Section 8 Subsidy Program to low income rental housing: An analysis of the variations in the residents' satisfaction

by

Fethiye Tuken

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1. INTRODUCTION

1.1. General Background

Housing stock consists of structures with different type, size, quality and location. The housing stock provides housing services for the people who live in it. There are housing policy and programs which influence the shape, size, quality, quantity, and type of tenure of housing stock.

When the housing market was examined in the United States in 1981, it was found that there were a total of 81,072,000 households. Of that number, 28,833,000 were rental units with 66,604,203 renters. Among 28,833,800 rental units there were 3,500,000 federally subsidized rental units with 9,100,000 renters (Downs, 1983). All subsidized units were about 12 percent of all renter occupied units. In 1985, the president of National Low Income Housing Coalition said that of the 12 million poor households which their earnings were less than fifty percent of median income, at least 9 million were living in overcrowded substandard units or were paying more than 30 percent of their income for housing. Moreover, the gap between renters' income and the price of affordable rental housing were widened by 35 percent in the last decade (Lemov, 1985).

The federal housing policy in the U.S.A. has economic, social and environmental objectives. These objectives are different for various income groups. The objectives of the federal housing policy for low income groups who cannot afford adequate housing are to increase real income, redistribute income, encourage fair housing, foster social stability, upgrade deteriorated neighborhoods, and stabilize the neighborhood environment (Solomon, 1974).

The commitment of the federal government to solve the housing problems of low income groups has resulted in a number of programs and projects. Those programs, ranging from the 1934 National Housing Act to the 1974 Housing and Community Development Act, have been designed to provide a decent home and a suitable living environment for all citizens.

The Public Housing Act of 1937 marked the first intervention of the government to solve the housing problems of low income groups. Under this act, governments owned and operated public housing units. Since the construction cost and some operating expenses were carried by the government, public housing units became expensive and trouble for the government.

With the establishment of Department of Housing and Urban Development (HUD) in 1965, the housing policy shifted

from public housing and urban development programs to rental subsidy programs. There are a number of rental housing subsidy programs such as Section 221(d), Section 23 Leased Housing Program, Section 236, Section 202 Housing for Elderly and Handicapped, Section 8, Section 17 Rental Rehabilitation Program, Demonstration Voucher Program, and Housing Development Action Grants.

1.2. Statement of Problem

All low income rental subsidy programs have been implemented by either using existing housing stock or constructing new housing units. The Section 8 program, introduced by the Community and Development Act of 1974, is the largest of the government rental housing subsidy programs. It offers a wider variety of supplemental programs.

The Section 8 program is composed of four different parts: the Existing Housing Program, the New Construction Program, the Moderate and Substantial Rehabilitation Programs. The Existing Housing and New Construction Programs have been applied much more intensively than the Moderate and Substantial Rehabilitation Programs. The Existing Housing Program uses privately owned existing rental housing stock by providing direct rental subsidy to low income households. On the other hand, the New

Construction Program guarantees to private developers a tax subsidy resulting from accelerated depreciation and deductibility of mortgage interest to produce low income housing units. It also provides rental subsidies to eligible households who apply directly to the project's owner.

In both Existing Housing and New Construction rental housing subsidy programs, all subsidized units have to meet the standards specified by HUD. Recipients in both programs pay at most 30 percent of their net income as rent. The difference between the unit's actual rent and the tenants contribution is paid by the Public Housing Agency to the owner of unit. The rent of the units accepted into the program must not exceed the fair market rent in that local area.

During the Reagan Administration, there has been a shift in the housing supply for low income groups. The shift has resulted in the construction of fewer new housing units and a reliance on the existing housing stock to provide housing for low and moderate income groups. In 1976, 41 percent of rental housing subsidies was directed to new construction and 59 percent was directed to existing stock. However, in 1986, 13 percent of housing subsidies went to new construction while 87 percent went to existing

stock. The use of subsidies for existing stock in 1988 is expected to reach 98 percent (The Low Income Housing Information Service, 1987). According to the Reagan administration, the housing problem of low income groups is not one of availability, but rather a problem of affordability. Despite identifying the problem as one of affordability, the Reagan administration increased the amount low income families must pay for subsidized housing from 25 percent to 30 percent of their income.

The shift from the New Construction Program to the Existing Housing Program may decrease the cost of low income subsidized rental housing programs for the government. However, it could have negative effects on the low income groups in the tight housing markets in which the low income groups could neither find suitable housing units nor be satisfied with the units they occupy. Thus, low income groups usually could get into the dense neighborhoods and bad quality homes. The concentration of low income groups in the specific and old areas of city could accelerate the deterioration of these neighborhoods more rapidly.

1.3. Statement of Intent

The federally subsidized low income rental housing programs have wide ranging effects on both the government

and the low income households. Housing officials in many states declare that it is more efficient to make use of the existing housing stock, since most units can be upgraded for less money than constructing new units (Lemov, 1985). However, the subsidization of existing rental units should not only fulfill the government's objectives but also satisfy the needs of the low income renters. There are also many unanswered questions regarding the residents' concern for economic, social, and environmental factors such as satisfaction with housing quality, cost, neighbors, and maintenance of housing and neighborhood. The fact that 87 percent of the rental subsidies was directed to the existing housing stock in 1986 can be viewed as accrued benefits to the national economy. However, the benefits accrued to the individuals and households resulting from the expansion of subsidization of the existing stock remain to be analyzed.

The Section 8's Existing and New Construction Programs are often studied from the aspect of program cost and effectiveness rather than their impact on the welfare of low-income renters. The goal of that program is not only to provide adequate housing but also to bring social improvement. It was believed that better physical improvement would result in better health, more stable family structure, less crime and delinquency, increased

self-worth, greater job security and improved quality of life (Schussheim, 1974). Thus, the federal government policies to improve the low income groups' housing conditions should emphasize the aspects of residential satisfaction as well as the cost and effectiveness of these policies.

The purpose of this research is to examine and analyze the differences in residential satisfaction resulting from the implementation of the Section 8 Existing Housing and New Construction Programs. This study focuses on the social, economic, and environmental impacts of both programs to determine which program supplies relatively more benefits to low income renters and results in more residential satisfaction.

The survey will examine whether the degree of residents' satisfaction with housing is higher, and if the number of housing defects is lower in newly constructed units than existing units. The survey will also attempt to determine if tenants have higher satisfaction with their neighbors and neighborhoods' physical condition in the Existing Housing Program than tenants in the New Construction Program. In addition to these analyzes, this study will find out whether the maintenance of housing units, surroundings, and the quality of management are

better in the New Construction Program than in the Existing Housing Program.

1.4. Methodology

The housing problem of low income groups and the effect of government's rental housing policies on low income groups have been usually studied in large cities (Onibokun, 1974; Carp, 1975; Meeks et al., 1977; Rent and Rent, 1978; Weidemann and Anderson, 1982). However, the impacts of these policies on low income groups in small communities have not been considered in great detail. Accordingly, Ames, a small Iowa town, has been selected to be studied. The process of investigating and analyzing the impact of Section 8 Existing Housing and New Construction Programs has included a survey of residents in both types of subsidized units in Ames, Iowa.

There are 125 units accepted to the Section 8 Existing Housing Program and 100 units produced by the New Construction Program in Ames. The addresses of the Existing Housing Program units have been supplied by the city of Ames Planning Office. The addresses of the New Construction Program units have been provided by Hunziker and Furman Realty Company. Since the size of the survey population is considerably small, there was no need to draw a sample. The

survey, therefore, has included all the housing units in both programs.

In addition to mailing questionnaires to the low income households residing in both program units, a physical survey of these units and their neighborhoods were conducted. Interviews with the managers of both programs were also conducted to get information about the operation of these two types of programs.

The questionnaire has four sections: household characteristics, physical characteristics of housing units, physical and social characteristics of neighborhoods, and management characteristics. In the questionnaire, there are also questions measuring and ranking the residents' satisfaction levels with their housing, the neighborhood and the management. Several statistical techniques including t-tests, frequency distributions, cross-tabulations, and multiple correlations were used to analyze the results of the survey.

2. THEORETICAL BACKGROUND AND LITERATURE REVIEW

The objective of this chapter is to review the theoretical framework for the study of residential satisfaction. This theoretical framework will provide the determinants of the residents' satisfaction and a rationale for the construction of a conceptual model.

2.1. Determinants of Residents' Satisfaction

Housing, whether it is for low, medium, or high income groups, is more than a shelter. It determines the life style and prestige for the family by providing social and biological activities. Although social, political, economical, psychological, and environmental aspects of housing have been examined in different researches, there are few studies concerning the interrelations to identify their influence on residents' satisfaction (Onibokun, 1974).

The determinant of residents' satisfaction is a combination of housing satisfaction, neighborhood satisfaction, management satisfaction, and socioeconomic characteristics of residents. Morris and Winter (1978) hypothesized that there were relationships among the characteristics of the family, normative residential deficits, and residential satisfaction. The level of satisfaction resulted primarily from the presence of housing

or neighborhood deficits. These deficits were caused by the background characteristics. In their casual model, demographic and socioeconomic characteristics included the stage of the family life cycle, income, occupation, education and family structure. Residential deficits might occur because of tenure, structure type, quality and expenditure, space, and neighborhood characteristics.

It is well known that housing and neighborhood deficits are higher in low income residential areas than in middle and high income residential areas. To solve the housing problem of low income groups, economic aspects, instead of quality, have been given the first priority in housing projects. An example of those kind of projects could be the public housing program in the United States. Low income government housing programs in the United States just affected a short term solution and created problems such as further physical deterioration, higher crime, and social disorganization in the long run. Schussheim (1974) said that a better physical environment would result in better health, less crime and family conflict, higher achievement, and a more stable family structure. Therefore the satisfaction of residents should be given first priority in those kind of low income subsidized housing programs and projects.

There are a number of studies concerning residential satisfaction. Onibokun (1974), Rent and Rent (1978), and Francesto et al. (1975) developed a scale for measuring residents' satisfaction in subsidized low income housing. Onibokun (1974) formulated a theoretical basis for the measurement of tenants' satisfaction in several Canadian public housing projects. This theoretical model involved four interacting subsystems: the dwelling subsystem, the environment subsystem, the management subsystem, and the tenant subsystem. The internal space, the structural quality, the household facilities, and other such housing amenities and qualities within the house were considered in the determination of satisfaction with the dwelling subsystem. The environmental subsystem included the physical, human, and psychological factors of the environment in which the dwelling was located. The management subsystem examined the pattern and type of management. The tenant subsystem was related to socioeconomic and demographic characteristics of the tenants such as age, education, marital status, size, income, and life style of the household.

Rent and Rent (1978) invented a scale to measure residents' satisfaction in subsidized low income housing projects in selected areas of South Carolina. This scale

consisted of six main variables: satisfaction with housing, satisfaction with neighborhood, previous housing experience, degree of integration or social participation into society, housing aspirations, and the occupants' social-psychological perspective toward society. Social participation as well as social and psychological factors were considered as most important elements in the determination of residents' satisfaction. Housing satisfaction, neighborhood satisfaction, and social factors such as self-esteem, alienation and aspiration were found to be significantly related to each other. This study concluded that all main variables affected general life satisfaction.

Francesto et al. (1975) created a model to identify and measure design, managerial, social and psychological factors, and occupants' characteristics which influenced the degree of residents' satisfaction in HUD assisted low rise and high rise housing. Satisfaction with recreation facilities, parking arrangements, and privacy from neighbors were found to be higher in low rise housing than those of in high rise housing. It was found that the management and the design of development had a strong effect on the residents' satisfaction. Francesto et al. (1975) concluded that a carefully designed development could succeed or fail on the strength of its management whether in high or low rise housing developments.

In summary, it can be concluded that residents' satisfaction has been related to occupants and their residential environment. The residential environment consists of housing, neighborhood, and management elements. Residential satisfaction is reported satisfaction with the dwelling, neighborhood, and management with respect to household characteristics. Therefore, the basic variables in the determination of residents' satisfaction are housing, neighborhood, and management characteristics as well as interactions among them. Thus it is necessary to scrutinize each of these main variables by explaining their sub-variables and interactions among them.

2.2. Household Characteristics

Socio-economic and demographic characteristics as either control or independent variables have usually been studied in the determination of housing satisfaction.

Age, income, education, size of household, marital status, race, type of tenure, and length of stay in present dwelling have showed statistically significant relationships to satisfaction when combined with the deficit of housing, neighborhood, and management variables. All of the above background characteristics except race and type of tenure were included in this study as indicators of households'

demographic and socio-economic status. Since all of the residents were renters and more than 90% of them were white, tenure and race were not included as background variables. Background variables and their effects on satisfaction can be listed as follows:

- Age of household head

The relationship between age and satisfaction has been shown several times. Morris and Winter (1978) studied the influences of housing deficits and household characteristics on housing satisfaction. In that study, age was found to be significantly related to satisfaction. He indicated that the older the household head, the greater the satisfaction. Harris (1976) and Speare (1974) also showed a positive relationship between age and satisfaction. In their studies, satisfaction tended to increase as age increased. Yockey (1976) indicated that the relationship between bedroom deficits and bedroom satisfaction decreased as age of household head increased. However, Onibokun (1976) revealed that age had no effect on residents' satisfaction.

- Income level of households

High income households usually have higher quality homes than low income households have. Consequently, the higher the quality of a home, the higher the level of resident satisfaction. The study of dealing with the influences of housing deficits and household characteristics

on housing satisfaction by Morris and Winter (1978) indicated a significant relationship between income and satisfaction. He concluded that higher incomes resulted in greater satisfaction. But this concept could be the reverse in subsidized low income rental housing development. Onibokun (1976) found a significant relationship between income and satisfaction level in a public housing project in Canada. His study showed that the level of satisfaction decreased while the income of households increased. However, Crull (1979) found income as a weak predictor of housing satisfaction.

- Education of the head

Education of the head of household has been related to satisfaction. Onibokun (1976) found a significant negative relationship between the education and residents' satisfaction. He indicated that the level of satisfaction decreased while the level of education increased. Speare (1974) also showed a significant relationship between education and satisfaction. However, Meeks et al. (1977) revealed that education of the head of household did not have a significant effect on satisfaction.

- Size of household

Size of household has been shown to have both positive and negative effects on residents' satisfaction in different

studies. Onibokun (1976) and Crull (1979) indicated that household size had a negative effect on housing satisfaction. They found that the level of satisfaction decreased while the number of people increased in a household. However, Rogers and Nikkel (1979) revealed that there was a positive relationship between household size and residents' satisfaction.

- Marital status

Marital status can have both significant and insignificant effects on residents' satisfaction according to different researchers. Winter and Morris (1982), Harris (1976), and Meeks et al. (1977) found that marital status did not have significant effect on the satisfaction. Winter and Morris (1982) indicated that there was no difference on the satisfaction level between single headed and jointly headed households. On the other hand, Onibokun (1976) showed that two parent families tended to have higher degrees of satisfaction than one parent families.

- Length of stay in present dwelling

The effects of length of residency on the satisfaction level of residents have been studied by several researchers. Carp (1975) analyzed the influence of length of residency on the satisfaction level of Victoria Plaza tenants. In this low rent public housing project he showed that the

satisfaction of tenants remained the same during a honeymoon period and over the long run. Nevertheless, Rent and Rent (1978), Onibokun (1976), and Meeks et al. (1977) showed that the length of stay had a negative effect on the residents' satisfaction in government assisted low income housing. They indicated that the longer the stay in public housing, the lower the residents' satisfaction.

2.3. Housing Satisfaction

Housing satisfaction is the amount of contentment experienced by an individual or family relative to the current housing situation (McCray and Day, 1977). Housing characteristics is one of the most important components of residents' satisfaction. A number of researchers have examined residents' housing satisfaction by using different characteristics of housing (Harris, 1976; Yockey, 1976; McCray and Day, 1977; Speare, 1974; Rea, 1978; Newman and Duncan, 1979; Onibokun, 1974; Rent and Rent, 1978).

The quality of housing is one of the main variables in the measurement scale of housing satisfaction. Harris (1976) analyzed the influence of housing quality on housing satisfaction. She showed that the variation in housing quality related positively to housing satisfaction. She developed a scale intended to measure satisfaction with the

presence of quality. In her study, satisfaction with housing quality consisted of interior quality and exterior quality. Interior quality included housing conditions and the presence of certain amenities such as condition of the floors, interior walls, windows, roof and ceiling, heating and plumbing systems, presence of freezer, built-in oven, microwave oven, clothes, dryer, water softener, color television, and fire place. The exterior quality index included condition of plants and shrubs, lot fixtures, exterior roof, siding, porch, doors and windows, and foundation.

Rent and Rent (1978) showed that housing satisfaction was related to structural type. Newman and Duncan (1979) used housing problems such as plumbing, structure, security, vermin, and heat in the determination of housing satisfaction. The most important housing problems effecting housing satisfaction were those related to the structure of dwelling, security and heat.

In addition to the quality of housing, the other housing characteristics such as space in dwelling, noise, privacy may also have very important effects on the determination of housing satisfaction. Space oriented characteristics such as size of home, design of home, number and size of rooms have been used in a number of researches

to measure housing satisfaction (Yockey, 1976; Onibokun, 1974; Speare, 1974; Rea, 1978; McCray and Day, 1977).

Yockey (1976) developed a scale including space oriented characteristics of a dwelling unit to measure housing satisfaction. Her space satisfaction scale consisted of the satisfaction with number of total rooms, number of bedrooms, size of bedrooms, sufficiency of housing space available and size of lot. The strongest correlation was found between satisfaction and bedroom deficit.

Onibokun (1974) used privacy, exterior noise, quality and space oriented variables to measure housing satisfaction. Quality oriented variables were related to structural interior and exterior quality of dwelling unit (plumbing, windows, doors, walls, floors, painting, heating, kitchen and bathroom facilities). This study showed that the housing satisfaction was significantly related to the quality of house and space in house.

McCray and Day (1977) compared low income rural and urban residents' housing values and satisfactions. In their comparison, the characteristics of dwelling unit were considered along with other variables. Variables related to the characteristics of a dwelling unit included cost, structural quality, beauty, comfort and convenience. Structural quality, comfort, and convenience of dwelling

unit had significant effects on the satisfaction of both rural and urban residents while economy was related to the satisfaction level of only urban residents. Housing cost, housing quality, and space in house were also used to measure housing satisfaction by Rea (1978). These characteristics associated with the housing unit were significant in the housing satisfaction of lower income, smaller size, and younger households. These households were motivated to change their residential location according to the satisfaction level with housing characteristics.

It can be concluded that housing characteristics associated with quality, space, privacy, noise, and cost are the principal determinants of housing satisfaction. Higher housing quality and space, less cost, and less noise result in greater tenant satisfaction with the housing.

2.4. Neighborhood Satisfaction

There are always interactions between residents and their environment in which their houses are located. This relationship influences residents' satisfaction either negatively or positively based on the quality of neighborhood factors. These factors include accessibility, amenities and problems, social relationships and homogeneity of neighborhood. Morris and Winter (1978) showed that

neighborhood deficits and the absence of neighborhood deficits are related to neighborhood satisfaction.

Accessibility level of the neighborhood to different facilities influences neighborhood satisfaction. Rea (1978), Lansing et al. (1970), Speare (1974), and Onibokun (1974) studied the effect of accessibility on residents' satisfaction. They used a scale which included proximity to school, church and shopping facilities, recreation facilities, work and public transportation. They indicated that residents who had easy access to these facilities were satisfied with their neighborhood. However, Lansing et al. (1970) stated that these facilities should not be less than 10 minutes away to increase neighborhood satisfaction.

Amenities and problems in a neighborhood are very important for its residents. Amenities could be laundry facilities, good quality school playgrounds, neighborhood parks, good parking and traffic facilities, good general appearance, privacy, and good police and fire protection. Problems could be noise, crime, vandalism, traffic congestion and theft. Onibokun (1974) developed a scale including amenities and problems to measure neighborhood satisfaction of residents in public housing in Canada. He used the variables related to quality of schools, design and outside appearance of this housing project, physical

condition and appearance of neighborhood, available parking facilities, activity of police, outside private space, the amount of common space, playground for the children in this housing project, privacy from the people around, noise, and air pollution. All of these variables had a significant effect on neighborhood satisfaction.

Lansing et al. (1970) indicated that the value and condition of the other houses in the neighborhood effected residents' satisfaction. They stated that the higher the value and the better condition of the other houses, the higher neighborhood satisfaction of residents. Newman and Duncan (1979) and Rea (1978) also considered neighborhood problems and amenities in their satisfaction scale to measure residents' satisfaction. Newman and Duncan (1979) included traffic congestion, unclean neighborhood, theft and personal crime, while Rea (1978) used crime rate, police and fire protection, noise, traffic, and general appearance in their scales.

Baldassare (1982) and Lansing et al. (1970) studied the effect of neighborhood density on the amenities and problems. Because high numbers of people were competing for scarce space and services, it was found that there were lack of amenities and excessive amount of problems in dense neighborhoods. Multi family housing projects are especially

prone to those kinds of problems. Therefore, site design and arrangement are important in terms of neighborhood satisfaction in multi-family subsidized or unsubsidized housing projects. Francesto et al. (1979), Weidemann and Anderson (1982), and Lansing et al. (1970) studied the effect of site design and arrangements on neighborhood satisfaction. They concluded that a carefully designed and well arranged development could reduce problems such as crime, noise, congestion, and privacy in multi family housing projects.

Social relationships as well as income and racial homogeneity in a neighborhood influence the satisfaction of residents. Lansing et al. (1970), Francesto et al. (1979), Rent and Rent (1978), and Speare (1974) searched the effect of social relationships and homogeneity on residents' satisfaction. Lansing et al. (1970) investigated communities ranging from highly planned developments to poorly planned developments to measure the effects of friendly and similar neighbors on the satisfaction. They concluded that the perception of neighbors' compatibility was highly associated with neighborhood satisfaction. The relationship of similarity to satisfaction was the strongest one in their analyses. Francesto et al. (1979) studied residents' satisfaction in 36 HUD assisted low income

development throughout the nation including high rise and low rise. They included variables related to similarity and relationships between neighbors in their measurement scales. This study showed that the perception that other residents being friendly and well behaved was a very important component of overall satisfaction. Moreover, it was found that the more the residents in the development were perceived to be similar to each other, the higher was their level of satisfaction with living in that development.

Rent and Rent (1978) used degree of integration or social participation into society, while Speare (1974) used social bonds between household members and other people to measure residents' satisfaction in their scales. Both of them found that neighborhood satisfaction was significantly related to the level of satisfaction with their neighbors. Satisfaction of a resident tended to increase while the number of friends increased in the neighborhood.

In summary, it can be concluded that accessibility, amenities, problems, and social relationships and homogeneity are the principal determinants of neighborhood satisfaction.

2.5. Management Satisfaction

Quality of management can often affect residents' satisfaction in HUD assisted low income housing developments. Since rules and regulations are established by HUD, local housing authorities, and private housing realtors to administrate housing units, the enforcement of these rules and regulation determines the degree of the maintenance of the housing units and developments, the relationships between administration and tenants, and tenants' behavior in the housing development.

Onibokun (1974) used factors related to project management in his study about the satisfaction level of residents. These factors included the way management maintained the development and housing units, the relationships between tenants and management on this project, the rules which forbid the tenants from doing certain things, whether or not the officials of the housing authority interfere with the tenants' privacy. He found that those management factors were related to the residents' satisfaction. The most important problems with management were unsatisfactory handling of tenants' complaints, slow response to necessary repairs in the house, and the way the housing authority personnel enforced the rules.

Francesto et al. (1979) included management factors in their scale to measure residents' satisfaction in 36 HUD assisted housing development across the United States. They used a variety of variables including satisfaction with rules, crime protection, building and unit maintenance, site maintenance, and management as well as maintenance of grass, shrub, trees, storage, garbage, laundry, parking lot, outdoor paint, indoor paint, and sidewalk. They found that management aspects were strong predictors of residents' satisfaction. That study showed that a number of management policies and rules were perceived as unsatisfactory by the residents. It was also found that management performance in providing adequate maintenance and in responding quickly and effectively to tenants' complaints were generally not satisfactory.

In conclusion, management factors such as maintenance of housing unit, building and development as well as regulation and rules between managment and tenants effect residents' satisfaction in subsidized low income rental housing developments. These management factors should be included in a scale that measures satisfaction in low income rental units, since there are a number of regulations and rules in the operation of these units.

2.6. Residents' Satisfaction in Section 8 Units

The section 8 program has been implemented either by using existing housing stock or constructing new units. Since the cost of a new construction program was found to be too high by the national government, an existing housing program was started. In addition to lower cost, this existing housing program was initialized to provide freedom of choice and immediate housing assistance for low income groups, to fill vacant apartments, to provide landlords with reasonable rents, to improve existing housing stock, to provide dispersal of low income groups in the community, and to allow tenants either to move or to remain in their present apartments.

However, the effect of this shift from the New Construction Program to the Existing Housing Program on residents' satisfaction was not considered by the government. The cost of new construction program, improvement of existing housing stock, and the mobility and dispersion of poor people have been the main issues in the initiation of Section 8 Existing Program. The cost may be lowered and the existing housing stock may be improved with the implementation of Section 8 Existing Housing Program. However, the goal of the mobility and dispersal of poor people may not be realized.

Bullard (1978), Lemov (1985), and Retsinas (1981) studied the effect of the Section 8 Existing Housing Program on mobility and dispersion of poor people. Bullard (1978) surveyed 200 residents of Section 8 Existing Housing Program in Houston, Texas. It was found that income and race segregation continued and there was a long waiting list to get into the program. Findings in this study indicated that minority tenants were less successful in securing and leasing housing in affluent areas. White tenants tended to secure and lease housing in middle socio-economic strata neighborhoods, while minority tenants usually secured housing in low socio-economic strata neighborhoods.

The president of Bickerdike Development Cooperation stated that even if there may be vacant apartments in a middle class neighborhood, low income people could not move there because there is no public transportation to get them to their jobs nor would they be accepted there (Lemov, 1985). Retsinas (1981), in a study of satisfaction of Section 8 Existing Housing Program's residents in Rhode Island, found that even if the tenants had lived in standard houses in good neighborhoods, they had to move after getting into the Section 8 program since their landlords either raised the rents above fair market levels or did not want to get into the program. The movers did not necessarily

relocate to better housing, but quite possibly to less desirable housing. This study concluded that Section 8 failed to meet its particular goal of reducing isolation and geographic concentration of poor people.

Thus far it can be concluded that the Section 8 Existing Housing Program has lowered the cost to the government of subsidizing low income groups' housing needs, has improved the existing housing stock through the use of government money. However, it could not prevent the geographic concentration of poor people. The residents' satisfaction in Section 8 program units has not been included in the goals of the program. Unfortunately, no study on the residents' satisfaction of both Section 8 New Construction and Existing Housing units could be found in the literature. However, residents' satisfaction should be considered in the evaluation of housing programs for the low income groups.

3. LOW INCOME RENTAL HOUSING SUBSIDY PROGRAMS

The purpose of this chapter is to review federal housing subsidy policies related to low income groups in the United States. Two of the major components of Section 8 low income rental housing programs will also be broadly examined and compared in this chapter.

3.1. Federal Housing Policies After HUD

The Department of Housing and Urban Development (HUD) was created by the 1965 Housing Act to coordinate and provide funding for the various federal housing programs. The 1965 Housing Act also established the Rent Supplement Program and the Section 23 Leasing Program which were the first rental subsidy programs in the United States.

The Section 23 Leased Housing Program was the forerunner to Section 8 Existing Housing Program (Lemov, 1985). In Section 23 program, the leases that were previously approved by local governments for 12 to 36 month periods were extended to 5 years leases in 1966, and 15 years leases in 1970. The Local Housing Authority (LHA) determined eligibility of tenant according to the family's income. This program further required tenants to pay 25% of their income for housing. The rents of houses were not allowed to exceed the Fair Market Rent (FMR) determined by

HUD, and the conditions of the houses had to meet HUD's housing quality standards for eligibility.

Some major changes in this program occurred in 1971 and 1973 placed definite responsibilities on both tenants and owners, and reduced the role of LHA in the lease arrangement. The payment of utilities, taxes and insurance, performance of all maintenance functions, processing tenant applications, and collecting rents were included among the responsibilities of owners. Another important change was to give permission to qualified tenants to find a housing of their choice at the specified quality standards rather than waiting for an opening. Those qualified tenants sought housing were issued certificates of eligibility good for 45 days which they had to find a unit within this duration. All these changes led to the enactment the 1974 Housing and Community Development Act which covered Section 8 Low Income Assistance Program (Meehan, 1977).

The Housing and Development Act of 1968 introduced two new programs: Section 235 for homeowners and Section 236 for renters. The subsidy techniques in both programs were interest rate subsidies, depreciation benefits, and housing allowances. Section 235 provided subsidies for low income households in terms of mortgage insurance such as FHA. Government subsidies covered the difference between actual

monthly carrying costs and the households' income mandated payments. This act allowed homeownership program participants to pay 20% of their income toward monthly payments.

The Section 236 program paid for private realtors willing to produce low income rental housing units. This Section 236 program required eligible households to pay 25% of their income for rent, while the government subsidized the remaining costs, which were the balance of rent and the amount necessary to cover a fixed low cost mortgage. Section 236 was the forerunner to Section 8 New Construction Program (Bourne, 1981).

The subsidized housing production was at the highest level from 1968 to 1974 because of the government housing policies. But this high production level received criticism due to its cost, and for serving only a fraction of the poor who were concentrated in housing projects. This concentration of poor people separated low income groups in housing projects from high income groups (Bourne, 1981; Struyk, 1980; Vernarelli, 1986).

Substantial changes occurred in United States housing policy during the middle 1970s aimed at solving the problems discussed above. In 1973, the Nixon Administration delayed subsidy programs and shifted from supply side subsidies to demand side subsidies to serve targeted households.

The Housing and Community Development Act of 1974 provided a new framework for the housing policy. With this act, emphasis in housing policy shifted from the use of categorical grants (urban renewal) to block grants. This act also introduced a new leased program, Section 8 Low Income Housing Assistance, to conduct these changes in housing policy.

3.2. Section 8 Program Components

The Section 8 housing program is the largest United States demand side housing assistance program (Reeder, 1985; Weinberg, 1982).

The principal objectives of the Section 8 program were to help lower income families obtain decent places for living, and to promote economically mixed housing. Section 8 has been the major program for providing federally subsidized housing to low income groups since its enactment in 1974. The program has four distinct components.

The first component is the Moderate Rehabilitation Program which was added in 1978. It involves minor upgrading of existing dwelling units rather than substantial renovations. It also provides rental subsidies to owners who upgrade their units and lease them to low income families. This program resembles the Section 8 Existing Housing Program.

The second component is the Substantial Rehabilitation Program which assists in the rehabilitation of existing structures that requires more than routine or minor repairs and subsidies for eligible households. This program closely resembles the Section 8 New Construction Program.

The third component is the New Construction Program. It was the second largest of the four components in the Section 8 program. This program encourages production of privately owned new rental units. In this program, HUD reviews and approves projects and signs a long term subsidy agreement, as in the Section 236 program. This program also provides a rental subsidy directly for low income groups to live in these constructed units built by private developers.

The fourth component is the Existing Housing Program. It was the largest of the four components (Bloom and Bloom, 1981). As previously mentioned, the Section 23 Lease and Rent Supplement Programs of the 1965 Housing Act, and the Experimental Housing Allowance Program of the 1972 Housing Act were the predecessors of the Existing Housing Program. Some of the elements of its predecessors were used along with changes in the Existing Program. This program encourages the use of privately owned existing rental housing stock by eligible households. It provides direct rental supplements to low income households and enables them

to rent existing housing units which meet all of HUD's eligibility standards.

3.3. Section 8 Program Definitions

The explanations of some specific concepts in the Section 8 program are necessary in order to review and compare the program components including the Existing Housing and New Construction. These specific concepts are related to description of eligible families, suitable rent level, and contracts done among public housing agencies, developers, HUD, owners and low income families (Drury et al., 1978; HUD report, 1981). The important program definitions are listed below:

- An applicant is a family who has applied to the Section 8 Program and has been accepted as eligible. However, in the New Construction Program, that family does not receive a certificate which authorizes it to look for a house.

- A certificate holder is a family who has an active certificate of eligibility (good for 60 days) to find a unit which meets HUD guidelines in the Existing Program. If the family does not find a suitable house during this 60 day period, then it does not receive any further subsidies.

- A recipient is a family who has Section 8 funds paid to its unit's owner to assist with rent payments.

- A low income family is a household whose annual gross income does not exceed 80 percent of the median income for the area. The 80% maximum applies to a family of four; adjustments are made for smaller or larger families.

- A very low income family is a household whose annual gross income does not exceed 50% of the median income for the area. The 50% maximum applies to a family of four; adjustments are made for smaller or larger families.

- Contract rent is the rent payable by the family and PHA or HUD to the owner under his contract.

- Fair Market Rent (FMR) is the rent ceiling for subsidized housing units of specified size, based on average rents in a Standard Metropolitan Statistical Area (SMSA) or in a nonmetropolitan county group. This rent includes utilities, major kitchen appliances, all management and maintenance costs, and other services determined annually by HUD.

- Gross rent is the contract rent plus an allowance for utilities, if utilities are paid separately by the family.

- Annual contributions Contract (ACC) is a written contract between HUD and PHA that provides annual

contributions to a PHA to cover administrative expenses and housing assistance payments.

- Housing Assistance Payment Contract is a written agreement between an owner and a PHA to provide housing assistance payments to the owner on behalf of the eligible family in the Existing Housing Program. This contract is between HUD and developers in the New Construction Program.

- A lease is a written agreement between a family and an owner for letting the leasing of the owner's unit to the family with assistance payments under a housing assistance payment contract.

- Public Housing Agency (PHA) is a state, county, municipality, or other government entity authorized to manage or assist in the development or operation of housing for low income families.

3.4. Section 8 Admission Procedures

The organization designated as a Public Housing Authority must be formally recognized by HUD before they can submit an application package for admission into the program. The nonpublic agencies must also contact HUD to get into the New Construction Program. They are not connected with the Public Housing Agency (Drury et al., 1978).

Each public housing agency has to submit to HUD a Housing Assistance Plan with the application package to HUD. This plan surveys the number, type, condition of the existing housing units, and the characteristics of low income groups. The plan also establishes the present and future housing needs for three year periods in the community. This was one of the innovative features of the Section 8 program (Struyk et al., 1978).

This plan, therefore, requires local governments to become involved in the Section 8 program. It gives them active and direct responsibilities in gathering data about local needs and housing market characteristics which are necessary in the operation of the program. In addition, this plan creates close relationships between federal and local governments. It also encourages decentralization to make the program more responsible in solving the problems of different local housing markets.

If the application is approved, the agency is awarded an Annual Contributions Contract (ACC). This contract specifies the number and mix of housing units to be financed. It also determines the payment periods for the administrative costs of the agency. HUD central office determines the fund for the total number of units of Section 8 program in each locality according to the Housing

Assistance Plans. The allocations are made from HUD central office to regional offices and from regional offices to area offices. The area offices first determine the total number of units to be allocated to a given geographical area. They, then, determine the exact proportions of the units for the New Construction, Rehabilitation, and Existing Housing Programs considered by the Housing Assistance Plan.

3.5. Section 8 Program Eligibility Requirements

The income levels and composition of households determine eligibility in the Section 8 program. Originally, the Section 8 program allowed only families to participate; however, single individuals were included later in 1977 if they were disabled, displaced, elderly, and physically or mentally handicapped.

A family whose annual gross income falls below 80% of the local area's median income is considered to be eligible. This percentage varies according to the family's income. A family of four with an income 80% of local median income, a single individual with 56% of local median income, and a family of eight or more with 100% of the local median income were eligible. Distinctions were also made between low and very low income families such that a family of four with 50% or less of the local median income was considered as a very

low income family. Later, however, changes in the program required that 30% of the assisted families must have incomes less than 50% of the local median income.

Nevertheless, Federal Legislation in 1981 adjusted income limits for HUD assisted housing to require that, on a national basis, only 10% of families in existing units and 5% of families in new units to have incomes between 50 and 80% of the local median income. Thus, eligibility would be restricted to families with incomes below 50 percent of the local median income.

These recent changes eliminated about 6.3 million lower income households from eligibility for receiving federal housing subsidies. Of this group, a disproportionate number were black people, who typically 24% pay more than 30% of their incomes on rent, and 10.8% live in physically inadequate housing (Bratt, 1983). With these restrictions, families with the lowest incomes will be served while many upper income families are excluded from the program. But this would cause a concentration of the lowest income groups in housing projects and rapid deterioration of these units.

3.6. Section 8 Program Direct and Indirect Assistances

The Section 8 Existing Housing consists of only direct assistance for the eligible families. To be eligible for

the Existing Housing Program, the low income families have to apply to the Public Housing Agency in community where they wish to reside. They do not have to be residents of the community when they apply. If an applicant meets the eligibility requirements, he or she receives a certificate that gives him or her the right to find a unit for agency inspection. The certificate holder has to find a unit that meets qualified standards and rent limitations within 60 days. If the unit passes both constraints, the family becomes a recipient of the program. Families can either stay in their pre-program acceptable units or move to other acceptable units. After a family becomes a recipient, a contract is signed between the landlord and the public housing agency, while the lease is signed between the tenant and landlord. The formal lease outlines the relationship between the tenant and landlord. Subsidies to families are made for one month, 12 months, 36 months, and 180 months.

The Existing Housing and New Construction Programs require all families to pay 30% of their net income for rent except the neediest families, whose rent is limited to 15% of gross income. These are usually large families (6 or more children) with very low incomes, or families with exceptional medical expenses.

The Section 8 Existing Program fostered innovative changes. It was the first program which gave households the freedom to choice units and locations. It placed them in a position where they could negotiate with the landlord for services in the form of repairs and maintenance. Thus the responsibilities of tenant and landlord increased while the public housing agency's responsibility decreased in the area of management. Now, low income families have more control over the maintenance of their dwelling units. However, the Section 8 Program gives localities more authority to determine both program objectives and administrative procedures (Drury et al., 1978; Struyk et al., 1978).

The New Construction Program includes not only direct subsidies for eligible families, but also some kinds of indirect subsidies for private developers to construct new units for low income groups. The tax exempt bonds issued by local/state housing authorities and community development agencies are one form of indirect subsidy. Accelerated depreciation and deductibility of mortgage interest are the other forms of indirect subsidies. Private developers usually want a guarantee of rental stream before they construct new low income units. HUD established a Housing Assistance Payment Contract with private developers to encourage and induce them. The terms of the contract

usually ranged from 20 to 40 years. Originally, at least 30% of the program's newly constructed units had to be occupied by families with incomes below 50% of the local median income; later this percentage increased to 95%.

Like in the Existing Program, a recipient in the New Construction Program does not receive a certificate to find an acceptable unit. Families apply directly to the developer or designated marketing agent of a Section 8 subsidized project. Tenants are usually selected on income eligibility basis. Sometimes other factors such as achieving socioeconomic balance, abiding by chronological receipt of applications, using a lottery, and checking personal references are considered.

The tenant, therefore, has to live in one of the units constructed and owned by private developers in the community in which he applied to get into the program. However, these units have to meet HUD guidelines. Although tenants do not have a freedom of choice of their units, they will have an opportunity to live in a better home. When the tenant meets the eligibility requirements, a lease is signed between the tenant and private developer. The lease outlines the responsibilities of both tenant and landlord, and the rules and regulations the tenant must obey.

3.7. Section 8 Program Housing Quality Requirements

The Section 8 Program requires that all subsidized units meet the specified quality standards before they are accepted into the program. In the Existing Program, PHAs are responsible for ensuring that the standards are met. PHAs or local inspectors inspect the subsidized units. In the New Construction Program, these inspections are conducted by HUD inspectors. These standards are important determinants of the quality of units to be eligible for the program. The minimum quality standards represent the lower boundary for eligible units.

HUD standards in different areas of housing services are defined as Performance Requirements and Acceptability Criteria. These standards encompass: (a) sanitary facilities (a working toilet, sink, bath, hot and cold water); (b) food preparation and refuse disposal (a working stove, refrigerator, and kitchen sink); (c) space and security (sufficient rooms, lockable doors and windows); (d) thermal environment (safe heating); (e) illumination and electricity (adequate fixtures and outlets, no hazards); (f) structure and materials (satisfactory floors, walls, ceilings and steps); (g) interior air quality (adequate ventilation); (h) water supply (safe water); (i) lead based paint (safe painting); (j) access (direct access, fire

exists); (k) site and neighborhood (no serious adverse environmental conditions); and (l) rodent infestation (no rats) (Weinberg, 1982; Drury et al., 1978).

3.8. Section 8 Program Fair Market Rent Requirements

Fair Market Rent (FMR) is one of the program requirements for housing units. FMR is the main criteria in determinating gross rent, which is the highest permitted rent for a unit in the Section 8 program. HUD's Economic and Market Analysis Division establishes FMR's for each Standard Metropolitan Statistical Area (SMSA) and non metropolitan county group containing approximately 250,000 people in the nation.

Basic FMR is computed by considering the median gross rent paid by all tenants who moved during the preceding 15 months for a standard two bedroom walk-up apartment which met HUD guidelines. This FMR is used as criteria for units classified by number of bedrooms and elevator/nonelevator. For example, if a unit has one bedroom, its FMR will be 15% below a two bedroom unit's FMR in the same area. If the unit has three bedrooms, the FMR will be 15% higher for that unit (Drury et al., 1978). FMRs are updated annually and computed separately for newly constructed, substantially rehabilitated, and existing units.

FMRs include allowances for utilities (except telephone), maintenance, management and other services that would be required for a rental housing unit of modest design in the private market. Fair Market Rent has two purposes; to create an upper limit on the housing quality and price, and to determine a ceiling rent and the shares that a household and government will pay.

Since FMRs are not set locally, they are not suitable for housing markets in different localities; they could be either too high or too low for different housing markets. If they are too low relative to prevailing rentals, the number of eligible units will decrease since landlords may not want to participate in the program. Besides, this program cannot induce landlords to update their units to meet HUD guidelines. Thus mostly poor households will be interested in the program and this will cause a concentration of the poorest households in the specific areas. In cases where FMRs are too high, landlords turn away from nonsubsidy households in favor of Section 8 recipients. As rent and housing quality increase, the diversity of program participants increases.

Fair Market rents can be adjusted to local housing market characteristics. But this adjustment is not very flexible. Initially, all PHA requests for FMR exemptions

and revisions had to be approved by HUD. Currently HUD gives localities discretion in increasing the FMRs of 20% of the units in the program up to 10%. Exceptions and revisions require HUD area or regional offices approval. However, it would be better to establish FMRs for each locality by considering characteristics of clients and housing market rather than establishing FMRs for an entire urban area.

3.9. Section 8 Program Costs and Benefits

The cost of each unit can be determined by comparison of the per unit subsidy in each program. This comparison is given in Table 1. This table shows that the New Construction Program monthly rents are 51% higher than those of the Existing Program units. This means that monthly rent costs are twice as much as in the Newly Constructed Units. The HUD subsidy for a new unit is also 92% higher than that of existing unit. In this table, the gross rent is defined as the contract rent for the housing unit plus utilities, if utilities are paid separately by the household.

However, the total government cost of the Section 8 Program is higher than direct subsidy payments because of indirect costs. Indirect costs of the New Construction Program are revenue losses arising from accelerated

TABLE 1. Comparison of subsidy costs for the New Construction and Existing Housing Programs (Source: Wallace, 1981)

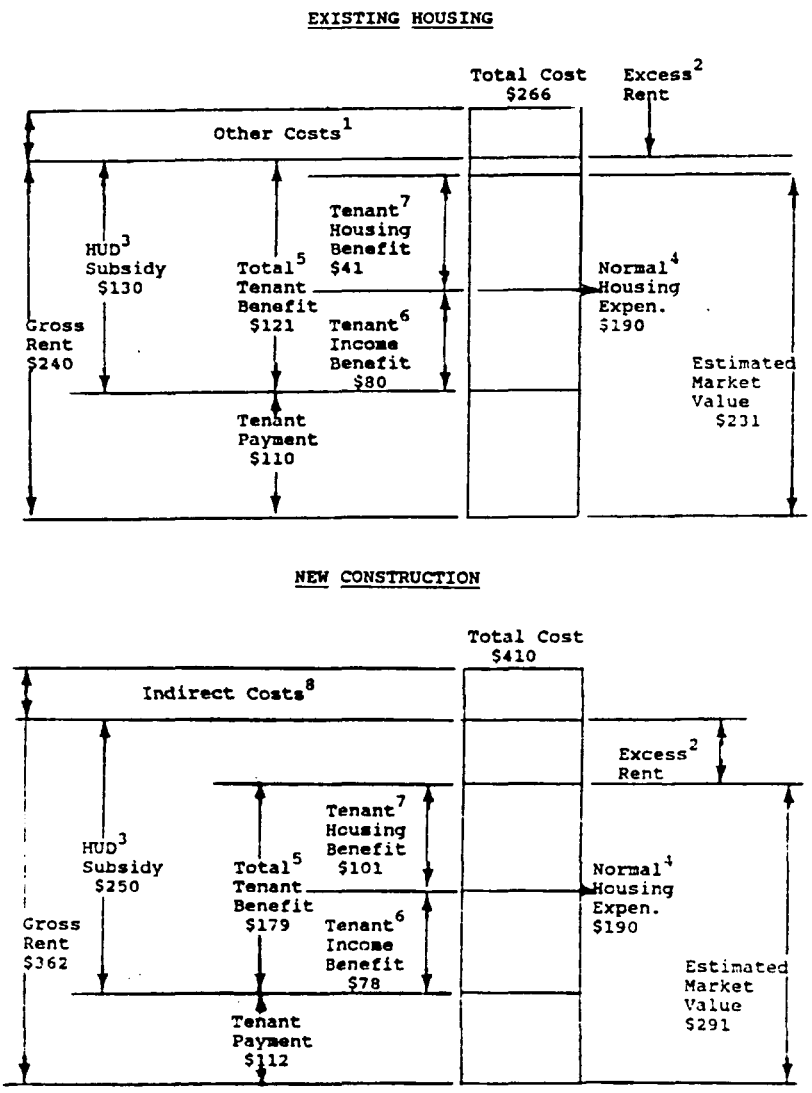
Cost Category	New Construction	Existing Housing
Gross rent	$ 362	$ 240
Tenant payment	$ 112	$ 110
HUD subsidy	$ 250	$ 130

depreciation allowances, tax exemption for housing finance bonds, and subsidies needed to provide loans at below market interest rates. The final cost issue associated with the New Construction Program is the budget overhang resulting from the long term (20 to 40 years) nature of the subsidies committed to new constructed units. Beyond those direct rental assistance, the Existing Housing Program also includes some costs for local program administration and for depreciation in excess of true economic depreciation (McKenna and Hills, 1982).

When these direct and indirect costs are included, the per unit cost to the government increases in both programs. Figure 1 depicts this increase in each program. As can be seen in Figure 1, total costs per unit are $266 and $410 in the Existing Housing and New Construction Programs,

respectively. This shows that total cost is more than 1.5 times that of a newly constructed unit. McKenna and Hills (1982) contended that the average annual obligations of subsidy funds for the New Construction Program ($5,100 per unit) were nearly twice the average obligation for the Existing Housing Program ($2,600 per unit). In addition, it is estimated that the average rent of a typical unsubsidized unit would be $291, while this unit's gross rent is $362 under the New Construction Program. This means that the New Construction monthly gross rents are 24% higher than those of the typical unsubsidized units. Wallace's estimation of a typical unsubsidized unit's rent is $231, when it is $240 in the Existing Housing Program. Thus the Existing Housing Program monthly gross rents are only 4% higher than the market value.

Figure 1 also shows the total tenant benefits in each program. The total tenant benefit consists of two parts: the income benefit and the housing benefit. The income benefit represents the difference between what such households would normally spend for housing (normal housing expenditure, $190) and what they contribute as recipients in the Existing and New Construction Programs (tenant payments, $110 for the Existing Housing and $112 for the New Construction Program). The housing benefit is measured by



[1]Other Costs (including local administration).
[2]Exess rent (gross rent minus estimated market value).
[3]U.S. Department of Housing and Urban Development (HUD)
[4]subsidy (gross rent minus tenant payment).
Normal housing expenditure (estimated from household
[5]characteristics)
Total tenant benefit (estimated market value minus tenant
[6]Payment).
Tenant income benefit (normal housing expenditure minus
[7]tenant payment)
Tenant housing benefit (estimated market value minus
[8]normal housing expenditure).
Indirect costs (including federal revenue losses).

Source : Wallace, 1981
U.S. Department of Housing and Urban Development

FIGURE 1. Costs and benefits of Section 8 program (average monthly costs, 1979).

the difference between estimated market value of subsidized units which tenants actually receive in each program and normal housing expenditures what they would normally spend for the housing if they were not in the program.

Figure 1 shows that the total tenant benefit is $179 in each unit of New Construction Program while it is $121 in Existing Housing Program. Consequently the total benefit in the New Construction Program is 48% higher than the Existing Housing Program. The income benefit of tenants in each program is almost the same. However, the tenant housing benefit in the New Construction Program is $101 while it is $41 in the Existing Housing Program. It means that the housing benefit of tenants in the New Construction Program is 146% higher than the Existing Housing Program.

In summary, it can be concluded that the New Construction Program costs the government more than the Existing Housing Program. However, the New Construction Program provides more housing benefits for tenants than the Existing Housing Program.

3.10. Budgetary and Unit Changes

The general tendency in the Reagan Administration's budget allocation has been rapid increases in defense spending designed to enhance the nation's global influence,

and deep reductions in social welfare, grant-in-aid programs, and low income housing programs. President Reagan's fiscal year 1988 budget request for low income housing programs in HUD continued the deep cuts, terminations, and rescissions in existing appropriations.

In FY 1981, HUD was ranked fourth among federal departments in the use of dollar budget authority. In the budget for FY 1988, it ranked eighth. The budget for FY 1988 were brought the cumulative effect on HUD's programs and budgets which caused a 69% reduction in total HUD budget and 85% reduction in Assisted Housing since 1981. Low income housing appropriations would be cut by more than half (51.5%) in FY 1988 (Nenno, 1987).

Table 2 depicts the budget for the Section 8 program components from 1981 to 1988. The budget for the New Construction Program was almost twice as much as in the Existing Housing Program in 1981 and 1982. However, this situation was completely reversed from 1984 to 1986 when the budget for the Existing Housing Program was almost twice as much as in the New Construction Program. The proposed budget for existing housing units under the voucher program is 6.8 times higher than the proposed budget for newly constructed units in 1988.

TABLE 2. Section 8 program budgets between 1981-1988 (in millions of dollars) (Source: Low income housing information service, 1987)

Program / Year	1981	1982	1983	1984	1985	1986	1987[a]	1988[b]
Existing Housing	5791	1280	2013	3806	2654	2371	791	----
Moderate Rehab.	----	435	1024	528	415	877	486	----
New Const./Sub. Re.	10245	3616	1955	1901	1703	1580	1371	276
Vouchers	----	----	----	261	763	816	1138	1895

[a]Estimated Section 8 program budgets.

[b]Proposed Section 8 program budgets.

TABLE 3. Changes in Section 8 program budgets between 1981-1988 (Source: Low income housing information service, 1987)

Program / Years	Change 1981-1988	Percent of change 1981-1988
Existing Housing	-$5791	-100
Moderate Rehab.	------	----
New Const./Sub. Rehab.	-$9969	-97
Vouchers	$1895	----

TABLE 4. Total numbers of Section 8 program units from 1976 to 1988 (Source: Low income housing information service, 1987)

	Existing	%	Mod. Reh.	%	New Cons.	%	Sub. Reh.	%	Vouchers	%
1976	206,046	54	------	--	157,116	41	18,971	5	------	--
1977	140,480	45	------	--	145,272	47	24,124	8	------	--
1978	98,300	45	------	--	99,342	45	22,703	10	------	--
1979	90,375	34	34,294	13	111,692	41	33,346	12	------	--
1980	36,336	23	26,167	17	75,033	48	17,730	12	------	--
1981	83,041	47	19,916	11	58,108	33	15,116	9	------	--
1982	23,418	40	6,799	12	24,114	42	3,413	6	------	--
1983	36,163	54	14,917	22	15,116	23	456	1	------	--
1984	53,835	60	7,074	8	14,488	16	------	--	14,104	16
1985	36,513	40	4,902	5	12,639	14	------	--	38,142	41
1986	29,853	35	9,413	11	11,515	13	------	--	35,002	41
1987[a]	9,649	13	5,075	7	10,274	14	------	--	48,949	66
1988[b]	-------	--	------	--	2,000	2	------	--	79,000	98

[a]Estimated numbers of Section 8 unit reservations.

[b]Proposed numbers of Section 8 unit reservations.

Changes in Section 8 program budget are shown in Table 3 for between 1981 and 1988. The New Construction Program has received 97% decrease in its budget since 1981. In 1988, almost 98 percent of budget for low income rental housing subsidy program has been proposed for existing housing units under the Voucher Program. Thus the Existing Housing Program has been replaced by Voucher Program.

Table 4 illustrates the number of units reserved under the Section 8 program. From 1977 to 1980 a higher number of units were constructed under the New Construction Program, ranging from 41% to 48%. In addition, the highest percentage of units were accepted to the Existing Housing Program from 1981 to 1984. Of the four programs, the Existing Housing Program and Voucher Program experienced the biggest percentages of units. The number of units served by the Voucher Program was the highest in 1986. The FY 1988 budget proposes that 81,000 new additional units will be assisted under the Section 8 Program. The Voucher Program will receive 79,000 out of 81,000 units, while reservations for the New Construction are 2,000 units, which will be produced as elderly or handicapped units. Thus, 98% of government subsidies for low income groups are spent for existing stock vouchers, whereas, only 2 percent of this subsidy will be used in the construction of new rental units

for low income groups. Thus the Existing Housing Program component of Section 8 Program will be completely shifted to the Voucher Program in 1988.

The high construction cost and long term federal commitment (20 to 40 years) were the most important reasons to cut back budget for new assisted housing construction. The reasons for the shift from the Existing Housing Program to the Voucher Program are given in the following section.

3.11. The Voucher Program

The Voucher Program is basically a modification of the Existing Program. This program embodies three major types of change from the Existing Housing Program. The first one is a decrease in the contract period between HUD and local agency (public or independent housing agency) from 15 years to 5 years. The second allows the subsidy amount to increase only twice over a five year period instead of annually.

In the third change, the amount of subsidy for each household is fixed without consideration for the amount of rent paid annually (Struyk and Bendick, 1981). The restriction that a recipient could not live in a unit whose rent is higher than the Fair Market Rent is lifted, but the subsidy would still be based on the FMR which is set at the

45th percentile of rents in each market area for units of standards quality. Thus the Voucher Program brings a payment standard which is the difference between the FMR and 30% of the tenant income. If a recipient finds a house whose rent is lower than the FMR, that recipient would keep the difference between the FMR and actual rent. However, if the rent is higher than FMR, that recipient will pay the difference from his pocket.

These changes afford participants more opportunities to find a house and create a strong incentive for participants to shop for lower rent units. This program restricts eligibility to families with incomes below 50% of local median income and families previously assisted. Top priority is given to involuntarily displaced families.

There are some similarities in the Voucher and Existing Housing Programs. In both programs, units must meet the HUD housing quality standards. A Housing Assistance Plan Contract is done between PHA and owner, while leases are between owner and tenant. PHA pays monthly rent directly to owner on the behalf of tenant.

4. SECTION 8 LOW INCOME RENTAL HOUSING SUBSIDY IN AMES, IOWA

4.1. Program Components in Ames

All components of Section 8 low income rental housing subsidy program have been implemented in Ames. These are Existing Housing Program, New Construction Program, and Moderate and Substantial Rehabilitation Programs. The area office of the Department of Housing and Urban Development (HUD) in Des Moines supervises the operation of the Section 8 program in Ames. Moderate and Substantial Rehabilitation Programs are not in the scope of this research.

Implementation of the Existing Housing Program was started in 1979. In 1979, 50 units were accepted into the program. Two years later, 50 more units were added. Finally 25 more units were added to the program in 1983. Currently this program includes 125 units scattered city wide. However, these units are concentrated in the central part of the city. The Housing Department in the city of Ames operates the Existing Housing Program, and manages the units under this program.

There are 100 units under the New Construction Program. These units have been produced and managed by Hunziker and Furman Realty Company with the supervision of HUD. They are located in two different apartment complexes: Arbor Hill

and East Wood apartments. Arbor Hill apartment complex was built in 1981, and includes 43 units surrounded by Arbor Street, Hyland Avenue, Sheldon Avenue, and Lincoln Way. This complex is in the west part of the city. East Wood apartment complex was built in 1973, and includes 57 units located in the east part of the city. These units were originally built under the Section 236 Low Income Rental Housing Subsidy Program introduced by the Housing and Development Act of 1968. They were converted into the Section 8 New Construction program in 1978. Table 5 shows the number of units in each component of the Section 8 program in Ames. The location of these units under both the Existing Housing and New Construction Program is shown in Figure 2.

4.2. Admission Procedure of Agencies

The Housing Department of the Ames Planning Office had been invited by HUD to get into the Section 8 program before 1976. After invitation, the Housing Department submitted application package to be admitted into the program. The department also submitted a housing assistance plan to HUD. This plan included information about the condition, number and type of existing housing stock, present and future housing needs for three year periods, and the characteristics of the low income people in Ames. According

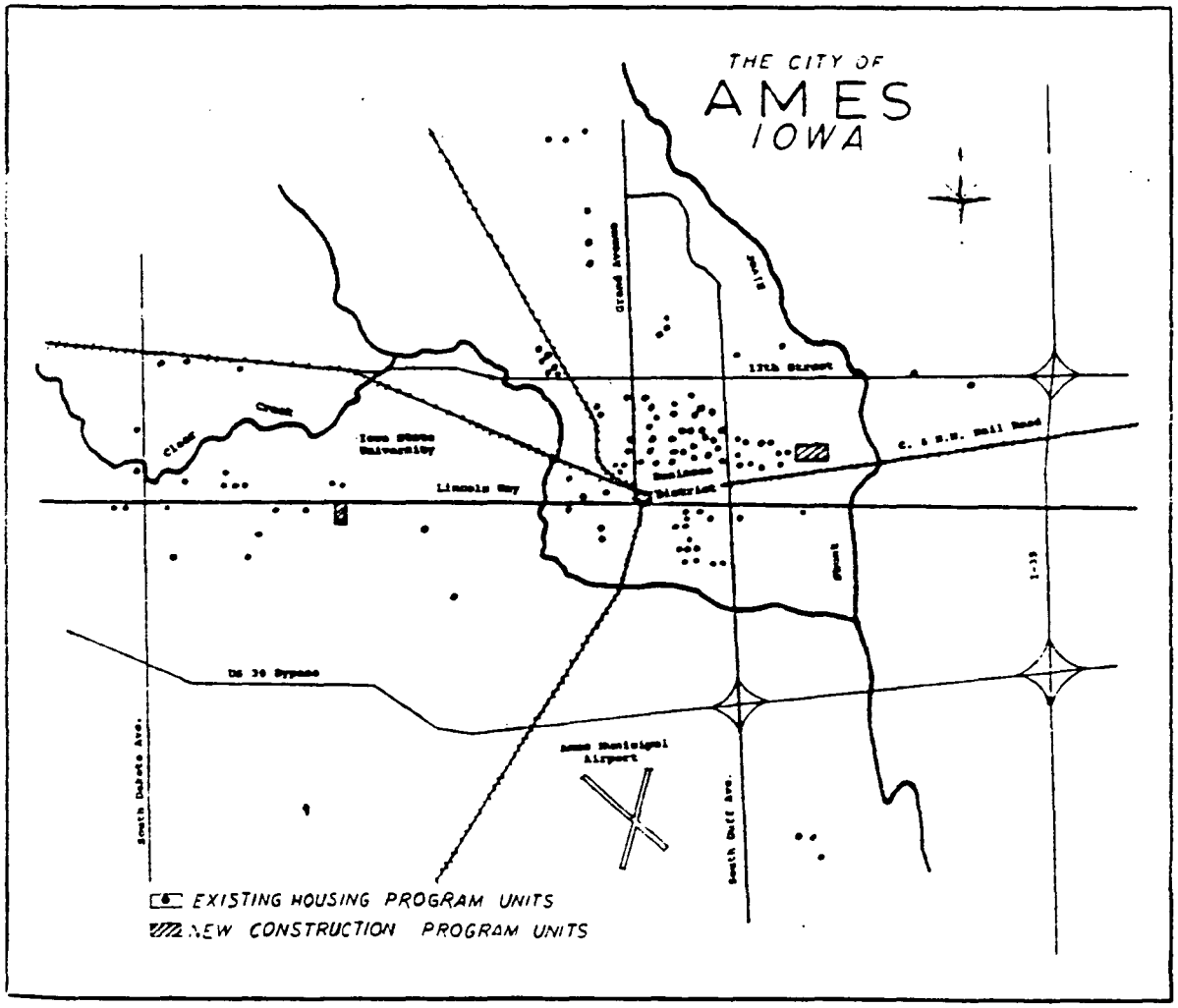


FIGURE 2. Location of the units in the Existing Housing and New Construction Programs in Ames

TABLE 5. Number of units under the Section 8 program in Ames by years and program components

Program / Year	1976	1977	1978	1979	1980	1981	1982	1983	1984-1988	TOTAL
Existing Housing Program	--	--	--	50	--	50	--	25	--	125
New Construction Program	--	--	57	--	--	43	--	--	--	100
Subst. Rehabil. Program	18	--	--	--	--	--	--	--	--	18
Moderate Rehabil. Program	--	--	--	--	--	--	33	--	--	33

to this plan, the HUD area office determined the total number of Section 8 units and the exact proportions of the units for New Construction, Existing Housing, Moderate and Substantial Rehabilitation Programs. After this application was approved by HUD, the Housing Department in Ames was awarded an Annual Contribution Contract. This contract specified the number of units to be accepted to the Existing Housing Program. The Housing Department updates its Housing Assistance Plan for Ames whenever there is a need for more units or a change in the HUD regulations.

Hunziker and Furman Realty Company was directly contracted with HUD to produce units under the new construction program in 1976. Hunziker and Furman Realty Company has gained a tax exemption by producing low income rental housing units. Moreover, a HUD directive has guaranteed rental subsidy for the tenants in these units for 30 years. Under this agreement, Arbor Hill apartments were built in 1981 and East Wood apartments were converted into the New Construction Program in 1978. HUD directive has allowed Hunziker and Furman Realty Company a tax exemption on any low income housing units built, and provided that the units will be kept as low income rental housing for 30 years. During these 30 years, HUD would provide direct rental subsidy for the tenants in these units. Under this

agreement, East Wood apartments and Arbor Hill apartments were built in 1973 and in 1981, respectively.

4.3. Program Eligibility Requirements

According to the HUD eligibility requirements, ten percent of the families in Section 8 Existing Housing Program units, and five percent of the families in the New Construction Program units must have incomes between 50 and 80 percent of median income. The rest of the families in both units must have incomes below 50 percent of the local median income.

The median family income in Ames was $25,300 in 1987. In Ames, 95% of the families in Section 8 Existing Housing Program units have income below 50% of the median family income. The rest of them have income below 80% of the median income. In the New Construction Program, however, the income level of 85% of the families is less than 50% of the median family income, and 15% of the families have income below 80% of the median income in Ames.

4.4. Admission Procedure of Families

Low income families have to apply to the Housing Department of the Ames Planning Office to get into the Existing Housing Program. If applicants meet the

eligibility requirements, they receive a certificate giving them the right to find a unit which meets quality standards and rent limitations established by HUD. The unit must be found within 60 days of application. The certificate states the eligibility of the household, the amount of the contract rent, the family portion of the rent, the public housing agency portion of the rent, and the deadline of the certificate. If the units meet specified HUD requirements, the family becomes a recipient of the program. A contract is then signed between the landlord and the Housing Department of the Ames Planning Office. A lease is also signed by the tenant and landlord. This lease includes all the rules and regulations applying to the tenant and landlord. These rules and regulations are about utilities and services, damage and repair, inspections, security deposit, termination of the dwelling lease agreement, and occupancy of the dwelling unit (U.S. Department of Housing and Urban Development, 1981; Dwelling Lease Agreement, 1987).

In the New Construction Program, low income families apply directly to Hunziker and Furman Realty Company to get into the subsidized units. In this program, a recipient does not receive a certificate to find an acceptable unit within 60 days. Instead, applicants give information about

their income levels to Hunziker and Furman Realty Company. The company then checks applicants' income level. If an applicant meets eligibility requirement, a lease is signed between the tenant and primary developer. This lease outlines the rules and regulations which show the tenants how to maintain the development and their houses. These rules forbid the tenants doing certain things: the tenants in these units cannot attach any large item to walls or doors, put nails and tape on doors and windows, hang or shake anything from windows, store anything in front of doors, have pets, ride bicycles on sidewalks within the development, have freezers or dishwashers without permission, etc. After the lease is signed, the tenant moves into the subsidized units. The units also should meet specified quality standards established by HUD (Arbor Hill and East Wood Apartment's rules and regulations, 1988).

4.5. Fair Market Rents in Ames

Fair Market Rent (FMR) is different for the Existing Housing and New Construction Programs in Ames. FMR also changes according to the number of bedrooms in units under each program. The determined FMR includes utility allowances for gas, electricity, water, sewer, and garbage collection. Based on the type and number of bedrooms of

houses, these utility allowances are separately specified by HUD.

The fair market rent in Ames has four different levels under the Existing Housing Program. FMR is $333 for one bedroom units, $392 for two bedroom units, $490 for three bedroom units, and $549 for four bedroom units including utilities. There are four types of housing under the Existing Housing Program in Ames. These are single family detached or mobile home, apartment, four-plex, and town or row houses. Utility allowances change according to the type of housing and number of bedrooms. The Housing Department of Ames Planning Office uses utility allowances specified for different type of housing by HUD to determine FMR in Ames. If a recipient finds a house with its utility expenses greater than the specified utility allowance, then he has to pay the excess amount of utility cost from his pocket.

In the New Construction Program, FMR differs according to the number of bedrooms. FMR was $473 for one bedroom units, $532 for two bedroom units, and $581 for three bedroom units including utilities in 1987. Households living in these units pay their own gas and electricity expenses. However, they do not pay anything for their water, sewer, and garbage collection.

4.6. Program Assistances and Costs

The New Construction Program consists of both direct assistance for eligible families and indirect assistance for Hunziker and Furman Realty Company in Ames, while the Existing Housing Program includes direct assistance for eligible families and some monetary assistance for the Public Housing Agency officials. Both programs require families to pay 30% of their income toward the monthly contract rent. The Public Housing Agency pay the difference between the family's portion of the rent and monthly contract rent to the owner as a direct subsidy.

Hunziker and Furman Realty Company receives a tax exemption as an indirect subsidy for the construction of low income housing units under the New Construction Program. The administrative cost in the Existing Housing Program is calculated by the following equation:

$$AC = C \cdot FMR \cdot NU \cdot NM$$

where

AC = Administrative cost
C = A constant number of 0.0765
FMR= Fair Market Rent
NU = Number of units leased
NM = 12 months (for a year)

Table 6 shows the administrative cost and subsidy cost in each component of the Section 8 Program.

TABLE 6. Total program costs, Ames, Iowa, 1987

	Direct Subsidy Cost	Administrative Cost	Indirect Subsidy Cost	Total Cost
Existing Housing Program	$ 377,088	$ 46,224	NA[a]	$ 423,332
New Construction Program	$ 388,800	NA[a]	CN[b]	CN[b]
Moder. Rehabil. Program	$ 116,856	$ 12,208	NA[a]	$ 129,064
Substan. Rehab. Program	$ 55,176	$ 3,447	NA[a]	$ 58,623

[a]Not applicable.

[b]Could not be obtained.

Unfortunately, total cost including indirect subsidy for the New Construction Program could not be obtained from Hunziker and Furman Realty Company. Consequently the total costs in both programs could not be compared.

However, to determine the program costs of each program, the subsidy per unit in both programs can be compared. Table 7 shows this comparison. In this table, average gross rent (average of gross rents of one, two, and three bedroom units), tenant payment, and HUD subsidy in each program unit is given. Gross rent includes the contract rent and some portion of the utility expenses. Tenant payment is calculated by taking 30% of mean income of tenants in both Existing Housing and New Construction Programs. Monthly mean income of tenants in the existing units is $508, while it is $682 in the New Construction Program.

Table 7 shows that presently the monthly rents of the new construction program units are 31% higher than those of the existing program units. In addition, the table indicates that the HUD subsidy for each unit in the New Construction Program is 29% higher than in the Existing Housing Program.

There is also indirect cost for the government because of the New Construction Program in Ames. Hunziker and Furman Realty Company has received tax exemption from the

TABLE 7. Comparison of subsidy costs for the New Construction and Existing Housing Program in Ames (1987)

Cost Category	New Construction	Existing Housing
Gross rent	$ 529	$ 405
Tenant payment	$ 205	$ 152
HUD subsidy	$ 324	$ 253

government for 30 years because of the production of these units for low income groups.

5. DIFFERENTIAL PROGRAM IMPACT: EXISTING UNITS VERSUS NEW CONSTRUCTION UNITS

This chapter will analyze and compare the survey results conducted on the residents of both the Existing Housing and New Construction Programs during the Summer of 1987 in Ames. The return rates of the survey on the Existing Housing and New Construction Program units were 46% and 48%, respectively. The purpose of this survey is to measure the differential program impact on residents' satisfaction with their houses, neighborhoods and managers. The questionnaire in this survey includes questions related to household characteristics, physical characteristics of housing units, physical and social characteristics of neighborhoods, and the management characteristics.

The household characteristics, housing characteristics, neighborhood characteristics, and management characteristics will be analyzed and compared to determine the residents' satisfaction in both program units. The hypotheses which compare the Existing Housing and New Construction Program are tested in each subsection. In Figure 3, the casual model includes four categories of independent variables: household socio-economic and demographic characteristics, housing characteristics, neighborhood characteristics, and management characteristics. According to the model, it is

hypothesized that residents' satisfaction is caused by housing, neighborhood and management satisfaction, and household characteristics in each program unit. Housing satisfaction is hypothesized to be caused by household characteristics, housing characteristics, and neighborhood satisfaction. Neighborhood satisfaction is affected by household characteristics, neighborhood characteristics, and housing satisfaction. Management satisfaction is influenced by management characteristics and household characteristics.

The statistical techniques used in analyzing and comparing the data are frequency distributions, t-tests, cross-tabulations, and multiple regressions. Frequency distributions were calculated for each variable used to measure household characteristics, housing satisfaction, neighborhood satisfaction, and management satisfaction in both program units. These frequency distributions were used to determine the dissemination of households' satisfaction level with each satisfaction variable and the number of defects in each program unit. T-tests were obtained to find out if there were significant differences in the means of household, housing, neighborhood, and management characteristics as well as background variables between both program units at 0.10 significance level.

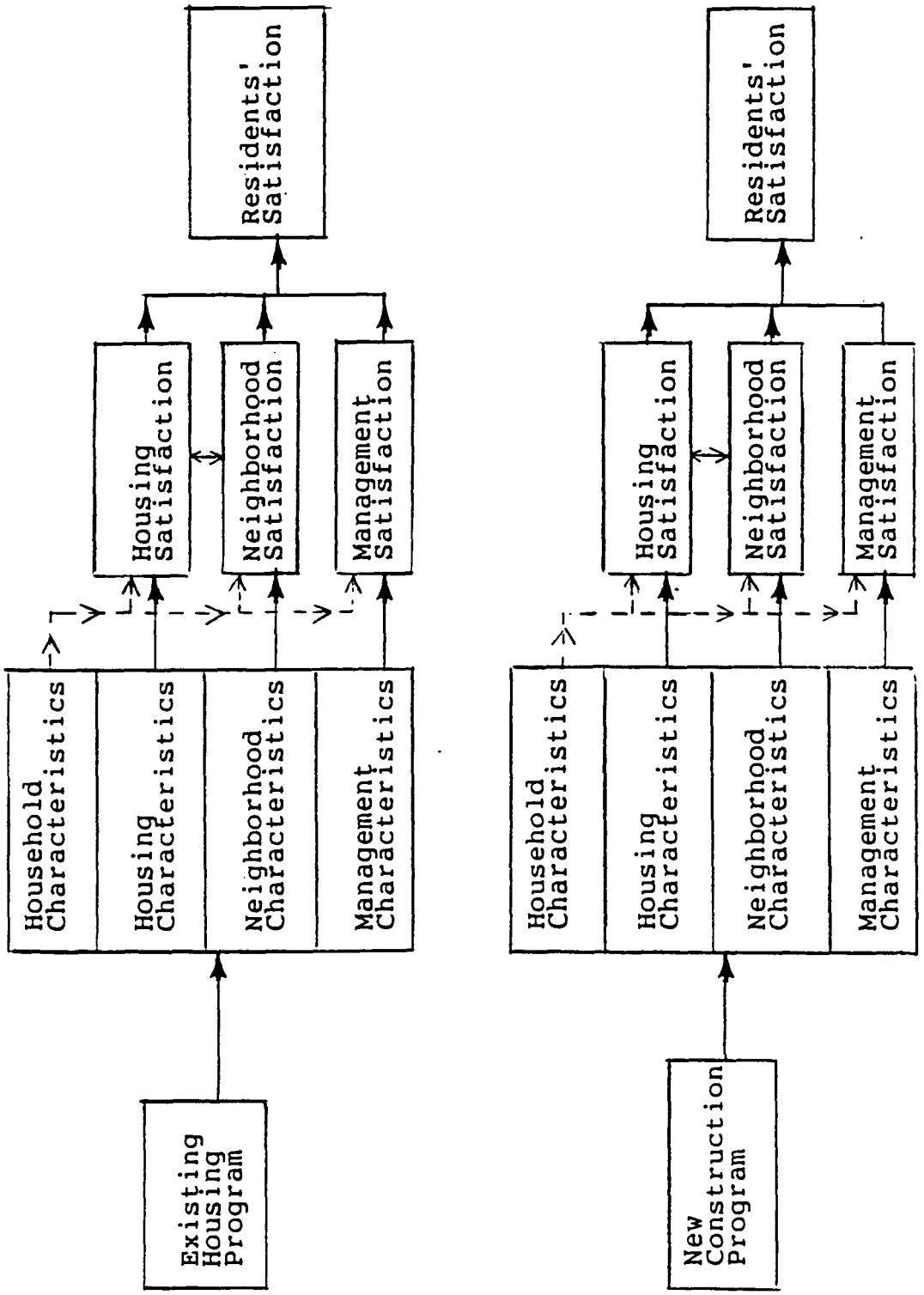


FIGURE 3. Empirical model of residents' satisfaction for both Program units

Cross-tabulations were used to determine whether a systematic relationship exists between the background variables and overall housing, neighborhood and management satisfaction in both programs. When a significant relationship was obtained, a t-test was used to define the differentiation between housing, neighborhood and management satisfactions and background variable levels.

Multiple regression was used to determine the joint contribution of several independent variables to the prediction of values on the dependent variables. The forward method was chosen for the multiple regression analyses in SPSSX. In this method of analysis, independent variables get into the regression equation one by one according to the their degree of importance on the dependent variables. The squared correlation coefficient (R^2) as an indicator of the explained variance in the dependent variable (Y) attributable to the independent variables (X) was used as a criterion in the evaluation of regression results. The adjusted R^2 was used as the criterion to determine whether an independent variable had an important effect in the dependent variables when it entered to the regression equation. The overall significance level of the regression equation was selected as 0.10. Therefore, if the significance of the F value is equal or smaller than 0.10,

the regression of the dependent variable on the independent variables is considered statistically significant.

5.1. Characteristics of Households in Both Program Units

Background variables used to determine the socio-economic and demographic characteristics of households in the Existing Housing and New Construction Program units were treated as independent variables. These background variables are age of household head, household income, education of household head, household size, marital status, sex of household head, employment status of household head, length of stay in present dwelling, and condition of previous dwelling and neighborhood. The frequency distribution of these variables were calculated to analyze and compare the household composition in each program units. A t-test was used to determine if there were differences between household characteristics in each program units.

- Age of household head

Values for this variable ranged from 20 to 60. Figure 4 shows that the percentages in both program units of household heads are almost the same for all three age groups. These age groups are 0 to 29, 30 to 50, and over 50. The corresponding percentages are 47, 46, and 6 in the existing units, 50, 40, and 10 in the newly constructed

units, respectively. T-test showed that there was no significant difference in age of household heads between the Existing Housing units and New Construction Program units.

• Income of household

This variable is the total household gross income for the year prior to the survey. Income values ranged from $1 to $20,000. The mean income of tenants was $6,096 in the Existing Housing Program, while it was $8,184 in the New Construction Program. In Figure 4, it is seen that 60.4% of households have incomes less than $5,000 in the existing units. However, in the New Construction Program units, 45.7% of households have incomes less than $5,000. From T-test it was found that the income of households in the New Construction Program units was significantly higher than in the Existing Housing Program units.

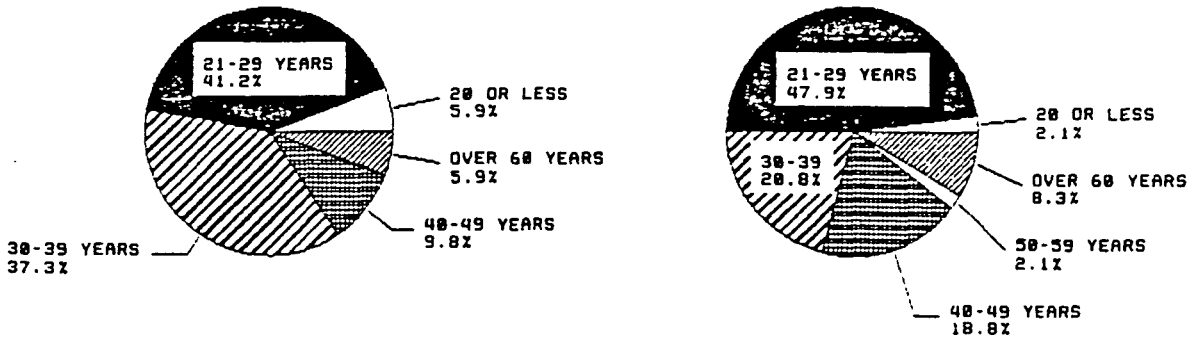
Higher income households might have preferred to live in the New Construction Program units since the housing condition could be better in newly constructed units than existing units.

• Education of household head

According to survey results, the education level for household heads ranged from 8th grade to advanced degree. Figure 5 shows the education distribution of household heads in both program units. Although the percentage of some

EXISTING HOUSING PROGRAM NEW CONSTRUCTION PROGRAM

Age of Household Head



Income of Household Head

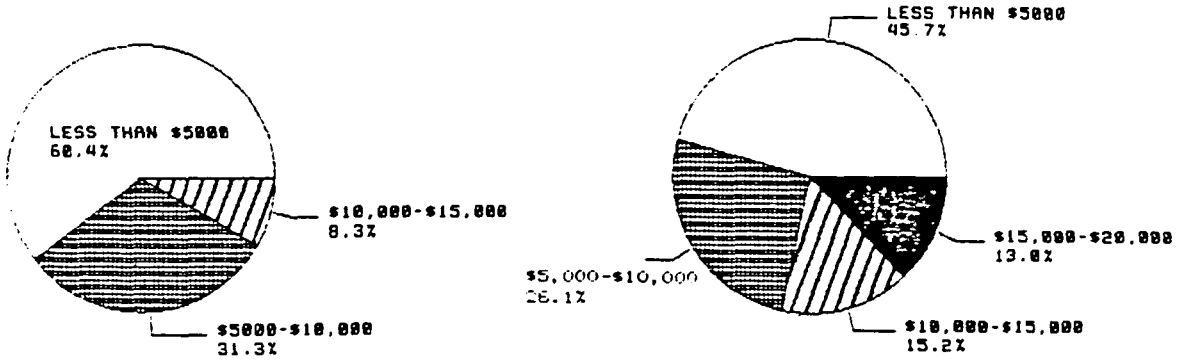


FIGURE 4. Frequency distributions of age of household head and income of household head in both program units

college or technical training is 18.2% higher in the Existing units than in the New Construction units, no significant difference is found from the T-test between the education level of household heads in both program units.

• Employment status of household head

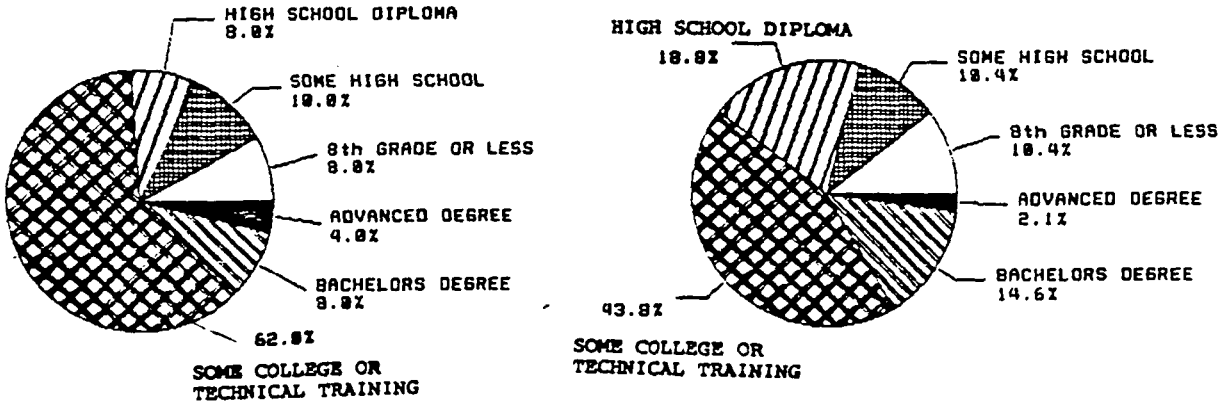
This variable searches whether or not the head of household is employed. Figure 5 shows that the percentage of unemployment is higher in the Existing Housing Program residents than in the New Construction Program residents. However, T-test did not show any significant difference between the employment status of the two program residents.

Among the employed households in the existing units, 44 percent of them are employed for full time and 55 percent are employed for part time. However, 81 percent of the households are employed for full time in the New Construction units. It has already found that the income of households in the New Construction Program is also higher than in the Existing Housing Program.

The unemployment households were broken down into four parts in this survey: retired and housemaker, disabled, full time student, and seeking work. The percentages of household heads that are retired and housemaker, and seeking work are almost the same in both program units. However, the percentage of disabled households is 5.7% higher in the

EXISTING HOUSING PROGRAM NEW CONSTRUCTION PROGRAM

Education of Household Head



Employment Status of Household Head

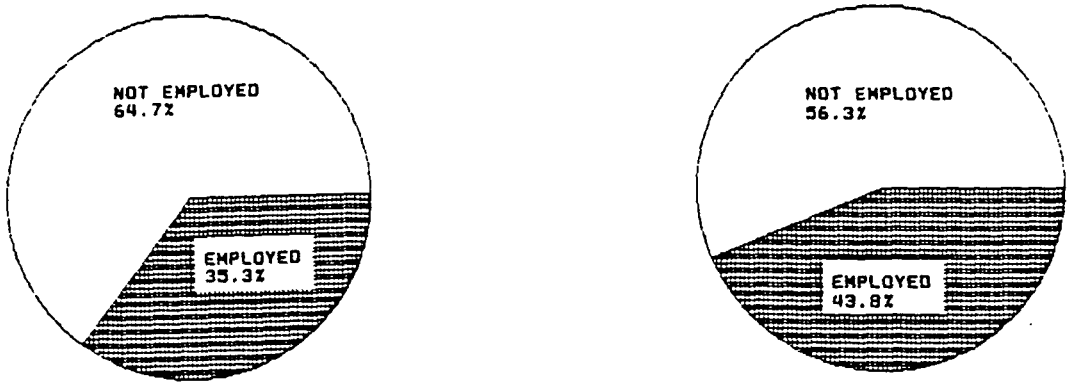


FIGURE 5. Frequency distributions of education of household head and employment status of household head in both program units

existing units, while full time student household heads are 8.3% higher in the newly constructed units. The percentages of household heads on welfare program are 47% and 13% in the Existing Program units and New Construction Program units, respectively.

In summary the survey results indicate that households living in the New Construction Program Units have higher incomes and better job conditions than in the Existing Housing Program units.

• Marital status and sex of household head

Variables for marital status were divorced, widowed, never married, married but separated, and married living with spouse. The first four variables were treated as single headed households since they were living alone or with their children only. The last one was treated as double headed household since respondents lived with their spouses in this group. Figure 6 shows that the percentages of single headed households in both programs are almost the same: 82.4% for the Existing Housing Program units and 79.2% for the New Construction Program units. T-test did not show any significant difference, either.

Figure 6 shows that 87% of respondents are female in both programs. If the frequency distributions of marital status and sex of respondents are matched in Figure 6, it is

EXISTING HOUSING PROGRAM

NEW CONSTRUCTION PROGRAM

Marital Status

Sex of Household Head

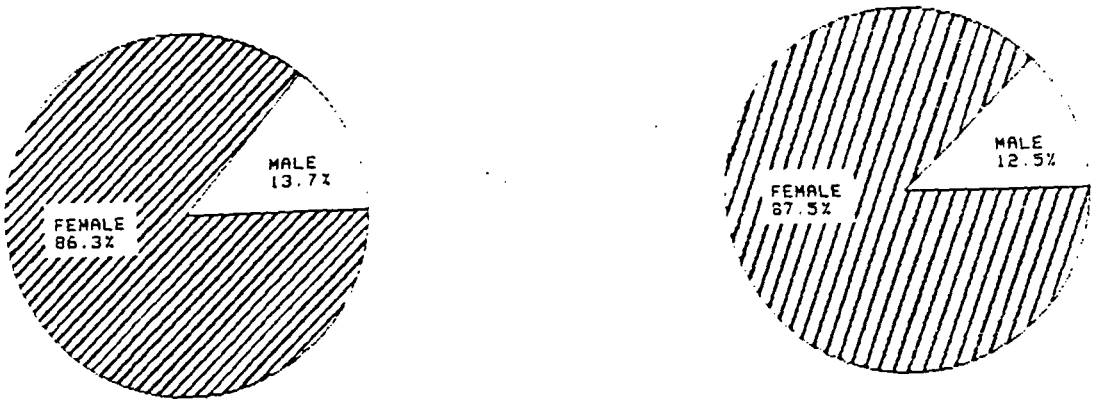


FIGURE 6. Frequency distributions of marital status and sex of household head in both program units

seen that the percentage of male respondents and the percentage of double headed households are very close. Because the percentages of male respondents and double headed households are too small, it can be concluded that most single headed households are female headed in both programs.

- Length of stay in current dwelling

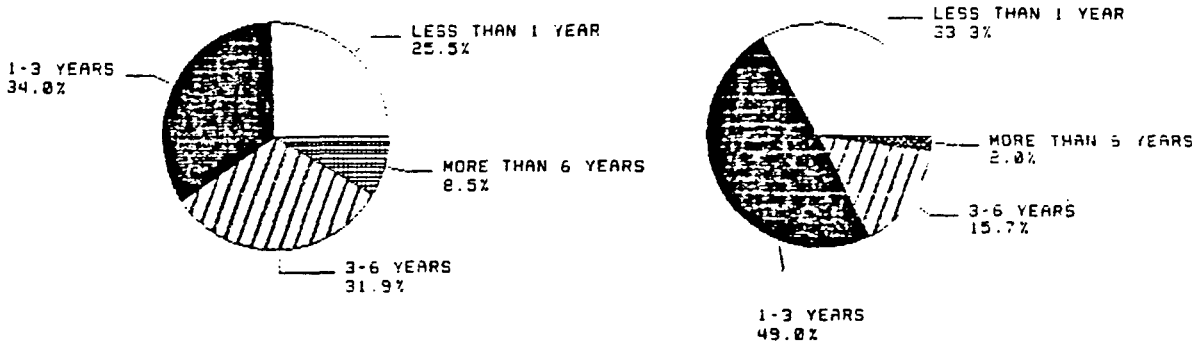
This variable measured the number of years lived in current dwelling. Figure 7 shows that the percentage of households living less than 3 years in their current dwelling is higher in the Existing Housing units than in the New Construction units. However, more households lived 6 or more years in their current dwelling in the newly constructed units than existing units. T-test showed that there was a significant difference between the length of stay of both groups' residents in their current dwelling. The length of stay is significantly longer in the New Construction Program units than in the Existing Housing Program units.

- Size of family

This variable is the total number of people in the household. Values for this variable ranged from 1 to 8 persons. Figure 7 shows that the percentage of 2 person households in the Existing Housing units is 12% higher than

EXISTING HOUSING PROGRAM NEW CONSTRUCTION PROGRAM

Length of Stay in Current Dwelling



Family Size

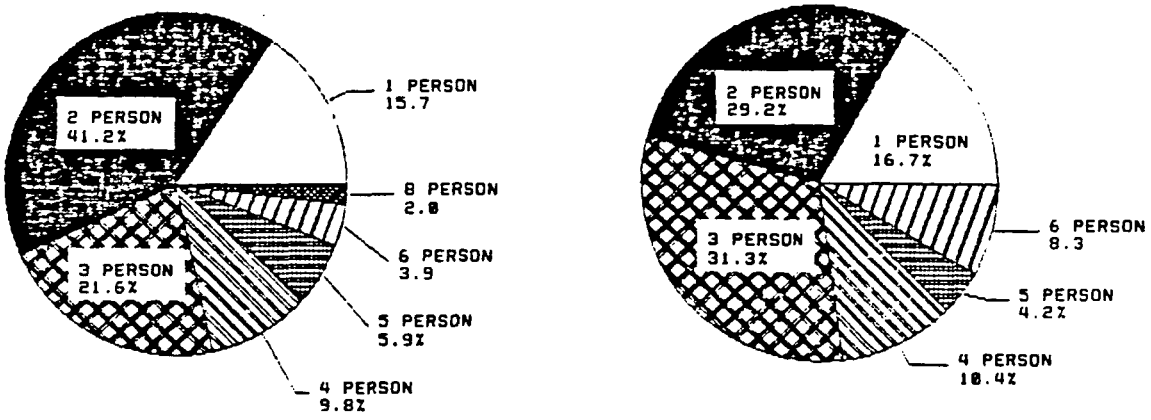


FIGURE 7. Frequency distributions of family size and length of stay in current dwelling in both program units

in the New Construction Program units. However, 3 person households are 10% higher in the New Construction Program. The percentages of one person and four or more person households are almost the same in both program units. T-test did not show any significant difference in the number of children and in the total number of people in a family between the Existing Housing and New Construction Programs.

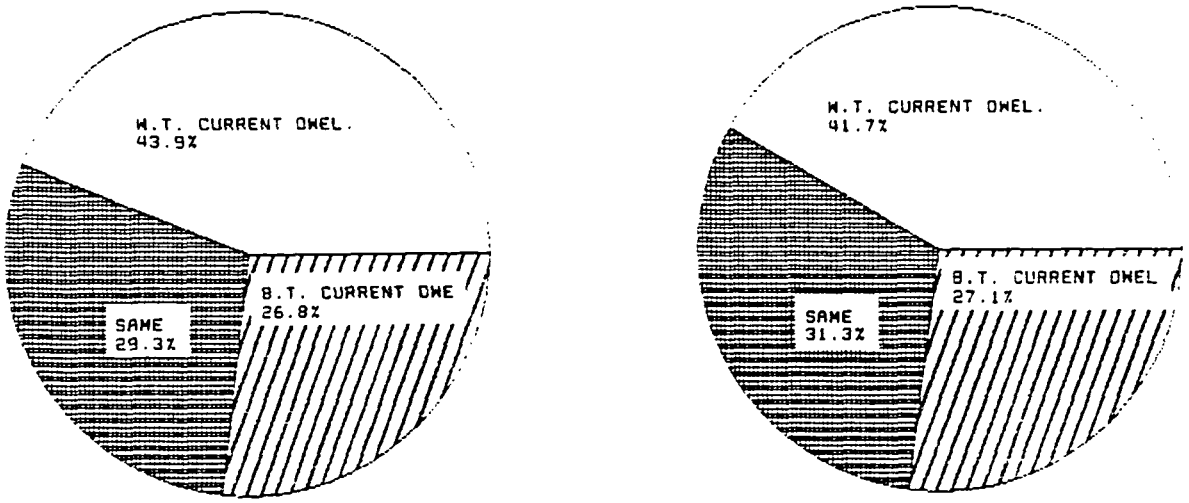
• Condition of previous dwelling and neighborhood

Values for this variable were scored as worse than current dwelling, the same as current dwelling, and better than current dwelling. Figure 8 shows that condition of previous dwelling of the households are almost the same in both program units. T-test did not show significant differences in condition of previous dwelling of the households between the Existing Housing Program and New Construction Program. Approximately 42 percent of households in both program units come from worse condition houses.

However, the condition of previous neighborhood of households are quite different in both program units. The percentage of households who find their current neighborhood worse than their previous neighborhood is 20 percent higher in the Existing Program than New Construction Program. In addition, it was obtained from t-test that households who

EXISTING HOUSING PROGRAM NEW CONSTRUCTION PROGRAM

Condition of Previous Dwelling



Condition of Previous Neighborhood

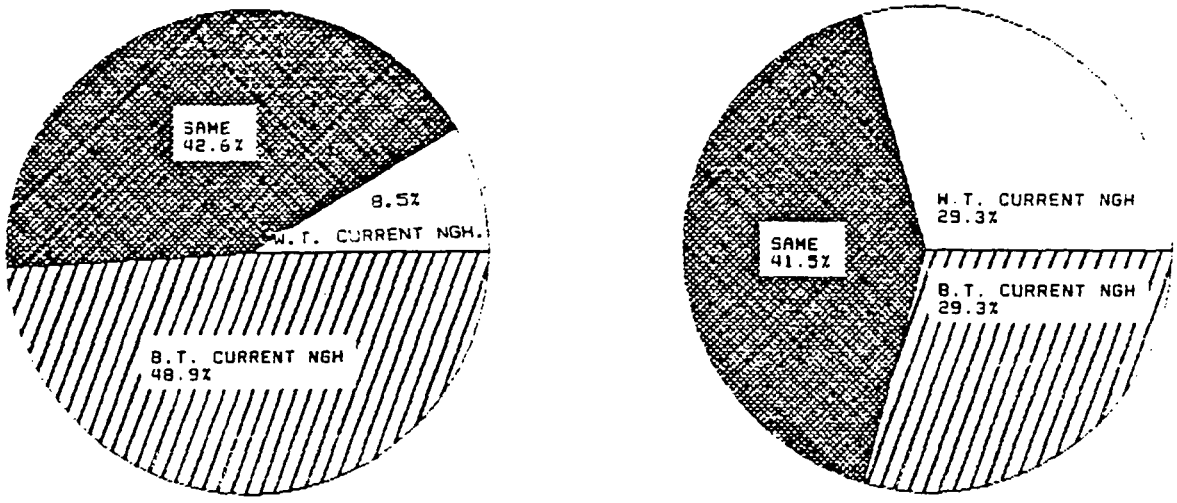


FIGURE 8. Frequency distributions of condition of previous dwelling and condition of previous neighborhood in both program units

found their condition of current neighborhoods better than previous neighborhoods are higher in the New Construction Program units than in the Existing Housing Program units. This means that households in the Existing Housing Program could not have a chance to get into the better condition neighborhoods than their previous neighborhoods. However, households in the newly constructed units have moved to a physically better condition neighborhood than their previous neighborhood.

5.2. Housing Satisfaction

Housing satisfaction is accepted as a dependent variable in the determination and comparison of residents' satisfaction in both program units. The housing satisfaction scale included variables related to quality and space in dwelling in this survey. The variables used to measure the housing satisfaction were type of housing and satisfaction with number of bedrooms, number of rooms, kitchen facilities, bathroom facilities, style and design, size of house, privacy, energy efficiency, security, and parking arrangement. The satisfaction items were scored from "very dissatisfied" to "very satisfied". However, in cross-tabulations, very satisfied was combined with satisfied and very dissatisfied was combined with

dissatisfied, since the existence of empty cells or cells containing 5 or less people would hide a possible significant relationship between dependent and independent variables. The importance of these variables was also asked. They were ranged from "unimportant" to "important".

In addition to satisfaction scale, some questions were asked to determine the structural defects of both program units. These questions measured if there was a need to pass through anyone's bedroom to reach a bathroom and if there were problems with plumbing, kitchen facilities, heating and sewer system, roof, basement, exterior painting, railings, windows, and central air conditioning in the dwelling.

Statistical techniques used to analyze and compare the housing satisfaction in both units were frequency distribution, t-test, cross-tabulation, and multiple regression.

5.2.1. Frequency distributions and T-tests

The frequency distributions of housing satisfaction and housing defect items were calculated for each program. T-tests were utilized to test the significance of differences in the means of housing satisfaction variables and housing defect variables between both programs.

The type of housing units under each program are significantly different. In the Existing Housing Program, 26% of units are apartment building, 20% are four plex, 22% are town house, and 32% are mobile home. However, 71% of New Construction Program units are apartment building and 24% are town houses. The housing satisfaction level of households in different type of housing units is given in Table 11. The types of apartment and four plex units were combined together in the Existing Housing Program, since these two types of housing had the same characteristics.

As it is seen in Table 11, households in town houses have the highest housing satisfaction in both program units. However, the housing satisfaction of households in town houses is higher in the New Construction Program than in the Existing Housing Program. Apartment units provide almost the same satisfaction level for residents in both programs. Mobile homes supply the lowest housing satisfaction for its residents in the Existing Housing Program. There is not any mobile homes under the New Construction Program. Since the percentage of mobile homes is quite high in the Existing Housing Program, it could be expected that the satisfaction with the physical condition of housing would be lower and housing defects would be higher in the Existing Housing Program than in the New Construction Program.

Table 8 shows the percentage of satisfaction and dissatisfaction with each housing satisfaction item in both programs. It was determined that there were significant differences in the level of satisfaction with kitchen facilities, bathroom facilities, style and design, energy efficiency, and privacy between both program units. The satisfaction level with kitchen and bathroom facilities, style and design, and energy efficiency are quite higher in the New Construction Program units than in the Existing Housing Program units. The satisfaction with energy efficiency is almost doubled in the newly constructed units compared with the existing units. Only the satisfaction with privacy is much higher in the existing units than in the new constructed units.

Even if t-test did not show significant differences in the satisfaction levels with total number of rooms and bedrooms, size of house, style and design of house, and parking arrangements between both program units, the dissatisfied household percentages are higher in the Existing Housing Program units as shown in Table 8.

Because approximately 5 percent of households scored the housing satisfaction items as unimportant and approximately 80 percent of households scored them as important, these household satisfaction items were accepted

TABLE 8. Percentage of satisfied and dissatisfied households with housing satisfaction variables

	Existing Housing Program		New Construction Program	
	Satisfied	Dissatisfied	Satisfied	Dissatisfied
Number of rooms	69.4	18.4	75.0	6.3
Number of bedrooms	75.5	22.4	77.1	4.2
Kitchen facilities*	49.0	30.6	75.0	10.4
Bathroom facilities*	40.8	22.5	77.1	10.4
Size of house	64.6	21.0	68.8	10.4
Style and design*	65.3	10.2	83.4	4.2
Privacy*	67.3	10.2	44.0	35.4
Energy efficiency*	38.7	36.7	66.7	12.5
Security	64.6	18.8	50.0	18.8
Parking arrangements	47.0	35.0	56.2	25.0

*T-test showed significant difference at 0.10 level between the means of both program units.

TABLE 9. Percentage of households who claimed housing defects

	Existing Housing	New Construction
Need to pass through* anyone's bedroom	16.0	0.0
Complete plumbing	2.0	0.0
Kitchen facilities	2.0	0.0
Heating system*	16.0	2.1
Sewer system	10.0	11.0
Roofs	6.0	10.0
Basement	22.2	No basement
Air conditioning*	80.0	100.0
Exterior painting	14.3	14.9
Stairs and railings*	11.1	0.0
Windows	32.7	27.0

*T-test showed a significant difference at 0.10 level between the means of both program units.

as important variables in the calculation of housing satisfaction.

Table 9 shows the percentage of households who had defects in their houses. T-test showed significant differences in the number of defects with the need to pass

through anyone's bedroom to reach the bathroom, adequate heating system, existence of air conditioning, and condition of stairs and railings between both program units in Table 9. In the Existing Housing Program, 16 percent of households need to pass through anyone's bedroom to reach their bedrooms, while none of the households in the newly constructed units have this problem. The percentages of households who have problems with heating system as well as stair and rails are also higher in the existing units than in the newly constructed units. There is no central air conditioning in any of the newly constructed units. However, 80 percent of the existing units do not have central air conditioning. Because there are no basements in all new constructed units, comparison of the condition of basements between both program units could not be possible.

In summary, it was found that households in new constructed units were more satisfied with their houses than in the existing units. The satisfaction with physical condition and facilities of the dwelling is higher in the new construction units, while only satisfaction with privacy is higher in the existing units. In addition, the survey showed that the housing defects were higher in the existing units. Thus the hypothesis stated in Chapter 1 is upheld: The housing satisfaction is higher, the number of housing

defects is lower in the newly constructed units than in the existing units.

The reason for higher housing satisfaction and lower housing defects in the newly constructed units could be because of the tight maintenance rules established by the real estate agency. Because the real estate agency does not want more depreciation in its own low income rental units, it requires the tenants to take good care of the units. Hunziker and Furman Real Estate Agency has a strong control on these units since all units are located together. They inspect the units very often to see if the tenants are maintaining the units according to the rules and regulations. However, tenants feel these uninformed inspections an invasion of privacy.

Therefore, the survey results revealed a lower satisfaction with privacy in the New Constructed units. Another reason for lower satisfaction with privacy could be the physical closeness of these units and low income households to each other.

In the Existing Housing Program, the Public Housing Agency does not have enough control on the maintenance of the units, since the units are scattered in city wide and each unit has a different owner. So these units may have more defects and lower structural quality. Consequently,

the tenants of the Existing Housing Program are less satisfied with the structural condition of their homes. However, they have higher privacy because the units are distributed among different level of income groups.

5.2.2. Cross-tabulations

Crosstabs were generated between the overall housing satisfaction and background variables in both programs. T-test was also applied for background variable levels which showed systematic relationships with the overall housing satisfaction.

Background variables are age, education, employment status, sex of household head, income of household, family size, length of stay in present dwelling, and condition of previous dwelling. The overall housing satisfaction was calculated by adding up the satisfaction with each variable and then dividing by the total number of variables. The overall housing satisfaction was scored from 'dissatisfied' to 'satisfied'.

Table 10 shows whether there is a systematic relationship between housing satisfaction and background variables. Table 10 shows how the overall housing satisfaction changes according to the different level of background variables.

TABLE 10. Level of significances in cross-tabulations of housing satisfaction by background variables

Variables / Program	Existing Housing	New Construction
Age	Significant*	Significant*
Education	Not significant	Significant*
Income	Significant*	Significant*
Employment Status	Significant*	Not significant
Sex	Significant*	Not significant
Marital Status	Not significant	Not significant
Family Size	Not significant	Not significant
Length of Stay in Present Dwelling	Significant*	Not significant
Condition of Previous Dwelling	Significant*	Significant*

*T-test showed a significant difference at 0.10 level between both program units.

In Table 10, crosstabulations show that there are significant relationships at 0.10 level between housing satisfaction and age of household head, income of household, and condition of previous dwelling in both programs. The differentiation of housing satisfaction in each age group in both programs is seen in Table 11. The satisfaction with housing in the 30 to 50 age group is lowest in the New

TABLE 11. Housing satisfaction of background variable levels (Satisfaction scale: 1=Dissatisfied 2=Neutral 3=Satisfied)

Variables / Program	Existing Housing	New Construction
Age		
0-30 years	2.29	2.56
30-50 years	2.52	2.40
50 or more	2.28	2.78
Education		
Up to high school	No significant	2.68
High school	differentiation	2.54
College		2.46
Income		
$ 0-5,000	2.36	2.51
$ 5,000-10,000	2.36	2.66
More than $ 10,000	2.61	2.42
Employment status		
Yes	2.48	No significant
No	2.31	differentiation
Sex		
Male	2.47	No significant
Female	2.36	differentiation
Marital status, Family size	No significant differentiation	No significant differentiation
Length of stay in present dwelling		
0-1 year	2.32	No significant
1-3 years	2.35	differentiation
3 or more years	2.45	
Condition of previous dwelling		
W.T. present dwel.	2.59	2.66
Same as present dwel.	2.33	2.57
B.T. present dwel.	2.15	2.38
Type of housing		
Apartment building	2.24	2.28
Town house	2.26	2.46
Mobile home	2.15	Not applicable

Construction Program units, and it is highest in the Existing Housing Program units among all age groups. This age group could be alert enough to find a suitable home in the existing stock. Consequently, this age group takes more advantage of the freedom of choice of units in the Existing Housing Program. However, the same age group could not find their houses suitable since they did not have an opportunity to choose their units in the New Construction Program.

Table 11 presents how the housing satisfaction changes according to the household income levels in both program units. In the existing units, the satisfaction with housing is higher when the household income is higher. It means that higher income households are more successful in finding better units in the existing stock. However, the highest income group (more than $10,000) in the New Construction Program is the least satisfied among all income groups, while the middle income group ($5,000-10,000) is the most satisfied with their housing. Higher income groups could expect to live in better units since they have more money, and lower income groups could find the maintenance charges too high because of their financial problems. But, middle income groups could find that their dwellings are the most suitable for their income levels.

The housing satisfaction is lower when the condition of previous dwelling is higher in both program units. When households obtain a better dwelling unit than their previous one, their satisfaction with housing is higher. A unit in better condition generally results in higher housing satisfaction.

In the Existing Program, it was created from the cross-tabulations that there were systematic relationships between housing satisfaction and employment status of household head, sex of household head, and length of stay in present dwelling. However, the cross-tabulations did not show any significant relationship in the New Construction Program.

Table 11 shows that tenants who are currently employed receive higher satisfaction from their units in the Existing Program. Because currently employed tenants earn more money, they could have more chance to find suitable units according to their needs. Employed persons would also be more readily accepted as tenants by private owners because of their ability to afford the housing expenses in the Existing Housing Program. Housing satisfaction of male headed households is higher than that of female headed households. The better job and higher income, the better chance to find suitable housing.

Length of stay has shown a positive relationship with the housing satisfaction in the Existing Program. The housing satisfaction of the tenants is higher when the length of stay in present dwelling is higher in the Existing Housing Program. Tenants in their first years could meet many new problems. However, over time, they either solve their problems, get used to them or move from their dwellings.

The education level of household heads revealed a systematic relationship with housing satisfaction only in the New Construction Program. Table 11 shows that the satisfaction level is lower when the education level is higher in the newly constructed units. Better educated persons might possibly expect better living conditions. Marital status and family size did not show any significant relationship with housing satisfaction in both programs.

In summary, the survey results indicate that the satisfaction level is higher when the socio-economic status of tenants is higher in the Existing Housing Program. However, this relationship is opposite in the New Construction Program. In the Existing Program, private individual owners could prefer more reliable people, reducing possible troubles with their tenants. Thus tenants with higher socio-economic status are more successful in finding better quality units based on their needs.

5.2.3. Multiple correlation

Multiple correlation was utilized to determine the joint contribution of background variables, housing defects, and neighborhood satisfaction on the housing satisfaction. Housing defects were calculated by adding up the defects with each housing defect item and dividing by the total number of defect items. Neighborhood satisfaction scale was obtained from the items that described satisfaction with neighborhood conditions and neighborhood people.

It is hypothesized that housing satisfaction is influenced by age of head, employment status of head, sex of head, education of head, income of head, marital status, family size, housing deficits, condition of previous dwelling, length of stay in current dwelling, and neighborhood satisfaction in both programs. The equation which shows this relationship is the following:

$$Y = f(X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8, X_9, X_{10}, X_{11})$$

where Y is housing satisfaction and X's are background variables.

The degree of importance of each background variable on housing satisfaction in both the Existing Housing and New Construction Programs is given in Table 12.

TABLE 12. Degree of importance of variables in full regression model of housing satisfaction in both program units

	Existing Housing Program	New Construction Program
1.	Housing defects	Neighborhood satisfac.
2.	Condition of previous dwelling	Housing defects
3.	Length of stay in current dwelling	Condition of previous dwelling
4.	Family size	Family size
5.	Marital status	Age of household head
6.	Sex of household head	Marital status
7.	Education	Income
8.	Neighborhood satisfac.	Currently employment
9.	Age of household head	Education
10.	Currently employment	Sex of household head
11.	Income	Length of stay in current dwelling

In the Existing Housing Program, multiple regression shows that the strongest determinant of housing satisfaction is housing defects. When the number of defects are higher, housing satisfaction is lower as shown in Table 13. The second significant determinant of housing satisfaction is the condition of previous dwelling. The better condition of

previous dwelling, the lower satisfaction with current dwelling.

TABLE 13. Regression analysis of housing satisfaction in existing units

Variables	B	SE B	Beta	Signif F
Housing defects	-2.544	0.962	-0.504	0.015
Condition of previous dwelling	-0.331	0.145	-0.403	0.034
Dwelling residence	0.276	0.182	0.306	0.144
Family size	-0.228	0.153	-0.504	0.151
Marital status	0.603	0.520	0.386	0.260
Constant	6.723	1.159		

$R^2 = 0.381$

$R = 0.617$

$R^2_{adjusted} = 0.226$

Signif F = 0.068

Length of stay in current dwelling, family size, and marital status are also entered as significantly related variables to housing satisfaction. Table 13 shows that the housing satisfaction is higher when length of stay is higher. The same result was also derived from cross-

TABLE 14. Regression analysis of housing satisfaction in new constructed units

Variables	B	SE B	Beta	Signif F
Neigh. satisfaction	0.420	0.107	0.502	0.001
Housing defects	-0.611	1.191	-0.174	0.186
Condition of previous dwelling	-0.188	0.104	-0.221	0.081
Family size	-0.079	0.053	-0.180	0.148
Age of head	0.084	0.069	0.152	0.238
Constant	4.535	1.550		

$R^2 = 0.630$

$R = 0.794$

$R^2_{adjusted} = 0.567$

Signif F = 0.000

tabulations. In cross-tabulations, family size and marital status did not show a systematic relationship with housing satisfaction. However, in multiple regression, housing satisfaction decreases when family size increases. The satisfaction of double headed households is also higher than single headed households. These could be a result of interactions between independent variables.

These five variables in Table 13 explained 38 percent (R^2) of housing satisfaction in existing housing units. The overall significance level of multiple regression was found to be 0.068. No further variables were entered into the equation since adjusted R^2 started to decrease.

Table 14 gives regression analysis of housing satisfaction for the new constructed units. Neighborhood satisfaction, housing defects, condition of previous dwelling, family size, and age of respondent were found as the important determinants of housing satisfaction in the New Construction Program units. Those variables explained 63 percent of housing satisfaction with 0.000 significance level as shown in Table 14. Neighborhood satisfaction appears as the strongest determinant of housing satisfaction. Housing defects are also strongly correlated with housing satisfaction. Housing satisfaction is higher when the number of housing defects is lower and neighborhood satisfaction is higher. Housing satisfaction is lower when family size is higher. Tenants whose previous dwellings are worse than their current dwellings have higher housing satisfaction, and older tenants receive lower housing satisfaction as seen in Table 14.

Although neighborhood satisfaction is the strongest determinant of housing satisfaction in the new construction

units, it was not found as an important determinant of housing satisfaction in the existing units. Neighborhood satisfaction could have an important effect on the housing satisfaction since the households cannot choose their neighborhoods in the New Construction Program. Housing defects, condition of previous dwelling, and family size were found as strong determinants of housing satisfaction in both programs. Housing satisfaction is higher when the number of housing defects is lower, family size is lower, and the condition of previous dwelling is worse than the current dwelling. Even though family size did not show a systematic relation with housing satisfaction in both program units in cross-tabulations, it was found as an important determinant of housing satisfaction in multiple regression analysis because of the interactions between independent variables. In conclusion, the survey results indicate that neighborhood satisfaction, housing defects, family size, and condition of previous dwelling have strong effects on the housing satisfaction.

5.3. Neighborhood Satisfaction

The neighborhood satisfaction scale included satisfaction with neighborhood conditions and neighborhood people. The satisfaction items were scored from "very

dissatisfied" to "very satisfied". The importance of satisfaction items were ranged from "unimportant" to "important". However, the importance of variables were not treated in the satisfaction scale since approximately 82 percent of households scored the neighborhood satisfaction items as important, and approximately 7 percent of households scored them as unimportant in both program units. The items included in the neighborhood satisfaction scale were satisfaction with the location of neighborhood in the city, condition of houses, streets and sidewalks, laundry facilities, children's playground, availability of public transportation, nearness to school, nearness to work, noise from nearby houses and neighbors, and relationship with neighbors.

The feelings of tenants about their neighborhood were measured as well. The items inquiring into the tenants' feelings about the neighborhood were the similarity of values, good place to live, good place to raise children, and frequency of association with neighbors. The agreement items were scored from "strongly disagree" to "strongly agree". Neighborhood defects were also measured by asking whether there were a laundromat, a playground, and a bus stop close to the residence in the neighborhood.

Frequency distribution, t-test, cross-tabulation, and multiple regression were used to analyze and compare the neighborhood satisfaction between both program units.

5.3.1. Frequency distributions and t-tests

The frequency distributions of neighborhood satisfaction, agreement, and defect items were calculated for each program. T-tests were also used to find out if there were significant differences in these items between both program units.

Table 15 shows the percentage of satisfaction and dissatisfaction with each neighborhood characteristic in both program units. T-test showed significant differences in the satisfaction level of households with condition of street and sidewalks, laundry facilities, children's playground, and noise from nearby houses and neighbors between the Existing Housing and New Construction Programs. Satisfaction with condition of streets and sidewalks as well as satisfaction with laundry facilities are higher in the New Construction program than the Existing Housing program. All households in the new constructed units have a laundromat and children's playground in their neighborhood, while more than 50 percent of households do not have these facilities in their neighborhood as seen in Table 16.

Although there are children's playgrounds in the neighborhoods of new construction program units, more than 42 percent of households are not satisfied with the facilities in these playgrounds. The satisfaction with children's playground is lower in the New Construction program than the Existing Housing program because tenants of the existing program units could use the playgrounds in nearby neighborhoods.

The percentages of dissatisfied households with location of neighborhood in the city and nearness to work in the Existing Housing Program neighborhoods are twice as much as in the New Construction Program neighborhoods. Therefore, the survey results indicate that the condition and accessibility of existing housing program neighborhoods are worse than the new construction program neighborhoods with exception that the households in the existing neighborhoods have much less problems with noise from nearby houses and neighbors than in the new constructed neighborhoods. These could be because of high density of subsidized units in the new constructed neighborhoods.

In addition to the noise problem, households in the new construction neighborhoods have a much different set of values than the other people in the neighborhood. Also this neighborhood in the New Construction Program is less

TABLE 15. Percentage of satisfied and dissatisfied households with neighborhood satisfaction

	Existing Housing Program		New Construction Program	
	Satisfied	Dissatisfied	Satisfied	Dissatisfied
Location of neighborhood in city	71.4	16.3	77.1	8.3
Condition of houses in neighborhood	70.0	8.0	64.6	10.4
Streets and sidewalks* in neighborhood	54.9	23.5	66.6	10.4
Laundry facilities*	32.6	34.7	58.3	22.9
Children's playground*	44.0	30.0	29.2	42.7
Availability of public transportation	74.5	7.8	70.8	6.3
Nearness to school	50.0	16.0	60.5	16.7
Nearness to work	47.8	8.7	61.4	4.5
Noise from nearby* houses and neighbors	53.1	30.6	29.2	43.7
Relationship with neighbors[3]	62.0	20.0	47.9	20.9

*T-test showed a significant difference at 0.10 level between the means of both program units.

TABLE 16. Percentage of households who had neighborhood defects

	Existing Housing	New Construction
Existence of* laundromat	44.0	0.0
Existence of* playground	51.0	0.0
Existence of bus stop	12.0	8.3

*T-test showed a significant difference between the means of both program units.

satisfied with living and raising children as a good place than the households in the existing neighborhoods. In Table 17, t-test showed significant differences in means of these three agreement items between both program neighborhoods. Although t-test did not show significant differences in the means of association with neighbors between both programs, the percentage of disagreement is 15 percent higher in the existing program. General agreement with living and raising children, association with neighbors, and having similar values with the people in the neighborhood was determined as significantly different with a t-test between both program units. Tenants in the new construction program neighborhoods have a different set of values and

TABLE 17. Percentage of satisfied and dissatisfied households with neighborhood satisfaction in both program units

	Existing Housing		New Construction	
	Agree	Disagree	Agree	Disagree
People in neighborhood have* values similar to mine	47.1	19.0	25.0	62.5
Neighborhood is a good place* to live	80.4	9.8	47.9	31.2
Neighborhood is a good place* to raise children	65.3	20.4	31.9	51.0
Often associate with neighbors	54.9	25.4	52.1	40.0

*T-test showed a significant difference at 0.10 level between the means of both program units.

relationships than their neighbors compared to those of the existing unit neighborhoods.

In summary, the survey reveals that tenants in the existing program have higher satisfaction with neighbors than in the new construction program. However, the satisfaction with the neighborhood's physical condition is higher in the new construction program. The tenants in the existing Housing Program have a chance to live in a neighborhood which they are already used to, since tenants in the program can choose their neighborhoods. Even if tenants in the Existing Housing Program could get into the neighborhoods matching their social values, they could not get into a neighborhood of better physical condition than their previous neighborhoods.

On the other hand, the tenants in the New Construction Program have neighborhoods of physically better condition. However, they are not satisfied with the social relationships in the neighborhood. In other words, residents do not share common social values. This negative situation is compounded by the high density factor caused by the close proximity of subsidized households.

Therefore, the first part of hypothesis stated in Chapter 1 is upheld "Tenants in the Existing Housing Program have higher satisfaction with their neighbors than in the

New Construction Program". Whereas the second part of the hypothesis "Tenants in the existing units have higher satisfaction with the physical condition of their neighborhoods than in the newly constructed units" was found to be reverse.

5.3.2. Crosstabulations

Cross-tabs were calculated between the overall neighborhood satisfaction and the background variables in both programs. As a further analysis, t-test was created for background variable levels which showed systematic relationships with the overall neighborhood satisfaction to determine the differentiation of neighborhood satisfaction level according to the background variable levels in both programs. The neighborhood satisfaction scale was created from the items that described satisfaction with neighborhood conditions and neighborhood people. Background variables are age, education, employment status and sex of household head, length of stay in current dwelling, and condition of previous neighborhood.

Table 18 depicts whether there are systematic relationships between background variables and the overall neighborhood satisfaction. Table 19 breaks down background variables into their levels and gives the neighborhood

satisfaction mean for each variable level. Age, education, income of household head, and family size showed systematic relationships with neighborhood satisfaction in both programs in Table 18. Neighborhood satisfaction is higher when age of household head is higher. The younger age groups could have more difficulties in getting along with neighbors and getting into the activities in the neighborhood in both programs.

In the Existing Housing Program, neighborhood satisfaction is higher when education level of head of the household is higher. However, this relationship is opposite in the New Construction Program. In the Existing Housing Program, higher educated people could have a better chance to get into better neighborhoods. But in the New Construction program, the neighborhood satisfaction of higher education group is lower since all of the education levels come together.

Neighborhood satisfaction is higher in the existing neighborhoods and is lower in the new construction neighborhoods when family size is higher. This could be because of the higher percentage of households who have found their neighborhood is a good place to live and raise children in the Existing Program units than the New Construction Program units. Therefore in the New

Construction Program, households with children have less satisfaction with their neighborhoods since they do not find the neighborhood as a good place to raise children.

TABLE 18. Level of significances in cross-tabulations of neighborhood satisfaction by background variables

Variables / Program	Existing Housing	New Construction
Age	Significant*	Significant*
Education	Significant*	Significant*
Income	Significant*	Not significant
Employment Status	Not significant	Not significant
Sex	Significant*	Not significant
Marital Status	Significant*	Not significant
Family Size	Significant*	Significant*
Length of Stay in Present Dwelling	Significant*	Not significant
Condition of Previous Dwelling	Not significant	Significant*

*T-test showed a significant difference at 0.10 level between both program units.

The condition of previous neighborhood showed a systematic relationship to neighborhood satisfaction in only New Construction Program units. However, neighborhood

TABLE 19. Neighborhood satisfaction of background variable levels (Satisfaction scale: 1=Dissatisfied 2=Neutral 3=Satisfied)

Variables / Program	Existing Housing	New Construction
Age		
0-30 years	2.28	2.18
30-50 years	2.46	2.26
50 or more	2.52	2.64
Education		
Up to high school	2.35	2.56
High school	2.38	2.20
College	2.49	2.14
Income		
$ 0-5,000	2.32	No significant
$ 5,000-10,000	2.50	differentiation
More than $ 10,000	2.66	
Employment Status	No significant differentiation	No significant differentiation
Sex		
Male	2.52	No significant
Female	2.38	differentiation
Marital Status		
Single headed	2.36	No significant
double headed	2.43	differentiation
Family Size		
1 person	2.32	2.32
2 person	2.32	2.29
3 person	2.41	2.24
4 or more person	2.53	2.22
Length of stay in present dwelling		
0-1 year	2.41	No significant
1-3 years	2.32	differentiation
3 or more years	2.56	
Condition of previous neighborhood		
W.T. present neigh.	No significant	2.80
Same as present ngh.	differentiation	2.46
B.T. present neigh.		2.01

satisfaction level also is higher in the New Construction Program when the condition of their current neighborhood is better than their previous neighborhood as shown in Table 19.

In Table 18, income of household, marital status, sex of head, and length of stay in present dwelling showed systematic relationships with neighborhood satisfaction only in the Existing Housing Program. Table 19 depicts that neighborhood satisfaction level is higher while the income level of household is higher.

Double headed households and male headed households have higher neighborhood satisfaction level than single headed households and female headed households. It means that higher income groups, double headed households, and male headed households could have more chance to get into better quality neighborhoods in the Existing Housing Program. The neighborhood satisfaction level is higher in the first year and over 3 years than between 1 and 3 years length in the existing neighborhoods. Because households spent their first year to get to know the neighborhood, they may not be aware of some of the problems in the neighborhood. Households who like their neighborhoods prefer to reside there longer.

In summary, the study reveals that households' satisfaction with the physical condition of the neighborhood is more or less the same among the tenants of the New Construction Program. However, the neighborhood satisfaction of the tenants of the Existing Housing Program changes according to socio-economic status of the tenants. The higher socio-economic status the tenants have, the higher satisfaction they get.

5.3.3. Multiple correlation

Multiple correlation was utilized to determine the joint contribution of background variables, neighborhood defects, and housing satisfaction on neighborhood satisfaction. Neighborhood defects were calculated by adding up the defects with each neighborhood defect item and dividing by the total number of defect items.

It is hypothesized that neighborhood satisfaction is influenced by age, education, employment status, sex, income, and marital status of household head, family size, neighborhood deficits, condition of previous neighborhood, length of stay in current dwelling, and housing satisfaction in both programs. The relationship is explained by following equation:

$$Y = f(X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8, X_9, X_{10}, X_{11})$$

where Y is dependent variable (neighborhood satisfaction) and X's are independent variables (background variables).

The degree of importance of each background variable on neighborhood satisfaction in both the Existing Housing and New Construction Programs is given in Table 20.

TABLE 20. Degree of importance of variables in full regression model of neighborhood satisfaction in both program units

	Existing Housing Program	New Construction Program
1.	Neighborhood defects	Condition of previous neighborhood
2.	Currently employment	Housing satisfaction
3.	Housing satisfaction	Education
4.	Condition of previous neighborhood	Marital status
5.	Family size	Length of stay in current dwelling
6.	Marital status	Age of household head
7.	Education	Sex of household head
8.	Sex of household head	Currently employment
9.	Age of household head	Income
10.	Income	Family size
11.	Length of stay in current dwelling	Housing defects

Neighborhood defects, employment status of head, housing satisfaction, condition of previous neighborhood, family size, and marital status were found to be the important determinants of neighborhood satisfaction in the Existing Housing Program as shown in Table 21. At 0.017 overall significant level, 46 percent of variation in the neighborhood satisfaction was explained by those variables. The other variables were not taken into the regression equation since adjusted R^2 started decreasing.

Neighborhood defects was found as the strongest determinant of neighborhood satisfaction in the Existing Housing Program. Neighborhood satisfaction is lower when neighborhood defects are higher. Employed tenants and double headed households have higher neighborhood satisfaction levels in the Existing Housing Program. Neighborhood satisfaction is higher when family size is higher.

In the New Construction program, condition of previous neighborhood, housing satisfaction, education of household head, and marital status were found to be the important determinants of the neighborhood satisfaction as shown in Table 22. Those variables explained 58 percent of the variations (R^2) of neighborhood satisfaction levels in the New Construction Program. The remaining variables were not

entered to the regression equation since they did not increase the adjusted R^2.

The strongest determinant of neighborhood satisfaction in the New Construction Program is the condition of previous neighborhood. If tenants come from a worse neighborhood, their satisfaction levels with current neighborhood is higher. When the education level of tenants is higher, their satisfaction level with neighborhood is lower. Both of these relationships were also obtained from the cross tabulation analyses. Housing satisfaction showed a positive effect on neighborhood satisfaction. Neighborhood satisfaction is higher when housing satisfaction is higher. Although marital status did not show a systematic relationship with neighborhood satisfaction in cross-tabulations, it was found one of the important determinants of neighborhood satisfaction in the multiple regression analysis in the New Construction Program. The satisfaction level of double headed households is lower than the single headed households.

In summary, housing satisfaction was found as a strong determinant of neighborhood satisfaction in both programs. Neighborhood satisfaction is higher when housing satisfaction is higher. Family size showed a negative relationship with neighborhood satisfaction in the New

TABLE 21. Regression analysis of neighborhood satisfaction in existing units

Variables	B	SE B	Beta	Signif F
Neigh. defects	-0.387	0.288	-0.242	0.192
Currently employment	0.371	0.187	0.348	0.060
Housing satisfaction	0.261	0.158	0.326	0.113
Condition of previous neighborhood	0.150	0.126	0.229	0.245
Family size	0.211	0.093	0.642	0.343
Marital status	-0.663	0.337	0.551	0.061
Constant	2.474	1.111		

$R^2 = 0.461$

$R = 0.678$

$R^2_{adjusted} = 0.319$

Signif F = 0.018

Constructed Program, while it showed a positive relationship in the Existing Housing Program. Households in the existing neighborhoods find their neighborhoods to be a better place to raise children than in the new constructed neighborhoods. Therefore, with an increase in family size, the New Constructed Program tenants have lower satisfaction with their neighborhoods than the Existing Housing Program tenants. In the Existing Housing Program, employed tenants

TABLE 22. Regression analysis of neighborhood satisfaction in new constructed units

Variables	B	SE B	Beta	Signif F
Condition of previous neighborhood	-0.674	0.204	-0.503	0.002
Housing satis.	0.397	0.185	0.321	0.039
Education	-0.081	0.073	-0.127	0.275
Marital status	-0.251	0.232	-0.133	0.289
Constant	4.142	1.257		

$R^2 = 0.583$

$R = 0.764$

$R^2_{adjusted} = 0.534$

Signif F = 0.000

and double headed households could have a higher chance to get into good neighborhoods; landlords might prefer employed and higher income people because of their increased ability to meet expenses. However, this relationship did not materialize in the New Construction Program.

5.4. Management Satisfaction

The management satisfaction scale included variables related to satisfaction with maintenance of house and neighborhood, and relationship with landlord and manager.

The items included in the satisfaction scale were satisfaction with crime and theft protection; maintenance of house; snow removal from parking areas and sidewalks; collection of garbage; maintenance of sewer, water lines, trees, grounds and grass; and relationship with landlord, manager and public housing agency. The satisfaction items were scored from "dissatisfied" to "satisfied".

Frequency distributions, t-tests, cross-tabulations, and multiple regression were used to analyze and compare management satisfaction between the New Construction Program and Existing Housing Program.

5.4.1 Frequency distributions and t-tests

The frequency distributions of management satisfaction were calculated in each program. A t-test was used to determine any significant differences between the means of satisfaction items. Table 23 shows the percentage of satisfaction and dissatisfaction with each management satisfaction item in both program units.

The t-test, shown in Table 23, indicates significant differences in the satisfaction level of households with the maintenance of their houses, and the relationship with the project manager between the Existing Housing Program and New Construction Program. Households in the New Construction

Program have higher satisfaction with maintenance of their houses than in the Existing Housing Program.

However, the satisfaction of households in their relationship with Hunziker and Furman Realty officials in the new construction units is lower than the satisfaction of households in their relationship with the Ames City Housing Department project officials in the existing units. In the New Construction Program, the lower satisfaction households in their relationship with Hunziker and Furman Realty officials could be because of unexpected inspections of units and tight rules to control how tenant's maintain their units. The satisfied households are with snow removal from parking areas and sidewalks 15 percent higher in the New Construction Program; but, the percentage of dissatisfied households with maintenance of trees, grounds, and grass in the New Construction Program is three times greater than in the Existing Housing Program.

In the New Construction Program, the higher satisfaction with the maintenance of housing and the lower satisfaction with the relationship with project officials could be because of the rules and regulations used by Hunziker and Furman Realty company in managing low-income rental subsidized units. Hunziker and Furman Realty has established strict rules about the maintenance of units.

TABLE 23. Percentage of satisfied and dissatisfied households with management satisfaction variables

	Existing Housing Program		New Construction Program	
	Satisfied	Dissatisfied	Satisfied	Dissatisfied
Crime and theft protection	68.0	16.0	54.2	16.7
Maintenance of* house	54.0	28.4	70.4	20.0
Snow removal from parking areas	45.8	25.0	60.4	18.8
Garbage collection	80.0	5.6	80.2	10.5
Maintenance of sewer and water	72.0	6.0	79.2	4.2
Maintenance of grass, trees, and grounds	58.0	8.0	56.3	27.1
Relationship with* manager	74.5	5.0	50.0	16.2
Relationship with public housing agency	82.3	5.9	70.0	5.0

*T-test showed a significant difference at 0.10 level between the means of both program units.

These rules concern the use of garbage disposals, closets, stoves, refrigerators, bathroom facilities, and carpet cleaning, for example. There are also rules which restrict tenants from painting apartments, putting chain locks on doors, having visitors for periods of more than two days, coming together to play games such as football and baseball in yards, storing anything in yards, riding bicycles on sidewalks and yards, and allowing children to play in yards. Hunziker and Furman Realty makes tenants shampoo their carpets professionally every three months and prevents tenants from having wading pools for their children; these two rules are not mentioned in the lease.

Some of tenants in the New Construction Program units complained about these rules and regulations used by Hunziker and Furman Realty company. They said that carpet shampooing every three months was very expensive. Tenants also complained about unexpected cleaning inspections. They said that Hunziker and Furman Realty officials were entering their dwellings without informing them in advance to inspect refrigerators, closets, bathrooms, carpets, walls, doors, and windows. Therefore, tenants said that their privacy was invaded. They did not feel secure living in their homes. Tenants were living in constant fear of being thrown out every three months if they could not pass these cleaning

inspections. Tenants complain about the rules which prevent children from riding bicycles on their yards, playing on grass, and having wading pools, because they prefer to have young children play in their own yards for safety reasons. Another major complaint was for repair and cleaning charges, when tenants were vacating the units. They complained that no matter how much they cleaned the units upon vacating, most tenants never received their damage and cleaning deposits.

In summary, the study shows that tenants in both program units have almost the same satisfaction with maintenance of their surroundings. However, tenants in the New Construction Program units have higher satisfaction with maintenance of their houses than in the Existing Housing Program units. Tenants in the New Construction Program have worse relationships with their agency officials than in the Existing Housing Program.

Therefore, the hypothesis stated in Chapter 1 was partially upheld "Maintenance of housing units, surroundings, and the quality of management are better in the New Construction Program than in the Existing Housing Program". However, the satisfaction with maintenance of surroundings was almost the same in both programs. The relationships of tenants with the project manager was found

worse in the New Construction Program than in the Existing Housing Program.

5.4.2. Crosstabulations

Crosstabs were calculated between the overall management satisfaction and background variables in both programs. Background variables are age, education, employment status and sex of household head, income of household, family size, length of stay in present dwelling, and condition of previous dwelling. The overall management satisfaction was calculated by adding up the satisfaction with each management satisfaction variable and dividing by the total number of variables.

Table 24 shows whether there are systematic relationships between overall management satisfaction and background variables. Table 25 shows how management satisfaction changes based on background variable levels.

Crosstabulations showed that there were systematic relationships between overall management satisfaction and income of households as well as condition of previous dwelling in both program units. As shown in Table 25, management satisfaction of households is higher when income of households is higher. Higher income households could have enough money to have a good maintenance of their houses

and yards. Therefore, they may have relatively less problems with their management. Households, whose condition of previous dwellings are worse than their current dwelling, have higher satisfaction with their management. Because these households have units in better condition, they do not feel that the maintenance charges are too high or the rules too tight.

TABLE 24. Level of significances in cross-tabulations of management satisfaction by background variables

Variables / Program	Existing Housing	New Construction
Age	Not significant	Significant*
Education	Not significant	Significant*
Income	Significant*	Significant*
Employment Status	Not significant	Not significant
Sex	Significant*	Not significant
Marital Status	Not significant	Significant*
Family Size	Significant*	Not significant
Length of Stay in Present Dwelling	Significant*	Not significant
Condition of Previous Dwelling	Significant*	Significant*

*T-test showed a significant difference at 0.10 level between both program units.

TABLE 25. Management satisfaction of background variable levels (Satisfaction scale: 1=Dissatisfied 2=Neutral 3=Satisfied)

Variables / Program	Existing Housing	New Construction
Age		
0-30 years	No significant	2.46
30-50 years	differentiation	2.47
50 or more		3.00
Education		
Up to high school	No significant	2.85
High school	differentiation	2.63
College		2.31
Income		
$ 0-5,000	2.44	2.58
$ 5,000-10,000	2.65	2.56
More than $ 10,000	2.87	2.40
Employment Status	No significant differentiation	No significant differentiation
Sex		
Male	2.89	No significant
Female	2.66	differentiation
Marital Status		
Single headed	No significant	2.49
Double headed	differentiation	2.61
Family Size		
1 person	2.56	
2 person	2.79	No significant
3 person	2.33	differentiation
4 or more person	2.72	
Length of stay in present dwelling		
0-1 year	2.61	No significant
1-3 years	2.54	differentiation
3 or more years	2.46	
Condition of previous dwelling		
W.T. present dwel.	2.64	2.61
Same as present dwel.	2.44	2.49
B.T. present dwel.	2.45	2.39

Management satisfaction showed systematic relationships with sex of household, family size, and length of stay in present dwelling in only the Existing Housing Program. Table 25 shows that male-headed households have higher satisfaction than female-headed households. Households' satisfaction with management is lower when length of stay in their current dwelling is longer. Households, over time, could have more problems with their management.

In the New Construction Program, it was found that there were systematic relationships between management satisfaction and marital status and education of household head. Management satisfaction is lower when education level of household is higher. In addition, management satisfaction is higher in double-headed households.

In summary, it can be said that higher income, better educated, double-headed, or male-headed households have higher satisfaction with management. These households could know better how to handle problems with management.

5.4.3. Multiple regression

Multiple correlation was obtained to determine the joint contributions of background variables on management satisfaction.

It is assumed that management satisfaction (Y) is influenced by age of head (X_1), employment status (X_2), sex of head (X_3), education of head (X_4), income level (X_5), marital status (X_6), family size (X_7), and length of stay in previous dwelling (X_8).

The degree of importance of each background variable on management satisfaction in both the Existing Housing and New Construction Programs is given in Table 26.

TABLE 26. Degree of importance of variables in full regression model of management satisfaction in both program units

	Existing Housing Program	New Construction Program
1.	Income	Education
2.	Marital status	Sex of household head
3.	Family size	Marital status
4.	Length of stay in current dwelling	Income
5.	Sex of household head	Age of household head
6.	Age of household head	Currently employment
7.	Currently employment	Family size
8.	Education	Length of stay in current dwelling

TABLE 27. Regression analysis of management satisfaction in existing units

Variables	B	SE B	Beta	Signif F
Income	0.330	0.177	0.351	0.069
Marital status	-0.723	0.352	-0.500	0.046
Family size	0.149	0.086	0.391	0.091
Constant	3.672	0.279		

$R^2 = 0.157$

$R = 0.396$

$R^2_{adjusted} = 0.137$

Signif F = 0.075

The multiple regression, as shown in Table 27, of the Existing Housing Program indicates that the strongest determinant of management satisfaction is income of household. Marital status and family size were also shown as important determinants of management satisfaction. Management satisfaction is higher when income of households and family size are higher. These variables explained 15 percent of variation in management satisfaction at 0.075 significance level in the Existing Housing Program. The rest of the variables were not entered into the regression equation, since they did not increase the adjusted R^2 value.

TABLE 28. Regression analysis of management satisfaction in new constructed units

Variables	B	SE B	Beta	Signif F
Education	-0.293	0.127	-0.429	0.027
Sex of household	-0.911	0.425	-0.394	0.039
Marital status	-0.415	0.363	-0.238	0.261
Constant	7.014	1.387		

$R^2 = 0.195$

$R = 0.442$

$R^2_{adjusted} = 0.124$

Signif F = 0.058

In the New Construction Program, education of household head was shown as the strongest determinant of management satisfaction as shown in Table 28. Marital status and sex of household are also important determinants of management satisfaction. These variables explained 19 percent of variation in the management satisfaction. When education level of the household head is higher, the satisfaction level with management is lower. Female-headed households have lower satisfaction level with the management than male-headed households. Whereas, the satisfaction level of

double-headed households with the management is lower than the single-headed households, although a reverse relationship was shown in cross-tabulations.

6. CONCLUSION

This chapter presents a summary of the thesis including the purpose, the procedures, the major findings and conclusions, and policy implications.

6.1. Summary

- Purpose and procedures

The purpose of this study was to examine and analyze the differences in residential satisfaction resulting from the implementation of the differential low income rental housing subsidy programs. The low income rental housing subsidy programs are implemented either by using existing stock or by constructing new units. The Section 8 Low Income Rental Housing Subsidy Program is the largest subsidy program and it is the only program which includes two different types of implementation. Therefore, for the purpose of this study, the Section 8 Existing Housing and New Construction Programs were chosen to test the differential program impact on residents' satisfaction. This study focused on the social, economic, and environmental impacts of the Existing Housing and New Construction Programs in order to determine which program provides more satisfaction to the residents in the program.

The survey was conducted on residents' satisfaction of the Existing Housing and New Construction Program units in Ames during the Summer of 1987. There are 125 units accepted in the Section 8 Existing Housing Program and 100 units produced by the New Construction Program in Ames. Housing characteristics, neighborhood characteristics, management characteristics, and socio-economic characteristics of residents were utilized as the determinants of residential satisfaction.

- Variables

Four sets of variables were used in this study: demographic and socio-economic characteristics of the households; physical characteristics of the housing units; physical and social characteristics of neighborhoods; and management characteristics. Therefore, the questionnaire included four sections: household characteristics, physical characteristics of housing units, physical and social characteristics of neighborhoods, and management characteristics to measure and compare the residents' satisfaction levels in both program units.

- Major findings

The survey results indicated that the characteristics of households in the two program units were almost the same. The t-test analysis did not show any significant differences

at 0.10 level in the means of age of household head, education of household head, marital status, sex of household head, size of family, and condition of previous dwelling between the Existing Housing Program and New Construction Program. Most of the household heads in both program units were in the young (0 to 29) and middle (30 to 50) age groups, below average education, single, and female.

It was found that household income was higher, and length of stay in current dwelling longer, in the New Construction Program than in the Existing Housing Program. The percentage of households who claimed better conditions of previous neighborhoods was higher in the Existing Housing Program than in the New Construction Program. Eighty-seven percent of the tenants in the Existing Housing Program left their neighborhoods and homes after being accepted into the program, even though almost half considered that their previous neighborhoods were better. Tenants also were not successful in finding their own units. Fifty-eight percent of the respondents claimed that the Public Housing Agency found the units for them. The average waiting period to get into the subsidized units was 9 months in the Existing Housing Program, and 5 months in the New Construction Program. This means that finding a suitable unit in the subsidized private rental market is very difficult.

The survey results revealed that the overall satisfaction was higher, and the number of housing defects lower, in the New Construction Program units. Particularly, satisfaction with kitchen facilities, bathroom facilities, style and design, and overall efficiency were much higher in the New Construction Program units. Only the satisfaction with privacy was found to be much higher in the existing units than in the new construction units. It is concluded that the higher satisfaction and less defects in the newly constructed units may be due to the efficient maintenance of these units by the realty company. However, the concentration of many subsidized units in a single area decreases the privacy level and hence the satisfaction level.

It was found that the satisfaction level of the existing units was relative to income level; as income increased, satisfaction with housing increased. Middle aged groups (30 to 50), employed household heads, and male household heads also showed higher satisfaction with their units. Therefore, the satisfaction level is higher when the socio-economic status of tenants is higher in the Existing Housing Program. Households who have a higher socio-economic status are preferred by landlords as tenants because of their ability to afford the housing expenses.

This helps assure them better opportunities to find a suitable home in the Existing Housing Program.

The satisfaction level of housing is also related to education and income levels of the residents in the New Construction Program. An increase in the level of education and income is related to a decrease in the level of satisfaction in the New Construction Program. This is because the units are not chosen by households, and all tenants receive the same type and quality of units. But higher income residents would prefer higher quality units.

Housing defects were found to be an important determinant of housing satisfaction in both program units. Housing satisfaction is lower when the number of housing defects is higher. Neighborhood satisfaction was found to be an important determinant of housing satisfaction only in the New Construction Program. Because households in the New Construction Program do not choose their neighborhoods, neighborhood satisfaction is not always guaranteed and thus the satisfaction level of housing may decrease.

The survey indicated that satisfaction with neighbors was lower, but satisfaction with the neighborhood's physical condition was higher in the New Construction Program than in the Existing Housing Program. Another effect of not being able to select their own neighborhoods is the diversed mixture of values and relationships among the tenants.

Because the tenants in the Existing Housing Program have the right to choose their neighborhoods, they could choose to live in a neighborhood which they are familiar with the surroundings and the social relationships within neighborhood. But they cannot get into the higher quality neighborhoods. Therefore, satisfaction with the social relationships in the neighborhood is higher and satisfaction with physical conditions of the neighborhoods is lower in the Existing Housing Program.

The survey also showed that neighborhood satisfaction of the tenants in the Existing Housing Program increased with socio-economic status. Higher income, better educated, double headed, or male headed households were more satisfied with their neighborhoods. This may be due to the landlords in the private market who prefer higher income residents with the belief that they are more reliable. However, this relationship did not exist in the New Construction Program, since all households live in neighborhoods of the same quality.

Housing satisfaction was found to be an important determinant of neighborhood satisfaction in both program units. Neighborhood defects were shown to be important determinant of neighborhood satisfaction only in the Existing Housing Program. This may be due to lower

household satisfaction with the neighborhood's physical conditions in the Existing Housing Program.

The survey results indicated that the satisfaction of tenants with the maintenance of housing is higher, and the relationship with project officials lower, in the New Construction Program. In this program, the tight rules established by the realty company to control how tenants maintain their units and surroundings increase the satisfaction of tenants with the maintenance of units, but decreases the satisfaction of tenants in their relationships with the project manager.

This study showed that the satisfaction with the management was higher when household income was higher in both program units. Higher income households may have enough money to afford maintenance expenses of their dwellings and surroundings. The satisfaction level with neighborhood and management were higher when family size was higher in the Existing Housing Program. However, the reverse relationship was found in the New Construction Program, since the tenants did not feel that their neighborhood was a good place to raise children and they did not like the rules which prevented children from playing in their surroundings.

6.2. Policy Implications

There has been a shift in the implementation of housing subsidies for low income groups, from construction of new units to the use of existing units, since 1976. The principal goal of this shift was to eliminate building new, costly, tax-free subsidized housing. The other goals were to provide dispersal of the poor population, to provide freedom of choice, to fill and improve the vacant apartments, and to provide prompt housing assistance. The fact that 87 percent of the rental housing subsidies were directed to the existing stock in 1986, and 98 percent in 1988, can be viewed as benefits to the national economy because of lower government subsidy costs. This shift could fulfill the government's objectives, but may not satisfy the needs of the low income renters.

The survey results indicated that Existing Housing and New Construction Programs have both positive and negative effects on the residents' satisfaction. The new units provided by the New Construction Program supply better physical condition housing for the recipients. The units in the Existing Housing Program have more defects than in the New Construction Program. Therefore, the units constructed by the New Construction Program give more housing satisfaction to its tenants than the Existing Housing Program does.

The New Construction Program provides neighborhoods of better physical conditions to its residents than the Existing Housing Program. However, the social values and relationships among the tenants in the New Construction Program's neighborhoods are worse than in the Existing Housing Program's. Although the Existing Housing Program allows its participants to select their own apartments in neighborhoods of their choice, the tenants are not successful in finding adequate houses and getting into good quality neighborhoods. Especially, households with lower socio-economic status have more problems with getting into good quality units and neighborhoods. Therefore, one of the main goals of the Existing Housing Program, the freedom of choice, has not been accomplished.

The survey results showed that the dispersal of poor people, city-wide, could not be accomplished by the Existing Housing Program. Two-thirds of the tenants in the Existing Housing Program are located in the central part of the city. The concentration of poor people is also a main problem of the New Construction Program.

It was also found that the average waiting period to get into the program is longer in the Existing Housing Program than in the New Construction Program. Therefore, prompt housing assistance for the low income groups can not be provided by the Existing Housing Program.

There is a better relationship between the tenants and the project manager in the Existing Housing Program than in the New Construction Program. However, the maintenance of units and surroundings is better in the New Construction Program than in the Existing Housing Program. There are strict rules established by agencies about the maintenance of the units in the New Construction Program. The tenants do not like these rules, which makes the relationships worse between tenants and project manager, in the New Construction Program. The involvement of HUD area officials in the management of low income rental units and controlling maintenance of these units and the surroundings might improve the relationship between tenants and private agency officials in the New Construction Program.

Low income rental housing subsidies should be directed primarily to the existing housing stock in communities in which there is a sufficient supply of quality rental houses for low income groups. This would allow low income groups better opportunity to rent a quality home. In this case, the cost of the government subsidized housing units for low income groups will be less; all recipients in the Existing Housing Program will be able to select their own apartments in quality neighborhoods; the poor people will be dispersed geographically within the community; and the poor will be

housed immediately. On the other hand, if there are not quality and sufficient subsidized housing units for low income groups, poor people will concentrate in deteriorated, poorer homes and neighborhoods, and there will be a long waiting list to house poor people. Thus, the Existing Housing Program would not be successful in reaching its goals, except decreasing the cost, but this would be at the expense of residents' satisfaction. Therefore, the construction of new subsidized rental units is necessary in the tight housing markets even if the cost is higher to the government. In tight housing markets, low income groups can live in quality homes only with the construction of new subsidized units in the tight housing markets.

This study examined the differential impacts of low income housing subsidy programs on residents' satisfaction. It has been shown that both the New Construction and Existing Housing Programs give benefits for the low income groups in different aspects. The most important point is the selection of an appropriate program according to the characteristics of housing markets and low income groups. The supply of low income rental housing should not be dependent only on existing housing or new construction units. The residents' satisfaction should be given priority in budget allocation for low income housing subsidies to

existing and new constructed units. The fact that 98% of rental housing subsidies is directed to the existing units under the Voucher Program to decrease the cost to the government is not beneficial to low income groups in all communities.

The Voucher Program is basically a modification of the Section 8 Existing Housing Program. The Voucher Program removes the restriction that a recipient could not live in a unit that has a higher rent than that of the fair market. It pays each recipient the same amount which is the difference between FMR and 30% of the tenant's income. If the rent of the unit is higher than FMR, the recipient will pay the difference from his or her pocket. Otherwise, if rent is lower than FMR, that recipient would keep the difference between the FMR and actual rent. Therefore, the Voucher Program gives recipients more freedom of choice in selecting their own units and neighborhoods.

Although the Section 8 Existing Housing Program gave its recipients the freedom of choice to select their own units and neighborhoods, those recipients were not successful getting into good quality housing units and neighborhoods. The tenants were not satisfied with the physical condition of their homes and neighborhoods. The landlords of quality dwellings in quality neighborhoods do

not want subsidized low income groups as tenants, since private individual owners prefer more reliable people. Therefore, the Voucher Program should guarantee the landlords to pay for the damages after the tenants left their units. The Voucher Program should also consider the residents' satisfaction with the physical condition of units and neighborhoods.

A suggestion for the New Construction Program is to reduce the number of low income subsidized units, and to mix low income subsidized units with middle income unsubsidized units in one project. This mix will prevent the concentration and isolation of poor people in one area, and the deterioreation of neighborhoods. Another suggestion is the establishment of the tenant organization to improve the social values and relationships among the tenants in the New Construction Program's neighborhoods. This tenant organization will help tenants to come together and decrease alienation. Thus the tenants will have common social values and good relationships with their neighbors and the management.

This study showed that the residents in the Existing Housing Program have problems primarily with the physical condition of units and neighborhoods. On the other hand, in the New Construction Program, the residents mostly have

problems concerning the social values and relationships in the New Construction Program. Therefore, further research should concentrate on the physical characteristics of units and neighborhoods in the Existing Housing Program, and the social characteristics in the New Construction program to measure the residents' satisfaction in both program units.

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8. APPENDIX: SECTION 8 HOUSING UNITS RESIDENTS' SATISFACTION QUESTIONNAIRE

1. How long have you lived in your current dwelling?

   a. Less than 1 year
   b. 1-3 years
   c. 3-6 years
   d. 6 years or more

2. How do you compare your previous neighborhood with your current neighborhood? Was your previous neighborhood.....

   a. Worse than your current neighborhood?
   b. Same as your current neighborhood?
   c. Better than your current neighborhood?

3. How do you compare your previous dwelling with your current dwelling? Was your previous dwelling.....

   a. Worse than your current dwelling?
   b. Same as your current dwelling?
   c. Better than your current dwelling?

4. How many months and years were you on the waiting list before you were given a rental subsidy program?

   _____Months and/or _____Years

5. Which of the following best describes your current dwelling?

   a. Apartment building
   b. Apartment in a house
   c. Single family house
   d. Town house
   e. Duplex
   f. Mobile home
   g. Other (specify) _____

6. Please answer the following by circling yes or no.

a. Do you need to pass through anyone's bedroom to get to the bathroom?	Yes	No
b. Does your dwelling have complete plumbing facilities including hot and cold running water, a flush toilet, and a bathtub or shower?	Yes	No
c. Do you have complete kitchen facilities including a kitchen sink with running water, refrigerator, and a stove?	Yes	No
d. During the past winter, did your regular heating system work adequately, that is, it was unnecessary to use an additional source of heat?	Yes	No
e. During the past year, did you have a breakdown (clogged up) in your sewer system lasting more than 24 hours?	Yes	No
f. Does your roof leak?	Yes	No
g. Does your basement get wet whenever it rains?	Yes	No
h. Does your dwelling need exterior painting?	Yes	No
i. Do you have a central air conditioning?	Yes	No
j. If there is a physically handicapped person in your house, is your house accessible to this handicapped person?	Yes	No
k. Do your stairs and railings need to be repaired?	Yes	No
l. Do you have any problems with any of the windows in your dwelling?	Yes	No
m. Is there a laundromat in your neighborhood?	Yes	No
n. Is there a playground in your neighborhood?	Yes	No
o. Is there a bus stop close to your dwelling?	Yes	No

7. Please check the column which indicates how satisfied or dissatisfied you are with each of the following characteristics of your current dwelling.

	VS	S	N	D	VD
a. Total number of rooms	_	_	_	_	_
b. Number of bedrooms	_	_	_	_	_
c. Kitchen facilities	_	_	_	_	_
d. Bathroom facilities	_	_	_	_	_
e. Size of your home	_	_	_	_	_
f. Style and design	_	_	_	_	_
g. Physical condition	_	_	_	_	_
h. Cost	_	_	_	_	_
i. Privacy	_	_	_	_	_
j. Energy efficiency	_	_	_	_	_
k. Security	_	_	_	_	_
l. Parking arrangements	_	_	_	_	_

8. How important is each of these aspects of your housing? Please check the column indicating the degree of importance.

	UI	N	I
a. Number of rooms	_	_	_
b. Number of bedrooms	_	_	_
c. Adequate kitchen	_	_	_
d. Size of your home	_	_	_
e. Style and design	_	_	_
f. Physical condition	_	_	_
g. Cost	_	_	_
h. Privacy	_	_	_
i. Security	_	_	_
j. Energy efficiency	_	_	_
k. Parking arrangement	_	_	_

9. Please check the column that indicates how satisfied or dissatisfied you are with each of the following characteristics of your neighborhood.

	VS	S	N	D	VD
a. Relationship with your neighbors	_	_	_	_	_
b. Location of your neighborhood in the city	_	_	_	_	_
c. Conditions of houses	_	_	_	_	_
d. Conditions of streets and sidewalks	_	_	_	_	_
e. Laundry facilities	_	_	_	_	_
f. Children's playground	_	_	_	_	_
g. Nearness to schools	_	_	_	_	_
h. Nearness to work	_	_	_	_	_
i. Availability of public transportation.	_	_	_	_	_
j. Noise from nearby homes and neighbors.	_	_	_	_	_

10. How important are each of these aspects of your neighborhood? Please check the column indicating the degree of importance.

	UI	N	I	NA
a. Relationship with your neighbors	_	_	_	_
b. Condition of homes	_	_	_	_
c. Condition of streets and sidewalks	_	_	_	_
d. Location of your neighborhood in city	_	_	_	_
e. Laundry facilities	_	_	_	_
f. Children's playground	_	_	_	_
g. Nearness to schools	_	_	_	_
h. Nearness to work	_	_	_	_
i. Availability of public transportation	_	_	_	_

11. How much is your electric, water, and sewer bill?

a. During the average winter months $ _____
b. During the average summer months $ _____

12. How much is your gas bill?

a. During the average winter months $ _____
b. During the average summer months $ _____

13. How much do you pay each month for garbage collection?

$ _____

14. How much is your maintenance charge per month?

$ _____

15. Please check the column that indicates how satisfied or dissatisfied you are with each of the following aspects.

	VS	S	N	D	VD
a. Crime and theft protection.....	_	_	_	_	_
b. Maintenance of your home.....	_	_	_	_	_
c. Snow removal from parking area and sidewalks.....	_	_	_	_	_
d. Collecting of garbage.....	_	_	_	_	_
e. Maintenance of sewer and water.....	_	_	_	_	_
f. Maintenance of trees and grounds.....	_	_	_	_	_
g. Your relationship with manager.....	_	_	_	_	_
h. Your relationship with your public housing agency.....	_	_	_	_	_

16. Who is responsible for maintenance of your building?

a. Landlord
b. Manager
c. Public housing agency
d. Other _____

17. Please check the column that best express your feelings.

	SA	A	U	D	SD
a. On the whole, I would say that the people who live in this neighborhood have values similar to mine.....	_	_	_	_	_
b. In general, this neighborhood is a good place to live in.....	_	_	_	_	_
c. This neighborhood is a good place to raise children.....	_	_	_	_	_
d. I often associate with my neighbors...	_	_	_	_	_

18. What is your marital status?

a. Never married
b. Married, living with spouse
c. Married, separated
d. Divorced
e. Widowed

19. Are you?

a. Female
b. Male

20. How old were you in your last birthday?

a. 20 or less
b. 21-29 years old
c. 30-39 years old
d. 40-49 years old
e. 50-59 years old
f. 60 or over

21. What is the highest level of education you received?

a. 8th grade or less
b. Some high school
c. High school diploma
d. Some college or technical training
e. Bachelors degree
f. Advanced degree

22. How many people in your household are in each of the following groups?

____0-6 years old
____7-12 years old
____13-18 years old
____19-29 years old
____30-39 years old
____40-49 years old
____50-59 years old
____60 or over

23. Ethnic background?

a. Black
b. Native American
c. White
d. Hispanic
e. Oriental
f. Other _____

24. Are you currently employed?

a. Yes____You are employed:
   1. Full time
   2. Part time

b. No_____Are you?
   1. Retired or housemaker
   2. Disabled
   3. Full time student
   4. Seeking work

25. Are you on welfare?

    a. Yes
    b. No

26. What was your approximate gross, before tax, family income in 1986?

    a. Less than $5,000
    b. $5,000-9,999
    c. $10,000-14,999
    d. $15,000-19,999
    e. $20,000-24,999
    f. $25,000-29,999
    g. $30,000 or more

Three additional questions were asked to the Existing Housing Program residents:

1. Where was your previous dwelling?

    a. In the same neighborhood
    b. In the same city, but not in the same neighborhood
    c. In a different city

2. Are you still living in the same dwelling you were in before you received Section 8 rental subsidy?

    a. Yes
    b. No

3. Who found your current dwelling?

    a. I did.
    b. Public housing agency (section 8 officer)
    c. Real estate agency
    d. I was already living in this home.
    e. Other (specify) _____

Abbreviations used in this survey are listed as follows:

VS = Very satisfied	SA = Strongly agree
S = Satisfied	A = Agree
N = Neutral	U = Undecided
D = Dissatisfied	D = Disagree
VD = Very dissatisfied	SD = Strongly disagree
I = Important	NA = Not applicable
UI = Unimportant	

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