenditures on Government Tax Revenue



Part IV. The Effect of Revitalization on Socio-economic Status

This section examines the major research questions of the study empirically. They are important questions facing public housing officials and policymakers, especially those whose goal is to use mixed income revitalization as a vehicle for reducing the effects of concentrated poverty. These questions include: (1) Did revitalization cause a loss of housing assistance? (2) Where did families affected by revitalization relocate as public housing projects were demolished? (3) Did revitalization lead to an improvement in the socio-economic status of families, and if so by how much? And (4) How did the change in environment associated with socio-economic mobility affect the socio-economic status of families?

A major innovation of this study is the Quality of Life Index (QLI) developed by the author to measure the change in the socio-economic status of families and the quality of the neighborhood where the families reside. The following sections discuss the development of QLI and how it is utilized to measure the variables of interest.

The Quality of Life Index (QLI)

The Quality of Life Index has been created for the purpose of measuring the socio-economic status of families at different points in time and in different housing programs. It is derived from the Human Development Index (HDI). The HDI was created by the United Nations Development Program (UNDP) to capture the complex realities in which people live by reflecting the progress of a country in terms of longevity, knowledge and standard of living. Like HDI upon which it is based, QLI was created to convey the idea that revitalization is a multi-dimensional process. We recognized that too often officials of PHA's and other housing policy officials and practitioners have used only the poverty rate and racial composition of neighborhoods to benchmark the social and economic progress of families engaged in residential mobility. The QLI is designed to overcome this limitation.

Since the beginning of the 1990's there has been an effort, particularly by the United Nations (UN) through its Human Development Program and annual *Human*

Development Reports, to generate awareness of the human and social dimensions of economic development. Rather than measuring economic development by per capita income alone, the UN's *Human Development Reports* have set out to measure social progress by creating five indices. These include: the Human Development Index (HDI), the Gender-related Development Index (GDI), the Gender Empowerment Measure (GEM), and the Human Poverty Index (HPI-1 and HPI-2). These new indices have highlighted aspects of economic development that were previously ignored and have led to the creation of new benchmarks for countries to achieve more balanced development.

The International Economic Development Council asserts that development is the process of growth and restructuring of an economy so as to enhance the economic well-being of its people. Economic development should not only stimulate productivity, employment and business opportunities, but it should also lead to an increase in the standard of living of the domestic population. According to the UNDP, the purpose of development is to improve the quality of life of people by expanding the range of choices available to them and by enhancing their capacity to take advantage of those choices (Fukuda-Paar, 2002).

Starting in the 1990s, human development theory gained increased visibility within the discipline of development economics. Its growing influence shifted the paradigm for conceptualizing national progress from measurements based on per capita income to those focused on the underlying social dimensions of development. The assumption is that social dimensions depict more accurately the progress of nations because they take into consideration people's living conditions rather than just their income.

The HDI was developed in 1990 by Pakistani economist, Mahbub ul Haq.¹⁸ Since 1993, the index has become a permanent addition to the *UNDP, Human Development Reports*. The index is designed to capture "the average achievement of a country in basic human capabilities" (UNDP, 1995b).

¹⁸ Mahbub ul Haq was the World Bank's Director of Policy Planning from 1970 to 1982 and also as Pakistan's Minister of Finance from 1982-1984. He was also one of the founders of the human development theory on which the new development economics paradigm was based on.

The three dimensions included in the HDI are longevity, knowledge, and standard of living. Longevity is measured by the average life expectancy at birth. Knowledge consists of two components: adult literacy (which comprises two-thirds of this dimension) and gross enrollment in primary, secondary, and tertiary schools (which comprises one-third). The third dimension is the country's GDP per capita.¹⁹

Goalposts are established for each dimension of the HDI. These goalposts allow the actual measurement to be converted to a score between 0 and 1. For example, suppose in measuring life expectancy, the minimum value is set at 25 years, the maximum value is set at 85 years and the actual measured average life expectancy for a country is 73.4 years. In this case, 25 years is the minimum goalpost and 85 years is the maximum goalpost. The index value for life expectancy is then derived as follows:

$$\text{Life expectancy index} = \frac{(73.4 - 25)}{(85 - 25)} = 0.807$$

By establishing a minimum and maximum value, the index score will always range between 0 and 1. Using this procedure, a numerical index is derived for each dimension and the average of all indexes is the HDI.

The QLI provides a numerical score for each family and the family's surrounding neighborhood environment. Therefore, it can be used to measure the change in the family's socio-economic status at discrete points in time as the family moves between different housing programs and different neighborhoods. As such, it is a tool that can be applied generally to gauge the impact of a broad range of housing policies on assisted residents.

The QLI differs from the HDI in two ways. First the QLI includes more dimensions than does the HDI. Specifically, the QLI uses fifteen dimensions. Second, the QLI is

¹⁹ See, United Nations Development Program (UNDP). 2003. Human Development Report, 2003, Millennium Development Goals: A Compact Among Nations to End Human Poverty; Technical Note 1, pp340-344. (New York: United Nations). See also, Thirwall, A.P. 2003. Growth and Development: With Special Reference to Developing Economics. (New York: Palgrave MacMillan).

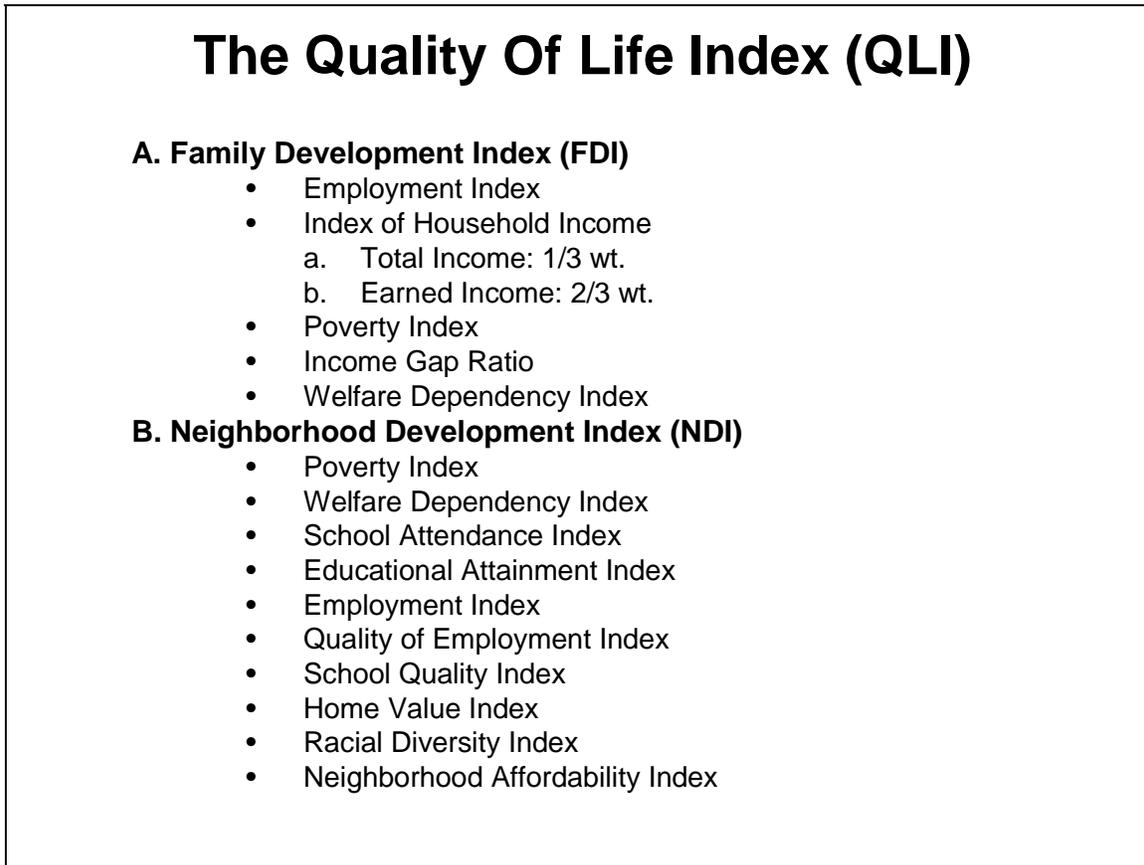
measured at the micro level (i.e. family and neighborhood level) rather than at the national level.

It is important to measure socio-economic status at the micro level because during any given year a significant percentage of assisted families change places of residence and housing assistance programs. The fifteen dimensions of the QLI are classified in two categories. We label these categories the Family Development Index (FDI) which has five dimensions and the Neighborhood Development Index (NDI) which has ten dimensions.

Actual values for the five dimensions of the FDI are derived for each family by using AHA's administrative data. Observations on each family are taken at two points in time, December 1995 and December 2001. Values for the ten dimensions of the NDI are derived by geo-coding the family's address with the U.S. Census Block Group characteristics where the family resides. The NDI observations for 2001 are geo-coded with the 2000 Census Block Group characteristics while values for 1995 are geo-coded with the 1990 Census Block Group characteristics.²⁰ After deriving the index value for each dimension, the average FDI and NDI values are calculated. The QLI is then the average of the FDI and NDI. The variables used in the QLI are described in Figure 36. In a forthcoming research paper, the author has modified the QLI so that its dimensions are closely aligned with data that are routinely collected by PHA's and so that the dimensions of the FDI are based on Census Tract characteristics rather than Census Block Group characteristics. Some other modifications include adjusting the minimum and maximum goal posts. These modifications are based on numerous discussions with a panel of housing experts assembled by AHA.

²⁰ AHA administrative data for 1990 are not available. Therefore, the starting point and ending point for our analysis of AHA assisted families is 1995 and 2001. Because of this, the change over time in the FDI is smaller than it would be if it were measured from 1990. Alternately, one can say that the change in the NDI is larger than it would be if census block group characteristics data were available for 1995. Because we analyze comparative change between a treatment group and a control group using the same methodology, the results should not be biased by this data limitation.

Figure 36.



The Family Development Index (FDI):

The FDI measures the economic well-being of AHA assisted families according to the housing program that they participate in. We used AHA’s administrative data to obtain observations on each family. The dimensions of the FDI are:

- **Employment Index.** This is measured as the percent of household heads whose primary source of income is from labor market services. The respective minimum and maximum goalposts were 0 and 100 percent.
- **Index of Household Income.** There are two dimensions of household income; (1) Total Income (measured as total income of the household from all sources including TANF, social security, child support and others), and (2) Earned income from labor services. One-third of the index value is given to total income

and two-thirds is given to earned income. The minimum goalpost was \$0 while the maximum goal posts were \$22,275 for 1995 observations and \$34,770 for 2001 observations. These values were based on the median household income for the City of Atlanta.

- **Poverty Index.** The percent of families below the poverty line. The poverty threshold is based on a three person family. The 1995 poverty threshold was \$10,080, while the 2001 threshold was \$11,610. The respective minimum and maximum goalposts were 0 and 100 percent. The index value was subtracted from 1 so that higher values connote more positive outcomes.
- **Income Gap Ratio.** The income gap is the total income required to bring a family to the poverty line, expressed as a percent of the poverty line. The deficit is calculated for families in poverty only. The respective minimum and maximum goalposts were 0 and 100 percent. The index value was subtracted from 1.
- **Welfare Dependency Index.** The percent of families whose primary source of income is public assistance. The respective minimum and maximum goalposts were 0 and 100 percent. The index value was subtracted from 1.

The FDI is the average of the indices calculated for the dimensions listed above.

The Neighborhood Development Index (NDI):

The NDI is based on the Census Block Group characteristics where the family resided. The family's place of residence in 2001 was merged with 2000 census data while the place of residence in 1995 was merged with 1990 census data. The intent was to capture the neighborhood characteristics immediately surrounding the family. All Census Block Groups were populated. The dimensions of this index are:

- **Poverty Index:** The percent of families in the Census Block Group at or below the poverty line. The respective minimum and maximum goalposts were 0 and 100 percent. The index value was subtracted from 1.

- **Welfare Dependency Index:** The percent of families in the Census Block Group that are dependent upon welfare. The respective minimum and maximum goalposts were 0 and 100 percent. The index value was subtracted from 1.
- **School Attendance Index:** Percent of individuals 3 years to 20 years of age residing in the Census Block Group that is enrolled in school. The respective minimum and maximum goalposts were 0 and 100 percent.
- **Educational Attainment Index:** The percent of individuals in the neighborhood having completed a high school degree or better. The respective minimum and maximum goalposts were 0 and 100 percent.
- **Employment Index:** Percent of the population 16 years of age and older that is employed. The respective minimum and maximum goalposts were 0 and 100 percent.
- **School Quality Index:** The standardized test score of the public elementary school that a child would be assigned to attend. Performance is measured by the percent of students at the school achieving the highest two stages (Stages 5 or 6) on the statewide Writing Assessment Exam (see Part III.m. of this report). The respective minimum and maximum goalposts were 0 and 100 percent.
- **Home Value Index:** The median price of a home in the Census Block Group. The minimum goalpost was \$0 while the maximum goal posts were \$139,800 for 1995 observations and \$260,000 for 2001 observations. These values were based on doubling the median household values in the City of Atlanta.
- **Racial Dissimilarity Index:** The index of dissimilarity is based on comparing the racial composition of the Census Block Group with that of Fulton County; the County encompassing the City of Atlanta. The index ranges from 0 to 1 with values approaching 1 indicating that a particular racial group (whether black, white or other) is more racially concentrated in the neighborhood than the County. The index value was subtracted from 1.

The racial distribution of Fulton County in 1990 and 2000 was:

Racial Category	1990	2000
White	47.8%	44.4%
Black	49.9%	48.2%
Other	2.3%	7.4%

- **Affordability Index:** The percent of AHA assisted families living in the Census Block Group who would have to spend more than one-third of their monthly income to rent an apartment priced at the median rent. The index value was subtracted from 1.

The NDI is the average of the indices calculated for the dimensions listed above. The QLI is the average of the FDI and the NDI.

Does Mixed-Income Revitalization Cause a Loss of Housing Assistance?

One of the most hotly debated topics regarding mixed-income revitalization is whether it causes a loss of housing assistance. One aim of revitalization is to de-concentrate poverty. Therefore, by design, the new housing developments typically have fewer on-site rental units available for housing assisted families than did the demolished housing projects. This is because a share of the new units is reserved for market rate renters or individuals with incomes that are higher those of assisted families. Once completed, revitalization in Atlanta will replace 6,418 on-site rental units designated for public housing assisted families with 5,837 mixed-income rental units; 2,256 of which will be reserved for public housing eligible families. Among the new mixed-income rental units already completed in Atlanta, 40.6% of are reserved for public housing eligible residents, 23.1% are rent subsidized and 36.3% are leased at market rates.²¹ The mixed-income communities are clearly not designed to accommodate all of the original residents. Families that cannot be accommodated in the new mixed-income communities are offered housing vouchers or the option of moving to other conventional public housing projects.

A key question therefore is whether the original families that were affected by revitalization activities have lost housing assistance? To answer this question we compared the attrition rate of families from housing assistance in the treatment group to that in the control group between 1995 and 2001. It is important to compare the treatment group to the control group because the results must be adjusted for the normal attrition that occurs among families receiving housing assistance. Further, this seven-year period of observation is opportune because it spans the demolition and construction phases of revitalization activities in the three communities. Additionally, it coincides with a period of vigorous growth in the U.S. economy and a relatively tight housing market condition in the City of Atlanta. The housing market conditions are germane because we wish to know whether families who relocated with housing vouchers were also more likely to lose housing assistance.

²¹ AHA (2002) "Relocation Summary Report of the Revitalization Communities: as of March 31, 2002."

Figure 37 compares the seven-year retention rate of families in the treatment group and the control group. Specifically, it measures the number of families that received assistance in 1995 and were still receiving assistance in 2001. It also expresses the number of still active families in 2001 as a percent of the number of 1995 original families.

Figure 37

Seven-Year Retention Rate of Families

1995 Origin Housing Project	Assisted Families in 1995	Still Active in 2001*	% of 1995 Cohort Still Active in 2001
Treatment Group			
<i>Clark Howell Homes</i>	478	270	56%
<i>John Eagan Homes</i>	370	199	54%
<i>East Lake Meadows</i>	387	179	46%
Total	1235	648	53%
Control Group			
<i>Grady Homes</i>	482	222	46%
<i>Bowen Homes</i>	577	291	50%
<i>McDaniel Glen</i>	424	217	51%
Total	1483	730	49%

*The “Still Active Families in 2001” are not necessarily residing in the same community as in 1995. This column simply indicates the number of original families that are still receiving assistance.

The figure reveals some surprising results. Of the 1,235 families in the treatment group in 1995 (478 families resided in Clark Howell Homes, 370 families resided in John Eagan Homes, and 387 families resided in East Lake Meadows), 648 families or 53% were still actively receiving AHA housing assistance in December 2001. This means that the attrition rate for families in the treatment group was 47% over the seven-year period. To determine whether this attrition rate was unusually high, we compared it to the rate for families in the control group over the same time period. The housing

projects in the control group were Grady Homes (482 families), Bowen Homes (577 families), and McDaniel Glen (424 families).

Combined, there were 1,483 families in the control group in 1995. By 2001, 730 of these families were still actively receiving AHA housing assistance. The retention rate was therefore 49%, which means that the attrition rate was 51%; a rate which exceeded that of the treatment group.

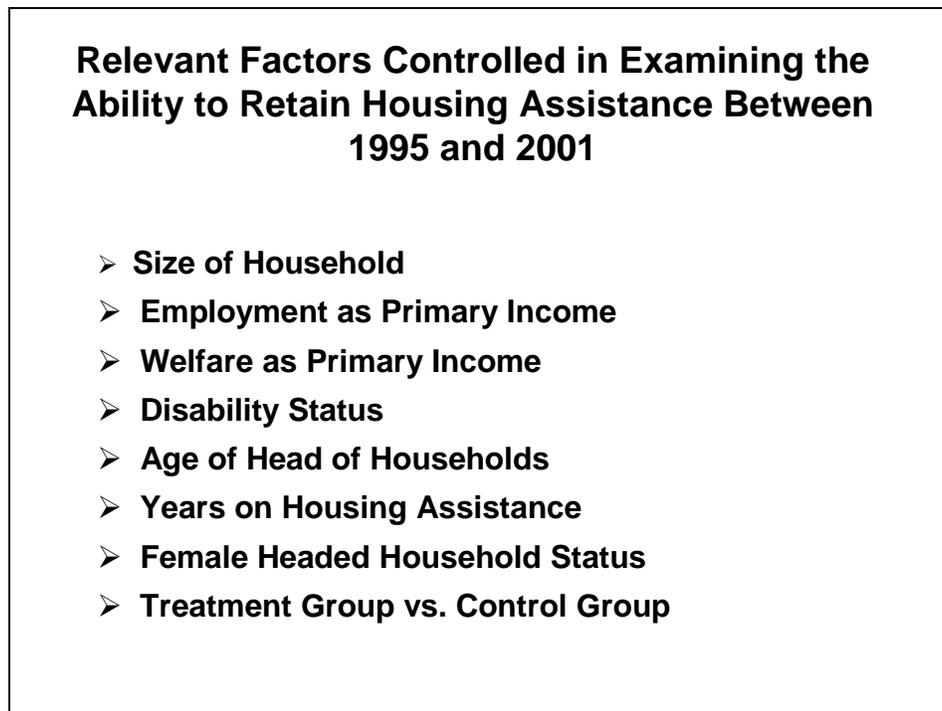
This evidence, which we believe is the first of its kind, contradicts those who argue that mixed-income revitalization caused greater attrition among affected families (see Keating 2000; Keating and Flores, 2000). The methodological flaw in previous analyses is the failure to account for the normal attrition that occurs by benchmarking the families affected by revitalization against those who are not.²²

Next, we conducted a logistic regression to examine where there is a statistically significant difference in the likelihood of retaining housing assistance between the treatment group and the control group after controlling for differences in relevant family attributes. The technique allowed us to determine whether the difference in odds of retaining housing assistance for the two groups was statistically significant.

²² In a forthcoming study we examine the reasons why families in the treatment group and the control group exited housing assistance.

Figure 38 lists the variables included in the logistic regression analysis. The dependent variable is the odds of retaining housing assistance between 1995 and 2001 given the family's attributes in 1995.

Figure 38



The independent variables are as follows:

- (1) The size of the household. We expect that as families get larger it is more difficult to retain housing assistance because HUD regulations do not allow families to be under-housed, i.e. to have more household members than rooms in the housing unit. Also, most conventional public housing was built to accommodate three or four person families. For example, at East Lake Meadows, only 6 of the 650 units were built for six person families. (AHA, 1992).

- (2) Welfare as a Primary Source of Income. We expect welfare recipients to have a higher likelihood of retaining housing assistance because it serves as a low income subsidy.
- (3) Disability Status. It is not clear how disability status affects the likelihood of retaining housing assistance. Some suggests that disabled residents affected by residential mobility are more difficult to place in alternative housing (Popkin, Levy, et al., 2003). If this is true, one might expect disabled heads of households to have a lower probability of retaining housing assistance.
- (4) Age of Residents. Research indicates that as individuals age, they become less willing to move. As such, we expect age to be associated with a higher likelihood of retaining housing assistance.
- (5) Years on Housing Assistance. Currently there is no time limit for receiving housing assistance. Because of this, we expect that the desire to maintain housing assistance increases with tenure. One reason for this might be that less socially mobile families will have a greater reliance on housing assistance. However, another reason might be that families who reside in more pleasant living circumstances prefer to remain there.
- (6) Female Headed Households. We expect that families headed by females are more likely to retain housing assistance than those headed by males. This might be due to a greater financial need among women, because among housing assisted families, women shoulder the major burden of child care. Women are also less likely to be become involved in criminal activities and other social forms of behavior that lead to eviction.
- (7) Treatment Group Families vs. Control Group Families. This is the most important variable in the logistic regression analysis. The conventional wisdom is that revitalization causes significantly greater attrition among affected families. This variable is entered as one (1) in the regression equation if the observation is on a family in the treatment group and (0) otherwise. Hence, we expect the

value of the coefficient for this variable to be negative and statistically significant. This would mean that the odds of retaining housing assistance were lower by a statistically significant amount for families affected by revitalization (the treatment group) in comparison to the control group.

For all variables entered in to the logistic regression we used the value of the Wald statistic and a critical value of .05 or smaller as an indication that the coefficient was statistically significant. Figure 39 provides the results of the logistic regression.

Figure 39

Logistic Regression: Factors Influencing Housing Retention			
Dependent Variable: Log of the Odds of Maintaining Housing Assistance between 1995 and 2001 given 1995 Family Attributes			
1995 Family Attribute	Coeff.	Sig. of Wald Stat	Exp(b) Change in Odds Ratio
Size of Household *	-0.006	0.825	0.994
Employment as Primary Income	0.042	0.754	1.043
Welfare as Primary Income *	0.292	0.014	1.339
Disabled	0.177	0.141	1.193
Years of Age	-0.006	0.086	0.994
Years on Housing Assistance *	0.026	0.001	1.027
Female Headed Household *	0.533	0.001	1.704
Treatment Group	0.116	0.137	1.123
Constant	-0.637	0.007	0.529

* Indicates Variable is Statistically Significant at .05 level

The dependent variable is the logarithm of the odds of retaining housing assistance between 1995 and 2001 given the family attributes in 1995. The logistic regression had 2,706 observations included in the model. An asterisk indicates that the value of the coefficient is statistically significant.²³ The results indicated that three significant variables were statistically significant:

1. The odds of retaining housing assistance are 33.9% higher for families on welfare in comparison to families not on welfare.²⁴ This result conforms to our expectation.
2. The odds of retaining housing assistance increases by 2.7% for every additional year a family spends on housing assistance. This also conforms to our expectation.
3. The odds of retaining housing assistance are 70.4% higher for female heads of households than for male heads of households. This conforms to our expectation.
4. The remaining variables were not statistically significant, including the difference in the odds of retaining housing assistance between the treatment group and the control group. This means that in the City of Atlanta, mixed-income revitalization did not cause families to experience a statistically significant greater loss of housing assistance.

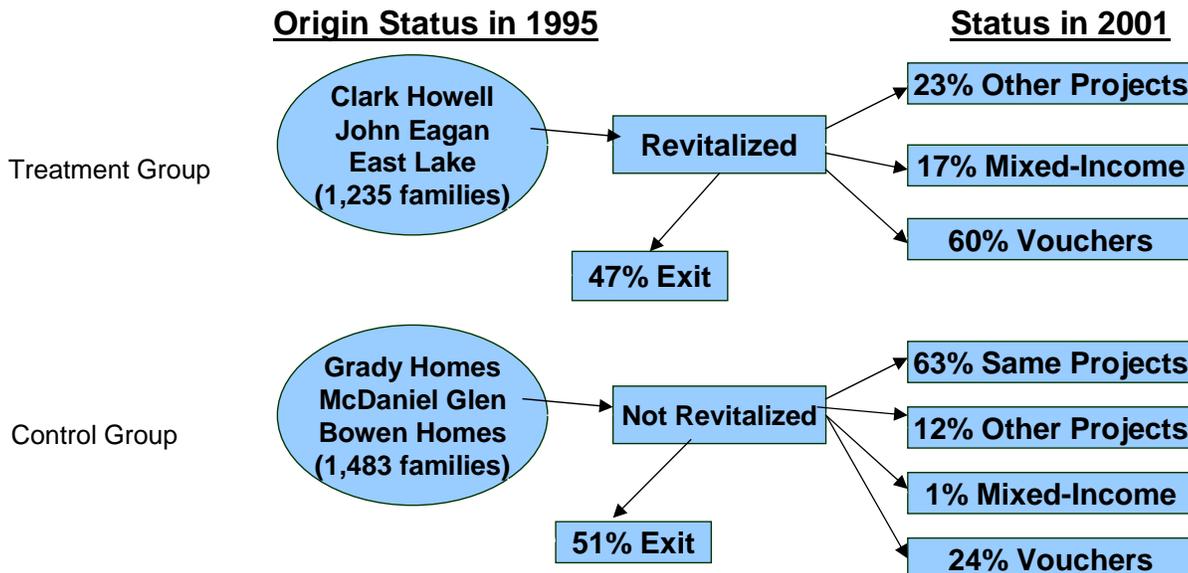
²³ The Chi-square for the model is 72.49 with 8 degrees of freedom and the level of statistical significance is .001; -2 Log Likelihood is 3678.22.

²⁴ The Exp (B) column given the change in odds associated with a particular variable, where 1.00 is even odds. Odds ratios differ from probability in that odds measure the chance of an event happening divided by the chance of the event not happening. For example, if the chance of rain is 60%, then the chance of it not raining is 40% and the odds of it raining is 1.5.

Where Did Residents Relocate When Housing Projects Were Demolished?

Some researchers have speculated about the relocation of original residents as a result of mixed-income revitalization (Popkin, Katz, et al., 2004). Figure 40 provides a definitive answer to this question in Atlanta. The figure traces the relocation of families from their origin housing project in 1995 to their 2001 location. The relocation of the treatment group is compared to that of the control group.

Figure 40.
What Happens to Families When Projects are Revitalized?



The relocation of treatment group families who resided at Clark Howell, John Eagan and East Lake Meadows began in late 1995. The phases of the on-site mixed-income replacement housing were completed in February 1999 for Clark Howell (which along with Techwood Homes was revitalized as Centennial Place); October 2000 for John Eagan (revitalized as Magnolia Place); and February 2001 for East Lake Meadows (revitalized as The Villages of East Lake). The revitalization of Clark Howell/Techwood Homes and East Lake Meadows also involved the construction of off-site replacement

mixed-income housing. For Clark Howell/Techwood, these off-site replacements included Summerdale Commons, Ashley Court at Cascade and Ashley Terrace at West End. For East Lake Meadows, these included Columbia Village and Columbia Commons. Only Columbia Commons was not completed by 2001.

Figure 40 indicates that of the 1,235 treatment group families, 47% exited AHA housing assistance by 2001. Of those retaining housing assistance, 23% moved to other conventional public housing projects, 17% moved to a mixed-income community and 60% moved out into the city or metro area with the use of housing vouchers. In comparison, among the 1,482 families in the control group, 51% exited AHA housing assistance by 2001. Of those who still received assistance in 2001, 63% resided in the same housing project as they did in 1995, 12% moved to a conventional housing project (different from Bowen Homes, McDaniel Glen and Grady Homes), 1% moved to a mixed-income community, and 24% used vouchers to move out into the city or metro area.

The Effect of Environment on Socio-economic Status

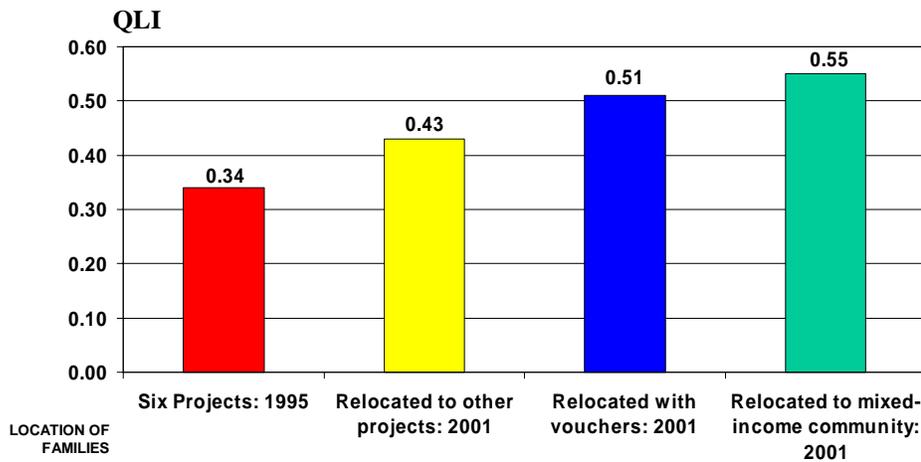
Figure 40 illustrates that mixed-income revitalization accelerated the use of housing vouchers among families in the treatment group. This raises a critical question. Has the growing use of vouchers as well as the relocation to mixed-income neighborhoods improved the socio-economic status of families? This section uses the QLI to address this question.

First, we measured the change in the QLI between 1995 and 2001 for families living in conventional housing projects, families using vouchers and families living in mixed-income communities. In 1995 all families under examination lived in one of six public housing projects. The 1995 average QLI for all families living in the six housing projects was 0.34 (see Figure 41). Between 1995 and 2001, some families continued to reside in public housing projects while others used vouchers to move out into the city. Still others moved to mixed-income communities. The 2001 QLI of families who continued to reside in public housing projects was .43. The 2001 QLI of families who relocated with

housing vouchers was .51. Finally, the 2001 QLI of families who moved to mixed-income communities was 0.55. The results indicate that the socio-economic status was highest for families who moved to mixed-income revitalized communities, followed by families using vouchers. It was lowest for families who continued to reside conventional housing projects.

Figure 41.
Quality of Life Index (QLI) for AHA Families

QLI for 2,718 families who lived in Six Projects in 1995 and moved to various locations by 2001.



Deriving the Actual Values for the QLI

Figure 42 summarizes the actual values of individual index dimensions that comprise the QLI. The top half of the figure lists the measures that make up the FDI. They are: Employment Rate; Household Income, Earned Income, Percent in Poverty, Income Gap, and Welfare Dependency.²⁵ The columns of Figure 42 give the unadjusted values or actual measures for each dimension. By unadjusted we mean that some of the

²⁵ Our method assigns 1/3 weight to Household Income and 2/3rds weight to Earned Income to get the Household Income Index.

values have not been converted to a scale of 0 to 1. Figure 43 gives the adjusted values that comprise the indices.

Each column of the Figure 42 and 43 corresponds to a particular time period and living environment of the family. The unadjusted and adjusted Index values in each cell of the figures are the average for all families in that time period and living environment. For example, Figure 42 indicates that in 1995 the average employment of families living in the six housing projects was only 15%.²⁶ By 2001 some families had left the housing projects while others remained or moved to other projects. The average employment in 2001 for those who remained in housing projects was 27%. By contrast, families who used vouchers to move out of housing projects had an employment rate of 43% by 2001. Finally, those who moved to mixed-income communities experienced a 48% employment rate by 2001. It is important to note that the average employment rate for all assisted heads of households in mixed-income communities in 2001 was 63.6%. The QLI listed in this report are only for original families who lived in one of the six housing projects in 1995. Other families also moved into mixed-income communities during this period and their average socio-economic characteristics were higher than those of the original families. This is why the overall average employment rate among all assisted families in mixed-income communities was 63% while the rate for original families was only 48%.

²⁶ This figure is based on heads of households 62 years of age or younger.

Figure 42.

**Unadjusted Quality of Life Index Values: 1995 and 2001
Treatment Group and Control Group**

	1995 Housing Project	2001 Housing Project	2001 Voucher	2001 Mixed Income
Family Development Index				
Employment Rate	.15	.27	.43	.48
Household Income	\$4,536	\$6,600	\$8,012	\$7,322
Earned Income Percent	.24	.32	.58	.52
Percent in Poverty	.91	.84	.67	.68
Income Gap	.57	.52	.53	.46
Welfare Dependency	.46	.11	.15	.03
Neighborhood Development Index				
Neighborhood Poverty	.74	.63	.26	.30
Neighborhood Welfare Dependency	.47	.20	.09	.05
School Attendance Rate (3 yrs to 20 yrs)	.71	.78	.78	.73
Educational Attainment (HS Graduation)	.41	.61	.65	.72
Employment Rate	.29	.35	.50	.41
Percent Admin/Mgt Empl	.11	.16	.20	.29
School Quality Index	.28	.39	.38	.48
Median Home Value	\$44,500	\$74,600	\$75,650	\$153,100
Racial Diversity Index, 1 → less diverse	.46	.54	.49	.47
Affordability Index: Rent \leq 1/3 of income	.45	.33	.09	.18

Figure 43

**Quality of Life Index (QLI): 1995 and 2001
Treatment Group and Control Group**

	1995 Housing Project	2001 Housing Project	2001 Voucher	2001 Mixed Income
Family Development Index				
Employment Index	.15	.27	.43	.48
Household Income:				
a. HH Income Index (1/3 weight)	.13	.14	.17	.16
b. Earned Income Index (2/3 weight)	.24	.32	.58	.52
Poverty Index	.09	.16	.33	.32
Income Gap Ratio	.43	.48	.47	.54
Welfare Dependency Index	.54	.89	.85	.97
FDI	.28	.41	.51	.54
Neighborhood Development Index				
Poverty Index	.26	.37	.74	.70
Welfare Dependency Index	.53	.80	.91	.95
School Attendance Rate Index	.71	.78	.78	.73
Educational Attainment Index	.41	.61	.65	.72
Employment Index	.29	.35	.50	.41
Employment Quality Index	.11	.16	.20	.29
School Quality (5th Grade Writing)	.28	.39	.38	.48
Median Home Value	.32	.29	.29	.59
Racial Diversity (1 is less diverse)	.54	.46	.51	.53
Affordability Index: Rent \leq 1/3 of income	.45	.33	.09	.18
NDI	.39	.45	.51	.56
QLI	.34	.43	.51	.55

The range for the Employment Index is 0 – 100%. The employment percentages do not need to be adjusted since higher rates have more positive connotations. Therefore, the unadjusted values (given in Figure 42) and adjusted values (given in Figure 43) are the same. The second row of data in Figure 42 provides median household income of families.²⁷ To convert these unadjusted values to index values, we use the goal posts described earlier. Once the Earned Income Index is calculated, it is added to the Household Income Index. The sums of these two indices comprise the Household

²⁷ The values given in this table are median household income and not average or mean household income.

Income Index. This index is derived by attributing one third of its value to Household Income and two-thirds of its value to Earned Income (see Figure 43).

Figure 42 indicates that 91% of the households in conventional public housing were in poverty in 1995. This decreased to 84% for households in conventional housing by 2001. However, the 2001 poverty rate was 67% for families who used vouchers to move away from conventional housing and 68% for families who moved to mixed-income communities. To derive the Poverty Index for the FDI (Figure 43) we subtract the poverty rate from one (1). For example, in 1995, 91% of the families in conventional housing were in poverty. The adjusted Index value is $1 - .91$ or $.09$. By adjusting the value in this way, higher index numbers have a positive connotation.

The income gap ratio is calculated only for families at or below the poverty line. The ratio indicates how much income would have to be increased to bring the family out of poverty. The increase is expressed as a percent of the poverty line. The final component of the FDI is welfare dependency. This gives the percent of households whose primary source of income is welfare. These percentages were significantly lower than in 1995 when 46% for families in conventional public housing were on public assistance. The percentages were 11%, 15% and 3% respectively in 2001 for families in conventional housing, using vouchers, or residing in mixed-income communities. The percentages for the income gap and welfare dependency are subtracted from one (1) to derive the index values in Figure 43.

The bottom half of Figure 42 gives values for the components of the Neighborhood Development Index. These values measure the characteristics of the Census Block Group where the family lives. For example, it shows that in the Census Block Group that encompassed the six housing project where families resided in 1995, 74% of the households were in poverty, 47% were dependent upon welfare, and 71% of individuals 3 years of age to 20 years were enrolled in school. Additionally, 41% had a high school degree or better, 29% were employed and 11% of those employed worked in management and administrative occupations. As measured by the percent of 5th graders achieving Stage 5 or Stage 6 on the statewide reading assessment exam,

school quality was 28%. Also, median home value was \$44,500, the racial dissimilarity index was 46% and finally, 45% of households could afford the median rent in the neighborhood.²⁸

In Figure 43, all unadjusted values are adjusted to get their corresponding Index values, and the average Index value for the FDI and NDI are derived. The QLI is the average of the FDI and the NDI. This QLI is given at the bottom of Figure 43. It was .34 for families who lived in conventional housing projects in 1995 and .43 for families who continued to live in projects in 2001. The QLI was .51 for families who moved to vouchers by 2001 and .55 for those who moved to mixed-income communities. In short, socio-economic status was highest in mixed-income communities and secondly in communities where vouchers are used. It was lowest in public housing projects.

Residential Mobility and Socio-economic Status

Thus far, we have examined how the QLI varied by various housing assistance program. We have seen that it was highest in mixed-income communities, followed by neighborhoods where families used vouchers and it was lowest in conventional housing projects. A key question is how did revitalization affect socio-economic status? We know that when properties were demolished to make way for revitalization, 60% of the families who actively received housing assistance moved out into the community with vouchers. In addition, 23% of the families moved to other public housing projects, while 17% of the families moved to mixed-income communities. Also, 24% of the families in the control group moved from conventional housing projects to vouchers while 75% continued to live in the same or different housing projects. Finally, 1% of the families moved to mixed-income communities. Therefore, the living arrangements of treatment group and control group families were not static. Taking all of this residential mobility into consideration, were families that moved to different housing programs ultimately better off?

²⁸ The index of affordability is relevant to discussions about gentrification. To derive affordability, the income of AHA assisted households is measured against the median apartment rental cost in the Census Block Group area. The results show that the affordability index for assisted families in mixed-income neighborhoods is .18 while it is .09 for families using vouchers. As expected, the affordability index is higher in neighborhoods surrounding housing projects (.33).

Figures 44 and 45 answer this question. Figure 44 tabulates the QLI for treatment group families and Figure 45 provides QLI for control group families.²⁹ The 2001 QLIs for control group families were .39 for those living in housing projects, .53 for families using vouchers and .58 in mixed-income communities (refer to the bottom row of Figure 45). The 2001 QLIs of treatment group families were respectively, .43, .50 and .55 (refer to bottom row of figure 44). To determine which group was better off following all of the residential mobility that occurred between 1995 and 2001, we weighted each group's QLI by the percent of families residing in that housing program. The results are provided below and summarized in Figure 46.

Weighted QLI for Control Group Families

1995: 100% lived in housing projects: $.31 \times 100\% = .31$

2001: 75% in projects, 24% used vouchers, 1% in mixed-income:

$$.39 \times .75\% + .53 \times .24\% + .58 \times 1\% = .426$$

Weighted QLI for Treatment Group Families

1995: 100% lived in housing projects: $.33 \times 100\% = .33$

2001: 23% in projects, 60% used vouchers, 17% in mixed-income:

$$.43 \times 23\% + .50 \times 60\% + .55 \times 17\% = .492$$

²⁹ The unadjusted values for these tables are provided at Appendix 1 and 2 of this report.

Figure 44

Quality of Life Index (QLI): 1995 and 2001
Treatment Group

	1995 Housing Project	2001 Housing Project	2001 Voucher	2001 Mixed Income
Family Development Index				
Employment Index	.14	.20	.41	.46
Household Income:				
a. HH Income Index (1/3 weight)	.13	.14	.16	.16
b. Earned Income Index (2/3 weight)	.22	.25	.57	.50
Poverty Index	.09	.09	.31	.33
Income Gap Ratio	.43	.48	.45	.54
Welfare Dependency Index	.53	.92	.86	.97
FDI	.28	.38	.49	.54
Neighborhood Development Index				
Poverty Index	.29	.43	.74	.70
Welfare Dependency Index	.56	.83	.91	.95
School Attendance Rate Index	.66	.75	.78	.76
Educational Attainment Index	.41	.56	.65	.72
Employment Index	.27	.36	.50	.41
Employment Quality Index	.11	.20	.19	.29
School Quality (5th Grade Writing)	.31	.45	.38	.47
Median Home Value	.34	.61	.29	.59
Racial Diversity (1 is less diverse)	.45	.50	.49	.47
Affordability Index: Rent \leq 1/3 of income	.38	.20	.09	.19
NDI	.38	.49	.50	.55
QLI	.33	.43	.50	.55

Figure 45

Quality of Life Index (QLI): 1995 and 2001
Control Group

	1995 Housing Project	2001 Housing Project	2001 Voucher	2001 Mixed Income
Family Development Index				
Employment Index	.17	.29	.49	.80
Household Income:				
a. HH Income Index (1/3 weight)	.20	.19	.26	.21
b. Earned Income Index (2/3 weight)	.25	.34	.61	.83
Poverty Index	.09	.18	.37	.20
Income Gap Ratio	.44	.48	.51	.67
Welfare Dependency Index	.56	.89	.83	1.00
FDI	.23	.31	.47	.57
Neighborhood Development Index				
Poverty Index	.23	.36	.76	.66
Welfare Dependency Index	.45	.80	.92	.95
School Attendance Rate Index	.74	.78	.79	.54
Educational Attainment Index	.41	.62	.64	.62
Employment Index	.30	.34	.51	.44
Employment Quality Index	.10	.14	.22	.31
School Quality (5th Grade Writing)	.25	.38	.38	.55
Median Home Value	.38	.25	.30	.30
Racial Diversity (1 is less diverse)	.52	.45	.51	.52
Affordability Index: Rent \leq 1/3 of income	.50	.64	.92	1.00
NDI	.38	.48	.59	.59
QLI	.31	.39	.53	.58

Figure 46 summarizes the results of the QLIs when weighted by the distribution of the population that used the particular housing program. It shows that treatment group families experienced a larger increase in QLI between 1995 and 2001 (48.5%) in comparison to control group families (38.7%). The difference is because a larger percentage of treatment group families moved to vouchers and mixed-income communities and greater improvements in the socio-economic status were associated with those moves. This result is reinforced by the survey and focus group results of the Capitol Homes and Harris Homes tracking studies (Holmes, Moody, et al., 2003; Brooks, Wolk and Adams, 2003).

Figure 46

Revitalization and the Change in Socio-economic Status			
Compares the Change in QLI for Treatment Group and Control Group over time.			
(Weight QLI by % of Families in each Assisted Program)			
	<u>Change in Weighted QLI</u>		
	<u>1995</u>	<u>2001</u>	<u>% Change</u>
• Control Group	.31	.43	38.7%
• Treatment Group	.33	.49	48.5%

Two recent tracking studies are following families longitudinally that have been relocated as a result of the recent demolition of Capitol homes and Harris Homes in Atlanta. Preliminary results indicate that the degree of satisfaction expressed by families who have elected vouchers is significantly greater than it was when these same families lived in conventional housing projects. Capitol Homes and Harris Homes are the most recent conventional housing projects to undergo revitalization in Atlanta. The preliminary results of researchers at Clark-Atlanta University indicate that 83.7% of the 433 families relocated as a result of the demolition of Capitol Homes viewed their new housing to be superior to that of the old Capitol Homes housing project. Based on surveys and focus groups, researchers found that, “Capitol Homes residents choosing the Housing Choice Program report better housing and neighborhood conditions. Conventional public housing residents, as might be expected, report little change in their living conditions. Many residents did not move to appreciably better neighborhoods but of those who did, mostly Housing Choice participants, it is clear their living environment and opportunities have substantially improved. ... In every category assessed on quality of life in the focus groups, a majority of respondents report they are satisfied (29.9%), somewhat satisfied (23.2%), or very satisfied (10.4%) with their post-move experience. Only 7.4 percent are dissatisfied and 8.2 percent very dissatisfied” (Holmes, Moody et al., 2003: iii).

In a parallel resident tracking study, researchers at Georgia State University are following 443 families relocated as a result of the demolition of Harris Homes; the responses of residents were similar to those at Capitol Homes. Based on surveys and focus groups, the researchers found that,

Former Harris Homes residents in the Housing Choice program are faring better than those living in Public Housing. Dramatic differences emerged between Housing Choice and Public Housing residents in many areas. Compared to Public Housing residents, Housing Choice residents were much more likely to be satisfied with their current home, neighborhood, and the safety of the neighborhood. They were also much more likely to perceive their life improving in many areas since moving out of Harris

Homes, including their home, neighborhood, safety of neighborhood, their health, and global assessment of their overall living situation.

A significant number of residents attribute positive social-psychological behavior changes to relocation out of Harris Homes. Many residents stated the biggest impact of relocation on their lives was one or more of the following: improved self-esteem, feeling "stronger," being more responsible, and getting into recovery for alcohol or drug abuse. Most of the residents who claimed these positive behavioral changes were in Housing Choice, but some were in Public Housing. Some residents who experienced positive behavioral changes stated they do not think they would have changed if they were still living in Harris Homes. (Brooks, Wolk and Adams, 2003:5)

Factors that Influence Employment

Our results illustrate that when families move away from public housing projects by using vouchers or by moving to mixed income communities, their move is associated with significant improvements in socio-economic indicators such as employment and earned income. They also experience significant reductions in poverty. (see Figure 42).

While the reduction in welfare dependency was heavily influenced by reforms that occurred in 1996, the factors that caused changes in other variables are not as apparent. To understand these factors in more detail, we analyze the change in employment experienced by heads of households who moved from conventional housing to vouchers. The purpose is to control for the influence of observable attributes, such as age, disability status, and housing assistance program that might account for the increase in employment.

To accomplish this, we conducted a logistic regression analysis. The dependent variable is the logarithm of the odds of being employed in 2001 given the person's attributes in 1995. These attributes include: disability status, years of age, welfare dependency status, gender, whether one resides in a mixed-income community in

comparison to living in a housing project, and whether one uses housing vouchers in comparison to living in a housing project.³⁰ Figure 47 reports the results.

Figure 47

Difference in Employment based on Housing Program					
Logistic Reg.: Dependent Variable is the Odds of Being Employed in					
2001					
(1,385 Observations on Families in 2001)					
Variable	Coeff	Wald	Sig.	Exp(B)	
Disability Status	-20.379	.000	.993	.000	
Years of Age	-.049	80.183	.001	.952	
Welfare Dependency	-21.185	.000	.994	.000	
Female Headed Household	-0.231	.465	.495	.793	
Reside in Mixed Income vs Project	.761	6.187	.013	2.141	
Use Vouchers vs Projects	.375	6.187	.013	1.455	
Constant	1.935	18.263	.000	6.925	

³⁰ The regression has 1385 included cases, the Chi-square for the model is 520.90 with 6 degrees of freedom and the level of statistical significance is .001.

The results indicate that using vouchers as opposed to living in conventional public housing raised the odds of being employed by 46%, after controlling for disability status, age, welfare dependency, gender, and whether one lives in a mixed income community or a public housing project. In addition, living in a mixed-income community as opposed to a conventional housing project raised the odds of being employed by 114%, after controlling for disability status, age, welfare dependency, gender of head of household, and whether one uses vouchers or lives in a public housing project.

While it is tempting to conclude that the change in environment associated with the change in housing assistance program is responsible for the significant increase in labor force participation, one has to first account for selective attributes of the movers.

Environment vs. Selectivity of Movers

The preceding sections have documented the significant improvement that occurred in the socio-economic status of assisted families when they move away from conventional public housing projects. One final but crucially important question is whether the improvement is due to the selective attributes of movers or the change in their environment. It is important to focus on the selectivity of movers because individuals who are endowed with skills and personal traits (such as a higher drive to achieve) are the ones most likely to move and as a result experience an improvement in their socio-economic status. Given the relatively poorer conditions of AHA's large conventional housing projects, it is clear that individuals who moved out voluntarily by using vouchers or by moving to mixed-income communities had more selective attributes than those who chose to stay in public housing. So we would naturally expect to see a higher QLI for movers. Accounting for selectivity is a complex task in social science research because many selective attributes (such as motivation) are not directly observable.

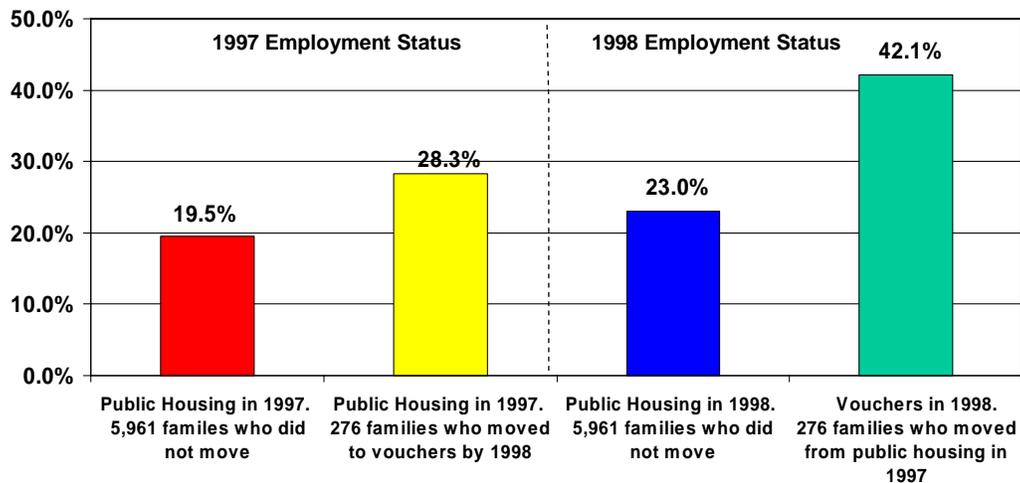
One way to gain insight into this issue is by observing the same selective individuals in different environments and then measuring the difference in socio-economic achievement in each environment. For example, if we can observe the labor force participation of individuals with selective attributes when they lived in a public housing project and observe it again shortly after they move by using vouchers, we would not expect to see a significant change in labor force participation if the environment does not make a difference.

To distinguish the influence of selective attributes from the influence of the new environment, we identified all individuals who moved from conventional housing projects to vouchers between 1997 and 1998; 276 in total. We labeled these individuals group 1. At the same time, there were 5,961 heads of households who lived in public housing projects in 1997 and did not move to vouchers between 1997 and 1998. We labeled them group 2. Group 1, the movers, had more selective attributes than group 2, the non-movers. This can be seen by comparing the employment rates of the two groups in 1997 when both lived in public housing projects (see Figure 49). The 1997 employment rate for group 1 was 28.3% while the rate for group 2 was 19.5%. One year later in

1998, after group 1 had moved with housing vouchers, their employment rate increased to 42.1%. However, the employment rate for group 2 increased to only 23.0%. While selective attributes were clearly present for members of group 1, the change in environment was also very important. If the environment did not matter, we would expect to see group 1's employment rate approaching 42% in 1997, when they lived in public housing projects. But this rate occurred only after the group moved by using vouchers. In addition, it is possible, but unlikely, that the selective attributes of group 1 could have improved enough in just one year to account for this extraordinary increase in employment. Therefore, we conclude that the change in environment played a significant role in improving their employment status. Note that in conducting this analysis we studied persons who moved from housing projects to vouchers and not those who moved to mixed-income communities. We excluded the latter because adult residents of mixed-income communities must either work, or be enrolled in a job-training program or in school in order to live in those housing units.

Figure 48

**The Employment Rate of Movers and Non-Movers: 1997-1998
(Move is from Housing Projects to Vouchers)**



Conclusion

The study has found that mixed-income revitalization accelerated residential mobility away from conventional public housing projects and towards the use of vouchers and to mixed-income communities. These two forms of mobility were accompanied by significant improvements in family socio-economic status. Contrary to popular belief, mixed-income revitalization in Atlanta did not cause a statistically significant loss of housing assistance among affected families. The findings of this study are supported by the preliminary results of two independent research efforts currently underway in Atlanta; one conducted by a team of researchers at Clark-Atlanta University and a second by researchers at Georgia State University. These researchers are using resident surveys over several years to examine how the relocation of families from two public housing projects that are currently undergoing revitalization is affecting their social and economic status. In both cases preliminary results indicate that a large majority of residents had greatly improved socio-economic outcomes as a result of having moved away from the distressed public housing projects (Brooks, Wolk and Adams, 2003; Holmes, Moody, et al., 2003).

For these reasons, we argue that, **The Environment Matters!**

Epilogue: What Factors Contributed to the Success in Atlanta?

We have not yet had the opportunity to compare the experience in Atlanta to that of other PHA's. However, it is clear that a fundamental part of AHA's success is the unique vision that the organization adapted in revitalizing low-income communities. This vision placed the greatest emphasis on improving the human condition of families. Revitalizing neighborhoods was simply a means of achieving this end. A second important factor was the role that private development partners played in the revitalization activities. These private partner shared AHA's vision and commitment. Thirdly, and most importantly, AHA believed that to focus on building affordable housing was the wrong approach. Instead, it focused on building market rate housing with an affordable component integrated seamlessly. This approach allowed market competition to guarantee that housing services would maintain a high standard of quality. Fourth, each mixed-income community master plan sought not only to significantly improve the quality of the neighborhood and the amenities offered in the neighborhood, but it also called for the construction of a high performing elementary school. A high quality primary education was viewed as the key to the future upward mobility of children in assisted households. Fifth, AHA formed successful partnerships with philanthropic foundations and the city. Sixth, it provided relocation services to residents affected by demolition. Seventh, the leaders of AHA and the private development partners were strong and persistent about implementing the new vision for public housing in Atlanta. One advantage that AHA had in comparison to some PHAs that are engaged in mixed-income revitalization is that the parcels of land where distressed housing projects were located were relatively large. This allowed the new mixed-income communities to be more spaciouly designed. It also meant that more on-site rental units could be constructed for public housing eligible residents in a less densely populated environment. Finally, the relocation of families with vouchers did not engender stiff resistance from receiving communities in Atlanta.

APPENDIX 1

Unadjusted Quality of Life Index Values: 1995 and 2001 Treatment Group

	1995 Housing Project	2001 Housing Project	2001 Voucher	2001 Mixed Income
Family Development Index				
Employment Rate	.14	.20	.41	.46
Household Income	\$4,536	\$6,372	\$7,561	\$7,280
Earned Income Percent	.22	.25	.57	.50
Percent in Poverty	.91	.91	.69	.67
Income Gap	.57	.52	.55	.46
Welfare Dependency	.47	.08	.14	.03
Neighborhood Development Index				
Neighborhood Poverty	.71	.57	.26	.30
Neighborhood Welfare Dependency	.44	.17	.09	.05
School Attendance Rate (3 yrs to 20 yrs)	.66	.75	.78	.76
Educational Attainment (HS Graduation)	.41	.56	.65	.72
Employment Rate	.27	.36	.50	.41
Percent Admin/Mgt Empl	.11	.20	.19	.29
School Quality Index	.31	.45	.38	.47
Median Home Value	\$47,400	\$158,250	\$74,600	\$153,100
Racial Diversity Index, 1 → less diverse	.45	.50	.49	.47
Affordability Index: Rent ≤ 1/3 of income	.38	.20	.09	.19

APPENDIX 2

Unadjusted Quality of Life Index Values: 1995 and 2001 Control Group

	1995 Housing Project	2001 Housing Project	2001 Voucher	2001 Mixed Income
Family Development Index				
Employment Rate	.17	.29	.49	.80
Household Income	\$4,536	\$6,600	\$8,914	\$7,451
Earned Income Percent	.25	.34	.61	.82
Percent in Poverty	.91	.82	.62	.80
Income Gap	.56	.52	.49	.33
Welfare Dependency	.44	.11	.17	.00
Neighborhood Development Index				
Neighborhood Poverty	.77	.64	.25	.34
Neighborhood Welfare Dependency	.55	.20	.08	.05
School Attendance Rate (3 yrs to 20 yrs)	.74	.79	.79	.54
Educational Attainment (HS Graduation)	.41	.62	.64	.62
Employment Rate	.30	.35	.51	.44
Percent Admin/Mgt Empl	.10	.14	.22	.31
School Quality Index	.25	.38	.38	.55
Median Home Value	\$44,500	\$65,600	\$77,300	\$78,600
Racial Diversity Index, 1 → less diverse	.48	.55	.49	.48
Affordability Index: Rent ≤ 1/3 of income	.50	.36	.08	.00

Bibliography

- Abt Associates. 2001. "Interim Assessment of the HOPE VI Program: Case Study of Techwood Homes and Clark Howell in Atlanta, Georgia" Cambridge, MA. March 23, 2001.
- Anand, Sudhir, and Sen, Amartya (1994). "[Human Development Index: Methodology and Measurement](#)." Occasional Paper 12. United Nations Development Programme, Human Development Report Office, New York. (HDI)
- (1995). "Gender Inequality in Human Development: Theories and Measurement." Occasional Paper 19. United Nations Development Programme, Human Development Report Office, New York. (GDI, GEM) http://hdr.undp.org/docs/publications/ocational_papers/oc19a.htm
- (1997) "Concepts of Human Development: A Multidimensional Perspective". Human Development Papers 1997
- Atlanta Housing Authority (AHA). 1992. "Application for Major Reconstruction of Obsolete Public Housing (MROP), East Lake Meadows, GA 6-30." Atlanta: AHA August 1992.
- Atlanta Housing Authority (AHA) 1993. "Urban Revitalization Demonstration Implementation Grant Application for Techwood/Clark Howell Homes." May 26, 1993. Atlanta: AHA.
- Bastian, Lisa and Bruce M. Taylor, Young Black Male Victims: National Crime Victimization Survey; December 1994, Order No. NCJ-147004, U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, Crime Data Brief.
- Bardhan, Kalpana, and Stephan Klasen (1999). "UNDP's Gender-Related Indices: A Critical Review." *World Development* 27(6): 985–1010. (GDI, GEM)
- Boston, Thomas D. and Catherine L. Ross. 1997. The Inner City: Urban Poverty and Economic Development in the Next Century. New Brunswick, NJ: Transaction Publishers.
- Brooks, Fred, Jim Wolk and Mary Adams. 2003. "Evaluation of Performance and Impact of HOPE VI Community Revitalization (Harris Homes) Evaluation of Relocation Services." Atlanta, AHA. July 15, 2003.
- Brooks-Gunn, Jeanne, Greg J. Duncan, Pamela Kato-Klebanov, and Naomi Sealand. 1993. "Do Neighborhoods Influence Child and Adolescent Development?" *The American Journal of Sociology* vol. 99 (2) pp.353-395.

- Bureau of Justice Statistics Crime Data Brief. 1991. "Crime and Neighborhoods" (NCJ-147005).
- Buron, Larry, Susan Popkin, Diane Levy, Laura Harris, Jill Khadduri. 2002. "The Hope VI Resident Tracking Study: A Snapshot of the Current Living Situation of Original Residents from Eight Sites." Prepared for the U.S>.Department of Housing and Urban Development.
- Case, Anne, and Lawrence Katz. J. 1991. "The Company You Keep: The Effects of Family and Neighborhood on Disadvantaged Youth." NBER Working Paper 3705. Cambridge, MA.: National Bureau of Economic Research.
- Clampet-Lundquist, Susan. 2004. "Moving Over or Moving Up? Short-Term Gains and Losses for Relocated Hope VI Families. *Cityscape: A Journal of Policy Development and Research* vol.7 (1) pp.57-80.
- Duncan, Greg J., Jeanne Brooks-Gunn, and Pamela Klebanov. 1994. "Economic Deprivation and Early Childhood Development." *Child Development* 65(2): 296-318.
- Ellen, Ingrid Gould, and Margery Austin Turner. 1997. "Does Neighborhood Matter? Assessing Recent Evidence." *Housing Policy Debate* 8(4): 833-66.
- Epp, Gayle. 1996. "Emerging Strategies for Revitalizing Public Housing Communities". *Housing Policy Debate* 7(3):563-88.
- Fukuda-Paar, Sakiko (2002). "Operationalising Amartya Sen's ideas on capabilities". http://hdr.undp.org/docs/training/oxford/readings/fukuda-parr_HDA.pdf
- Glover, Renee, Interview, April 18, 2002.
- Goetz, Edward. 2003. Clearing The Way: Deconcentrating the Poor in Urban America. Washington, DC: The Urban Institute Press.
- Graf, Arnold. 1997. "Economic Development or Social Development? A Strategy for Rebuilding Inner Cities" Boston and Ross. Eds. The Inner City. New Brunswick, NJ: Transaction Publishers.
- Heckman, James J. 2000. "The real question is to use the Available funds wisely. The best evidence supports the policy prescription: Invest in the Very Young." Chicago: Ounce of Prevention Fund and the University of Chicago Harris School of Public Policy Studies.
- Holmes, Bob, Mitch Moody, Andy Hill, Cheryl Hardison-Dayton, Mykia Green, Rashid Herd, Elias Sisy and Jeffrey Williams. 2003. "The Capitol Homes HOPE VI Evaluation Baseline Study." Atlanta Housing Authority. August 2003.

International Economic Development Council
<http://www.iedconline.org/hotlinks/whtecodev.html>

Johnson, Michael P., Helen F. Ladd, and Jens Ludwig. 2001. "The Benefits and Costs of Residential Mobility Programmes for the Poor." *Housing Studies* 17(1): 125-38.

Katz, L.F., J.R. Kling and J.B. Liebman. 2001. "Moving to opportunity in Boston: early results of a randomized mobility experiment." *Quarterly Journal of Economics* 116(2):607-654

Keating, Larry. 2000. "Redeveloping Public Housing: Relearning Urban Renewal's Immutable Lessons." *APA Journal* 66(4): 384-397.

Keating, Larry and C. A. Flores, 2000. "Sixty and Out: Techwood Homes Transformed by Enemies and Friends." *Journal of Urban History* 26(3): 275-311.

Jacob, Brian A. 2004. "Public Housing, Housing Vouchers, and Student Achievement: Evidence from Public Housing Demolitions in Chicago." *The American Economic Review* 98(1):233-257.

Jargowsky, P.A. 1997. Poverty and Place: Ghettos, Barrios and the American City. New York: Russell Sage Foundation

Ludwig, J., D.J. Duncan and P. Hirschfield. 2001. "Urban poverty and juvenile crime: evidence from a randomized housing-mobility experiment." *Quarterly Journal of Economics* 116(2): 655-680.

Ludwig, J., H.F. Ladd, and G.J. Duncan. 2001. "The effects of urban poverty on educational outcomes: evidence from a randomized experiment," in : W.G. Gale and Pack (Eds) *Brookings-Wharton Papers on Urban Affairs, Volume 2*. Washington D.C.: Brookings Institution Press.

Mahbub ul Haq (1999). "Worlds Apart: Human Security and Global Governance". Chapter 4 "Human Rights, Security, and Governance". London: I.B. Tauris

Musterd, Sako, Wim Ostendorf, and Sjoerd De Vos 2003. "Neighborhood Effects and Social Mobility: A longitudinal Analysis." *Housing Studies* vol. 18 (6) pp.877-892.

National Housing Law Project. 2000. Welfare and Housing: How can the Housing Assistance Programs Help Welfare Recipients? Released July 2000

National Housing Law Project. 2002. False HOPE: A critical assessment of the HOPE IV Public Housing Redevelopment Program. Press release. June 2002

Office of Audit, Region IV, U.S. Department of HUD, Audit Report: Housing Authority of the City of Atlanta Public Housing Management Operations, March 11, 1994.

- Oreopoulos, Philip. 2003. "The Long-Run Consequences of Living in a Poor Neighborhood." *Quarterly Journal of Economics*, November 2003 pp.1533-1575.
- Popkin, Susan, D.K. Levy, L.E. Harris, J. Comey, M.K. Cunningham, and L. Buron. 2002. "Hope VI Panel Study: Baseline Report." Washington, D.C.: The Urban Institute.
- Popkin, Susan, D. K. Levy, L. E. Harris, J. Comey, M. K. Cunningham and L. F. Buron. 2003. "The HOPE VI Program: What About the Residents?" *Housing Policy Debate*. July 7, 2003.
- Popkin, Susan, Bruce Katz, Mary Cunningham, Karen Brown, Jeremy Gustafson and Margery Turner. 2004. A Decade of Hope: Research Findings and Policy Challenges. Washington, DC: The Urban Institute.
- Quercia, Roberto G. and George C. Glaster. 1997. "The Challenge Facing Public Housing Authorities in a Brave New World" *Housing Policy Debate*. 8(3):535-70.
- Rosenbaum, J.E. 1993. "Closing the gap: does residential integration improve the employment and education of low-income blacks?" in L.B. Joseph (Ed) *Affordable Housing and Public Policy*. Chicago: University of Chicago, Center for Urban Research and Policy Studies.
- Rosenbaum, J.E. 2001. "Beyond College for all: Career paths for the forgotten half." *American Sociological Association's Rose Series in Sociology*. New York: Russell Sage Foundation.
- Rosenbaum, J.E. and Susan Popkin. 1989. "Employment and Earnings of Low-Income Blacks Who Move to Middle-Class Suburbs." Paper presented at a conference on *The Truly Disadvantaged*. Evanston, IL: Northwestern University.
- Rubinowitz, L.S., and J.E. Rosenbaum. 2000. Crossing the class and color lines: From public housing to white suburbia. Chicago: The University of Chicago Press.
- Schussheim, Morton. 2000. "Housing the Poor: Federal Programs for Low-Income Families." CRS Report for Congress, RL30486. Congressional Research Service, the Library of Congress.
- Schwartz, Alex and Kian Tajbakhsh. 1997. "Mixed-Income Housing: Unanswered Question" *Cityscape: A Journal of Policy Development and Research* 3(2):71-92.
- Thirwall, A.P. 2003. Growth and Development: With Special Reference to Developing Economics. New York: Palgrave MacMillan.
- Turov, Mindy and Valerie Piper. Forthcoming. "HOPE VI as a Catalyst for Neighborhood Change." Washington, DC: The Brookings Institution.

United Nations Development Programme
<http://www.undp.org/>

-1995a. Human Development Report 1995 “Gender and Human Development”. Chapter 2 “Still an Unequal World.”

<http://hdr.undp.org/reports/global/1995/en/>

-1995b. Human Development Report 1995 “Gender and Human Development”. Chapter 3 “Measuring Gender Inequality.”

<http://hdr.undp.org/reports/global/1995/en/>

-1997. Human Development Report 1997 “Human Development to Eradicate Poverty”. New York: Oxford University Press. chapter 1 “Poverty in the human development perspective: concept and measurement”.

<http://hdr.undp.org/reports/global/1997/en/>

-2002. Human Development Report 2002 “Deepening Democracy in a Fragmented World”. New York: Oxford University Press. [Technical note](#). (HDI, GEM, HPI-1, HPI-2)

<http://hdr.undp.org/reports/global/2002/en/pdf/backtwo.pdf>

-2003. Human Development Report, 2003, Millennium Development Goals: A Compact Among Nations to End Human Poverty. New York: United Nations.

-2004a. Human Development Report 2004 “Cultural Liberty in Today’s Diverse World”.

<http://hdr.undp.org/reports/global/2004/>

-2004b. Human Development Report 2004 “Cultural Liberty in Today’s Diverse World”. Human Development Indicators (2004)

<http://hdr.undp.org/reports/global/2004/>

U.S. General Accounting Office (GAO). 2003. Public Housing: HOPE VI Resident Issues and Changes in Neighborhoods Surrounding Grant Sites. GAO-04-109. A Report to Ranking Minority Member, Subcommittee on Housing and Transportation, Committee on Banking, Housing, and Urban Affairs, U.S. Senate. Washington, DC. November 2003.

Vale, Lawrence J. 2002. Reclaiming Public Housing: A Half a Century of Struggle in Three Public Neighborhoods. Cambridge, MA: Harvard University Press.

Wilson, William Julius. 1996. When Work Disappears. New York: Vintage.