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SPACE TO PLAY: RESIDENT ASSESSMENT OF THE SOCIAL AND RECREATIONAL RESOURCES IN LANSING PUBLIC HOUSING NEIGHBORHOODS

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SPACE TO PLAY:

RESIDENT ASSESSMENT OF THE SOCIAL AND RECREATIONAL RESOURCES IN LANSING PUBLIC HOUSING NEIGHBORHOODS

Ву

Catherine Stauffer

AN ABSTRACT OF A THESIS

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ABSTRACT

SPACE TO PLAY: RESIDENT ASSESSMENT OF SOCIAL AND RECREATIONAL RESOURCES IN LANSING PUBLIC HOUSING NEIGHBORHOODS

By

Catherine Stauffer

This study assessed the resident's perception of the importance of and satisfaction with the social and recreational resources available in Lansing public housing neighborhoods. Residents of five public housing communities in Lansing, Michigan were surveyed. In comparison to other community resources, residents of public housing reported that the distance to a park and recreation facility is not an important consideration when choosing a home. In general, however, residents were fairly satisfied with the qualities of the physical space available for them to recreate. Residents in all five communities were consistently most dissatisfied with crime, noise levels, and amount of privacy offered them in their public housing neighborhoods. Perceptions of crime, characteristics of the neighborhood considered important, and satisfaction with various community features varied by community.

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CHAPTER ONE INTRODUCTION

In the late 1930's, in an effort to provide shelter to some nation's most vulnerable members, the United States government began constructing public housing communities. In the early stages of the public housing program, little was known about the negative effects that the design of a building and other characteristics of the physical environment could have on the creation of healthy and supportive neighborhoods. As a result, many poorly designed public housing neighborhoods were built that did not provide residents with the environment and support that many felt was needed to live a productive life. Many public housing communities, for example, were built as large scale high-rise buildings, which today are commonly regarded as being poor living environments for low income people, not only because of the concentration of poverty that it promotes, but also because of the sense of anonymity that it encourages (Yancey, 1971). Similarly, in order to save money, public housing communities were often denied what were considered to be non-essential services such as recreational facilities, beautification resources, or other community services that today are recognized as important elements in establishing community pride, thus increasing residential satisfaction (Fried, 1984; Kaplan, 1985). Further, in order to save land space, public housing communities were often built close together leaving no room for open space or vegetation (Scobie, 1975).

More recently, research has shown that certain characteristics of the surrounding environment can positively effect quality of life (Burby & Rohe, 1990; Ottensmann, 1978; Rodin, 1976; Levine, 1997). In response to these findings, public housing policy has begun to take steps to improve public housing neighborhoods, with the hope of improving the quality of life of those who reside in public housing. In addition, the

passing of the Quality and Work Responsibility Act in 1996, which requires resident input in the planning of public housing neighborhoods, reflects an acknowledgement by the federal government of the growing view that the most effective way to find out how to best serve the needs of low income people is to seek their opinions and to involve them in the decision making process.

This research project investigates the resident's perspective of the quality of the social and recreational resources in public housing communities in Lansing, Michigan. It is hoped that this and other such studies will help to shed light on the characteristics of public housing communities that will most effectively serve the needs of their residents.

The following discussion presents a history of popular ideology and public housing policy that has led to the creation of dysfunctional public housing neighborhoods in many areas. This discussion is followed by a description of the current public housing community nationally, in Michigan and in Lansing. A review of the literature then describes the research examining the effects that characteristics of physical environment can have on the quality of life of public housing residents, as well as the many variables that can effect the satisfaction levels of low income people. Finally, the present study and its results and implications are presented.

A Brief History of Public Housing in the United States

Public housing in the United States began in 1937 with the passing of the Wagner-Steagle Housing Act, mostly in response to growing problems resulting from the Great Depression. Because the passing of this act established the role of the federal government in the supply of housing for American citizens, it represented an important

acknowledgment of the essential role that decent housing plays in promoting the general well-being of the nation (Scobie, 1). The Act provided for the creation of local public housing authorities, (PHA's), which were authorized to sell bonds backed by the U.S. Government to finance the development of housing for low-income families (Lord, 1979). Although one of the purposes of the Act was to provide decent, affordable housing for the many Americans who were unable to provide housing for themselves or their families, the major selling point of the act was in its potential to strengthen the national economy through the stimulation of the building materials and construction industries and through the provision of jobs (Scobie, 1).

For the first few years of the public housing program, local public housing authorities encountered no restrictions for tenant selection and generally filled the developments with highly stable, working-class citizens (Scobie, 4). Often, unusual family types such as female-headed households, particularly young families, or racial and ethnic minorities were screened out. The result was fairly stable, working class public housing neighborhoods.

With the initiation of WWII, housing construction was virtually stopped as resources were devoted to wartime necessities. During this time, the public housing that was built was mainly utilized for war workers, rather than the poor, thus continuing the supply of "working poor" tenants that were attractive to the public housing authorities. As conditions in major cities worsened, however, many began to recognize the need for housing that would serve the very poor citizens of the country, who, as a result of local PHA selection policies, were often left out of the public housing program. To address this problem, the 1949 Housing Act was passed. This act not only expanded the public

housing program, but also introduced provisions that limited the program to only the very low-income families. As a result of this act, the nature of public housing began to change both in the make-up of its population, as well as in the eyes of the general public (Lord, 10).

The eligibility rules for the public housing program established in the 1949 Act had numerous effects on the quality of public housing neighborhoods. For example, because the program was now limited only to low-income individuals, the concentration of poverty into very small areas greatly increased. Compounding this problem was the fact that many suburban and middle class areas refused to accept public housing, and were successful in excluding low income residents through zoning ordinances, such as minimum lot sizes and building requirements. Moreover, because local public housing authorities were able to make decisions about the location and placement of the public housing tenants, discriminatory policies often perpetuated racial segregation (Hays, 1985).

As a direct result of the new eligibility requirements, the quality and upkeep of public housing began to decline across the nation (Galster, 1995). Originally, the role of the federal government in the public housing program was to provide funds only for the costs of construction; operating costs were to be covered by rents from the tenants of the housing. As regulations were enacted that limited the program only to the very poor and that limited the amount of rent that Public Housing Authorities could charge, the local PHA's became increasingly unable to maintain public housing communities. Public Housing Authorities across the nation faced bankruptcy as they watched their communities become more and more dilapidated (Hays, 93).

Despite these obvious problems with public housing, the program continued to grow throughout the 1960's and early 1970's. Upon entering office, for example, the Kennedy Administration was enthused about the public housing program and proposed that 100,000 units be built by 1964. Lyndon Johnson then further accelerated the program, proposing 60,000 units per year for four years in the Housing Act of 1965, and a total of 395,000 units over a three year period in the Housing Act of 1968 (Hays, 94). From 1967 to 1973, over half a million more units were added to the program. By 1972, there were a total of 1.3 million public housing units across the United States (Galster, 95).

Worsening conditions of public housing neighborhoods, increasing amounts of dilapidated structures, and a growing view of public housing tenants as "undeserving" poor, however, eventually played a role in a strong increase in public opposition to the program (Hays, 143). In response to this growing opposition, President Nixon declared a moratorium on all subsidized production of public housing in January 1973.

In 1974, Congress enacted the Section 8 program, a new initiative designed to serve low income individuals and to address some of the problems of the traditional public housing neighborhoods. This program represented a new approach to the provision of housing for poor families and individuals. Under the program, tenants would receive a direct subsidy of the difference between a percentage of income (often 15 to 25 percent), and the rent of a private unit. By allowing higher income individuals to participate in the program, and by allowing low-income individuals to find their own housing thus decreasing the concentration of poverty in a small area, policy makers considered the program a great improvement over the public housing program. The Section 8 program

has proven to be a very popular program among policy makers, and has thus received continuing support throughout its history (Hays, 145).

Although the Section 8 program was the new policy initiative of this period, it is important to note, that in 1977, under the Carter administration, the traditional public housing program was reenacted. Data provided by the National Low Income Housing coalition show that congress continued to make new reservations of 35,000 to 50,000 units per year through the last Carter budget in 1981 (Hays, 162).

Between 1978 and 1991, appropriations for HUD's subsidized housing programs fell more than 80 percent (inflation adjusted), and the number of new federally assisted housing units fell by 89 percent (Galster, 103). Because the Regan administration believed that there were sufficient amounts of decent units, but that the problem was one of the affordability of these units, the administration expanded the Section 8 Housing Assistance Program, while at the same time terminating all new federal construction of subsidized housing. Furthermore, new administrative changes made it increasingly difficult for existing public housing authorities to maintain their public housing communities, thus resulting in increased dilapidation of existing structures (Galster, 104).

Currently, the continued existence of many public housing developments is being questioned. The high rates of crime and unemployment, the concentration of poverty, and the harsh living conditions of many public housing communities have led to increased discussion of the dangers of these areas. Although many urban planners and policy makers are beginning to embrace the idea that the destruction of large scale public housing developments, and the relocation of residents to mixed-income neighborhoods is one way to address these challenges, the completion of such endeavors is a long way off.

This ideology is evident in the enactment of the HOPE VI program in 1993, which is an attempt by HUD to replace outdated, crime-ridden public housing with safer, new units. In 1998, funding supported the demolition of about 10,000 units and construction of about 5,600 new units, thus leaving many low income citizens without adequate shelter (Power, 2000). Similarly, the continual increase in Section 8 reflects the conception that moving tenants out of traditional public housing communities is one important way to improve the quality of these neighborhoods. Most analysts agree, however, that the number of available vouchers falls far short of the need. In 1999, for example, although the Secretary of Housing and Urban Development hoped for a new allotment of 100,000 vouchers, only 60, 000 were received (Anderson, 2000). Other problems with the Section 8 program, such as the ability of participating landlords to opt out of the Section 8 program, threaten the ultimate success of the program and its ability to solve America's housing needs by itself. It seems, therefore, that many poor, urban residents will remain in large-scale public housing for some time to come. For this reason, continuing research concerning the characteristics of public housing communities that will either support or detract from the healthy functioning of individuals, families, and communities is of extreme importance (Levine, 1997).

The Quality of Public Housing

Throughout history, many factors have played a role in the type of public housing that was built for low-income families and individuals. For example, as stated previously, HUD policies that required that maintenance costs come solely from rents placed public housing authorities in severe financial crisis that resulted in a continual dilapidation of public housing neighborhoods. Moreover, in an attempt to economize on land, Public

Housing Authorities tended to build at high densities, often constructing large residential towers. These types of high-rise buildings are now thought to be inappropriate living environments for the poor for a variety of reasons, including the sense of anonymity that it seems to encourage (Yancy, 1971). This anonymity is felt to make it difficult for tenants to maintain security and sense of community, two aspects which clearly affect the quality of life of an individual (Schill, 1995).

Similarly, HUD policies that allowed local housing authorities to decide where to locate new public housing developments often resulted in discrimination as well as in severe opposition to the placement of public housing in middle class neighborhoods. Most localities faced major community battles when deciding where to locate a new public housing neighborhood, and although some public housing could eventually be built in most areas, it was often placed in areas already occupied by the poor. This clearly increased the concentration of poverty in certain areas. In recent years, many have come to believe that it is the concentration of poverty in inner cities that has played a major role in the development of severe social problems ranging from persistent unemployment and welfare dependency to crime and drug abuse (Schill, 1995). In The <u>Truly Disadvantaged</u>, Wilson argues that the geographic isolation of the poor generated behavioral adaptations called concentration effects. Because many poor people in inner cities are unemployed, children who are growing up there lack role models, and therefore develop weak attachments to the labor force. These weak attachments to the labor force eventually lead youths to engage in deviant activities to earn income and gain status. Wilson goes on to state that when poor youths live in economically diverse neighborhoods, they are better able to observe education, steady employment, and family

stability, which helps them to understand social norms. The concentration of poverty in many public housing communities, therefore, can have a major impact on the quality of life of those living there.

Perhaps one of the most important impacts of federal policies on the quality of the public housing that has been built has come from design regulations. Since the initiation of the public housing program, a debate has continued about the physical design of the structures, and the quality of housing that should be provided to those who are being assisted by the government. Many have felt that the housing provided by the government should be basic, thus increasing the desire of the residents to improve their conditions, and to move away from government dependence (Levine, 1997). In response to this popular view, congress often placed strict limits on the per unit cost of public housing, often providing funds well below average construction costs for a particular area. The result of these restrictions was usually the use of cheap materials and poor construction, which were often quickly broken or destroyed (Hays, 94). Similarly, cost restrictions sometimes forced local Public Housing Authorities to ignore basic amenities and social additions, such as adequate recreational facilities, that are now seen to be extremely important in creating healthy neighborhoods (Hays, 94). It seems clear, therefore, that cultural ideologies and public housing policies have resulted in the creation of often inadequate housing for America's low income individuals and families. In order to improve these pubic housing communities, it seems essential that research be conducted on the types of communities that residents feel will provide them with the environment that they need to improve the quality of their lives.

The Public Housing Community Today

Today, the nation's public housing stock consists of about 13,000 developments, which comprise about 1.3 million units, providing housing for almost three million people. Most public housing serves families with children, the elderly and the disabled. Nationally, families with children make up 46% of all public housing households, and the elderly and disabled make up an additional 41%. Data also show that people of many races and ethnic groups live in public housing. Current data shows that about 48% of the heads of households are white, 49% are black, 2% are Asian/Pacific, and 1% are American Indian or Alaska Native. Data on the distribution of public housing residents by ethnicity show that about 20% of public housing residents are Hispanic. Women head 77% of the households in public housing, and only about 12% of all household heads are under the age of 30. (Data Provided by the Department of Housing and Urban Development, Detroit Office, 2001).

Michigan possesses about 25,600 of these 1.3 million public housing units, and the city of Lansing has 940 public housing units. At the time of this study, 897 of these units were currently occupied. Approximately 61% of Michigan's public housing residents are considered to be Extremely Low Income or below 30% of the median area income, higher than the national average of 58%. In the city of Lansing, 59% of public housing residents are in the extremely low income bracket. (See Table 1) The average annual income of a public housing resident in Michigan is \$10,271, slightly above the National average of \$10,012. The average income in Lansing is \$11,357.

Table 1
Distribution of Public Housing Residents by Income, Average Annual (%)

Income Level	National	Michigan	Lansing
Extremely Low Income, Below 30% of Median	58	61	59
Very Low Income, 50% of Median	20	22	20
Low Income, 80% of Median	6	6	3
Above Low Income	2	1	0
Income Limit Unavailable	14	10	18

The majority of public housing residents nationally, in Michigan, and in Lansing pay between \$101 and \$350 for rent each month. No public housing resident in Lansing or in the state of Michigan receives their housing at no cost to themselves. The average monthly rent for a Michigan public housing resident is \$220, slightly above the national average of \$217. In Lansing, the average monthly rent is \$245. (See Table 2)

Table 2
Distribution of Public Housing Residents by Monthly Unit Tenant Payment (%)

MONTHLY PAYMENT	NATIONAL	MICHIGAN	LANSING
\$0	1	0	0
\$1-25	6	3	6
\$26-50	6	1	1
\$51-100	8	4	5
\$101-200	40	49	39
\$201-350	23	28	29
\$351-500	8	9	14
\$501 and above	6	4	7
Missing	0	0	0
Average Monthly Payment	\$217	\$220	\$245

Most of the public housing families in Michigan are classified in the 62 years or over age category. About 28 % are families with dependents, while 23% are families under 62 years old with disabilities. Overall, approximately 32% of all public housing residents in Michigan are families with dependents. In Lansing, 16% of families are in the 62 or over

age category, while 50% are families with dependents. Twenty four percent of the families are under 62 with disabilities. (See Table 3)

Table 3 Distribution of Public Housing Residents by Family Type (%)

FAMILY TYPE	NATIONAL	MICHIGAN	LANSING
Age 62 and older	32	43	16
Under 62 with disabilities	18	23	24
Other families with dependents	40	28	50
Other families without dependents	10	6	10
All families with dependents	47	32	61

Thirty eight percent of Michigan's public housing residents are under age 18, indicating that the population of public housing residents consists largely of young people. About 30% are between ages 18-50, and 23% are over age 62. In Lansing, 53% of public housing residents are children under the age of 18, while 34% are between ages 18-50. (See Table 4)

Table 4 Distribution of Public Housing Residents by Household Member's Age (%)

Age of Household Member	National	Michigan	Lansing
0-5	15	13	18
6-17	28	25	35
18-50	34	30	34
51-61	7	8	6
62-82	13	18	6
83+	3	5	1
Not Reported	0	0	0

CHAPTER TWO LITERATURE REVIEW

Quality of Life and Residential Satisfaction

The concept of quality of life is often used to reflect such ideas as the sense of well-being felt by an individual, the level of satisfaction that individuals have towards their lives, and the livability of their environment. The term quality of life, however, is one that is not clearly defined. Some recent studies have relied on Pacione's (1982) definition of quality of life. He states that quality of life "is intended to refer to either the conditions of the environment in which people live (air and water pollution or poor housing, for example), or some attribute of people themselves (such as health or educational achievement)." Researchers, therefore, generally agree that there are two basic components of quality of life: an external, environmental component and an internal, psychological component (Wish, 1986). Because quality of life is believed to reflect the well-being of an individual, it is also generally accepted that improvement in quality of life is an important goal of public policy and programs (Steward, 1998).

Because residential satisfaction is seen to be one component in overall quality of life, it is important to determine the extent to which residents are satisfied with their living environments. Research has shown that residential dissatisfaction is a powerful predictor of resident behavior (Bruin, 1997). Morris and Winter (1978), for example, found that residents who are dissatisfied with their housing environment may either adapt their own standards or expectations to fit the characteristics of the surrounding environment, engage in pathological behaviors, or engage in social action. Lord and Rent (1987) suggested that residents who were satisfied with their housing may treat their property with more respect, move less frequently, and pay their rent on time. Examining residential

satisfaction, therefore, may not only help to identify problem areas in the community, but may also enable public housing managers to address satisfaction issues and help reduce the occurrence of negative feelings and behaviors among dissatisfied residents, thus increasing overall quality of life.

In addition, it has been suggested that resident participation in housing decisions can increase resident satisfaction. In a 1997 study, for example, Bruin and Cook found that increasing resident control over the housing environment can increase residential satisfaction. On the other hand, environments "that are very restrictive and offer little opportunity for control over a family's personal environment will result in less satisfaction for residents." This finding suggests, therefore, that providing residents with the opportunity to express their opinions about what they like and dislike about their housing and then to make decisions based on these opinions, may in itself increase residential satisfaction and quality of life.

Measuring satisfaction, however, is a complex process that is influenced by a variety of subjective and objective characteristics of the housing unit, the neighborhood and individuals in the household (Bruin, 1997). Research suggests that residential satisfaction is influenced not only by the surrounding environment, but also by the characteristics of residents. Morris and Winter (1978), for example, argue that psychological characteristics of families such as adaptability, consensus on goals, conventionality, problem—solving skills, and role specialization may influence satisfaction. Similarly, Anthony (1990) argued that perceptions, cognition, and attitudes influence residential satisfaction.

Demographic variables have also been found to influence residential satisfaction. Stokey and Dereran (1977) found correlation between resident age and resident satisfaction, with older residents expressing more satisfaction than younger residents. Correlation was also found between race and satisfaction, and between housing appearance and race, with white residents being less satisfied than other races. No correlation was found between sex and satisfaction in the study. A 1998 study of public housing residents found that four factors directly contributed to housing satisfaction. These factors included the age of the respondent, welfare recipiency, housing cost burden, and neighborhood social interaction (Varady & Preiser, 1998). Similarly, Morris and Winter (1978) found that greater age and higher income were associated with higher satisfaction. This study also found that the length of time that a respondent has been residing in the residence may also influence housing satisfaction. The researchers conclude that often, a very short duration of residency is associated with higher satisfaction. These studies seem to suggest, therefore, that because demographics and personal attributes may effect residential satisfaction levels, it may be important to analyze these variables when conducting residential satisfaction studies.

Because the residents themselves have first hand knowledge about the characteristics of their community and because residents are ultimately those who will experience the effects of those characteristics, the level of resident satisfaction is an essential component in the overall evaluation of a community. Accurately measuring residential satisfaction, however, is a complex process that is influenced not only by the external characteristics of the housing unit and surrounding environment, but also by the personal characteristics and past experiences of the respondents. Because of the complex factors that are

involved, it seems that the most effective way to measure satisfaction is through conversations with the residents themselves (Mackin, 1994). Moreover, because satisfaction surveys can be seen as one way to increase the sense of control that residents have in their community and because increased sense of control has been shown to increase residential satisfaction, it seems that measuring residential satisfaction may be one important way to increase quality of life.

The Importance of the Physical Design in Creating Healthy Neighborhoods

As previously stated, the characteristics of the surrounding environment are considered to be one element in assessing quality of life (Wish, 1987). Researchers have shown that characteristics of the physical environment that surrounds where we live do in fact have an effect on well-being. For example, studies have found that numerous aspects of the physical environment can affect social behavior and the quality of social interactions (Coley, Kuo, & Sullivan, 1997). Rodin, (1976) for example, showed that highly crowded areas tend to lessen the productiveness of social interactions. Conversely, some areas, such as a shaded plaza with benches have been shown to encourage social encounters (Osmond, 1957). Similarly, studies on the elderly have found that a noisy environment affects an older person's ability to build relationships with others, and that the most common reaction of older people when confronted with noise is to withdraw from social settings (Carp, 1986). Because it has also been found that elderly individuals with strong social connections have better physical health, placing some older people in noisy housing environments may not allow them to develop healthy social relationships, which may affect health and therefore, their quality of life (Hughes, 1994).

It has also been suggested that characteristics of the physical environment may play a role in the healthy development of children (Faber, 1998). Researchers have shown that play has a key role in two major areas of development; social development and cognitive development (Sylva, 1974, Sylva, Bruner, & Genova, 1976). Some studies have indicated that features of the physical environment may effect play behavior (Yarrow and Rubenstein, 1975). For example, studies have found that settings with certain types of play equipment and materials encourage more dramatic, imaginative play than settings without play equipment (Campbell & Frost 1985, Wardle, 1998). Similarly, Taylor, Wiley and Kuo (1998) found that the characteristics of the physical environment have an effect on the type and quality of play of children. The study found that there was significantly more play, more creative play, and more access to adults in areas with high vegetation. The authors conclude that vegetation is associated with beneficial play activities, and therefore suggest that changing the physical environment may be an additional way to promote healthy development in children. The characteristics of the physical environment that surrounds where we live, therefore, may have a direct impact on our sense of well-being and quality of life.

Studies of Resident Satisfaction and Resident Behavior in Low Income Communities

A few studies have attempted to measure the satisfaction of the residents of low-income areas in relation to various aspects of their neighborhoods. One recent study of low-income, older adults living in the inner-city examined the extent to which these individuals were satisfied with their neighborhood, their housing, their sense of safety and security, their social participation, and their ability to accomplish the activities of daily living (Hill, 2000). The study found that characteristics of their local

neighborhoods, such as heavy traffic, dangerous pedestrian crossings, noise, and heavy pollution, presented a challenge for many older adults. Moreover, although only a small amount of respondents expressed fear of going out in day light hours, almost none of them went out at night citing concerns for their safety. Two-thirds of the sample reported some restriction on their ability to purchase food and other necessities, mainly due to a lack of transportation to reasonably priced food outlets. Among some female public housing residents, however, it was found that the neighborhood did provide ready access to supportive social networks. Many male residents, on the other hand, were found to have resigned themselves to very limited social interaction with their neighbors. Not surprisingly, transportation seemed to be one of the biggest problems for elderly adults in the study. Although busses were the most frequently reported form of public transportation used, disabled and less agile respondents were often unable to take advantage of this resource.

Other studies have examined how characteristics of the physical environment affects resident behavior in public housing neighborhoods. For example, study of a public housing community in Chicago examined the relationship between older adults' exposure to green space and the strength and frequency of their social relationships (Kweon, Sullivan, Wiley, 1998). The researchers found that spending time in green common spaces was systematically related to older adults' social integration and sense of community. They go on to suggest that exposure to trees in the common spaces near their homes may be a relatively inexpensive way to improve their social integration.

Because social integration has been found to be related to better physical health and well being, making these changes may have important consequences for older adults.

A few studies have found relationships between residential satisfaction and the characteristics of the physical environment. Kaplan (1985), for example, found that residents of multiple family housing rated their satisfaction with their neighborhoods more favorably if they had views of trees from their apartments, as opposed to only open spaces. Similarly, in a national sample of urban residents, Fried (1984) found that residential satisfaction and general life satisfaction were strongly predicted by satisfaction with the physical environment and access to natural settings near residences.

Interestingly, this effect was stronger in lower income residents.

One study of two public housing communities utilized observational data to determine the types of environments in which people were more likely to spend their time (Levine, Kuo, Sullivan, 1997). Results from the study found that the presence of trees consistently predicted greater use of outdoor spaces by all people, young and old, as well as groupings of people consisting of both youth and adults together. Larger groups of people were found in treed areas than in areas with no trees and in one of the public housing communities, no adults at all were found in areas devoid of nature. The researchers conclude that because the presence of nature has been shown to increase resident's satisfaction with their neighborhoods (Fried, 1984) and improve social interactions among coresidents (Kaplan & Kaplan, 1989), the presence of trees in public housing outdoor spaces may contribute to the social cohesion of the community.

All of these studies seem to show that characteristics of the surrounding environment in which one lives can either increase or decrease one's quality of life. The results suggest that often minor changes in the physical environment can have a drastic impact on the strength of relationships that are formed among people, which has been shown to

influence the quality of one's life. Because public housing communities may have limited resources and are therefore forced to prioritize improvements, investigating recreational behavior and satisfaction with recreational areas may help public housing agencies to prioritize needed changes, thus helping to utilize resources in a more effective and efficient manner. Moreover, understanding the diverse and unique population of public housing residents may help city recreational service providers to better serve the needs of these constituents.

Purpose of the Study

The need to examine the quality of the physical environment and of a surrounding neighborhood may be more necessary for people who live in low-income areas, particularly in public housing communities, than for those who live in middle-class communities (Kelly, 1987; Arnold & Shinew, 1998). Residents of public housing live in poverty, have high rates of unemployment, and often lack transportation and recreation options common in other communities. Restrictions on resources and mobility make it more difficult for public housing residents to pursue outdoor recreation activities and to utilize other community resources that are not located in and around their housing unit (Levine, 1997). In urban areas, access to community resources is often limited by busy streets, long distances, and gang-controlled territories. This may be especially true for young children and elderly; groups that represent the greatest number of residents in public housing (Faber, 1998). Various studies have shown that recreational activity is strongly associated with education and income level (Kelly, 1987). Scott & Munson (1994) found that among various population characteristics, income was the single best predictor of constraints to park visitation. Some of the reasons cited for this included fear of crime, lack of companionship, poor health, transportation, and costs. In addition, due

to the rising costs of providing leisure services, the poor sometimes receive less leisure opportunities than higher income individuals (Arnold, 1998).

Because residents of public housing may rely more on the resources that are most closely located to their homes, it is important to determine their level of satisfaction towards both the physical environment that surrounds their homes, as well as towards the resources in their surrounding neighborhood. Similarly, because the residents themselves will ultimately make the decision to use or not use recreational areas, it is essential to receive their input and opinions about the quality of their community and neighborhood. Such a study may serve several purposes. First, it may help public housing managers to identify the level of satisfaction that residents have about their surrounding community. Through a comparison of a numerous public housing communities, the study may be able to determine what characteristics of a particular neighborhood and community best serve the needs of public housing residents. Secondly, it may help to identify the characteristics of the surrounding community that are seen as favorable and not favorable to public housing residents. This may help when making decisions relating to the location of a proposed public housing facility. Thirdly, it may help public housing policy makers and management to understand the characteristics of physical environments that help to improve the quality of life of the residents. The identification of these characteristics may be important when trying to make changes that help to improve the quality of life of public housing residents. Finally, this study may help city officials, specifically parks and recreation service providers, to understand and to better serve those constituents that live in public housing. Increasing the understanding between public housing neighborhoods and the surrounding city may help to overcome the alienation that is

sometimes felt by public housing communities in relation to their surrounding cities.

Similarly, increasing partnerships with the city can increase the resources that are available to public housing residents.

Problem Statement

Because many residents of public housing are elderly, disabled, or are young children, and because almost all are low income, they often face challenges in fulfilling their social and recreational needs and are often forced to rely on the areas around their homes to fulfill these needs. To help address these challenges it is important to determine the resident's opinions about the quality of the social and recreational resources that are available to them.

Research Questions

This research utilizes input from Lansing public housing residents to determine their satisfaction with the social and recreational resources in their communities. A survey conducted at each of the five public housing communities in Lansing gathered information about: 1) The importance of various features of the community to public housing residents when choosing a home; 2) the satisfaction of Lansing public housing residents with various features of the community and with available places for recreation; 3) the current places that both children and adults are using for recreation; 4) the current perception of crime in the community. The following research questions were addressed from the results of the survey:

1. What aspects of a neighborhood are considered important to Lansing public housing residents when choosing a home?

- 2. With what aspects of their neighborhood are Lansing public housing residents most and least satisfied?
- 3. How does the presence of children in the household, gender, community, length of time living in the community, and whether they had a choice in their living environment affect the aspects of the community that are seen as important to public housing residents?
- 4. How does the presence of children in the household, gender, community, length of time living in the community, and whether they had a choice in their living environment affect the satisfaction levels of residents?
- 5. How does the presence of children in the household, gender, community, length of time living in the community, and whether they had a choice in their living environment affect the resident's perception of crime and safety?
- 6. How satisfied are public housing residents with those aspects that they consider important?
- 7. How satisfied are public housing residents with places that are frequently used for recreation?

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CHAPTER THREE METHODS AND ANALYSIS

Sample

This study was conducted at five public housing sites in the medium sized city of Lansing, Michigan. The sites vary in location within the city, population, size, and available amenities. The largest of the sites, South Washington, has 188 total units, and serves the elderly and disabled population. The other four sites, Hildebrant, LaRoy Froh, Mt. Vernon, and Forest Arbor and Hoyt are multi-family communities varying in size. Hildebrant and LaRoy Froh both have 100 units each, while Mt. Vernon has 140 total units. Forest Arbor and Hoyt are two separate sites, but because of their small size(28 and 24 units respectively) and their close location to each other, they are considered to be one site in this study.

General Description of the Communities in the Study

LaRoy Froh

LaRoy Froh is a community consisting of 100 multi-family, townhouse style units.

The community was originally constructed in 1968, and has recently been remodeled.

The development consists of 20 one-bedroom apartments, 24 two-bedroom departments, 35 three-bedroom apartments, and 21 four-bedroom apartments.

The community provides a number of social and recreational opportunities for its residents. For example, various organized activities for adults and children are offered in the on-site community center. The community also has a Head Start program, an on-site computer center, a tutoring classroom, and a gymnasium. Of all the communities in the study, LaRoy Froh has the most on-site recreational facilities available to its residents.

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The community has a total of three playgrounds for use by children. One of the playgrounds consists of equipment that is specifically intended for use by the younger youth population. The playground areas also have picnic tables and BBQ grills for resident use. The community also has benches located on the walkways that run throughout the community, that may encourage social interaction among residents.

LaRoy Froh is located in the South part of Lansing and is on the Lansing bus line.

There are three grocery stores all located within a mile from the development. There is a city park located directly behind the community, and the Boys and Girls club is located across the street.

Hildebrant Park

Hildebrant Park consists of 100 multi-family, townhouse style units, and was built in 1969. The development consists of one, two, three, four, and five bedroom apartments.

Like LaRoy Froh, Hildebrant also has a community center, which holds various organized activities for children and adults. The community also has a head start classroom, and a computer center.

The community has one basketball court, one playground, and some open lawn spaces for recreational and social activities. The community has no benches, picnic tables, or BBO grills for residential use.

Hildebrant is located in the North part of Lansing and is on the bus line. There is a small party store across the street, and a larger grocery store within a two-mile radius of the development. Gier Park and Gier Community Center are located next to the community.

Mt. Vernon Park

Mt. Vernon Park is a multi-family, townhouse community with 140 units. The community consists of 25 efficiency apartments, 25 one bedroom apartments, 25 two-bedroom apartments, 25 three-bedroom apartments, 30 four-bedroom apartments, and 10 five-bedroom apartments. The development was constructed in 1970.

Mt. Vernon has a community center for residential use, as well as a computer learning center. Various outside programs organize activities for the residents, and there is an active Head Start program at the development.

The community has one playground, one tennis court, and one basketball court. There are BBQ grills and picnic tables throughout the community. The community also has benches located on the walkways.

Mt. Vernon Park is located in the Northwest part of Lansing, and is on the bus line. There are grocery stores located within one mile of the development. Wilson Park is located close by, however, there are no city community centers located close to the community.

South Washington Park

South Washington Park is a five story high-rise building with 188 units. The community mainly serves the elderly, the mentally disabled, and the physically disabled population. 183 of the units are one-bedroom apartments, and 5 units are two-bedroom apartments.

A large community center is located on the bottom floor of the building. Various activities are organized for community members, such as bingo games and exercising classes.

The exterior of the building is not very suitable for social and recreational purposes. There are a few chairs facing the parking lot that are located directly in front of the building, as well as one picnic table on the side of the building. Management of the building plans on constructing a 29 foot gazebo, improving the landscaping of the building, and installing permanent benches in the Spring or Summer of 2001 for socialization purposes of the residents.

South Washington Park is located on the South side of Lansing and is on the public bus route. There are grocery stores located within one mile of the development, and there is a city park within one block.

Forest Arbor and Hoyt

Forest Arbor and Hoyt are multi-family, townhouse style units with a total of 55 units. All of the units in the two developments are two bedroom units. The developments were first available for occupation in 1972.

Forest Arbor and Hoyt are located on the East side of Lansing, and are located directly across the street from one another. Unlike the other public housing communities in Lansing, these communities do not have an on-site community center, or any other type of central meeting place. There is, however, one playground and one basketball court available to the residents in the community.

Forest Arbor and Hoyt are located on the Lansing Bus Line. There are no grocery stores within walking distance to the community, and no parks or city community centers close by.

General Characteristics of the Survey Respondents

Two hundred and fifty surveys were distributed to the Lansing public housing community and a total of 67 completed surveys were collected, for a response rate of 26.8%. The number of completed surveys received from each community ranged from 23 in Hildebrant to 8 in Forest Arbor and Hoyt and Mt. Vernon. (See Table 5) An overwhelming majority of the respondents were female, and 73% of the respondents had children under 18 living with them. Approximately 64% of the respondents were single females, which closely resembles data from the Lansing Housing Commission which reports that 62.5% of the households in Lansing public housing are headed by females. Seventy-six percent of the respondents reported that there was only one adult living in the unit at the time of the survey, while about 18% of the respondents reported two adults living in the unit. Almost 42% of the respondents had been living in their public housing community for less than a year. Twenty four percent of the respondents had been living in their community between one and three years. Twenty two percent of the respondents had lived in their community between 3 and 9 years, and approximately 12% of the respondents had been living in their community between 9 and 20 years. Almost 48% of the respondents reported not having a choice in deciding which community they wished to live in, while 36% reported having a choice.

Table 5 Den	nographic Characteristics Of Resear	rch Participants	
Complex	-	Ň	%
Mt. Vernon		8	28.4
LaRoy Froh		19	11.9
Hildebrant		23	34.3
South Washingt	on	9	13.4
Forest Arbor and	d Hoyt	8	11.9
Gender		N	%
Male		55	30.9
Female		123	69.1
Children Livin	g with Respondent	N	%
YES		49	73.1
NO		18	26.9
Number of chil	dren under 18 in household	N	%
1		19	28.4
2		16	23.9
3		5	7.5
4		7	10.4
5		2	3.0
6		1	1.5
Number of Adı	ults in Household	N	%
1		52	76.1
2		12	17.9
3		1	1.5
Missing		5	5.5
Length of time	at current address	N	%
One year or less	i e	28	41.8
Between one an	d three years	16	23.9
Between three a	nd nine years	15	22.4
Between nine ar	nd twenty years	8	11.9
Choice in Hous	sing Community	N	%
Yes		24	35.8
No		32	47.8
Don't Know		9	13.4
Missing		2	3.0

Survey Design

In 1997 a survey of resident satisfaction and was designed and delivered to public housing residents in the United States. This survey was prepared in an attempt to determine and compare quality of life, health, and well-being of persons in various housing environments. (Stewart, 1998) This survey focused on five domains of quality of life, which included characteristics of the physical housing environment, characteristics of the surrounding neighborhood and neighbors, management characteristics, factors related to the physical and mental health of the respondent, and the amount of social support and socially supportive networks available for the respondent.

Questions from this instrument were extracted and modified to fit the purposes of the current study. Because this study focuses on resident satisfaction with the available social and recreational resources in Lansing public housing neighborhoods, only questions that related to this subject matter were extracted.

Once a draft of the survey was designed, a number of actions were taken to determine the reliability and validity of the instrument. First, the public housing managers in each of the five sites were contacted and asked to make comments and suggestions about the usefulness and wording of the survey. Input from these professionals helped in determining the validity of the survey, and to ensure that the items in the instrument were an adequate sample of all possible items. Two public housing managers, one public housing resident working at the Housing Commission, and the Resident Initiatives

Coordinator of the Lansing Housing Commission were asked to examine the survey and were then interviewed. These housing professionals were asked to comment about any additions to the survey that would be useful for them in their work. They were also asked

to comment about the relevancy of the instrument to the Lansing Public Housing

Communities. Finally, the professionals were asked their opinions about the clarity of
the survey, as well as whether in their opinions, they felt that there was any reason why a
public housing resident would chose not to answer the survey. The comments of these
professionals were compiled, and changes were made to the survey instrument.

After these interviews were completed, a pre-run of the survey was completed with 7 public housing residents from Jackson, Michigan. With the help of the Executive Director of the Housing Commission, public housing residents were asked to complete the survey, and then respond to questions regarding the understandability and clarity of the survey. These responses were analyzed and changes to the original survey were made where necessary. (See Appendix A for a copy of questions asked during the pre-run survey and a summary of the interviews with public housing managers and residents).

Survey Components

For a complete survey form, see Appendix B. The survey included basic demographic information, including length of time at the current address, gender, number of adults over 18 in the household, and number of children. Item six of the questionnaire was developed to measure the importance of various characteristics of the housing community to the respondent and item fifteen was developed to measure respondent satisfaction with the same characteristics of the housing community. These mirrored questions provided the researcher with data to analyze the relationship between the importance and satisfaction responses. This data can be used to prioritize areas of needed improvement in the different communities. Satisfaction and importance variables included:

> Satisfaction with and Importance of the location of the housing community;

- -Satisfaction of Lansing public housing residents with the location of their community included the following features: closeness of the building to employment, closeness to friends and relatives, closeness to parks and recreation facilities, closeness to public transportation, and closeness to stores.
- Satisfaction with and Importance of available places for recreation and socialization activities
- > Satisfaction with and Importance of available community services
- > Satisfaction with and Importance of crime levels.
- > Satisfaction with and Importance of noise level and privacy.
- > Satisfaction with and Importance of places available for children to play.
- Satisfaction with the exterior features of the community including landscaping, privacy from neighbors, cleanliness, amount of open space, and amount of vegetation.

Items 4 and 12 of the survey instrument are general questions about where the respondent and the respondent's children recreate. As with the importance responses, questions about current use compared to satisfaction and safety responses may also be utilized to help prioritize where to make improvements in the community. Items 8 and 13 of the questionnaire are related to the perception of safety felt by residents in their community. Because safety has been shown to be a barrier to use of recreation facilities, determining the feelings of safety in the community may help to explain high or low usage of recreation areas. (Pendleton, 2000; Andrews, 1997; Zamengo, 1995)

It should be remembered that the population in this study consists of low-income individuals who are often unable to choose where they wish to live. The vast majority of people in public housing live below the poverty line and thus have little choice in their

residential neighborhood. Although they are allowed to list their top choices of location, when a residence becomes open and they are offered it, the vast majority often accept the first apartment offered. (Levine, 1997) For this reason, the survey in this study has included a question designed to identify whether the respondent had a choice in the neighborhood in which they currently live. Those who did not have a choice in deciding where to live were instructed to fill out the importance question with an opinion of how important the features would be if they did have a choice in deciding where to live.

Scale Creation

Three different scales were created from the data. These scales included a perception of safety scale, a safety of recreational areas used by children scale, and a general satisfaction scale. These scales combined the individual crime, safety and satisfaction variables into three distinct variables. These new variables helped to acquire an understanding of the general feelings of the public housing respondents in these three areas.

Perception of Safety Scale

A perception of safety scale was created utilizing five variables from Question 8 in the questionnaire. It included four items measuring the general feelings of safety at night and in the day in the immediate area and in the surrounding neighborhood. It also includes one item on the presence of drugs and prostitution in the area. (See Table 6) Responses to the feelings of safety statements ranged from 1 (Strongly Disagree) to 3 (Strongly Agree). One variable measuring the perception of theft in the area was dropped due to its low corrected item-total correlation. The corrected item-total correlation of the final scale ranged from .52 to .75. The alpha coefficient of the final scale was .82.

Table 6 Items in the Crime Scale

Scale Items	Item Means	Item SDs	Corrected Item-Total Correlation
Safety of the area around the building in the day	3.9	1.2	.71
Safety of the area around the building at night	2.8	1.4	.72
Safety of the surrounding neighborhood in the day	3.9	1.1	.75
Safety of the surrounding neighborhood at night	2.7	1.4	.71
Presence of drug problems and prostitution in the area	2.5	1.3	.52
Problems with theft in the area*	3.3	1.4	.19

^{*}This item was dropped from the final scale.

Alpha=.82

Scale M=15.9

Scale Std Dev=5.2

Safety of Places Available for Children to Play Scale

A scale was also created with 7 items that measured the safety of various places available for children to play. The original scale consisted of 10 items with an alpha of .92. It was determined that dropping three items from the final scale would increase the alpha to .93. (See Table 7) Responses to the items ranged from 1 (very unsafe) to 3 (safe). The corrected item-total correlation of the final scale ranged from .63 to .92.

Table 7 Items in the Safety Scale

Scale Item	Item Means	Item SDs	Corrected Item-Total Correlation
Safety of the Boys and Girls Club	2.6	.75	.84
Safety of the On-site Tenant Activity Center	2.4	.75	.79
Safety of the On-site Computer Center	2.6	.74	.92
Safety of a Local Community Center	2.5	.76	.91
Safety of the Area Outside of the Building	2.3	.74	.79
Safety of a Local Park	2.3	.84	.63
Safety of the Areas Outside the Unit	2.3	.84	.69
Safety of Parking Lot*	1.6	.74	.76
Safety of Street*	1.7	.82	.51
Safety of Hallways and Landings*	2.3	.92	.57

^{*}These items were dropped from the final scale

$$Alpha = .93$$

Scale Mean
$$= 17.6$$

Std Dev =
$$4.2$$

Satisfaction Scale

A satisfaction scale was created utilizing 13 of the 26 satisfaction variables. Because many of the cases had missing data, the researcher chose those satisfaction variables that had at least 60 Valid Cases. In order to increase the number of cases in the scale, the missing data in these 13 variables was then replaced by the mean response for the variable. The corrected item-total correlation of the final scale ranged from .46 to .67. The alpha coefficient was .89. (See Table 8)

Table 8 Items in the Satisfaction Scale

Scale Item	Item Means	Item SDs	Corrected Item-Total Correlation
Satisfaction with amount of open space	2.1	.67	.67
Satisfaction with distance to friends and relatives	2.1	.75	.57
Satisfaction with distance to park	2.1	.72	.65
Satisfaction with crime levels	1.8	.62	.57
Satisfaction with exterior cleanliness	2.1	.78	.63
Satisfaction with area around the unit for recreation	1.8	.75	.49
Satisfaction with appearance of community	2.1	.73	.67
Satisfaction with privacy in neighborhood	1.8	.79	.61
Satisfaction with noise levels	1.7	.75	.59
Satisfaction with distance to health care	2.0	.71	.53
Satisfaction with privacy from neighbors	1.8	.78	.59
Satisfaction with distance to stores	2.1	.70	.46
Satisfaction with public transportation	2.2	.72	.51

Alpha = .89

Scale Mean = 26.2

Scale Std Dev = 6.2

Procedures

Data was collected during the month of December 2000. In order to increase the response rate, a variety of data collection methods were utilized. The researcher conducted a stratified random sample of 50 public housing residents in each of the public housing neighborhoods. Because of the small number of units in Forest Arbor and Hoyt, a resident from each unit was sent a survey in these communities. The survey and a cover letter explaining the purpose of the survey and instructions for returning it were sent to the 252 residents in the sample. Also included in the mailing was a pre-paid envelope for returning the completed survey, and a flyer inviting the residents to return

the survey at their community center on a specific date where they would be offered light refreshments if they chose to attend. (See Appendix C for copy of flyer and cover letter) Because neither Forest Arbor nor Hoyt have community centers in their neighborhoods, they were simply asked to return the survey by mail.

In those communities where there was a low turn out of residents returning surveys at the established place and time, a drop-off/pick-up method was used in an attempt to increase response rate. After reviewing a short script which was used to explain the purpose of the survey, that participation was voluntary, and that the results would be confidential, two Michigan State University students knocked on those doors whose surveys had not been returned. A friendly and upbeat attitude about the importance of their participation helped to persuade residents to participate in the study. The students then returned to the units to pick up the completed surveys. Because very few people refused to complete the survey, this method was an effective manner of increasing overall response rate.

CHAPTER FOUR RESULTS

Information presented in this chapter describes the results that were revealed from the data analysis. Because of the low response rate in some of the public housing communities, in most of the following analyses, the data from all five of the communities is described in the aggregate. The Importance and Performance or (I and P) analysis, however, are displayed both in the aggregate and in the individual communities. Individual I and P analysis were done in order to provide specific information to individual public housing communities, as well as to provide examples of how individual communities can examine the allocation of their resources in their communities. These analyses also provide practitioners with one example of how satisfaction studies can be done in local public housing communities. However, when examining this data, readers should be aware of the small response rate in some of the communities, which create limitations regarding the usefulness of the analysis.

Importance of Various Community Features

Question 6 of the survey instrument measured the importance of various features of the community and surrounding neighborhood when choosing a place to live. Figure 1 displays the features of the community that were included. An analysis using descriptive statistics was done to examine the percentage of respondents that found these features very important, important, or not important when choosing a home. Low crime levels, and the presence of good schools were reported to be the most important features

when choosing a home (82.3% and 75% very important responses respectively). Other

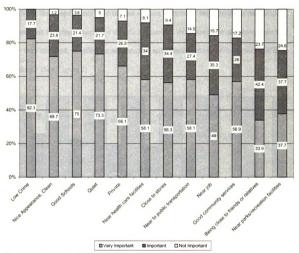


Figure 1 Importance of Various Community Features When Choosing A Home

important features included quietness, appearance, and privacy. Some of the less important features when choosing a home included being close to friends and relatives, being near jobs, and being near parks and recreation facilities.

Satisfaction With Community Features

Questions 7, 11, 14 and 15 of the survey instrument all measured the level of satisfaction that respondents have towards various features of their community.

Satisfaction with Exterior Features of the Building

Question 7 measured the level of satisfaction, (not satisfied, satisfied, or very satisfied), that respondents have toward various features of the exterior of the building. An analysis utilizing descriptive statistics examined the percentage of respondents that were very satisfied, satisfied, or not satisfied with these features of the exterior of their building. (See Figure 2)

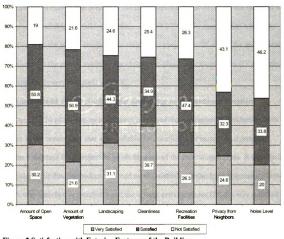


Figure 2 Satisfaction with Exterior Features of the Building

Respondents seemed most satisfied with the amount of open space around the building (81% very satisfied or satisfied), the amount of vegetation around the building (78.5% very satisfied or satisfied), and the exterior landscaping around the building, (75.4% very satisfied or satisfied). Respondents seemed most dissatisfied with the noise levels around

the building, (46.2% not satisfied), and the amount of privacy from neighbors, (43.1% not satisfied), that the building offers.

Satisfaction with Places Available for Children To Play

Question 11 of the questionnaire measured the respondent's general satisfaction with the places available for children to play. Only those respondents who have children living with them in the community were asked to respond to this question. The results indicate that a fairly large portion of the respondents (almost 45%) are not satisfied with the places available for children to play. Almost 27% of the respondents were very satisfied with the places available for children to play, while 28.6% of the respondents are satisfied with the places available for children to play. The mean score (1= not satisfied, 2=satisfied, 3=very satisfied) was 1.8.

Satisfaction with Places Available for Socializing or Recreational Purposes

Question 14 of the survey instrument measured the respondent's satisfaction with the places in the community that are available for socializing or recreational purposes.

Figure 3 displays the satisfaction levels for each of the recreational areas. A descriptive analysis found that respondents seemed most satisfied with the local community center (73% very satisfied or satisfied), and the on-site activity center (72.2% very satisfied or satisfied) for socializing and recreational purposes. Respondents were most dissatisfied with the streets (65.3% not satisfied), parking lots (64.8% not satisfied), and a nearby park (42.2% not satisfied) for socializing and recreational purposes.

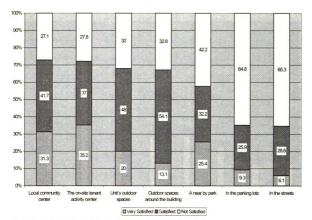


Figure 3 Satisfaction With Available Places for Recreation

Current Use of Recreational Areas

Figure 4 shows the places that are most and least used by residents for socializing and recreational purposes. The most common place used by adult residents for socializing and recreation was a park located close to the home. Other common responses included outdoor spaces around the building and outdoor spaces around the units, such as balconies and decks. Some of the least commonly used places for socializing and recreation purposes included the hallways and landings, and the streets and parking lots.

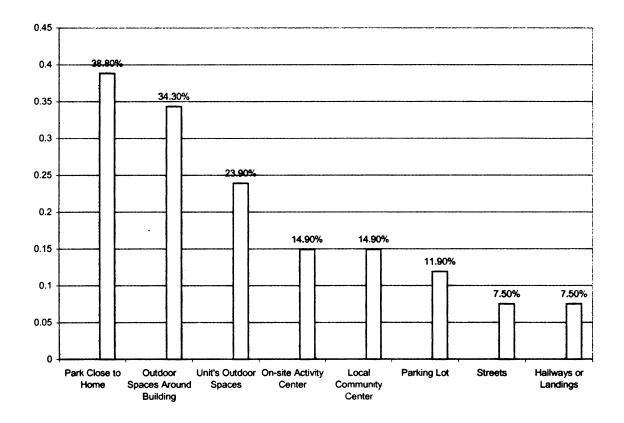


Figure 4 Places Used for Socialization and Recreation (In Percent of Usage)

Comparing Satisfaction with Current Use

The above satisfaction scores can be analyzed in conjunction with the current use responses to examine whether respondents are satisfied with the areas that they are currently using for recreation. If a large number of respondents are currently using areas that they are not satisfied with, it may signal a need to improve these areas in order to increase satisfaction with and usage of these areas. Similarly, if small numbers of residents are currently using areas in which they are highly satisfied, there may be a need to increase awareness of the benefits of these areas to the community.

Table 9 lists the mean satisfaction scores, as well as the percentage of respondents who are currently using these areas. One can see from the table that although a park

close to the home was the most frequently used place for socializing and recreation, it was rated fourth in satisfaction when compared to the other places. On the other hand, the on-site activity center and the local community center were only used by 15% and 12% of the respondents respectively, yet received a higher satisfaction rating, which may signal a need for more advertising and awareness about the benefits of these areas to community members.

Table 9 Current Use and Satisfaction Ratings of Recreational Areas

Attribute	Percent of usage	Mean Satisfaction Score
Park Close to Home	39	1.8
Outdoor Spaces around building	34	1.8
Unit's outdoor spaces	24	1.9
On-site Activity Center	15	2.1
Local Community Center	12	2.0
Parking Lot	8	1.4
Streets	8	1.4

1=Not Satisfied, 2=Satisfied, 3=Very Satisfied

Places Used By Children For Recreation/Safety of Places Available for Recreation by Children

Figure 5 displays the places where children recreate. Responses to places where children socialize and recreate are somewhat similar to responses about where adult respondents socialize and recreate.

The most common responses included a park close to the home (56%), and in the building's outdoor spaces (52%). Other fairly common responses included the on-site activity center (34%) and a local community center (32%). Places that were not often cited for use by children in recreation included the hallways and landings, the streets, the parking lots, and the Boys and Girls Club.

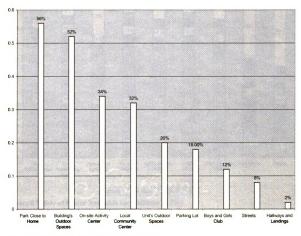


Figure 5 Places Used By Children for Recreation

Safety of Places Available for Children to Play

Figure 6 displays how safe respondents feel that their children are when they are in the above mentioned places. According to the responses, the safest places available for children to play included the on-site tenant activity center, (73.7% safe), and the local community center, (71.9% safe). Streets and parking lots were perceived as some of the more unsafe areas for children to play.

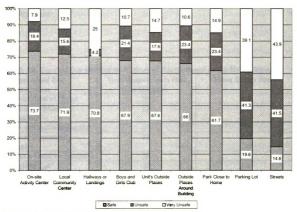


Figure 6 Safety of Places Available for Children to Play

Comparing Safety with Current Use

The current use of these areas can be analyzed in relation to the perceived safety of these areas. Those areas that are frequently used by children and are perceived to be unsafe may need to be improved in order to increase both the frequency of use of these areas, as well as to ensure the well-being of the child. Similarly, those areas that are less commonly used but are perceived to be safe may increase usage through increased advertisement and awareness of their benefits. Table 10 displays the percentage of children who use the places for recreational purposes along with the mean safety scores. The data shows that the most commonly used area by children for recreation is a park close to the home. When compared to the other areas, however, one can see that the park

was rated less safe than some of the other less frequented places, such as the on-site activity center.

Table 10 Current Use and Safety Ratings of Recreational Areas for Children

Place Used For	% of Respondents that	Mean Safety Score
Recreation	Use the Area	
Park Close to Home	56	2.5
Building's Outdoor	52	2.6
Spaces		
On-site Activity Center	34	2.7
Local Community	32	2.6
Center		
Unit's Outdoor Spaces	20	2.5
Parking Lot	10	1.8
Boys and Girls Club	12	2.6
Streets	8	1.7
Hallways and Landings	2	2.5

1=Very Unsafe, 2=Unsafe, 3= Safe

Demographic Differences in Importance Feelings

The importance variables were analyzed by gender, presence of children in the household, community, length of time in the community, and whether the respondent had a choice in their housing location using analysis of variance. There were no significant relationships between any of the importance variables and the length of time living in a community, the gender of the respondent, or whether the respondent had a choice in their housing location.

When analyzing the relationship between the community in which a public housing resident resides and the feelings of importance of various community resources, significant relationships occurred on two importance variables: 1) The importance of

being close to friends and relatives when choosing a home, (sig. .008), and 2) the importance of being close to a job when choosing a home, (sig. .003). An analysis of the means shows that scores from Forest Arbor and Hoyt (mean score 1.6), is significantly different from those of South Washington Park (mean score 2.7). This may be a factor of the different populations that live in each of these communities, with South Washington Park serving elderly and disabled residents, and Forest Arbor and Hoyt serving multifamily populations. Similarly, there was significant differences between South Washington Park and all of the other four communities on the importance of the distance to a job variable. This may also be a reflection of the people that are served in each of the housing complexes. It may be reasonable to assume that being close to a job would be less important to elderly populations than to younger individuals or families.

The presence of children in the household was significantly related to two importance variables: 1) The importance of being close to a job when choosing a home, and 2) the importance of privacy when choosing a home, (sig. .004). An analysis of the mean importance scores indicates that those people who have children find it more important to be closer to their jobs (mean 2.49) than those who do not have children (mean score 1.7). Similarly, those who have children (mean score 2.5) found privacy less important than those who do not have children (mean score 2.9).

Demographic Differences in Perception of Crime

The perception of crime scale was analyzed by gender, presence of children in the household, length of time in the community, the community in which the respondent resides, and whether the respondent had a choice in the location of their home using analysis of variance. There were no significant effects due to gender, presence of

children in the household, length of time living in the community, or choice in housing location. Significant differences were found on the crime scale between the different communities in which the respondents reside (sig.012). Analysis of the individual components of the crime scale show significant relationships between the community in which the respondent resides and the perceptions of drug trafficking and prostitution (sig. .003) and between the community and the feelings of safety when walking around the surrounding neighborhood at night (sig. .007). An analysis of the means on these two variables reveals that Forest Arbor and Hoyt and LaRoy Froh are less concerned than the other communities about drug trafficking and prostitution. Similarly, respondents from South Washington Park and LaRoy Froh feel safer about the surrounding neighborhood at night than either Hildebrant or Mt. Vernon. (See Table 11)

Table 11 Mean Responses for Two Crime Variables by Community

Community	There are no problems with drug trafficking or prostitution in the area MEAN SCORE	I feel safe walking around the surrounding neighborhood at night MEAN SCORE
LaRoy Froh	2.8	3.1
Mt. Vernon	2.3	2.1
Hildebrant	2.0	2.6
South Washington Park	2.1	4.0
Forest Arbor and Hoyt	2.5	2.7

1=Not Satisfied; 2=Satisified; 3=Very Satisfied

Demographic Differences in Safety

The scale of feelings of safety of the places available for children to play was analyzed by gender, community, choice of housing location, and length of time in the community.

No significant results were found in this analysis.

Demographic Differences in Satisfaction

The general satisfaction scale was analyzed by gender, community, choice of housing location, length of time in the community, and the presence of children in the household. No significant effects were found due to gender, or the length of time in the community. Significant effects were found between the general satisfaction scale and the community in which the respondent resides (Sig. .024). An analysis of the means shows that Mt. Vernon and Hildebrant have much lower general satisfaction scores than LaRoy Froh, South Washington or Forest Arbor and Hoyt. (Table 12)

Table 12 Mean Satisfaction Responses by Community

COMMUNITY	GENERAL SATISFACTION MEAN
LaRoy Froh	26.1
Mt. Vernon	20.4
Hildebrant	22.2
South Washington	27.0
Forest Arbor and Hoyt	25.9

An analysis of variance on each of the satisfaction variables found significant relationships by the community, choice of housing location, and presence of children variables. Analysis by community shows significant findings on satisfaction with the onsite community center, (sig. .037), the exterior landscaping, (sig. .027), the amount of open space, (sig. .042), a nearby park for recreational purposes, (sig. .001), places available for children to play, (sig. .013), privacy from neighbors, (sig. .020), recreational facilities, (sig. .000), schools, (sig. .040), appearance of neighborhood, (sig. .031), crime

levels (sig. .045), distance to friends and relatives (sig. 027), parking lots for recreational purposes (sig. .011), privacy in neighborhood (sig. .022), streets for recreational purposes (sig. .001), and the unit's outdoor spaces for recreational purposes (sig. .022). Table 13 shows the mean scores for each community on these variables. Upon examining these scores, it is evident that the communities of South Washington and LaRoy Froh are consistently more satisfied than the other communities in almost all of the variables.

Table 13 Mean Responses for Significant Satisfaction Variables by Community

SATISFACTION	LaRoy	Mt.	Hildebrant	South	Forest
VARIABLE	Froh	Vernon		Washington	Arbor
					and
					Hoyt
On-site Activity Center	2.3	1.5	1.9	2.5	1.5
Exterior Landscaping	2.4	1.8	1.7	2.2	1.8
Amount of Open Space	2.3	2.0	1.7	2.3	2.1
Places for children to play	2.4	1.2	1.6		1.7
Nearby park for recreation	1.9	1.0	1.5	2.5	2.2
Recreational facilities	2.3	1.5	1.8	2.6	1.1
Privacy from neighbors	1.9	1.2	1.6	2.4	1.8
Parking lots for recreation	1.7	1.1	1.1	1.8	1.6
Privacy in neighborhood	1.8	1.1	1.6	2.2	2.3
Unit's outdoor spaces for	2.2	1.4	1.5	2.1	2.0
recreation					
Streets for recreation	1.8	1.0	1.1	1.8	1.2
Distance to friends and	2.5	1.7	2.1	2.4	1.7
relatives					
Schools	2.5	1.8	2.0	2.6	2.4

1=Not Satisfied; 2= Satisfied; 3=Very Satisfied

Whether or not the respondent had a choice in deciding where they wanted to live was significantly related to five satisfaction variables: 1) Satisfaction with the building's distance to job (Sig. .023). Those who had a choice were significantly more satisfied with the building's distance to a job (mean 2.4) than those who did not have a choice (mean 1.9); 2) Satisfaction with the amount of open space (Sig. .006). Those who had a choice were significantly more satisfied (mean 2.3) with the amount of open space than

those who did not have a choice (mean 1.8); 3) Satisfaction with the appearance of the neighborhood (Sig. .034). Those who had a choice were significantly more satisfied with the appearance of the building (mean 2.3) than those who did not have a choice (mean 1.9); 4) Satisfaction with the distance to friends and relatives (Sig. .012). Those who had a choice were significantly more satisfied with the distance to friends and relatives (mean 2.5) than those who did not have a choice (mean 2.1); and 5) Satisfaction with public transportation (Sig. .017). Those who had a choice were significantly more satisfied with the available public transportation (mean 2.5) than those who did not have a choice (mean 2.0).

Presence of children in the household was significantly related to three satisfaction variables: 1) Satisfaction with a nearby park for socializing and recreational purposes (sig. 042). An analysis of the means shows that those people that have children are significantly less satisfied (mean 2.0) than those who do not have children (mean 2.3); 2) Satisfaction with the parking lots for socializing or recreational purposes (Sig. .042). An analysis of the mean satisfaction scores shows that those people that have children are significantly less satisfied with the parking lots (mean 1.3) than those who do not have children (mean 1.7); and 3) Satisfaction with the streets for socializing or recreational purposes (sig. .048). An analysis of the means shows that those people who have children are significantly less satisfied with the streets (mean 1.3) than those who do not have children (mean 1.7).



Importance and Performance Analyses

In order to determine the relationship between the importance and satisfaction responses, the researcher performed Importance and Performance (I and P) analyses. These analyses are often used by organizations in determining their performance in meeting the needs of their customers (Martilla and James, 2000). In this study, the researcher adopted this method to portray the overall performance of Lansing Public Housing communities in meeting some of the needs of local residents. Performance in these analyses was measured by the satisfaction responses of residents. According to Martilla and James, "an important feature of the importance-performance analysis is that the results may be graphically displayed on an easily-interpreted, two dimensional grid." These grids help practitioners to know areas in which they are performing well, and areas in which they may need improvement. It may also help practitioners to prioritize changes to be made in an organization or community. For example, those attributes that have high importance and low satisfaction scores may represent a higher priority than those attributes that have high importance and high satisfaction scores, low importance and low satisfaction scores, or low importance and high satisfaction scores. The I and P analyses were performed on the overall scores of all respondents in the study, as well as on the overall importance and satisfaction responses in each public housing community in the study. Public hosing managers can utilize these analyses by community to prioritize changes in their area, as well as to compare the areas in which they are performing well or poorly to the other public housing communities in the city. It should be remembered

that the small response rate in some of the individual communities in this study limits the usefulness of the individual community analyses. These analyses, however, do provide practitioners with one example of analyzing and understanding satisfaction data.

Importance And Satisfaction Scores Among All Respondents

The mean importance and satisfaction scores for the entire sample are shown in Table 14. These scores are then plotted on the action grid. (Figure 7) An examination of the grid shows that crime levels in the community, privacy in the community, distance to health care facilities and noise levels received high importance scores and low satisfaction scores, thus signifying a need for improvement in these areas. Areas which received high importance and high satisfaction included the appearance of the neighborhood, the quality of the schools, the distance to stores, and the availability of public transportation. Because these aspects of the neighborhood are seen as very important to public housing residents, it is important for the public housing authority and city officials to remain aware of them. However, because respondents are already fairly satisfied with these areas, they remain a lower priority than those attributes that received low satisfaction scores. In addition, those attributes that received low importance and high satisfaction scores represent a very low priority for the public housing authority, and may in fact signal an over-achievement of the authority and a need to reexamine the distribution of resources in the community.

Table 14 Mean Importance and Satisfaction Ratings in all Communities

ATTRIBUTE	Mean Importance Rating	Mean Satisfaction Rating
Crime Levels	2.8	1.9
Good Schools	2.7	2.3
Appearance/Cleanliness	2.7	2.1
Noise Levels	2.7	1.7
Privacy	2.6	1.8
Distance to Health Care	2.5	1.9
Distance to Stores	2.5	2.2
Public Transportation	2.4	2.3
Community Services	2.4	2.2
Distance to Job	2.3	2.1
Distance to Parks	2.1	2.2
Distance to Friends and Relatives	2.1	2.2

1=Not Important; 2=Important; 3=Very Important 1=Not Satisfied; 2=Satisfied; 3=Very Satisfied

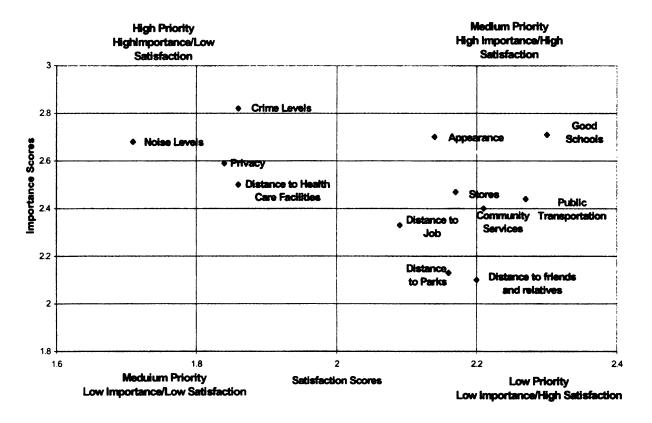


Figure 7 Importance and Performance Action Grid (Aggregate Data)

LaRoy Froh I and P Analysis

An analysis of the mean scores (Table 15) and the action grid (Figure 8) show that changing noise levels, crime, privacy represent the highest priority, (high importance, low satisfaction), for managers in the LaRoy Froh community. Conversely, respondents seem to be fairly satisfied with some features that they consider very important such as the presence of good schools, the general appearance of the neighborhood, and the availability of public transportation. Although public housing managers, community planners and other decision-makers are performing well in these areas, because these

attributes are important to LaRoy Froh residents, it is important of them to remain aware of the quality of these neighborhood features.

Table 15 LaRoy Froh Mean Importance and Satisfaction Ratings

Attribute	Mean Importance	Mean Satisfaction
Good schools	2.8	2.6
Crime	2.8	1.8
Appearance	2.8	2.3
Distance to job	2.6	2.1
Privacy	2.6	1.9
Noise levels	2.6	1.8
Distance to friends and relatives	2.3	2.6
Distance to park	2.4	2.4
Distance to health care	2.4	2.1
Distance to stores	2.6	2.4
Public transportation	2.7	2.6

1=Not Important; 2=Important; 3=Very Important 1=Not Satisfied; 2=Satisfied; 3=Very Satisfied

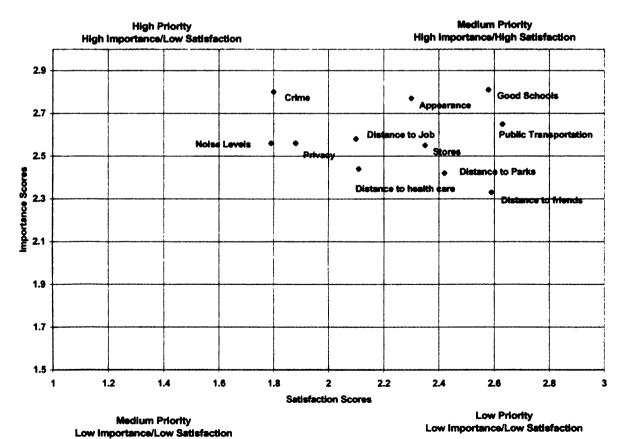


Figure 8 LaRoy Froh Importance and Performance Analysis

Mt. Vernon I and P Analysis

In the Mt. Vernon community, a number of attributes received high importance and low satisfaction scores, thus signifying a high priority for improvement in these areas. An analysis of the means (Table 16) and the action grid (Figure 9) for the community shows that privacy, noise, distance to health care and crime levels may occupy the highest priority for changes in the community. Although distance to parks and distance to friends received low satisfaction scores, because they also received low importance scores, the priority for improvement in these areas is not as high as in other areas.

Table 16 Mt. Vernon Mean Importance and Satisfaction Ratings

Attribute	Mean Importance	Mean Satisfaction
Noise	3	1.4
Distance to Health Care Facilities	3	1.5
Crime Levels	3	1.8
Privacy	2.8	1.2
Good Schools	2.8	1.8
Distance to Job	2.7	1.8
Appearance	2.3	1.8
Community Services	2.3	2.2
Distance to Stores	2.3	1.7
Public Transportation	2	2
Distance to Parks	1.7	1.8
Distance to friends and relatives	1.7	1.7

1=Not Important; 2=Important; 3=Very Important

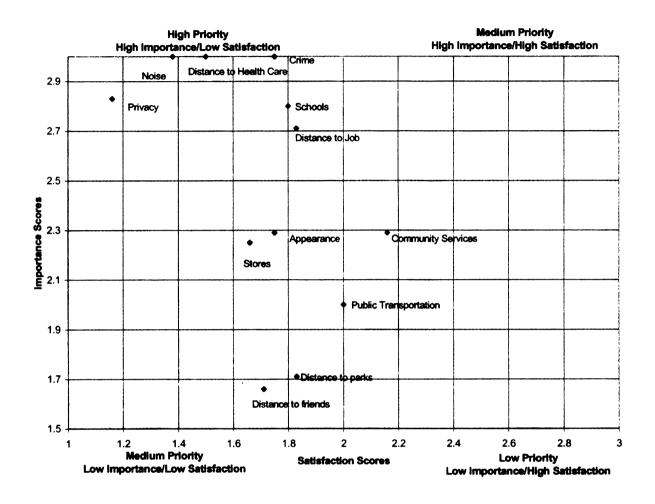


Figure 9 Mt. Vernon Importance and Performance Analysis

South Washington I and P Analysis

An analysis of the action grid for South Washington Park (Figure 10) reveals that like in the other communities, addressing crime levels is the feature that represents the highest priority for change. As can be seen from the action grid, many community features are seen as very important to the residents of South Washington. These residents, however, are also quite satisfied with most features of their community. Because the building's distance to the job is seen as a very unimportant feature to these residents, it occupies a very low priority for improvement in this community.

Table 17 South Washington Mean Importance and Satisfaction Ratings

Attribute	Mean Importance	Mean Satisfaction
Privacy	2.9	2.3
Crime Levels	2.8	1.8
Distance to Health Care	2.8	2.3
Distance to Stores	2.8	2.4
Pubic Transportation	2.8	2.3
Distance to Friends	2.7	2.4
Good Schools	2.6	2.7
Appearance	2.6	2.4
Distance to Park	2.4	2.4
Noise Levels	2.4	2.3
Community Services	2.4	2.3
Building's Distance to Job	1.3	2.7

1=Not Important; 2=Important; 3=Very Important 1=Not Satisfied; 2=Satisfied; 3=Very Satisfied

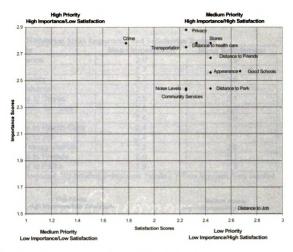


Figure 10 South Washington Importance and Performance Analysis

Hildebrant I and P Analysis

An analysis of the action grid reveals that in the Hildebrant public housing community, crime levels, the appearance of the community, the distance to health care, and the noise levels are the areas in which improvement should be a high priority. Other features which may represent a fairly high priority for change by community leaders includes the quality of the schools, the building's distance to stores, the building's distance to jobs, and the quality of community services. Although these features received slightly higher satisfaction scores than the very high priority features, due to

their high level of importance to public housing residents, it is essential to examine them to determine how satisfaction with these attributes can be increased.

Table 18 Hildebrant Mean Importance and Satisfaction Ratings

Attribute	Mean Importance	Mean Satisfaction		
Appearance	2.8	1.9		
Crime	2.7	1.7		
Noise Levels	2.7	1.6		
Good Schools	2.7	2.0		
Distance to Stores	2.5	2.1		
Community Services	2.5	2.3		
Privacy	2.4	1.6		
Distance to Health Care	2.4	2.1		
Distance to Job	2.4	2.2		
Public Transportation	2.2	2.4		
Distance to Friends	2.0	2.1		
Distance to Parks	1.9	1.9		

1=Not Important, Not Satisfied; 2=Important, Satisfied; 3=Very Important, Very Satisfied

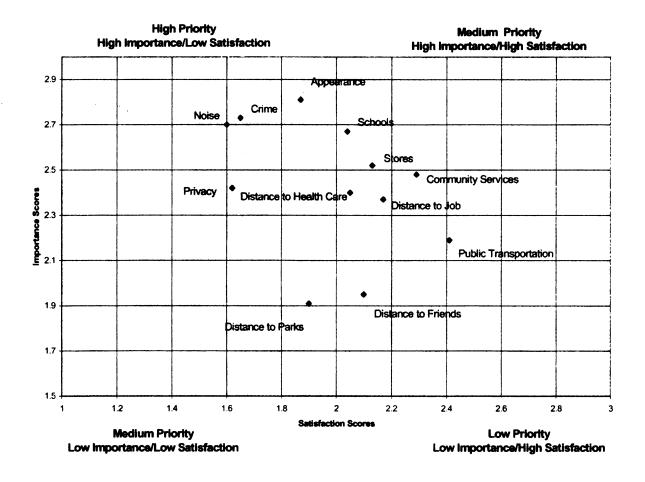


Figure 11 Hildebrant Importance and Performance Analysis

Forest Arbor and Hoyt I and P Analysis

Unlike the other communities, crime does not represent a very high priority for improvement in the Forest Arbor and Hoyt communities. Although crime is seen as an extremely important feature, residents of Forest Arbor and Hoyt are more satisfied with the current crime levels in their community than in the other communities. Similarly, unlike in most of the other communities, although privacy and appearance are seen as important features, residents in these communities are fairly satisfied with them, thus not signifying an urgent need for improvement in these areas. Residents are less satisfied, however, with the noise levels in the community, and with the quality of the community services. (See Table 19) These two attributes represent the highest areas of priority for improvement in this community.

Table 19 Forest Arbor and Hoyt Mean Importance and Satisfaction Ratings

Attribute	Mean Importance	Mean Satisfaction
Crime	3.0	2.6
Noise	2.9	1.9
Community Services	2.9	1.8
Appearance	2.8	2.6
Good Schools	2.7	2.4
Privacy	2.6	2.9
Distance to Job	2.3	1.9
Distance to Parks	2.1	2.1
Distance to Health Care	2.1	1.9
Public Transportation	2.1	1.9
Distance to Stores	2.0	2.0
Distance to Friends	1.6	1.8

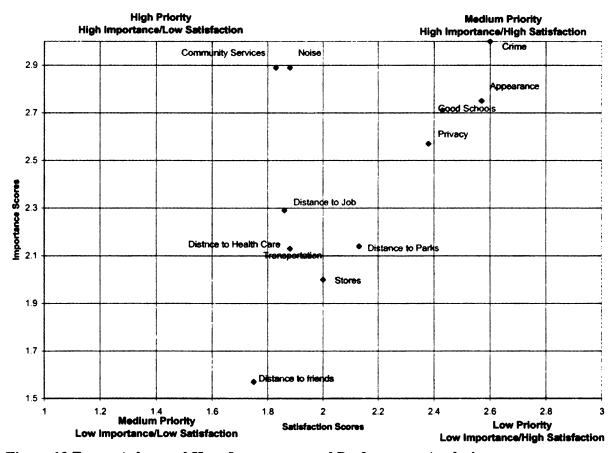


Figure 12 Forest Arbor and Hoyt Importance and Performance Analysis

CHAPTER FIVE DISCUSSION

General Satisfaction of Lansing Public Housing Residents

This section will provide a summary of the more important findings in the study and will examine how the results support or conflict with other similar studies in this area.

This section will also briefly highlight some minor recommendations for public housing communities and local community leaders for improving their neighborhoods. In the section entitled Conclusions and Recommendations, major recommendations for neighborhood improvement will be made.

The results of this study find that Lansing public housing residents are generally satisfied with many of the exterior features of their public housing community.

Approximately 80% of respondents, for example, are very satisfied or satisfied with the amount of open space and the amount of vegetation around their buildings. Similarly, approximately 75% of the respondents were very satisfied or satisfied with the cleanliness, the landscaping and the recreational facilities available in their community. Approximately 70% of the respondents were satisfied with the building's outdoor spaces and the unit's outdoor spaces for recreation. This general satisfaction may support previous research that suggests that the vast majority of tenants, even those who live in poor quality homes, report satisfaction with their dwellings. (Varaday & Carrozza, 2000) Such research suggests that past experience influence satisfaction and that individuals who have received low levels of service in the past will, as a result, have low expectations, and in turn will be more satisfied with levels of service that would be unacceptable elsewhere (Conway & Knox, 1990). The lack of options to improve their

housing situations may lead public housing residents to reduce their expectations and satisfaction standards (Birks & Southan, 1992).

Other results from this study, however, show that in every community, respondents were consistently dissatisfied with those characteristics that involve the proximity and behaviors of other residents. For example, approximately 47% of residents were not satisfied with the noise levels in their community. Similarly, approximately 43% of respondents were not satisfied with the amount of privacy in their neighborhood, and 78% were not satisfied with the crime levels in their neighborhood. These responses may indicate a need for emphasis not on the improvement of the general appearance of the neighborhood, but instead, on community relations among public housing residents. Similarly, physical improvements that emphasize increased privacy and increased ownership over common spaces, (which has been shown to reduce crime), may help to improve satisfaction among public housing residents (Newman, 1996).

Effects of Demographic Variables on Importance and Satisfaction

Some results from this study indicate that the location and characteristics of the community in which a respondent resides may have an effect on importance and satisfaction responses. Two of the importance variables varied significantly by the community in which the respondent resided. Thirteen of the satisfaction variables also varied significantly by community. These responses may be a reflection of the distinct populations that are served within the public housing neighborhoods. Different populations clearly have different needs that may result in variations among importance and satisfaction scores for community features. Moreover, these results may support previous research that has suggested that location and project-type (high-rise, townhouse,

apartment etc.) has an effect on satisfaction scores (Vale, 1998) In order to serve the needs of all public housing residents and to maximize satisfaction, therefore, it may be useful to examine the importance and satisfaction of residents in each public housing community (Mackin, 1994).

Interestingly, satisfaction levels with crime differed by community, with Forest Arbor showing the highest satisfaction with crime rates. Because overall crime was rated low in satisfaction and very high in importance, it may be useful for those communities that received low satisfaction responses to analyze the reasons for these responses and to compare strategies for addressing crime in the various communities.

Other findings of the demographic effects of satisfaction in this study seem to support previous resident satisfaction research. For example, the gender of the respondent did not influence either importance or satisfaction scores (Stokey and Dereran, 1977). Moreover, those respondents living in South Washington Park, (serving a primarily elderly population), reported higher general satisfaction scores than any of the other multi-family respondents. This finding may support previous research that older people are more generally satisfied than younger people (Moris and Winter, 1978).

On the other hand, this study failed to support the finding by Morris and Winter (1978) that suggests that those who have been living in the community for shorter lengths of time are more satisfied than those who have been living there for longer lengths of time. This study found no significant effects of length of time in the community on any of the satisfaction, crime, safety, or importance variables.

Significant differences were found on several satisfaction variables when analyzed in relation to whether the respondent had a choice in deciding where to live. Responses

showed that those who had a choice in their living environment were significantly more satisfied with the location of the building in relation to their job, the amount of open space, the appearance of the neighborhood, the distance of the building to their friends and relatives, and the availability of public transportation. The fact that those respondents who were able to chose their living environments were more satisfied on these variables than those who were not able to chose their living environment may suggest that choice plays a role in residential satisfaction. Perhaps by allowing public housing residents as much choice as possible in their living environment, their satisfaction with their neighborhood will be increased.

Increasing Use of Recreational Areas

Because of the many physical and social benefits of recreation for both adults and children, it is important to investigate ways in which use of recreational areas can be increased. This study found that parks close to the home, and outdoor spaces around the building were the most commonly used areas for recreation by Lansing public housing residents. These areas, however, were found to be unsatisfactory to a large percentage of respondents in the study (42% and 33% respectively). Moreover, 38% of parents found that the park close to their home was an unsafe place for their children to play and 34% of parents found that the outdoor spaces around their building were unsafe for children. Conversely, however, those places that were seen to be more satisfactory to residents (such as the on-site actively center and the local community center, 72% and 73% respectively), were much less commonly used by respondents, (15% and 12% compared to 39% and 34% of those who used the parks and outdoor spaces around the building). In order to increase use of recreational areas, therefore, these responses may reflect a need

both to improve satisfaction and safety in areas such as the park close to the home and the building's outdoor spaces, as well as to increase awareness and advertisement of those areas that are producing high satisfaction and safety responses.

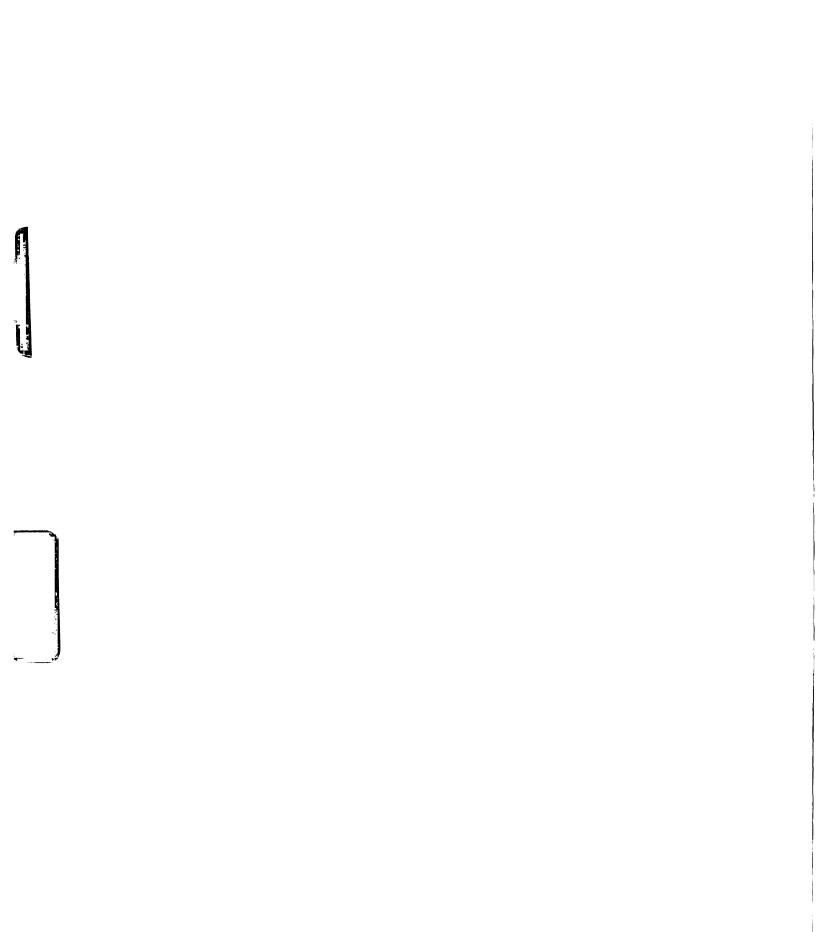
Another interesting result that may help to explain usage of recreational areas relates to the finding that those people who have children were less satisfied with the park close to the home for recreational purposes than those who did not have children. In order to increase the use of the local park by families and by children, therefore, it may be useful to analyze which features of the park make the park less appealing to parents than to non-parents in the area.

Comparing the Importance of Recreational Resources to Other Community Resources

Research suggests that many components should be included when measuring the general satisfaction with the living environment. Previous research shows that tenant satisfaction is a complex attitude that encompasses four types of satisfaction:

1) satisfaction with the dwelling unit; 2) satisfaction with services provided; 3) satisfaction with the whole package received for the amount of rent paid; and 4) satisfaction with the neighborhood or area (Onitokon, 1974, Satsangi & Kearns, 1992)

This study heavily emphasized one aspect of resident satisfaction, (satisfaction with the characteristics of the immediate area and surrounding neighborhood). As stated above, responses suggest general satisfaction with the exterior characteristics of the building and neighborhood, as well as with many of the places available for recreation and socialization. It seems important to note, however, that when comparing the importance of being close to recreational facilities in comparison to the importance of other community features when choosing a home, it is rated eleventh out of twelve in



importance, only above distance to friends and relatives. This seems to suggest that satisfaction with parks and recreation areas in the neighborhood does not represent an extremely vital component in the overall residential satisfaction of Lansing public housing residents.

Although the distance to parks and recreation facilities were seen as an unimportant feature in choosing a home, it is important to note that the park close to the home was the most commonly cited place used for recreation for both children and adults. These responses clearly suggest the importance of maintaining safe and clean local parks around the public housing communities in order to continue usage by the residents.

Methodological Limitations

Because the purpose of this study was to measure the satisfaction with the characteristics of various social and recreational features of their neighborhood, the survey instrument heavily emphasized variables related to recreational satisfaction.

Many other components, however, are needed to measure the general satisfaction with the living environment. Because the survey in this study heavily emphasizes one aspect of residential satisfaction, its findings cannot be used as an overall measure of resident satisfaction of Lansing public housing residents. A more in-depth instrument which includes all aspects of resident satisfaction would provide a more thorough analysis of residential satisfaction.

The reliance on the survey to analyze residential satisfaction may also be a limitation of this study. According to Varady and Carrozoa (2000), because of their reliance on structured questions, surveys do not provide the type of in-depth analysis that may be

important in measuring satisfaction. According to these and other researchers, there is a growing consensus that to fully understand satisfaction results, close-ended findings should be supplemented with other information such as open-ended items (Birks and Southan, 1992), participant observation information (Franklin, 1989), focus interviews, and in-depth personal interviews (Popkin, 1995). Combining this study with other research methodologies, therefore, may provide a more complete reflection of resident satisfaction.

In addition, the design of this study provided for the collection of satisfaction data at only one point in time. This type of design does not allow for an analysis of the long-term consistency of satisfaction opinions. Varady and Carrozoa (2000) suggest that, "to be meaningful, satisfaction surveys should be carried out over at least three points to identify trends." These trends can then be utilized to evaluate the effectiveness of changes made in the community. Moreover, the time of year that this survey was conducted may have effected the responses received. The survey was distributed during the month of November, which in Michigan is quite cold. This cold weather may have effected the use rates and the satisfaction responses of some of the outdoor recreation areas examined in the study.

Other limitations related to characteristics of the population being surveyed. For example, many public housing residents in Lansing do not speak English and may have had trouble interpreting the survey instrument. Although participants were instructed to contact the researcher if they needed the survey translated into another language, no one that received the survey contacted the researcher. When going door to door to distribute the survey, the researcher was able to communicate with children who were very often

able to translate the survey for the adult in the household. Nevertheless, the many languages spoken by Lansing public housing residents may have effected the response rate resulting in an under representation of those public housing residents that do not speak English. Similarly, according to people who work at the Lansing Housing Authority, residents of public housing are surveyed on a continual basis. Residents who are continually asked to give up their time to fill out surveys, therefore, may be more reluctant to participate in outside studies, which may have effected the response rate in this study.

Other methodological limitations include the narrow scope of the types of recreation that was investigated. For example, in the survey, the researcher examined participation and satisfaction of recreation that takes place outside of the home. No research was gathered on the types of recreation that may take place inside the home, such as playing games, watching TV, or working on a computer. Because Michigan weather is quite cold for five to six months out of the year, these types of indoor activities may represent an important source of recreation for many people.

Conclusions And Recommendations

Community development professionals generally agree that addressing issues in low income communities using top-down approaches that do not consider the opinions and concerns of the residents are often unsustainable and ultimately lead to failure. One case study of four successful anti-poverty programs, for example, found that resident participation in all of these programs was one of the most essential elements in their success. The author concludes that, "programs that bubble up from the bottom up fare

better than those from the top down" (Huey, 1989). Similarly, in Defensible Space, Oscar Newman states that residential participation in community improvement projects is important not only because of the sense of ownership that it instills, but also because of the sense of control over the future of the improvements that it encourages. This sense of ownership and control helps to ensure the long-term sustainability of the project. Moreover, a recent article describing new philosophies and policy initiatives in HUD states that, "housing authorities must recognize that strong communities are strong because of resident participation and responsibility, and the PHA must encourage that participation and support local control in almost all its forms" (Schuldiner, 2000). It seems, therefore, that public housing communities should seek resident input and encourage resident participation as much as possible when making decisions about the future of the community. Resident surveys such as the one described in this study are one method of identifying resident opinions and resident needs. Utilizing surveys in conjunction with other forms of resident involvement may help public housing authorities to more effectively serve the needs of their residents.

It is important, however, that public housing managers and local city employers recognize the variations in needs and desires among residents in different public housing communities. Because public housing communities vary in the type of population served, location, type of building structure, and available resources in the community, public housing agencies, resident leaders, and city employers should conduct satisfaction and needs analyses on a community basis. These community-based analyses will be more effective in understanding the specific local needs of the residents, as well as the

local characteristics of the community. The variations in importance and satisfaction scores by community shown in this study support this recommendation.

This research reveals that the distance to parks and recreation facilities is a fairly unimportant feature for Lansing public housing residents when choosing a home.

Because all of Lansing public housing residents are considered low income individuals, and therefore, may be struggling to meet their basic needs, it seems that community resources that help them to fulfill their basic necessities may be more important to them than the parks and recreation facilities. An increasing amount of research, however, is illustrating the many physical, social, and emotional benefits that recreation can provide. Ensuring that public housing residents are aware of these benefits and have the resources to take advantage of them, therefore, should be a priority for public housing managers, resident leaders, and local parks and recreation service providers. Providing recreational opportunities to community members in conjunction with awareness and education programs about the benefits of recreation and open spaces may encourage public housing residents to take advantage of the benefits that they can provide.

Results from this study also show that Lansing public housing residents in each of the five communities were most dissatisfied with those characteristics that relate to the proximity to or behaviors of other residents or proximate community members. Such characteristics include the noise level in the community, the crime level in the community, and the amount of privacy in the community. Making specific changes in the physical environment that help to decrease noise levels immediately around the home, increase privacy, and decrease crime may be one way to improve satisfaction in these areas. It may also be useful for public housing authorities and resident leaders to identify

methods that will improve relations among residents and emphasize social cohesion and mutual respect. Because research suggests that recreation can be a very useful method of enhancing social skills and of encouraging teamwork and understanding among groups, it may be very useful for local leaders to encourage recreational programming that will not only promote physical fitness, but will also work toward improved community relations (Gonzalez, 2001, Mariotti, 1999). Moreover, if Recreational Programmers from the City of Lansing are adequately informed of the problems in social relations in the area, they may be able to plan activities that will help to address these issues. Physical improvements in conjunction with these types of sensitivity training may help to improve general satisfaction of Lansing public housing residents and ultimately to increase the sense of community in these areas.

Methodologically, it was found through this research experience that the most effective way to involve as many residents as possible in this type of community research project is to talk one-on-one with the residents themselves. Neither the mail survey method nor the pre-arranged meeting times at the community centers were very effective methods in involving the residents in the project. The most effective method used to reach the residents during this project was to go door to door explaining the project and why their participation in it was important. For the most part, residents were extremely eager to talk about their experiences and opinions about the communities in which they lived, and were interested in hearing the results when the project ended.

It is hoped that this research will be useful to Lansing public housing residents and managers in identifying current satisfaction levels with the social and recreational features of the community. The analysis of the data presented in this study can be

utilized to assist residents and managers in identifying needed changes in the community and in prioritizing those changes. Results can also be used by parks and recreation professionals throughout the city of Lansing so that they may be more informed about the recreational needs and desires of Lansing public housing residents, who represent a large portion of their constituents. In many cities, public housing communities are often seen as areas that are separated from the rest of the community whose needs are met solely through the efforts of the local housing authority. Public housing residents, however, are citizens of the city and are entitled to the same services as other members of the city. As citizens of the city, therefore, it is important for city employees to be aware of the needs and desires of these constituents. This study may help local parks and recreation service providers to more adequately understand the needs of Lansing public housing residents, resulting in an improvement in service in these areas. It is the belief of this author that by actively seeking the opinions and views of public housing residents and by encouraging their participation throughout the change process, maximum efficiency of resources and the ultimate success of the initiatives will be ensured.

APPENDIX A

PRE-RUN SURVEY QUESTIONS AND RESULTS FROM INTERVIEWS

MSU CENTER FOR URBAN AFFAIRS STUDY OF THE SOCIAL AND RECREATIONAL NEEDS AND OPPORTUNITES AVAILABLE TO PUBLIC HOUSING RESIDENTS

QUESTIONS FOR JACKSON PUBLIC HOUSING RESIDENTS

SUMMARY OF THE STUDY

MSU Center for Urban Affairs is conducting a study that will try to assess the adequacy of the social and recreational opportunities available in public housing communities. The study will examine the way that public housing residents feel about the social and recreational resources that are available to them in their communities. We hope that the results of such a study will help the management of public housing communities to know what types of recreational opportunities are important to public housing residents, as well as the types of issues that are making it difficult for them to participate in social events. The study will be done first in Lansing, but the input and expertise of Jackson public housing residents is essential in the completion of a successful study.

AFTER THE RESIDENTS HAVE TAKEN THE SURVEY, PLEASE ASK THE FOLLOWING QUESTIONS:

- 1. How long did it take to complete the survey?
- 2. Was the survey understandable? Was there anything in the survey that didn't seem to make sense to you?
- 2. Were the directions clear?
- 3. Is there any reason why you would not want to return the survey?
- 4. Did you find the survey intrusive or offensive in any way?
- 6. Are there any questions that should be added or changed that you feel would be helpful in understanding the social needs and practices of public housing residents?

SUMMARY OF SUGGESIONS FOR SURVEY FROM PUBLIC HOUSING MANAGERS/RESIDENTS

Conversation with Rhonda Drumhiller, Manager Hildebrant Public Housing Community July 11, 2000

- At Hildebrant, people do not have much of a choice about location. However, the options given on the survey, in her opinion, cover all of the reasons why people would or would not choose to live in a certain community.
- She states that the options for recreation opportunities given in the survey cover all of the recreation options available in her community.
- She cannot think of any other questions that would be useful to her in making decisions about recreation issues in her community.

Conversation with Sandra Kowalk, Resident Initiatives Coordinator, & Pat Brown, Resident Initiatives Assistant
Lansing Public Housing 393-5750 July 20,2000

- Pat Brown suggested some changes in the wording of the survey. (Ex. Change utilize to use).
- Sandra Kowalk suggested that we add two more options for recreation in question 7 the Boys and Girls club (which is located across the street), as well as the local computer center.
- Sandra also suggested that the cover letter should offer an option for translation into different languages. Hmong, Somalian, Spanish, Viatnemese, and Arabic.
- Neither Sandra and Pat felt that the survey was intrusive nor offensive in any way.

Conversation with Jeanna Kelly, Manager LaRoy Froh Public Housing 393-4290 July 20, 2000

- Ms. Kelly stated that the survey seemed fine and that she could not think of any changes that would help to make the survey more useful.
- Ms. Kelly stated that she could not think of any reason why a public housing resident would not wish to respond to the survey.

Conversation with LeTrelle Jones Mount Vernon Public Housing 321-6054

• Ms. Jones was unwilling to offer suggestions about the survey. However, she did suggest that Sandra Kowalk, the Lansing Resident Initiatives Coordinator, be contacted. She stated that because Ms. Kowalk is in charge of organizing recreation opportunities for the residents, she would have the most input about the survey.

APPENDIX B

SURVEY INSTURMENT

Survey of Lansing Public Housing Residents

The following survey will help to determine the characteristics of a community that are important to public housing residents in creating healthy, enjoyable places to live. Although your participation in the survey is voluntary, we urge you to please take about 15 minutes to complete the survey and then return it in the attached self-addressed pre-paid envelope. You can also return the survey directly to me on December 12, 2000 at 6:30 PM in your on-site community center. Refreshments will be provided for those who return the survey on that date. Your answers are completely confidential and any findings will be reported in a manner that will not reveal individual responses. The questionnaire is to be filled out by an adult head of household living at your address. Thank you for your participation and cooperation.

1. Approximately how long hav	e you lived at	your current address?	
2. What is your gender? Please Male Female	Circle One:		
3. How many adults over 18 years	ars old live in	your household?	
4. In your free time, which of the purposes? Please Check all to		laces do you use for socia	lizing or recreational
a. In the outdoor spaces around the building		e. In the parking lot	
b. In the unit's outdoor spaces, (balconies, decks)		f. On the streets	
c. In the hallways or landings		g. The on-site tenant activity center	
d. In a park close to your home		h. At a local community center	
i. Other (Please Specify)			

5. Did you have a choice in deciding in which public housing community you wanted to live?

Please Circle One

YES NO DON'T KNOW

6. On a scale of 1 to 3, with 1 being **not important at all**, and 3 being **very important**, how important was each of the following features in choosing the home that you currently live. (If you did not have a choice in choosing your home, please answer how important each of the following features would be to you in choosing your living environment.)

	Not Important	Important	Very Important	Does Not Apply
a. Near job	1	2	3	4
b. Near friends or relatives	1	2	3	4
c. Near Parks/Recreation facilities	1	2	3	4
d. Near to public transportation	1	2	3	4
e. Close to stores	1	2	3	4
f. Good Schools	1	2	3	4
g. Good community services	1	2	3	4
h. Nice appearance, clean	1	2	3	4
i. Low crime	1	2	3	4
j. Quiet	1	2	3	4
k. Near health care facilities	1	2	3	4
1. Private	1	2	3	4

m. Other

7. On a scale of 1 to 3 with 1 being **not satisfied at all** and 3 being **very satisfied**, how satisfied are you with the following features of the exterior of your building?

	Not	Satisfied	Very	Does Not
	Satisfied		Satisfied	Apply
a. Landscaping	1	2	3	4
b. Privacy from Neighbors	1	2	3	4
c. Recreation Facilities	1	2	3	4
d. Noise Level	1	2	3	4
e. Cleanliness	1	2	3	4
f. Amount of Open Space	1	2	3	4
g. Amount of Vegetation	1	2	3	4

8. On a scale of 1 to 5 with 1 being strongly disagree, and 5 being strongly agree, please indicate your agreement or disagreement with the following statements.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
a. I feel safe walking around the buildings and grounds during the day	1	2	3	4	5
b. I feel safe walking in the surrounding neighborhood during the day	1	2	3	4	5
c. I feel safe walking around the buildings and grounds at night	1	2	3	4	5
b. I feel safe walking around the surrounding neighborhood at night.	1	2	3	4	5
c. There are no problems with drug	1	2	3	4	5

trafficking or prostitution in the area.					
c. I need to lock up personal	1	2	3	4	5
belongings or they will be stolen.					

 Do you have any children un 1 YES NO (If NO, Please skip 		ge of 18 that live with you? tion 14 on the following page)
10. How many children under th	ne age of	18 live with you?	_
11. How satisfied are you with tPlease Circle One1 Not satisfied2 Satisfied	he places	available for your children to 3 Very Satisfic 4 Don't know	ed
12. When your children play our Please Check all that Apple. In the outdoor spaces around the building	-	f. In the parking lot	llowing places they play.
b. In the unit's outdoor spaces, (balconies, decks)		g. On the streets	
c. In the hallways or landings		h. The on-site tenant activity center	

13. On a scale of 1 to 3 with 1 being very unsafe and 3 being very safe, how safe do you feel your children are when they are in the following places?

i. At a local community \Box

center

d. In a park close to your home

e. At the Boys and Girls Club

Other (Please Specify)___

	Very Unsafe	Unsafe	Safe	Does Not Apply
a. In the hallways or landings	1	2	3	4
b. In the units' outdoor spaces, (balconies, deck)	1	2	3	4
c. In the outdoor spaces around the building	1	2	3	4
d. In a park close to your home	1	2	3	4
e. In the parking lot	1	2	3	4
f. On the streets	1	2	3	4
g. The on-site tenant activity center	1	2	3	4
h. The on-site computer center	1	2	3	4
i. The Boys and Girls Club	1	2	3	4
j. At a local community center	1	2	3	4

k. Other	•				

14. On a scale of 1 to 3 with 1 being **not satisfied at all** and 3 being **very satisfied**, how satisfied are you with the following places for socializing or recreational purposes?

	Not Satisfied	Satisfied	Very Satisfied	N/A
a. In the outdoor spaces around the building	1	2	3	4
b. In the unit's outdoor spaces (decks, balconies)	1	2	3	4
c. In a nearby park	1	2	3	4
d. In the streets	1	2	3	4
e. In the parking lots	1	2	3	4
f. The on-site tenant activity center	1	2	3	4
g. A local community center	1	2	3	4

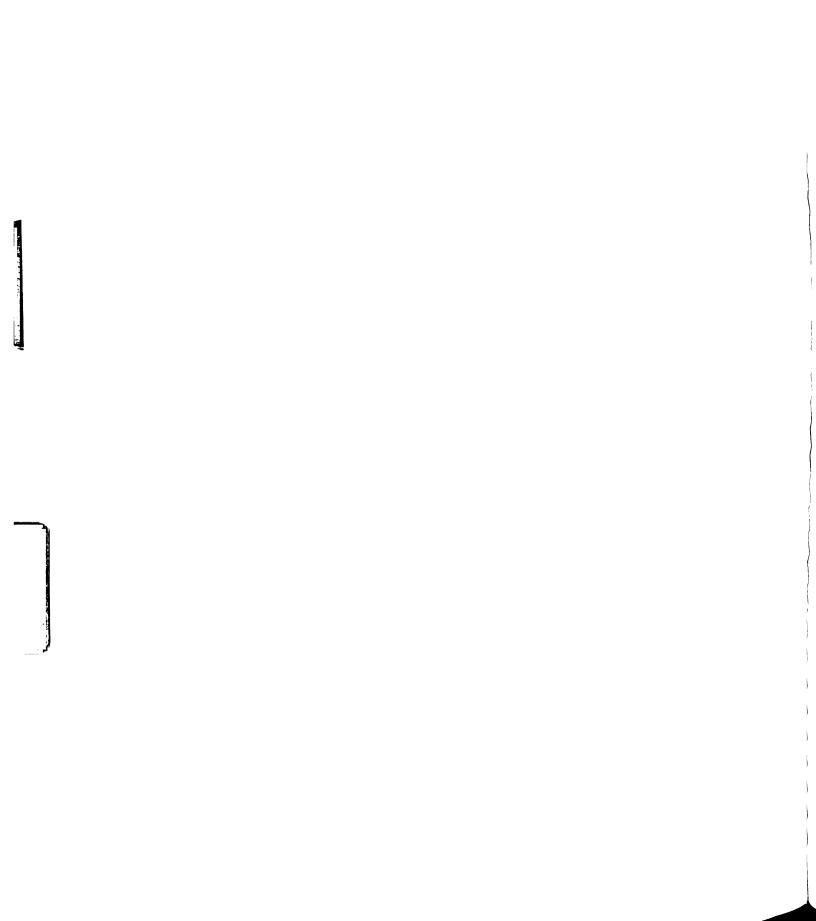
15. On a scale of 1 to 3 with 1 being **not satisfied at all** and 3 being **very satisfied**, how satisfied are you with the following features of your neighborhood?

	Not Satisfied	Satisfied	Very Satisfied	Does Not Apply
a. Distance to job	1	2	3	4
b. Distance to friends or relatives	1	2	3	4
c. Parks/Recreation facilities	1	2	3	4
d. Public transportation	1	2	3	4
e. Stores	1	2	3	4
f. Schools	1	2	3	4
g. Community services	1	2	3	4
h. Appearance of neighborhood	1	2	3	4
i. Low crime	1	2	3	4
j. Noise Level	1	2	3	4
k. Distance to health care facilities	1	2	3	4
l. Private	1	2	3	4

16. We welcome your comments. Is there anything else you would like to express related to the social and recreational features of your neighborhood and surrounding community?

Thank you for your participation in this survey.

Please remember to return this survey in the self-addressed pre-paid envelope provided.



APPENDIX C

COVER LETTER AND FLYER

November 2, 2000

Dear Mt. Vernon Park Resident,

I am writing to request your assistance in completing my Master's Degree at Michigan State University. As part of completing the degree, I am conducting research in conjunction with Dr. Rick Paulsen of the Parks, Recreation & Tourism Department that will try to determine the current level of satisfaction of public housing residents towards characteristics of the physical environment around their buildings, as well as towards the available social and recreational resources of their surrounding community. The results of the study will help to determine the characteristics of the community that are seen as important to public housing residents in creating healthy, enjoyable places to live. The results may help Public Housing Authorities and management recognize and work towards creating those qualities of a community that are important to public housing residents in achieving a high quality of life. Your opinions are important and your response to the questionnaire is essential to the completion of successful study.

While your participation in this project is completely voluntary, we encourage you to take this opportunity to express your opinions about your community. You indicate your voluntary agreement to participate by completing and returning this questionnaire. The results from the study will be completely confidential and any findings will be grouped together in a manner that will not reveal individual responses. Absolutely no responses will be associated with your name. Your privacy will be protected to the maximum extent allowable by law. If you have any questions about your rights as human subjects of research you may contact David E. Wright at 517-355-2180.

Your response will ensure that we capture information from the rich diversity of public housing communities existing in Lansing. Please take about 15 minutes to fill out the

enclosed questionnaire and mail it back in the self-addressed, pre-paid envelope. OR,

you can return the survey directly to me on Nov. 14, 2000 between 5:30 and 6:30

p.m. in your on-site community center. Refreshments will be provided to those who

visit the community center to return the completed survey. If you have any questions or

concerns, you may contact Cathy Stauffer at 517-353-9555 or by email at

stauff21@pilot.msu.edu Once again, thank you for your support. Please remember:

♦ Please answer all questions

♦ The survey is to be completed by one adult head of household

♦ Your participation is voluntary

♦ The results to the survey will remain confidential.

When you have completed the questionnaire, please seal it in the self-addressed postage

paid envelope and return it, OR return the survey on Tuesday, November 14th in your

community center.

Sincerely,

Catherine Stauffer

Dr. Richard Paulsen

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RETURN YOUR SURVEY TO YOUR COMMUNITY CENTER ON TUESDAY NOVEMBER 14, 2000 BETWEEN 5:30 AND 6:30 P.M.



REFRESHMENTS WILL BE PROVIDED FOR THOSE WHO RETURN A COMPLETED SURVEY...

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