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Rehabilitating Rental Housing

the benefits and costs of alternative approaches

REHABILITATING RENTAL HOUSING:

The Benefits and Costs of Alternative Approaches

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FOREWORD

Programs to rehabilitate privately owned rental housing have assumed growing importance in many communities, both as a way to stimulate new investment in housing and neighborhoods and as a means of increasing housing opportunities for lower-income households. Beginning in 1984, HUD will be providing more than 400 communities and states with additional resources for initiating or expanding such efforts under a new Rental Rehabilitation program.

This report is a timely look at eighteen localities which, for the past several years, have been engaged in rental rehabilitation efforts using a number of different Federal programs. It describes how the various programs have worked, what they achieved, and under what conditions they worked best. Information on over 350 rehabilitated properties provides the basis for judgments regarding different approaches to rental rehabilitation.

One major finding of special interest is the extent to which local choices -- regarding such things as the kinds of properties to be rehabilitated -- are decisive in determining how much benefit is achieved for a given level of public expenditure. Local government officials and others responsible for implementing rental rehabilitation programs can use the information contained in this report to better understand the impacts of such decisions and as a benchmark for measuring the relative productivity of their own efforts.

Samuel R. Pierce, Jr.
Secretary
U.S. Department of Housing
and Urban Development

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Summary

Preserving and expanding the supply of rental housing for lower-income households and others is a major concern of most local governments. To address this concern, more and more U.S. communities have been using public subsidies to stimulate rehabilitation of privately-owned rental housing. Such programs are a useful complement to rent subsidies for lower-income households in areas where the supply of standard rental housing is inadequate. Rental rehabilitation programs are also used to help stabilize or revitalize neighborhoods where private investment in housing has been weak.

Communities and states across the country will soon be participating in the newly-enacted Rental Rehabilitation program, which provides funds to support rehabilitation of private rental housing. To aid them in implementing this program and to provide better information on the benefits and costs of various approaches to rehabilitation, the experiences of 18 localities that participated in the first round of HUD's Rental Rehabilitation Demonstration, a forerunner of the new program, have been studied.

This study provides new insights concerning how rental rehabilitation programs work, what they achieve, and under what conditions they work best. Those concerned with national housing policy will be interested in the comparisons among several national programs that have, to date, been used to subsidize rehabilitation and comparisons of different levels of rehabilitation (light vs. moderate vs. substantial). Local and state officials who are beginning to use the new Rental Rehabilitation program will be interested in findings concerning which rehabilitation subsidy approaches have been used more effectively to aid lower-income households and stimulate further private investment in rental housing.

The major questions addressed in this report are:

1. What are the benefits of rental rehabilitation efforts and why do benefits vary?

2. What is the total cost to the public of subsidized rental rehabilitation and why do costs vary?

3. What approaches to rental rehabilitation subsidy are more productive, i.e., require smaller public expenditure to produce the desired benefits?

To answer these questions, detailed information has been collected on 350 rental properties rehabilitated with public assistance in the 18 communities. These communities not only participated in HUD's Demonstration but also, in most cases, provided subsidies for rental rehabilitation under the Section 312, Section 8 Moderate Rehabilitation, and Community Development Block Grant programs. As of September, 1983, there were 76 distinct local rental rehabilitation programs operating in the 18 study communities.

Local Decisions and Program Results

Both the benefits and costs of rental rehabilitation efforts vary widely across the 18 communities -- and from project to project within a community -- primarily as a result of decisions made locally about the kinds of properties that have been rehabilitated with public subsidies and the use that has been made of Section 8 rent subsidies to aid lower-income households.

A. Rehabilitation Benefits

Rental rehabilitation programs are generally aimed at two goals. Some local programs are aimed primarily at stabilizing or revitalizing neighborhoods through increased investment in the rental stock. Others are primarily intended to help lower-income households obtain standard, affordable housing. Although the two goals can conflict with one another, many programs seek to achieve both of them simultaneously.

Relative to the first goal, greater benefits result where abandoned units are returned to the stock and made standard or where units about to be lost due to severe deficiencies and inadequate operating income are rescued through timely rehabilitation. Relative to the second goal, greater benefits are achieved where public programs increase the supply of rental units occupied by lower-income households at rents they can afford.

Goal #1: additions to the rental stock. When benefits are looked at in terms of additions to the rental stock, disregarding the kinds of households aided, the extent of benefit depends directly on the condition of properties selected for subsidy. By definition, units can only be added to the stock, or saved from imminent loss, where serious physical deficiencies are remedied by rehabilitation. Preventing the loss of a unit that otherwise would soon be out of the stock provides about the same benefit as returning a unit to the stock through rehabilitation.

In these 18 communities, on average, rental rehabilitation has added 37 units to the stock and saved 38 from imminent loss for every 100 units rehabilitated. The other units that received subsidies would not have been lost to the stock but were upgraded to local standards (22 percent) or were already standard (three percent).

Although properties in poorer condition may cost much more to rehabilitate than those in relatively good condition, they also produce more benefit as measured by units added or saved. Moderate rehabilitation (costing between $5,000 and $15,000 per unit) has added or saved about 80 of every 100 units rehabilitated -- a rate of benefit almost equal to that for substantial rehabilitation (costing at least $15,000 per unit and often much more) and well above that for light rehabilitation (costing $5,000 or less per unit).

Comparing the four national programs, the highest rate of benefit occurred in Section 312 projects, where 90 percent of the units rehabilitated represented net additions to the rental stock (units added or saved). In the Demonstration, where rehabilitation investments were lighter on average than in other programs, 60 units were added or saved per 100 rehabilitated. By this measure of benefit, Section 8 Moderate Rehabilitation (71 net additions per 100) and CDBG-funded projects (76 per 100) fall in the middle. However, the rate of benefits varies widely within each national program -- from community to community and from project to project.

Goal #2: aiding lower-income households. Benefits to lower-income households depend not only on whether the properties selected for assistance have relatively severe deficiencies, but also on the extent to which rent subsidies are provided or market rents remain low, so that units are affordable by lower-income households.

For every 100 units rehabilitated, 55 were subsequently occupied by lower-income households that would not have been available to such households without the rehabilitation. However, some of the units were occupied by unassisted lower-income tenants who paid over 30 percent of their income for rent and utilities. As a result, the net increase in the affordable lower-income occupied rental stock due to the rehabilitation was 35 units for every 100 rehabilitated. This number varies depending on the extent of rehabilitation investment. Moderate and substantial rehabilitation are about equal, having added about one unit to the affordable lower-income rental stock for every two subsidized, but light rehabilitation added only one such unit for every five rehabilitated.

Providing rent assistance following rehabilitation increases the rate at which lower-income households benefit. In the Section 8 Moderate Rehabilitation program (where nearly all tenants are assisted), the rate of increase in the affordable lower-income stock was twice that of the Demonstration (66 per 100 versus 34 per 100) and more than twice the rate produced by Section 312 (26 per 100) and CDBG-funded (22 per 100) projects. In projects where, after rehabilitation, most households were assisted, 78 of every 100 rehabilitated units represented a net gain in the affordable lower-income occupied rental supply. But, in projects where most post-rehabilitation households were unassisted, only 14 of every 100 rehabilitated units constitute a gain in units affordably-occupied by lower-income people.

Benefits are reduced or offset where households are forced to move as a result of the rehabilitation. In the 18 communities, 11 percent of prior tenants moved out in connection with the rehabilitation; but some of these moves were voluntary. Four percent of prior occupants were recognized by local officials as officially displaced, making them eligible for various forms of relocation benefits. Thus, the actual rate of displacement was somewhere between four and 11 percent.

Because timely rehabilitation rescues many occupied units that would otherwise soon be abandoned, it also avoids the displacement of many households. Taking into account the number of occupants of such units who were displaced in connection with the rehabilitation, the number who avoided displacement due to rehabilitation is, nevertheless, much larger than the number displaced.

B. Program Costs

The cost to the public of a rehabilitation effort derives from three forms of subsidy:

- o direct subsidies (grants or loans) used to finance the rehabilitation; 1/
- o indirect subsidies, especially reduced liability for Federal income tax or local property taxes, used in connection with some rehabilitation; and
- o any rent subsidies provided for eligible lower-income tenants of the rehabilitated properties.

The public cost of rehabilitation subsidies has been calculated for each project by adjusting for the widely varying forms and terms of subsidy and subtracting the present dollar value of loan repayments to be made in the future. Projects were then compared in terms of the public cost of rehabilitation subsidy (direct subsidy plus tax benefits) and the total public cost of rehabilitation and rent subsidies combined. Since rent subsidies are paid over time, their cumulative cost over periods of up to 15 years has been estimated for each project where they were provided.

Projecting to all projects carried out by these communities since 1980, one dollar has been invested in rehabilitation from both public and private sources for every 53 cents the public sector spent on rehabilitation subsidies, including taxes foregone by the Federal and local governments. It has cost the public an average of $10,700 to subsidize rehabilitation of a rental unit, of which 55 percent was in the form of direct subsidies and the remainder in tax benefits. Adding to this the cost of Section 8 rent assistance provided to 43 percent of the tenants in rehabilitated units, the total public cost under these programs averaged $12,500 for each rehabilitated unit.

1/ In the Section 8 Moderate Rehabilitation program, in contrast to other programs, direct rehabilitation subsidies and rent subsidies are combined in a single rent supplement, which is paid to the property owner over a 15-year period. The portion of this supplement used to pay debt service on private rehabilitation loans can be considered a rehabilitation subsidy, except where noted below.

Variation in program costs. The condition of properties selected for rehabilitation is the most important single influence on the public cost of rehabilitation subsidies. Where the cost of rehabilitation (both public and private shares) is higher, because of poorer property condition, the public contribution to the rehabilitation also tends to be higher. Costs also tend to be higher where properties are older, where units are larger, and where projects take longer to complete.

Apart from the nature of the project itself, the cost of subsidizing rental rehabilitation appears to be influenced by programmatic factors. Taking into account all other influences on the rehabilitation subsidy cost, these costs averaged about $3,000 lower per unit for properties improved under the Demonstration or under other CDBG-funded programs than for properties rehabilitated under the other Federal programs. Using a different method 1/ of estimating the portion of the Section 8 Moderate Rehabilitation rent supplement devoted to rehabilitation subsidy, this difference remains but is reduced to about $1,500 per unit. One possibility is that the greater flexibility in structuring subsidies allowed under the Demonstration and CDBG accounts for the difference.

The public cost of subsidizing rehabilitation is less strongly influenced by market conditions at a community-wide or neighborhood level than might have been expected. Public expenditures tend to be lower, on average, in strong city markets, taking into account other influences on cost. However, the average public cost of rehabilitation subsidies as a proportion of total rehabilitation expenditure is roughly the same in strong, moderate, and weak market communities. And, contrary to expectations, subsidy costs are somewhat higher, on average, in stronger market neighborhoods than in weaker market neighborhoods.

Where a rental rehabilitation program is intended to improve housing opportunities for lower-income people, it is appropriate to consider rent assistance as a component of public cost. Where more occupants of the rehabilitated units are assisted, this component of public cost is, of course, higher. In Section 8 Moderate Rehabilitation projects, nearly all post-rehabilitation occupants were assisted; but under the Demonstration only one-third received aid and under the other two national (Section 312 and CDBG-funded) programs, about one in seven was assisted.

Among the four national programs, as used in the study communities, the highest average public costs per unit (including rent assistance) were for Section 8 Moderate Rehabilitation and CDBG-funded projects, reflecting both relatively high rehabilitation subsidy costs in those programs and

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1/ The alternate method of apportioning rent supplements for Section 8 Moderate Rehabilitation projects treats as the rehabilitation subsidy that portion of the total subsidy which reimburses owners for costs over and above the local Section 8 Existing program Fair Market Rent. Under this alternate assumption, the portion of the rent supplement considered a rehabilitation subsidy is often a much smaller fraction of the total.

the large proportion of assisted units in the former program. The average for these two programs was about $15,000 per rehabilitated unit -- slightly higher than for Section 312 ($10,900) and about twice that averaged in the Demonstration ($7,300).

C. Program Productivity

The productivity of a rehabilitation program or approach is defined as the dollars of public expenditure (including tax receipts foregone to stimulate rehabilitation) for every unit of benefit achieved. Higher productivity means lower expenditures to achieve the same rate of benefit.

Two measures of productivity deserve special attention because they correspond closely to the two often-stated objectives of local rental rehabilitation programs:

- Where the emphasis is on increasing the supply of standard rental housing, and not primarily on aiding lower-income households, then it is appropriate to judge productivity in terms of the rehabilitation subsidy required for each net addition to the rental stock.

- Where the objective is primarily to improve the housing for lower-income households, then it is appropriate to judge productivity in terms of the combined public cost of rehabilitation and rent subsidies required for each unit added to the supply of affordable lower-income occupied rental housing.

A local rehabilitation effort that is more productive than average by one standard may be less productive by the other. Some programs may, through a combination of appropriate design and market conditions, achieve higher-than-average productivity by both standards.

Standard #1: additions to the rental stock. Productivity measured in terms of net additions to the stock (units added or saved by rehabilitation) can be increased through careful selection of properties to receive subsidy. In these terms, light and moderate levels of rehabilitation were much more productive in the 18 study communities, typically, than was substantial rehabilitation. In projects that received light rehabilitation, it cost the public $3,600 in rehabilitation subsidy to add or save a rental unit. Moderate rehabilitation was somewhat less productive (costing $5,900 per unit of benefit) in these terms; but was far more productive than substantial rehabilitation (which cost $18,600 per unit of benefit). Evidence also suggests that productivity was higher where properties had serious physical deficiencies prior to rehabilitation but were still habitable, and in smaller properties. Thus, where available, the ideal candidate for rehabilitation from this perspective would be a small structure in relatively poor, but not uninhabitable condition, that can be made standard with a light or moderate level of investment.

Standard #2: aiding lower-income households. Productivity measured as the total public cost (including 15 years of rent assistance) for every unit added to the affordable lower-income occupied stock is generally enhanced by the same choices that lead to higher productivity measured in terms of net additions to the stock. That is, the selection of smaller properties in relatively poor condition, but requiring light or moderate levels of investment to be made standard, was generally the most efficient way of expanding the supply of affordable lower-income occupied housing in the 18 study communities.

Section 8 assistance was used to increase the number of such affordable units; but it also added to public costs. The availability of Section 8 assistance may be crucial to ensuring that lower-income households occupy a particular rehabilitated property. However, across all projects, the higher costs produced by such assistance roughly offset the higher benefits thus achieved, other things equal, so that productivity was unaffected. Also, while projects with higher proportions of Section 8 assisted tenants generally produced greater low-income benefit, this was primarily a function of their pre-rehabilitation condition and the level of rehabilitation investment rather than the use of Section 8 assistance.

Under most market conditions, the expected trade-off between maximizing productivity in terms of adding to the stock or maximizing productivity in terms of aiding lower-income households does not appear to be sharp or necessary. The lesson to be learned from this is that, by carefully selecting properties and neighborhoods, it is possible for most communities to use rental rehabilitation productively to achieve both objectives simultaneously.

National programs and productivity. Evidence suggests that the four national programs are flexible enough to allow communities to address a range of housing needs under varied market conditions. For instance, where a community specialized in rehabilitating one type of property (e.g., habitable structures), it typically used all national programs for this purpose. Of the 18 communities, six specialized in the rehabilitation of mostly habitable units; five rehabilitated mostly uninhabitable units; and, seven selected a mix of habitable and uninhabitable properties.

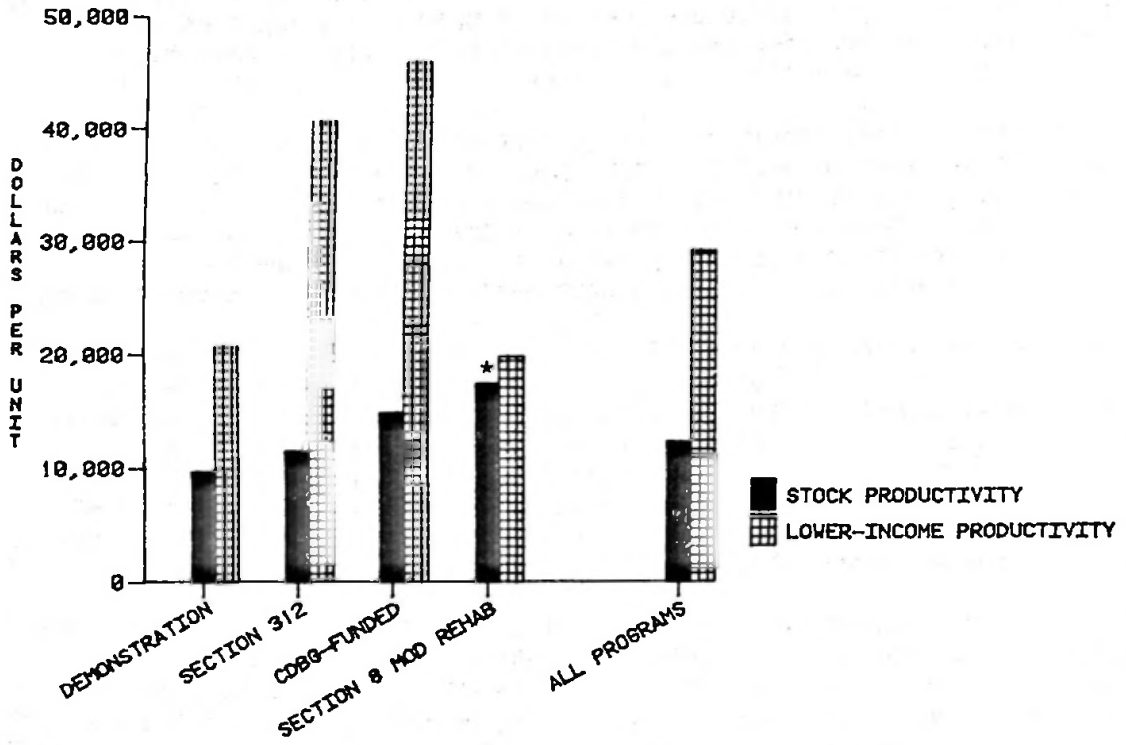
Given the flexibility of the national programs, communities appear able to fashion a productive approach to rental rehabilitation under any of them. For this reason, and given the wide variations observed within national programs in both benefits and costs, comparing programs in terms of productivity averages can be misleading. It is worth noting, however, that the Rental Rehabilitation Demonstration, as used in these 18 communities, is, by a small margin, the most productive national program, relative to net stock additions (units added or saved). Measuring productivity in terms of net additions to the affordable low-income rental stock, the Section 8 Moderate Rehabilitation program and the Demonstration are, on average, about twice as productive as Section 312 or local CDBG-funded programs. The latter programs expand the affordable lower-income occupied rental supply at lower rates, on average, than the Demonstration and at a higher average

cost per rehabilitated unit. While costs are higher under Section 8 Moderate Rehabilitation than under the Demonstration, so is the rate of low-income benefit.

Exhibit A shows both productivity averages for each of the national programs.

EXHIBIT A

REHABILITATION SUBSIDY COST PER NET STOCK ADDITION (I.E., STOCK PRODUCTIVITY) AND TOTAL REHABILITATION SUBSIDY AND RENT SUBSIDY COST PER NET ADDITION TO THE AFFORDABLE LOW-INCOME STOCK (I.E., LOW-INCOME PRODUCTIVITY) BY PROGRAM



* Using the alternate method of apportioning the Section 8 Moderate Rehabilitation subsidy, the cost of adding a unit to the stock is $12,332, rather than $17,358, as shown here.

Wasted or Unnecessary Subsidies. Communities sometimes use subsidies in a manner that is less than optimal considering their stated objectives. Some spent large amounts per unit to return uninhabitable structures to the rental stock when they might have achieved comparable gains by preventing the loss of still-habitable units. Others emphasized light rehabilitation of units that would have continued as rental housing without rehabilitation, resulting in low per-unit costs but achieving relatively minor improvements and adding no units to the rental stock. And, in some cases, public subsidies were used where none was needed to stimulate rehabilitation.

Where subsidized rehabilitation would have occurred without public subsidy, the benefits of the rehabilitation cannot be ascribed to the subsidy. It is difficult to determine whether or not public dollars were necessary to make a given rehabilitation project financially feasible. However, where either local program officials or property owners indicated that some or all of the rehabilitation would have occurred without subsidy, this suggests that public funds may have merely substituted for private investment. According to their subjective judgments, in about ten percent of the projects, rehabilitation would have occurred without subsidy; in another 16 percent, at least one-half of the rehabilitation would have occurred. These rates provide an estimate, probably conservative, of the extent to which public funds were wasted, in this manner, on rehabilitation that would have occurred without subsidy.

Recognizing that such testimonial evidence of substitution is at best suggestive, using it as a basis for discounting benefits decreases the apparent productivity of local rental rehabilitation efforts by 22 percent, relative to net stock changes, and by 14 percent, relative to low-income benefits.

The New Rental Rehabilitation Program

The newly-adopted Rental Rehabilitation program builds on experience gained in the Rental Rehabilitation Demonstration. It gives communities broad discretion in selecting properties and designing the financing and other rules best suited to local conditions. At the same time, it places restrictions on the size and proportion of direct subsidy that can be provided from program funds. Also, projects must be in neighborhoods where rents will remain affordable to lower-income households for an extended period; and a large proportion (70 percent or more) of the households benefiting from a local program should have incomes below 80 percent of the metropolitan area median income.

Based on results for projects that fit the profile of the new program, it seems likely to be highly productive relative to the principal objectives of most local programs. As a group, these projects are well above average in the efficiency with which rehabilitation subsidies contribute to an increased rental supply, averaging $7,100 of public expenditure for every unit added or saved compared to $12,300 for all rehabilitation in the 18 communities. Relative to the second measure of productivity, projects fitting the new program's profile are again more productive than average,

costing $22,000 in rehabilitation and rent subsidies for each additional affordable lower-income occupied unit versus an average $29,000 for all rehabilitation in the study communities. Thus, the emphasis on relatively light rehabilitation subsidies and targeting to lower-income households and stable neighborhoods, combined with local discretion over the terms of subsidy, appears to constitute a relatively productive approach to rental rehabilitation.

Major Findings

The following general findings emerge from this study of 18 communities:

1. In these 18 communities, rehabilitation projects supported under the Rental Rehabilitation Demonstration and the Section 8 Moderate Rehabilitation program have been about twice as productive, on average, in improving low-income housing opportunities as those supported under Section 312 and CDBG.

2. Rehabilitation efforts involving relatively moderate levels of investment are, on average, more productive (achieve benefits at a lower rate of public expenditure) than projects involving more substantial rehabilitation. This is especially the case if productivity is measured as the public cost (including rehabilitation and rent subsidies) of aiding lower-income households.

3. Local choices -- concerning the kinds of properties to receive subsidy and the provision of rent assistance to lower-income households -- appear to be more important than the formal structure of Federal programs or market conditions in determining whether public funds are used productively to stimulate new investment in rental housing and to improve housing opportunities for lower-income people.

4. Two distinct goals of most local rental rehabilitation programs -- to stimulate private investment in rental housing and to aid lower-income households -- can be achieved simultaneously under most market conditions through careful selection of properties to receive subsidy.

5. There is evidence from past experience that the newly-enacted Rental Rehabilitation program has the potential for being quite productive, provided localities make the proper choices in implementing the program.

Chapter 1

INTRODUCTION

Publicly-subsidized rehabilitation of rental housing has seldom been a major component of local housing and community development strategies. However, recent trends have encouraged many localities to begin or to expand efforts aimed at improving their existing rental stock. This report examines many of these local efforts. Its purpose is to provide a better understanding of how they work, what they achieve, and under what conditions they work best.

To produce new knowledge about how rental rehabilitation programs work and the cost-effectiveness of various approaches under varied local market conditions, the recent experience of 18 localities has been examined. Each of these communities participated in HUD's Rental Rehabilitation Demonstration, begun in August, 1981, and intended in part to address the lack of local experience with such programs. However, most of these communities have also used one or more other programs to provide subsidies for rehabilitation of privately-owned rental properties. Collectively, they represent a wide range of approaches to public subsidization of rental rehabilitation, under a broad range of market conditions. Thus, their experience can be used by the Federal government, and by communities with less experience in rental rehabilitation, as a guide to the design and administration of such programs.

Background

Some basic facts about rental housing and the housing needs of low-income people suggest that rental rehabilitation can play an important role in community development. Yet, many communities have had little experience in designing and administering such programs. The newly-enacted national Rental Rehabilitation program will soon change this picture, involving some communities for the first time in decisions about whether, where, and how to subsidize the rehabilitation of private rental housing.

The housing needs of low-income households. One way of addressing the housing problems of low-income people is by encouraging private investment in the improvement of the housing they occupy, or could occupy provided their rents were subsidized. Rental housing constitutes over one-third of the Nation's entire stock and is the primary

source of housing for low-income families and individuals. In 1980, five out of six households below the poverty line lived in unsubsidized privately-owned rental units. 1/

Much of the rental housing occupied by lower-income people is substandard; and many pay an excessive proportion of their incomes for rent. 2/ In 1981, 28 percent of the private rental units occupied by lower-income households were at least moderately inadequate; 15 percent could be considered severely inadequate. 3/ Over 60 percent of lower-income households paid more than 30 percent of their incomes for rent, indicating an excessive rent burden. Of all lower-income renters, 15 percent occupied substandard units and paid excessive proportions of their incomes for rent.

Whether it makes more sense to aid households with these needs by upgrading existing units -- which in many cases are the ones they also occupy -- or by other means such as new construction or providing rental vouchers for existing standard units, is a complex question. The utility of a public rental rehabilitation subsidy program depends not only on the demonstrated need for improved low-income housing but also on the effectiveness and cost of rehabilitation efforts vs. other means of meeting this need. The cost-effectiveness of rental rehabilitation, in turn, depends both on local market conditions and on how such programs are designed and implemented. Until recently, few communities have had enough confidence in the utility of rental rehabilitation to invest heavily in this approach to meeting the housing needs of their low-income residents.

The extent of local experience in rental rehabilitation. Nearly all publicly-subsidized rental rehabilitation has been carried out under five national programs: the Community Development Block Grant (CDBG) program; HUD's Rental Rehabilitation Demonstration (which also uses CDBG funds); the Section 312 program; the Section 8 Moderate Rehabilitation program; and the Section 8 Substantial Rehabilitation

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1/ Approximately 3.9 million lower-income households live either in public housing (1.2 million) or in Federally-subsidized private rental units. See Anthony Downs, Rental Housing in the 1980s, The Brookings Institution, Washington, D.C., 1983, chapters 1-5, for a good recent summary of trends in U.S. rental housing.

2/ "Lower-income" is used throughout this report to mean a household whose annual income is below 80 percent of the median income for a household of that size in the same metropolitan area.

3/ 1981 Annual Housing Survey, U.S. Bureau of the Census and U.S. Department of Housing and Urban Development. This is based on an analysis of households earning less than $10,000 in 1980.

program. Four of these are examined in this study; authority for the fifth, the Section 8 Substantial Rehabilitation program, was terminated with passage of the 1983 housing and community development legislation. 1/

Program descriptions. Constraints imposed on the design and management of local programs vary from one national program to another. By permitting only one method of financing, Section 312 is the most rigidly defined of the four. The Section 8 Moderate Rehabilitation program defines for localities the income group to be served and the methods to be followed in setting and subsidizing post-rehabilitation rents. HUD's Rental Rehabilitation Demonstration allows localities broad discretion in the choice of financing technique, provided there is a substantial private contribution to the rehabilitation cost, but places some nonregulatory constraints on the neighborhoods where subsidies are to be used and on other aspects of the rehabilitation process. Other local programs using CDBG funds are constrained in their design and administration only by the general restrictions placed on all uses of Block Grant funds. Brief profiles of the four national programs are given below:

(A) The Rental Rehabilitation Demonstration. The Rental Rehabilitation Demonstration, also known as the Small Multifamily Rental Property Rehabilitation Demonstration, was initiated by the Department in August, 1981.

The Demonstration tests a new approach to publicly-subsidized rehabilitation of privately-owned rental housing. Substantively, the Demonstration's purposes are to simultaneously encourage the preservation and expansion of the existing rental stock -- particularly small rental properties having between five and 30 units -- and to provide affordable, standard quality rental housing to low- and moderate-income households. Twenty-three cities and urban counties were selected to participate in the first round of the HUD Demonstration. Another 185 communities and 14 states joined the Demonstration in August, 1982.

Communities are expected to provide rehabilitation subsidies only to the extent necessary to make each project financially feasible, with the majority of funds coming from the private side. The subsidy may be provided as a low-interest or deferred payment loan or as a forgiveable loan or grant, at the discretion of the locality.

Eligibility to participate in the Demonstration is limited to local governments (grantees) participating in the Community Development Block Grant (CDBG) Entitlement or Small Cities Comprehensive Grants programs.

1/ The four examined programs are all designed to support varying levels of rehabilitation, whereas the Section 8 Substantial Rehabilitation program was not used for light or moderate rehabilitation.

HUD selected Demonstration participants from among the applying local governments based on their responsiveness to the objectives of the demonstration and on such selection criteria as the quality and feasibility of the proposal; the extent of local CDBG and private financial support for the program; the appropriateness of the neighborhood(s) selected; the locality's performance under CDBG, Section 312, and other rental rehabilitation programs; and local management capacity.

Since no new CDBG funds were made available for the Demonstration, each participating local government used its available CDBG funds to finance the rehabilitation of properties and the administrative costs of operating the Demonstration. A special allocation of Section 8 Existing Housing budget authority was made to each Demonstration community to assist lower-income households residing in the properties to be rehabilitated, or tenants moving into rehabilitated units that were previously vacant. 1/ However, since a principal feature of the Demonstration is its separation of rehabilitation subsidies from rent subsidies, lower-income families residing in rehabilitated buildings may use the Section 8 Existing certificate either to remain in the rehabilitated property or to move to any other standard housing that rents within the local Fair Market Rent. 2/

In December, 1983, the Congress authorized a new Rental Rehabilitation Program that has many features of the Rental Rehabilitation Demonstration. 3/ Funds will be allocated nationally to local and State governments by formula, based on need and performance. Thus, many localities with little experience in designing and managing rental rehabilitation subsidy programs will soon be doing so.

(B) The Section 312 program. Under the Section 312 Rehabilitation Loan program, HUD provides direct, below-market interest rate loans for the rehabilitation of residential properties. 4/ Loans are restricted

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1/ Rent subsidies to lower-income tenants residing in properties rehabilitated under the Demonstration have been provided under the Section 8 Existing Housing program on the basis of one unit (certificate) for each $5,000 of CDBG funds used for rehabilitation subsidies.

2/ Fair Market Rents (FMRs) for the Section 8 Existing program are set by HUD for each metropolitan area at the level where 45 percent of the area's standard unassisted rental units which changed occupants in the past two years rent for less than that figure.

3/ This program is authorized by Section 301 of the Housing and Urban-Rural Recovery Act of 1983, P.L. 98-181.

4/ Section 312 was established by the Housing Act of 1964, 42 U.S.C. Section 1452b, to provide low-interest direct loans for rehabilitation of properties in Urban Renewal areas. Prior to 1979, Section 312 focused almost entirely on single family loans. Since then, higher priority has been given to loans for multi-family properties and to improving housing for low- and moderate-income persons. Congress has appropriated no funds for Section 312 rehabilitation since FY 1981.

to properties located in CDBG target neighborhoods, Urban Homesteading neighborhoods, and certain categorical program areas such as Urban Renewal and Code Enforcement areas.

In approving residential rehabilitation loans, priority is given to low- and moderate-income applicants. All applicants must have the capacity to repay the loan and be unable to secure financing from other sources under comparable terms and conditions.

The maximum loan permitted on residential properties is $27,000 per dwelling unit. Until FY 1982, all loans carried an interest rate of three percent. Currently, only single-family loans made to owner-occupants carry the three percent rate. Investor-owned (i.e., rental) single-family or multifamily properties which secure private financing equal to or exceeding the Section 312 loan amount receive a five percent interest rate. All other borrowers are given an interest rate of 11 percent.

(C) Other rehabilitation programs funded by Community Development Block Grants. The Community Development Block Grant (CDBG) program (which was first enacted in 1974) provides grants to units of local government and States to carry out a variety of community development activities. Although the national objectives of the CDBG program require that funded activities benefit low- and moderate-income persons, aid in the prevention or elimination of slums and blight, and/or meet urgent community development needs, actual selection of activities and priorities for spending the CDBG funds is determined locally.

Rehabilitation of housing (whether owner-occupied or rental) is an eligible use of CDBG funds and accounts for a large portion of CDBG-funded activities nationwide. 1/ However, a November, 1981, survey of CDBG spending in these localities found that, while 98 percent used some Block Grant funds for rehabilitation of housing, only 50 percent did so for rehabilitation of investor-owned (i.e., rental) housing. A much smaller fraction could be said to have "extensive" experience in rehabilitating rental properties. At the same time, the surveyed communities estimated that 1.7 million of their private rental units were "in substandard condition suitable for rehabilitation" compared to 1.3 million homeowner units. 2/ Since each grantee develops and implements a rehabilitation program suited to locally-defined needs, the actual operation of rehabilitation programs differs widely from locality to locality.

1/ In entitlement cities, the rehabilitation of private property accounted for 28 percent of $2.1186 billion budgeted in FY 1982 for CDBG expenditures. No separate estimate of CDBG spending for rental rehabilitation is available. Consolidated Annual Report to Congress on Community Development Programs, U.S. Department of Housing and Urban Development (1983).

2/ U.S. General Accounting Office, Block Grants for Housing: A Study of Local Experiences and Attitudes, GAO/RCED-83-21 (December 13, 1982); and U.S.G.A.O., Rental Rehabilitation with Limited Federal Involvement: Who is Doing it? At What Cost? Who Benefits?, GAO/RCED-83-148 (July 11, 1983).

(D) The Section 8 Moderate Rehabilitation program. The Section 8 Moderate Rehabilitation program, established in FY 1979, is operated by local Public Housing Agencies (PHAs). It provides rental assistance payments to property owners who lease units to lower-income tenants of buildings rehabilitated to standards approved by the PHA. In most cases, these standards are the Section 8 Existing program Housing Quality Standards; otherwise, they are local codes.

Subsidies are based on the difference between the gross rent (needed to cover operating costs, debt service, and a predetermined return on investment) and the tenant's contribution (set at 30 percent of its adjusted household income). 1/

Property owners are selected by the PHA to participate in the program and are responsible for securing their own financing for the rehabilitation. Owners are permitted to use any public or private source of rehabilitation financing, except Section 312 loans. The program also requires that a minimum of $1,000 per unit be spent for rehabilitation, and that all improvements and related costs be accomplished within the Fair Market Rent limitations set for this program.

The Study Design

New knowledge about how various rental rehabilitation approaches work, the benefits they produce, and their relative cost-effectiveness under varied local market conditions can be generated by careful comparison of various approaches applied under varied circumstances. In making these comparisons, special attention is owed to HUD's Rental Rehabilitation Demonstration, since many of its features are incorporated in the new Rental Rehabilitation program. Also, the approach represented by the Demonstration and its local variations is contrasted with approaches embodied in other national programs and their local variations.

The sample. To evaluate recent local experience with rental rehabilitation subsidies, staff members of HUD's Office of Policy Development and Research have collected detailed information on eighteen communities participating in the first round of the Department's Rental Rehabilitation

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1/ Fair Market Rents (FMRs) are used in the Section 8 Moderate Rehabilitation program to set a ceiling on unit rents after rehabilitation. These FMRs are 120 percent of the FMRs published for the Section 8 Existing program.

Demonstration. 1/ Each community was visited between September 3 and September 17, 1983, in order to collect information on the Demonstration and other rental rehabilitation subsidy programs operated by local public agencies within those jurisdictions. 2/

Among these seventeen cities and one urban county, there are a total of 76 local programs providing direct subsidies for rental rehabilitation. These programs are developed and operated either by local governments or by public housing agencies. In addition to local versions of HUD's Demonstration, they include rehabilitation of rental properties carried out under the Federal Section 312 program (16 communities), under the Section 8 Moderate Rehabilitation program (17 communities), under locally-designed programs using CDBG funds (20 programs in 9 communities); and under locally-designed programs not using CDBG funds (five programs in four communities).

Very few of these local programs are more than five years old. Most of the Section 8 Moderate Rehabilitation programs began in 1980 or 1981. Activity under the Demonstration began in late 1981 or 1982. However, from January, 1981, through September, 1983, (when data for this report were collected), nearly 3,800 rehabilitation projects (most involving a single property) had been completed under these 76 programs, resulting in the rehabilitation of about 39,000 rental housing units. 3/

It is fair to say that the 18 communities have substantial recent experience with rental rehabilitation. They were selected for study primarily because their experiences can be used as indications of how particular rental rehabilitation approaches may work in other places with similar needs and market conditions. The location of these 18 communities is presented in Exhibit 1.1.

1/ Twenty-three communities were selected for the first round of the Demonstration; however, only 18 of these had selected projects by the summer of 1983, when this study was planned. The eighteen communities are: Central Falls, RI; Springfield, MA; New York, NY; New Rochelle, NY; Pittsburgh, PA; Allegheny County, PA; Wilmington, DE; Atlanta, GA; Louisville, KY; Chattanooga, TN; Ann Arbor, MI; Madison, WI; Fort Wayne, IN; St. Louis, MO; Kansas City, MO; Portland, OR; Los Angeles, CA; and Bremerton, WA.

2/ Except for the Section 8 Substantial Rehabilitation program, all local rental rehabilitation programs that had generated at least one completed project since January 1, 1981, were included in the study.

3/ The great majority of rehabilitated units were in New York (28,000) and Los Angeles (5,000). Two programs in New York and one in Los Angeles, together, account for 21,000 units. For the most part, statistical analyses reported in Chapters 3 through 6 are based on information for the 73 smaller local programs. Excluding the three largest programs from the statistical comparisons provides a clearer picture of the patterns of variation across the 18 communities. Brief, separate profiles of the three largest local programs are presented in Chapter 3.

EXHIBIT 1.1

LOCATION OF THE 18 STUDY COMMUNITIES

Projects selected for study. Rehabilitation activity under each local program was examined by collecting detailed information on a sample of rehabilitation projects. In the case of the Rental Rehabilitation Demonstration, all projects selected for subsidy (except those subsequently cancelled) were studied. In the case of all other local programs, a random sample of up to five projects completed, i.e., rehabilitated, since January 1, 1981, was studied. The number of projects sampled from a single local program is too small to allow inferences regarding all

activity under that program, except in those cases where the sample represents all or nearly all of the activity carried out under a program. 1/ However, this sampling technique permits subsequent combining of projects into national program categories or by any other common characteristic in order to make statistically reliable inferences regarding activity in those categories or differences among categories, in the 18 communities.

Altogether, 350 rehabilitation projects were sampled. These include 122 projects selected for the Rental Rehabilitation Demonstration (of which 52 had been completed), 55 projects completed under the Section 312 program, 83 projects rehabilitated under local programs (other than the Demonstration programs) using Federal CDBG funds, and 77 projects completed under the Section 8 Moderate Rehabilitation program. Another 13 projects were sampled from five local programs not included in these four national program categories. 2/ Together, these sub-samples represent total activity since that date in the localities as follows: 122 projects, with 1,070 units, selected under the Rental Rehabilitation Demonstration; 176 projects, with 1,335 units, completed under Section 312; 2,902 projects, with 31,204 units, rehabilitated under CDBG-funded programs other than the Demonstration; 521 projects, with 3,004 units, completed under the Section 8 Moderate Rehabilitation program; and 126 projects, with 2,876 units, completed under five other local programs. Table 1.1 summarizes the sampling pattern. 3/

The data used in this study. A large base of specific information has been assembled concerning local rental rehabilitation programs, individual rehabilitation projects carried out under those programs, and rental market conditions in the communities and in the neighborhoods where projects are located. On local program design and administrative rules, the primary source of information was the local official(s) responsible for its operation. On individual rehabilitation projects, the main sources of information were local officials and owners of the rehabilitated properties. The kinds of information obtained about programs and projects are summarized in Exhibit 1.2.

1/ Information also was obtained from local administrators on the general characteristics (e.g., typical project cost) of all activity carried out under each local program since January 1, 1981.

2/ For analysis, project data have been weighted statistically to reflect sampling rates. Properly weighted, the data are used to generalize about the nature of activity in the 18 communities since January 1, 1981. Details on the sampling and weighting methods are provided in Appendices A and B.

3/ Although most analysis is focused on the programs in the 18 first round Demonstration communities, some information has been collected on local Demonstration programs operated in a random sample of 30 of the 132 cities and counties selected in August, 1982, for the Demonstration's second round. Information on the design and progress of the Demonstration programs in these 30 communities, and in all 14 States participating in the second round, was collected by telephone.

Concerning neighborhoods where the sampled projects are located, the two principal sources of information are the U.S. Census (for the tract surrounding each project) and local housing market experts' and local officials' judgments regarding current and future housing conditions and market trends within the "neighborhood" (as defined and named locally). The latter neighborhood definition is typically more extensive in area and population than the neighborhood defined as a single Census tract.

TABLE 1.1

Numbers of Programs and Projects and Sampled Projects in the 18 Study Communities, by Program

National Program	No. Study Communities	No. Local Programs	Activity Since 1-1-81		No. Sampled Projects
			No. Projects	No. Units	
Demonstration	18	18	122 a/	1,070	122
Section 312	16	16	176	1,335	55
CDBG-Funded	9	20	2,902	31,204	83
Section 8 Mod Rehab	17	17	521	3,004	77
Other local programs	4	5	126	2,876	13
Total	18	76	3,847	39,489	350

a/ The number of Rental Rehabilitation Demonstration projects includes 70 projects designated but not yet completed, most of which were under rehabilitation at the time of the study's data collection. All other numbers in this column represent projects completed between January 1981 and September 1983 (the time of the study's data collection).

EXHIBIT 1.2

KINDS OF INFORMATION GATHERED ABOUT LOCAL PROGRAMS AND PROJECTS

Information about each local program includes:

1. Formal program definitions and policies

   - goals and goal priorities
   - funding sources
   - terms of formal agreements with lenders
   - subsidy mechanisms
   - rental assistance policies
   - relocation policies
   - neighborhood selection criteria
   - types of properties and owners eligible
   - priority given certain kinds of rehabilitation (e.g., energy- or code-related)
   - changes in program rules over time
   - assignments of responsibility for each program function

2. Nature of program activity

   - scale and history of activity
   - median and range of project costs
   - typical subsidy amount
   - typical private contribution forms and amount
   - forms of relocation assistance
   - neighborhood market conditions and trends

Information about each sampled project includes:

1. Properties and occupancy

   - structure, age and physical characteristics
   - configuration of units
   - estimated pre-rehabilitation market value
   - occupancy rate and condition prior to rehabilitation
   - rents charged pre- and post-rehabilitation
   - demographic characteristics of households prior to rehabilitation, those moving out, and those moving in
   - outmovement of households at time of rehabilitation
   - estimated monthly operating costs, debt service, and rental income before and after rehabilitation

2. Nature of rehabilitation

   - dates, including timing and progress of rehabilitation
   - rehabilitation cost
   - sources and terms of public and private financing
   - nature and quality of rehabilitation
   - forms of indirect subsidy (e.g., tax abatements, below-market private financing)
   - rent subsidies provided to tenants

3. Ownership and taxes

   - acquisition date and financing
   - owner characteristics and motivaton
   - tax treatment of the rehabilitation

4. Markets

   - community characteristics and market conditions
   - neighborhood characteristics and market trends

Other information regarding programs, neighborhoods, and properties was obtained from local lenders, rehabilitation contractors, representatives of neighborhood organizations, HUD Area Economists, and others with local knowledge.

The research is designed to produce insights concerning the Rental Rehabilitation Demonstration and other programs at a time when that information will be useful to many communities about to start their own rental rehabilitation programs. Although time and cost constraints precluded direct physical inspection of the pre-rehabilitation condition of the properties or collection of information on incomes and other characteristics of individual households in the properties, the study has produced detailed information about a large number of rehabilitation projects. Having similar information in some depth on projects carried out during the same period under varied approaches and market conditions provides an unprecedented opportunity to address some basic questions about the design and consequences of such programs.

Organization of this report. The next chapter examines the current and potential role of rental rehabilitation in local community development programs and also identifies some of the major problems that may arise in designing and carrying out such programs.

The following chapters describe and analyze the experience of communities that have actively subsidized the rehabilitation of rental housing, using a variety of approaches under widely different market conditions. Chapter Three describes the choices that the 18 communities have made concerning the properties to be rehabilitated, financing mechanisms, and the neighborhoods where activity is to be concentrated. It also describes the variation in market conditions -- at the community and neighborhood levels -- under which the 76 local programs are being applied. The chapter also profiles the tenants of rehabilitated properties and describes the changes in occupancy and rent levels that accompany rehabilitation.

Chapters Four and Five look at the effects and costs of various approaches to rental rehabilitation. Chapter Four analyzes the benefits that are produced in the form of improved housing and additions to the rental stock, with particular attention to that portion of benefits received by low-income households. The chapter also looks at problems that may reduce the benefits of rehabilitation, including increased rent burdens on unsubsidized low-income tenants and outmovement of tenants that is associated with the rehabilitation. Chapter Four also explores the extent to which these effects vary as a function of program choices and market conditions.

Chapter Five focuses on measuring the financial incentives and public costs associated with various subsidy approaches, thus allowing for comparison of widely different financing mechanisms. Variations in costs are examined as a function of market conditions and program choices.

Chapter Six combines and extends the analyses of preceding chapters in order to compare the productivity of various approaches to rental rehabilitation under varied local conditions. Productivity is defined in the subsequent analysis as the dollars of public expenditure required to produce a unit of benefit. Emphasis is given to variations in productivity relative to the goals of increasing the supply of rental housing and providing improved housing opportunities for lower-income households.

Chapter 2

EVALUATING RENTAL REHABILITATION: MEASURES OF COSTS AND BENEFITS

This chapter presents the criteria by which a rental rehabilitation program or approach can be evaluated. The degree to which rental rehabilitation succeeds depends, first, on the extent to which it achieves intended benefits; and, second, on whether it does so at a reasonable cost to the public, relative to other approaches or other uses of public funds.

This chapter also identifies the major factors that influence the benefits and costs of rental rehabilitation efforts. Some of these are beyond the control of program officials -- for example, market conditions in a community. Others, however, are matters of program design and implementation.

Many of the issues raised here are addressed in subsequent chapters by examining the actual experiences of the 18 study communities.

The Uses of Rental Rehabilitation Subsidies

For some years now, housing rehabilitation has been regarded as a potentially more cost-effective alternative to new construction of low-cost housing. To its advocates, it appears to be a very efficient means of achieving both housing and community revitalization objectives. The apparent logic of a strategy to rehabilitate whenever possible, rather than to build a new structure, is that it is cheaper and faster to salvage the good parts and replace or repair the bad parts of an existing building than to tear it down and construct an entirely new one. The attractiveness of this strategy is enhanced by its potential for indirectly stimulating private investment in other, nearby, properties, thereby contributing to the stabilization or revitalization of entire neighborhoods.

Some local rental rehabilitation programs place primary emphasis on the goal of helping low-income people to obtain standard, affordable housing. Others are intended to stabilize or revitalize neighborhoods that have experienced or are threatened with decline. And, still others are seen as means of accelerating private investment in neighborhoods where the housing market is relatively strong already -- thus adding to the tax base and contributing to local economic development.

A majority of the local programs surveyed are intended to serve more than one of these objectives. Local officials frequently indicate multiple or co-equal goals for a particular program. In the 18 study communities, officials indicated that providing low-income housing was the first

(or co-equal) priority in 41 of the 76 programs. In 16 of the 76, neighborhood stabilization was given as the program priority; in 25 other cases, officials said that neighborhood revitalization was the priority. Table 2.1 summarizes local goal priorities for each of the four national program categories.

TABLE 2.1

Highest Priority Goal for Each of the 76 Local Programs, Expressed by Local Program Administrators, by National Program

	Program				
Highest Priority Goal	Demonstration	Section 312	CDBG-Funded	Section 8 Mod Rehab	All Programs b/
Provide low-income housing	7	6	11	14	41
Stabilize neighborhoods	6	5	2	2	16
Revitalize neighborhoods	9	7	7	2	25
Number of programs a/	18	16	20	17	76

a/ Program administrators sometimes indicated that two (or three) of the goals are both (or all) highest priorities. Thus, the number of "highest priorities" exceeds the number of local programs in most columns.

b/ These "All Programs" totals include five local programs not operated under any of the four national programs.

The goals of providing low-income housing and revitalizing neighborhoods can be contradictory under certain circumstances. Revitalization may lead to gentrification, with a consequent increase in market rents and displacement of low-income tenants. The implications of using rental rehabilitation primarily either as a means of increasing low-income housing opportunities or as an agent to stimulate other private investment in a neighborhood are discussed briefly below.

(A) Rehabilitation used to increase low-income housing opportunities. Some communities have used rental rehabilitation subsidies primarily as a means of providing housing assistance to lower-income people. In these instances, categories of lower-income households have been identified for

whom the supply of physically adequate and otherwise suitable units is insufficient, so that rent subsidies alone will not meet their needs. Rehabilitation programs such as these are designed to minimize the extent to which funds are used to aid higher-income households and to minimize the loss of lower-income units later on through neighborhood gentrification or decline. To this end, these communities typically have tried to concentrate their efforts in neighborhoods that are relatively stable rather than those that are sharply declining or improving.

(B) Rehabilitation used to stabilize or revitalize neighborhoods. Some rental rehabilitation programs have been aimed primarily at influencing other neighborhood investment, with the direct provision of housing regarded as an intermediate goal. In neighborhoods that are threatened by disinvestment and decline, rental rehabilitation programs have been used to help reverse this trend, thereby protecting the investments of property owners, preserving the housing stock, and avoiding hardships to residents that would result from further decline. In neighborhoods viewed by local government as important to the community's overall economic and fiscal health, rental rehabilitation subsidies have been used to help trigger or sustain a higher rate of private investment in housing and other development. Used this way, rental rehabilitation subsidies have contributed to local economic development. Thus, depending on the type of neighborhood where it has been used, a rehabilitation program may either have stabilized or stimulated neighborhood change.

(C) Reconciling the goals. Under appropriate market conditions, a carefully-designed rental rehabilitation subsidy program may serve to reconcile low-income housing and revitalization objectives where they would otherwise be in conflict. It can do so by helping to lead and stimulate new private investment in a given neighborhood, while using rehabilitation subsidies to hold down rents and/or providing rent subsidies to low-income families who otherwise could not afford to remain in the rehabilitated housing.

The most complex strategic uses of rental rehabilitation promote all three goals. Over a period of years, such a strategy combines a short-term emphasis on stabilizing a neighborhood and providing low-cost housing with long-term emphasis on stimulating private investment in the neighborhood that could ultimately produce a substantial upgrading and rapid increases in property values. In other words, the emphasis of some rehabilitation efforts shifts over time from stabilizing a neighborhood to stimulating its revitalization. In these cases, the availability of rent assistance can be critical in determining whether lower-income households continue to benefit from the improvements.

Measures of the Benefits of Rental Rehabilitation

The benefits of rental rehabilitation include direct effects on the housing stock and households and indirect effects on other investments,

especially in the same neighborhood. 1/ Benefits may be measured in terms of changes in the stock or types of households aided. Those who regard rental rehabilitation primarily as a stimulus for neighborhood improvement will judge as benefits any additions to the stock of standard units. Those who regard rental rehabilitation primarily as a way to aid lower-income households will count as benefits only those units that are subsequently affordable to and occupied by such households.

Using the first standard of benefits, the stock changes that result from rental rehabilitation can be classified as follows:

(A) Units added: units that had been lost to the rental housing stock through deterioration and abandonment can be restored to standard condition through rental rehabilitation; also, units can be added to the stock either through conversion from non-residential structures or by division of fewer larger units into more smaller ones. 2/

(B) Units saved: units that are in danger of being lost to the stock due to major physical deficiencies and/or income from rents too low to maintain them or justify repair, can be retained by timely rehabilitation.

(C) Units upgraded: substandard units not in immediate danger of loss can be brought up to standard.

While each of these stock changes is a form of benefit, different observers will assign different values to each. For example, in circumstances where there are shortages of rental units for some types of households, presumably more value will be put on additions to the stock and less on merely upgrading units not in imminent danger of being lost to the stock. In other circumstances, where there is no shortage of rental units but where many units are substandard, upgrading of units may be valued more highly relative to net additions to the stock.

To observers emphasizing aid to lower-income households, the benefits of rehabilitation efforts will be viewed differently. Unless a rehabilitated unit is occupied by a lower-income household, at a

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1/ This report is not concerned with measuring the indirect effects of rental rehabilitation on other investment.

2/ The opposite case, in which more smaller units are combined to produce fewer larger units also occurs sometimes. However, because the trend in most markets has been toward smaller households, the combination of smaller units into larger ones is uncommon.

price it can afford, it may not be judged a benefit of the program. 1/ Affordability can be achieved either by keeping market rents low enough or, where the market or the costs of operation and paying debt service lead to higher rents, by providing public rent subsidies to eligible households.

In sum, the standards of benefit by which a program or approach is to be judged depend on whether the program emphasizes: (1) expanding the total rental supply and/or upgrading already habitable, mostly occupied units; or (2) aiding lower-income households.

Ways that benefits may be increased or reduced. Regardless of the standards by which benefits are measured, they will be enhanced where: (1) rents remain affordable by lower-income households; (2) fewer households are forced to move as a result of the rehabilitation; and (3) the rehabilitated units continue to be well-maintained and operated.

(1) Keeping rents affordable to lower-income tenants: Benefits are enhanced where rents remain affordable to lower-income households. On the other hand, benefits are reduced or lost if rehabilitated properties subsequently have their rents raised above the level that lower-income households can afford. At the extreme, where Section 8 Existing certificates are used for rent subsidies, as in the Rental Rehabilitation Demonstration, apartments with rents nominally above the metropolitan area Fair Market Rent (FMR) cannot be subsidized, so that any eligible households must move elsewhere to receive subsidy. Short of this extreme, additional public costs will be incurred to the extent that rent subsidies are used to offset rent increases for eligible households. Although those who must move may find suitable alternative housing, the total local supply of affordable, low-income housing will have been reduced by the rehabilitation, even though the supply of standard non-low-rent housing will have increased. Even where lower-income households are not involved, very large rent increases may force some non-low-income households to move in search of less expensive units. This reduction of benefits can occur for several reasons, including: an excessive amount of privately-paid rehabilitation, leading to higher mortgage costs that must be covered from rents; selection of neighborhoods where a strong housing market invites landlords to raise rents in order to maximize return on their investments; inadequate controls on the use of public rehabilitation subsidies; and failure to provide rental assistance where this would have kept units affordable to lower-income households.

1/ There may be indirect benefit to lower-income households from any increase in the rental housing supply, relative to demand, since this will sooner or later make more units available to this group and perhaps lead to lower market rents.

(2) Displacement: Benefits are enhanced where rehabilitation minimizes the displacement of previous occupants. On the other hand, whatever the benefits of rehabilitation, it is less desirable where households are unnecessarily displaced -- incurring disruption and expense. The public costs of such projects will be raised by the amounts required to assist people with relocation and pay their relocation expenses. The possible causes include: inadequate conditions on the public subsidies; excessive disruption of households by the rehabilitation process, which may be itself the result of inadequate contractor screening or monitoring; excessive rehabilitation that requires rent increases beyond the means of lower-income households in order to meet higher mortgage payments; and inadequate coordination with the local public housing authority concerning use of Section 8 certificates.

(3) Premature deterioration: The benefits of rehabilitation are enhanced where the improvements made last for many years. On the other hand, benefits are reduced or lost where rehabilitated properties are not well-maintained, leading to rapid accumulation of new deficiencies or even to abandonment. The possible causes of such problems include: selection of properties in neighborhoods where the rental market will continue to be very weak despite this or other public investment; selection of properties with inadequate operating income due to weak demand for units at market rents, to loss of rent subsidies after rehabilitation (when a subsidized household moves and is not replaced), or to excessive vacancies; selection of properties with very high operating costs or uninsured losses that cannot be covered by income from rents and rent subsidies; poor quality rehabilitation work due to inadequate screening or monitoring of contractors by local government; and failure of building owners to competently manage their properties.

Benefits can be increased where programs are designed and administered to anticipate and avoid or control problems such as described above. Although local market conditions are a constraint on program success, the choices made by public officials and their skill in implementing these decisions have much to do with the level of benefit achieved.

Measure of the Public Costs of Rental Rehabilitation

The cost to the public of a rental rehabilitation program may be divided into two parts:

(A) Rehabilitation subsidies: loans, grants, or other forms of direct subsidy plus Federal, State or local tax benefits, i.e., taxes foregone through credits, exemptions, or abatements -- all of which are intended to stimulate rehabilitation when and where it would not occur otherwise.

(B) Rent subsidies: continuing Federal rent subsidies, following rehabilitation, to eligible lower-income households in rehabilitated units or moving in connection with the rehabilitation.

The public cost of rental rehabilitation efforts varies widely from project to project. Moreover, subsidies take many different forms, making it difficult to compare their actual costs to the taxpayer. For example, calculating the true public cost of a low-interest loan involves subtracting the value of principal and interest, as the loan is repaid, from the original value of the public funds loaned for the project. 1/ Such calculations, which are explained in Chapters 3 and 5, are essential to understanding both how and why the public costs of rental rehabilitation vary.

A subsidy given to a property owner is intended to induce property improvements, perhaps to influence the character or quality of those improvements, and/or to direct the benefits of the improvements (or a portion) to some group of households (typically, lower-income households). The financial incentive provided by a given amount and form of subsidy must be sufficient to induce owner participation in the public program and to attract participation, as needed, by private lenders. Most of the local programs surveyed in this study attempt to leverage private contributions to the rehabilitation cost.

Using public dollars productively. Several factors influence how much benefit is achieved with a given public expenditure for rehabilitation. Public money will be used more productively to the extent that: (1) excessively costly rehabilitation is avoided; and (2) subsidies are used only where needed and in the amounts needed to stimulate the rehabilitation.

(1) Excessive rehabilitation cost: Where the total rehabilitation cost is unnecessarily high, the public's contribution is also higher than necessary. Higher public costs per rehabilitated unit mean fewer units rehabilitated with a given amount of public money. On the other hand, more expensive rehabilitation that produces larger gains in housing quality or brings abandoned units back into the stock is not necessarily excessive. The possible causes of excessively costly rehabilitation include: selecting properties that require a higher-than-planned level of rehabilitation to be put in standard condition, perhaps because initial inspections did not reveal hidden structural problems; inadequate program limits on the amounts of rehabilitation that can be

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1/ This requires that an assumption be made about the value, in present dollar terms, of money received in the future -- i.e., the "discount" rate. Chapters 3 and 5 provide information on this and other assumptions used in the cost calculations.

performed; inadequate monitoring of contractor selection or of the rehabilitation process; time delays; and poor performance by rehabilitation contractors.

(2) Excessive or unnecessary subsidies: Regardless of the total cost of rehabilitation, the public portion of costs will be excessive under several circumstances: use of inadequate techniques for estimating the level of subsidy required for a financially feasible project; inadequate efforts to stimulate participation by property owners and private lenders; or failure to effectively limit the total rehabilitation costs and/or the portion that is publicly paid. In practice, it may be difficult for localities to hold subsidies close to the minimum needed to produce rehabilitation. Some skill is required both to estimate the incentive to an owner produced by a given level and form of subsidy and to negotiate the financing arrangements with owners and lenders. 1/ The extreme version of this situation is when subsidies are provided for projects where rehabilitation would have occurred without subsidy. This result is more likely where the rental market is strong or improving. 2/ To the extent that subsidies are used where rehabilitation would occur anyway, few benefits can be ascribed to the public expenditure, which is essentially wasted.

Project difficulty. Cost variations may reflect differences in program design or skill in tailoring the financing terms to the circumstances of each project. But also, they may result from differences in the inherent difficulty of carrying out particular rehabilitation projects or differences in market conditions. Private investors and lenders will view some rehabilitation projects as more risky or less profitable than others and may, therefore, be less willing to contribute funds to them. Project size and complexity, neighborhood or city-wide market conditions, and other factors encompassed by the general concept

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1/ The public sector's ability to vary the publicly-paid portion of costs to maximize private participation and minimize public expenditure is sometimes referred to as "tailoring." Under the Rental Rehabilitation Demonstration, localities have been encouraged to calculate the minimum subsidy needed to make each project financially feasible, i.e., to take a "gap financing" approach.

2/ There is general agreement among housing market experts that rental rehabilitation subsidies are appropriate under the following market conditions: (1) there is little prospect that the private market or private institutions, acting alone, can meet the need for increased investment in the existing rental stock; (2) a direct rehabilitation subsidy is less costly than other means (e.g., more vigorous housing code enforcement) of achieving the same result; and (3) the character and condition of rental properties make it economically practical to rehabilitate this stock rather than provide housing by alternate means (e.g., new construction).

of "project difficulty" may reduce an owner's or lender's interest in investing in rehabilitation and, therefore, require greater public inducements. In other words, the incentive or stimulus provided by public subsidy must be greater under these conditions to produce the desired result.

The public cost of subsidizing rehabilitation, then, is partly a reflection of a community's skill in determining and negotiating the level of subsidy required to induce private owner and lender participation. However, it also reflects the inherent risk and profit potential of a given project in a given market.

Separating rehabilitation and rent subsidies. The two components of public cost -- rehabilitation and rent subsidies -- are provided as a single subsidy in some programs and administered separately in others. The Section 312 program provides rehabilitation subsidies only. However, the Demonstration and the Section 8 Moderate Rehabilitation program involve both rehabilitation and rent subsidies.

Under the Section 8 Moderate Rehabilitation program, rent subsidies provide property owners with a guaranteed stream of rental income (usually for 15 years) equal to the difference between the nominal rent set for each unit and the rent paid by the tenant (equal to 30 percent of adjusted household income). Because the nominal rent is calculated to cover all operating costs and debt service, including the debt service associated with the rehabilitation, part of the value of the subsidy stream must be considered a rehabilitation subsidy -- in effect, a grant to cover debt service, paid in installments. There is a further value to the owner from having a secure and predictable flow of rental income from the units over a 15-year period. Because the subsidy is "attached" to the rehabilitated units and not to the tenants occupying the units, the owner is guaranteed this subsidy whether the original tenants remain or are replaced by other eligible households. On the other hand, because rents are controlled for 15 years, an investor or owner may require additional financial inducement to participate in this program as compensation for the lost freedom to charge rents based on market conditions, as well as for other problems associated with government review and regulation.

Under the Rental Rehabilitation Demonstration, on the other hand, while some tenants receive assistance through the Section 8 Existing program, this assistance is "attached" to the tenant and can be removed from a rehabilitated unit (and thus lost to the property owner) whenever an assisted tenant leaves or becomes ineligible for assistance.

Separating rehabilitation subsidies from rent subsidies, as in the Demonstration, leads investors to be guided by the market in estimating the future rental income from their property, and therefore the return on their investment in rehabilitation. Because the market determines the rental income they receive and subsidized tenants may leave,

the rent subsidy probably plays little or no part in the investor's decision to participate in the rehabilitation program. In other words, the value of this rental assistance to the owner is very small compared to that of the assistance provided under the Section 8 Moderate Rehabilitation program, all else being equal. Thus, the separate rehabilitation subsidies provided under the Demonstration and similar programs constitute the sole or major stimulus to induce rehabilitation. Whether separating the two forms of subsidy leads to lower program costs in similar circumstances is a question that can best be answered by careful analysis of rehabilitation experience under the two types of program.

Summary

Systematic comparisons of the productivity of various rehabilitation approaches involves addressing three problems: (1) deciding how much value to attach to the various kinds of benefits produced; (2) calculating public costs so as to make various subsidy approaches comparable; and (3) distinguishing variations in productivity that result from differences in program design or administration from variations that result from differences in the circumstances of individual projects, including market conditions.

Some programs are aimed primarily at stimulating new housing investment, and others are aimed primarily at providing housing for lower-income households. Therefore, benefits can be measured either in terms of all stock changes (i.e., in terms of total units added, saved, and upgraded) or as that portion of stock changes benefiting lower-income households (i.e., only those units subsequently affordable to and occupied by lower-income households). Both approaches to measuring benefits will be used in making comparisons across programs or approaches.

Because rehabilitation subsidies and rent subsidies are frequently used in conjunction with one another in rental rehabilitation, they must be added together in order to establish the total cost, to the public, of a given project or program. At the same time, it is possible to isolate that portion of the public cost that is a stimulus to the rehabilitation and to establish why some rehabilitation projects cost the public more than others.

Ratios of benefit to cost provide an indication of the relative productivity of different rental rehabilitation efforts. Because both benefits and costs can appropriately be viewed from more than one perspective, several ratios are needed to fully characterize the differences in productivity among programs or approaches. Interpreting variations in productivity involves distinguishing the influences of program design and administration, on the one hand, from the inherent difficulty of the projects undertaken, on the other hand. A major result of such analyses will be a better understanding of what approaches to rental rehabilitation work best, under given conditions, to achieve a desired result.

Chapter 3

VARYING APPROACHES AND MARKETS

Communities make choices in designing and implementing their rental rehabilitation programs -- choices based on their assessments of local circumstances, including market conditions, the housing needs of particular population groups, the nature of their rental stock and the role that rental rehabilitation is to play in an overall community development strategy. The approach that a community takes to rental rehabilitation may also result from idiosyncratic factors, such as initial experience with a certain financing technique or rehabilitation of a certain property type.

For all of these reasons, approaches to rental rehabilitation vary widely among, and sometimes within, the 18 study communities. This chapter describes some of the major variations in approach; looking, first, at the kinds of properties being rehabilitated with public subsidies and the varying levels of rehabilitation investment they receive; second, at how the choice of rehabilitation approach is related to market conditions at both the community and neighborhood levels; and, third, at what kinds of households are affected by the rehabilitation, who moves into and from the rehabilitated properties, and how rehabilitation and rent assistance, together, affect their housing costs.

Contrasting Approaches

In some cities, an array of complementary rehabilitation approaches is used to address an array of situations and needs. However, in eleven of the 18 communities, there is evidence of a decision -- conscious or otherwise -- to specialize either in the rehabilitation of mostly habitable properties or in the rehabilitation of mostly uninhabitable properties. Six communities rehabilitate mostly habitable units; five localities rehabilitate mostly uninhabitable units; and, seven select a mix of habitable and uninhabitable properties. 1/

The specializing communities typically employ all of the Federal programs in similar fashion, as indicated in Exhibit 3.1. The differences in constraints and opportunities among the four national program types are not sufficient, generally, to force a city to use them very differently. Instead, it is apparent that some communities select -- either implicitly or explicitly -- a basic approach to rehabilitation and then tend to use all, or most, available national programs to carry out that approach. Pittsburgh, for instance, has chosen to invest in the substantial rehabilitation of small, mostly uninhabitable, properties. It has used all four national program types -- the Rental Rehabilitation Demonstration, Section 312, a locally-designed CDBG-funded

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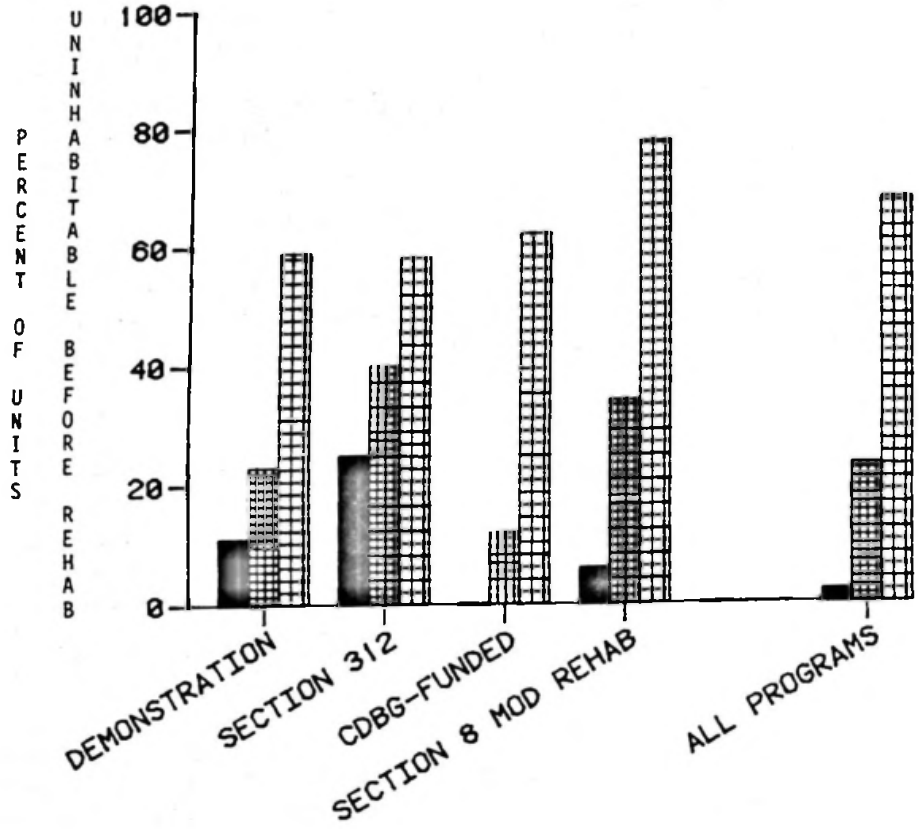
1/ In all three types of community, the majority of selected properties were built prior to 1940.

EXHIBIT 3.1

COMPARISON OF PRE-REHAB HABITABILITY OF UNITS REHABILITATED IN THREE GROUPS OF COMMUNITIES, BY PROGRAM



PROGRAMS OPERATING IN 6 LOCALITIES REHABILITATING MOSTLY HABITABLE PROPERTIES

PROGRAMS OPERATING IN 7 LOCALITIES REHABILITATING A MIX OF PROPERTY TYPES

PROGRAMS OPERATING IN 5 LOCALITIES REHABILITATING MOSTLY UNINHABITABLE PROPERTIES

program, and Section 8 Moderate Rehabilitation -- to carry out its selected approach. In contrast, Springfield's approach is to spend more moderate amounts on medium-sized, mostly habitable buildings -- and each of the national program types is used in this manner. The result is that, in several key aspects, such as the condition and size of the properties selected and the average extent of the rehabilitation expenditure, Section 312 projects in Springfield resemble other Springfield projects more than they resemble Pittsburgh Section 312 projects (see Table 3.1). 1/

The choice of what properties to rehabilitate has important implications for the outcomes of a rehabilitation effort -- both its benefits and its costs. Rehabilitation of occupied, habitable properties implies: lower per-unit costs; the potential to rehabilitate more units with a fixed amount of public funds; relatively modest upgrading of substandard units that often would have remained in the stock without immediate rehabilitation; smaller increases in debt service, thus requiring smaller rent increases to maintain positive cash flow; but, still the potential for displacing some occupants due to the rehabilitation process or subsequent rent increases. The rehabilitation of vacant, uninhabitable properties, on the other hand, implies higher per-unit rehabilitation costs; the rehabilitation of fewer units with a fixed sum of public funds; expansion of the rental stock either by returning abandoned units or preventing the imminent loss of severely inadequate units; and no possibility of displacing anyone.

Pittsburgh and Springfield are two cities that have specialized in rehabilitating very different property types, although both are moderate rental markets as measured by rent levels, vacancy rates, and other market indicators. Springfield has chosen to concentrate its rehabilitation subsidies in three neighborhoods, selected because of concentrations of low-rent housing in need of rehabilitation and because both market values and rent levels appear likely to remain fairly stable. In these neighborhoods, low-income households are located primarily in 15- to 20-unit brick walk-up apartments. By and large, prior to rehabilitation, the selected properties were occupied but in need of moderate levels of investment to meet local housing standards. Few vacant, uninhabitable properties exist in the targeted neighborhoods.

Pittsburgh also concentrates its rehabilitation activity in a small number of neighborhoods, selected based on criteria similar to those used in Springfield. In Pittsburgh, however, the housing stock in the selected neighborhoods consists of smaller properties, typically with two to four units. These neighborhoods include both occupied and vacant properties in need of rehabilitation. The city has chosen to concentrate almost

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1/ The same holds true for the Demonstration and Section 8 Moderate Rehabilitation programs. That is, in terms of the specified aspects, Demonstration (or Section 8) projects in Springfield resemble other Springfield projects more than they resemble Pittsburgh Demonstration (or Section 8) projects.

TABLE 3.1

Comparison of Projects Rehabilitated in Pittsburgh and Springfield

Local Program	Condition of Project-- Percent Units Uninhabitable a/	Mean Size of Project-- No. Units a/	Level of Rehabilitation Expenditure a/
Pittsburgh:			
Demonstration (n=15)	57%	2.9	$19,680
Section 312 (n=4)	75	5.3	46,855
CDBG-Funded (n=5)	60	3.6	19,348
Section 8 Mod Rehab (n=5)	51	4.8	18,000
Springfield:			
Demonstration (n=4)	2%	16.0	$7,989
Section 312 (n=2)	34	16.0	7,752
Section 8 Mod Rehab (n=5)	6	17.0	11,065

a/ Weighted by units in project.

entirely on the rehabilitation of vacant, uninhabitable properties in order to increase the supply of low-income housing. One key mechanism Pittsburgh uses to discourage the rehabilitation of occupied structures is to require that the property owner bear the full administrative and financial costs of any displacement and relocation of households occasioned by the rehabilitation. The different types of properties selected in the two cities are a result both of differences in the housing stock and differences in program philosophy.

In the largest study communities -- New York and Los Angeles -- the scale and diversity of rental housing needs can only be met through an array of complementary programs. Three of these cities' programs -- all established over five years ago and maintaining high volumes of activity -- account for a majority of the rental rehabilitation projects undertaken since 1980 in the 18 communities. Because of their scale and other distinctive features, they deserve separate attention.

New York's high volume Article 8A program is designed to support repair or replacement of major systems in buildings with eight or more units, occupied by low- and moderate-income tenants, and located in CDBG target neighborhoods. Loans of up to $5,000 per unit are provided from CDBG funds, at three percent interest, for terms of up to 20 years. Also, tax abatement for eligible rehabilitation expenditures is usually available through the City's J-51 program. 1/ Although public funds typically cover 80 to 85 percent of the rehabilitation expense, the City recently has used its 8A loans to leverage matching private contributions in cases where a mix of public below-market and private market-rate financing is feasible. Section 8 certificates, available in limited quantity, may be used to aid eligible lower-income households. Property owners may apply to the appropriate regulatory board for rent increases following the rehabilitation. However, rent increases based on the rehabilitation expense tend to be small.

New York City's large Section 312 program is directed at smaller -- one to seven unit -- buildings not aided by other city programs. Over 90 percent of these funds have gone to buildings with fewer than five units. Rents must remain affordable, after rehabilitation, to residents of the project neighborhood. Buildings in widely varying condition have been selected, resulting in widely varying per-unit rehabilitation costs. Loan amounts generally range between $10,000 and $20,000 per unit. Section 8 certificates, as available, may be given to eligible households.

In Los Angeles, the high volume H.O.M.E. program provides CDBG funds for moderate or light rehabilitation of buildings with up to five units, one of which is occupied by the property owner. Most aided structures have one or two units. 2/ Sixty percent of the projects receive deferred payment loans at zero percent interest for five years, after which the owner can opt for renewal or repayment. The remainder receive loans at 10 percent interest for 20 year terms. The maximum allowable rehabilitation cost is $20,000 per unit; and the public share of this cost is typically 20 percent. The program is used in lower-income neighborhoods where single-family homes predominate.

In contrast to these high volume programs, most of the local programs analyzed in this report handle only a relatively small number of projects each year. The flow of activity thus tends to be erratic; and experience is accumulated much more slowly. Often, success or failure depends on the efforts and skills of one or two persons. The statistical analyses reported in this and the following chapters are based on data for the lower-volume local programs (73 of the 76) that are more typical of rental rehabilitation experience in these and other communities.

1/ New York's J-51 law permits a 12 year exemption from any increase in assessed valuation resulting from alterations certified as being of reasonable cost. J-51 also permits an abatement of property taxes equaling up to 90 percent of reasonable construction costs as determined by the administering agency.

2/ For purposes of this study, only properties with at least one renter-occupied unit are considered.

Properties Selected for Rehabilitation

So varied are the kinds of rental properties being rehabilitated with public subsidies that there really is no typical one. The most representative property chosen for rehabilitation, in these 18 communities, would be a structure with four one-bedroom units, over 40 years old, partially occupied, with major physical deficiencies, and with a market value of between $10,000 and $15,000 per unit. It would be owned by someone whose annual income is below $50,000 and whose primary occupation is not real estate. However, most of the properties examined depart from this profile in one or more ways. Some of the main variations are described below:

-- Units in project: Over one-half of the properties are small, with fewer than five units (for terminology, see Exhibit 3.2). The median is about four units; but the average is about 13 units, because a few projects involve over 100 units. About one-sixth of the projects receiving subsidies have more than 20 units. 1/

EXHIBIT 3.2

TERMINOLOGY: PROJECT SIZE

Small projects are those with one to four units, following rehabilitation.

Medium-sized projects are those with five to 20 units, following rehabilitation.

Large projects are those with 21 or more units, following rehabilitation.

-- Ownership: The typical small project is owned by a small operator -- defined as someone earning less than $50,000 annually and not primarily engaged in real estate. On the other hand, virtually no large projects are owned by small operators.

So, a community may find itself dealing either with an owner having very limited resources and experience or one with extensive real estate holdings and a very high income. The difference is often a function of project size. Differences among property owners imply different financial motivations and suggest the need for different administrative approaches to the two groups. When asked about their

1/ These large projects account for more than three-fourths of the rental units receiving rehabilitation subsidies in these communities.

major financial goal, a plurality of owners (43%) answered that they wanted a tax shelter. Thirty-two percent were most interested in a continuing stream of income from rents, and thirteen percent in capital appreciation. Goals were strongly correlated with economic status. Owners with yearly incomes of under $50,000 were seeking income; those with incomes over $100,000 wanted tax shelters. There does not appear to be any linkage overall between owner goals and the Federal programs used to support rehabilitation.

-- Unit sizes: Over 40 percent of all rehabilitated units are efficiencies or one-bedroon units. Thirty-six percent have two bedrooms, 15 percent have three bedrooms, and about seven percent have four or more bedrooms. Rental rehabilitation programs, therefore, aid relatively few larger households, even though these families have greater-than-average difficulty finding suitable housing in most communities. 1/

-- Ages: Most of the properties were built before 1930, and only about five percent were built in 1950 or later. The age of units being rehabilitated is largely a function of the age of a community's rental stock. For instance, all units rehabilitated in Allegheny County -- with a relatively old stock -- were built before 1940. In contrast, the few rental properties receiving rehabilitation assistance in Atlanta -- where the stock is newer -- were built after 1940.

-- Prior condition and market value: Viewed in terms of their pre-rehabilitation condition, the selected properties fall mainly into two distinct groups: one group of largely vacant, uninhabitable properties, most with very low market values; and a second group of mostly occupied, habitable buildings, usually with much higher market values. The prior condition of the properties selected for subsidy has strong implications for both the level of expenditure required to make units standard and the effects of the rehabilitation. 2/

Many of the variations described are illustrated in Exhibit 3.3.

Variations by national program type. When projects carried out under the four national program categories are compared, some differences emerge. For instance, the average Demonstration project is in better condition and

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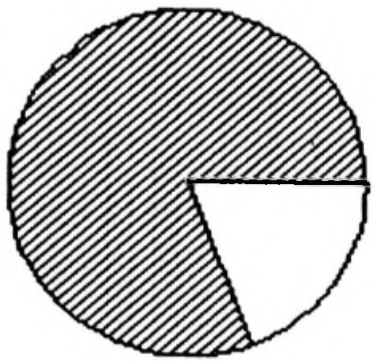
1/ Nationally, in metropolitan areas, 80 percent of the rental units have two or fewer bedrooms.

2/ One in five local programs limits participation based on the extent to which a property is occupied; five of 76 local programs require that a property be vacant prior to rehabilitation, one requires that a property be fully occupied, and nine specify that properties must be at least partially occupied before rehabilitation. Otherwise, there are few formal limits on property types.

EXHIBIT 3.3

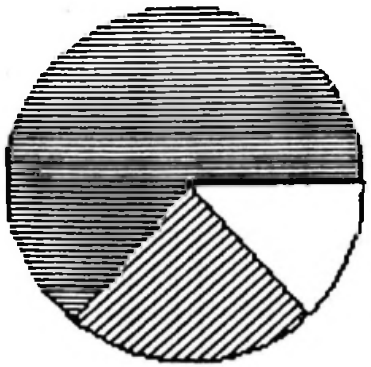
CHARACTERISTICS OF REHABILITATED PROPERTIES



81% Built Prior to 1940

19% Built in 1940 or Later

AGE OF BUILDING

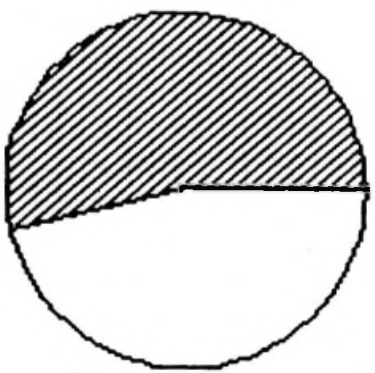


64% Small (1-4 units)

23% Medium (5-20 units)

13% Large (21 + units)

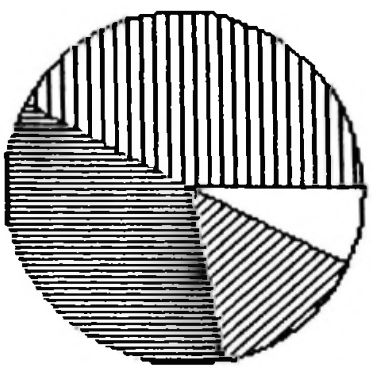
NUMBER OF UNITS IN PROJECT



54% Small Operator

46% Larger Scale Operator

OWNERSHIP OF PROJECT



42% 0-1 Bedroom units

36% 2 Bedroom units

15% 3 Bedroom units

7% 4+ Bedroom units

UNIT SIZES

more likely to be occupied than those rehabilitated under other national programs. However, variations in project characteristics within national program categories are more striking than variations across programs. 1/

Level of Rehabilitation Expenditure

The rehabilitation projects can be divided into three groups, based on the level of resources expended on the rehabilitation: those involving light rehabilitation (where the cost per unit, including public and private contributions, is less than $5,000 adjusted for regional construction cost variations and differences in unit sizes), those receiving a moderate level of rehabilitation (where the rehab cost is between $5,000 and $15,000 adjusted), and those where substantial rehabilitation is undertaken (the cost per unit exceeds $15,000 adjusted). (See Exhibit 3.4.)

EXHIBIT 3.4

TERMINOLOGY: LEVEL OF REHABILITATION EXPENDITURE

The actual dollar cost of rehabilitation has been adjusted, for this study, to obtain the level of resources expended on rehabilitation. Adjustments have been made to standardize the dollar cost with respect to unit size and local construction costs. The standard of comparison is the cost of rehabilitation of a two-bedroom unit in a community where construction costs are exactly at the national average. If, for example, $10,000 per unit was actually spent on rehabilitating a property, in Louisville, containing only one-bedroom units, the adjusted level of resources expended for the project would be more than $10,000 per unit, for the following reasons: (a) construction costs in Louisville are less than the national average, and thus each dollar spent in Louisville represents more resources expended than a dollar spent in an average community; and (b) adjusting for the smaller unit sizes (one-bedroom units rather than two-bedroom units) also raises the adjusted level above the actual dollar cost. On average, adjusted costs per unit are slightly lower than actual costs. The following three categories are used:

Light rehab: the adjusted cost of rehabilitation is less than $5,000 per unit.

Moderate rehab: the adjusted cost of rehabilitation is between $5,000 and $15,000 per unit.

Substantial rehab: the adjusted cost of rehabilitation is more than $15,000 per unit.

1/ See Appendix E, Table III-1.

To describe a property as "rehabilitated" does not indicate the magnitude of the renovation accomplished. In some cases, rehabilitation means that a few hundred dollars worth of minor repairs were made. At the other extreme, rehabilitation can mean replacement of the plumbing, heating, and electrical systems as well as the roof, doors, and windows. Rehabilitation means, in some cases, providing just enough improvement to pass local housing code inspection while, in other cases, providing a much higher level of amenity.

Although the resources devoted to rehabilitation are measured in terms of dollars spent per rehabilitated unit, this is an imperfect measure because of variations in: (1) local construction costs; (2) sizes of units being rehabilitated; and (3) the degree of improvement achieved with a given level of expenditure, related to such things as construction firm efficiency and the difficulty of the rehabilitation task. The level of resources expended on rehabilitation has been adjusted, in this study, to eliminate variations due to both the size of units being rehabilitated and local construction costs. The adjusted measure permits comparison of properties of varied unit configurations rehabilitated in relatively low-cost areas with those rehabilitated in relatively high-cost areas. This measure of resources expended is not, however, a measure of the amount of improvement in housing quality achieved.

The average level of resources expended on rehabilitation varies with the national program being used (see Exhibit 3.5). The per-unit expenditure level is about twice as high for Section 312 projects as in any of the other program types. Typically, Section 312 is used for substantial rehabilitation, while the typical project carried out under the Demonstration or Section 8 Moderate Rehabilitation involves a moderate commitment of resources. Within each national program, there is wide variation around these norms. 1/

A moderate rehabilitation investment (i.e., about $10,000 per unit) is made in the typical project; but projects vary greatly -- from about eight percent where costs are less than $2,000 per unit to about eleven percent where the cost of rehabilitation is more than $30,000 per unit. Thirty-four percent of the units rehabilitated since 1980 in these communities involved light rehabilitation expenditure, 23 percent a moderate level of investment, and 43 percent a substantial expenditure, using adjusted dollar categories.

The level of resources expended on rehabilitation is closely related to a property's pre-rehab condition and occupancy level. Properties receiving only light rehabilitation typically are fully habitable and occupied before

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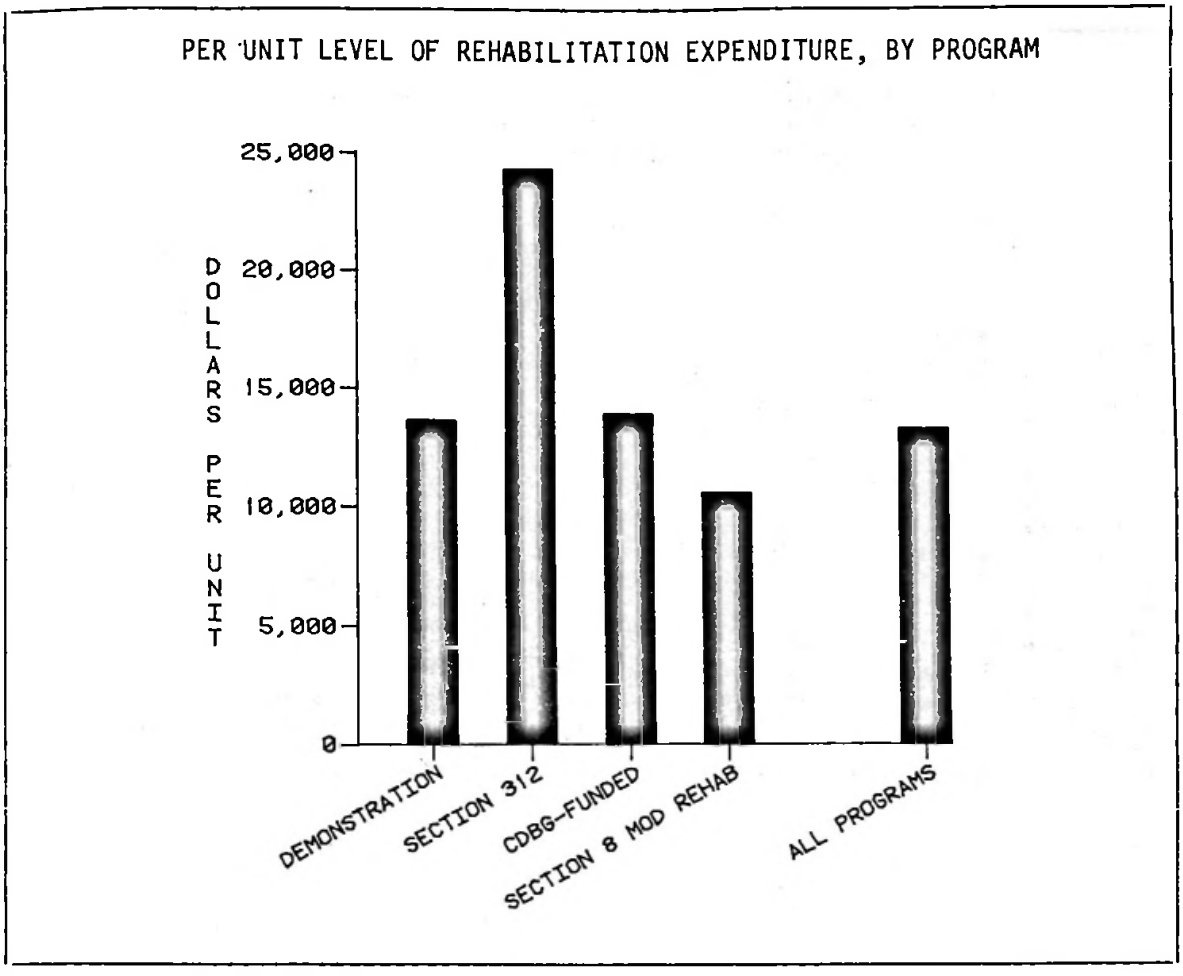
1/ Communities participating in the second round of the Rental Rehabilitation Demonstration, which began in August, 1982, had, on average, selected seven projects but had completed between one and two projects when contacted by telephone in December, 1983. The average project contained between four and five units and was rehabilitated at a cost of $5,600 per unit, of which the public share was between 25 and 30 percent.

EXHIBIT 3.5



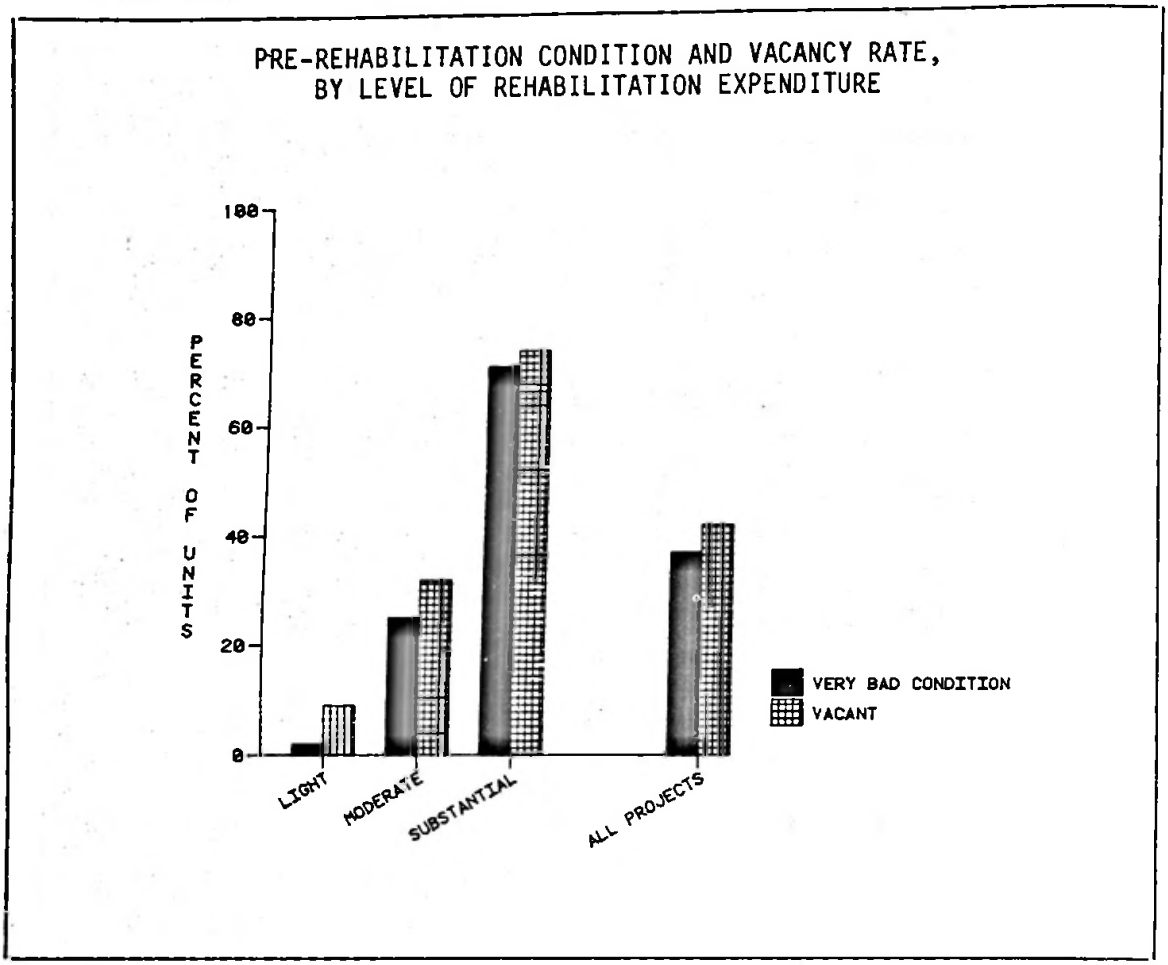
rehabilitation. In projects where substantial rehabilitation is carried out, 70 percent of the units, on average, are vacant and/or uninhabitable prior to rehab (see Exhibit 3.6). The majority of the rehabilitation spending in a typical project is directed at correcting local code violations, and about one-half of the expenditure goes toward repair or replacement of major systems. 1/

Market Conditions: Communities

Programs that work well in one type of market may work poorly in another. For example, in markets characterized by disinvestment and abandonment, heavy public subsidies may be needed to induce rehabilitation of privately-owned rental properties; in such markets, there is also a significant risk

1/ See Appendix E, Tables III-2 and III-3.

EXHIBIT 3.6



that the resulting physical improvements will be lost prematurely due to inadequate rental income, high maintenance and repair costs, or other market-related problems. On the other hand, in markets with low vacancy rates and rapidly rising rents, lighter public subsidies may be effective in inducing rehabilitation; but greater caution is needed to avoid subsidizing rehabilitation that would occur anyway and to avoid loss of benefits due to rent increases following rehabilitation.

The 18 study communities represent a wide range of rental market conditions. Using various indicators of market strength, five of the 18 are strong rental markets, characterized by high household incomes, high rents, and low rental vacancy rates. Four are weak markets, characterized by relatively low incomes, low rents, and high vacancy rates. The other nine

communities are moderate markets (see Exhibit 3.7). 1/

Within each of the three rental market types there is a mix of larger and smaller communities in different regions. Ann Arbor and Los Angeles, for example, are both communities in which the rental housing market is especially strong, as characterized by high incomes, high rents, and low vacancy rates. Central Falls and St. Louis, on the other hand, are examples of particularly weak rental markets, with low incomes, low rents, and high vacancy rates.

EXHIBIT 3.7

EIGHTEEN STUDY COMMUNITIES CLASSIFIED BY RELATIVE STRENGTH OF THEIR RENTAL HOUSING MARKETS

Strong	Moderate	Weak
Ann Arbor, MI	Allegheny Co, PA	Atlanta, GA
Los Angeles, CA	Bremerton, WA	Central Falls, RI
Madison, WI	Chattanooga, TN	Louisville, KY
New Rochelle, NY	Fort Wayne, IN	St. Louis, MO
Portland, OR	Kansas City, MO	
	New York, NY	
	Pittsburgh, PA	
	Springfield, MA	
	Wilmington, DE	

Market conditions, at the community level, appear to play some role in the previously-noted decisions by some communities to specialize in one type of property or another. Among the study communities, there is a tendency for communities with stronger rental markets to concentrate on rehabilitation of habitable properties and those with weaker markets to select mostly uninhabitable properties. This is counter to what might be expected given the

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1/ Classifications are based on eight indicators of market strength: median income, percent of housing that is renter-occupied, percentage change in the number of households from 1970 to 1980, percent of rental housing units built before 1940, median contract rent, ratio of the community's median contract rent to its metropolitan area contract rent, rental vacancy rate, and the net difference between community and metropolitan area rental vacancy rates. These measures were drawn, for central cities and their SMSAs, from the 1970 and 1980 U.S. Census of population and housing. See Appendix C for a description of the methodology used to develop this typology.

needs of each group of communities. Based on need only, logic would suggest increasing the supply of rental housing in markets where shortages are driving up rents and limiting the choices for lower-income households, and concentrating on improved quality in markets where inadequate demand and limited cash flow are accelerating deterioration and abandonment.

However, there can be sound reasons why a locality would not follow this logic. For example, one study community with a weak rental market specializes in substantial rehabilitation of mostly uninhabitable properties. In part, this is due to the character of its housing stock, which is old, deteriorating, with a high abandonment rate in the central city area. The city's primary goal is to revitalize selected neighborhoods. It uses a combination of grants and loans to support rehabilitation, and estimates that it spends about $30-40,000 per unit. In some instances, it has subsidized rehabilitation where rents will be above the FMR in order to encourage neighborhood rejuvenation.

Another study community has a strong market for rental units and subsidizes rehabilitation of mostly habitable properties. A substantial proportion of the community's rental units are in need of repair, but the high demand for rental housing assures they will continue to be rented without major renovation. Recent strengthening of the city's energy code has increased owners' incentives to rehabilitate their properties. In addition, strong neighborhood organizations are pressuring for improvements in their neighborhoods. Now, despite a loosening of the market, as evidenced by an increase in the rental vacancy rate, there has been increased owner interest in rental rehabilitation. Although one might expect a strong market community to concentrate on increasing the rental supply by rehabilitating vacant structures, this community has chosen to concentrate on occupied structures requiring only light-to-moderate rehabilitation.

One study community where the expected logic prevails is Central Falls, Rhode Island. In this economically depressed city, most housing was built around the turn of the century. Over 20 percent of all housing units are substandard, and the rental vacancy rate is high (over 10 percent). Rental rehabilitation subsidies are being used mainly for moderate upgrading of deteriorated but still habitable three- and four-story wood walkups. Local lenders have been reluctant to finance substantial rehabilitation in a market where demand is weak due to unemployment and declining population. However, they have been willing to finance low-cost rehabilitation in cases where the city subsidizes up to 30 percent of the total. Aggressive outreach by city staff has persuaded property owners to undertake subsidized rehabilitation in the face of discouraging market trends. Combined use of rehabilitation and rent subsidies has helped to improve housing conditions for many elderly renters and to increase the supply of affordable, standard units for larger, low-income families.

While market conditions are probably important in choosing the kinds of properties to be rehabilitated, they do not appear to be overriding -- as demonstrated when each of the 18 communities is classified by both

property type specialization and market condition (see Exhibit 3.8). 1/

EXHIBIT 3.8

EIGHTEEN STUDY COMMUNITIES CLASSIFIED BY MARKET STRENGTH AND COMMUNITY'S PROPERTY TYPE SPECIALIZATION

Community's Market Strength	Community's Property Type Specialization: Rehabilitating Mostly Habitable Properties	Rehabilitating a Mix of Property Types	Rehabilitating Mostly Uninhabitable Properties
Strong	Los Angeles Madison New Rochelle	Ann Arbor Portland	- None -
Moderate	Bremerton Springfield	Chattanooga Fort Wayne Kansas City New York City Wilmington	Allegheny County Pittsburgh
Weak	Central Falls	- None -	Atlanta Louisville St. Louis

Range of community market conditions. The following statistics 2/ show the range of market conditions in the 18 study communities:

-- Incomes: Median household incomes (1979 income, from the 1980 Census) range from $20,906 in New Rochelle and $18,316 in Ann Arbor to $11,296 in Atlanta and $10,524 in Central Falls.

-- Rents: Median rents (from the 1980 Census) range from a high of $285 in Ann Arbor to a low of $115 in St. Louis. Only five of the 18 communities have median rents higher than their metropolitan areas. In Atlanta, St. Louis, and Wilmington, median rents for the city are more than 25 percent below those for their metropolitan areas.

1/ See Appendix E, Tables III-4 and III-5.

2/ See Appendix E, Table III-6.

-- Vacancy Rates: As of the 1980 Census, rental vacancy rates varied widely, ranging from 1.2 percent in New Rochelle to over 10 percent in Kansas City and Central Falls. Vacancy rates can fluctuate fairly rapidly. However, where more recent vacancy rate estimates are available for the study communities, they generally show the same relative pattern as in 1980. 1/

It is also important to examine rental vacancy rates in the context of an entire metropolitan area in order to gauge how competitive a city's rental market is in comparison with the overall metropolitan market. Only two cities (Ann Arbor and New Rochelle) had vacancy rates substantially lower than their metropolitan areas.

Other aspects of the rental housing market that may influence the need for and cost-effectiveness of public rental rehabilitation subsidies include changes in the number and sizes of households and characteristics of the rental stock, such as stucture size and age. Although many of the study communities lost population between 1970 and 1980, only one-third had fewer households at the end of the decade. 2/ This reflects the national trend toward smaller households. In some study communities, substantial increases in numbers of households contributed to stronger rental markets.

Most of the rental stock is over 40 years old in four of the 18 study communities -- Pittsburgh, Springfield, St. Louis, and Central Falls; but in Ann Arbor, Bremerton, and Atlanta less than one-fifth of the rental stock is this old. Since older housing is more likely to need repair, 3/ the communities that have an older stock typically have more properties in need of rehabilitation, including larger numbers of historically significant structures.

1/ One drawback of the rental vacancy rate as an indicator of market strength is that it does not measure how long units have been vacant. It is reasonable to expect that, in weaker rental markets, units will remain vacant for longer periods of time than in stronger markets. This relationship holds generally across the 18 study communities; that is, localities with stronger rental housing markets tended to have smaller proportions of long-term (six or more months) vacancies. In five cities (Ann Arbor, Los Angeles, Madison, Portland, and Bremerton), fewer than 10 percent of all rental vacancies were for six months or longer. In Pittsburgh and Wilmington, on the other hand, more than 30 percent of rental vacancies were for a duration of six months or more.

2/ Only two of the 18 communities (Pittsburgh and St. Louis) experienced declines of more than five percent in the number of households.

3/ Analysis of data from the 1981 Annual Housing Survey supports the notion that older units are more likely to be in need of repair. In central cities, three-fourths of all housing units are classified as adequate on a multi-dimensional index of housing quality. However, only two-thirds of the housing units at least 40 years old are classified as adequate.

Market Conditions: Neighborhoods

Communities also must choose whether to target their rehabilitation efforts to particular neighborhoods or not; and, if so, what market conditions are considered acceptable. This decision can be crucial in determining low-income benefits where rents are not regulated either internally to the rehabilitation program (as in Section 8 Moderate Rehabilitation) or by local legislation and where not all lower-income tenants receive subsidy.

In these 18 communities, the overwhelming proportion of subsidized rental rehabilitation projects are located in neighborhoods where income and rent levels are below the average for their jurisdictions. 1/ While a few projects are located in relatively well-off neighborhoods and a slightly larger proportion in neighborhoods that are among the worst in their jurisdictions, the majority of rental rehabilitation activity takes place in neighborhoods where incomes average about $4,000 less than the community median income and monthly rents average about $30 less than the overall community-wide median contract rent. These neighborhoods could be characterized as below average but usually not the worst in their communities.

In one study community that subsidizes rehabilitation of both habitable and uninhabitable rental properties, the primary goal is to stabilize neighborhoods threatened with decline. The Demonstration and Section 312 are viewed as more useful than other programs for revitalizing neighborhoods; expenditures on neighborhood improvements are 75 percent greater than in other parts of the city. In 1983, the Demonstration was being used there to "finish off" the buildings not previously rehabilitated either privately or under other public programs. The city uses its rehabilitation subsidy, in part, to ensure that rents in the rehabilitated properties will go no higher than the median rent in the neighborhood.

Another study community targets both low-income neighborhoods and low-income households in order to produce affordable housing. Ninety percent of its subsidized housing activity is in neighborhoods with the largest concentration of low-income population and the worst housing stock in the city; these neighborhoods have been receiving above average public investment. Priority is given to projects where 100 percent of the tenants are eligible for Section 8 certificates and there is no threat of relocation.

1/ The rental rehabilitation projects for which data were collected are located in 199 different Census tracts. Tract level Census data are one of the few national sources of information about housing conditions at the neighborhood level. The terms neighborhood and Census tract are used interchangeably throughout this report. For each tract, the relative strength of its rental housing market has been estimated based on three indicators: median income, median rent, and rental vacancy rate. (See Appendix C for further discussion of the method used.) Of the 199 tracts, only eight are better off than their respective communities on all three indicators used in the neighborhood market classification; about one-third are worse off than their respective jurisdictions on all three measures.

Although most subsidized rental rehabilitation is in fairly modest neighborhoods, there are significant variations 1/, as summarized below:

-- Median income: Overall, 13 percent of the rental rehabilitation projects are located in Census tracts where the median income is greater than the jurisdiction median; a similar proportion (11 percent) are located in tracts where median income is less than 50 percent of the community median.

-- Median contract rent: About one-fourth of all rehabilitation projects are located in tracts where the median rent is less than 80 percent of the jurisdiction's median; one-fourth of the properties rehabilitated are in areas where the median rent exceeds the jurisdiction median.

-- Rental vacancy rate: Less than 10 percent of all projects are in tracts where the rental vacancy rate is less than one-half of the community average rate; about one-fifth of all projects are in areas where the vacancy rate is at least 50 percent higher than the community-wide rate.

-- Minority areas: Overall, about one-fifth of all projects are in tracts where the proportion of the population that is non-white is less than one-half the jurisdiction's average; about one-third of all projects are in areas where the minority population is at least 50 percent greater than the community-wide percentage.

-- Aged housing: Nearly one-half (41 percent) of all rehabilitated properties are located in tracts with a relatively high concentration of rental housing units built before 1940; only a very few projects are located in areas where the proportion of rental housing built before 1940 is less than one-half the community-wide rate.

Some neighborhoods where communities are subsidizing rehabilitation are relatively strong rental markets. For instance, the Tandy neighborhood in the north-central section of St. Louis is a strong neighborhood market rich in historic landmarks. Although the area's population declined by 20 percent between 1970 and 1980, this was a much smaller decline than the city as a whole experienced. The neighborhood is populated primarily by moderate and middle-income households; the vast majority of low-income households in the area are elderly. About one-half of the neighborhood's housing is rental. The vacancy rate is low, and there are very few vacant buildings. A substantial amount of housing rehabilitation is taking place, with much of this being assisted through Section 8 Moderate Rehabilitation,

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1/ See Apppendix E, Table III-7.

Section 312, and CDBG-funded rehabilitation programs. According to local market experts, neighborhood rents have kept pace with the city trend over the past five years and are expected to increase at about the same rate as the rest of the city over the next five years.

Among the neighborhoods with subsidized rehabilitation projects, trends in rent levels tend to follow other indicators of market strength. Between 1970 and 1980, neighborhoods with stronger rental markets were more likely to experience rent increases relative to the community-wide average than were neighborhoods with weaker rental markets. Conversely, during the 1970s, weaker neighborhoods were more likely than others to experience declines in the ratio of their rent levels to the community average.

An example of a weak neighborhood market where rehabilitation subsidies are being used is the Phoenix Hill neighborhood located east of Louisville's downtown. It contains a number of commercial and light industrial properties and also includes many of the city's public housing units. Many local market experts refer to this area as the city's "bombed out" neighborhood because of the large number of abandoned and boarded-up buildings and a relatively high demolition rate. Although the neighborhood has been designated a CDBG target area, allocations have been used primarily either for demolition and clearance or to modernize public housing. Many investors have expressed interest in the area's potential for development but have been cautious about making commitments until they have a better feel for the direction in which the neighborhood is going.

Neighborhoods where markets are strengthening. The potential conflict between providing low-income housing and stimulating the revitalization of neighborhoods is greatest in traditionally weak neighborhoods that have recently begun to experience upward pressure on rents due to market forces.

About one-fourth of the Census tracts where subsidized rehabilitation projects are located are in neighborhoods that local market experts expect to experience rent increases greater than the jurisdiction average over the next five years. About one-half of these are in relatively weak or very weak neighborhood rental markets, as measured by 1980 Census data. 1/

The Old Louisville neighborhood in Louisville is an example of a weak rental market neighborhood expected to have greater than average rent increases over the next five years and currently one target of that city's rental rehabilitation efforts. Old Louisville's housing stock is a mixture of wood frame and brick and includes a number of certified historic structures. Some of the large old homes in the area remain vacant and boarded-up; but, in the last few years, much privately-funded rehabilitation (of both single and multi-family housing) has taken place here. Most of the area's single-family housing has been rehabilitated. Old Louisville has also received an above-average share of public and private investment over the past five years. Six of the city's nine Rental Rehabilitation Demonstration projects and two of its three Section 312 projects are located here. The neighborhood

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1/ See Appendix E, Table III-8.

has been a target area for the city's Section 8 Substantial Rehabilitation program. It has received an above-average share of Community Development Block Grant funds. Despite signs of an improving rental market, some rehabilitated properties have been difficult to rent because they are adjacent to or near boarded-up structures. Many of the vacant properties are being held by investors for speculation. The neighborhood has experienced a decline in the proportion of owner-occupied housing, as many properties too large to be renovated as single-family homes have been converted, with renovation, into multifamily rental units.

Substantial public investments may have helped encourage upward pressure on rents in improving neighborhoods such as Old Louisville. Although once considered very weak rental markets, they now have begun to show signs of increasing market strength, such that public subsidies may no longer be needed to stimulate rehabilitation. On the other hand, many low-income tenants may be displaced as areas such as these respond to market pressures that encourage sharply rising rents -- unless rent subsidies provided in tandem with rehabilitation assistance allow tenants to remain in their buildings following rehabilitation.

Households and Housing Costs

The outcomes of a rental rehabilitation program can differ greatly depending on whether the buildings selected were occupied prior to rehabilitation and, if occupied, whether by lower-income people or not. Rehabilitation of occupied units carries with it the potential for displacement and perhaps the replacement of one type of household with another. The outcomes of rehabilitation efforts also depend on who occupies the rehabilitated units, what rents are charged for the units, and whether housing costs (rents plus tenant-paid utilities) are affordable to lower-income occupants. Rehabilitation that leads to high rents may not benefit lower-income households, unless they receive rent subsidies. Although some lower-income households may remain in unsubsidized units, they may devote an excessive portion of their income to housing costs. 1/ Others may be forced to move to more affordable housing.

Characteristics of pre-rehabilitation occupants. Just over one-half of all properties rehabilitated with public subsidies in the 18 study communities had been totally or predominantly occupied when selected; the others were predominantly or completely vacant. Of all the rental units, 57 percent were occupied before rehabilitation.

More than three-fourths of the households living in projects prior to their rehabilitation were reported by local officials or property owners to have had incomes below 80 percent of the local median household income. This varies slightly across the four national programs. Virtually all prior

1/ Households that pay more than 30 percent of income for rent and utilities are regarded as burdened.

occupants of properties selected for Section 8 Moderate Rehabilitation subsidies had low incomes, while in the other three programs, over 80 percent of all pre-rehab occupants had low incomes.

Movement associated with the rehabilitation. About one in ten households living in properties selected for rehabilitation moved in connection with the rehabilitation. Some but not all of these moves can be regarded as displacement produced either by the rehabilitation process itself or by rent increases following the rehabilitation. 1/ The highest proportion of out-movers is found in projects rehabilitated under Section 312, where 33 percent of the pre-rehab occupants move out. This higher rate of outmovement is probably due to the higher cost of rehabilitation in most Section 312 projects, with rents being raised substantially to repay these loans.

Households moving into the rehabilitated properties can be divided into two groups: those replacing households moving out and those occupying previously vacant or newly-created units. 2/ The replacing households occupy six percent of post-rehabilitation units; but the new occupants of previously-vacant or newly-created units account for 40 percent of all post-rehabilitation households. The balance (54 percent) are those prior tenants who remain in the same properties after rehabilitation. Consequently, differences between the profiles of pre- and post-rehabilitation tenants mainly reflect the characteristics of the large group of households moving into previously vacant or newly-created units. 3/

Characteristics of post-rehabilitation occupants. Overall, the resident profile of the properties does not change dramatically with rehabilitation. 4/ Although about 46 percent of post-rehabilitation tenants are new to their units, their characteristics are similar, as a group, to those of tenants who previously occupied their units. Thus, in the

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1/ The issues of outmovement and displacement are addressed in more detail in Chapter 4.

2/ Newly-created units are those produced by rehabilitating non-residential structures or by dividing larger residential units into smaller ones. In a few instances, the number of rental units is reduced during rehabilitation.

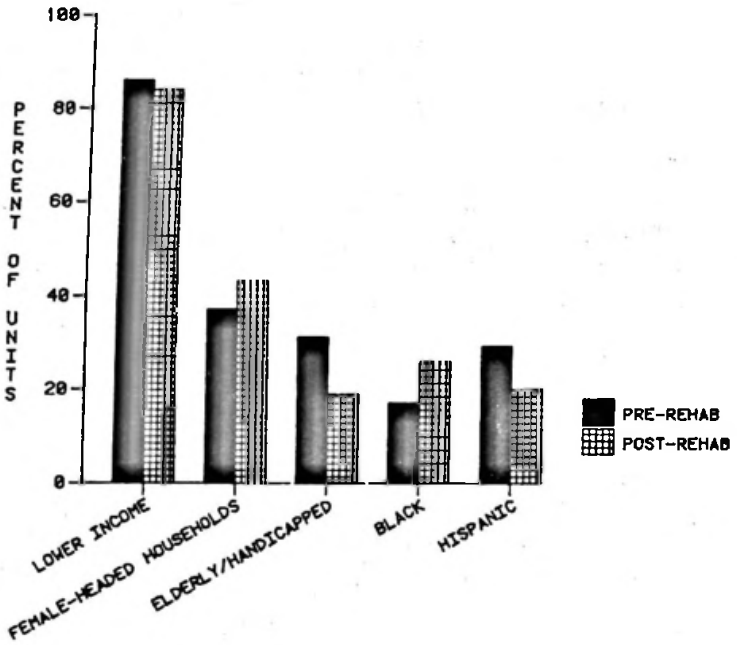
3/ Where timely rehabilitation prevents rental units from falling out of the stock, potential displacement is avoided. In Chapter 4, an estimate is made of the number of moves avoided because units at risk of imminent loss were rehabilitated instead.

4/ See Appendix E, Tables III-9 and III-10.

average project, the percentage of tenants who are lower-income is virtually the same after rehabilitation as the percentage in the average project occupied prior to rehabilitation. One exception is in the Section 312 program, where the average proportion of tenants who are lower-income drops from more than 80 percent to about one-half following rehabilitation; this change is mainly due to the higher incomes of those moving into previously vacant projects. (See Exhibit 3.9.)

EXHIBIT 3.9

HOUSEHOLD CHARACTERISTICS, PRE- AND POST-REHABILITATION FOR ALL PROJECTS a/



a/ Following rehabilitation all units are occupied; but prior to rehabilitation many units are vacant.

One other notable change in the profile of residents following rehabilitation is a decline in the average proportion of tenants who are elderly or handicapped. The average proportion of such households drops from about 30 percent to about 20 percent overall. This is not due to a decrease in the absolute numbers of elderly or handicapped tenants, but is accounted for by the small proportion of elderly and handicapped persons (six percent) among post-rehabilitation occupants of units that previously were vacant.

Although there are small changes, after rehabilitation, in the proportions of tenants who have certain characteristics, the major changes are sizeable increases in the numbers of households -- mainly lower-income people -- who now occupy standard units. These households occupy units that were vacant and uninhabitable (i.e., out of the stock), or had major physical deficiencies and very low rents (and were thus in danger of being lost from the stock very soon), or were less seriously substandard but have been upgraded. 1/ We may assume that many of those lower-income households are leaving substandard units elsewhere. Thus, after rehabilitation, many more lower-income households now occupy standard units than did so before.

Housing cost increases following rehabilitation. Although the tenant profiles of most previously-occupied properties change little following rehabilitation, contract rents -- and thus total housing costs paid by some tenants -- often increase substantially. 2/ Monthly housing costs in the average unit are about $360 after rehabilitation, compared to $280 in the average previously occupied unit prior to rehabilitation. However, these increased costs are usually absorbed by Federal subsidies, rather than paid for by tenants.

1/ A full analysis of changes in stock status resulting from the rehabilitation and how they vary is part of Chapter 4.

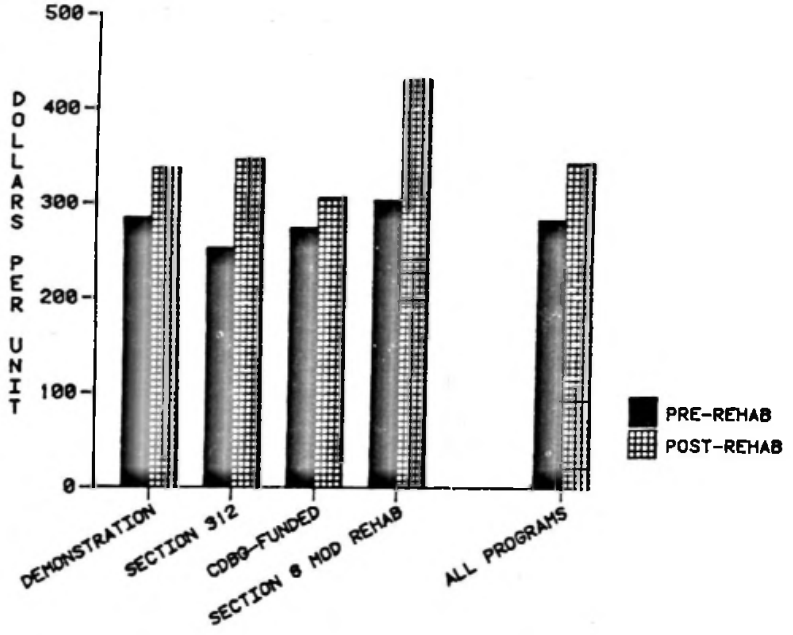
2/ Housing costs are expressed as the average monthly per-unit cost in each project. The housing costs of a renter household have two components: rents and utilities. Many renters pay their own utilities, while many others have utilities paid by the landlord. And, some tenants pay for some utilities (e.g., electricity), while the landlord pays for others. Among the sample projects, all three situations occur. In order to obtain reasonable comparability among all projects, monthly housing costs were estimated for each unit. The starting point is information on the monthly rent paid by the tenant, and on which utilities (i.e., heat, electric or both), are included in the tenants's rent. Where the tenant's rent does not include all utilities, an estimate of the average monthly cost of these utilities is made. This estimate is based on information from the 1981 Annual Housing Survey on the average cost of utilities paid by low- and moderate-rent level renter households paying for exactly the same utilities in the same size units in the same metropolitan area. For each unit, the utility estimate is added to the monthly rent to obtain the housing cost estimate for the unit.

This increase reflects both rent increases in previously occupied projects and relatively high rents set for units in previously vacant properties. In the average previously occupied property, housing costs are $340 after rehabilitation -- an increase of $60 or 21 percent. In previously vacant or nearly vacant properties, the monthly housing cost in an average project, after rehabilitation, is $378.

These cost increases reflect the increased marketability of the rehabilitated units, except where rents are set by formula -- as in the Section 8 Moderate Rehabilitation program. On average, the largest percentage increases in housing costs for previously-occupied properties occur in Section 8 projects (42 percent), and the smallest in CDBG-funded projects (12 percent) and the Demonstration (19 percent). (See Exhibit 3.10.) Rents are set in the Section 8 Moderate Rehabilitation program by a

EXHIBIT 3.10

MONTHLY HOUSING COST, PRE- AND POST-REHABILITATION, BY PROGRAM a/



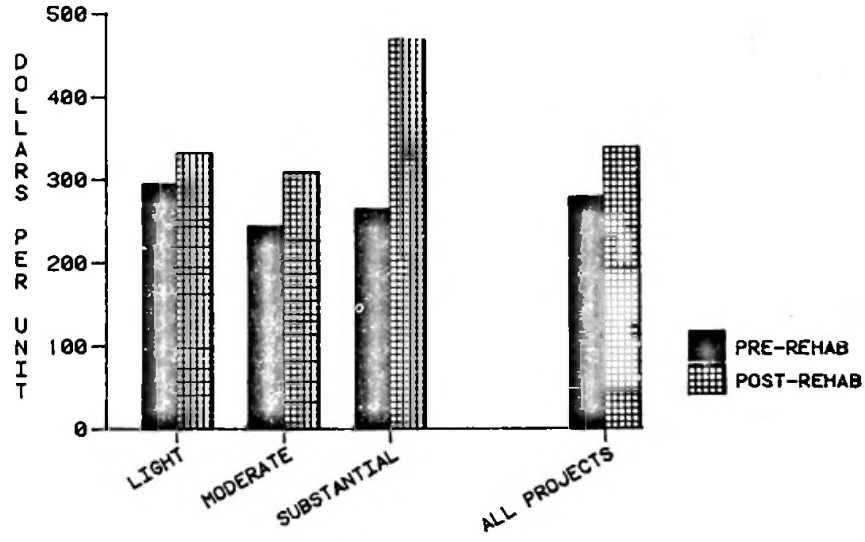
a/ This exhibit presents information on only those properties occupied both prior to and following rehabilitation.

cost-based formula and virtually guaranteed under a 15-year contract for rent subsidies. Rents in the Demonstration usually are not controlled or guaranteed; and owners must therefore calculate and charge rents that the market will bear. 1/

The largest housing cost increases after rehabilitation occur in projects receiving more substantial rehabilitation, as measured by dollars expended (see Exhibit 3.11). In the average substantially rehabilitated project, monthly housing costs increase by more than 50 percent -- rising from $265 to $470 in previously occupied properties and $384 in previously vacant properties. However, in lightly rehabilitated projects, housing

EXHIBIT 3.11

MONTHLY HOUSING COST, PRE- AND POST-REHABILITATION, BY LEVEL OF REHABILITATION EXPENDITURE a/



a/ This exhibit presents information on only those properties occupied both prior to and following rehabilitation.

1/ See Appendix, E, Table III-11.

costs increase only 13 percent in previously occupied properties -- from $295 to $333. 1/ In large projects (with more than 20 units), the average housing cost increase is 57 percent; but in small projects (with fewer than five units), the average increase is only 12 percent. Although large projects are more likely than small ones to involve substantial rehabilitation, this does not entirely account for the larger housing cost increases, after rehabilitation, in the former. 2/

Two approaches to helping lower-income households afford rehabilitated units. Most communities make some effort, at least, to make rehabilitated units affordable to lower-income households. There are two basic approaches to accomplishing this. One approach, embodied in the Section 8 Moderate Rehabilitation program but also possible under other Federal programs, is to make heavy use of Section 8 rent subsidies. The other approach combines careful selection of properties and neighborhoods and the use of rehabilitation subsidies to limit cost increases for rehabilitation debt service, in order to produce units that are within reach of lower-income households without resort to rent subsidies.

One large city where a majority of the housing stock is rental, but the market is weak, exemplifies reliance on Section 8 certificates to ensure that units remain affordable to lower-income households. The city supports both moderate and substantial rehabilitation, focusing on vacant units, and characterizes its use of the Demonstration as a leveraging approach; it has a formal arrangement with a local lending institution to make below-market rate loans for these projects. The city targets this program to three neighborhoods with significant amounts of past public investment and encourages owners to lease to new tenants with Section 8 certificates or to determine that all tenants of occupied buildings are eligible for Section 8 assistance. All but two of the units rehabilitated under the Demonstration in this city are affordably occupied by assisted tenants.

In contrast, one medium-sized city uses its rehabilitation program to provide additional affordable low-income housing with less reliance on Section 8 rent subsidies. In a moderate rental market it primarily provides funds for moderate rehabilitation of vacant buildings; three of its

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1/ See Appendix E, Table III-12.

2/ Although housing costs almost always increase, nearly one-half of the rehabilitated units subsequently have housing costs below 90 percent of the local Fair Market Rent (FMR) for units of similar size. Nine out of ten rehabilitated units have housing costs below 130 percent of the FMR, indicating that few luxury units are being created through subsidized rehabilitation in these communities. While substantially rehabilitated units are more likely to rent above 90 percent of the FMR than more moderately rehabilitated units, they are not more likely than others to rent above 130 percent of the FMR.

four target areas are CDBG Neighborhood Strategy Areas. The city limits the public share of total rehab costs to $4,000, approximately one-half the cost of the typical project. Since most rehabilitation is of vacant buildings, only a few of the 25 Section 8 certificates originally allocated for the Demonstration have been used. To create an incentive for owners to make greater use of Section 8, the principal on the city's rehabilitation loan need not be repaid so long as the owner abides by certain conditions, including willingness to rent to Section 8-eligible tenants. To avoid displacement from previously occupied units, the city requires that the owner either pay relocation costs or hold rents to no more than 30 percent of the tenant's income for two years. Although this is not a formal rent control measure, it does constrain rent levels and ensures at least an initial period of affordability.

Projects receiving rehabilitation subsidies in the 18 study communities can be divided into four groups based on the incomes of their occupants after rehabilitation, whether lower-income tenants are burdened by having to pay an excessive portion of income for housing, and whether lower-income tenants avoid excessive burdens by receiving Section 8 rent assistance or not. As shown in Exhibit 3.12, nearly one-half of the projects are predominantly occupied by assisted tenants. This includes almost all Section 8 Moderate Rehabilitation projects. 1/ Another 18 percent of the projects are predominantly lower-income occupied at rents that their tenants can afford without rent subsidies. The highest proportion of such projects (about 30 percent) is in properties that had been in relatively poor condition and received substantial rehabilitation; however, due to market conditions, their rents are relatively low, after rehabilitation, and thus affordable to lower-income households. Under each of the three national programs other than Section 8 Moderate Rehabilitation, about one in four projects produces a majority of affordable, unsubsidized, lower-income occupied units.

On the other hand, more than one-fourth of the subsidized projects are predominantly occupied after rehabilitation by lower-income households who must pay more than 30 percent of their income for rent and receive no rent assistance. 2/ The highest proportions of such projects are found in local

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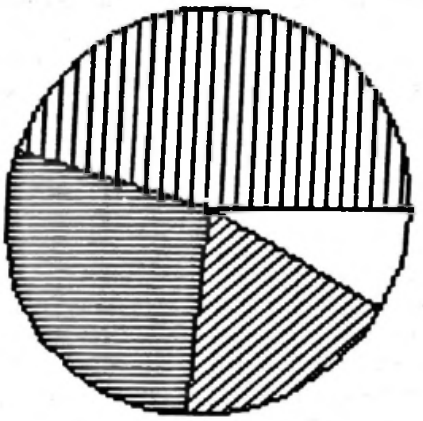
1/ Under other national programs, the proportions of projects which are predominantly occupied by Section 8-assisted tenants are, respectively: the Demonstration, 39 percent; Section 312, 17 percent; and CDBG-funded programs, 16 percent.

2/ This is based on an assumption that incomes of lower-income households in these projects are distributed in the same way as those of all metropolitan lower-income renter households in the nation. Using this assumption, the proportion of unassisted households in these projects who are burdened by excessive housing costs (62%) is very close to the proportion of all lower-income renters in the U.S. who were similarly burdened as of 1981 (60%).

EXHIBIT 3.12

PROJECTS CLASSIFIED BY HOUSEHOLD INCOME, HOUSING COST BURDEN, AND SECTION 8 ASSISTANCE



45%
Most lower-income occupants are assisted

29%
Most lower-income occupants are unassisted and bear excessive burden

18%
Most lower-income occupants are unassisted but not burdened

8%
Few or no lower-income occupants

CDBG-funded programs (50 percent), among lightly-rehabilitated properties (42 percent), and under a combination of strong community and neighborhood market conditions (60 percent). Under Section 312, one in three projects produces few or no lower-income occupied units.

Thus, the kinds of properties selected, the extent to which market conditions stimulate and permit higher rents, and the extent to which lower-income households are offered assistance all combine to determine whether a rehabilitation program results in more, fewer, or the same number of affordable, lower-income occupied units as before.

Conclusion

Considerable variation has been observed -- across places, programs, and projects -- in the kinds of properties being rehabilitated, in the level of rehabilitation expenditure, in market situations, in occupancy and

occupancy changes, and in housing cost increases. Such variety suggests that the benefits and costs of rental rehabilitation efforts are likely to be highly varied as well. The next chapter identifies those project characteristics that are most important in determining a project's or program's benefits -- both as a way to improve the rental stock and as a way to improve housing opportunities for lower-income people.

Chapter 4

THE BENEFITS OF RENTAL REHABILITATION

The nature and extent of the benefits produced by rehabilitating a rental unit depend on the unit's status (occupancy, condition, etc.) prior to rehabilitation, its condition after rehabilitation, what happens to households who were living there before rehabilitation, who lives there afterward, and what they pay to rent the unit.

Benefits vary greatly from one rehabilitation project to another. In some cases, rehabilitation involves minor upgrading of an already-occupied unit, the household remains after rehabilitation, and rents rise only slightly or not at all. In other cases, rehabilitation involves major repairs and system replacement, thus restoring to standard condition units that are seriously deficient or even uninhabitable, and may lead to rents much higher than those charged prior to rehabilitation. Rent increases may or may not place these units out of reach of lower-income households, depending partly on whether Section 8 rent assistance is available to these tenants.

Estimating the benefits produced by rental rehabilitation involves three steps: (a) noting changes in the status of units produced by rehabilitation; (b) examining changes in occupancy attributable to rehabilitation; and (c) noting the extent to which lower-income households occupy rehabilitated units and how many of these are paying rents they can afford, either because the rents are low enough relative to their incomes or because they are receiving public rent assistance. At each step, it is also useful to examine how the effects of rental rehabilitation vary with project circumstances and program characteristics. 1/

Changes in the Status of Rental Units

First estimates of the relative benefits of different rental rehabilitation efforts can be made by observing changes in the condition and availability of units. 2/ Some rehabilitation returns to the rental stock units that have

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1/ In addition to sampled projects in the three largest local programs, one other project in New York City has been excluded from the analyses reported in this chapter and Chapter 6 in order to present a clearer picture of the general pattern of relationships. Inclusion of this project -- given its large size, extreme unrepresentativeness relative to the local program of which it is a part, and the relatively large weight given this program -- would distort the statistical analysis of variations in benefits and productivity. This problem does not arise in the descriptive analyses and analysis of cost variations presented in Chapters 3 and 5.

2/ Every unit is assumed to be at least at the minimum local standard for such housing immediately after rehabilitation.

been vacant and/or uninhabitable. For purposes of this analysis, a unit is considered to be "out of the stock" if: (1) the property was in "very bad" condition 1/ and the unit had been vacant for more than six months; or (2) the property was regarded as in "poor" condition, more than 90 percent of its units had been vacant for more than six months, and the unit itself was vacant.

Units added. Units are added to the stock by rehabilitating those that were previously out of the stock (as defined above) or, in a few instances, by redividing a smaller number of units into a larger number or by converting non-residential space into rental units. Of the units whose rehabilitation was publicly subsidized in these 18 communities since January, 1981, about 37 percent are counted as additions to the local stock of rental housing. (This terminology is summarized in Exhibit 4.1.)

Units saved. At other times, rehabilitation is applied to units that are in the stock but, without rehabilitation, are likely to be soon out of the stock, displacing their occupants. A rental unit is considered to be in danger of imminent loss if it is occupied but in a property in very bad condition (i.e., where most units are uninhabitable), or if it is in poor condition and other information suggests that income from rents is insufficient to maintain the present condition of the unit. 2/ Although they are all considered part of the usable rental stock, about eight percent of the units in the study sample that were threatened with imminent loss had been vacant for six months or longer. Any unit in this status prior to rehabilitation is considered saved by the rehabilitation. Occupants of these units who remain after rehabilitation benefit by not having to move, because their units remain in the stock. About 38 percent of the rehabilitated rental units in the 18 communities would otherwise have been lost to the stock.

Units upgraded. Some publicly subsidized rehabilitation has been provided to units that were substandard but likely to have remained in the rental stock without immediate rehabilitation. Most of these had relatively minor physical problems, although they did not meet local housing standards prior to rehabilitation. Because they were substandard, such units generally could not be

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1/ Each project has been assigned to one of four condition levels, primarily based on its description by local program officials. The four are: (1) very bad condition, usually uninhabitable; (2) poor, habitable but with major systems repair or replacement needs such as failing heating or plumbing; (3) fair, with minor repair or replacement needs that do not threaten habitability; and (4) standard, usually regarded as at or above local minimum standards for such housing.

2/ If a project is in "poor" but not "very bad" condition, its units (whether recently occupied or vacant for more than six months) are considered in the stock but in danger of imminent loss where project rents average less than 50 percent of the local Fair Market Rent or where market conditions in its neighborhood are very weak.

EXHIBIT 4.1

TERMINOLOGY: ADDED, SAVED AND UPGRADED

Pre-rehab status of unit:	Rehab's effect on status of unit:
Out of the stock	Unit is added to stock
In stock, but in danger of imminent loss	Unit is saved from loss
In stock, not in danger of imminent loss, but not in standard condition	Unit upgraded
In stock, in standard condition	Unit remained standard

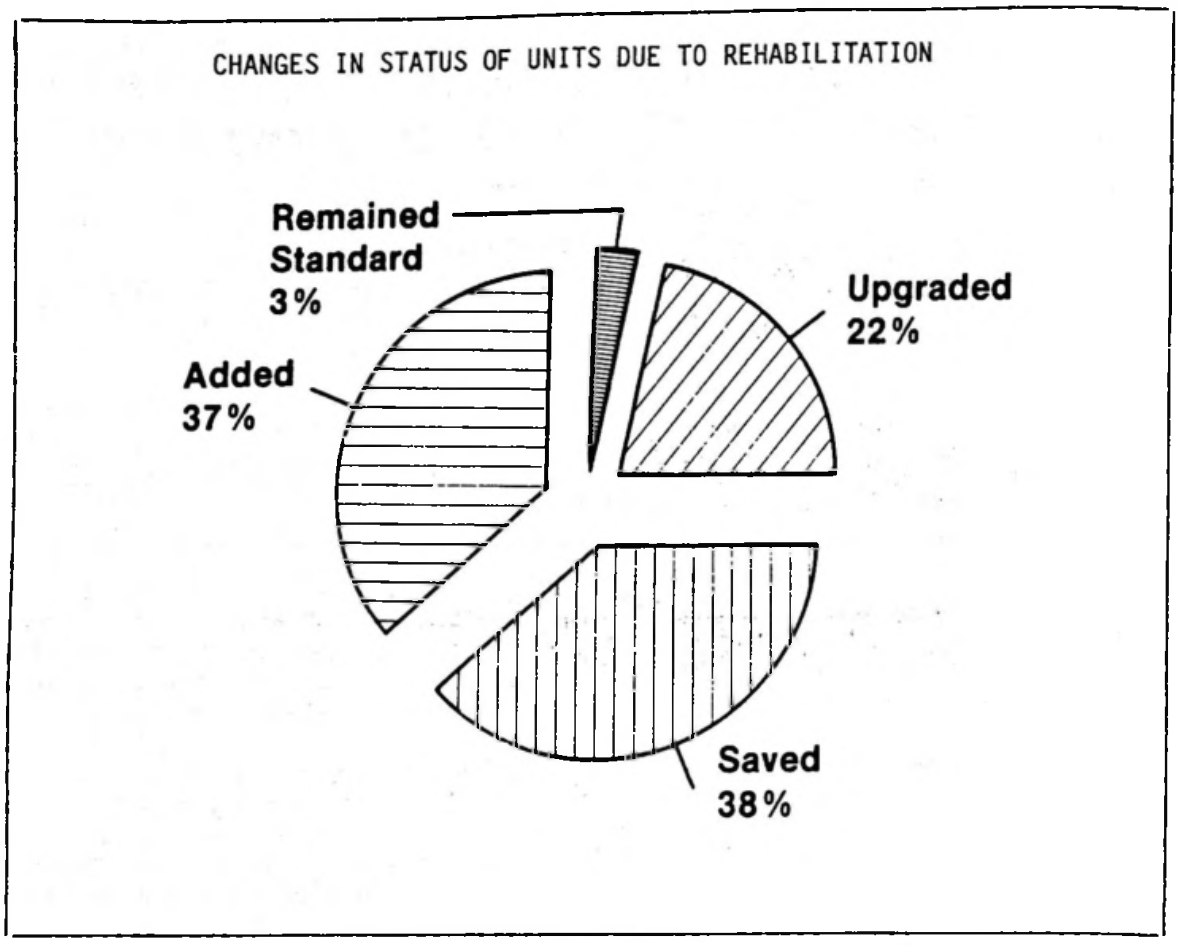
used to house lower-income people receiving Section 8 rent assistance. About 21 percent of the rental units rehabilitated under public programs in the 18 communities are in this category and have been upgraded to standard condition. About 95 percent of these units were occupied prior to rehabilitation.

Units that remained standard. Finally, some of the rental units that have been rehabilitated under public programs were in standard condition prior to rehabilitation, according to local officials. Although they have presumably been further improved by rehabilitation, these units are simply classified for present purposes as having remained standard. Less than four percent of the rehabilitated units are in this category. (See Exhibit 4.2.)

The benefit of adding or saving a unit is that it represents an actual increase in the number of units available for rent in its locality, relative to what would be the case without rehabilitation. That is, preventing the loss of a unit that otherwise would soon be out of the stock is roughly equivalent, on a continuum of benefits, to returning a unit to the stock through rehabilitation. On the other hand, upgrading a nonstandard unit not about to be lost represents a lesser form of benefit. The smallest benefit is attached to rehabilitating an already-standard unit. 1/

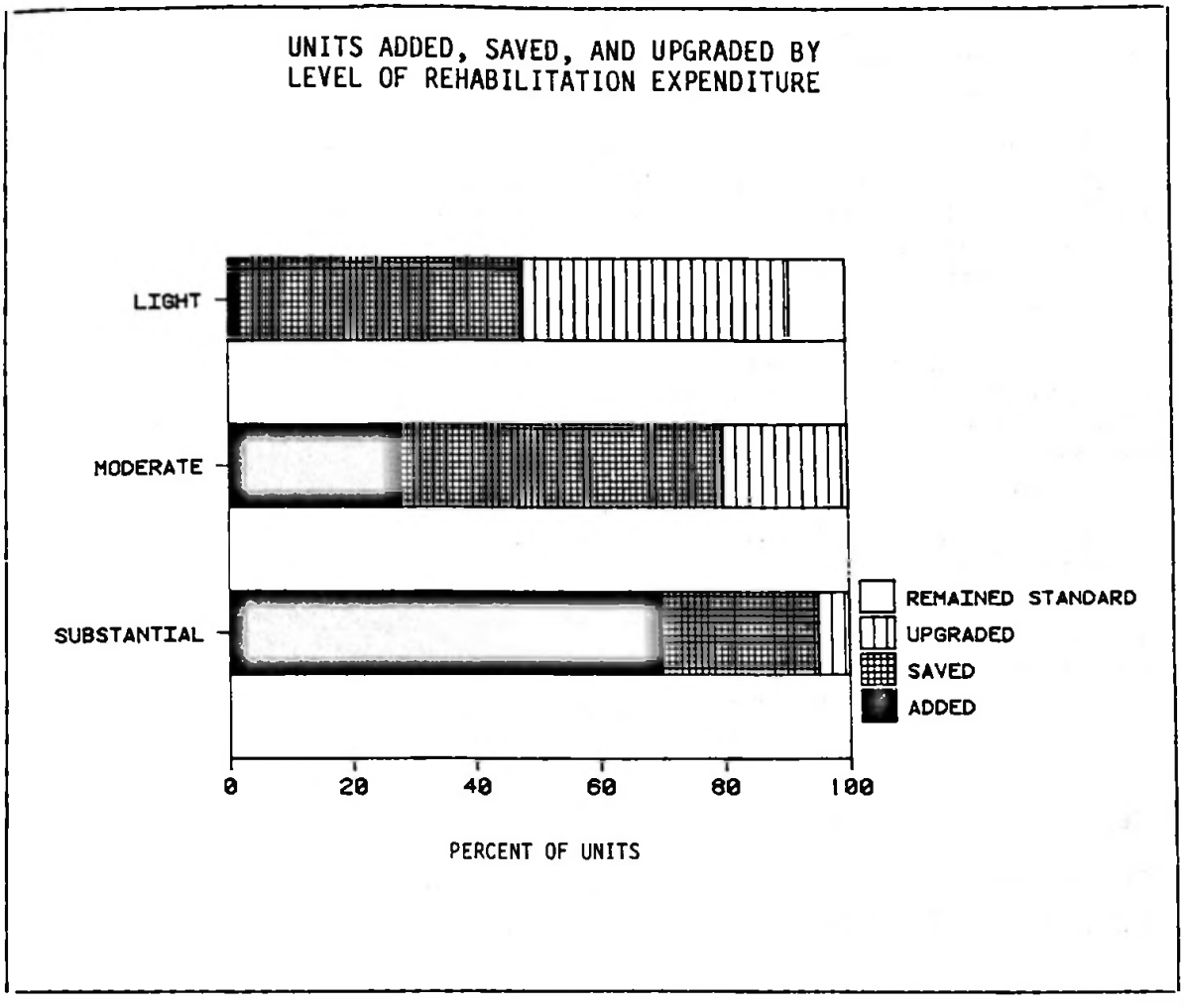
1/ Two of the three large rental rehabilitation programs -- in New York and Los Angeles -- that have been excluded from the statistical analysis emphasize relatively light rehabilitation of habitable, occupied buildings. Therefore, although these programs probably prevent the loss of many rental units through timely rehabilitation, they return very few abandoned units to the stock. The third program -- Section 312 in New York -- has been used for more substantial rehabilitation of both vacant and occupied small buildings and thus is both adding and saving sizeable numbers of units. Because of the small samples of activity from these three programs, it is not possible to make separate estimates of their benefit rates.

EXHIBIT 4.2



Variation in status changes. The changes in status produced by rehabilitation are primarily a function of the prior condition of the units. Therefore, light rehabilitation (costing less than $5,000 per unit) adds only one unit to the stock for every 100 rehabilitated, since the units being rehabilitated are nearly always already in the rental stock. However, light rehabilitation can prevent the loss of many rental units; over 45 of every 100 lightly-rehabilitated units are saved from imminent loss. At the other extreme, substantial rehabilitation (costing more than $15,000 per unit) adds 70 units to the stock, and saves 25 for every 100 rehabilitated. Moderate rehabilitation adds or saves about 80 of every 100 units rehabilitated -- at an average expenditure of about $10,000 per unit (see Exhibit 4.3). Thus, in situations where a moderate level of rehabilitation is appropriate, it can be used to increase the number of units available for rent (units added plus units saved) at almost the same rate as substantial rehabilitation.

EXHIBIT 4.3



Variations in status changes among the four national program categories reflect differences in the level of rehabilitation carried out under each program. However, the variations are much greater within program categories -- from community to community and project to project -- than between categories. On average, Section 312 is used to support more extensive rehabilitation than other Federal programs; thus, 90 percent of the units rehabilitated under Section 312 represent net additions to the rental stock.

Because the other three Federal programs are used, on average, for more modest rehabilitation, between 60 and 75 percent of the units rehabilitated under them represent a net increase in the local rental supply. Most of the remainder are previously substandard but viable units that are upgraded.

Among the sampled projects, larger ones are somewhat less likely than smaller ones to involve previously viable units. Because of this, they generate, on average, more net additions to the stock. For every 100 units rehabilitated; large projects (with more than 20 units) add or save over 80 units; smaller projects (with fewer than five units) add or save only 50 units. 1/

Rehabilitation in weaker market neighborhoods adds or saves units at a higher rate than that done in stronger neighborhood markets. This is primarily a reflection of the poorer condition of structures selected for rehabilitation where market conditions are weaker. Projects carried out under the weakest category of market conditions produce 90 net additions to the rental stock (45 units added and 45 saved) for every 100 rehabilitated, versus fewer than 70 net additions per 100 in moderate-to-strong neighborhood markets. 2/ Thus, communities seem to use rehabilitation for relatively modest upgrading of viable units in locations where market conditions are more favorable to private investment, and to use rehabilitation to increase or preserve the rental supply (a different form of benefit) in neighborhoods where private market conditions are less favorable to private investment. 3/

Outmovement and Displacement

Some previous occupants of rehabilitated properties are forced to move in connection with the rehabilitation. Such instances of forced movement or displacement 4/ reduce or offset any benefits generated by the rehabilitation. (For example, see Exhibit 4.4.)

1/ See Appendix E, Tables IV-1 through IV-3.

2/ The neighborhood market condition ranks, as described in Chapter 3, are relative to their respective localities.

3/ There is a greater probability in weaker rental markets than in others that rehabilitated units will soon fall into disrepair due to insufficient operating income and consequent inadequate maintenance. In Section 8 Moderate Rehabilitation projects, sufficient operating income is virtually guaranteed for 15 years, minimizing the chance that benefits will be lost due to inadequate maintenance. Otherwise, a small fraction of the rehabilitated units (about five percent) are in neighborhoods where, because rents are so low now and not expected to increase rapidly over the next five years, there is some danger that they will not be adequately maintained and may even fall out of the stock within a few years.

4/ The most commonly-used definition of displacement is that developed by George and Eunice Grier, involving two distinct criteria: (1) that the move be necessitated by housing or neighborhood-related factors beyond the household's control; and (2) that these factors make continued occupancy infeasible; see Residential Displacement -- an Update, Report to Congress, U.S. Department of Housing and Urban Development (October, 1981), p.5.

In the study communities, 11 percent of prior tenants moved out in connection with the rehabilitation of their units. Some of this outmovement was voluntary; however, about four percent of previous occupants are recognized by local officials as having been displaced, making them eligible for various forms of relocation benefits. The actual rate of displacement, therefore, is somewhere between this rate of official displacement and the total rate of outmovement related to the rehabilitation -- that is, between four and 11 percent. 1/

EXHIBIT 4.4

PROJECT PROFILE

A project that prevents the loss of occupied units, through substantial rehabilitation, but causes a change in the type of tenants housed.

A small apartment building that is sixty years old housed five minority low-income families prior to rehabilitation. The units were in severely deteriorated condition, and the rents paid prior to rehabilitation were extremely low -- between $75 and $100 a month. The total rehabilitation cost of the project was $142,000, or about $28,000 per unit. Extensive work was done on the interior of the property, including replacement of the electrical system and plumbing. All five households left the property over the course of the 12 months required for this work. Rents after rehabilitation were initially between $300 and $400, representing a 300 percent increase in total housing costs for tenants. The five households who moved into the rehabilitated structure are not low-income; they are mostly single-person households and include both whites and Hispanics.

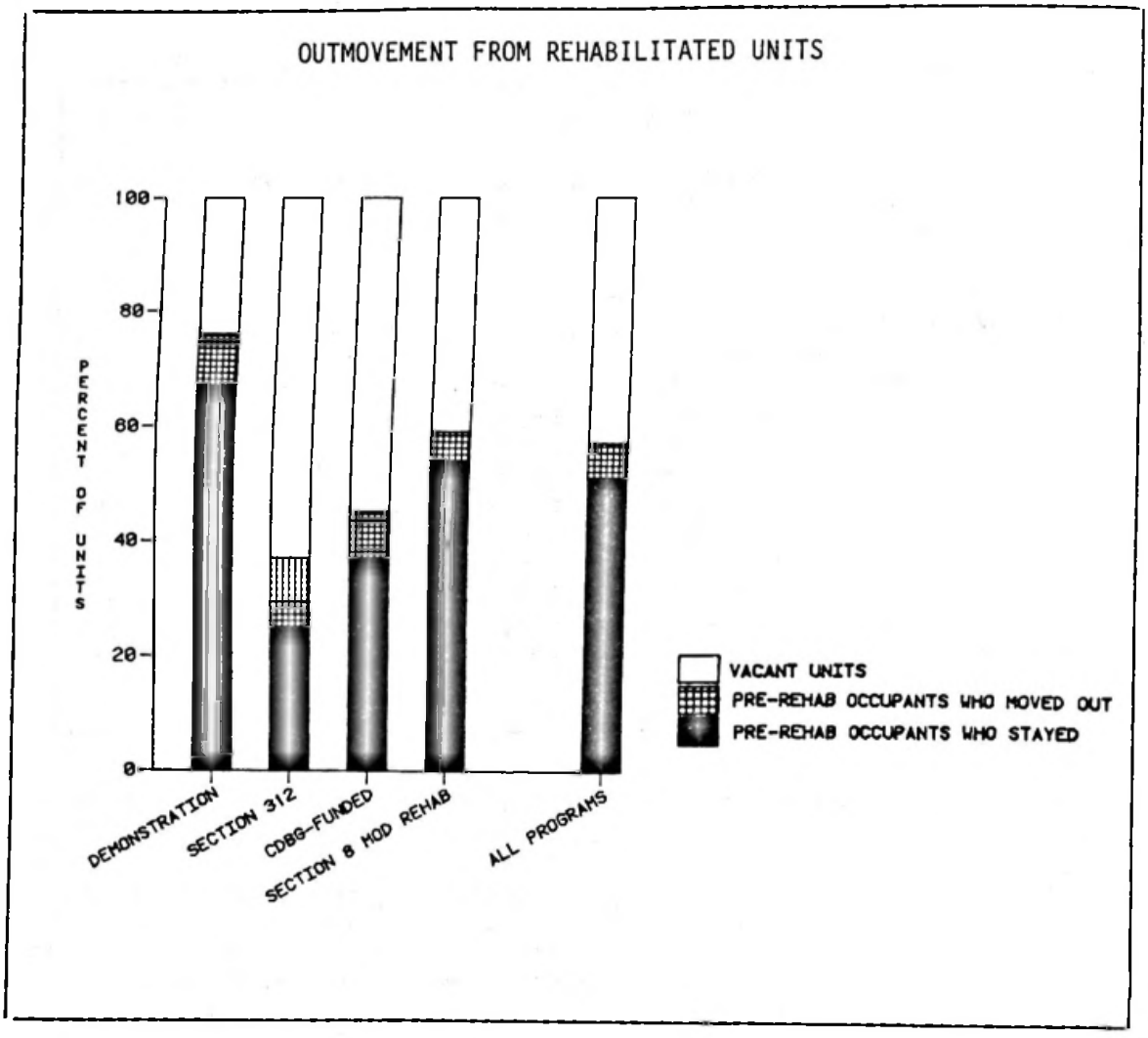
Exhibit 4.5 shows patterns of movement associated with the rehabilitation for each of the national program categories. The rate of outmovement is higher, on average, in Section 312 (33% of previous occupants moved out) projects than in other Federal program categories. This results from relatively substantial rehabilitation and limited use of Section 8 rent assistance to prevent outmovement of lower-income households. In the Demonstration and Section 8 Moderate Rehabilitation programs, where rent assistance is provided more often, outmovement rates are lower (12% and 9%, respectively). In the Demonstration, previous occupants who qualify for rent assistance may receive such assistance whether they stay after rehabilitation or move. However, only one in eight prior occupants of these units moves at the time of

1/ See Appendix E, Table IV-4.

rehabilitation. Of these, nearly one-half receive Section 8 assistance. 1/

Among previously occupied properties, outmovement is more likely where the rehabilitated buildings had been in poorer condition and received more substantial rehabilitation -- especially where the result was a substantial jump in rents. For projects where more than one-half of the previous occupants

EXHIBIT 4.5



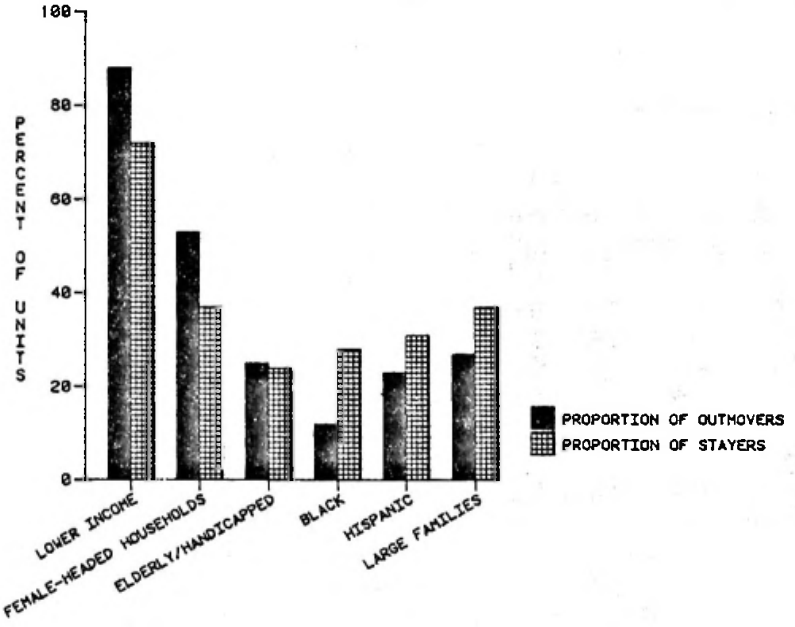
1/ Of those moving in connection with rehabilitation carried out under other national programs, fewer than one in five receives Section 8 assistance.

moved out in connection with the rehabilitation, the average rehabilitation expenditure was over three times the average expenditure for occupied properties where there was little or no outmovement. Rent increases averaged 135 percent in projects where over one-half of the tenants moved out, but averaged less than 50 percent elsewhere. 1/

Characteristics of outmovers. Studies of displacement have repeatedly shown that minorities, low-income households, and female-headed households are disproportionately affected by investment in housing renewal. 2/ In the 18 study communities, those moving in connection with subsidized rental rehabilitation are mostly lower-income households, but so are those who remain. Minorities, large households, and elderly persons are not overrepresented relative to their proportions of all prior tenants. 3/ (See Exhibit 4.6.)

EXHIBIT 4.6

COMPARISON OF CHARACTERISTICS OF OUTMOVERS AND STAYERS



1/ These percentages are based on contract rents for the units, before and after rehabilitation. The discussion of housing costs in Chapter 3 adds tenant-paid utilities to contract rents to estimate total housing costs paid by tenants.

2/ Cf., George Grier and Eunice Grier, Displacement: Where We Are, Ford Foundation (1981).

3/ Although higher proportions of outmovers than of those who remain are lower-income and female-headed households, the differences are not statistically significant.

Outmovement avoided by rehabilitation. To the extent that rehabilitation prevents units from being lost from the rental stock, it also avoids the forced displacement of many households. The number of households that avoid displacement through subsidized rehabilitation is much larger than the number who are displaced. Not all occupants of these units necessarily avoid displacement, however; eleven percent of households who had occupied units that were saved by rehabilitation moved at the time of rehabilitation. 1/

The households who avoid displacement due to timely rehabilitation are similar, as a group, to other pre-rehabilitation occupants. Over 80 percent are lower-income.

Low-income Benefits

The extent to which lower-income households benefit from rental rehabilitation is -- given the goals of many local programs -- a critical evaluation standard. Rehabilitation yields the greatest degree of low-income benefit when it adds or saves a unit that is then affordably occupied by a lower-income household. (See Exhibit 4.7, for example.)

EXHIBIT 4.7

PROJECT PROFILE

A project creating units for lower-income households using both rehabilitation subsidies and rent subsidies.

One rehabilitated property is located in a deteriorated low-income neighborhood. Aided by a significant amount of public investment over the last five years, housing quality has been improving gradually. A turn-of-the-century building, the property contains 10 three- and four-bedroom units, all of which were uninhabitable and vacant. Purchased in 1980 for $4,000, the property underwent substantial rehabilitation in 1982 at a total cost of about $50,000 per unit. The work was financed with a $261,000 grant from the city, a $256,000 bank loan at a market rate of interest, and over $50,000 in cash from the participants in the syndication partnership. Virtually all of the work went to correct local code violations, including $170,000 to repair or replace major systems. The households who moved in are all lower-income, three- or four-person families, one-half of whom are female-headed; all receive Section 8 rent assistance.

1/ Ninety-two percent of the units saved by rehabilitation (38 percent of all rehabilitated units) were occupied prior to rehabilitation. Excluding vacant units and those occupants who moved in connection with the rehabilitation, rehabilitation of these units prevented the forced movement of about 30 households for every 100 units rehabilitated. This is a much larger number than those actually displaced, which is at most 11 percent of all previous occupants, or about six households for every 100 units rehabilitated.

It is necessary to combine information regarding changes in stock status, occupancy, rents, and rent assistance in order to measure the extent of low-income benefit. First, the proportions of rehabilitated units (a) occupied by lower-income households and (b) affordably occupied by lower-income households, are noted. Second, the net increases in (a) and (b) attributed to rehabilitation are calculated based on changes in unit status, changes in occupancy, changes in rent levels, and the provision of Section 8 rent assistance after rehabilitation. The extent to which units remain affordable to lower-income households without rent assistance is also counted as a form of benefit, since this frees public resources that may be used to aid other households.

Post-rehabilitation occupancy. After rehabilitation, 80 percent of the households living in the rehabilitated properties are lower-income. 1/ However, nearly one-third of these households pay more than 30 percent of their incomes for rent and utilities. 2/ Although they occupy newly rehabilitated units, this benefit is offset, at least partly, by the heavy burden of their housing costs. Moreover, this burden increases the probability that at some future time they will move and be replaced by non-low-income households. 3/ Thus, excessive housing cost burdens immediately after rehabilitation suggest a longer-run reduction in low-income benefits.

Over one-half of the rehabilitated units are affordably occupied by lower-income households. About three-fourths of these households receive Section 8 rent assistance; the remainder are housed affordably without assistance. 4/ (See Exhibit 4.8.)

Lightly rehabilitated projects, on average, contain fewer lower-income households (about 70 percent) than more extensively rehabilitated projects. Also, the proportion of lower-income households who receive Section 8 rent assistance is much higher in moderately-rehabilitated properties than in

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1/ Incomes of lower-income households in these projects are assumed to be distributed in the same way as those of all metropolitan lower-income renter households in the nation.

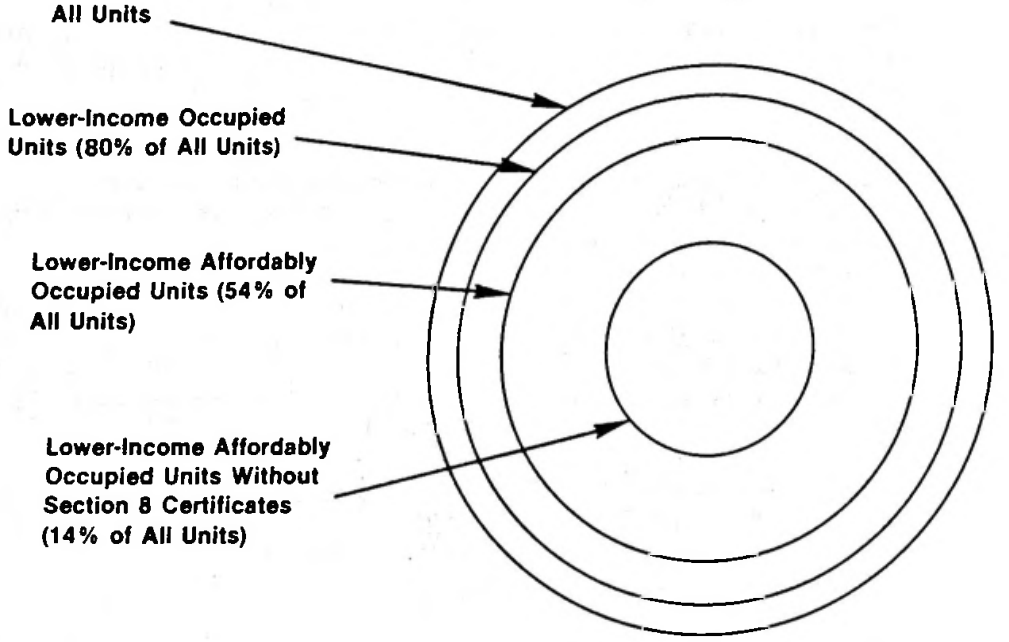
2/ Lower-income households are those below 80 of the median income in their metropolitan area.

3/ The greatest likelihood that lower-income households will be forced to move is in neighborhoods where rents are expected to rise faster than in other parts of the community. About one-fourth of the projects where most units are occupied by lower-income households paying an excessive proportion of income for housing are in neighborhoods where such rapid rent increases could force them to move in the foreseeable future.

4/ The estimates of proportions paying an excessive percentage of income for housing are based on an assumed distribution of incomes identical to that for all metropolitan lower-income renters in the U.S. If this assumption does not hold, then the proportion who are thus burdened could be higher or lower than estimated.

EXHIBIT 4.8

DISTRIBUTION OF REHABILITATED UNITS, IN TERMS OF LOWER-INCOME OCCUPANCY, AFFORDABILITY AND USE OF SECTION 8 CERTIFICATES



those lightly or substantially rehabilitated. The net result is that only two out of five post-rehabilitation occupants of lightly rehabilitated projects are lower-income households who are affordably housed versus sixty to sixty-five percent of those housed in moderately or substantially rehabilitated projects. (See Exhibit 4.9.)

Of the four national programs, as administered in the study communities, Section 312-funded projects aid the smallest proportion of lower-income households (50 percent) and provide affordable lower-income housing in only 30 of every 100 rehabilitated units. About one in seven Section 312 households receives Section 8 rent assistance. At the other extreme, virtually all Section 8 Moderate Rehabilitation units are occupied, after rehabilitation, by lower-income households. Ninety percent of these rehabilitated units provide affordable low-income housing, nearly all with rent assistance. Over one-half of the units rehabilitated under the Demonstration are affordably occupied by lower-income households. This is a higher proportion than for other CDBG-funded rehabilitation, where Section 8 rent assistance is less often provided. (See Exhibit 4.10.) 1/

1/ See Appendix E, Tables IV-5 and IV-6.

EXHIBIT 4.9

CHARACTERISTICS OF OCCUPANTS OF REHABILITATED UNITS,
PRE- AND POST-REHABILITATION, BY LEVEL OF REHABILITATION EXPENDITURES

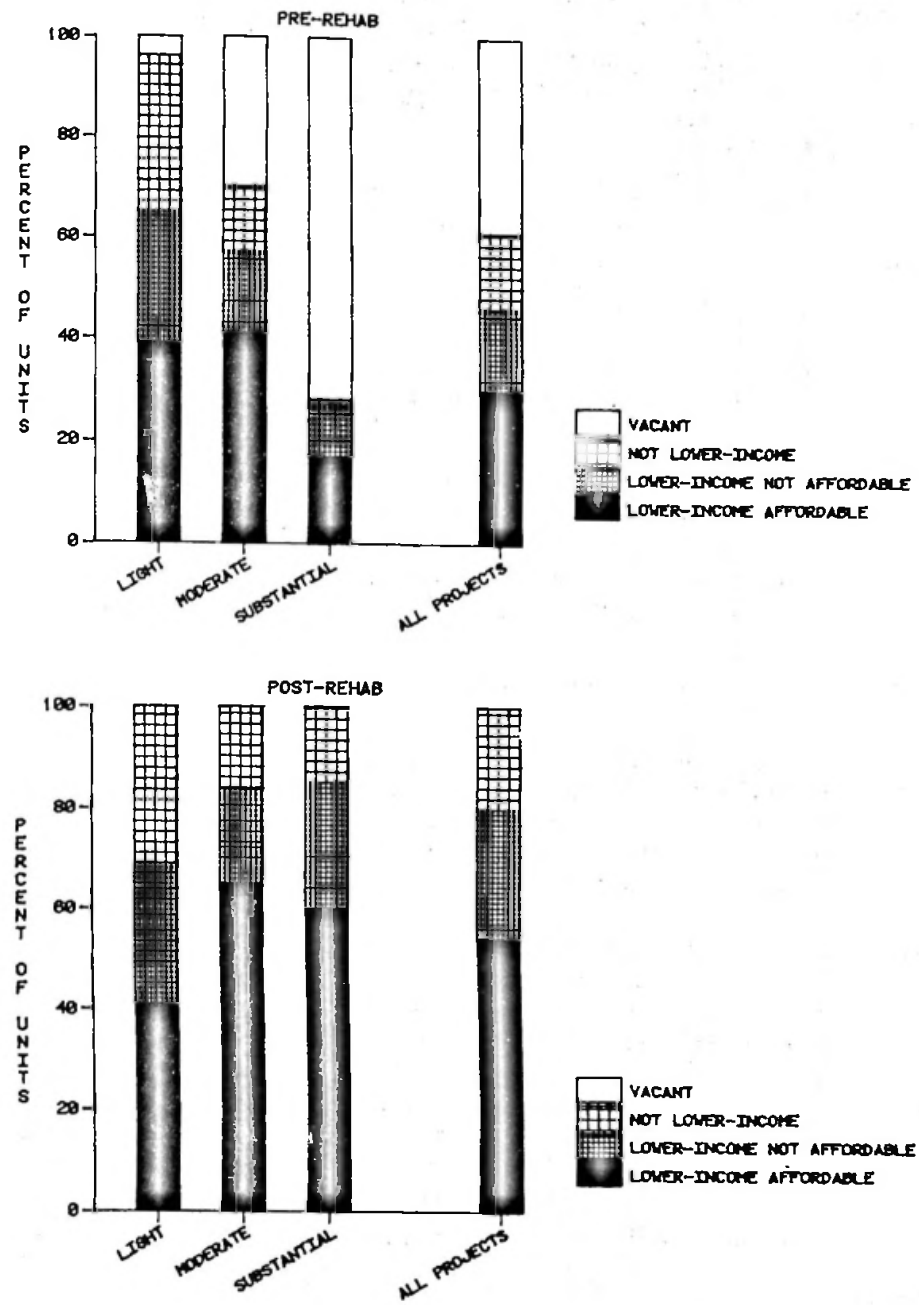
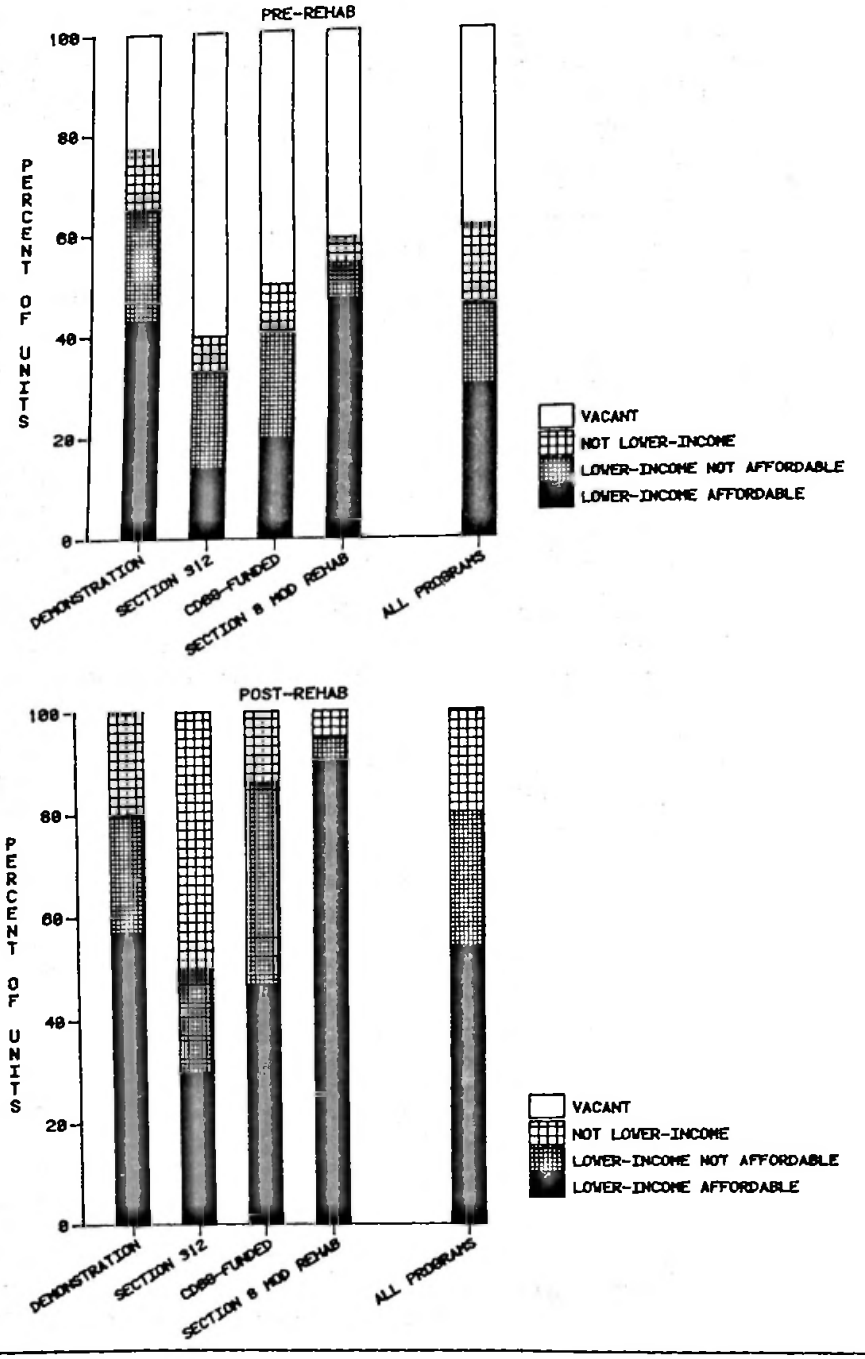


EXHIBIT 4.10

CHARACTERISTICS OF OCCUPANTS OF REHABILITATED UNITS, PRE- AND POST-REHABILITATION, BY PROGRAM



Almost one-fifth of the projects provide affordable lower-income occupied units without resort to Section 8 rent assistance. However, the most striking differences in low-income occupancy and affordability are associated with the provision of Section 8 assistance. Less than one-half of the rehabilitation projects are occupied entirely by Section 8-assisted households. In most others, few or no tenants are assisted. Not many projects contain a mix of assisted and unassisted units. Projects where rent assistance is provided after rehabilitation include a small number which were predominantly occupied prior to rehabilitation and a larger number which were vacant and uninhabitable prior to rehabilitation. (See Exhibit 4.11.)

Changes in low-income occupancy and affordability. Another way to evaluate the low-income benefits produced by rental rehabilitation is to measure net changes in the number of units that lower-income households occupy or occupy affordably. This calculation depends on five types of changes that accompany rehabilitation: (a) net increases in rental units (units added or saved); (b) movement of lower-income households out of previously-occupied units and their replacement by higher-income households, or vice versa; (c) movement of lower-income households into previously vacant units; (d) rent increases that make some units unaffordable by their lower-income occupants; and (e) the availability of Section 8 rent assistance, after rehabilitation, to eligible households. The first three sets of changes (a-c) jointly determine the net change in numbers of lower-income households that is attributable to rehabilitation. The last two sets of changes (d, e) help to determine the net change in numbers of units that are affordably occupied by lower-income households. 1/

Overall, 55 units are added to the low-income rental stock for every 100 units rehabilitated. Substantial rehabilitation expenditure yields larger net increases in the supply of low-income rental units. For every 100 substantially rehabilitated units, 75 represent net additions to the low-income stock (see Exhibit 4.12). This is a function not only of the high proportion of units that substantial rehabilitation returns to the stock or saves from imminent loss, but also of the high proportion of those units that are subsequently occupied by lower-income households. Moderate levels of rehabilitation expenditure, however, also yield major gains in the low-income rental supply -- about 60 for every 100 rehabilitated units. Lightly rehabilitated projects, on the other hand, produce only one new low-income unit for every four units receiving rehabilitation subsidies, partly because light rehabilitation involves fewer stock changes but also because fewer of these units have lower-income occupants after rehabilitation.

Among the four national programs, Section 8 Moderate Rehabilitation produces the greatest net gains in low-income housing. More than two-thirds of all units rehabilitated under that program represent net additions to the

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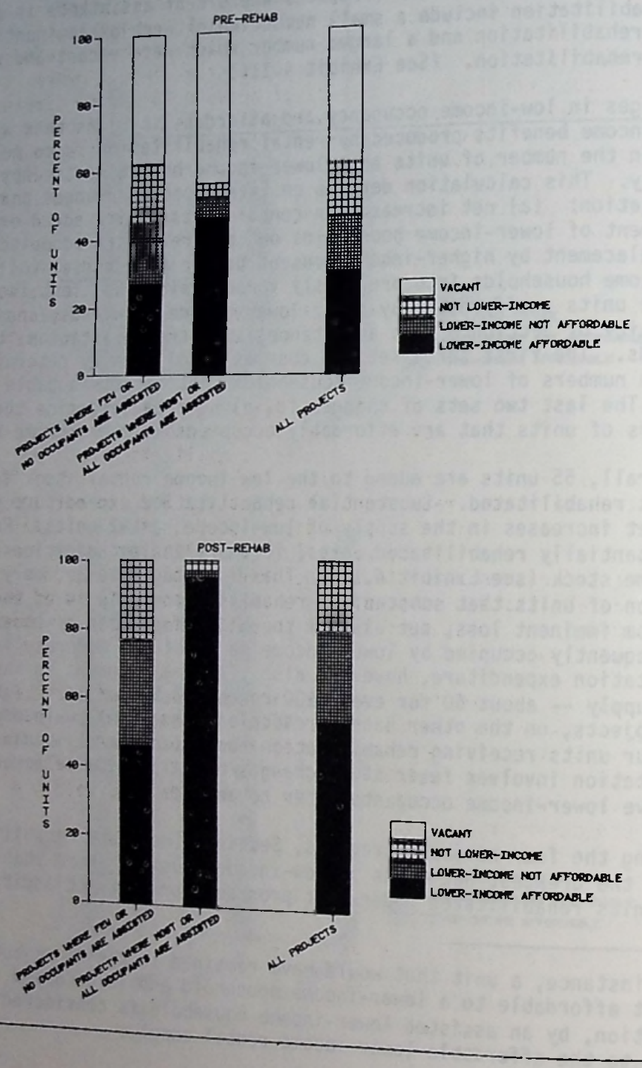
1/ For instance, a unit that would have remained in the stock but at a rent level not affordable to a lower-income household and is occupied, after rehabilitation, by an assisted lower-income household is considered a net addition to the affordable lower-income rental supply.

EXHIBIT 4.11

CHARACTERISTICS OF OCCUPANTS OF REHABILITATED UNITS, PRE- AND POST-REHABILITATION, BY USE OF SECTION 8 ASSISTANCE FOLLOWING REHABILITATION



low-income housing supply, which is consistent with the intent and design of the program. The net changes yielded under other Federal program categories range between 41 and 57 per 100 units. As noted previously, the extent to which these programs are intended and used to aid lower-income households varies from one community to another.

When the criterion of changes in low-income affordability is considered, the pattern of benefits shifts somewhat. Overall, rehabilitation produces a net gain of 35 units affordably occupied by lower-income households for every 100 units rehabilitated. Moderate and substantial levels of rehabilitation yield about equal benefit -- increases of between 45 and 50 affordably-housed lower-income households per 100 units rehabilitated. Light rehabilitation expenditures generate an increase of 14 affordable lower-income occupied units for every 100 rehabilitated. Projects where most units were uninhabitable before rehabilitation (i.e., those in "very bad" condition) yield a gain of 50 affordable lower-income occupied units for every 100 units rehabilitated. However, projects which were in "fair" or "best" condition actually result in net losses of between one and five affordable lower-income occupied units per 100 units rehabilitated. Thus, as with other benefit measures, increases in the number of affordably-housed poor households are a function of the condition of properties selected for rehabilitation subsidy. 1/

The provision of rent assistance following rehabilitation also influences the change in affordable lower-income occupied units that accompanies rehabilitation. Thus, in the Section 8 Moderate Rehabilitation program the rate of increase is twice that of the Demonstration (66 per 100 versus 34 per 100) and more than twice the rate produced by Section 312 (26 per 100) and CDBG-funded (22 per 100) projects. In projects where, after rehabilitation, most households are assisted, 78 of every 100 rehabilitated units represent a net gain in the affordable lower-income occupied supply. But, in projects where most post-rehabilitation households are unassisted, only 14 of every 100 rehabilitated units constitute a gain in units affordably-occupied by lower-income people. 2/

Although it is useful to compare average results of different public programs, in the case of rental rehabilitation, national program categories prove less important in shaping outcomes than choices made within each program. Partly because the four national programs are not particularly constraining, benefits vary widely from one community to another and, within a community, from one project to the next.

1/ See Appendix E, Tables IV-7 and IV-8.

2/ See Appendix E, Table IV-9.

EXHIBIT 4.11

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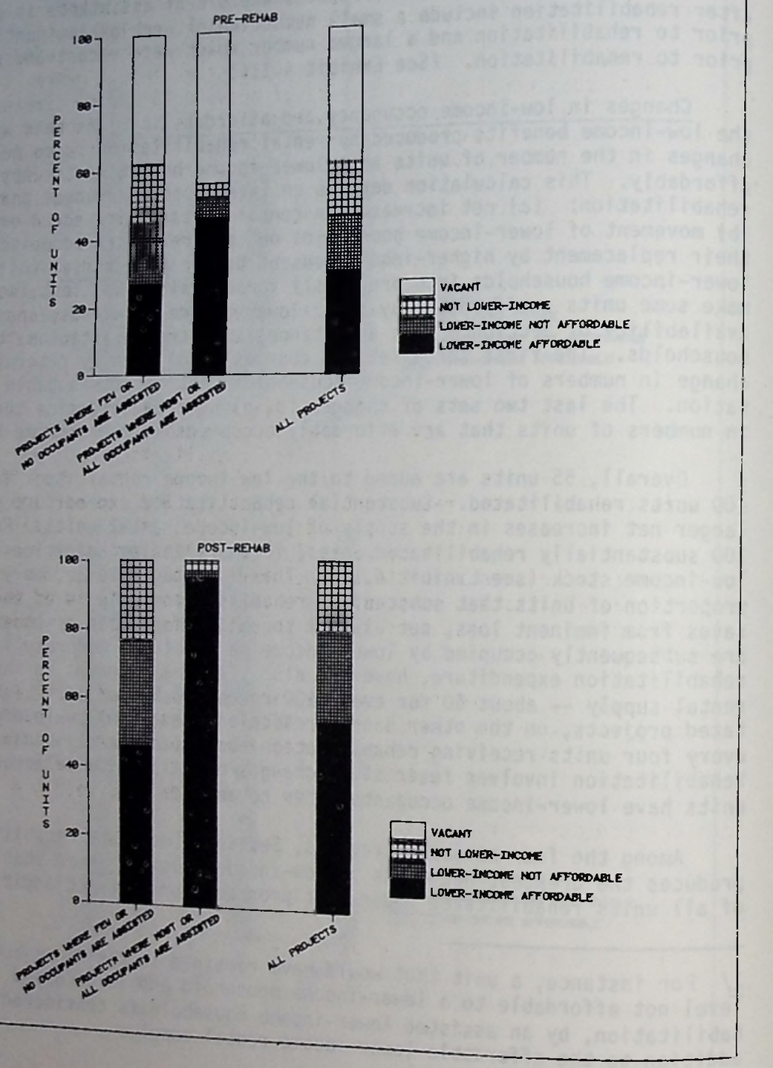

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1/ See Appendix E, Tables IV-7 and IV-8.

2/ See Appendix E, Table IV-9.

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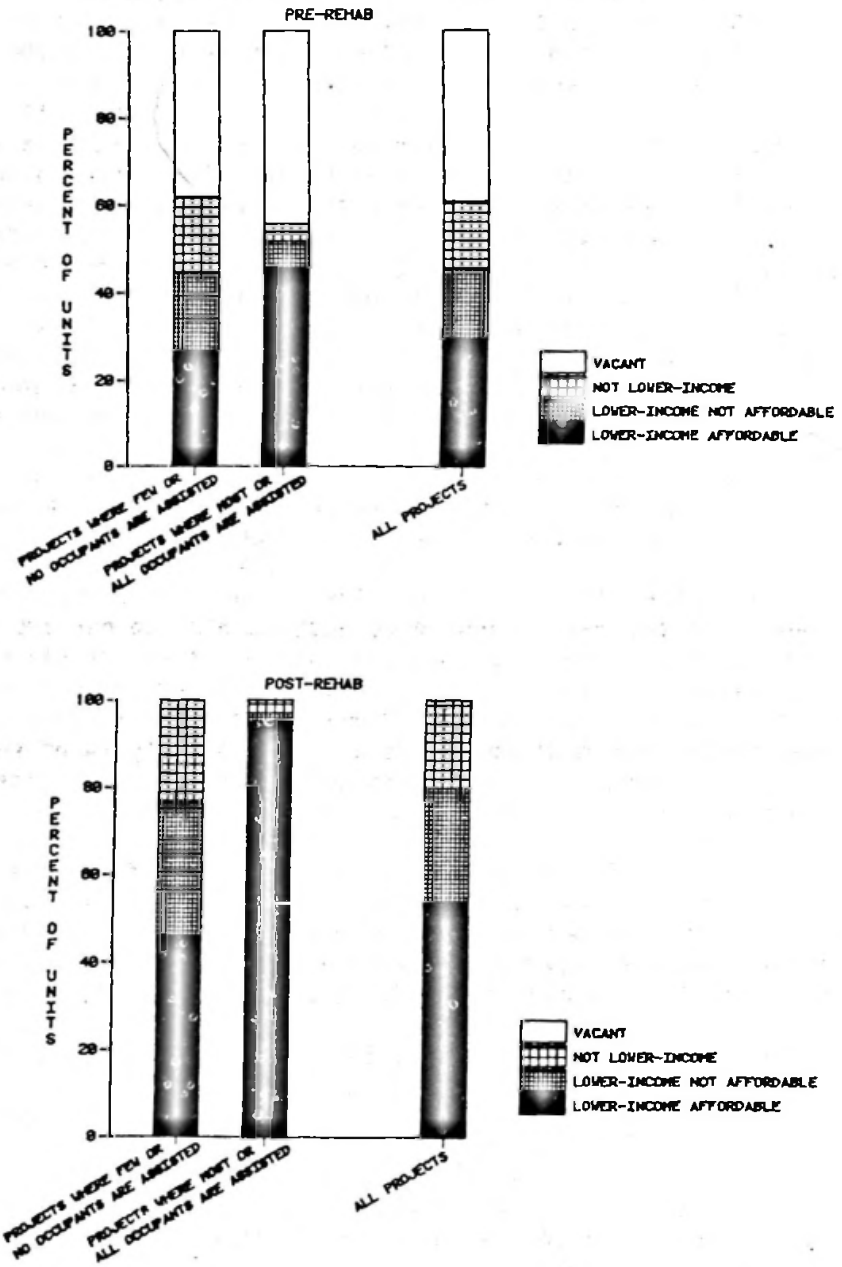

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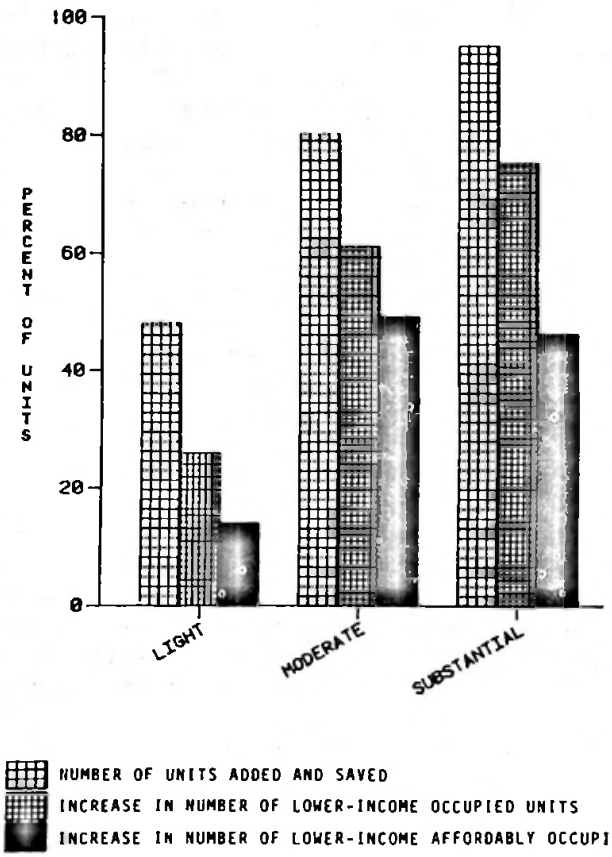
1/ See Appendix E, Tables IV-7 and IV-8.

2/ See Appendix E, Table IV-9.

EXHIBIT 4.12

COMPARISON OF PROJECTS WITH LIGHT, MODERATE, AND SUBSTANTIAL REHABILITATION IN TERMS OF THREE DIFFERENT BENEFIT MEASURES



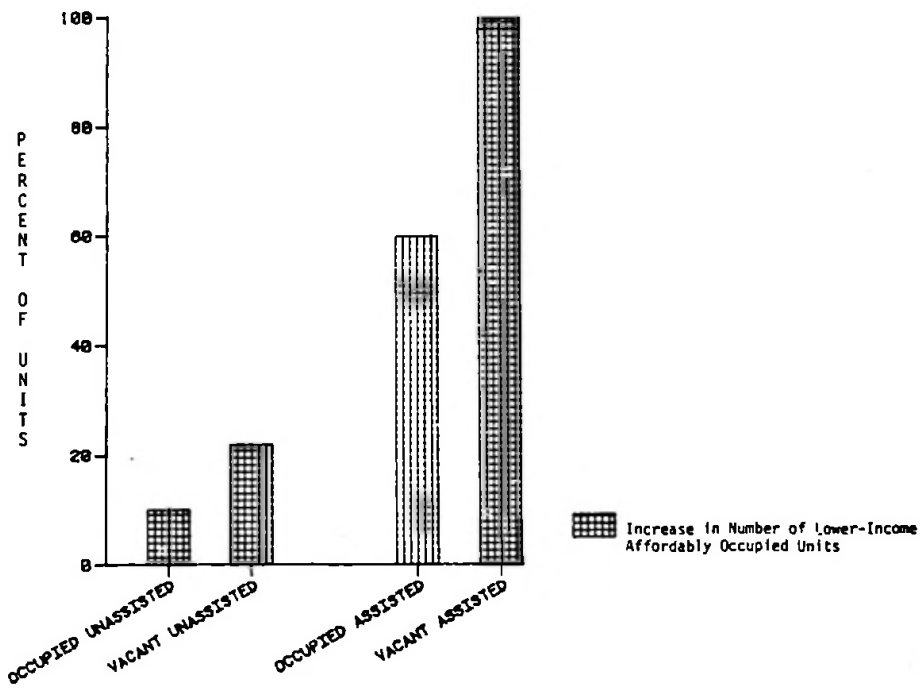
When benefits are looked at in terms of additions to the rental stock, disregarding the kinds of households aided, the extent of benefit depends directly on the condition of properties selected for subsidy. By definition, units can only be added to the stock or rescued from imminent loss where serious physical deficiencies are remedied by rehabilitation.

Benefits to lower-income households depend not only on whether the properties selected for rehabilitation have relatively severe or only relatively minor deficiencies but also on the extent to which rent subsidies are provided, or market rents remain low, so that units are available to and affordable by lower-income households.

Exhibit 4.13 shows the separate and combined effects of two program choices on benefits for lower-income households, measured as the net change in the supply of affordable, lower-income occupied rental units per 100 rehabilitated units. When occupied properties are rehabilitated and few or no tenants are assisted, there are only ten units added to the affordable low-income stock; but where all, or virtually all, units were vacant before rehabilitation and all or nearly all tenants receive rent assistance afterward, every rehabilitated unit adds one unit to the affordable, lower-income occupied rental supply.

EXHIBIT 4.13

CHANGES IN LOWER-INCOME AFFORDABLY OCCUPIED UNITS BY PRE-REHABILITATION OCCUPANCY STATUS AND POST-REHABILITATION PROVISION OF SECTION 8 ASSISTANCE



Conclusion

It is not surprising that the more substantial the rehabilitation, the greater the benefits flowing from a project, although the extent of low-income benefit often depends as well on the availability of rent subsidies to these households. However, the pattern of benefits provides only part of the information needed to evaluate rental rehabilitation. Variations in the public costs of rehabilitation and the relationship of benefits to costs must be examined as well. Costs are the topic of Chapter 5; the relationship of benefits to costs is presented in Chapter 6.

Chapter 5

SUBSIDIZING RENTAL REHABILITATION: WHY PUBLIC COSTS VARY

Communities may choose among various methods of subsidizing rental rehabilitation. Provided funds are available, they may use a national program such as Section 312 or Section 8 Moderate Rehabilitation, or they may design a local program. As part of this decision, communities determine the extent to which public funds should be used to pay for rehabilitation and the form in which the support should be offered -- i.e., the share of rehabilitation cost to be paid with public funds and whether public funds should be awarded as grants or as loans. If the latter, terms of repayment must also be determined. In addition, community decisions over the level and form of participation may include whether to subsidize rents for low-income households, using Federal Section 8 certificates or vouchers.

From the public sector's viewpoint, these choices can affect the cost to taxpayers of whatever level of benefit is achieved. From the property owner's perspective, they determine the extent to which public support for rehabilitation serves as a financial incentive to rehabilitate property under the terms set by the public sector. The choice of financing technique may be a function of the kind of rental housing market present in a community, of the overall quality of the rental stock in the community, and of the willingness of local private lenders to participate in rehabilitation programs.

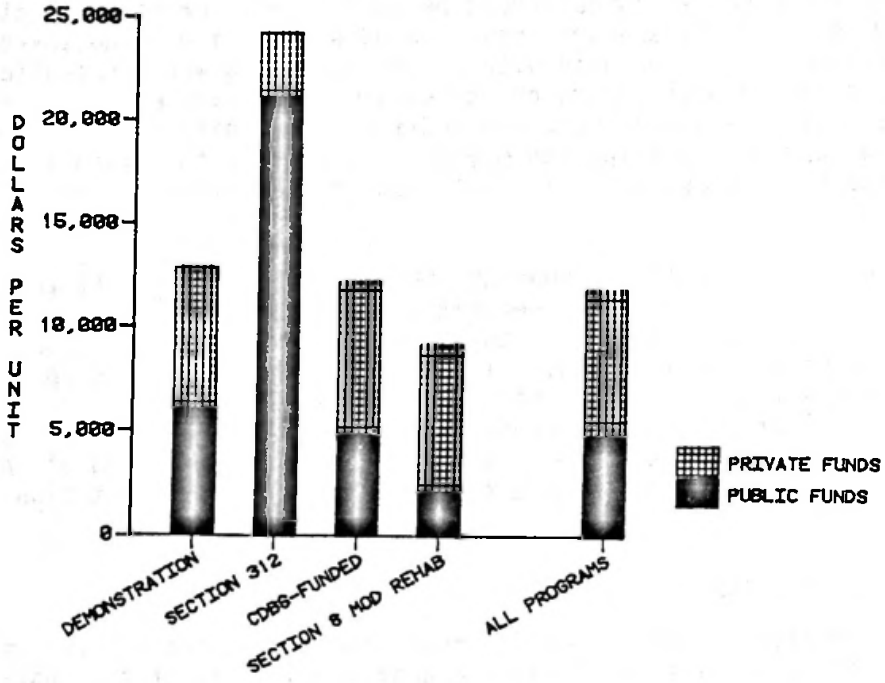
Variations in Financing

The net result of such choices is that communities can and do employ a wide variety of rehabilitation financing approaches. One of the most important ways in which financing differs from one local program to another is in the relative shares of rehabilitation cost paid from public and private funds. Two-thirds of the projects undertaken in the 18 study communities involve a combination of direct private and public contributions to the rehabilitation.

The shares of the rehabilitation financed by the public and private sectors vary widely. Exhibit 5.1 shows the average proportions of rehabilitation expense borne initially by each sector under the four national programs and for all programs combined. The two programs that have rehabilitation subsidy methods defined by national legislation -- Section 312 and Section 8 Moderate Rehabilitation -- are being implemented as designed. That is, Section 312 projects are funded overwhelmingly by public dollars and Section 8 projects are funded primarily with private dollars. The Demonstration relies on public and private sources almost evenly (public funds comprise 47 percent of all funds in the average Demonstration project); and CDBG-funded rehabilitation uses more private than public funds.

EXHIBIT 5.1

SHARES OF REHABILITATION FINANCING PROVIDED
BY PUBLIC AND PRIVATE SECTORS, BY PROGRAM a/



a/ This is the share of the rehabilitation expenditure financed directly by the public and private sectors, without regard to terms. The reimbursement of privately-financed rehabilitation debt under Section 8 Moderate Rehabilitation is not reflected in the public share for that program.

Direct subsidies. Virtually all Demonstration and CDBG-funded projects -- and all Section 312 projects -- involve direct public support for rehabilitation. 1/ Although a majority of Section 8 Moderate Rehabilitation projects involve no similar separate rehabilitation subsidy, rehabilitation costs

1/ The Section 312 program, in contrast to the Demonstration and CDBG-funded programs, does not provide for, or require, private lender participation.

that are privately financed can be recovered over a period of 15 years through the Section 8 rent subsidies that are tied to the projects. Because these subsidies are based on the costs of operating and paying debt service on the property, including debt service for rehabilitation loans, the rent subsidy includes, in effect, a grant to the owner paid in installments, to pay back funds borrowed to finance the rehabilitation. 1/ From this viewpoint, the entire rehabilitation cost is paid with public funds and constitutes a direct rehabilitation subsidy.

From a different viewpoint, the rehabilitation subsidy may be regarded as that portion of the total rent subsidy which reimburses owners for costs over and above the local Section 8 Existing Program Fair Market Rent. Under this alternative assumption, the portion of the total rent subsidy to be considered a rehabilitation subsidy would often be a much smaller fraction of the total subsidy. Results of using this alternative calculation method are noted later in this chapter and in Chapter 6.

Both methods of apportioning the Section 8 Moderate Rehabilitation subsidy may be defended as plausible. The former method is emphasized in this report because it is consistent with the way rents are set under that program; however readers should be aware of the sensitivity of results to the choice of method -- especially where Section 8 Moderate Rehabilitation is compared to other programs.

A second way in which financing methods differ is in the form taken by the rehabilitation support. The majority of rehabilitation projects across the 18 communities are supported by one private sector loan and one public sector loan. 2/ The private sector loans are usually either market-rate or

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1/ Although the largest part of the 15-year subsidy stream may be considered a direct rehabilitation subsidy, there is a further value to the owner from having a secure and predictable flow of rental income from the units over a 15-year period. Because the subsidy is "attached" to the rehabilitated units and not to the tenants occupying the units, the owner is guaranteed this subsidy whether the original tenants remain or are replaced by other eligible households. Under the Rental Rehabilitation Demonstration, on the other hand, some tenants receive assistance through Section 8 Existing certificates set aside for the program, but this assistance belongs to the tenants and can be removed from a rehabilitated unit (and thus lost to the property owner) whenever an assisted tenant leaves or becomes ineligible for assistance. The value of this rental assistance to the owner, therefore, is smaller than that of the assistance provided under the Section 8 Moderate Rehabilitation program, all else being equal.

2/ The major exceptions are Section 8 Moderate Rehabilitation projects, of which more than 57 percent have no direct public financing, and Section 312 projects, of which over 45 percent involve no private financing. A few projects involve more than one public contribution. In addition, owners of some properties contributed some of their own resources to the rehabilitation in the form of cash or sweat equity.

a few points below market (the average interest rate for these projects, for the period between January, 1981, and September, 1983, was 14 percent).

Aside from the portion of Section 8 Moderate Rehabilitation rent subsidy devoted to rehabilitation, direct subsidies may be structured either as grants or as loans with varying terms and conditions. Section 312 is inflexible, in that it offers only one form of public sector support (below-market interest rate loans). The other three programs allow for a variety of subsidy mechanisms. (See Exhibit 5.2.)

EXHIBIT 5.2

BASIC FINANCING METHODS OF EACH PROGRAM

Rental Rehabilitation Demonstration:
Public funds intended to provide the minimum subsidy needed to make a project financially feasible at market rents; major funding to be provided by private sources. Terms and form of subsidy vary widely.

Section 312:
Public financing of all or most of the rehabilitation cost; provided as loans at below-market interest rates.

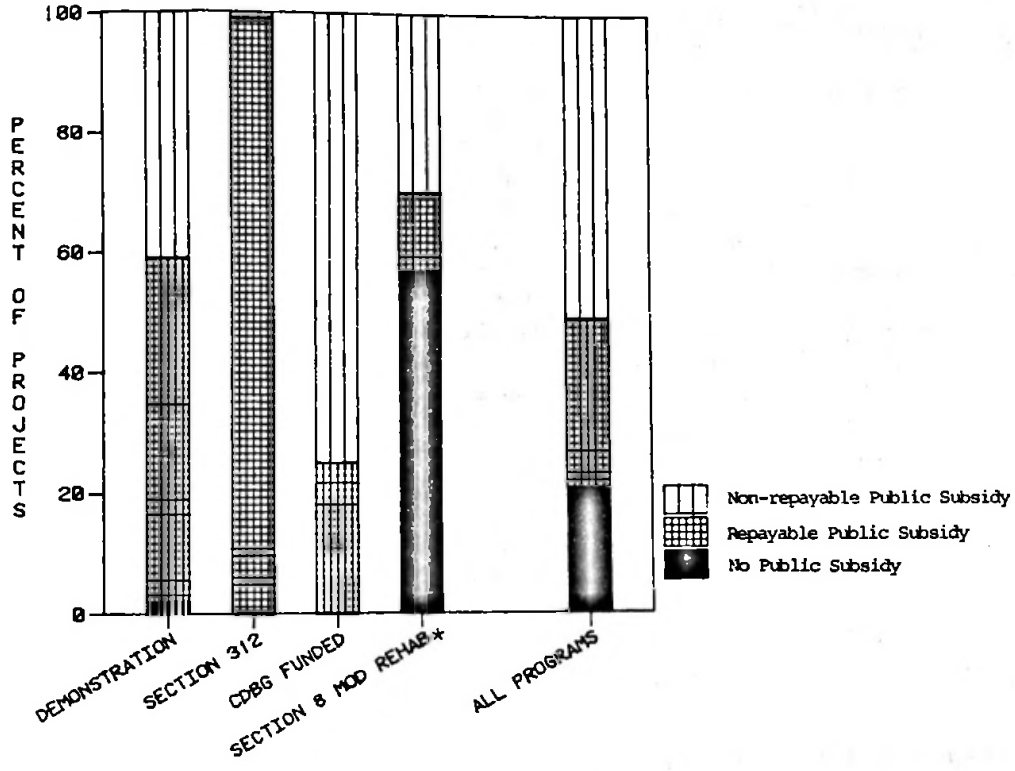
CDBG-Funded:
Public funds finance some, but usually not all, of the rehabilitation. Terms and form of subsidy vary widely.

Section 8 Moderate Rehabilitation:
Combined 15-year rent and rehabilitation subsidy for units occupied by Section 8-assisted households. Private funds usually used to finance most of the rehabilitation cost.

What may be more important, however, is that a direct public subsidy can be either repayable or non-repayable. The incidence of repayable and non-repayable subsidies varies by national program. (See Exhibit 5.3.) Grants, used quite frequently for CDBG-funded projects, make public funds available without any payback requirement. Forgiveable loans, used in more than one-quarter of the Demonstration projects, provide public funds as a nominal loan but are not paid back, provided certain conditions are met (e.g., that a property is not sold within ten years). These two forms of public support comprise the non-repayable subsidies. All other types of loans encountered are repayable. (See Exhibit 5.4.) They differ in terms of when they are paid

EXHIBIT 5.3

USE OF REPAYABLE AND NON-REPAYABLE REHABILITATION SUBSIDIES BY PROGRAM



*This ignores the portion of the rent subsidy considered to be a rehabilitation subsidy.

back, the interest rates associated with them, the manner in which the loan funds are raised (e.g., revenue bonds), and who participates in any increased equity (e.g., participation loans).

Some communities have developed innovative subsidy approaches. In Los Angeles, for example, the Community Redevelopment Authority uses CDBG funds, in some cases, to write down the cost of a private sector loan in a unique way. A property owner, participating in the Compensating Balance program, obtains a rehabilitation loan from a local lender. The city agency simultaneously deposits a sum of money with the lender such that the property owner pays an interest rate on the loan substantially below the market rate. The lender invests the city funds and uses the return to make up the difference

EXHIBIT 5.4

TYPES OF PUBLIC REHABILITATION SUBSIDY

Direct Subsidies

Repayable:
- Below market interest rate loan
- Market interest rate loan
- Deferred loan
- Participation loan
- Revenue bonds

Non-Repayable:
- Section 8 Moderate Rehabilitation rent subsidy devoted to paying rehabilitation debt service.
- Grant
- Forgiveable loan

Indirect Subsidies

- Section 167(k) of Federal tax code
- Historic tax credit
- Tax abatement, exemption, freeze

between what the borrower is paying and the actual market interest rate. As the borrower repays the loan, the lender repays the city deposit. (No interest is earned by the city, but the funds can be re-used.)

Indirect subsidies. In addition to receiving direct public contributions to the rehabilitation cost, property owners also may benefit financially in other ways from participation in a public rehabilitation program, including: obtaining lower interest rates on the privately-financed portion of the rehabilitation; being granted local tax abatements or exemptions; being given an opportunity to raise rents, where rents are publicly-regulated; and subsequently receiving rent assistance for some or all of the tenants of the rehabilitated units. Property owners also may benefit from Federal tax incentives, including rapid amortization of rehabilitation costs for units subsequently rented to low-income families (under Section 167(k) of the Federal tax code) and use of the 25 percent Federal tax credit for certified rehabilitation of an historic structure. These "indirect subsidies" are intended to provide an incentive to the owner to undertake these kinds of rehabilitation. (See Exhibit 5.5.) 1/

1/ See Appendix E, Table VII-2.

EXHIBIT 5.5

FEDERAL TAX PROVISIONS INTENDED TO STIMULATE REHABILITATION

Section 167(k) is a Federal tax incentive that allows property owners to amortize rehabilitation expenditures over an accelerated five-year period, provided that the rehabilitated housing is rented to lower-income persons. In addition, the property owner must expend a minimum of $3,000 per unit; and no more than $20,000 per unit may be depreciated over the sixty-month period.

Historic rehabilitation tax credits of 25 percent of the rehabilitation cost are available on Federal income taxes to property owners who elect to rehabilitate certified historic buildings. Under provisions of the Economic Recovery Tax Act of 1981, rehabilitation expenditures of from $5,000 to $25,000 per unit are eligible for the credit. Unlike the Section 167(k) tax credit, property owners are not required to rent their properties to low-income individuals following the rehabilitation in order to qualify for the credit.

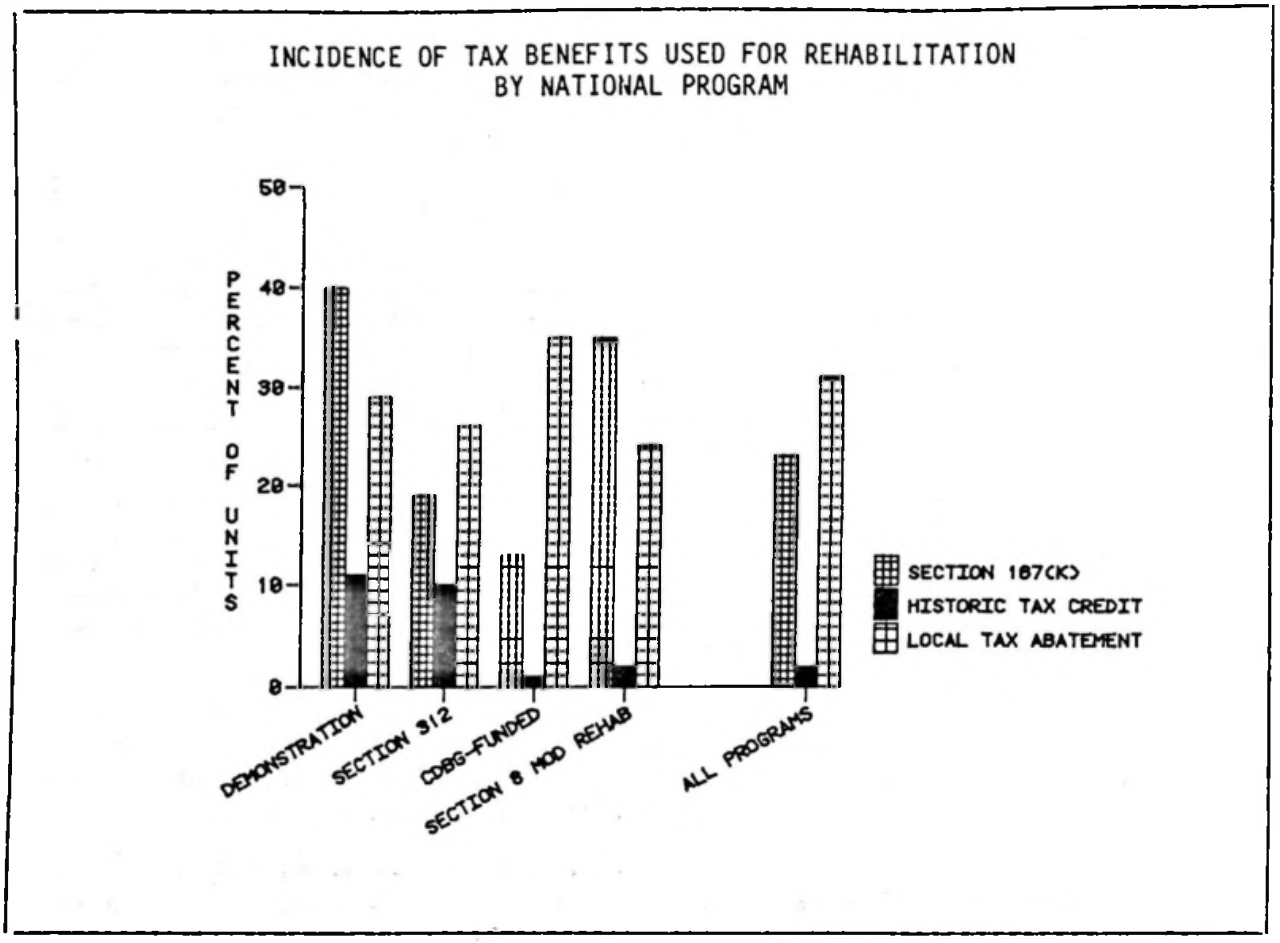
Some property owners in 17 of the 18 study communities used the Section 167(k) tax incentive. More than 80 percent of the properties for which this tax credit was used were considered to have major physical deficiencies or were uninhabitable. More than one-half of the properties received substantial rehabilitation. About one-fourth of all subsidized rehabilitation in the study communities benefited from this tax provision.

Only two percent of subsidized rehabilitation projects in the study commmunities involved the use of the historic rehabilitation tax credit. In the study sample, nearly one-half of the rehabilitated properties that used this credit were located in one city.

Local tax abatements or exemptions are another form of indirect subsidy intended to encourage rehabilitation. Some local jurisdictions, like New York City, offer tax abatements under certain conditions on rehabilitated property. Other places, like Pittsburgh and Allegheny County in Pennsylvania, offer tax exemptions (i.e., exemptions for some time period from tax increases or reassessment of property value). Places that have legislated rent controls, like New York and New Rochelle, may offer owners the opportunity for an approved recalculation of rents, thereby increasing rental income. Such

indirect supports increase the inducement to property owners to participate in rehabilitation programs, independently of direct public support. (See Exhibit 5.6.)

EXHIBIT 5.6



Incentives, leveraging, and efficiency. A subsidy given to a property owner is intended to induce property improvements, perhaps to influence the character or quality of those improvements, and/or to direct the benefits of the improvements (or a portion) to some group (typically, to lower-income households). The financial incentive provided by a given amount and form of subsidy must be sufficient to induce owner participation in the public program and to attract participation, as needed, by private lenders. Apart from Section 312 projects, most of the local programs surveyed attempt to leverage private contributions to the rehabilitation cost.

Ideally, the public subsidy is held to the absolute minimum necessary to induce the level and character of private participation desired by the public sector. However, in practice, it may be difficult for localities to hold subsidies close to this minimum. Some skill is required both to estimate the incentive value to an owner of a given level and form of subsidy and to negotiate the financing arrangements with owners and lenders. Thus, there will be instances where the level of public support is greater than that required to produce the rehabilitation and other, associated public benefits. In some cases, subsidies will be provided where none was needed, since the marketplace provided sufficient incentive for the rehabilitation to have occurred anyway. 1/ Although difficult to test empirically, it ought to be kept in mind that such instances lower the productivity of rehabilitation efforts.

A property owner may prefer a smaller cash grant to a larger loan that must be repaid with interest, provided the balance of the rehabilitation expenditure can be privately financed. It follows from this that a given amount of public funds may generate more rehabilitation initially if distributed as smaller non-repayable rather than as larger repayable subsidies. Repayable subsidies, on the other hand, eventually generate a continuing flow of funds that can be used for future rehabilitation projects or other public purposes. One recurring policy issue is whether non-repayable public subsidies generate more private dollars of rehabilitation per project than repayable subsidies.

Finally, it should be noted that participation in a public rehabilitation program sometimes allows a property owner to obtain below-market rate terms on a bank loan used to finance some portion of the rehabilitation. In these communities, over one-half of the projects involving bank financing obtained these loans at terms slightly or substantially more advantageous than the ordinary market rate for such loans, as a result of program participation. The average interest rate reduction in these cases was about six percentage points below the market average, which was 17 percent during this period. 2/ CDBG-funded projects nearly always involve some interest rate reduction on bank financing; however, only 20 percent of Section 8 Moderate Rehabilitation projects involve interest rate reductions on the private loans. While there is no direct public cost attributable to these interest rate reductions, they may result from formal or informal agreements between local government and lenders that compensate lenders through increased government deposits or by other means. In any case, interest rate reductions on private loans are an added inducement for property owner participation in public rehabilitation programs.

1/ Such instances of apparent "substitution" are discussed in Chapter 6.

2/ In a few instances, property owners responded to the question about more favorable terms by saying that no private loan would have been made without public sector participation in the financing.

Variations in Public Cost

The cost to the public of subsidizing the rehabilitation of private rental properties varies widely and, in some cases, dramatically from project to project. Obviously, some of the cost variation will reflect differences in the condition of properties selected for subsidy and, therefore, the total expenditure needed to restore them to standard condition. However, the public cost of subsidizing rehabilitation also depends on the proportion of the financing provided by the public sector, the terms under which it is provided, whether Federal or local tax expenditures are generated by the project, and the extent of any rent subsidies subsequently provided to households living in or initially moving from the rehabilitated properties.

The primary question addressed in the remainder of this chapter is why some rental rehabilitation projects cost the public more than others. To answer the general question of why costs vary, these more specific issues are addressed:

- The extent to which public costs depend on the kinds of properties selected for rehabilitation;
- The influence of community and neighborhood market conditions on public costs;
- The extent to which the form of subsidy (as established by Federal program regulations or by localities) influences public costs;
- The relationship between public costs and providing rent assistance to some or all tenants; and
- The extent to which communities have tailored subsidy terms to individual projects in order to minimize public costs.

More than one perspective on public cost is needed to accurately reflect the nature of cost variations. (See Exhibit 5.7.) The following are the principal per-unit measures of public cost used in this chapter:

A. Rehabilitation subsidy cost: The discounted present value 1/ of direct public subsidy, accounting for loan paybacks, plus the discounted

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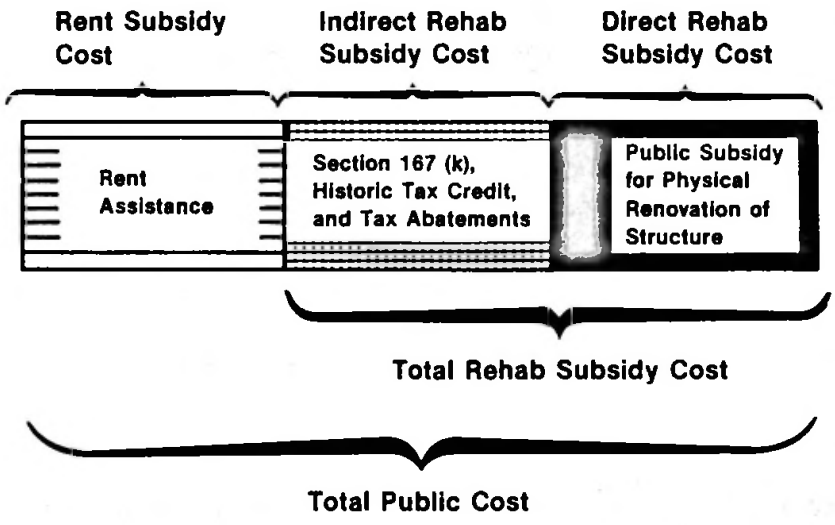
1/ Income received and expenditures to be made in the future are worth less, in today's dollars, than present income and expenditures. Therefore, following standard practice for this kind of analysis, future income and expenditures are discounted to their present values. The result is a truer picture of the public costs of various forms of subsidy, all expressed in today's dollars. The assumed discount rate is 12.5 percent, annually, based on the long-term U.S. Treasury bond rate at the time this study was conducted.

EXHIBIT 5.7

PUBLIC COSTS ASSOCIATED WITH REHABILITATION



present value of the stream of tax expenditures 1/ associated with each project per unit rehabilitated;

B. Depth of rehabilitation subsidy: The ratio of rehabilitation subsidy cost (as defined above) to the total rehabilitation expenditure (both public and private shares);

C. Rent subsidy cost: The discounted present value of rent subsidies paid on behalf of subsidized lower-income households, estimated cumulatively at the end of one, five, and 15 years -- per rehabilitated unit; 2/ and

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1/ Tax expenditures are revenues foregone due to special provisions of tax law intended to reward particular forms of private investment.

2/ Only 15-year cumulative costs are presented in this report.

D. Total public cost: The sum of the rehabilitation subsidy cost and rent subsidy cost, per rehabilitated unit -- again, estimated at the end of one, five, and 15 years.

In the remainder of the chapter, each of the four principal measures of public cost is discussed in turn. At each stage in the discussion, the question of why costs vary is addressed. 1/

(A.) Rehabilitation subsidy cost. The rehabilitation subsidy cost is a measure of the public expenditure (including tax expenditures) intended to stimulate rehabilitation. That is, it isolates that portion of project costs associated with the rehabilitation from that associated with any rent assistance that may be provided to lower-income occupants of the rehabilitated units. To arrive at this measure, the nominal cost of the direct subsidy is adjusted for the discounted present value of the payback stream where the subsidy is in the form of a loan. Then, the present value of the tax expenditures associated with the project is added to the adjusted direct subsidy cost. 2/ Table 5.1 shows the average nominal, adjusted direct and adjusted total rehabilitation subsidy costs for projects rehabilitated under each of the four national program categories. 3/ The adjusted direct cost of rehabilitation subsidies differs greatly, in some cases, from the nominal public

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1/ See Appendix E, Table V-3 and V-4.

2/ See Appendix D for a detailed discussion of these computations. In the case of Section 8 Moderate Rehabilitation projects, where a portion of the rehabilitation debt service is paid by the Federal government over 15 years, this stream of public cost is also discounted to its present value.

3/ Three high volume local programs are not part of this statistical analysis. New York City's Article 8A Loan program provides loans of up to $5,000 per unit for major system improvements. Loans carry three percent interest and terms up to 20 years. Since 1980, increased emphasis has been placed on leveraging private rehabilitation investment in conjunction with 8A loans. New York's Section 312 program follows national standards for lending under that program. Tax abatement of eligible rehabilitation expenditures is available, under both New York programs, through the city's J-51 program. Los Angeles' H.O.M.E. program provides loans to cover a varying proportion of rehabilitation costing up to $20,000 per unit, in small properties with one owner-occupied unit. The typical public share of the rehabilitation expenditure is 20 percent. Loans are either at zero percent interest with the option of renewal or repayment after five years (60 percent of projects) or at 10 percent for a term of 20 years. Terms vary with the ability of owner-occupants to pay and with other project characteristics.

cost. For instance, the adjusted cost of Section 312 subsidies is substantially lower than the nominal value of the public loan, because the Federal government receives a payback of principal plus interest. However, since the interest rates on these loans are set below the market rate, there is still a net public expenditure, averaging just under $10,000 per rehabilitated unit in Section 312-supported projects. The adjusted direct subsidy cost for Section 8 Moderate Rehabilitation projects is higher than the nominal cost shown here, since the portion of the Federal Section 8 rent subsidy, paid over 15 years, assumed to cover the rehabilitation debt service is added to the nominal cost of other public subsidies to produce the adjusted figure.

TABLE 5.1

Three Measures of the Cost of the Rehabilitation Subsidy, By Program

Measure of Public Cost	Program: Demonstration	Section 312	CDBG-Funded	Section 8 Mod Rehab	All Programs b/
Nominal Cost of Rehab Subsidy	$5,614	$17,816	$9,584	$4,558 a/	$7,503
Direct Rehab Subsidy Cost d/	3,727	9,543	6,547	9,257 c/	5,967
Total Rehab Subsidy Cost d/	5,783	10,489	13,213	12,343 c/	10,739

a/ Under Section 8 Moderate Rehabilitation, this average includes only the direct public subsidies provided up front (if any) and not rehabilitation debt service payments included in the rent subsidies paid for Section 8 assisted households. Those payments are, however, reflected in the direct and total rehab subsidy costs (adjusted).

b/ These "All Programs" totals include five local programs not operated under any of the four national programs.

c/ Using the alternate method of apportioning the Section 8 Moderate Rehabilitation subsidy, the direct rehab subsidy cost is $5,582 and the total rehab subsidy cost is $8,769. See page 5.3 for explanation of the alternate method.

d/ This cost has been adjusted. See text for explanation of adjustment.

Indirect subsidies provided as tax expenditures are concentrated in larger projects (especially those with more than 20 units) and in properties in poorer condition prior to rehabilitation). The larger total expenditures generated by such projects increase the tax benefits available to owners, especially those with very high personal incomes, or to other investors through syndication. Twenty-three percent of the projects in these 18 communities use Section 167(k) to rapidly amortize rehabilitation costs. Only two percent of the projects employ the Federal tax credit available for certified rehabilitation of historic structures. Local property tax abatements, freezes, or exemptions in five jurisdictions produce tax expenditures there. Altogether, 31 percent of the rehabilitation projects receive some form of local property tax reduction. Both for this reason and because of variations in the kinds of properties selected for rehabilitation, the average tax expenditure associated with rehabilitation varies widely. 1/

Tax expenditures add between $900 and $6,500 to the national program averages, producing total adjusted rehabilitation subsidy costs ranging from $5,783 per unit for the Demonstration to $13,213 per unit in CDBG-funded projects. With both direct and indirect subsidies included, each unit rehabilitated under the CDBG-funded and Section 8 Moderate Rehabilitation programs costs the public at least twice as much, on average, as each unit rehabilitated under the Rental Rehabilitation Demonstration. Section 312 projects also involve significantly higher public expenditures per unit, on average, than the Demonstration. However, these program averages are largely a reflection of influences other than legislatively-defined program characteristics. (See Exhibit 5.8.)

The condition of properties selected for rehabilitation is the most important single influence on the public subsidy cost. Where the total cost of rehabilitation is higher, because of poorer property condition, the public contribution to the rehabilitation also tends to be higher. (See Exhibit 5.9.)

Older buildings tend to require larger public subsidies than others. Also, projects that take more months to complete require larger rehabilitation subsidies. Both of these relationships hold even when the relative pre-rehabilitation condition of properties is taken into account. Each of these three project characteristics -- prior condition, building age, and time needed for completion -- imply variations in the difficulty of undertaking the rehabilitation. Jointly, the three relationships suggest that larger public subsidies are required when more difficult or challenging projects are undertaken.

1/ Estimates of tax expenditures were calculated using HUD's housing program subsidy model, based on owners' incomes, intended use of Federal tax provisions, and the value of local property tax reductions. See Appendix D for details on the method of estimation, including assumptions. For details on HUD's subsidy model, see David Einhorn, Federal Tax Incentives and Rental Housing, Office of Policy Development and Research, U. S. Department of Housing and Urban Development, December 1982.

EXHIBIT 5.8

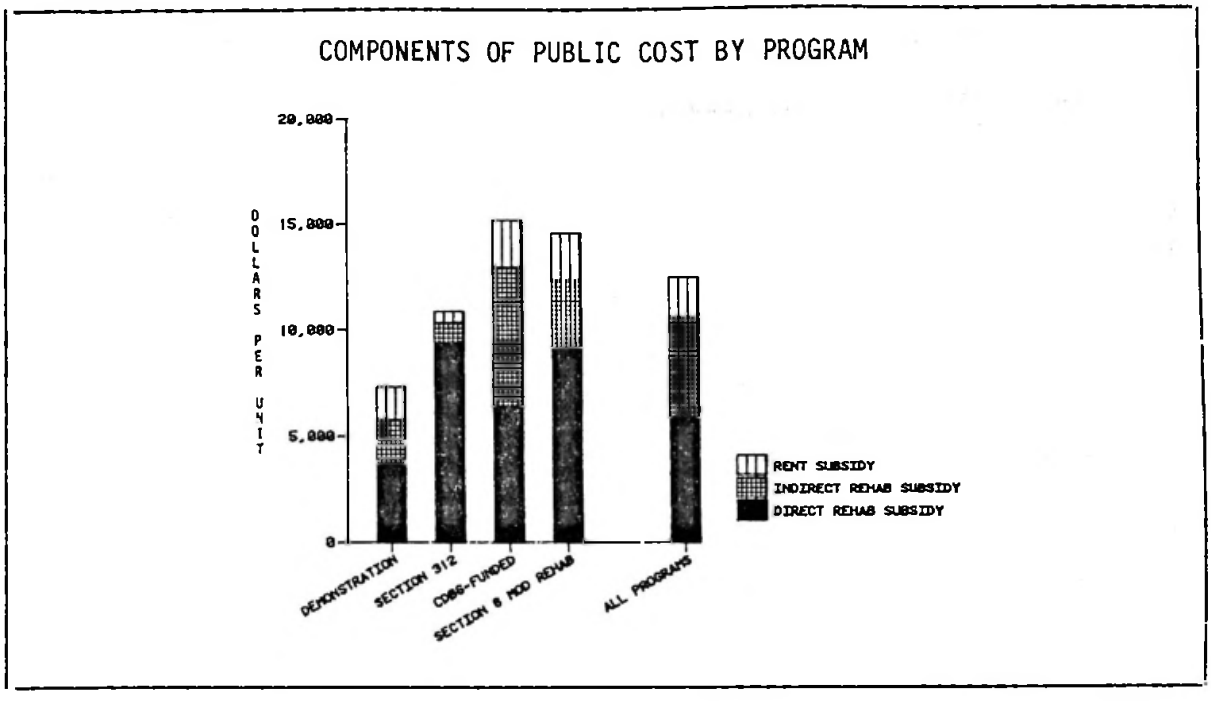
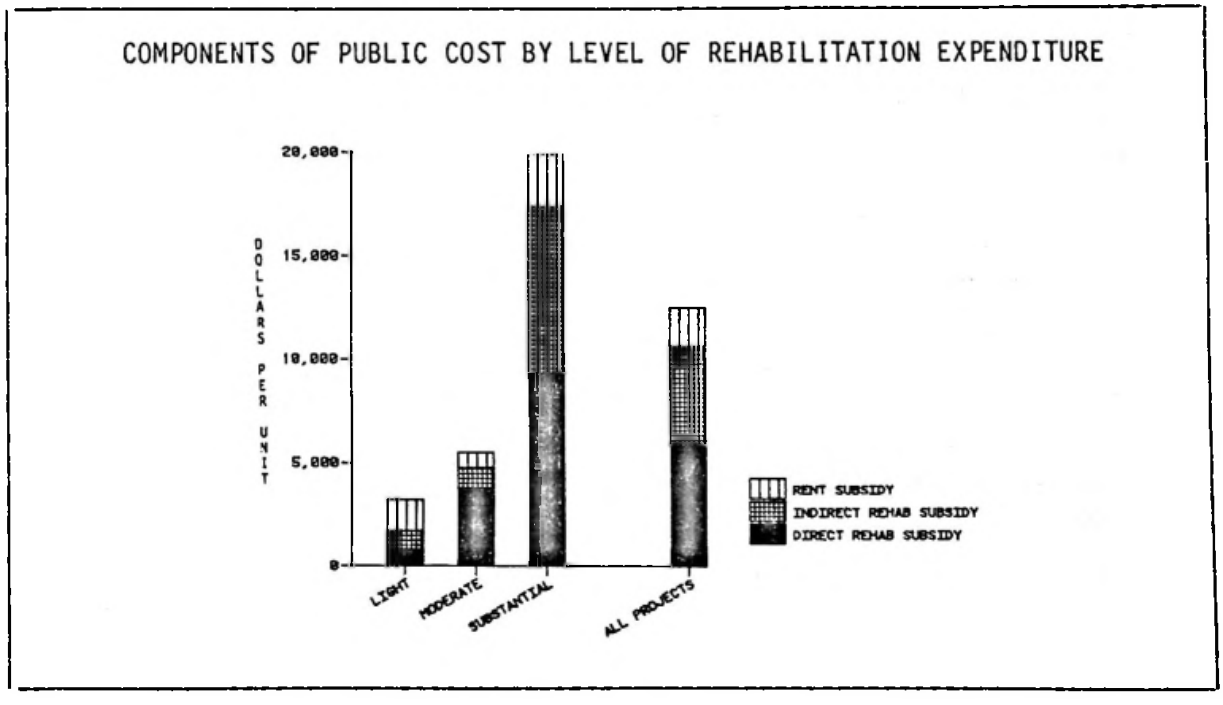


EXHIBIT 5.9



As expected, the public cost of rehabilitating larger units (as measured by the number of bedrooms) is higher than the subsidy cost for smaller units. This means that, where other circumstances are equal, communities that choose to subsidize rehabilitation of units suitable for larger households -- for whom there is often a shortage -- will be able to rehabilitate fewer units at any given level of public expenditure.

Apart from the nature of the project itself, the cost of subsidizing rehabilitation also appears to be influenced by programmatic factors. Taking into account all other influences on the rehabilitation subsidy cost, these costs average about $3,000 lower per unit for properties rehabilitated under the Demonstration or under other CDBG-funded programs than for properties rehabilitated under the other Federal programs. 1/ One possibility is that the greater flexibility in structuring subsidies allowed under these two programs accounts for this difference.

The public cost of subsidizing the rehabilitation is less strongly influenced by market conditions at a community or neighborhood level than might be expected. The public cost of rehabilitation subsidies tends to be lower, on average, in strong city markets, taking into account other influences on cost. However, the average public cost of rehabilitation subsidies as a proportion of total rehabilitation expenditure is roughly the same in strong, moderate, and weak market communities. And, contrary to expectations, subsidy costs are somewhat higher, on average, in stronger market neighborhoods than in weaker market neighborhoods.

Unmeasured market factors may, nevertheless, influence the public cost of supporting rehabilitation. For reasons not apparent from available information, where the terms of the private financing provided for the rehabilitation are more favorable (i.e., at below-market interest rates), the public cost of rehabilitation subsidies tends to be higher. This relationship is present even when variation in prior building condition and the other indicators of project difficulty are taken into account. The implication is that the same circumstances encourage both public agencies and private lenders to invest more heavily in certain projects.

Finally, there appears to be little if any relationship between whether the public subsidy is offered in repayable or non-repayable form and the direct public cost of rehabilitating a rental unit. Although the total public subsidy cost averages $5,400 more per unit for loans than for grants and forgiveable loans, this difference is largely due to the higher average value of tax expenditures on projects receiving public loans. Also, projects that involve repayable subsidies have higher rehabilitation costs, on average,

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1/ If the alternative method of apportioning the Section 8 Moderate Rehabilitation subsidy is used, as discussed earlier, the cost difference between the two sets of Federal programs, controlling for all other influences, drops to $1,500 per rehabilitated unit.

than others. 1/

(B.) Depth of rehabilitation subsidy. The relationship between the public cost of the rehabilitation subsidy and the total rehabilitation cost is a measure both of government's effort to produce rehabilitation and the approximate strength of the incentive offered to owners and investors. Deeper subsidies might reflect more difficult projects or more difficult market conditions. Or, they might reflect an inability to appropriately tailor subsidies, in order to minimize public costs.

In these 18 communities, since 1980, the total public cost of subsidizing rehabilitation has averaged 48 percent of the cost of rehabilitation. 2/ Among the four national program categories, the average ratio of public costs to rehabilitation expenditures is highest for Section 8 Moderate Rehabilitation projects -- about 95 cents of public cost, including tax expenditures, for every dollar of rehabilitation expenditure. 3/ In each of the other three program categories, the average is about 50 percent. This is true despite the greater emphasis in the Demonstration and other CDBG-funded programs on leveraging private contributions to the rehabilitation. These two programs average lower subsidies in proportion to total rehabilitation costs than Section 312, but when tax expenditures are included in the public cost, the depth of subsidy is comparable for all three.

The depth of subsidy is somewhat higher for projects that take more time to complete. This relationship may imply that more difficult rehabilitation projects require deeper public subsidies, other things being equal.

Community and neighborhood market conditions appear to have little influence on the depth of rehabilitation subsidy. The average ratios of public cost to rehabilitation cost are not greatly different in strong and

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1/ A multiple regression analysis was used to assess the independent influence of each variable on public rehabilitation subsidy costs. Together, eleven variables explain 57 percent of the variation in these costs from one project to another.

2/ The public cost, expressed in discounted present value terms, is being compared to the total cash value of the rehabilitation. This relationship should not be confused with the nominal share of the rehabilitation cost, presented in Chapter 3, which ignores the terms of subsidy, excludes the portion of Section 8 rent assistance ascribed to the rehabilitation debt service, and disregards indirect public costs due to tax expenditures.

3/ If the total Section 8 Moderate Rehabilitation subsidy is apportioned by the alternative method, i.e., by considering as rehabilitation subsidy that portion of the subsidy that brings per-unit rental income up to the Section 8 Existing FMR level, then the ratio becomes 63 cents of public cost for each dollar spent on the rehabilitation.

weak rental markets at the community level -- at least in these 18 communities. However, projects in weaker market neighborhoods receive lighter public subsidies than those in stronger neighborhoods, contrary to expectations.

(C.) Rent subsidy cost. Rental rehabilitation subsidies are frequently used in conjunction with Federal rent assistance in order to improve housing opportunities for lower-income people. Where this occurs, rent subsidies are a major component of program costs. 1/

Rent assistance is committed for varying lengths of time, up to 15 years, under different programs. Also, assisted tenants may move from rehabilitated units and be replaced by other, assisted or unassisted, households. And, especially under the Rental Rehabilitation Demonstration, some previous occupants of rehabilitated units may move at the time of rehabilitation and be eligible for rent assistance under terms of the program. Due to these differences, specific assumptions must be made about long-term occupancy and about what costs are to be considered part of a given program before these costs can be computed and compared.

For purposes of this analysis, rent subsidy costs have been computed, on a cumulative basis, at the end of one, five, and 15 years. The following assumptions are made: (a) the number of assisted households will be constant over the 15 year period (although it is assumed that the identities of assisted households will change), and the rehabilitated units will be maintained in standard condition for this period; (b) where certificates are initially issued to households moving from rehabilitated units, these costs are assumed to continue for the full 15 years; (c) where assistance is provided to specific households (as in the Demonstration) rather than tied to specific units (as in Section 8 Moderate Rehabilitation), it is assumed that assistance will continue to that household, or a comparable household, over the 15-year period, whether they move or not, and be counted as a program cost. The net result is that the number of assisted households is assumed to be constant, under all programs, over the entire period. 2/

Over the 15-year period, and expressed in terms of present value, the average annual cost of assisting a household ranges from about $2,200 in Section 312 and Section 8 Moderate Rehabilitation projects to $3,500 in the

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1/ See Appendix E, Table V-5.

2/ Holding the benefits and costs constant for 15 years, in this fashion, is not intended as a forecast but is a method of arriving at a cost comparison under the assumption that benefits are sustained. Where fewer units are assisted as time goes by, both benefits and costs will be lower than estimated under these assumptions.

Demonstration and $7,500 in CDBG-funded projects. 1/ Variation is due, in part, to differences in rents set for assisted units after rehabilitation.

When rent subsidy costs are averaged across all rehabilitated units in each project (whether assisted or not), the per-unit averages naturally tend to be higher where a larger percentage of units are assisted. The 15-year cost of rent assistance averages as follows: about $2,200 per unit for Section 8 Moderate Rehabilitation projects (where nearly all units are assisted); between $1,500 and $2,000 per unit for Demonstration 2/ and other CDBG-funded projects; and less than $400 per unit for Section 312 projects (where only 13 percent of households receive Section 8 assistance).

Combining all programs, rent assistance costs are much lower in neighborhoods where the rental market is very weak relative to the community than in neighborhoods that are close to the market average for their communities.

Rent assistance costs also are lower in strong market communities than in others, because these communities assist fewer households, on average, than others. This difference may result, in part, from the tendency of strong market communities to specialize in lighter rehabilitation of habitable properties, leading to smaller rent increases and less need for rent subsidies to protect lower-income residents from excessive housing costs or displacement.

(D.) Total public cost. The final step in estimating the cost of rehabilitation is to combine rehabilitation subsidy and rent subsidy costs. This represents the total cost to the taxpayer of accomplishing the rehabilitation and assisting eligible lower-income households -- again, after one, five, and 15 years. Where the local program goal is to improve low-income housing opportunities, this is the most appropriate cost standard to use in comparing projects or programs. 3/

1/ The discounted annual cost is higher in the early years of the period. An annual inflation rate of 5.5 percent is assumed for both household income and housing costs (contract rent plus utilities). The discounted annual cost for Section 8 Moderate Rehabilitation reflects the subsidy structure of that program, which allows recovery of debt service for rehabilitation as it comes due. In cases where rehabilitation loan terms are less than 15 years, this means that a large percentage of the total rent subsidy is treated as a rehabilitation subsidy in these years. See Appendix D for more detail on the method of calculating rent subsidy costs.

2/ This includes the cost of Section 8 rent subsidies paid to those relocated to other housing at the time of the rehabilitation. About six such households are aided for every 100 units rehabilitated under the Demonstration. Under other Federal programs, relocated households are less likely to receive Section 8 assistance.

3/ See Appendix E, Table V-6.

Average total public costs are higher for properties in poorer condition before rehabilitation, leading to higher total rehabilitation expenditures. This difference is mainly a function of the variations in rehabilitation subsidy costs noted earlier.

Among the four national programs, the lowest average public costs are for Rental Rehabilitation Demonstration projects, reflecting relatively low rehabilitation subsidy costs in this program.

Conclusion

Variation in the public cost of rehabilitation primarily reflects variation in the condition of properties selected for subsidy and in the extent to which rent subsidies are provided to increase the low-income benefits of such efforts. The influence of market conditions on subsidy levels is not very pronounced or straightforward, at least across these 18 communities. Nor does the form in which subsidies are provided make a great difference. However, the more flexible approach to subsidy possible under the Demonstration and other CDBG-funded local programs is one possible explanation for the lower public cost of rehabilitation subsidies achieved under these national programs, after taking other influences into account.

Chapter 6

PRODUCTIVITY

The relative productivity of different rental rehabilitation efforts can be expressed in terms of the public dollars required to produce a given level of benefit. Because both the benefits and costs of rental rehabilitation can be looked at in more than one way, more than one measure of productivity is needed to accurately describe the relative productivity of two or more projects, programs, or approaches to rehabilitation.

This chapter looks at the productivity of rental rehabilitation, first, from the perspective of its contribution to improvement of the housing stock and, indirectly, to stimulation of other investment in neighborhoods and, second, considering the degree to which rental rehabilitation improves low-income housing opportunity.

Two measures of productivity deserve special attention because they correspond closely to the two often-stated objectives of local rental rehabilitation programs. Where the emphasis is on increasing the supply of standard rental housing, and not primarily on aiding lower-income households, then it is appropriate to judge productivity in terms of the rehabilitation subsidy required for each net addition to the rental stock. 1/ Where the objective is primarily to improve housing for lower-income households, it is appropriate to judge productivity in terms of the combined public cost of rehabilitation and rent subsidies required for each unit of increase in the supply of affordable lower-income occupied rental housing. 2/ A local rehabilitation effort that is more productive than average by one standard may be less productive by the other. Some programs may, through a combination of appropriate design and market conditions, achieve higher-than-average productivity by both standards.

While a number of other useful productivity measures can be computed from the available information on benefits and costs, these two measures, together, give a particularly good indication of how

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1/ As measured in this study, for a given project, this is the ratio of the adjusted public cost of any direct rehabilitation subsidy (or that portion of the Section 8 Moderate Rehabilitation rent subsidy used to pay rehabilitation debt service), plus estimated tax benefits, divided by the number of units added to the rental stock or saved from imminent loss by the rehabilitation.

2/ As measured in this study, for a given project, this is the ratio of the total adjusted public cost of rehabilitation subsidy and tax benefits plus rent subsidies over a 15-year period, divided by the net change in the number of units that are occupied by lower-income households either at affordable, unsubsidized rents or with rent subsidies.

productive a project or program is relative to the two main objectives of rental rehabilitation.

A. Contributions to Improved Housing

To those interested in rental rehabilitation's contribution to improved housing, without regard for who benefits from the improvement, every rehabilitated unit constitutes some degree of benefit. However, greatest value is likely to be attached to rehabilitating units that have been out of the stock or were about to drop out of the stock due to major deficiencies and inadequate operating income. Not only do these additions represent a more significant direct investment; they also, by restoring badly deteriorated or abandoned properties, are likely to indirectly stimulate more private investment in other properties in the same neighborhoods. Least value is likely to be given to rehabilitating already-standard units, especially if that rehabilitation does not stimulate other investment. 1/

When public rehabilitation subsidy costs are considered in relation to net rental stock additions (units added or saved), the Rental Rehabilitation Demonstration is, by a small margin, the most productive national program category in these 18 communities. 2/ (See Exhibit 6.1.) It generates net stock additions, on average, at about one-half the per-unit cost of public rehabilitation subsidy averaged under Section 8 Moderate Rehabilitation ($9,728 versus $17,358). This is true despite the fact that the latter program increases the rental supply at a faster rate than the Demonstration (71 per 100 vs. 60 per 100). (The calculation of productivity is explained in Exhibit 6.2.)

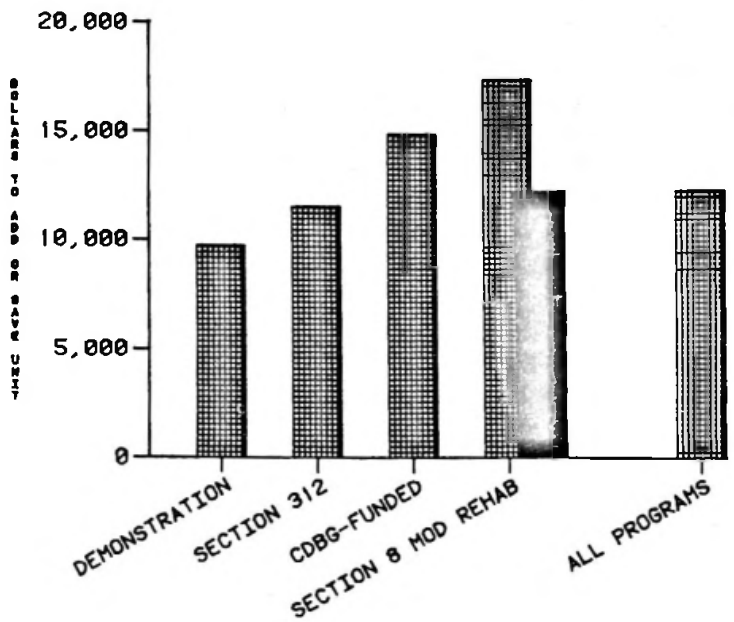
It can be misleading, however, to think in terms of program averages. The wide variations in productivity that are found within programs are illustrated by the very different rates at which the 18 local versions of the Demonstration generate benefits and costs, as shown in Exhibit 6.3. The communities that have used the Demonstration mainly to perform light rehabilitation have added to the rental stock at relatively low rates; they are clustered near the lower left corner of the figure. Other communities have used the Demonstration mainly for substantial rehabilitation and have added to the rental stock at a higher rate; they are clustered at the upper right. The most productive local versions of the Demonstration are those which produce benefits at a high rate relative to the public cost of rehabilitation subsidies, i.e., those toward the lower right of the figure. The least productive local efforts are those achieving lower rates of benefits at higher subsidy costs, i.e., those toward the upper left.

1/ See Appendix E, Tables VI-1.

2/ Based on a calculation of confidence intervals around the mean, there is some statistical possibility that the Section 312 program is as productive or slightly more productive than the Demonstration, as operated in these communities.

EXHIBIT 6.1

AVERAGE PRODUCTIVITY (STOCK ADDITIONS)
BY PROGRAM



PROGRAM PRODUCTIVITY

PRODUCTIVITY OF SECTION 8 MOD REHAB PROGRAM, UNDER AN ALTERNATIVE METHOD FOR CALCULATING TOTAL REHAB SUBSIDY COST

EXHIBIT 6.2

A NOTE ON PRODUCTIVITY CALCULATION

The following table shows the average apparent productivity of rehabilitation subsidies given under the four national program categories considering as benefits net additions to the rental stock (units added or saved). These ratios do not include the public cost of rent assistance. As noted in Chapter 4, rehabilitation adds units to the rental stock either by returning to the stock units that had been abandoned (units added) or by retaining units threatened with imminent loss due to deteriorated condition and inadequate operating income (units saved).

If all rehabilitated units were counted as of equal benefit, then productivity ratios would be the same as the per-unit public costs of rehabilitation subsidies reported in Chapter 5; this is the first line of numbers in the table below. However, since only net additions to the stock are considered to be benefits by this measure, the public rehabilitation subsidy needed to produce a unit of benefit increases; this is the second row of numbers in the table. Larger dollar figures represent lower productivity. The changes in apparent productivity of different approaches to rehabilitation, when benefits are measured as net additions are shown in the third row of the table.

Comparison of Apparent Productivity of Total Rehabilitation Subsidy Cost Using Two Different Benefit Measures, By Program

Productivity Measure: Total Rehab Subsidy Cost Per Unit of Benefit For:	Program				
	Demonstration	Section 312	CDBG-Funded	Section 8 Mod Rehab	All Programs a/
A. All Rehabilitated Units	$5,783	$10,489	$11,222	$12,343	$10,709
B. Net Stock Additions Only	9,728	11,511	14,852	17,358	12,274
B. Less A.	3,945	1,022	3,630	5,015	1,565

a/ These "All Programs" totals include five local programs not operated under any of the four national programs.

-- continued on next page --

In these 18 communities, the Rental Rehabilitation Demonstration is the most productive national program category, on average, when public rehabilitation subsidy costs are considered in relation to net rental stock additions (units added or saved). It generates net stock additions at about one-half the per unit cost of public rehabilitation subsidy averaged under Section 8 Moderate Rehabilitation ($9,728 versus $17,358). This is true despite the fact that the latter program increases the rental supply at a faster rate (per 100 units rehabilitated) than the Demonstration.

The difference, then, is largely due to the complete public subsidization of rehabilitation debt service under Section 8 Moderate Rehabilitation. a/ Because Section 312 projects are more likely than others to involve properties initially in poorer condition, 90 percent of the units rehabilitated under this program represent net additions to the stock; therefore, the apparent productivity of this national program changes less than that of others when only net additions are considered as benefits. b/

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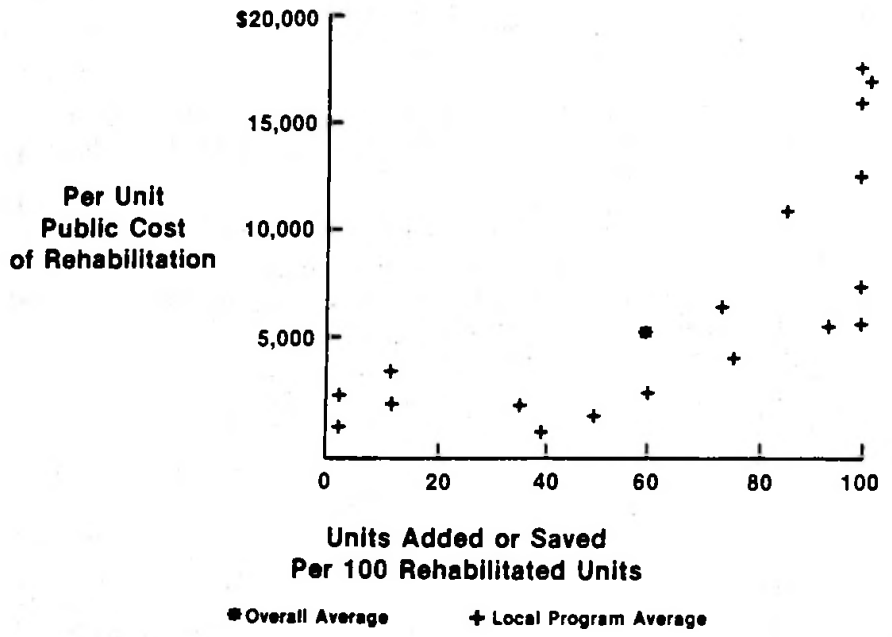
a/ It should be recognized, however, that the incremental public cost of rent subsidies under Section 8 Moderate Rehabilitation, over and above that used to pay debt service, is nearly always smaller than the public cost of rent assistance under the Section 8 Existing program. Under the latter program, a portion of the owner's income from subsidized as well as unsubsidized units would be used to pay the debt service on any outstanding private loans for rehabilitation. If the alternative method of apportioning the Section 8 Moderate Rehabilitation subsidy is used, as presented in Chapter 5, then the average rehabilitation subsidy needed to produce a net addition is about $12,500 and the four national programs look about equally productive, on average.

b/ If total public costs, including 15 years of rent subsidies, are used as the numerator for calculating productivity, then Section 312 and Demonstration projects appear to be about equally productive, averaging about $12,000 per net addition. CDBG-funded projects average about $19,000 per unit of benefit. And, Section 8 Moderate Rehabilitation projects average about $20,000 per unit of benefit.

EXHIBIT 6.3

RATES OF BENEFITS (STOCK ADDITIONS) AND PER UNIT PUBLIC COST OF REHABILITATION SUBSIDIES FOR 18 LOCAL VERSIONS OF THE RENTAL REHABILITATION DEMONSTRATION



Not surprisingly, there is a general relationship between the average level of public rehabilitation subsidy and the rate at which units are added or saved by rehabilitation. Very light rehabilitation is unlikely to add many units to the rental stock. However, programs using moderate subsidies to achieve moderate rates of benefit can be as productive as programs using substantial subsidies to achieve higher rates of benefit. Among these 18 communities, the most productive local version of the Demonstration adds or saves a rental unit for every $4,900 of public rehabilitation subsidy (including tax benefits). On the other hand, two local versions of the Demonstration had produced no net additions to the rental stock in projects selected by September, 1983. Two others had averaged public costs of about $35,000 for each unit added or saved.

One small city has concentrated its Demonstration funds almost entirely on properties in relatively poor condition, but habitable, and occupied mainly by low-income households. Although the city's rental market is mainly luxury apartments and demand is very strong relative to supply, the neighborhoods where the Demonstration is used are the city's least affluent, containing many small, deteriorated structures and a mix of poor and working class families. The typical Demonstration project here costs about $7,000 per unit (i.e., is in the low moderate range); and the public share of this (typically one-third to one-half of the total) is provided as a non-interest-bearing, non-amortizing deferred payment loan. Sixty-eight of the first 114 units rehabilitated constitute net additions (usually units that would have been lost to the stock without rehabilitation). This community ranks first in productivity, measured in terms of net additions to the rental stock.

In another city with a strong rental market, the Demonstration has again been used mainly to repair habitable structures. Rehabilitation costs range anywhere from $1,000 to $15,000 per unit. The city's Demonstration is modelled after an innovative, CDBG-funded rental rehabilitation program operated here since the mid-1970s. Funds are provided in the form of a loan at three percent interest. However, because most of the first 18 rehabilitated units were in fair condition prior to rehabilitation and likely to remain in the rental stock, only two of these represent net additions. Consequently, this community's program ranks low, so far, by this measure of productivity.

It is important to recognize that Federal program categories, especially the Demonstration and other locally-designed CDBG-funded programs, are not very constraining on localities. Thus, the productivity of their efforts depends more on local circumstances and local choices.

Reasons for higher productivity: adding to the stock. The most important choice that a locality can make, in terms of productivity, concerns what kinds of structures will receive subsidies. Judging from the experience of these 18 communities, and basing productivity on what it costs the public to increase the rental supply, the ideal candidate for rehabilitation is a small structure in relatively poor, but not uninhabitable condition, that can be made standard with a light or moderate level of investment. 1/ Obviously, the number of structures that fit this description may be limited in a given

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1/ This is based on an examination of the correlations of individual variables with the productivity measure as well as a multiple regression analysis, used to estimate the independent influence of each variable on productivity. Rehabilitation expenditure, condition, and size together explain about 40 percent of the variation in productivity as measured here.

locality. Obviously, also, some local programs achieve higher productivity than others, under seemingly similar market conditions. Careful selection of properties to receive subsidy appears to be a major reason why some communities are able to expand the rental stock at a faster rate for a given level of public expenditure than others.

Exhibits 6.4 and 6.5 show the average levels of productivity for projects receiving differing levels of rehabilitation investment (including both public and private shares) and differing numbers of units. Although light rehabilitation adds to the rental stock at a lower rate than more substantial rehabilitation, it does so at a much lower cost to the public; consequently, such projects typically are a more productive public investment. 1/ Likewise, although small (1 to 4 unit) projects add or save rental units at a lower rate, on average, than larger projects, they also involve lower levels of public expenditure; again, the result is somewhat higher productivity. 2/ It is possible that some economies inherent in the rehabilitation of smaller structures help to keep costs down for both the public and private investors.

After both level of rehabilitation and project size are taken into account, the other major influence on productivity, as measured here, is the condition of the property. On average, the most productive group of projects are those that have major physical deficiencies but are still habitable. Although rehabilitating uninhabitable structures increases the rental supply at a faster rate than rehabilitating buildings in better condition, the cost of rehabilitation -- for both public and private investors -- is much higher. On average, the public cost of rehabilitating uninhabitable properties is nearly double that of rehabilitating buildings in the next condition category, i.e., with major physical deficiencies but, in most cases, still habitable. Thus, greater productivity can be gained, other things being equal, by selecting properties that are in relatively poor condition but do not require an inordinate investment to make them standard.

1/ Light rehabilitation returns very few units to the rental stock but prevents the loss of many units. Units added and units saved are counted equally as net additions to the rental stock.

2/ In fact, the independent relationship between project size and productivity is stronger than suggested by the productivity averages. When buildings in similar condition but of differing sizes are rehabilitated, the smaller project is likely to involve lower public expenditure per unit of benefit. This comparison does not take into account the higher per-unit administrative overhead that may be associated with carrying out a larger number of smaller projects rather than a smaller number of larger ones.

EXHIBIT 6.4

AVERAGE PRODUCTIVITY (STOCK ADDITIONS)
AT THREE LEVELS OF REHABILITATION EXPENDITURE

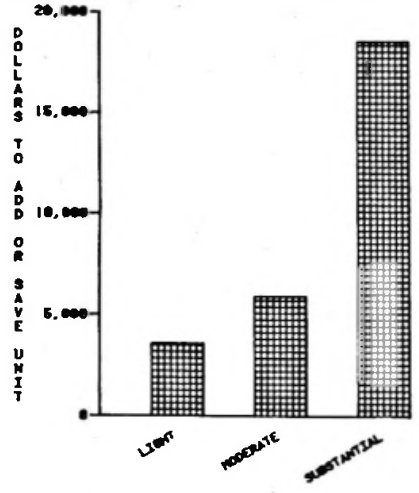
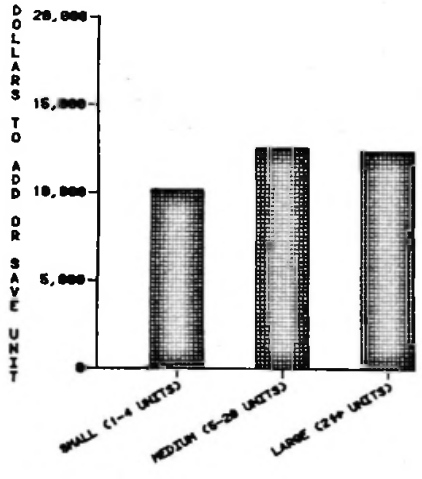


EXHIBIT 6.5

AVERAGE PRODUCTIVITY (STOCK ADDITIONS)
FOR PROJECTS OF THREE DIFFERENT SIZES



Market conditions have not been a major influence on the productivity of local rehabilitation programs operated by these 18 communities. While productivity is higher, on average, in the localities where markets are stronger (with fewer vacancies, higher rents, and higher incomes), this is related to a tendency for such communities to specialize in habitable properties and for those with weaker markets to specialize in uninhabitable properties. It is unclear whether communities with moderate or weak rental markets choose to, or are forced to, select properties that require greater public and private investment relative to the rate at which they generate net additions to the rental stock.

As an example of why some local programs are less productive in these terms than others, a medium-sized city with a weak rental market has targeted its Demonstration funds primarily to vacant properties in need of substantial rehabilitation: seven of the nine properties selected through September, 1983, were vacant prior to rehab and the average per-unit rehabilitation cost was almost $27,000. Of the 35 units rehabilitated under the Demonstration, all represent net additions to the rental stock. The public share of the rehabilitation cost, made in the form of a deferred payment loan, ranged between one-half and two-thirds of the total. The average direct public cost of $14,356 was second highest among the 18 study communities. Even though all units rehabilitated here under the Demonstration represent net additions to the rental stock, this program ranks very low in terms of productivity, by this measure, because of heavy per-unit expenditures.

B. Contributions to Low-income Affordable Housing

Those primarily concerned with rental rehabilitation as a way of improving low-income housing opportunity will find it useful to look at productivity as the cost of providing benefits to lower-income households. 1/ The most appropriate measure of benefit, from this perspective, is the rate at which rehabilitation alters the supply of affordable, lower-income occupied rental housing. And, since an important cost component of programs aimed at this objective is the cost of rental assistance, the most appropriate measure of public cost includes both the rehabilitation subsidy and the rent subsidies paid over time to these households. Therefore, productivity in aiding lower-income households may be usefully measured as the total public expenditure for rehabilitation and rent subsidies required to add an affordable lower-income occupied rental unit. 2/ (The calculation of productivity using this second measure is explained in Exhibit 6.6.)

1/ See Appendix E, Table VI-2.

2/ The calculations of public cost used in this chapter assume a 15-year rent subsidy period; however, the general patterns and relationships described in the text are not altered by assuming a shorter rent subsidy period of five years. For the definitions of "affordable" and "lower-income occupied", see Chapter 4.

EXHIBIT 6.6

A SECOND NOTE ON PRODUCTIVITY CALCULATION

The following table compares average productivity of projects carried out under the four national programs using the second measure of productivity. The first row of numbers presents the combined average rehabilitation and rent subsidy expenditure per rehabilitated unit. The second line estimates the productivity of expenditures for rehabilitation and rent subsidies relative to net changes in the affordable, lower-income occupied rental supply. The third row of numbers shows how the apparent productivity of each national program changes when benefits are estimated in this fashion. From this perspective, the relative productivity of the four national programs is significantly altered.

Comparison of Apparent Productivity of Total Public Cost Using Two Different Benefit Measures, By Program

Productivity Measure: Total Public Cost Per Unit of Benefit For:	Program				
	Demonstration	Section 312	CDBG-Funded	Section 8 Mod Rehab	All Programs a/
A. All Rehabilitated Units	$7,320	$10,876	$15,186	$14,560	$12,525
B. Additions to Affordable, Lower-Income Occupied Stock Only	20,676	42,131	45,638	19,720	28,959
B. Less A.	13,356	31,255	30,452	5,160	16,434

a/ These "All Programs" totals include five local programs not operated under any of the four national programs.

Productivity estimates are based on benefits immediately after rehabilitation and, therefore, could be misleading to the extent that benefits are prematurely lost in some project categories. For instance, the future productivity of projects carried out under programs other than Section 8 Moderate Rehabilitation may be reduced to the extent that lower-income households now in affordable units are later required to pay an excessive proportion of income for rent due to rent increases or the loss of rent assistance. Benefits will be reduced, also, to the extent that lower-income occupants of these units are later displaced due to higher rents, are

replaced by non-low-income households, and are not assisted in their new locations. The extent to which initial benefits are retained over 15 years depends on whether rents remain affordable to unassisted tenants, on the policies of local governments regarding the household initially benefiting, and on the continued availability of Federal rent assistance -- none of which can be accurately forecast over so long a period.

Both under the Section 8 Moderate Rehabilitation program and in the Demonstration, low-income benefits are achieved at less than one-half the rate of public expenditure averaged under Section 312 or local CDBG-funded programs other than the Demonstration. The latter programs expand the affordable lower-income occupied rental supply at lower rates, on average, than the Demonstration and at a higher average public cost per rehabilitated unit. 1/

Because a large portion of the Section 8 Moderate Rehabilitation program subsidy goes to pay rehabilitation debt service, the incremental cost of subsidizing rents is small relative to the incremental cost of rent subsidies as calculated for the Section 8 Existing program. Also, Section 8 Moderate Rehabilitation projects add to the affordable lower-income occupied stock at a much higher average rate (66 units for every 100 rehabilitated) than projects rehabilitated under other national programs. Consequently, the Section 8 Moderate Rehabilitation program is much more productive when viewed from the perspective of low-income benefit than when considered as a means of expanding the total supply of rental housing. 2/

Although the Rental Rehabilitation Demonstration adds affordable lower-income occupied units at a lower rate (34 units for every 100 rehabilitated) than Section 8 Moderate Rehabilitation, productivity relative to this objective is almost equal under the two programs. (See Exhibit 6.7.) This results from the much lower combined public cost of rehabilitation and rent subsidies under the Demonstration ($7,320) than

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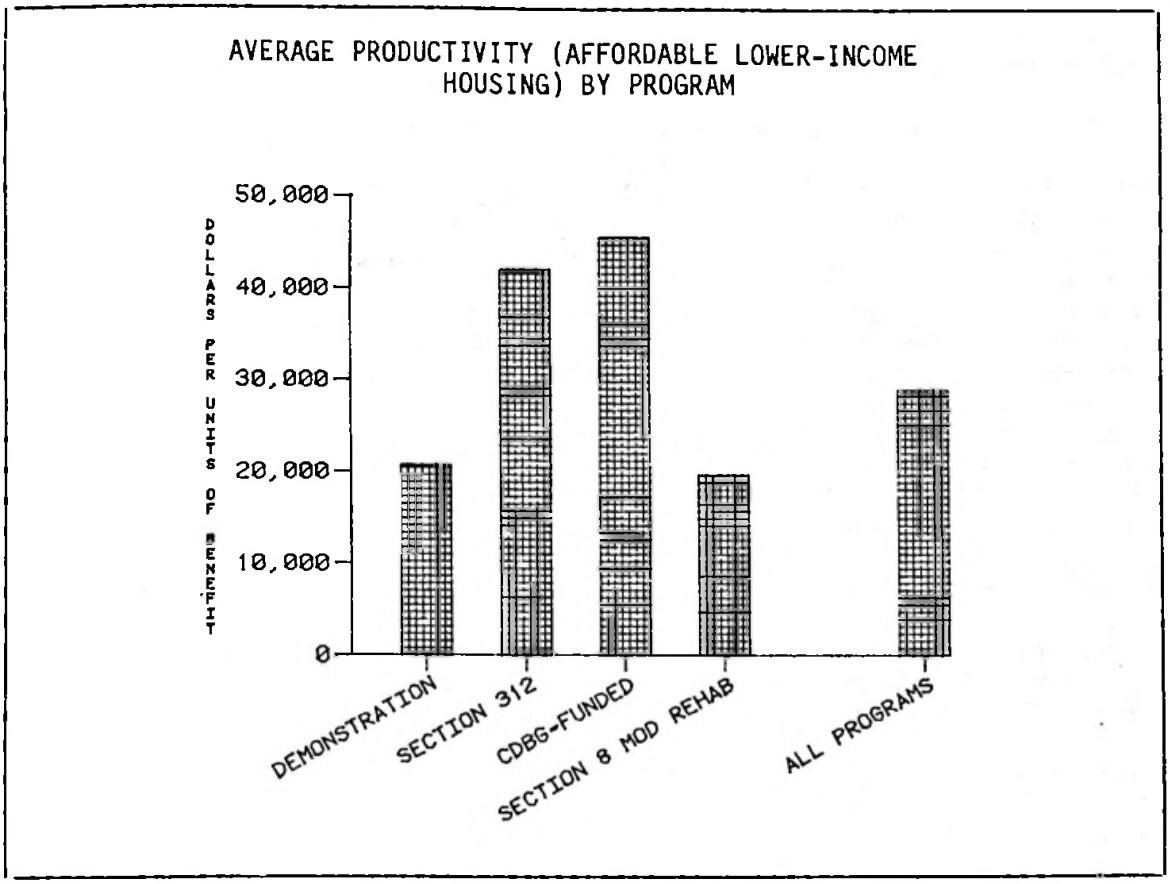
1/ If only rehabilitation subsidy costs are used as the numerator for calculating productivity, then the public cost of adding an affordable, lower-income occupied unit averages $13,500 in the Demonstration, $40,500 under Section 312, $39,000 under CDBG-funded programs, and $17,000 under Section 8 Moderate Rehabilitation.

2/ If affordability is not used as a criterion, then any increase in the supply of lower-income occupied units can be counted as a benefit. Using this measure of low-income benefit, the Demonstration and other CDBG-funded projects appear relatively productive on average -- costing about $18,000 in rehabilitation and rent subsidies, for each lower-income occupied unit added by rehabilitation. Section 8 Moderate Rehabilitation projects average about $21,000 and Section 312 projects about $27,000 by this measure of productivity.

under Section 8 Moderate Rehabilitation ($14,560). This cost difference, in turn, reflects both lower average rehabilitation expenditures and the provision of rental assistance to fewer households in the Demonstration than under Section 8 Moderate Rehabilitation. 1/ On the benefits side, 17 percent of post-rehabilitation residents of Demonstration projects are lower-income households whose housing costs are affordable without rent subsidy (versus two percent under Section 8 Moderate Rehabilitation). Thus, unless and until rents rise out of their reach, lower-income households benefit from the rehabilitation without requiring an ongoing public expenditure for rent subsidy.

EXHIBIT 6.7



1/ In Demonstration projects, one of every three post-rehabilitation occupants receives assistance, as do nearly one-half of those moving from the properties at the time of rehabilitation.

Many costly projects that produce little low-income benefit have been subsidized through the Section 312 program. These generally involve buildings that were uninhabitable prior to rehabilitation and make little use of Section 8 assistance. In one such project, the rehabilitation cost per unit was $24,536 -- not an unusually high figure for a building in this condition. However, no tenants received Section 8 assistance. Although one unit in six was affordable to a lower-income household without assistance, the public expenditure to produce each such unit was about $150,000. Another Section 312 project achieved greater low-income benefit, although it too involved no use of Section 8 assistance. In this 52-unit building, most of the rehabilitated units were returned to the stock with a per-unit investment of less than $4,000; and most were lower-income occupied at affordable rents. As a result, this project cost the public only $2,000 for every unit added to the affordable lower-income occupied rental stock. Thus, there is nothing about the Section 312 program that precludes its being productive of low-income benefit.

Although national program averages are meaningful, they are potentially misleading in this case, as with the first measure of productivity. Exhibit 6.8 illustrates this by showing the varying relationship between benefits and costs for 17 local versions of the Demonstration. 1/ There are wide variations around the overall average, both in terms of the rate at which local programs are adding affordable lower-income occupied units and in the per-unit cost of rehabilitation subsidy and rent assistance. The programs at the lower left corner of the figure are relatively inexpensive to operate but have provided little benefit to lower-income households. Those toward the upper right achieve much greater low-income benefit but at a relatively high rate of public expenditure. The most productive local versions of the Demonstration are those -- toward the lower right -- that combine relatively high rates of benefit with moderate levels of public expenditure. The least productive -- toward the upper left -- are those which involve high rates of public expenditure but contribute to the affordable lower-income occupied stock at a modest rate.

As an example of high productivity in aiding lower-income households, one city has attempted, with its Demonstration program, to contribute to the revitalization of three badly-deteriorated neighborhoods, where most residents are poor and black. In the process, the city has achieved high productivity in terms of low-income benefit by adding to the supply of affordable lower-income occupied rental housing at a rate of spending less than one-half the average for all sample communities. This result is especially significant because many of the city's poor

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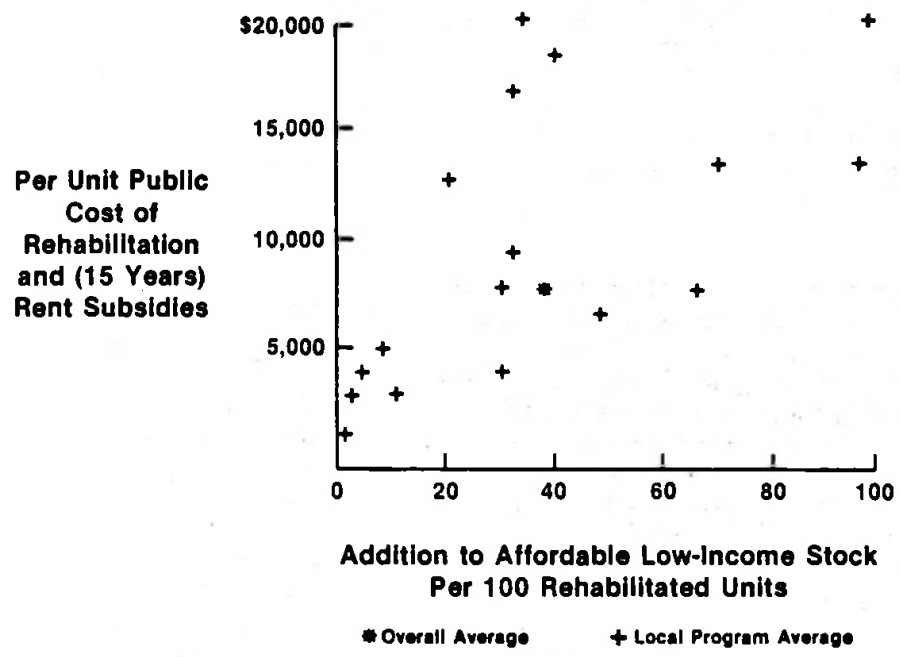
1/ Exhibit 6.8 represents information on 67 Demonstration projects, for which complete information on post-rehabilitation occupancy, rents, and rental assistance was available in September, 1983, when data were collected. No information was available for projects in one community.

EXHIBIT 6.8

RATES OF BENEFIT (AFFORDABLE LOWER-INCOME OCCUPIED HOUSING) AND PER UNIT PUBLIC COST OF REHABILITATION AND RENT SUBSIDIES FOR 17 LOCAL VERSIONS OF THE RENTAL REHABILITATION DEMONSTRATION



families live in severely substandard housing, and many units are being abandoned. The properties chosen for subsidy were badly deteriorated and in the process of being vacated, (i.e., were less than 50 percent occupied, when selected). A combination of moderate rehabilitation (averaging about $12,000 per unit, of which one-half is provided by the city as a low-interest loan) and heavy use of Section 8 Existing rent subsidies has restored or retained these units and assured that they will be affordably-occupied by lower-income households.

Another city has used the Demonstration to concentrate on the rehabilitation of small vacant properties in very poor condition. Of 43 units rehabilitated, more than four-fifths were either added or saved. But, because of the poor pre-rehabilitation condition of the units, substantial rehabilitation has been necessary and the per-unit costs are high. Furthermore, although the projects were located in two low-to-moderate income neighborhoods, most of the units were not occupied by low-income households after rehabilitation or available at rents that such households could afford. As a result, this city ranks low in terms of increasing the affordable low-income stock at minimal public cost: the rehabilitation undertaken is substantial and expensive and produces few affordable units. This low productivity ranking can be traced to two factors: (1) there is no tailoring of subsidy terms (each Demonstration project receives a $9,000 per-unit grant, regardless of its specific circumstances); and (2) there is little use of Section 8 certificates. This city provided only four certificates to its 15 Demonstration projects. Thus, even though doing a good job of adding and saving units, it does so at a high cost per unit, with only small gains in affordable lower-income occupied housing.

Reasons for higher productivity: low-income benefits. It is perhaps surprising that productivity measured in terms of low-income benefit is generally enhanced by the same choices that lead to higher productivity measured in terms of net additions to the rental stock. That is, the selection of smaller properties in relatively poor condition but requiring light or moderate levels of investment to be made standard is generally the most efficient way to expand the supply of affordable lower-income occupied housing. (See Exhibits 6.9 and 6.10.)

Section 8 assistance has been used to increase the number of such units; but it also adds to public costs. Projects with higher proportions of Section 8-assisted tenants are, on average, higher in low-income benefit and more productive than others by this measure of productivity. However, this is primarily a function of their condition and the level of rehabilitation investment rather than the use of Section 8 assistance; the higher costs produced by such assistance roughly offset the higher benefits thus achieved, other things equal. 1/

1/ The proportion of rehabilitated units for which Section 8 assistance is provided is higher (63%) in moderately-rehabilitated projects than in lightly (31%) or substantially (32%) rehabilitated projects. It is perhaps slightly higher (42%) in small projects than in medium-sized (40%) or large projects (30%).

EXHIBIT 6.9

AVERAGE PRODUCTIVITY (AFFORDABLE LOWER-INCOME OCCUPIED HOUSING) AT THREE LEVELS OF REHABILITATION EXPENDITURE

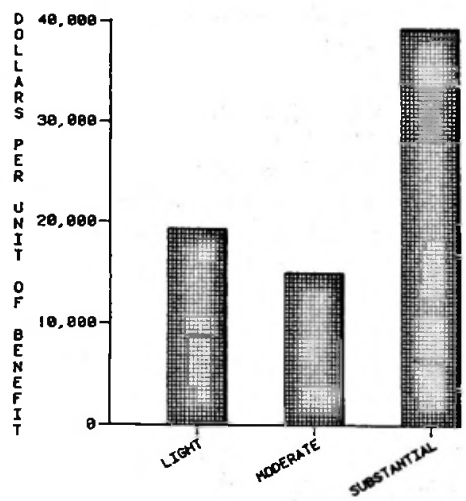
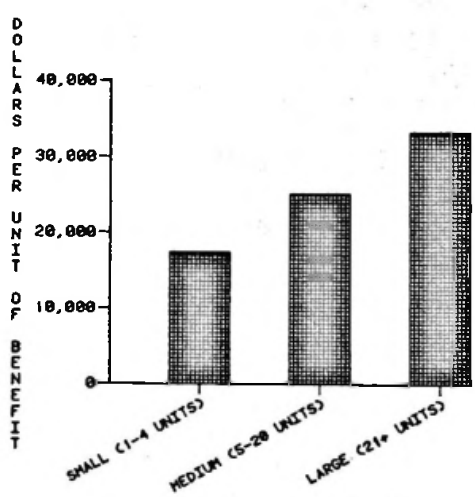


EXHIBIT 6.10

AVERAGE PRODUCTIVITY (AFFORDABLE LOWER-INCOME OCCUPIED HOUSING) FOR PROJECTS OF THREE DIFFERENT SIZES



Aside from the choices communities make about what kinds of properties to rehabilitate, productivity relative to low-income benefit is higher, across the 18 communities, in strong rental markets. Although this difference partly reflects the tendency for these communities to specialize in habitable properties, there is evidence that a stronger market makes it possible to keep public costs down; this is typically accomplished by using public subsidies for relatively light rehabilitation, in situations where rents can be kept at a level affordable to unsubsidized lower-income households. 1/

Expanding the stock vs. increasing low-income housing opportunity. As has been noted, many rental rehabilitation programs emphasize one or the other of two objectives: (1) improving and expanding the total supply of rental housing; or (2) increasing the opportunity of lower-income households to live in affordable, standard rental units. Although there are circumstances under which one of these objectives must be pursued at the expense of the other, the experience of the 18 study communities suggests that they are often successfully combined. For instance, of the eight top-ranked local Demonstration programs by the first measure of productivity, six rank in the top eight by the second measure.

One city's Demonstration program is productive by both measures: it adds units to the rental stock and provides benefits to low-income households with relatively low rates of public expenditure. The city carries out rehabilitation activities in about one-third of the city and focuses its resources on mostly vacant properties in need of only light or moderate rehab. More than three-quarters of its rehabilitated units are added and saved, but at rather modest cost per unit.

The Demonstration program in another city also adds affordable lower-income occupied units at a high rate. It targets Demonstration funds to properties with low- or moderate-income owner-occupants that contain rental units, in CDBG Neighborhood Strategy Areas. After rehabilitation, almost one-half of its Demonstration units are affordably occupied by lower-income households. Of these households, about one-third are provided Section 8 certificates and the remainder pay affordable market rate rents. A citywide rental vacancy rate above seven percent and the modest nature of the rehabilitation help to keep market rents of rehabilitated units at an affordable level, while targeting to low-income owners contributes to the Demonstration's ability to increase benefits for lower-income households.

In contrast, a medium-sized city with a stronger rental market operates a Demonstration program with low productivity, by both measures. It focuses on correcting minor deficiencies in already-occupied units. The cost is extremely low: public funds for rehabilitation are $2,000

1/ In strong market communities, only 17 percent of the rehabilitated units are assisted, compared to 39 percent in moderate markets and 24 percent in weak markets.

or less per unit; and no Section 8 certificates are used. Because the rehabilitation is light, rent increases are minimal -- in most units, in fact, rents do not increase -- and no households are displaced. But, although the cost is low, the benefits of this city's efforts are also very modest. Because the city is only upgrading units with minor deficiencies, it is neither adding nor saving units. Since the rents have not changed and Section 8 certificates have not been used, there is no net addition to the affordable stock. Two-thirds of the rehabilitated units are occupied by lower-income households. Such households are helped by the program by having their units brought up to standard, but there is no overall gain in the local supply of rental housing affordable to lower-income people.

C. Unnecessary Subsidies

Where subsidized rehabilitation would have occurred without public subsidy, the benefits of the rehabilitation cannot be ascribed to the public subsidy. It is difficult to determine whether or not public dollars were necessary to make a given rehabilitation project financially feasible. However, where either local program officials or property owners themselves indicate that some or all of the rehabilitation would have occurred without subsidy, this suggests that public funds may have merely substituted for private investment in these projects. In about ten percent of the rehabilitation projects in these 18 communities, there is this sort of testimonial evidence that all of the rehabilitation would have occurred without direct subsidy; in another 16 percent, there is testimonial evidence that at least one-half of the rehabilitation would have occurred. Presumably, substitution has also occurred in other projects, where there is no evidence. These rates, then, provide an estimate, probably conservative, of the extent to which public funds are wasted, in this manner, on rehabilitation that would occur without subsidy. 1/

Evidence on substitution can be used to adjust estimates of productivity by discounting (i.e., disregarding) those benefits that cannot be attributed to the use of public rehabilitation subsidies. In a project where there is evidence that all of the rehabilitation would have occurred without subsidy, no changes in stock status can be attributed to the public subsidy. For instance, no units should be considered to be added or saved as a result of the subsidy. Where there is evidence that at least one-half of the rehabilitation would have occured in the absence of subsidy, only one-half of the changes in stock status should be attributed to the public subsidy. Following similar logic, other measures of benefit also can be discounted for substitution.

1/ Although funds are wasted in this sense, where substitution occurs, public benefits other than rehabilitation may have resulted from owners' participation in a public program. For instance, participation allows public agencies to monitor and influence the quality of rehabilitation.

Recognizing that such testimonial evidence for substitution is at best suggestive, using it as a basis for discounting benefits decreases the apparent productivity of local rental rehabilitation efforts by 22 percent, relative to net stock changes, and by 14 percent, relative to low-income benefits. 1/

D. The Rental Rehabilitation Program

The newly-adopted Rental Rehabilitation program builds on the experience gained in HUD's Rental Rehabilitation Demonstration. It gives communities broad discretion in selecting properties and designing the financing and other rules for an approach best suited to local conditions. At the same time, it places restrictions on the size and proportion of direct subsidy that can be provided from program funds. 2/ Also, projects must be in neighborhoods where rents will remain affordable to lower-income households for an extended period and a large proportion (70 percent or more) of those households benefiting from a local program should have incomes below 80 percent of the median.

Based on the relationships previously discussed, the approach represented by the new program seems likely to be highly productive relative

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1/ Although discounting benefits associated with reported substitution reduces productivity, there is no evidence that considering substitution alters the previously described relationships between productivity and other project characteristics.

2/ Communities may not contribute to a single project more than $5,000 per unit in direct subsidy (with exceptions for high construction cost areas), nor provide more than 50 percent of the total cost of the rehabilitation, from program funds. They may contribute additional funds to a project from other sources.

to the principal objectives of most local programs. One way to test this proposition is to look at those projects in the 18 community sample that fit the profile of the new program. There are 59 such projects. 1/ As a group, they are well above average in the efficiency with which rehabilitation subsidies contribute to an increased rental supply, averaging $7,096 of public expenditure for every unit added or saved, compared to $12,274 for all rehabilitation in the 18 communities. Relative to the second measure of productivity, projects fitting the new program's profile are again more productive than average, costing $22,021 in rehabilitation and rent subsidies for each additional affordable lower-income occupied unit vs. an average $28,959 for all rehabilitation in the study communities. Thus, the emphasis on relatively light rehabilitation subsidies and targeting to lower-income households and stable neighborhoods, combined with local discretion over the terms of subsidy, appears to constitute a relatively productive approach to rental rehabilitation.

E. Summary and Conclusion

The benefits and costs of rental rehabilitation efforts vary widely across the 18 study communities -- primarily as a result of decisions made locally about the kinds of properties to be rehabilitated with public subsidies and the use of Section 8 rent subsidies to aid lower-income households.

For the most part, these communities have avoided situations that could seriously detract from the value of a rental rehabilitation program, such as large-scale displacement of lower-income by higher-income people.

1/ Projects were regarded as fitting the profile of the new Rental Rehabilitation program if they met all of the following criteria: (1) rehabilitation costs at least $600 for the entire project; (2) the public share of the rehabilitation cost does not exceed $5,000 per unit, with exceptions for high cost areas; (3) the public share of the cost does not exceed 50 percent; (4) at least 70 percent of post-rehabilitation occupants are lower-income; (5) average income in the project Census tract does not exceed 80 percent of the area average income; (6) median gross rent in the project tract does not exceed the area 50th percentile Fair Market Rent for a two-bedroom unit; (7) rents in the neighborhood will not rise faster than the communitywide trend over the next five years, according to local market experts; and (8) the project's units were not in standard condition before rehabilitation. The nature of financing under the Section 8 Moderate Rehabilitation program makes it impossible to determine whether these projects might have been carried out in a way consistent with the new program; thus, all Section 8 Moderate Rehabilitation projects are excluded.

However, localities often use subsidies in a manner that is less than optimal considering their stated objectives. Some communities have spent large amounts per unit to return uninhabitable structures to the rental stock when they might have achieved comparable gains by preventing the loss of still-habitable units. Or, communities have emphasized light rehabilitation of units that would have continued as rental housing without rehabilitation, resulting in low per-unit costs but achieving relatively minor improvements and adding no units to the rental stock. And, in some cases, public subsidies are used where none is needed to stimulate rehabilitation.

It is encouraging to note that neither local market conditions nor Federal program definitions seem to seriously constrain a community's ability to fashion a productive approach to rental rehabilitation. Public costs tend to be lower for comparable projects under the Demonstration and CDBG-funded local programs than under the national programs that place greater restrictions on the method of subsidy -- possibly indicating that the more flexible national programs permit better tailoring of subsidies to the circumstances of each project.

Under most market conditions, the expected trade-off between maximizing productivity in terms of adding to the stock or maximizing productivity in terms of aiding lower-income households does not appear to be sharp or necessary. Rather, by carefully selecting properties and neighborhoods, most communities can use rental rehabilitation productively to achieve both objectives simultaneously.

Appendix A

The Study Sample

The sample of rental rehabilitation projects for this study was chosen in three stages.

Stage One:

All communities participating in the first round of the Rental Rehabilitation Demonstration which had selected one or more projects by August, 1983, were chosen as data collection sites. This included 17 cities and one urban county. The nonrandom nature of this selection procedure does not affect the calculation of the weights used in the analysis nor the variances (see Appendix B). It does, however, limit all inferences drawn from the sample to those 18 communities. No national estimates may be derived directly from the data or analysis; however, the geographic spread, range of city sizes, and range of market conditions may satisfy some readers that these 18 communities roughly approximate the range of local conditions across the Nation.

Stage Two:

All active rental rehabilitation programs in the 18 communities were identified. These programs fell into five categories: the Rental Rehabilitation Demonstration, Section 312 (investor-owned properties only), rental rehabilitation using Communtiy Development Block Grant (CDBG) funds (other than the Demonstration), the Section 8 Moderate Rehabilitation program; and other local programs not falling under one of the four national programs. Altogether, there were 76 local rental rehabilitation programs in the 18 communities.

Stage Three:

Projects were chosen from each locality's programs. All Rental Rehabilitation Demonstration projects that had been designated by the localities by the time of the field visits in September, 1983, were included in the study sample. Under each of the other local rental rehabilitation programs, a simple random sample of five projects (drawn from projects completed since January 1, 1981) was selected. (For any city program where fewer than six projects had been completed in this time period, all completed projects were included in the study sample.) Altogether, 350 projects were sampled.

Listed below are the 18 communities included in the study and the number of programs and projects selected from each locality.

APPENDIX A: TABLE A-1

The Study Sample: Communities, Programs and Projects Selected

Community	Demonstration		Section 312		CDBG-Funded		Section 8 Mod Rehab		Other Programs		All Programs	
	No. Progs.	No. Projs.	No. Progs.	No. Projs.	No. Progs.	No. Projs.	No. Progs.	No. Projs.	No. Progs.	No. Projs.	No. Progs.	No. Projs.
Allegheny Co.	1	7	1	5*	1	3	1	5*	0	0	4	20
Ann Arbor	1	3	1	2	3	8	1	3	0	0	6	16
Atlanta	1	3	0	0	0	0	1	2	0	0	2	5
Bremerton	1	9	1	1	0	0	0	0	0	0	2	10
Central Falls	1	8	1	1	3	15*	1	5*	0	0	6	29
Chattanooga	1	2	0	0	0	0	1	5*	0	0	2	7
Ft. Wayne	1	5	1	2	0	0	1	5*	2	2	5	14
Kansas City	1	4	1	5*	0	0	1	5*	0	0	3	14
Los Angeles	1	3	1	5*	5	21* a/	1	5*	1	5*	9	39
Louisville	1	9	1	3	0	0	1	5*	0	0	3	17
Madison	1	6	1	5*	0	0	1	5*	0	0	3	16
New Rochelle	1	17	1	1	1	5*	1	5*	0	0	4	28
New York	1	10	1	5*	2	10*	1	5*	1	5*	6	35
Pittsburgh	1	15	1	4	1	5*	1	5*	0	0	4	29
Portland	1	5	1	4	1	5*	1	2	0	0	4	16
Springfield	1	4	1	2	0	0	1	5*	0	0	3	11
St. Louis	1	3	1	5*	3	11	1	5*	0	0	6	24
Wilmington	1	9	1	5	0	0	1	5*	1	1	4	20
Programs with no sampling	18	122	10	25	7	18	3	7	3	3	41	175
Programs with sampling	0	0	6	30	13	65	14	70	2	10	35	175
All programs	18	122	16	55	20	83	17	77	5	13	76	350

* Sample of projects was drawn for these programs.

a/ A sample of projects was drawn for each of four Los Angeles CBDG-funded programs. For a fifth program, one project -- the program's only project -- was selected.

APPENDIX A: TABLE A-2

Distribution of Projects and Units Among Programs

Program	No. Projects	No. Units	Unweighted no. projects in all 350 projects in all 76 programs a/	Weighted by no. projects in each local program a/		Unweighted no. units in all 350 projects in all 76 programs b/	Weighted by no. units in each local program b/	
				All 350 projects in all 76 programs	Only 335 projects in 73 programs c/		All 350 projects in all 76 programs	Only 335 projects in 73 programs c/
Demonstration	122	1,070	34.9%	3.2%	7.3%	22.0%	4.2%	8.5%
Section 312	55	615	15.7	4.6	4.3	12.7	5.5	5.5
CDBG-Funded	83	1,520	23.7	75.4	49.9	31.3	74.2	53.7
Section 8 Mod Rehab	77	1,217	22.0	13.5	31.0	25.1	13.9	28.0
Other	13	436	3.7	3.3	7.5	8.9	2.2	4.3
Total	350	4,858	100.0	100.0	100.0	100.0	100.0	100.0

a/ For some purposes, the project was the most appropriate unit of analysis. In these cases, the study has weighted by project.

b/ For some purposes, the unit was the most appropriate unit of analysis. In these cases, the study has weighted by unit.

c/ As explained in the text (see especially pp. 3.4-3.5), for most analysis presented in this study, it was appropriate to omit three very large programs.

Appendix B

Estimation Procedures and Variance Calculations

Two sets of sampling weights were calculated for each of the 350 projects in the study sample. One set was based on the number of projects rehabilitated under the local program of which the project is a part, since January 1, 1981, and the other on the number of rental units rehabilitated under that program since then. This appendix describes the calculation of these weights and their use in estimating various population parameters.

The use of sampling weights allows for an unbiased estimate of the desired population parameter when estimates are made for any of the 18 study communities or combination of these communities. The sampling weights were not developed for national projections since the 18 communities do not constitute a probability sample. The use of the sampling weights in calculating estimates of the population parameters only allows one to draw generalizations based on the 18 study communities or selected subgroups within these communities.

The sampling weights were calculated as follows:

Projects. The sampling weights for all projects in a particular rental rehabilitation program for a city are equal to the number of rehabilitation projects completed since 1980 under that program divided by the number of projects that were sampled from that program. For example, weights for projects sampled from one local program were calculated as follows:

$$\text{weight} = \frac{\text{212 projects in program}}{\text{5 projects sampled}} = 42.4$$

Units. Since the probability of selecting any particular rental unit was equal to the probability of selecting its project, use of the project sampling weight would provide an unbiased estimate for measures dealing with rental units. However, the accuracy of these estimates can be improved by using the known percentages of rental rehabilitation units included in the study sample for each local program. Thus, a second set of sampling weights was calculated for each local program based on the number of rental units rehabilitated since 1980 in that program. For example, weights for projects sampled from one local program were calculated as follows:

$$\text{weight} = \frac{\text{590 rehabilitation units in program}}{\text{18 rehabilitation units in sample}} = 32.8$$

In instances where all of a program's projects were included in the study sample, both the project weight and unit weight were set at 1.

The unequal number of projects in local programs from city to city, combined with the sampling procedure, result in greatly divergent sampling weights within certain national program categories. For example, six of the 18 communities had Section 312 programs where a sample of five projects was selected. The sampling weights for projects in five of these cities ranged from 1.2 to 3.0, whereas Section 312 projects in New York City were assigned weights of 20.8. This results from the fact that New York City had completed many more Section 312 projects since 1980 than the other five cities combined. Similarly, samples of five CDBG-funded rental rehabilitation projects were drawn in ten of the 18 communities. However, 80 percent of the projects funded under these programs were located in just two cities: Los Angeles (64 percent) and New York (16 percent). As a result, CDBG-funded rental rehabilitation projects in Los Angeles and New York were assigned sampling weights -- 331.4 and 81.2 respectively -- considerably larger than those assigned to CDBG-funded projects in other cities.

Partly because of such greatly divergent sampling weights, but also because activity in the lower-volume programs was thought to be a better basis for generalizing about the benefits and costs of rental rehabilitation, it was decided that the 15 projects drawn from the three largest programs (New York's Section 312 program; the Los Angeles and New York CDBG-funded programs) would not be included in the statistical analyses reported in the text. This improves the estimates for all other Section 312 and CDBG-funded programs, taken together, and for the sample as a whole. Inclusion of these 15 projects, with their large sampling weights, would result in substantially skewed estimates that largely reflected the experience under the three largest local programs and would actually reduce statistical confidence in the calculated estimates of population parameters.

Both the reliance on a sample as a basis for estimation and the use of weights contribute to errors in estimation. The a priori sizes of these errors are not known but can be approximated by calculating the variances associated with the measurements that have been made. Variance estimation, however, is complicated in this report since the projects represent randomly drawn stratified samples. The stratifications -- city and program, in most cases -- result in subgroups for which variance estimates must be calculated separately.

The method used in this report is known as the "jack-knife replication" method for estimating variances. This technique, however, is not applied to every measurement made but rather to those that are considered more important and around which the report is written. These include: units added and saved; the change in low-income affordable units; total rehabilitation cost; total direct cost; total public cost; and two productivity

ratios involving these measures. The variance calculations were translated into 95 percent confidence intervals to determine the strength of conclusions made in this report and to alter them when the outcome of this process suggested that apparent differences may not reflect true universe occurrences.

Appendix C

City and Neighborhood Market Typologies

I. City Market Typology

A multivariate statistical technique known as factor analysis was used to classify the 18 communities included in the study into three types of rental housing markets: strong, moderate, and weak. Overall, nine indicators, drawn from the U.S. Census of Housing, were used to produce this classification:

1. Population size, 1980
2. Median family income, 1979
3. Percent renter-occupied housing, 1980
4. Percent change in number of households, 1970-1980
5. Percent of rental housing units built before 1940, 1980
6. Median contract rent, 1980
7. Ratio of city median contract rent to SMSA median contract rent, 1980
8. Rental vacancy rate, 1980
9. Net difference between city and SMSA rental vacancy rate, 1980

Factor scores were computed for each city, and the 18 communities were then classified into one of the three rental markets based on their factor scores. Cities and their composite factor scores are listed below:

Strong Rental Markets	Moderate Rental Markets	Weak Rental Markets
Ann Arbor (+2.120)	Allegheny County (+.320)	Louisville (-.942)
Madison (+1.230)	Bremerton (+.306)	Atlanta (-.974)
Los Angeles (+1.050)	Chattanooga (+.090)	St. Louis (-1.647)
New Rochelle (+1.016)	Fort Wayne (-.112)	Central Falls (-1.696)
Portland (+1.015)	New York (-.151)	
	Springfield (-.244)	
	Wilmington (-.268)	
	Kansas City (-.476)	
	Pittsburgh (-.645)	

II. Neighborhood Market Typology

The typology of neighborhood rental market conditions is based on three measures drawn from the 1980 U.S. Census of Housing: median household income, median contract rent, and rental vacancy rate. For each census tract a composite score reflecting the relative strength of the neighborhood rental market was computed. The index scores reflect a particular census tract's market strength relative to other neighborhood areas within the same city. The scores should not be used to assess the relative strengths of neighborhoods in different cities. Neighborhood market scores were computed in the following manner:

$$Score_n = [((INC_n/INC_c) + (RENT_n/RENT_c) + (VAC_c + 10) / (VAC_n + 10)) / 3] \times 100$$

Where:

INC = Median household income, 1979
RENT = Median contract rent, 1980
VAC = Rental vacancy rate, 1980

n = census tract
c = city

The 199 census tracts included in the study were then classified into one of four rental housing market types based on their composite scores: strong (109.6 or greater); moderate (89.6 to 109.5); weak (69.6 to 89.5); or very weak (69.5 or less). The frequency distribution of neighborhoods classified by market type is as follows:

	Number	Percent
Strong	5	2.5
Moderate	78	39.2
Weak	93	46.7
Very Weak	23	11.6
Total	199	100.0

Appendix D

Estimating Public Costs

I. Rehabilitation and Tenant Assistance Costs

To provide comparable measures of public rehabilitation cost, all public subsidies were converted to present value terms. A discount rate of 12.5%, the rate for long-term Treasury Bonds in effect at the time of the analysis (March 1984), was used to discount future expenditures and receipts.

Where public subsidies are in a form requiring private payback of public funds (e.g., a Section 312 loan), the cumulative net present value of the payback stream is subtracted from the nominal public funds committed to the project to obtain the net public cost of the subsidy.

The following are operational definitions of the various cost measures presented in Chapter 5. (See especially Exhibit 5.7.)

(1). Nominal direct rehabilitation subsidy cost. The amount of public dollars contributed by the public sector to the rental rehabilitation project. This figure includes the amount of any grants, loans, or other types of repayable public subsidies. Dollar amounts are as given by respondents and not adjusted for time periods or discounted to present value.

(2). Direct rehabilitation subsidy cost. This amount represents the net cost to the public sector of all forms of direct subsidy (i.e., excluding tax expenditures) and is computed by subtracting the net present value of any payback stream from repayable subsidies from the nominal direct public cost. Two versions of this measure were developed. One version considers the share of the Section 8 Moderate Rehabilitation subsidy devoted to retirement of debt service on private loans for the rehabilitation to be the portion of the Section 8 subsidy devoted to the rehabilitation; the second version considers any portion of the Section 8 subsidy in excess of the Section 8 Existing program Fair Market Rent for the unit(s) to be the portion of the total subsidy devoted to the rehabilitation. (See Section III, below.)

(3). Indirect rehabilitation subsidy cost. This amount represents the sum of indirect subsidies, in the form of tax expenditures, generated by the rehabilitation project. These costs include Section 167(k) and historic tax credits and the amount of any local property tax abatement, exemption, or freeze. Amounts are expressed in present dollars.

(4). Total rehabilitation subsidy cost. This is the total cost to the public sector of direct and indirect subsidies (2 + 3). Amounts are expressed in present dollars. This does not include the costs of rent assistance provided to lower-income tenants under the Section 8 Existing program or the portion of the Section 8 Moderate Rehabilitation subsidy treated as a rent subsidy.

(5). Rental subsidy cost. This is either the discounted present value of the stream of payments to owners under the Section 8 Existing program or the portion of the Section 8 Moderate Rehabilitation subsidy considered to be a rent subsidy similarly discounted. Separate estimates were made after one, five, and fifteen years of rent assistance. However, analyses discussed in the text are based only on a full fifteen years of rent assistance. Details on the methods of calculating rent assistance are given below.

(6). Total public cost. This is the total present dollar value of all public subsidies for rehabilitation and rent assistance (2 + 3 + 5). Three versions of this measure were computed: assuming rent subsidies continue for one year, for five years, and for fifteen years. Only the fifteen year version is used in analyses discussed in the text.

II. Tax Expenditures

Section 167(k). The public cost of the Section 167(k) tax-exempt housing rehabilitation subsidy was computed in the following manner:

1. HUD's housing cost simulation model 1/ was used to generate estimates of the cumulative depreciation subsidy. Estimates were produced for four "typical" projects with total rehabilitation costs of $5,000, $10,000, $15,000, and $20,000 for three separate tax brackets (37th percentile, 45th percentile, 50th percentile).

2. Constants expressing the relationship between the cumulative discounted present value of the depreciation subsidy and the depreciation base (i.e., amount of rehabilitation) were calculated for each of the three tax brackets. These constants are: 37th (.2108), 45th (.2563), and 50th (.2848).

3. For each sample project where use of the Section 167(k) tax credit was reported, the cumulative discounted present value of the depreciation subsidy was calculated by multiplying the appropriate constant by the project's total rehabilitation cost. Choice of constant was determined by the property owner's income: if less than $50,000, 37th percentile; if $50,000 to $100,000, 45th percentile; and if more than $100,000, 50th percentile.

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1 For explanation of HUD's housing subsidy cost model, see David Einhorn, Federal Tax Incentives and Rental Housing, Office of Policy Development and Research, U.S. Department of Housing and Urban Development (December, 1982).

Historic rehabilitation tax credit. The public cost of the Federal 25 percent tax credit for rehabilitating an historic structure was computed in a manner similar to that used for Section 167(k).

1. HUD's housing subsidy cost model was used to generate estimates of the depreciation subsidy for four "typical" projects whose rehabilitation costs ranged from $5,000 to $20,000. The estimates were generated for three groups of projects based on the tax bracket (37th, 45th, 50th percentiles) for the estimates of the property owner's income (less than $50,000, $50,000 to $100,000, $100,000 or more).

2. Constants expressing the relationship between the cumulative discounted present value of the depreciation subsidy and the depreciation base (i.e., total rehabilitation costs) were calculated for three tax brackets. These figures were: 37th (.0653), 45th (.0795), and 50th (.0888).

3. For each project where use of the historic tax credit was reported, the present value of the depreciation subsidy was calculated by multiplying the appropriate constant by the total rehabilitation cost. Choice of constant was based on estimates of the property owner's income.

Local property tax abatements. Estimates of the public cost of local tax abatements, exemptions, and freezes were made for each rental rehabilitation project where such tax expenditures were reported. In instances where local officials did not know the exact value of the abatement, or where no estimate could be provided, the estimate was based on the term and rate of the abatement, exemption, or freeze. The discounted present value of the cumulative abatement, exemption, or freeze was then computed; and this figure was subsequently included in the estimated indirect public cost of rehabilitation subsidies.

III. Apportioning the Section 8 Moderate Rehabilitation Subsidy

Two methods were used to apportion the combined rehabilitation and rent subsidies provided under the Section 8 Moderate Rehabilitation program. Using the preferred method, the portion of the total subsidy used each month to pay for debt service (principal plus interest) on any private loan for rehabilitation is considered the rehabilitation subsidy; any balance is considered the rent subsidy. Using the alternate method, the portion of the total subsidy representing the difference between the tenant's estimated contribution to housing costs (30 percent of estimate income) and the Section 8 Existing program Fair Market Rent for each unit is considered the rent subsidy; any balance is considered the rehabilitation subsidy.

Regardless of method, the following steps were taken to compute subsidies:

1. Annual housing costs were computed for each project based on rent and utility information collected for each property. A weighted average was computed for each project. For instance, if the rent and utility costs were $200 for a one-bedroom unit and $250 for a two-bedroom unit, the annual housing costs for a four-unit property with two units at each bedroom size would be computed as follows:

$$\text{Annual housing costs} = [(2 \times 200) + (2 \times 250) / 4] \times 12.$$

2. Estimates of tenant income were computed based on 1983 updates of SMSA median family income by HUD's Economic Market Analysis Division. Section 8 certificate holders were assumed to have incomes averaging 24.8 percent of their respective SMSAs; this constant was computed from data in Table 3 of Trends in Subsidized Housing (Division of Housing and Demographic Analysis, Office of Economic Affairs, March 1984) and represents the relationship nationally between incomes of Section 8 Moderate and Existing certificate holders and the median family income in their SMSA.

3. Tenant annual housing cost contributions were estimated to be 30 percent of tenant income as estimated in step 2.

4. The annual Section 8 subsidy was computed as the difference between annual housing cost (from step 1) and tenant housing cost contributions (from step 3).

5. Annual Section 8 subsidy costs at a project level were computed by multiplying the annual subsidy cost (from step 4) by the number of units in the project occupied by Section 8 certificate holders.

6. Assuming an annual inflation rate of 5.5 percent for both income and housing costs and a discount rate of 12.5 percent, the cumulative net present value of Section 8 assistance was computed for each project for one-, five-, and 15-year periods.

7. Section 8 Moderate Rehab subsidy costs were then apportioned into two parts representing direct rehabilitation subsidy and tenant assistance, by either of the two methods discussed in the text and referred to above.

IV. Section 8 Existing Program Rent Subsidies

Tenant assistance costs for those projects that included one or more Section 8 Existing Housing certificate holders were computed following the same assumptions described above for the Section 8 Moderate Rehabilitation program. However, where tenants were assisted through the Section 8 Existing program, the entire Federal rent supplement is considered to be a rent subsidy. Dollar amounts are expressed as the cumulative net present value of the subsidy after one, five, and fifteen years.

Section 8 Existing rent subsidies for displaced tenants. Tenant assistance costs for those projects that included one or more households moving in connection with the rehabilitation and subsequently receiving a Section 8 Existing Certificate were computed following the same procedures used for other Section 8 Existing subsidies. Dollar amounts are again expressed as the cumulative net present value of the subsidy after one, five, and fifteen years. These costs are included in the public cost of rent subsidies associated with these projects.

APPENDIX E

Supplementary Tables

TABLE III-1

Types of Properties Rehabilitated, By Program

Types of Properties	Program: Demonstration	Section 312	CDBG-Funded	Section 8 Mod Rehab	All Programs a/
Number of units after rehabilitation: b/ c/					
Mean	8.8	10.9	13.5	7.5	12.7
Median	4.5	6.1	4.0	3.0	4.2
Percent of units in very bad condition prior to rehab b/	11%	71%	48%	33%	37%
Percent of units vacant, pre rehab b/	23%	60%	50%	41%	39%
Percent of projects built prior to 1940 d/	82%	91%	84%	72%	81%
Mean pre-rehab market value per unit b/ e/ f/	$11,501	$10,957	$14,817	$13,553	$13,540
Percent of projects owned by small operators d/ g/	30%	42%	72%	31%	54%
Number	(122)	(50)	(72)	(77)	(334)

a/ These "All Programs" totals include five local programs not operated under any of the four national programs.

b/ Weighted by units.

c/ The vast majority of projects did not change in size following rehabilitation, but a handful did (e.g., a former schoolhouse that was renovated into two apartments). Thus, the number of units after rehabilitation is a more accurate description of the size of the project than is the number of pre-rehab units.

d/ Weighted by projects.

e/ N=260.

f/ This is the pre-rehab appraised value. If no such appraisal was made but the property was purchased in 1978 or later, the market value is the purchase price. For the reason given in note c/, the mean pre-rehab market value is computed on the basis of the number of units after rehabilitation.

g/ N=262.

TABLE III-2

Types of Properties Rehabilitated, By Level of Rehabilitation Expenditure

Types of Properties	Level of Rehabilitation Expenditure: Light	Moderate	Substantial	All Projects
Number of units after rehabilitation: a/ b/				
Mean	8.7	9.0	20.6	12.7
Median	2.8	5.3	6.4	4.2
Percent of units in very bad condition prior to rehab a/	2%	25%	71%	37%
Percent of units vacant, pre rehab a/	4%	30%	72%	39%
Percent of projects built prior to 1940 c/	72%	79%	96%	80%
Mean pre-rehab market value per unit a/ d/ e/	$18,678	$18,713	$6,518	$13,540
Percent of projects owned by small operators c/ f/	64%	52%	34%	54%
Number	(98)	(108)	(128)	(334)

a/ Weighted by units.

b/ The vast majority of projects did not change in size following rehabilitation, but a handful did (eg., a former schoolhouse that was renovated into two apartments). Thus, the number of units after rehabilitation is a more accurate description of the size of the project than is the number of pre-rehab units.

c/ Weighted by projects.

d/ N=260.

e/ This is the pre-rehab appraised value. If no such appraisal was made but the property was purchased in 1978 or later, the market value is the purchase price. For the reason given in note b/, the mean pre-rehab market value is computed on the basis of the number of units after rehabilitation.

f/ N=262.

TABLE III-3

Level of Rehabilitation Expenditure, By Three Project Characteristics a/

Project Characteristics	Level of Rehabilitation Expenditure	Number
Program:		
Demonstration	$13,669	(122)
Section 312	24,349	(50)
CDBG-Funded	13,896	(73)
Section 8 Mod Rehab	10,585	(77)
Project Size:		
Small	9,035	(137)
Medium	14,671	(145)
Large	25,153	(53)
Level of Rehabilitation Expenditure:		
Light	2,998	(98)
Moderate	9,846	(108)
Substantial	28,681	(129)
Total	$13,299	(335)

a/ Weighted by units.

TABLE III-4

Community's Property Type Specialization and Market Strength, By Program a/

Community Characteristics	Program: Demonstration	Section 312	CDBG-Funded	Section 8 Mod Rehab	All Programs b/
Community's Property Type Specialization:					
Rehabilitating Mostly Rehabitable Properties	38%	33%	61%	19%	44%
Rehabitable a Mix of Property Types	31	26	12	47	28
Rehabilitating Mostly Uninhabitable Properties	30	40	27	34	28
Total	99% c/	99% c/	100%	100%	100%
Community's Market Type:					
Strong	28%	36%	39%	9%	30%
Moderate	53	49	34	75	50%
Weak	19	15	27	16	21%
Total	100%	100%	100%	100%	101% c/
Number	(122)	(50)	(73)	(77)	(335)

a/ Weighted by units.

b/ These "All Programs" totals include five local programs not operated under any of the four national programs.

c/ Does not sum to 100% due to rounding.

TABLE III-5

Percentage of Units Property Type Specialization Which Are Uninhabitable (Pre-Rehabilitation), By Community's Project Type Specialization, By Program

Community's Property Type Specialization	Program				
	Demonstration	Section 312	CDBG-Funded	Section 8 Mod Rehab	All Programs a/
Rehabilitating Mostly Habitable Properties	11%	25%	0%	6%	2%
Rehabilitating a Mix of Property Types	23	40	12	34	23
Rehabilitating Mostly Uninhabitable Properties	59	58	62	77	67
Total	30%	41%	7%	43%	15%
Number	(122)	(50)	(73)	(77)	(335)

a/ These "All Programs" totals include five local programs not operated under any of the four national programs.

TABLE III-6

Characteristics of Population and Housing of the 18 Study Communities a/

Community	Population b/ h/	Percentage Change in No. Households, 1970-1980 b/	Median Household Income c/ h/	Median Contract Rent c/	Community/ SMSA Rent Ratio c/	Rental Vacancy Rate c/	Percent Rental Vacancies Which Are Long-Term d/	City-SMSA Rental Vacancy Rate Difference c/ e/	Percent Housing Which Is Renter-Occupied c/	Percent Rental Housing Built Pre-1940 f/
Strong Markets:										
Ann Arbor, MI	108,000	+24%	$18,300	$285	1.05	2.9%	10%	-2.3%	58%	18%
Los Angeles, CA	2,966,900	+10	15,700	229	.94	3.9	9	0.0	60	22
Madison, WI	170,600	+21	16,500	223	.99	3.9	7	-0.6	51	23
New Rochelle, NY	70,800	+5	20,900	263	1.20	1.2	13	-2.0	56	46
Portland, OR	366,400	+10	14,500	205	.91	5.4	6	-0.7	47	38
Moderate Markets:										
Allegheny Co., PA	1,405,100	+6	17,900	187	1.06	6.8	27	0.0	35	45
Bremerton, WA	36,200	+20	14,400	193	.93	5.2	7	-0.2	57	20
Chattanooga, TN	169,600	+52	13,600	169	1.13	9.1	18	+0.2	44	21
Fort Wayne, IN	172,200	+14	16,000	178	1.02	9.4	21	+0.3	38	28
Kansas City, MO	448,200	-1	15,900	165	.90	10.5	20	+1.1	42	35
New York, NY	7,072,600	-2	13,900	214	.97	3.2	28	+0.1	77	47
Pittsburgh, PA	423,900	-7	13,400	171	.97	7.1	31	+0.3	49	55
Springfield, MA	152,300	+3	13,300	163	.96	5.5	23	+0.7	49	53
Wilmington, DE	70,200	-2	11,700	153	.73	7.3	38	-1.2	47	41
Weak Markets:										
Atlanta, GA	425,000	+0	11,300	148	.71	7.5	25	-0.2	59	17
Central Falls, RI	17,000	+2	10,500	124	.80	10.3	26	+2.9	75	72
Louisville, KY	298,500	-4	12,300	140	.83	7.3	22	-0.5	44	38
St. Louis, MO	453,100	-17	11,500	115	.71	8.5	39	+1.1	55	54
U.S. Total g/	531,200 i/	+26	17,900	210	.92	6.7	17	0.0	33	24

a/ All figures are for 1980 unless otherwise indicated.

b/ Source: U.S. Census of Population, General Population Characteristics.

c/ Source: U.S. Census of Population and Housing, Summary Characteristics for Governmental Units and SMSAs.

d/ Source: U.S. Census of Housing, General Housing Characteristic. Note: "long-term" is six months or longer.

e/ I.e., (City rental vacancy rate) - (SMSA rental vacancy rate).

f/ Source: U.S. Census of Housing, Detailed Housing Characteristics.

g/ For all metropolitan areas in U.S.

h/ Rounded off to nearest 100.

i/ This is the mean for all U.S. metropolitan areas.

TABLE III-7

Characteristics of Population and Housing of Neighborhoods in Which Rental Housing Has Been Rehabilitated a/

Neighborhood Market	Median Family Income	Percent Population in Poverty	Percent Population Non-White	Median Rent	Rental Vacancy Rate	Percent Housing Renter-Occupied	Percent Rental Housing Built Pre-1940	Number (of Neighborhoods)
Strong	$18,444	9%	21%	$285	2%	52%	45%	(5)
Average	12,540	20	33	230	5	65	50	(78)
Weak	9,539	29	48	190	8	70	55	(93)
Very Weak	6,559	40	57	145	16	85	55	(23)
Total	$10,595	26%	43%	$203	7%	69%	53%	(199)
Percent of neighborhoods with value (on this characteristic) greater than city's value	12%	80%	51%	23%	52%	79%	76%	(199)

a/ Unweighted.

TABLE III-8

Past and Projected Future Trends in Rent Levels of Neighborhoods in Which Rental Housing Has Been Rehabilitated a/

Trends in Neighborhood's Rent Level	Neighborhood Market				All Projects	Number (of Neighborhoods)
	Strong	Average	Weak	Very Weak		
Change in Ratio of Median Neighborhood Rent to Median City Rent (1970-80): b/						
Increase	40%	20%	9%	9%	14%	(27)
Stable	20	65	64	48	61	(118)
Decrease	40	16	27	43	25	(48)
Total	100%	100%	100%	100%	100%	(193)
Projected Change in Ratio of Median Neighborhood Rent to Median City Rent (1983-88): c/						
Increase	40%	26%	24%	35%	26%	(51)
Stable	60	65	52	48	57	(110)
Decrease	0	9	24	17	17	(32)
Total	100%	100%	100%	100%	100%	(193)
Number (of Neighborhoods)	(5)	(76)	(89)	(23)	(193)	

a/ Weighted by unit.

b/ Source: 1980 Census of Housing.

c/ Source: Expert opinion of informed sources in the 18 study communities.

TABLE III-9

Tenant Characteristics of Rehabilitated Properties, By Program a/

Tenant Characteristics	Program: Demonstration	Section 312	CDBG-Funded	Section 8 Mod Rehab	All Programs b/
Percent lower-income:					
Pre-rehab	84%	83%	82%	92%	76%
Post-rehab	80	50	86	95	80
Percent Female-headed households:					
Pre-rehab	47	44	25	64	37
Post-rehab	41	37	27	71	43
Percent elderly/handicapped:					
Pre-rehab	21	20	38	18	31
Post-rehab	17	11	25	9	19
Percent black:					
Pre-rehab	27	24	3	48	17
Post-rehab	25	36	10	53	26
Percent Hispanic:					
Pre-rehab	14	8	34	20	29
Post-rehab	14	5	28	9	20
Percent receiving Section 8 certificates: c/					
Post-rehab	33	13	14	90	40
Number of Projects:					
Pre-rehab d/	(75)	(23)	(38)	(43)	(184)
Post-rehab	(79)	(42)	(65)	(66)	(258)

a/ Weighted by units.

b/ These "All Programs" totals include five local programs not operated under any of the four national programs.

c/ Information was not obtained on pre-rehab Section 8 certificates.

d/ No pre-rehab tenant characteristic information is available for those properties which were vacant prior to rehabilitation.

TABLE III-10

Tenant Characteristics of Rehabilitated Properties, By Level of Rehabilitation Expenditure a/

Tenant Characteristic	Level of Rehabilitation Expenditure			All Projects
	Light	Moderate	Substantial	
Percent lower-income:				
Pre-rehab	68%	82%	96%	76%
Post-rehab	69	84	85	80
Percent Female-headed households:				
Pre-rehab	34	34	60	37
Post-rehab	42	43	44	43
Percent elderly/handicapped:				
Pre-rehab	35	18	40	31
Post-rehab	31	11	10	19
Percent black:				
Pre-rehab	17	17	16	17
Post-rehab	19	26	36	26
Percent Hispanic:				
Pre-rehab	22	52	12	29
Post-rehab	19	28	12	20
Percent receiving Section 8 certificates: b/				
Post-rehab	31	63	32	40
Number of Projects:				
Pre-rehab c/	(81)	(63)	(40)	(184)
Post-rehab	(87)	(82)	(89)	(258)

a/ Weighted by units.

b/ Pre-rehab information on Section 8 certificates is not available.

c/ No pre-rehab tenant characteristics information is available for those properties which were vacant prior to rehabilitation.

TABLE III-11

Housing Cost Characteristics of Rehabilitated Properties, By Program a/

Housing Cost b/ Characteristic	Program				
	Demonstration	Section 312	CDBG-Funded	Section 8 Mod Rehab	All Programs c/
Properties Occupied Prior to Rehab:					
Pre-rehab housing cost	$284	$252	$273	$302	$280
Post-rehab housing cost	337	346	305	429	340
Increase in housing cost (in $)	53	94	32	127	60
Increase in housing cost (in %)	19%	37%	12%	42%	21%
Properties Vacant Prior to Rehab: d/					
Post-rehab housing cost	$348	$350	$392	$377	$378
All Properties: d/					
Post-rehab housing cost	342	348	338	397	357
Number of projects	(122)	(50)	(73)	(77)	(335)

a/ Weighted by units.

b/ "Housing cost" is the monthly rent plus the estimated cost, if any, of the tenant's average monthly utility payments.

c/ These "All Programs" totals include five local programs not operated under any of the four national programs.

d/ Pre-rehab housing costs and increases in housing costs can not be computed for properties vacant prior to rehab or for all properties.

TABLE III-12

Housing Cost Characteristics of Rehabilitated Properties, By Level of Rehabilitation Expenditure a/

Housing Cost b/ Characteristic	Level of Rehabilitation Expenditure			All Projects
	Light	Moderate	Substantial	
Properties Occupied Prior to Rehab:				
Pre-rehab housing cost	$295	$244	$265	$280
Post-rehab housing cost	333	310	470	340
Increase in housing cost (in $)	38	66	205	60
Increase in housing cost (in %)	13%	27%	77%	21%
Properties Vacant Prior to Rehab: c/				
Post-rehab housing cost	$400	$359	$384	$378
All Properties: c/				
Post-rehab housing cost	336	340	396	357
Number of projects	(98)	(108)	(129)	(335)

a/ Weighted by units.

b/ "Housing cost" is the monthly rent plus the estimated cost, if any, of the tenant's average monthly utility payments.

c/ Pre-rehab housing costs and increases in housing costs can not be computed for properties vacant prior to rehab or for all properties.

TABLE IV-1

Stock Changes Through Rehabilitation, By Program a/

Stock Change Per 100 Rehabilitated Units	Program				
	Demon-stration	Section 312	CDBG-Funded	Section 8 Mod Rehab	All Programs b/
Units Added	23	66	47	36	37
Units Saved	37	24	29	35	38
Units Upgraded	37	7	21	21	22
Units Already Standard	2	3	3	8	3
Number of projects	(122)	(50)	(72)	(77)	(334)

a/ Weighted by unit.

b/ These "All Programs" totals include five local programs act operated under any of the four national programs.

TABLE IV-2

Stock Changes Through Rehabilitation, By Level of Rehabilitation Expenditure a/

Stock Changes Per 100 Rehabilitated Units	Level of Rehabilitation Expenditure			All Projects
	Light	Moderate	Substantial	
Units Added	1	28	70	37
Units Saved	46	52	25	38
Units Upgraded	43	19	5	22
Units Already Standard	10	1	0	3
Number of projects	(98)	(108)	(128)	(334)

a/ Weighted by unit.

TABLE IV-3

Stock Changes Through Rehabilitation, By Project Size a/

Stock Change Per 100 Rehabilitated Units	Project Size			All Projects
	Small	Medium	Large	
Units Added	31	38	38	37
Units Saved	19	31	45	38
Units Upgraded	36	28	15	22
Units Already Standard	14	2	2	3
Number of projects	(137)	(145)	(52)	(334)

a/ Weighted by unit.

TABLE IV-4

Tenant Movement Associated With Rehabilitation, By Program a/

Unit Characteristics	Program: Demonstration	Section 312	CDBG-Funded	Section 8 Mod Rehab	All Programs b/
Units prior to rehabilitation: Percent occupied	76%	37%	45%	59%	57%
Of occupied units: Percent who stayed	88	67	83	91	89
Percent who moved	12	33	17	9	11
Units following rehabilitation: Percent occupied	100%	100%	100%	100%	100%
Of occupied units: Percent who stayed from pre-rehab	64	22	39	55	54
Percent who moved in to replace out-movers	7	11	7	5	6
Percent who moved into previous vacant or newly created units	29	67	54	40	40
Number of projects	(122)	(50)	(72)	(77)	(334)

a/ Weighted by unit.

b/ These "All Programs" totals include five local programs not operated under any of the four national programs.

TABLE IV-5

Lower-Income Households Housed Through Rehabilitation, By Program a/

Benefits Per 100 Rehabilitated Units	Program				
	Demon-stration	Section 312	CDBG-Funded	Section 8 Mod Rehab	All Programs b/
No. Lower-Income Households Housed	80	50	86	95	80
Net Increase in No. Lower-Income Households Housed	41	45	57	69	55
Number of projects	(79)	(42)	(65)	(66)	(258)

a/ Weighted by units.

b/ These "All Programs" totals include five local programs not operated under any of the four national programs.

TABLE IV-6

Lower-Income Households Housed Through Rehabilitation, By Level of Rehabilitation Expenditure a/

Benefits Per 100 Rehabilitated Units	Level of Rehabilitation Expenditure			All Projects
	Light	Moderate	Substantial	
No. Lower-Income Households Housed	69	84	85	80
Net Increase in No. Lower-Income Households Housed	26	61	75	55
Number of projects	(87)	(82)	(89)	(258)

a/ Weighted by units.

TABLE IV-7

Lower-Income Households Housed Affordably Through Rehabilitation, By Program a/

Benefits Per 100 Rehabilitated Units	Program				
	Demon-stration	Section 312	CDBG-Funded	Section 8 Mod Rehab	All Programs b/
No. Lower-Income Households Housed Affordably	57	30	47	90	54
Net Increase in No. Lower-Income Households Housed Affordably	34	26	22	66	35
Number of projects	(79)	(42)	(65)	(66)	(258)

a/ Weighted by units.

b/ These "All Programs" totals include five local programs not operated under any of the four national programs.

TABLE IV-8

Lower-Income Households Housed Affordably Through Rehabilitation, By Level of Rehabilitation Expenditure a/

Benefits Per 100 Rehabilitated Units	Level of Rehabilitation Expenditure			All Projects
	Light	Moderate	Substantial	
No. Lower-Income Households Housed Affordably	41	65	60	54
Net Increase in No. Lower-Income Households Housed Affordably	14	49	46	35
Number of projects	(87)	(82)	(89)	(258)

a/ Weighted by units.

TABLE IV-9

Lower-Income Households Housed -- and Housed Affordably -- Through Rehabilitation, By Extent of Use of Section 8 Certificates a/

Benefits Per 100 Rehabilitated Units	Use of Section 8 Certificates: Projects with Most or All Households Assisted	Use of Section 8 Certificates: Projects with Few or No Households Assisted	All Projects
Net Increase in No. Lower-Income Households Housed	78	42	54
Net Increase in No. Lower-Income Households Housed Affordably	78	14	35
Number of projects	(111)	(147)	(258)

a/ Weighted by units.

TABLE V-1

Direct Rehabilitation Subsidy Cost, By Three Project Characteristics a/

Project Characteristics	Nominal Direct Rehab Subsidy Cost Per Rehabilitated Unit b/	Direct Rehab Subsidy Cost Per Rehabilitated Unit b/
Program:		
Demonstration	$ 5,614	$3,727
Section 312	17,816	9,543
CDBG-Funded	9,584	6,547
Section 8 Mod Rehab	4,558	9,257
Level of Rehabilitation Expenditure:		
Light	842	798
Moderate	3,717	3,798
Substantial	12,324	9,335
Project Size:		
Small	3,516	4,469
Medium	7,459	7,028
Large	8,073	5,823
All Projects	7,503	5,967
Number of projects	(335)	(335)

a/ Weighted by unit.

b/ These terms are explained in Appendix D.

TABLE V-2

Rehabilitation Subsidy Characteristics of Projects, By Program a/

Subsidy Characteristics	Program: Demonstration	Section 312	CDBG-Funded	Section 8 Mod Rehab b/	All Programs c/
Direct Subsidies--No. Subsidies:					
Projects With No Subsidy	2%	0%	0%	57%	21%
Projects With One Subsidy	88	60	99	34	72
Project With Two or More Subsidies	11	40	1	9	7
Direct Subsidies--Repayable Or Not:					
Projects With Repayable Subsidy	57	99	25	13	28
Projects With Non-Repayable Subsidy	41	1	75	30	51
Indirect Subsidies:					
Projects Using Section 167 (k)	40	19	13	34	23
Projects Using Historic Tax Credit	11	10	1	2	2
Projects Using Local Tax Abatement, Exemption or Freeze	29	26	35	24	31
Number	(122)	(50)	(73)	(77)	(335)

a/ Weighted by project.

b/ In this table, Section 8 certificates are not considered to be rehabilitation subsidies.

c/ These "All Programs" totals include five local programs not operated under any of the four national programs.

TABLE V-3

Direct, Indirect and Total Rehab Subsidy Cost,
By Three Project Characteristics a/

Project Characteristics	Direct Rehab Subsidy Cost Per Rehabilitated Unit	Indirect Rehab Subsidy Cost Per Rehabilitated Unit	Total Rehab Subsidy Cost Per Rehabilitated Unit
Program:			
Demonstration	$3,727	$2,055	$ 5,783
Section 312	9,543	934	10,489
CDBG-Funded	6,547	6,546	13,213
Section 8 Mod Rehab	9,257	3,187	12,343
Level of Rehabilitation Expenditure:			
Light	798	945	1,778
Moderate	3,798	982	4,783
Substantial	9,335	8,080	17,384
Project Size:			
Small	4,469	621	5,090
Medium	7,028	1,720	8,753
Large	5,823	6,305	12,208
All Projects	5,967	4,736	10,739
Number of projects	(335)	(335)	(335)

a/ Weighted by unit.

TABLE V-4

Components of Indirect Rehab Subsidy Cost, By Three Project Characteristics a/

Project Characteristics	Indirect Rehab Subsidy Cost Per Rehabilitated Unit Provided Through: Section 167 (k)	Historic Tax Credit	Tax Abatement	Total Indirect Rehab Subsidy Cost Per Rehabilitated Unit
Program:				
Demonstration	$1,342	$ 99	$ 615	$2,055
Section 312	2,023	232	21	934
CDBG-Funded	1,219	8	5,320	6,546
Section 8 Mod Rehab	2,273	35	879	3,187
Level of Rehabilitation Expenditure:				
Light	331	0	614	945
Moderate	656	7	320	982
Substantial	2,043	49	5,988	8,080
Project Size:				
Small	518	33	70	621
Medium	1,014	103	603	1,720
Large	1,508	1	4,796	6,305
All Projects	1,303	27	3,406	4,736
Number of projects	(335)	(335)	(335)	(335)

a/ Weighted by unit.

TABLE V-5

Total Public Cost, Including Rent Subsidy Cost and Total Rehab Subsidy Cost, By Three Project Characteristics a/

Project Characteristics	Rent Subsidy Cost Per Rehabilitated Unit b/	Total Rehab Subsidy Cost Per Rehabilitated Unit	Total Public Cost Per Rehabilitated Unit
Program:			
Demonstration	$1,537	$ 5,783	$ 7,320
Section 312	387	10,489	10,876
CDBG-Funded	1,973	13,213	15,186
Section 8 Mod Rehab	2,217	12,343	14,560
Level of Rehabilitation Expenditure:			
Light	1,458	1,778	3,236
Moderate	737	4,783	5,520
Substantial	2,515	17,384	19,899
Project Size:			
Small	1,525	5,090	6,615
Medium	1,249	8,753	10,002
Large	1,977	12,208	14,185
All Projects	1,786	10,739	12,525
Number of projects	(335)	(335)	(335)

a/ Weighted by unit.

b/ This is the present value of the cost of providing rent subsidies to assisted tenants for a 15-year period.

TABLE V-6

Ratio of Direct Rehab Subsidy Cost to Total Rehab Expenditure, and Ratio of Total Rehab Subsidy Cost to Total Rehab Expenditure, By Three Project Characteristics a/

Project Characteristics	Direct Rehab Subsidy Cost/ Total Rehab Expenditure b/	Total Rehab Subsidy Cost/Total Rehab Expenditure b/
Program:		
Demonstration	.33	.52
Section 312	.43	.47
CDBG-Funded	.21	.42
Section 8 Mod Rehab	.67	.89
Level of Rehabilitation Expenditure:		
Light	.25	.56
Moderate	.46	.58
Substantial	.25	.47
Project Size:		
Small	.49	.56
Medium	.49	.61
Large	.21	.45
All Projects	.27	.48
Number of projects	(335)	(335)

a/ Weighted by unit.

b/ "Total rehab expenditure" is the public share plus the private share of the direct rehabilitation expenditure. Not included as part of "total rehab expenditure" are the indirect rehab subsidy cost and the rent subsidy cost.

TABLE VI-1

Stock Productivity, and Stock Changes, By Three Project Characteristics a/

Project Characteristics	Stock Changes: No. Units Added and Saved Per 100 Rehabilitated Units	Stock Productivity	Stock Productivity Using Alternate Method for Apportioning Section 8 Mod Rehab Subsidy b/
Program:			
Demonstration	60	$ 9,728	$ 9,728
Section 312	90	11,511	11,511
CDBG-Funded	76	14,852	14,852
Section 8 Mod Rehab	71	17,358	12,332
Level of Rehabilitation Expenditure:			
Light	48	3,595	3,638
Moderate	80	5,940	4,509
Substantial	95	18,623	17,521
Project Size:			
Small	50	10,210	9,005
Medium	69	12,569	10,871
Large	83	12,406	11,765
All Projects	75	12,274	11,328
Number of projects	(334)	(334)	(334)

a/ Weighted by unit.

b/ The alternate method for apportioning the Section Moderate Rehabilitation subsidy is described in the text (see pp. 5.2-5.3).

TABLE VI-2

Lower-Income Productivity, and Lower-Income Benefits,
By Three Project Characteristics a/

Project Characteristics	Lower-Income Benefits: Net Increases in No. Lower-Income Households Housed Affordably	Lower-Income Benefit Productivity
Program:		
Demonstration	34	$20,676
Section 312	26	42,131
CDBG-Funded	22	45,638
Section 8 Mod Rehab	66	19,720
Level of Rehabilitation Expenditure:		
Light	14	19,390
Moderate	49	15,150
Substantial	46	39,645
Project Size:		
Small	36	17,440
Medium	40	25,184
Large	38	33,355
All Projects	35	28,959
Number of projects	(258)	(334)

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a/ Weighted by unit.

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