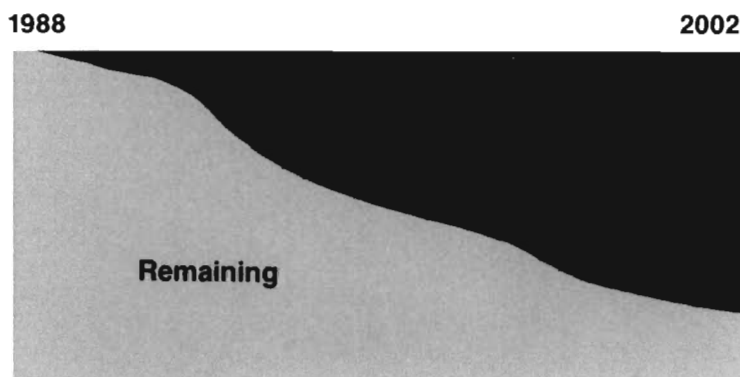
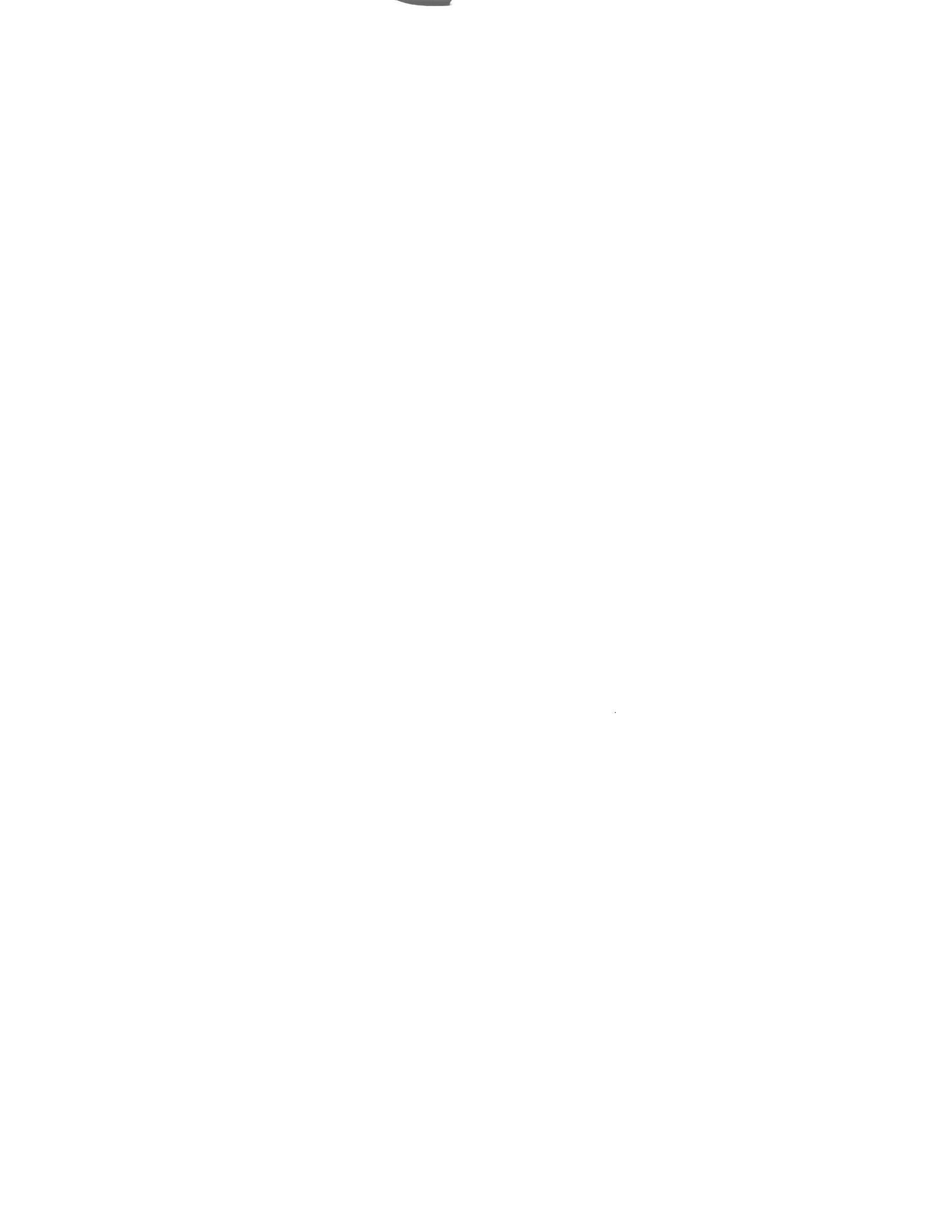

**THE REPORT OF
THE NATIONAL LOW INCOME HOUSING PRESERVATION COMMISSION**

To the
House Subcommittee on Housing and Community Development
And the
Senate Subcommittee on Housing and Urban Affairs
United States Congress

Preventing the Disappearance Of Low Income Housing



Sponsored by
National Corporation for Housing Partnerships



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**Co-Chairs
Carla A. Hills
Henry S. Reuss**

**Sponsored by
National Corporation for
Housing Partnerships**

Washington : 1988

The Preservation Analysis Model is the property of the National Low Income Housing Preservation Center. Inquiries concerning its application or future use should be directed to the Center, a non-profit public policy organization that sponsored the Commission's study, under the auspices of National Corporation for Housing Partnerships.

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Preservation Commission gratefully
acknowledges the financial support of
National Corporation for Housing Partnerships and
The Ford Foundation for this study.*

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The Honorable Henry S. Reuss
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Preface

In April 1987, the National Low Income Housing Preservation Commission was created with the support of both the U.S. House and Senate Housing Subcommittees. The Commission was formed as a bipartisan group under two co-chairs: the former Secretary of Housing and Urban Development, Carla A. Hills, and the former Chairman of the House Committee on Banking, Finance and Urban Affairs, Henry S. Reuss. Its members are broadly representative of interests in housing and public policy.

The Commission set out to examine the risk of loss of a subset of the 2 million units of privately owned and federally subsidized low-income rental housing. The mission of the Commission is four-fold:

- To determine the possible magnitude of loss of the subsidized stock as low-income housing and the causes of the loss;
- To examine alternative ways to minimize the loss of the subsidized housing stock;
- To the extent possible, to recommend ways to offset the negative effect of any losses on low-income households; and
- To analyze the cost of the alternative solutions to the U.S. Treasury.

Supported by a Technical Advisory Group made up of prominent analysts, real estate experts, and economists familiar with housing data, the Commission and its staff of consultants embarked on a major study of the older, privately owned, subsidized rental housing stock built during the period from the early 1960s to the early 1970s (referred to in the Report as the Preservation Analysis Inventory). Detailed information on a random sample of subsidized projects was collected, and a comprehensive economic model (the Preservation

Model) was created to analyze the data through a contract with Abt Associates Inc. of Cambridge, Massachusetts. The economic model simulates the most likely action of owners vis-a-vis their decisions on the disposition of their property and the potential effect on tenants. The cost of various actions to save the stock of assisted housing is also assessed. A major product of the study, detailed in this Report, is a more accurate definition of the nature and scope of the problems that the older stock faces. Recommendations on the most cost-effective policies to save this housing for low-income households are included in this Report, as is the cost of implementing them.

To ensure that the Report had excellent technical guidance, the Technical Advisory Group (TAG) met several times in the formative stages of this study in May and June 1987 to devise the in-depth approach and the broad outlines of the modeling work. The TAG reviewed progress on model development on September 29; a task force conducted an interim review on October 29, reviewing assumptions used in the model; and the full TAG conducted a final review of the model and results on January 19, 1988. The TAG agrees with the basic approach, overall technical adequacy, and plausibility of results of the Preservation Model.

In addition, to validate the accuracy of the model's results, the National Corporation for Housing Partnerships (NCHP) undertook a separate but parallel analysis of the stock of such housing that NCHP owns. NCHP determined that the model's results were a plausible assessment of the Partnership's portfolio, and corroborated the technical approach employed.

The Commission was created under the auspices of NCHP. In addition to receiving financial support from NCHP, the Commission also received a generous grant from The Ford Foundation.

Executive Summary

How the Supply of Privately Owned, Federally Subsidized Low-Income Housing Was Created and How It Is Threatened

In a time of postwar optimism and an expanding economy, Congress in the Housing Act of 1949 set a national goal of providing "a decent home and a suitable living environment for every American family." For the next decade, the Federal Government itself accepted the duty of meeting that goal, acting primarily through publicly owned and operated housing for low-income families.

Since 1961, almost 2 million privately owned, federally subsidized units of housing for low-income households have been constructed.

The 1960s brought an entirely new approach: the Federal Government sought to attract private developers, owners, and managers to perform the task. Since 1961, almost 2 million privately owned, federally subsidized units of housing for low-income households have been constructed.

These private efforts draw support from many sources. Federal programs subsidize housing for the elderly and the poor and stimulate housing in rural areas. This Report focuses on a small but critical portion of the privately owned, low-income stock that grew from the new national approach: properties that the U.S. Department of Housing and Urban Development (HUD) subsidizes and whose

mortgages the Federal Housing Administration (FHA) insures. Specifically, these properties receive support pursuant to the Section 221(d)(3) Below Market Interest Rate Program (BMIR), Section 221(d)(3) Market Rate (MR) Program with rental assistance, and the Section 236 Program. The Report refers to these properties as the Preservation Analysis Inventory. Using this Inventory, which amounts to approximately 645,000 units, the Commission constructed a computer model to forecast likely outcomes of different scenarios.

The Report examines these questions:

- How much of the Preservation Analysis Inventory may be lost in the next 15 years to prepayments or defaults?
- What factors affect the viability of the stock as low-income housing?
- What effect will likely owner actions have on tenants?
- What are the costs of protecting this stock for use during the next 15 years as low-income housing?

Under the Federal-private partnerships that produced the Preservation Analysis Inventory stock, private lenders made the mortgage loans and the FHA subsidized the interest rate (3 percent for the earliest BMIR programs and 1 percent for the Section 236 Program) and insured the long-term (usually 40 years) loans. Private owners, both for-profit and non-profit, built and operated the properties. Owner obligations included a requirement to rent to tenants whose incomes were moderate, meaning for the most part less than 80 to 95 percent of median income for the area. Complex regulations covered basic rents and length of use of properties as low-income housing. In some cases, where low-income tenants could not afford the rent despite Federal support, the Federal

Four factors threaten continued operation of the Preservation Analysis Inventory stock of properties as low-income housing.

Government offered rent supplements and other, additional subsidies.

The consequences of the potential loss of subsidized units will most severely affect tenants who cannot afford shelter without government assistance. Seventy percent of the tenants living in the Preservation Analysis Inventory have incomes below 50 percent of the median for their area. One-fifth of the tenants are in properties built for the elderly. A quarter of the households have four or more members. Since the early 1980s, demand for low-rent housing has outstripped supply. Low-income households are paying a disproportionately high percentage of their income to rent.

These questions about affordability and availability for low-income housing led the National Low Income Housing Preservation Commission to examine the future of the privately owned, federally subsidized stock. These units represent a prior Federal commitment to provide, for at least 20 years and in many instances longer, 645,000 units for occupancy, mainly by low-income households. The Commission believes that these units constitute a valuable housing inventory. These units should be retained for use by low-income households, if the steps to do so are more cost effective than other means of providing a like number of units for such occupancy.

Threats to the Inventory

Four factors threaten continued operation of the Preservation Analysis Inventory stock of properties as low-income housing:

1. Rental assistance contracts provided through Loan Management Set Asides (LMSAs) are expiring, with the largest effect being felt between 1997 and 1999. Owners will experience a drop in rental income, and tenants will no longer be assured that they can afford rents.
2. Second notes on many older properties in the inventory will mature. Ownership will revert to the second note holders if current owners are unable to pay off the second note at maturity.
3. The housing supply is aging. Given the changes in tax benefits and the possible expiration of rent subsidies, owners face diminished after-tax returns and reduced cash flows with which to meet repair and maintenance needs.
4. More and more owners will become eligible to prepay their mortgages as their loans reach their twentieth anniversary. Of the 645,000 units in the Inventory, 334,000 are eligible to prepay during the next 15 years. Peak opportunities will occur between 1991 and 1995. Not all owners will prepay, but many will do so in order to free their properties for market-rent use.

Any single one of these factors, or any combination, poses a significant threat to the continued operation of the Preservation Analysis Inventory as low-income housing. Exacerbating these threats is the significant negative impact of the Tax Reform Act of 1986 on the continued operation of low-income housing.

Tax law has always played a central role in providing incentives to owners of low-income housing. The desire to help solve serious low-income housing problems, together with attractive interest rates and rent supplements, drew the non-profits into low-income housing, but tax benefits drew for-profit owners. Those tax benefits primarily took the form of taxable losses from depreciation that could be used to offset other types of personal income such as salary, dividends, and interest that was taxed at ordinary rates.

The national policy initiated in the early 1960s began to change drastically with passage of the Economic Recovery Tax Act of 1981 (ERTA). Economic conditions were ripe for investment in market-rate apartments, and additional stimulus came from the simultaneous enactment of the accelerated cost recovery system (ACRS) of depreciation. The ACRS became available to both market-rate and low-income - - new and used - - housing. The opportunity for housing partnerships was clear: General partners could buy and resell (resyndicate) properties to new owners, who

received the favorable depreciation benefits of ACRS. Many low-income properties were thus resyndicated, with new owners paying cash, assuming the mortgage, and executing a long-term (usually 15 years) second note.

The Tax Reform Act of 1988 drastically changed all the groundrules for investors in low-income housing. The cornerstone of the Act was the passive loss limitation rules, which disallowed use of passive losses to offset income from such sources as salary, interest, or dividends. For investments made prior to the Act, such use of passive losses was limited to 65 percent in 1987, 40 percent in 1988, and so on down to 0 percent after 1990. This rule phased out the primary tax benefit associated with low-income housing.

Further, the Act lowered tax rates; Instead of receiving a 50 percent tax benefit from allowed passive losses, investors obtained only a 38.5 percent benefit in 1987 and 28 percent thereafter. The Act eliminated the distinction between ordinary and capital gains tax rates. These and other changes further eroded the attractiveness of continued investment in and owning low-income housing.

The consequences of the potential loss of subsidized units will most severely affect tenants who cannot afford shelter without government assistance. Seventy percent of the tenants living in the Preservation Analysis Inventory have incomes below 50 percent of the median for their area. One-fifth of the tenants are in properties built for the elderly. A quarter of the households have four or more members. Since the early 1980s, demand for low-rent housing has outstripped supply.

Owner's Observation

An owner of one low-income property polled in the Preservation Analysis Sample observed:

"We are returning your survey, and offer the following comment. I don't know if we are typical owners, but our situation can be stated quite simply. Congress originally used the tax laws to attract many like me into low income housing ventures. We would not have been at all interested without the tax advantages, and the knowledge that we could, at the end of 20 years, convert to some form of market-rate housing.

"The recent elimination of tax advantages [for low-income housing investors] has, for us, at least, guaranteed its conversion. To forestall our decisions, Congress would have to do something pretty spectacular to again make owning and managing such ventures attractive to anyone."

How will investors view low-income housing in the future? Congress added a new provision--the low-income housing tax credit--intended to replace the complex inducements that previously applied to low-income housing. For a variety of reasons analyzed in the Report, use of the tax credit to date has been limited and its effectiveness for stimulating investment in the future remains a matter of conjecture.

The Likely Loss of Low-Income Housing in the Absence of Action to Preserve It

If nothing is done to deal with projected defaults and prepayments of mortgages on the current stock of privately owned, heretofore federally subsidized housing, what are the owners of that housing most likely to do? To answer this question, the Commission retained Abt Associates Inc. of Cambridge, Massachusetts, to conduct a study of a "base case" of likely owner actions, using a computer model.

The base case assumes no government action. The Preservation Analysis Model simulates economic choices available to owners of low-income housing and predicts which of three possible courses of action they are likely to take: continue to operate as low-income housing, default on the mortgage, or prepay the mortgage. Information entered into the model came primarily from HUD

records and an in-depth, random sample of 300 properties drawn from the Preservation Analysis Inventory and called the Preservation Sample.

The model looked separately at three classes of properties:

- Class 1: Non-profit owners obligated to maintain their properties as subsidized housing for the 40-year life of the mortgage.
- Class 2: For-profit owners obligated for various reasons to maintain their properties as subsidized housing for the 40-year life of the mortgage.
- Class 3: For-profit owners who are eligible to prepay their mortgages after 20 years.

The Commission, with the advice of its Technical Advisory Group, sought to make reasonable and economically sound assumptions about parameters for the model concerning owner behavior. For example, Class 1 owners were assumed to operate their properties for low-income use to the end of the mortgage term unless cumulative operating deficits reached \$5,000 or more per unit, in which case the owner was assumed likely to attempt a tax credit conversion to avert default.

The model measures owner behavior over the next 15 years, a timeframe selected because it captures the actions of owners as most LMSA contracts expire, the period when second notes become due, and the twentieth anniversary date of the vast majority of mortgages.

For another example, Class 3 owners were assumed to view prepayment as a realistic option only if any second note would be satisfied upon

refinancing or sale. Further, in establishing the value of conversion to market rate, the model imposes several conditions, including that refinancing would occur at market interest rates, sufficient funds exist to cover new operating expenses, the substantial costs of modernization and repairs for conversion are economically feasible (which depends on the market rent of the uncontrolled units), and lenders are willing to make a loan for 80 percent of the value supported by no more than 90 percent of net operating income.

The model assumes that inflation increases at 5 percent per year as a national average. The model measures owner behavior over the next 15 years, a timeframe selected because it captures the actions of owners as most LMSA contracts expire, the period when second notes become due, and the twentieth anniversary date of the vast majority of mortgages. All assumptions are explained in the Report.

The model examines the economic behavior of owners, and does not take into account other influences on owners' decision-making, which could include changes in the local real estate market, local politics, owners' concern about the effect on tenants, risks inherent in changing the character of the real estate, and the possibility that financial information may not always be perfect.

Base Case Analysis

The model found that, if the government does nothing, the stock in the Preservation Analysis Inventory is in grave jeopardy as low-income housing. A substantial number of owners are likely to prepay their mortgages, and an even larger number are likely to default over the next 15 years.

For all classes of properties, 43 percent (280,000 units and 2,570 properties) are likely to default. An additional 38 percent (243,000 units and 2,030 properties) are likely to prepay. Combined losses would be 523,000 units in 4,600 properties. Although 122,000 units (890 properties) will continue to operate as subsidized housing, none is likely to take advantage of the low-income housing tax credit in the next 2 years.

Defaults are most likely to occur around 1992 and then again near the end of the century. Prepayments are most likely to occur in the period from 1991 to 1994 and will reach a maximum level in 1993.

The data compiled by the Commission indicate that two household groups--large families and the elderly--are most vulnerable to losses associated with prepayments and defaults. These households are the least likely to cope well with displacement or easily find comparable housing at comparable rent.

If the government does nothing, the stock in the Preservation Analysis Inventory is in grave jeopardy as low-income housing.

The model found that the current stock of privately owned, heretofore federally subsidized housing is in serious trouble. In the absence of government action - - additional subsidies and other assistance - - low-income housing is at risk and is no longer a viable investment for either the private non-profit or for-profit sectors. If government action does not abate economic forces now at work, much of this inventory of low-income housing will disappear. But what actions are possible to preserve this stock as low-income housing? What interventions are most cost effective? What will owners require to re-establish their commitment to low-income housing? What will the effect be on tenants?

Some Possible Preservation Actions To Maintain the Supply of Affordable Low-Income Housing

Having established the base case of non-intervention, the Commission tested three major types of governmental actions that would accomplish the most cost-effective preservation: default remedies, prepayment remedies, and broad programmatic remedies. As with the base case, the Commission used a 15-year timeframe. It counted any property that had not defaulted or prepaid during that period as "preserved." It also measured how long properties might remain as low-income housing, even though the owners might eventually

default or prepay, and called the average number preserved over 15 years the "15-year average."

The Commission tested three major types of governmental actions that would accomplish the most cost-effective preservation: default remedies, prepayment remedies, and broad programmatic remedies.

The Commission's model compared predicted costs of various preservation actions with estimated costs of tenant-based subsidies that would be provided through rental assistance payments, commonly called vouchers or certificates. The Office of Management and Budget (OMB) estimates that the national average for the annual first-year cost of a rental assistance voucher or certificate is \$2,940 per household in 1988. Using OMB's figure, the Commission estimated the average discounted present value per 15-year voucher or certificate at about \$30,000.¹ The model also compared the cost of preservation actions with a higher, maximum cost for replacement housing.

Two caveats are in order. First, the model's projections are based on a relatively small sample (300 properties) and assumptions about inflation (5 percent per year), the future, and owners' likely decisions. Second, even if the model's predictions are right, owners might well be willing to settle for less than the computed preservation cost because of altruism, concern about tenant displacement, political repercussions, avoiding the cost and risk of a market conversion, or other reasons. In this sense, the computed preservation costs are maximums.

¹ The \$30,000 voucher figure is based on figures provided by the Office of Management and Budget. Based on higher figures provided by the Congressional Budget Office, the discounted present value of the 15-year voucher would be \$44,000, and the total cost of providing vouchers for all of the tenants in defaulting properties would be \$16 billion.

Default Remedies

The model found that most units are in properties that could be deterred from default with an investment of less than \$30,000 (discounted present value of the total) per unit. Approximately 2,330 properties (255,000 units of the 280,000 threatened) could be preserved from default over the coming 15 years and the tenants in the remaining 25,000 units could be provided vouchers for a total of \$8.2 billion.

Costs would include funds to offset operating cash deficits (\$3.3 billion) and to provide payments previously granted by the Federal Government for Section 8 and Section 236 subsidies (\$3.3 billion). The cost of offering replacement vouchers to the 25,000 households in housing costing more than \$30,000 per unit to preserve from default would add another \$1.7 billion over the 15 years.

The cost of preventing defaults of all 280,000 units--that is, the total cost without the \$30,000 cap--would be \$8.4 billion over 15 years, including necessary funding for interest and Section 8 subsidies previously granted by the Federal Government. Finally, at the other extreme, if nothing is done to prevent defaults, providing vouchers to all households affected by default would cost \$11 billion over 15 years. This outcome assumes that the households receiving vouchers would be able to find replacement housing.

One remaining issue regarding defaults involves Federal insurance. When the owner defaults, the lender will require the FHA insurance fund to pay off the balance on the mortgage. Historically, the Federal Government has netted approximately 40 cents on the dollar in a foreclosure. Thus, the Commission estimates the potential loss to the FHA insurance fund attributable to defaulting properties is \$1.9 billion.

Prepayment Remedies

As in the default analysis, the model found that to discourage prepayment most properties would require acquisition and operating cost subsidies of less than \$30,000 per unit. Using that cap, the model estimates that 218,000 of the 243,000 properties predicted to prepay could be deterred from prepayment and conversion over the next 15 years.

To discourage prepayment most properties would require acquisition and operating cost subsidies of less than \$30,000 per unit.

The model estimates the 15-year costs to prevent prepayments in 218,000 units costing less than \$30,000 per unit and providing vouchers to 25,000 households displaced would be \$9.4 billion. The costs include \$5.0 billion for preservation and offset of future cash losses and \$3.1 billion to provide payments previously granted by the Federal Government for Section 8 and Section 236 subsidies. Tenants in units not preserved from prepayment might require vouchers as a replacement, costing \$1.3 billion.

Dropping the \$30,000 cap, all 243,000 properties could be preserved from prepayment for 15-year total costs of \$10.1 billion.

If no property-specific preservation actions were taken to prevent prepayment, providing housing vouchers as replacement for all 243,000 units prepaying would total \$10 billion. Depending upon the local housing market, tenants receiving vouchers might or might not be able to find suitable replacement housing.

Broad, Programmatic Approaches

The foregoing strategies for preventing default and prepayment for 15 years approach the solution on a property-specific basis. This approach could be administratively demanding and potentially expensive. Costs could average between \$1,000 to \$5,000 per unit. The Commission therefore considered two other basic approaches -- additional subsidies and expanded tax benefits. It examined seven strategies based on variations of two programs already in place, property-based Section 8 rental assistance and the low-income housing tax credit.

Preservation Strategy #1: Provide a Subsidy Equal to the Section 8 Loan Management Set Asides After the Expiration of These Contracts
The extension of Section 8 would permit 231,000 units to operate as low-income housing through 2002. That is, 109,000 more units will be preserved than with no intervention. Owners of these properties would continue rather than default; those planning to prepay would not be appreciably affected.

Preservation Strategy #2: Provide a Subsidy Equal to Maximum Additional Section 8 Subsidy to Every Property
The Commission estimates that the current average rent of units in the Preservation Analysis Inventory is \$100 per month below Section 8 existing housing fair market rents. Providing an additional \$100 per month to every unit would preserve 303,000 units over 15 years. That is, 181,000 more units will be preserved than the non-intervention case.

Preservation Strategy #3: Extend the Availability of the Low-Income Housing Tax Credit
The model tested the most generous hypotheses about eligibility of properties for the credit and found that the credit alone does not appear to be a powerful tool for preservation. The 15-year average number of additional units preserved over the base case is only 71. Many of those electing to use the credit would continue to operate their properties as low-income housing in any event.

Preservation Strategy #4: Provide a Subsidy Equal to the Section 8 Loan Management Set Asides After the Expiration of These Contracts and Make Tax Credit Generally Available
Combining these two incentives produces 15-year average additional units that are virtually the same in number as for extending Section 8 alone.

Preservation Strategy #5: Provide a Subsidy Equal to the Section 8 Loan Management Set Asides After the Expiration of These Contracts and Increase the Annual Credit to 5 Percent (from the 4 Percent Annual Amount Now Available)

Preservation Strategy #6: Provide a Subsidy Equal to the Section 8 Loan Management Set Asides After the Expiration of These Contracts and Increase the Annual Credit to 6 Percent

Preservation Strategy #7: Provide a Subsidy Equal to the Section 8 Loan Management Set Asides After the Expiration of These Contracts and Limit the Tax Liability to the Seller to the Cash Derived from the Tax Credit Sale Rather than Taxing the Seller's Full Capital Gain

The best of the broad preservation strategies — (#2), providing \$100 per month for all units maintained for low-income tenants — is inferior to the property-specific strategies.

Of the four strategies based on tax incentives, Preservation Strategy #6, which provides the most generous subsidy, preserves the most additional housing for low-income households; over the next 15 years, it would save 24,000 more units than Strategy #4. Preservation Strategy #6 saves 134,000 additional units over the base case.

Note: The model tracked costs to the Federal Government to include taxes lost from property operations, taxes foregone through taxpayer shelters, and other costs to the Government.

Conclusions on Cost Effectiveness

The best of the broad preservation strategies -- (#2) providing \$100 per month for all units maintained for low-income tenants -- is inferior to the property-specific strategies as it would allow more units to be lost to defaults and prepayments and is more costly than the property-specific strategies. None of the preservation strategies affects tenants differentially; in all categories of owner actions essentially the same fraction of households affected — 70 percent — are very low income (below 50 percent of median). Low-income households are definitely at risk from prepayments and may be at risk from defaults, depending on the post-default use of the property.

Recommendations

Recommendation #1 Federal Commitment

The existence of 645,000 units of privately owned, federally subsidized housing represents a prior Federal commitment to provide this number of units for occupancy mainly by low-income households. The Federal Government should accept primary responsibility for maintaining that commitment for at least the next 15 years.

Recommendation #2 Cost-Effective Preservation

The Federal Government, in cooperation with State and local governments, should work to preserve these units in good condition and to continue to make them available for low-income households, where that approach is more cost-effective than other means of providing a like number of units for such occupancy.

Recommendation #3 Cost-Effective Alternatives

In high-cost housing communities with tight markets where the most cost-effective course causes a reduction in the existing number of units in this inventory, Federal, State, and local governments should work together to provide for a like number of units available for such occupancy elsewhere in those communities.

Recommendation #4 State and Local Role

State and local governments should participate actively in developing and implementing Preservation Plans covering properties in their jurisdictions. The Commission believes that implementation of preservation programs must be flexible and that this flexibility can best be obtained by active participation of State and local governments. Flexibility is indispensable because:

- *Geography.* The United States is enormously diverse. Economic strength varies by region and locality. Although all regions share problems of poverty and homelessness, some have stronger economies than others. Few would deny that most parts of California, Massachusetts, and New York have far lower vacancy rates than most parts of Texas, Oklahoma, and Arkansas. The sample of

properties analyzed with the model was too small to permit predictions about specific cities in which defaults or prepayments would occur, but it can be stated that defaults and prepayments are directly related to conditions existing in the local housing market as well as to a specific property's physical and financial condition.

- *Time.* The Commission addresses problems that will unfold over time. The effect of defaults or prepayments on communities, States, the Federal Government, and tenants may be quite different in 1999 from today, and judgments with respect to preservation may correspondingly differ.
- *Economic Condition.* Real estate markets will change. Economic conditions will inevitably vary over time and by region. The prevailing interest or inflation rate will probably determine the likelihood of prepayment in a given year more than will any other factor.
- *Changes in Programs.* Over time, State and local governments will develop and revise their own housing programs, thereby necessitating changes in Federal responses.

Each State Agency and local government should designate an agency to act as its liaison with HUD to negotiate and implement Preservation Plans and Proposals. The State Agency, working with local agencies within its jurisdiction, should identify properties at risk of loss and develop Preservation Proposals to maintain the projects as low- and moderate-income housing. State Agencies can enlist full State government support (e.g., real estate tax abatement) and private funds or services, which are so necessary to the successful implementation of a preservation strategy.

Recommendation #5
Housing Preservation Plans and Proposals
Each State Agency should promptly prepare a Housing Preservation Plan that identifies and describes federally assisted units that are likely to lose their low-income housing character. The Plan should include a property-specific Preservation Proposal for each property

threatened with loss from default or prepayment.

The Preservation Plan should reflect how the State Agency, working with local governments, proposes to maintain the same number of units for low-income households as currently exists in its jurisdiction. The Plan should include specific Proposals for dealing with projects threatened with loss. It should identify financial contributions that will be made by private, non-profit, State, and local entities, and propose such HUD preservation assistance as the State Agency deems necessary to achieve the goal of preservation. HUD and the State and local agencies should formulate preservation strategies based on this information.

Recommendation #6

Low-Income Housing Preservation Office

HUD should create a special Low-Income Housing Preservation Office and staff it with financial and legal experts to assist HUD field offices.

Recommendation #7

Annual Owner Statement

HUD should obtain from each owner of a Section 236 or a 221(d)(3) housing project an annual statement as to whether the owner thinks the project is likely to be disposed of through default or prepayment of its mortgage at any time within 24 months from the required date for submission of the statement. HUD should send copies of such statements to the appropriate State Agency.

Recommendation #8

Preservation Assistance by HUD

HUD should evaluate the State Agency's Preservation Plan and Proposals, and should provide such part of the requested preservation assistance as it determines to be necessary and cost effective. Possible HUD responses could include:

- **Permit property owners to raise all rentals to the maximum Section 8 fair market rent levels.**
- **Provide Section 8 assistance for up to 100 percent of the property's tenants.**
- **Amend regulatory agreements with owners to activate preservation incen-**

tives offered by the Housing and Community Development Act of 1987.

- **Offer preservation grants or loans in amounts needed to make the Preservation Proposal viable.**

HUD should establish and publish guidelines for use by State and local governments in determining what Federal resources are available and how costs are to be shared.

The aim of a Preservation Proposal is to ensure the continued low-income character of a project. Thus, where a Proposal enables a for-profit owner to avoid transferring the property and thus defer the capital gains tax on sale, the Proposal should impute to the owner benefits from this deferral in calculating overall benefits.

Conversely, the Proposal may include transfer from for-profit owners to entities such as a State or local authority or a non-profit that would guarantee continued low-income occupancy. In such a case, the Proposal might include grants to the owners to compensate them partially for the capital gains taxes for which they would become liable as a result of the transfer. Preservation costs in this Report are net of capital gains.

Recommendation #9

Tenant Rents

Tenant rents should not be increased to more than 30 percent of tenant income. Data on the Preservation Analysis Sample document that low-income and very low-income tenants occupy the properties in the Preservation Analysis Inventory.

Recommendation #10

Studies of Additional Housing Programs

HUD and the Department of Agriculture's Farmers Home Administration should undertake and finance analytical studies of the federally assisted, privately owned housing stock not considered in this Report, principally the properties financed through the Farmers Home Section 515 Program and the Section 8 New Construction and Substantial Rehabilitation Programs. HUD should continue to monitor the 300-property in-depth Preservation Sample as a reference point for measuring the extent of potential loss and the role of preservation actions.

Recommendation #11

Cost of Preservation Assistance

The Commission believes that units needed in the locality and shown to be cost effective should be preserved. The cost of preserving for 15 years 473,000 of the 523,000 units estimated to be in danger of loss, and protecting the 50,000 displaced households, would be \$11.3 billion in new funding plus \$6.4 billion to con-

tinue subsidies previously granted by the Federal Government to these properties, for a 15-year total cost of \$17.7 billion.² The \$11.3 billion in *new funding* would be composed of \$3.3 billion for defaults, \$5.0 billion for prepayments, and \$3.0 billion to provide for long-term vouchers or other housing for the 50,000 households in properties not preserved from default or prepayment.

² It would cost an additional \$0.9 billion, including subsidies already committed to the properties, to preserve all of the 523,000 units at risk of loss.

**Cost Elements for Remedying Defaults and Preventing Prepayments
For Properties with New Funds Requirement Less Than \$30,000 Per Unit
in Discounted Present Value**

	Average Annual Costs in Period (Millions of Dollars)			15-Year Total ¹ (billions)
	1988-1992	1993-1997	1998-2002	
Cost Elements:				
New Funding to Remedy Defaults	\$ 50	\$ 215	\$ 390	\$3.3
Voucher Payments for Units in Properties w/ Default not Remedied	75	115	145	1.7
New Funding to Prevent Prepayments	275	370	355	5.0
Voucher Payments for Units in Properties w/ Prepayment Not Prevented	30	100	130	1.3
Total New Funding ¹	430	800	1,020	11.3
To Continue Section 236 and Section 8 Subsidies Previously Granted by the Federal Government				
In Properties w/ Defaults Remedied	60	220	375	3.3
In Properties w/ Prepayments Prevented	50	235	340	3.1
Total Continuing ¹ Subsidies	110	455	715	6.4
Grand Total, All Costs ¹	\$540	\$1,255	\$1,735	\$17.7

¹ Totals do not add exactly due to rounding.

Source: National Low Income Housing Preservation Commission.

How the Supply of Privately Owned, Federally Subsidized Low-Income Housing Was Created and How It Is Threatened

Over the past few decades, the U.S. Government has invested billions of dollars in housing that has benefitted low-income households. Whether it supported housing that was publicly or privately owned, managed by for-profit or non-profit developers, or located in rural or urban areas, the investment had a purpose: to provide affordable and standard-quality housing for those too poor to pay for shelter in the private marketplace. While job creation and support to the construction industry often encouraged the Government investment, Federal funds provided shelter for 4 million low-income households and helped to create assets with a replacement value estimated at one quarter of a trillion dollars.¹ Currently, almost

Federal funds provided shelter for 4 million low-income households and helped to create assets with a replacement value estimated at one quarter of a trillion dollars.

one fourth of very low-income renters receive some form of subsidized housing assistance.²

Today, this investment is vulnerable--to deterioration, financial insolvency, and conversion to high-cost housing. Some properties are vulnerable because the physical needs of aging buildings far outstrip the income available to fix them up. Other properties face the termination of previously available subsidies and will no longer provide sufficient returns to their owners. Still others, released after 20 years from commitments that have restricted them to low-income use, are likely to convert to high-cost rental housing, condominium, or other more lucrative uses.

The potential losses of subsidized units will fall most severely on tenants who cannot afford shelter without government assistance. The National Association of Home Builders reports that "the combination of increases in real rents, demolition or abandonment of cheap housing, gentrification, and other market changes in the use of the housing stock have reduced the number of low-cost rental units."³ Although local circumstances and economies vary considerably on a national basis, an increasingly large gap is appearing between the number of decent, affordable units and demand for them.⁴

Exhibit 1-1 shows the relationship of low-rent units to households requiring such units. In the 1970s, the demand and supply of such units was in relative equilibrium, but since the 1980s demand has been outstripping supply. In 1983, the

¹ Neighborhood Reinvestment Corporation, Dr. Phillip L. Clay, *At Risk of Loss: The Endangered Future of Low-Income Rental Housing Resources*, 1987, p. 1.

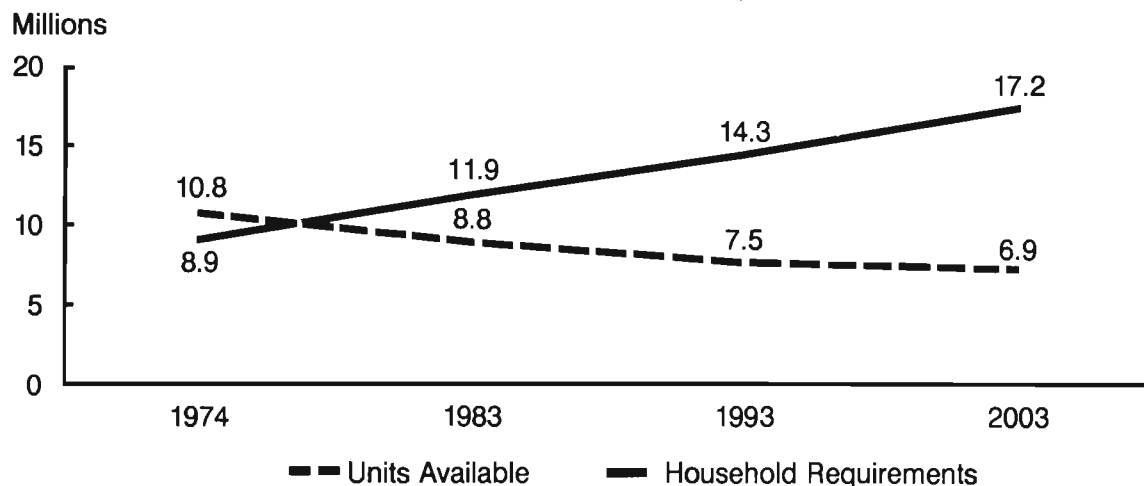
² The National Association of Home Builders, *Low- & Moderate-Income Housing: Progress, Problems & Prospects*, 1986, p. 12.

³ National Association of Home Builders, p. 16.

⁴ See Neighborhood Reinvestment Corporation, p. 4, and National Association of Home Builders, p. 16.

Exhibit 1-1

Unsubsidized Low-Rent Housing Units and Households Requiring Such Units, 1974 and 1983 (Actual), and 1993 and 2003 (Projected)(in Millions)



Source: Neighborhood Reinvestment Corporation, *At Risk of Loss: The Endangered Future of Low-Income Rental Housing Resources*, Pg. 4, Tabulated from U.S. Census and Department of Housing and Urban Development, Annual Housing Survey, 1974 and 1983.

number of households in need of an apartment renting for \$250 per month increased to about 12 million while the number of units with such rents decreased to nearly 9 million. Projections for the year 2003 show an ever widening gap. Not only are modest-rent units becoming increasingly scarce, but low-income households are also paying disproportionately high percentages of their income to rent. While several factors affect affordability, "it seems clear that increasing numbers of low-income households have had to devote large and rising shares of their incomes to occupy standard-quality rental housing" concludes the NAHB in their recent study.⁵ Exhibit 1-2 suggests that increases in real rents have been particularly great for units occupied by low-income households. For units with 1974 tenant incomes below \$10,000, the increase in real structure rents (rents excluding utilities) over the period 1974 to 1983 was approximately 10 percent, while units with tenants with incomes more than \$30,000 in 1974 experienced no increase in real rents for the same period.

Increases in real rents have been particularly great for units occupied by low-income households.

Within this context of increasing questions regarding housing affordability and availability for low-income households, the National Low Income Housing Preservation Commission undertook its examination of the viability of one portion – numbering 645,000 units – of the privately owned and subsidized housing stock. The Commission believes that these units represent a prior Federal commitment to provide this number of physical housing units for occupancy, mainly by low-income households. The Commission believes that these units constitute a significant portion of the housing inventory that should remain available

⁵ National Association of Home Builders, Summary, p. II.

and affordable to lower-income households, if preserving these units is more cost effective than other means of providing a like number of units for such occupancy.

**Exhibit I - 2
Real Increases in Rent,
1974-1983 by 1974
Tenant Income**

1974 Income (\$000)	Median Increase in Real Rent, 1974-1983	
	Gross Rent	Structure Rent
Less than 5	16.2%	9.9%
5-10	9.7	9.6
10-15	7.1	5.7
15-20	6.3	6.8
20-30	2.4	2.3
<u>30 +</u>	<u>2.2</u>	<u>0.0</u>
All	10.4	7.8

Note: Sample consists of rental units that had occupants who paid cash rent in both 1974 and 1983. Real rent is defined as change actual rent adjusted for change in overall prices of 83.5 percent as measured by the implicit deflator for Personal Consumption Expenditures in the National Income and Product Accounts. No adjustment has been made for economic depreciation of the units over the period. Gross rent is contract rent (the rent paid to landlord) plus utilities (electricity, gas, oil, and water). If the renter pays utilities separately from rent, then contract rent is structure rent, the rental cost of the housing structure. For the renters whose utilities are included in contract rent (about 20% of all renters), contract rent is gross rent, and an estimate of utilities is netted out of contract rent to arrive at structure rent.

Source: National Association of Home Builders, p. 12; Special NAHB Tabulations of Annual Housing Survey.

How the Supply of Older, Subsidized Housing Came to Be

The Housing Act of 1949 proudly proclaimed America's goal to provide "a decent home and a suitable living environment for every American family." Whereas publicly owned and operated housing was the principal means for achieving this goal during the 1950s, the decade of the 1960s brought a different approach. No longer would local governments and public housing authorities be the primary providers of low- and moderate-income housing. To achieve this ambitious national goal, the public and private sector together would provide the needed shelter. A combination of financial subsidies and tax benefits

would attract strong private sector participation. Since 1961, the private sector has constructed almost 2 million units of privately owned, subsidized housing. The U.S. Department of Housing and Urban Development (HUD) administers the key Federal programs affecting these properties.

This Report explores in depth the issues surrounding a significant portion of the privately owned and subsidized low-income stock that resulted from the new national policy: properties that were subsidized and their mortgages insured by the Federal Housing Administration (FHA) between 1961 and 1973 under Section 221(d)(3) Below Market Interest Rate Program (BMIR), Section 221(d)(3) Market Rate (MR) Program with rental assistance, and the Section 236 Program. These properties are referred to in this Report as the Preservation Analysis Inventory.

The decades of the 1970s and 1980s produced many additional units of subsidized housing through such programs as the Section 202 program for the elderly and the Section 8 New Construction and Rehabilitation Programs. In addition, between 1963 and 1985, the Section 515 Program of the Farmers Home Administration produced more than 305,000 units of rental housing. While an evaluation of the financial and physical viability of all of the housing stock produced under these programs is also important, it is not the focus of this Report; the immediacy of the problems affecting the older, FHA-insured housing supply and the limits of time and resources dictated a more narrowly focused review.

This Report, therefore, explores:

- How much of the Preservation Analysis Inventory is at risk of loss to low-income households because of prepayments of mortgages;
- How much of the stock now in use by low-income tenants may be in financial trouble and likely to default;
- The significant factors affecting the viability of the Preservation Analysis Inventory stock as low-income housing;
- The economic characteristics of tenants living in this housing and the effect of owner actions on these tenants; and
- The estimated costs of protecting the supply of older, subsidized housing for lower income households.

Direct Subsidies for Low-Income Housing⁶

Between 1961 and 1973, the Federal Government agreed to subsidize, and in most cases to insure with Federal mortgage insurance, the loans on 645,000 units of housing, called in this Report the Preservation Analysis Inventory.⁷ These units were developed under the FHA's Section 221(d)(3) BMIR, Section 221(d)(3) MR, and the Section 236 Programs. Exhibit 1-3 displays the number of units built under these programs and suggests their relationship to the total supply of subsidized, low-income housing.

Between 1961 and 1973, the Federal Government agreed to subsidize, and in most cases to insure with Federal mortgage insurance, the loans on 645,000 units of housing, called in this Report the Preservation Analysis Inventory.

In the public/private partnership that produced these early, subsidized housing units, private lenders underwrote and provided mortgage loans and the FHA subsidized the mortgage interest rate (3 percent in the earliest 221(d)(3) BMIR

Program and 1 percent in the 236 Program) and insured the long-term (usually 40 years) loans.⁸

Private developers, both for-profit and non-profit, constructed and operated the properties. In return for the mortgage interest subsidy, owners were obligated to rent the units to tenants whose incomes at the date of lease were moderate income, for the most part less than 80 to 95 percent of median income for the area.⁹

Investment Returns and Rent Levels

Federal regulation provided formulas that took into account the low-interest rate mortgage and operating expenses, and thereby regulated rents on the units.

The pre-tax return to for-profit owners (sometimes referred to as limited dividend sponsors) was limited to 6 percent of the original equity investment.

HUD regulations established rents for 221(d)(3) BMIR units at a level sufficient to amortize the 3 percent loan, pay operating expenses, and, in the case of for-profit owners, provide the limited, permitted return on investment. HUD regulations also permit owners to increase rents by 10 percent for units occupied by tenants whose income rose to 110 percent of the area's median income.

The term "basic rent" is used to describe regulated rents for Section 236 properties. The "basic rent" calculation for Section 236 is similar to that of the BMIR projects. In a Section 236 property, however, when 30 percent of a tenant's adjusted income exceeds the base rent, the tenant is charged a higher rent -- 30 percent of income up to a maximum called the "market rent."¹⁰ When first

⁶ The information in this section is based on a report by the Congressional Budget Office, *The Potential Loss of Assisted Units as Certain Mortgage Interest Subsidy Programs Mature*, March 1987.

⁷ Certain properties financed under State programs that are subsidized under Section 236 are excluded from the Preservation Analysis Inventory. The size of the Preservation Analysis Inventory was extrapolated from units in the Preservation Sample. See Appendix III for a full description of how weights were assigned to the sample.

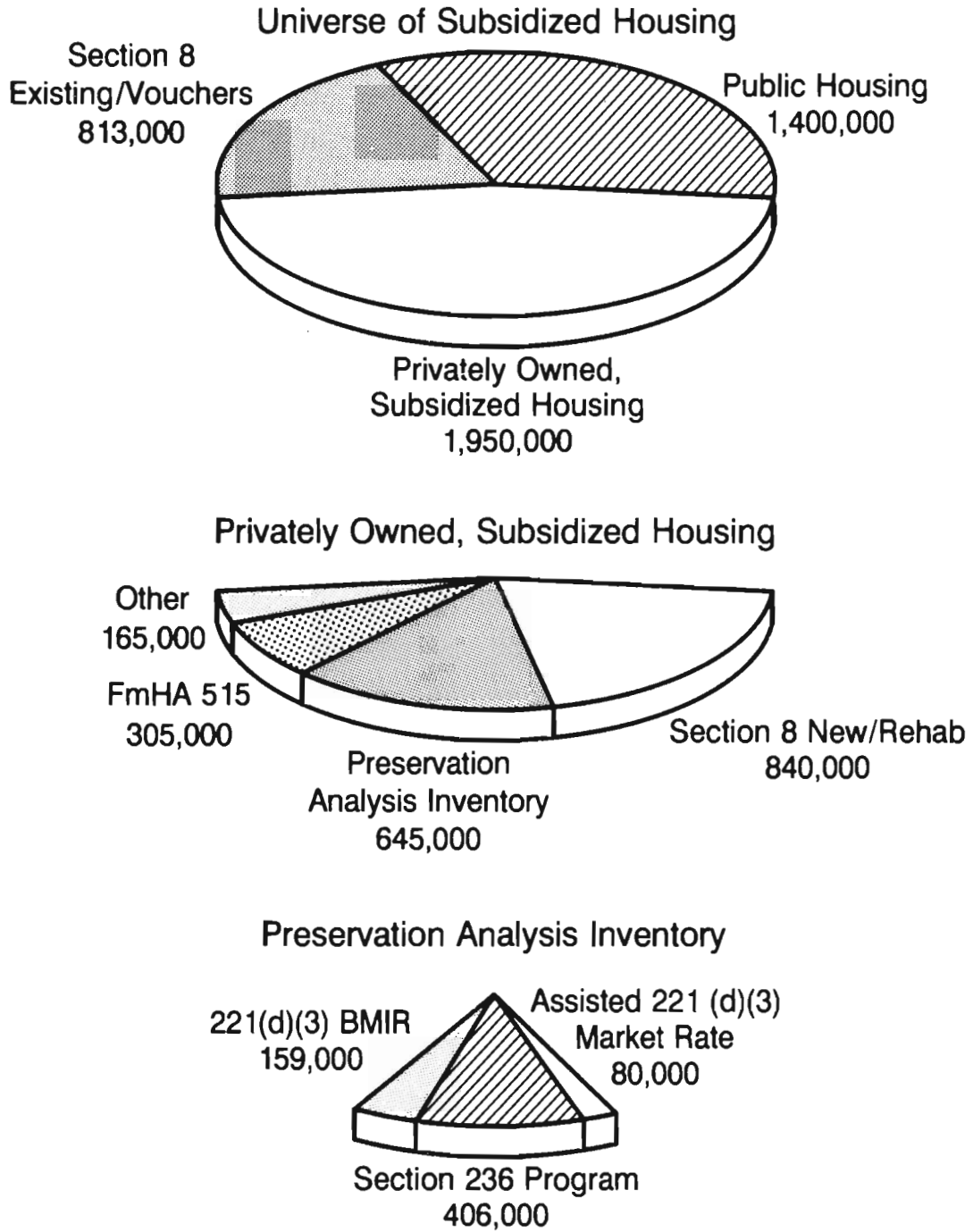
⁸ Although the 221(d)(3) MR Program did not provide subsidized loans, some of the properties received supplementary subsidies conditioned on use restrictions similar to those applicable under the companion BMIR Program. Only the assisted 221(d)(3) MR properties are included in this study.

⁹ The income eligibility requirements of these programs have changed over time as public policy regarding low-income housing has changed. Initially, Section 221(d)(3) BMIR properties were restricted to tenants having 95 percent of median income or less and Section 236 properties were limited to tenants with income less than 135 percent of the maximum income eligible for public housing. When the Section 236 Program was active, public housing income caps were generally 50 to 80 percent of median income. Today, tenants in units developed by both these programs must have initial incomes below 80 percent of median and certain statutory provisions give priority to tenants with incomes below 50 percent of median.

¹⁰ "Market rents" are set at a level sufficient to amortize the mortgage assuming a full, unsubsidized interest rate. The term "market rent" used in connection with Section 236 properties does not relate to the market rent a unit might command in its location absent Federal rent restrictions. It is simply a term of art that HUD uses to distinguish this type or rent level from "basic rent."

Exhibit 1-3

Composition of Subsidized Housing



Source: National Low Income Housing Preservation Commission Tabulations. HUD Data.

enacted, Federal housing laws required tenants to pay only 25 percent of their adjusted family income to rent. Current rules require tenant contributions of 30 percent.

Rent Subsidies

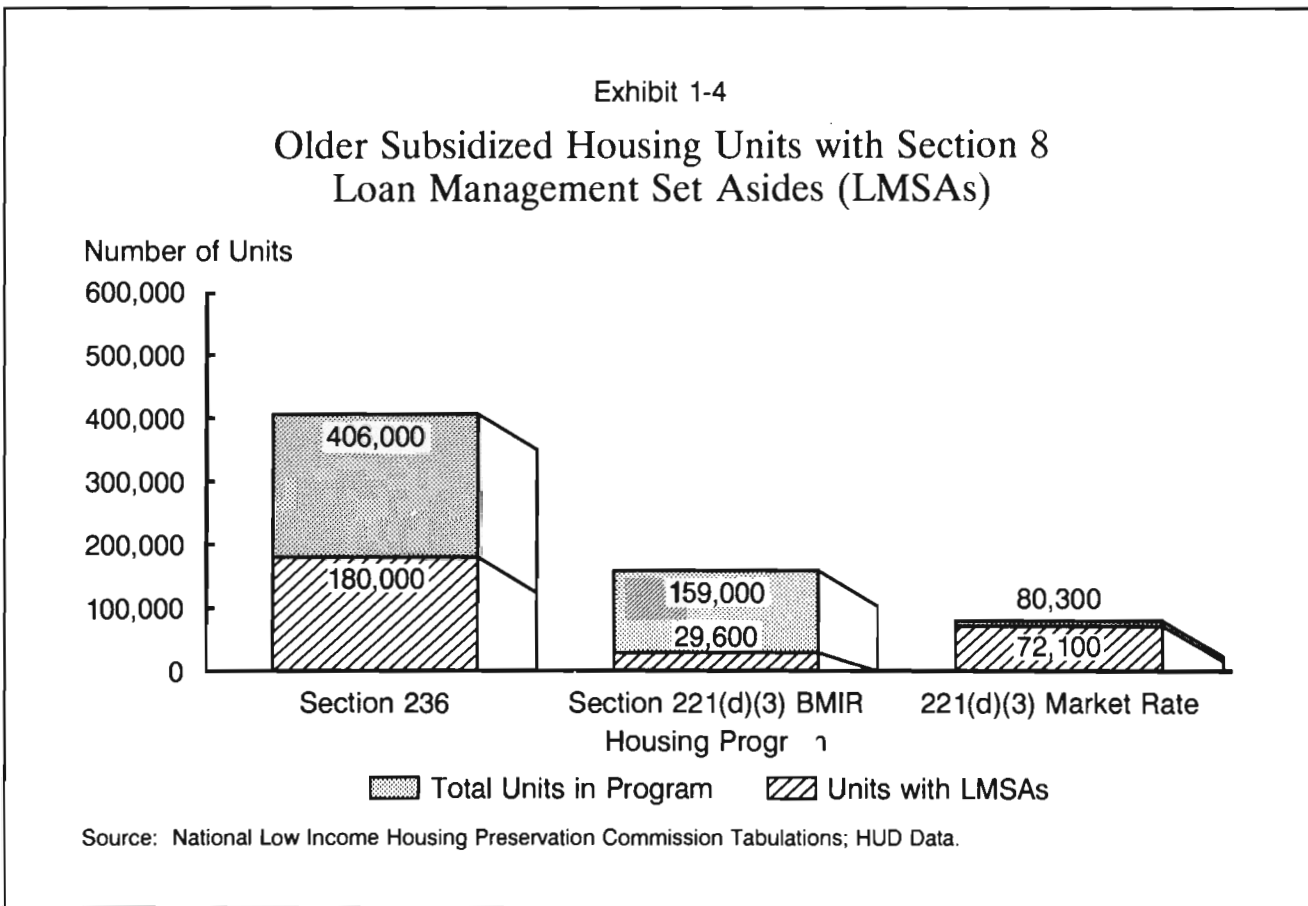
Despite the low-interest-rate mortgages and federally imposed rent restrictions, some units in the Preservation Analysis Inventory were still not affordable to very low-income tenants. To accommodate tenants with very low incomes (and in many cases to provide extra revenues to the property) the Federal Government paid additional subsidies--rent supplements--to many low-income residents of this stock. These rent subsidies made up the difference between actual rents charged and 30 percent of tenant adjusted income. These special subsidies were funded primarily through the Rent Supplement Program, which provided assistance for 40 years following the origination of the

mortgage. Beginning in 1976, the Section 8 Existing Loan Management Set Aside (LMSA) Program was designed to provide assistance to troubled properties, and it replaced virtually all of the older rent supplement contracts. LMSAs provide assistance for up to 15 years from the contract date.¹¹ Some 76 percent of all the properties in the Preservation Analysis Inventory have some units assisted through supplemental rental assistance, virtually all through LMSA.

Approximately 44 percent of all units in the Preservation Analysis Inventory have Section 8 assistance. Exhibit 1-4 indicates the number of units with LMSAs by program.

Length-of-Use Restriction

Various use restrictions--rent and resident controls--are imposed on owners of units in the Preservation Analysis Inventory in exchange for the subsidies. Non-profit owners are obligated to



¹¹ The conversion of Rent Supplement contracts to LMSAs reduces long-term Federal appropriations and allows eligible owners to prepay their mortgages earlier at the expiration of the rental assistance. Beginning in 1983, new LMSA contracts were written for 5-year terms, whereas contracts converting rent supplements to LMSAs were written for 15 years, in 5-year option increments.

maintain their properties as low-income housing for 40 years. Most for-profit owners may prepay their mortgages and thus terminate use restrictions at the end of 20 years. A small category of

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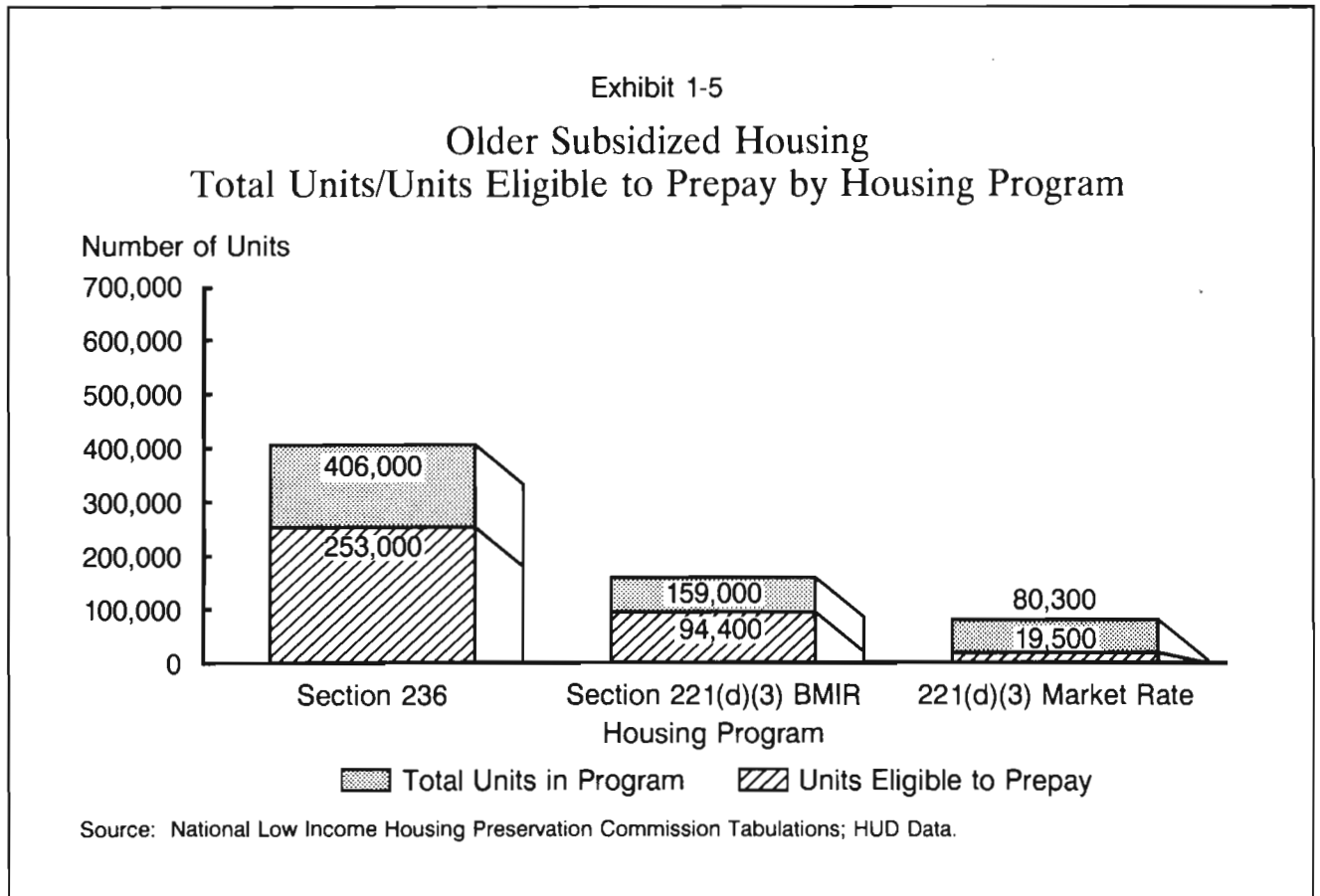
for-profit owners, because their properties were originally owned by a non-profit or because additional restrictions have been imposed as a condition of rent supplement or capital improvement (flexible subsidy) contracts, are also subject to 40-year restrictions. Exhibit 1-5 indicates by program the number of owners eligible and ineligible to prepay their mortgages after the twentieth mortgage anniversary.

Other Subsidized Housing Programs

The Preservation Analysis Inventory comprises 645,000 units and is part of a larger supply of 2 million units of privately owned and subsidized low-income housing. While the units in the Preservation Analysis Inventory are the subject of this study and are the most vulnerable to loss as low-income housing because of their age, the balance of the privately owned subsidized inventory faces similar problems.

Section 8 Program

The largest number of these privately owned, subsidized units was produced under the Section 8 Program, which Congress authorized in 1974. Unlike the interest subsidy programs that preceded it, the Section 8 Program guaranteed developers of new or rehabilitated housing a rent covering the difference between 30 percent of tenant income and the unit rent. This subsidy was provided for 20 to 40 years; however, contracts



written before 1980 provided 5-year renewal periods allowing the owner to "opt out" of the program before the contract expired. Maximum rents--fair market rents (FMRs)--were established for each market area and construction type. Tenant income was originally limited to 80 percent (under current rules, 50 percent) of adjusted family median or less. Private developers constructed 840,000 units of Section 8 housing before the program ended in 1985. Of these, owners of as many as 200,000 units may opt out of their contracts by 1995. Contracts will expire on an additional 496,000 units by 2002.

Farmers Home Administration Program

While most of the Preservation Analysis Inventory and the Section 8 inventory was constructed in relatively urban areas, the Farmers Home Administration (FmHA) subsidizes housing in rural communities. Much like the FHA's interest-subsidy programs, the FmHA Section 515 program provides an interest credit to reduce mortgage rates to 1 percent and requires private owners to maintain rents affordable to lower income tenants. Approximately one-third of all Section 515 units receive supplementary rental assistance.

While most of the Preservation Analysis Inventory and the Section 8 inventory was constructed in relatively urban areas, the Farmers Home Administration (FmHA) subsidizes housing in rural communities.

Between 1963 and 1985, developers constructed some 305,000 units of Section 515 housing. Owners received 50-year mortgages, but faced no prepayment restrictions until 1980. Since December 1979, all new mortgages have contained 20-year prepayment restrictions similar to those imposed on FHA properties. Assuming immediate prepayment of pre-1980 properties and termination of post-1980 mortgages at the end of 20 years, the

potential loss of the FmHA stock is as high as 154,000 units by 1995 and 305,000 by 2005.

Other HUD-Insured

A third component of the privately owned and subsidized housing supply includes properties developed under a wide variety of HUD insurance programs and units assisted with Section 8 LMSA or other rental subsidies.

Together, these three components of the privately owned, subsidized housing stock comprise 1.3 million units. Of these, most are vulnerable to loss as low-income housing as their subsidies or contracts expire.

In addition, this category includes some properties developed under various HUD programs with mortgages provided by State housing finance agencies. Although little is known about the potential for prepayment for the 165,000 properties in this category, many do receive Section 8 LMSA assistance that will expire in the next few years.

Together, these three components of the privately owned, subsidized housing stock comprise 1.3 million units. Of these, most are vulnerable to loss as low-income housing as their subsidies or contracts expire. While the Commission has not studied the actual likelihood of loss of these properties nor the costs to preserve them, they do represent a substantial portion of the stock of affordable housing.

Threats to the Older, Subsidized Housing Stock

Several factors diminish the profitability of continuing to operate properties in the Preservation Analysis Inventory as low-income housing. The direct subsidies that have sustained this inventory are expiring. As the inventory ages, repair needs increase and major capital improvements are required. Last, the profound 1986 revisions to the

Tax Code have dealt a severe economic blow to these properties.

Expiration of LMSA Contracts

The first major factor--a figurative time bomb--threatening the Preservation Analysis Inventory involves the expiration of rental assistance contracts provided through LMSAs. These payments help lower income tenants to pay their rent by making up the difference between 30 percent of income and the rent charged.

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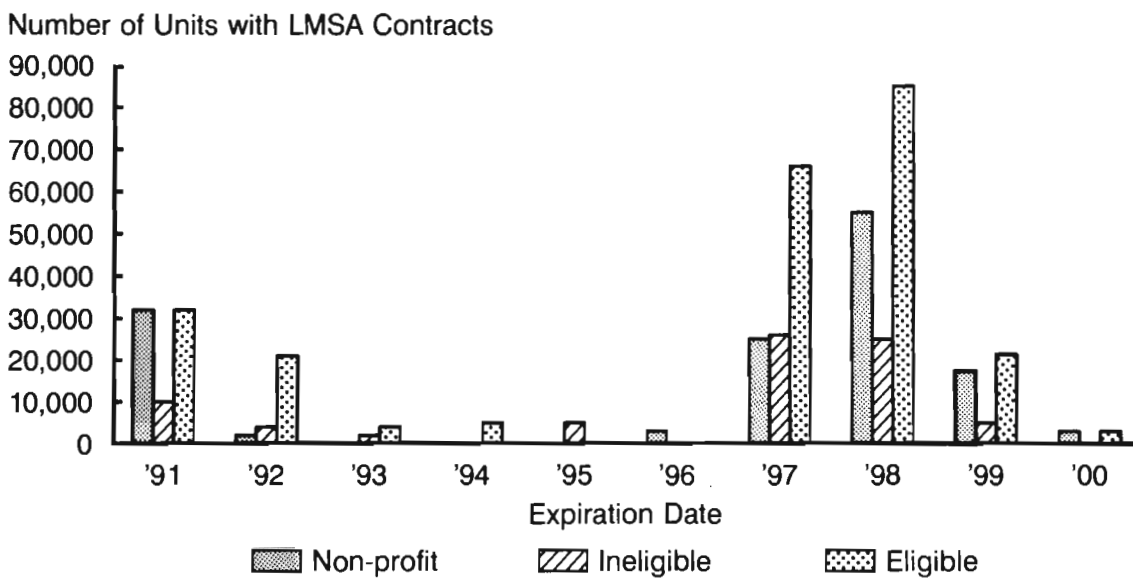
Rent supplements also ensure a steady supply of renters who can--thanks to the subsidy--pay the rent. Some 76 percent of Preservation Analysis Inventory have at least one unit assisted through LMSAs and, of these, 65 percent have at least three-quarters of the units under contract.

When these subsidies expire, the likely result will be a drop in rental income. Exhibit 1-6 indicates the expiration year for LMSA contracts by type of owner and suggests that the biggest effect will occur between 1997 and 1999.

Maturation of Second Notes

A second financial time bomb involves the maturation of second notes on many of the older properties in the Preservation Analysis Inventory. Between 1981 and 1984, many properties were resyndicated and transferred to different ownership. Such transactions helped to finance needed repairs and breathed economic life into some troubled properties in the early 1980s, but they also increased project debt. When the second notes secured on resyndicated properties come due, many owners may be forced to sell their properties as market-rate to pay off the debt or refinance and

Exhibit 1-6
Number of Units with LMSA Contracts Expiring Each Year, by Type of Owner



Source: National Low Income Housing Preservation Tabulations; HUD Data.

convert to market-rate. Exhibit 1-7 indicates the approximate time when second notes are due.

Deterioration of Physical and Financial Condition Due to Age

The third factor affecting the viability of the housing supply is simply its age. HUD recently analyzed both repair needs and financial conditions in a sample of the older, subsidized stock. Exhibit 1-8 presents data from that study and shows the proportion of assisted properties falling into four main groups:

- Adequate cash flow and low repairs;
- Adequate cash flow and high repair needs;
- Weak cash flow and low repair needs; and
- Both weak cash flow and high repair needs.

Although the HUD study finds that only a small minority of properties will face both high repair needs and weak financial conditions, the study assumes that previous management and maintenance patterns will continue. Given the changes in the tax benefits affecting these properties and the

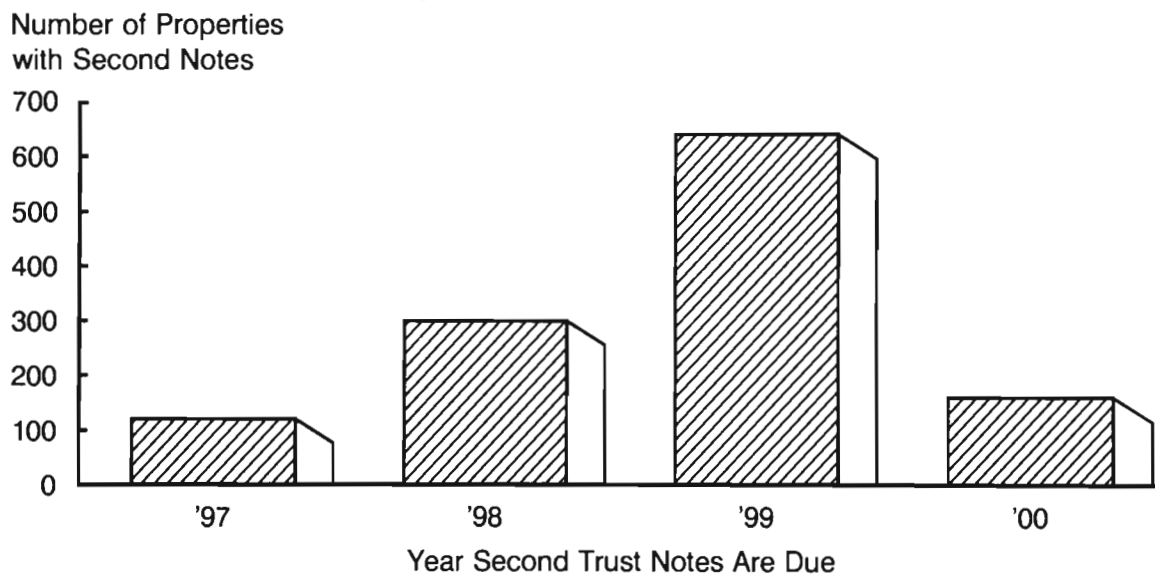
possible expiration of rental subsidies, this assumption may not prove to be accurate. Continued physical deterioration and reduced cash flow may lead to disinvestment and/or defaults.

Prepayment of Mortgages

The fourth factor influencing the continued availability of this stock is the owner's right to prepay mortgages. Of the 645,000 units in the Preservation Analysis Inventory, 334,000 units are eligible to prepay their mortgage after 20 years. While it may not be economically advantageous for all owners to exercise this option, prepayment certainly stands as a threat to the stock. Exhibit 1-9 indicates the number of properties and units eligible to prepay over the next 15 years, and suggests that the peak opportunities will occur between 1991 and 1995. Although some parts of the country are particularly affected by owners' rights to prepay, the problem exists throughout the country. Exhibit 1-10 shows that, because of the location of the Preservation Analysis Inventory, the majority of prepayment opportunities are concentrated in 10 States and that the balance of properties eligible to prepay are scattered throughout the country.

Exhibit 1-7

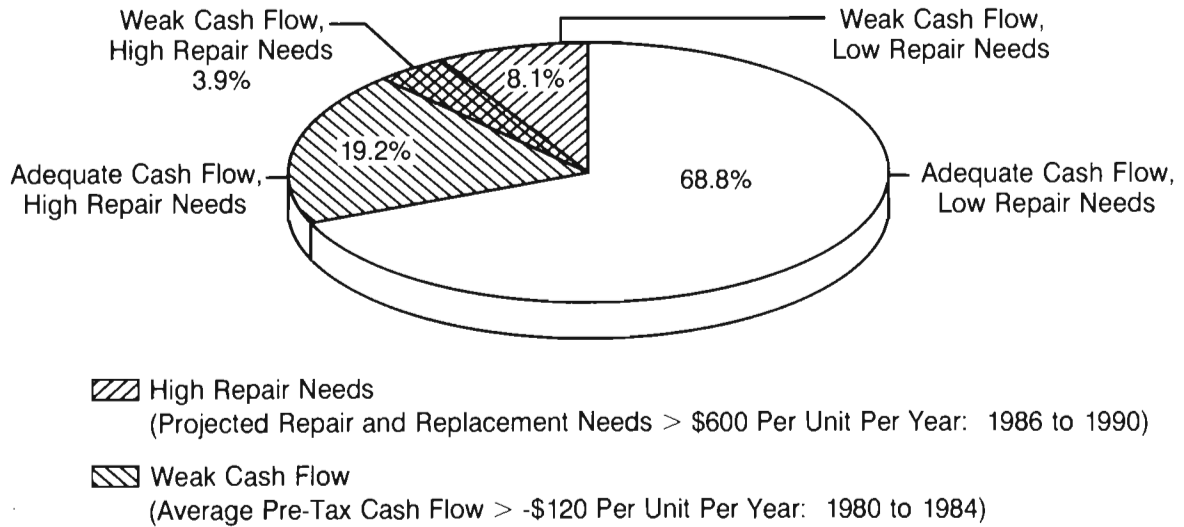
Properties Eligible to Prepay with Second Trust Notes by Year Notes Are Due



Source: National Low Income Housing Preservation Commission Tabulations; HUD Data.

Exhibit 1-8

Physical and Financial Conditions of the Older HUD-Assisted Inventory



Source: U.S. Department of Housing and Urban Development, April 1987.

Given the changes in the tax benefits affecting these properties and the possible expiration of rental subsidies, continued physical deterioration and reduced cash flow may lead to disinvestment and/or defaults.

How Tax Reform Has Discouraged Low-Income Housing

Any one or any combination of the above threats to the low-income inventory has significant implications for the supply. But the Tax Reform Act of 1986 significantly changed--for the worse--the overall investment climate and financial well-

being of the properties. The tax changes of 1986 severely and retroactively curtailed a complex set

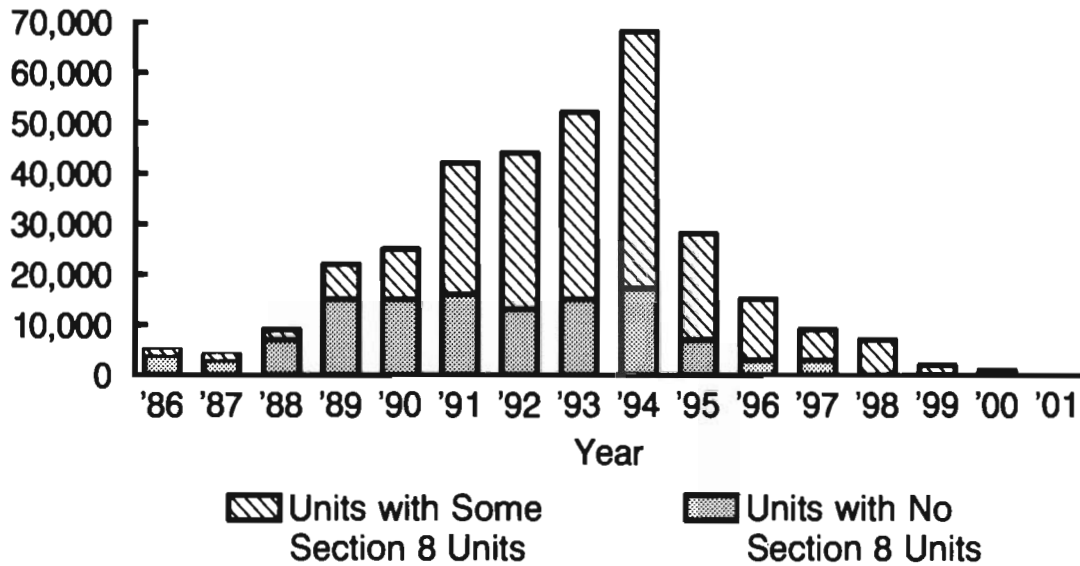
The Tax Reform Act of 1986 significantly changed — for the worse — the overall investment climate and financial well-being of the properties.

of tax incentives for low-income housing in particular and for housing in general. The law disallows tax benefits through the passive loss limitation rules, eliminates preferential capital gains "rates," lowers tax rates that reduce associated benefits, and substantially lengthens depreciation periods. With little or no tax benefits remaining, many owners of subsidized low-income housing find their anticipated returns greatly diminished and their incentives to sell or otherwise terminate their interest in low-income properties

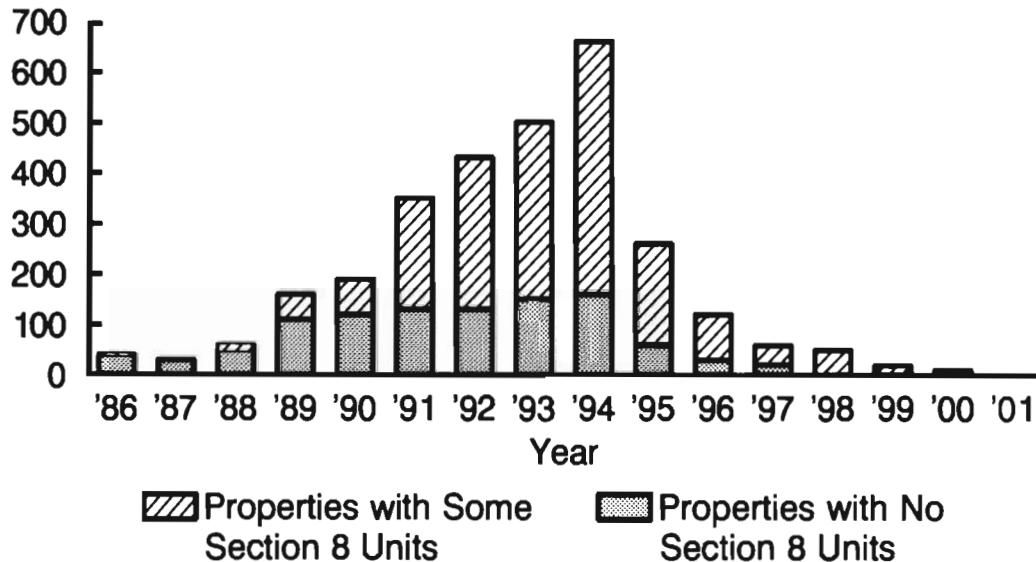
Exhibit 1-9

Estimated BMIR and Section 236 Properties with Mortgages Eligible for Prepayment, 1986-2001

Number of Units

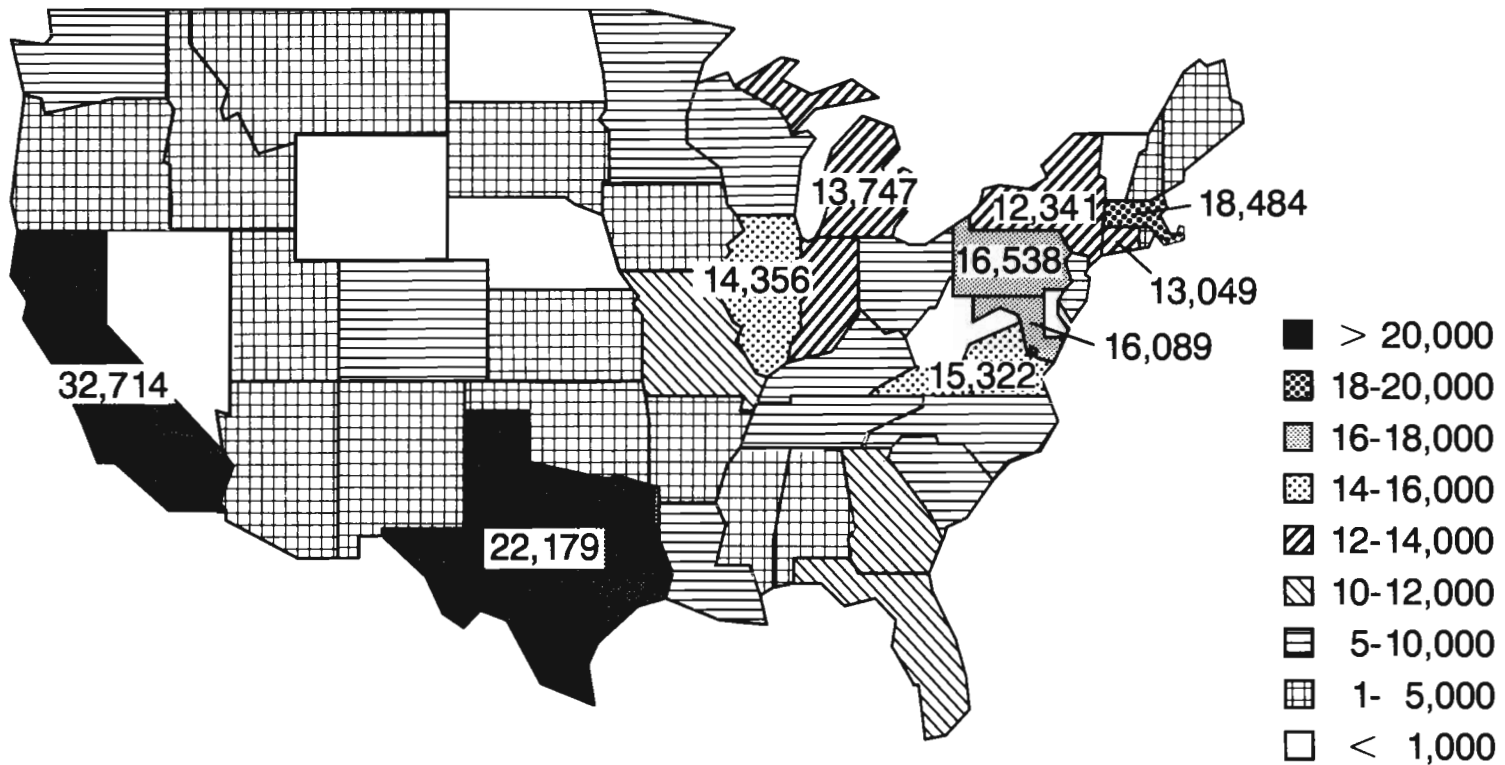


Number of Properties



Source: CBO Tabulations Using Data Provided by the U.S. Department of Housing and Urban Development (HUD) in November 1986. CBO Staff Working Paper "The Potential Loss of Assisted Housing Units as Certain Mortgage-Interest Subsidy Programs Mature," March 1987.

Exhibit 1-10 Units in Properties Eligible for Prepayment by State



Source: National Low Income Housing Preservation Commission Tabulations : HUD Data.

greatly increased. In order to understand just how profound the tax changes have been, it is necessary to review the tax benefits that until now have sustained low-income housing and promoted investment in the development and transfer of the housing.

Tax Incentives for Low-Income Housing

Many owners, particularly non-profit sponsors, eagerly utilized the attractive interest rates and supplementary rental payments of the older, subsidized housing programs. For-profit developers, however, often found the direct subsidies insufficient.¹² To attract for-profit developers who did not find the returns attractive enough to offset the imposed controls, rents and tenancy were restricted for only 20 years, (not the 40 years of their non-profit counterparts), and further incentives were added--through the Tax Code.

The availability of tax benefits (taxable losses primarily in the form of depreciation that could be used to offset other types of personal income) was essential to provide an adequate rate of return to induce many for-profit investors to invest in low-income housing. These tax losses were used to offset income, such as salary, dividends, and interest, which was taxed at ordinary rates. Although the tax losses postponed an individual's current tax due, the tax losses also increased the amount of tax due upon sale. Most of the gain upon sale, however, was taxed at capital gains rates that were much lower than the tax rate on ordinary income. Investors anticipated that any sale would take place in the twentieth year, when prepayment would be allowed, and many anticipated that they could at that time convert the property to market-rate housing or other use at a greatly enhanced value.

In the context of a real estate limited partnership, the general partner typically had incentives different from those of the limited partners investors. In addition to residual value to be realized on sale or refinancing of the project, the general partner received up-front revenues through the sale of partnership interests to limited partner investors, and on-going revenues from management fees payable from gross rents and other fees payable from the limited dividend distribution.

¹² Unlike non-profit owners who had no equity requirement, for-profit owners were required to contribute 10 percent equity. This contribution was included in the base for the calculation of mortgage amount (90 percent of total costs) and was the basis for calculating a limited 6 percent return on investment. Both the Government and tenants benefited indirectly from these lower debt amounts, which resulted in reduced insurance, interest, rent and rent subsidy payments.

Tax Background — Pre-1981

The system of tax incentives was designed to encourage private investors to acquire an interest in low-income housing. Between 1961 and 1974, the period when the properties in the Preservation Analysis Inventory were developed, and 1975 to 1980, the period immediately following, Congress enacted numerous tax code provisions favorable to investors in low-income housing. For purposes of the following discussion, however, all legislation enacted prior to 1980 will be grouped and treated together.

Before addressing the various components that generate taxable losses (or income) from low-income real estate operations, it is useful to understand the real estate limited partnership. The partnership acts as a non-taxable conduit by passing either taxable losses or income to investors in proportion to their partnership interests. Because the limited partnership restricts the out-of-pocket cash liability of limited partners to the amount invested, the potential risks and personal liabilities of investing in low-income housing are known.

Investors used losses from partnership operations to offset income from other sources, for example, salary, dividends, or interest, without limitation. These tax savings became more valuable as the investors' marginal tax rates increased.

All investments, except for real estate investments, can generate taxable losses only up to the amount of capital at risk. For example, a \$10,000 investment in an oil and gas venture could generate a maximum \$10,000 taxable loss from operations.

Investors used losses from partnership operations to offset income from other sources, for example, salary, dividends, or interest, without

limitation. By sheltering other income from taxation, partnership investments provided tax benefits (i.e., reduced tax liability) to investors. These tax savings became more valuable as the investors' marginal tax rates increased. Congress frequently changed the marginal tax rates before 1981; the maximum rates varied from a high of 90 percent to a low of 50 percent. They typically stayed around 70 percent prior to 1981. As a consequence, investing in low-income housing was most suitable for an investor in the higher Federal tax brackets.

Depreciation Deductions

The unique feature of the tax incentives was their ability to create a financial benefit to investors even though, from a cash flow standpoint, the properties operated at the breakeven point. Depreciation deductions generated the primary tax benefits. Depreciation is an accounting concept whereby an asset is written down in value and an annual expense deduction is allowed even though the asset's value may have remained the same or even appreciated.

Pre-1981 tax law offered newly constructed or rehabilitated property more favorable depreciation treatment than existing property in use by tenants. Prior to the 1969 Tax Act, new low-income housing could be depreciated over its useful life (30 to 40 years) using the 200 percent declining balance method,¹³ while existing low-income housing was required to use the 150 percent declining balance method. This difference was more pronounced after passage of the 1969 Tax Act, which further increased the new/used distinction (200 percent versus 125 percent declining balance). Pre-1981 tax law also allowed real estate to be broken into its component parts and depreciated over each component's useful life. This change resulted in an average asset life of from 20 to 25 years, rather than 30 to 40 years.

The 1969 Tax Act also created a special depreciation method whereby the expenses attributable to the substantial rehabilitation of low-income housing could be written off over a 5-year period. This provision resulted in the significant rehabilitation of low-income housing in many urban areas.

Current Expense Deductions

Most operating expenses payable from property cash flow were also currently deductible.

One such expense worth noting is the treatment of principal and interest (debt service) on the HUD-insured mortgage. The payment of interest is treated as currently deductible, whereas the payment of principal is a non-deductible cash expenditure. During the early years of a 40-year amortization schedule, most debt service payment will constitute deductible interest. As debt service payments approach the end of the amortization term, an increasing portion of the payment becomes non-deductible principal that will ultimately result in taxable income with no concurrent distribution of cash.

Capitalization of Construction Period Interest and Taxes

Low-income housing also enjoyed favorable treatment under the capitalization rules as they applied to construction period interest and taxes. Whereas market-rate housing investors had to capitalize these items over a period up to 10 years, investors in low-income housing could expense these items as incurred.

Taxable Gain on Sale

One final group of incentives relates to the taxable gain due upon sale of the low-income property. For market-rate housing, accelerated depreciation deductions in excess of straight-line depreciation were required to be recaptured upon sale in the sense that the recovered excess (i.e., the difference between the accelerated and straight-line) depreciation was taxed at ordinary tax rates. For low-income housing, however, special rules eliminated the tax on the recovered excess over time. Both types of housing investments allowed the balance of the gain to be taxed at lower capital gains rates.

In summary, investors used tax benefits to offset other income at ordinary rates. Losses only deferred the payment of tax until sale. Because these losses reduced the investor's basis in the property, the investor was obliged to pay tax on the gain (i.e., sale price less basis). Upon sale, however, most of this gain was converted to a capital gain taxed at a much lower effective tax rate. These combined tax incentives attracted a significant amount of investment to new construction and substantial rehabilitation of low-income housing.

¹³ The declining balance method was based upon an increased percentage (e.g., 200 percent) of straight-line depreciation, applied to the adjusted depreciable basis.

Economic Recovery Tax Act of 1981 — (1981-1986)

The Economic Recovery Tax Act of 1981 (ERTA) had a far-reaching effect on investment in real estate in general and on low-income housing in particular. Congress lowered maximum Federal tax rates to 50 percent, partly assuming that this would boost private investment in the economy and partly in the belief that this would diminish the demand for tax-motivated investments. But, the simultaneous enactment of the very attractive statutory 15-year accelerated cost recovery system (ACRS), initially available to both low-income housing (200 percent declining balance) and market-rate housing (175 percent declining balance), greatly encouraged investment in real estate.

ERTA did not eliminate the ability of investors to use passive losses to offset other types of income. The at-risk rules were likewise unchanged, so that investors could still deduct losses in excess of their investment amount. The tax incentives available through leveraged investments were more attractive than ever.

Before addressing the major changes that this legislation brought about, it is helpful to examine the historical setting. Vacancy rates in all rental housing were approaching very low levels. No new low-income housing programs were available except for projects already begun under old programs and those financed under FmHA Section 515. Economic conditions were ripe for investment in market-rate apartments even without the stimulus of ACRS. Consequently, the enactment of ERTA resulted in a tremendous amount of building and development of market-rate apartments, which were often more driven by tax benefits than economics.

ERTA did not eliminate the ability of investors to use passive losses to offset other types of income. The at-risk rules were likewise unchanged, so that investors could still deduct losses in excess of their investment amount. The tax incentives available through leveraged investments were more attractive than ever.

ERTA would have had very little effect on low-income housing except for one important change from the prior law: ACRS could be applied at the same rate to both new and used property. This change signaled the birth of the "resyndication" of low-income housing programs.

Numerous low-income properties developed in the 1960s and early 1970s were in serious need of repairs because of deferred maintenance. The prior owners of these properties had already realized a major portion of their allowable tax benefits. With the passage of ERTA, general partners could purchase and resell (resyndicate) these properties to new investors who received the favorable depreciation benefits provided by ACRS. High inflation rates over the previous decade resulted in high fair market value appraisals on these properties.

As a result of these combined factors, many low-income properties were resyndicated, with the new owners paying a fair market price consisting of cash, assumption of the first mortgage, and execution of a long-term acquisition or second note. While these transactions did not generate any production of net new low-income housing, they did generate sufficient cash to cover needed repairs that HUD required to be addressed as a condition of approval of the transfer.

The increased depreciable basis of these low-income properties was achieved by the execution of a long-term acquisition note generally due and payable to the seller in 15 years together with simple interest accruing at 9 or 10 percent. These second notes increased the amount of tax benefits in two ways, thereby increasing the cash price to prior owners. First, the second notes increased the amount of depreciation deductions. Second, the accrued interest expense on the second note generated additional interest deductions. The lack of matching requirements allowed new investors reporting on an accrual basis to deduct this interest expense, but did not require sellers reporting on the

By lowering both the maximum Federal tax rate to 50 percent and the threshold at which the rate is reached, ERTA greatly expanded the pool of investors in search of tax shelter.

cash basis to recognize any interest income. Although rules requiring the matching of income and expense and original issue discount were enacted in 1984 (effective January 1, 1985), a majority of resyndications had already taken place. In the Preservation Analysis Sample, approximately 40 percent of all properties were transferred to new owners during this period.

ERTA triggered an explosive proliferation of public and private offerings of residential tax-sheltered investments.

By lowering both the maximum Federal tax rate to 50 percent and the threshold at which the rate is reached, ERTA greatly expanded the pool of investors in search of tax shelter. These investors were also attracted from an economic standpoint, because the 15-year long-term acquisition notes generally matured near or beyond the prepayment date of the property, which could then be converted to market-rate housing.

ERTA triggered an explosive proliferation of public and private offerings of residential tax-sheltered investments. Faced with growing budget deficits and a significant need for tax revenues, Congress responded through passage of the Tax Reform Act of 1986.

Tax Reform Act of 1986

The Tax Reform Act of 1986 brought the most sweeping tax law changes since passage of the Internal Revenue Code of 1954. In the long

At the cornerstone of the Tax Reform Act of 1986 was the passive loss limitation rules. These rules disallowed any passive losses to be used to offset income such as wages, interest, and dividends for investments entered into after passage of the Act.

run, these changes may benefit market-rate apartments by curtailing tax-motivated new development and enabling the economic laws of supply and demand to reach equilibrium. But the changes have devastated the returns associated with low-income housing. Unlike market-rate apartments, where rents can be raised without limit (other than market constraints) to offset any reduction in tax benefits, low-income housing is subject to regulatory agreements that limit rent increases and rates of return.

Passive Loss Limitation Rules Restrictions

How did Congress curtail the tax benefits associated with low-income housing? At the cornerstone of the Tax Reform Act of 1986 was the passive loss limitation rules. These rules disallowed any passive losses to be used to offset income such as wages, interest, and dividends for investments entered into after passage of the Act. For investments made in years prior to passage of the Act, passive losses could be used to offset these types of income to the limited extent of 65 percent in 1987, 40 in 1988, 20 in 1989, 10 in 1990, and 0

Modest transition rule relief was provided for a small group of low-income properties.

percent thereafter. This rule effectively phased out the primary benefit associated with low-income housing.

Modest transition rule relief was provided for a small group of low-income properties. The transition rule provided that if more than 50 percent (35 percent for FmHA) of the total investment payments were due in years subsequent to 1986, 100 percent of losses were allowed for several additional years prior to phase out. This relief was grounded not on principles of fairness but of expediency—to prevent large-scale investor default.

This relief was grounded not on principles of fairness but of expediency—to prevent large-scale investor default.

Although the passive loss limitations rules do allow passive losses to be used to offset passive income, this aspect is of no major benefit as applied to low-income housing. When low-income housing investments begin to generate passive income or "phantom income," there is taxable income in excess of any commensurate cash distributions. Investors must recognize it currently, because the recognition of "phantom income" is not subject to limitation. Using passive losses from other investments to offset this "phantom income" defers its current recognition, but it increases (to the extent passive losses are used) the gains tax due upon eventual sale.

Exempted from the passive loss limitation rules were certain items of income such as interest on residual receipts, working capital reserves, replacement reserves, and tenant deposits, which negatively affected investors. Under the "portfolio income" rules, even if the partnership is generating net passive losses that may have already been phased out, the portfolio income items must be separately reported and recognized even though they are not necessarily distributable.

Lower Tax Rates and Elimination of Capital Gains Exclusion

The Tax Reform Act of 1986 also lowered tax rates on ordinary income for high-income persons. Instead of a 50 percent tax benefit from al-

lowed passive losses, investors obtained only a 38.5 percent tax benefit in 1987 and 28 percent in subsequent years. These rate changes further eroded the attractiveness of investing in low-income housing.

Also of importance was the elimination of the capital gains exclusion and therefore the distinction between ordinary and capital gains "rates." The simultaneous removal of the capital gains exclusion and lowering of maximum rates yielded a small effective increase in tax on sale. Although these measures dampened the attractiveness of future investment, their effect on current low-income housing is small.

For properties placed in service after December 31, 1986, the Tax Reform Act of 1986 also changed the depreciation method to be applied to new or existing low-income housing from a 15-year accelerated method to 27.5-years straight-line. Compared with the passive loss limitation rules, this change was less consequential.

Because Congress severely, unexpectedly, and retroactively curtailed tax benefits associated with investments in low-income housing, in the future investors may hesitate to rely upon tax incentives to invest in low-income developments.

Addition of the Low-Income Housing Tax Credit

Will future investors find low-income housing attractive? Because Congress severely, unexpectedly, and retroactively curtailed tax benefits associated with investments in low-income housing, in the future investors may hesitate to rely upon tax incentives to invest in low-income developments. Congress did, however, pass a new provision--the low-income housing tax credit--intended to replace the entire set of complex inducements that had previously applied to low-income housing.

The Tax Reform Act of 1986 provided that the amount of the low-income housing tax credit in 1987 should equal 9 percent per year for 10 years

of the qualified basis for newly constructed or substantially rehabilitated eligible dwelling units, if the property did not take advantage of Federal subsidies. A credit, which in 1987 equalled 4 percent per year for 10 years of the qualified basis, applied to existing housing that used Federal subsidies, such as the housing in the Preservation Analysis Inventory. The rate of the credit in 1988 and 1989, the remainder of the initially legislated period, will be adjusted monthly in accordance with a discounted value of a combination of midterm and long-term applicable Federal rates.

Restrictions on Use of the Credit

The low-income tax credit rules contain many restrictions. To be eligible for taking the tax credit on 100 percent of the units, properties must be occupied by households earning less than 60 percent of median income. The Commission's study showed that 80 to 90 percent of the tenants in the Preservation Analysis Inventory's properties have incomes at this level and, therefore, these properties would not be entitled to full tax credit benefits.

The tax credit is available only for properties placed in service in 1987, 1988, or 1989. In addition, an existing low-income property does not qualify for the credit if it has been placed in service within the past 10 years.

In contrast to earlier tax incentives to invest in low-income housing that were available to all who qualified, the low-income tax credit is subject to an allocation process that effectively places administration of the credit in the hands of State agencies and requires specific approval of each property on which the credit is used. The allocation system restricts the use of the credit by many potential users. Any credit not allocated within a given calendar year may not be carried forward to a future year. Some observers think that State agencies will first use their credit allocations to support State agency-funded projects, rather than the federally insured housing.

To qualify for the tax credit and not be subject to recapture, the property must remain low income for 15 additional years. Because rental subsidies will expire prior to the end of this period for many low-income properties, many owners and investors are concerned about how they will pay future cash operating deficits to sustain low-income operation and avoid recapture.

While a reasonable number of investors with incomes between \$100,000 and \$200,000 might benefit from investments using the tax credit, they are not easy to find and are relatively uninitiated in the complexities of the tax shelter market.

The credit is allowed on up to an equivalent of \$25,000 of losses to offset other income. This special allowance is phased out, however, for investors whose incomes exceed \$200,000, and is eliminated completely for those with incomes of \$250,000 or more. Investors in these higher income groups have constituted the traditional market for real estate syndications. While a reasonable number of investors with incomes between \$100,000 and \$200,000 might benefit from investments using the tax credit, they are not easy to find and are relatively uninitiated in the complexities of the tax shelter market.

The current amount of the credit as applied to existing low-income housing is often not sufficient to generate adequate cash to cover the seller's tax liability. This result is attributable to both the 10-year "placed in service" rule and the increase in capital gains "rates."

Low Use of the Credit to Date

The use of the tax credit to date has been limited. The National Council of State Housing Agencies has estimated that in 1987 only 16 percent of the States' tax credit authority was used.¹⁴ Although some of this slowness is attributable to the start-up problems of any new program, structural problems may also limit the credit's usefulness.

Two of the most troublesome problems with the credit are the low amount of the credit and the limited number of investors who can take advantage of it. It has been suggested that a new market for tax credit investment may be corpora-

¹⁴ National Council of State Housing Agencies, "Early Experience with the Low-Income Rental Housing Tax Credit," prepared by the Joint Center for Housing Studies of the Massachusetts Institute of Technology and Harvard University for the National Council of State Housing Agencies, 1987.

tions, because most are not subject to passive loss restrictions. But corporations have little history of investing in low-income housing and relatively little experience with real estate investment. While changes in the tax law that eliminated other tax benefits to business may make the housing tax credit more attractive, it is still too early to tell what corporate investors are likely to do.

Implications for the Subsidized Housing Supply

The aggregate effect of the various threats to the Preservation Analysis Inventory cannot be

predicted with precision. Many factors that are difficult to measure will play a significant role in the eventual disposition of the low-income stock. They include: the long-term impact of the 1986 tax changes on investor strategies, the overall strength of the economy, interest rates, the ever-changing and geographically different real estate market, and political circumstances. Some estimate of what might happen to these properties, given reasonable approximations of their financial and physical condition and best guess assumptions about the future, is the subject of the balance of this Report.

The Likely Loss of Low-Income Housing In the Absence of Action to Preserve It

Despite a number of studies of low-income housing in recent years, basic data on Section 221(d)(3) and Section 236 Program housing were not available.¹ The lack of reliable data should not be surprising: low-income housing is widely scattered throughout the United States, making difficult the task of aggregating uniform national data. Circumstances of housing properties differ so markedly that norms cannot be easily identified. Also, integrating data on properties' financial and physical conditions with their marketplace opportunities had not been previously done for policy and planning purposes.

Against that background, the National Low Income Housing Preservation Commission proposed to its sponsors, the National Corporation for Housing Partnerships and The Ford Foundation, that it undertake a major effort to establish a high-quality baseline of data on Section 221(d)(3) and Section 236 properties that would be reliable for computer modeling purposes and credible to the housing community at large.

To ensure that the quality of work would be high, the Commission established a Technical Advisory Group (TAG) and invited to membership 12 of the foremost authorities on housing in the Nation. The members included policy analysts, housing specialists, real estate and tax experts, and economists. The methodology for this study, described in the Preface to this Report, and the computer modeling, described in Appendix III, were largely the products of the planning, analysis,

and advice of the TAG. The TAG endorsed the basic approach to the Commission's work, the overall technical adequacy, and the plausibility of results of the computer model.

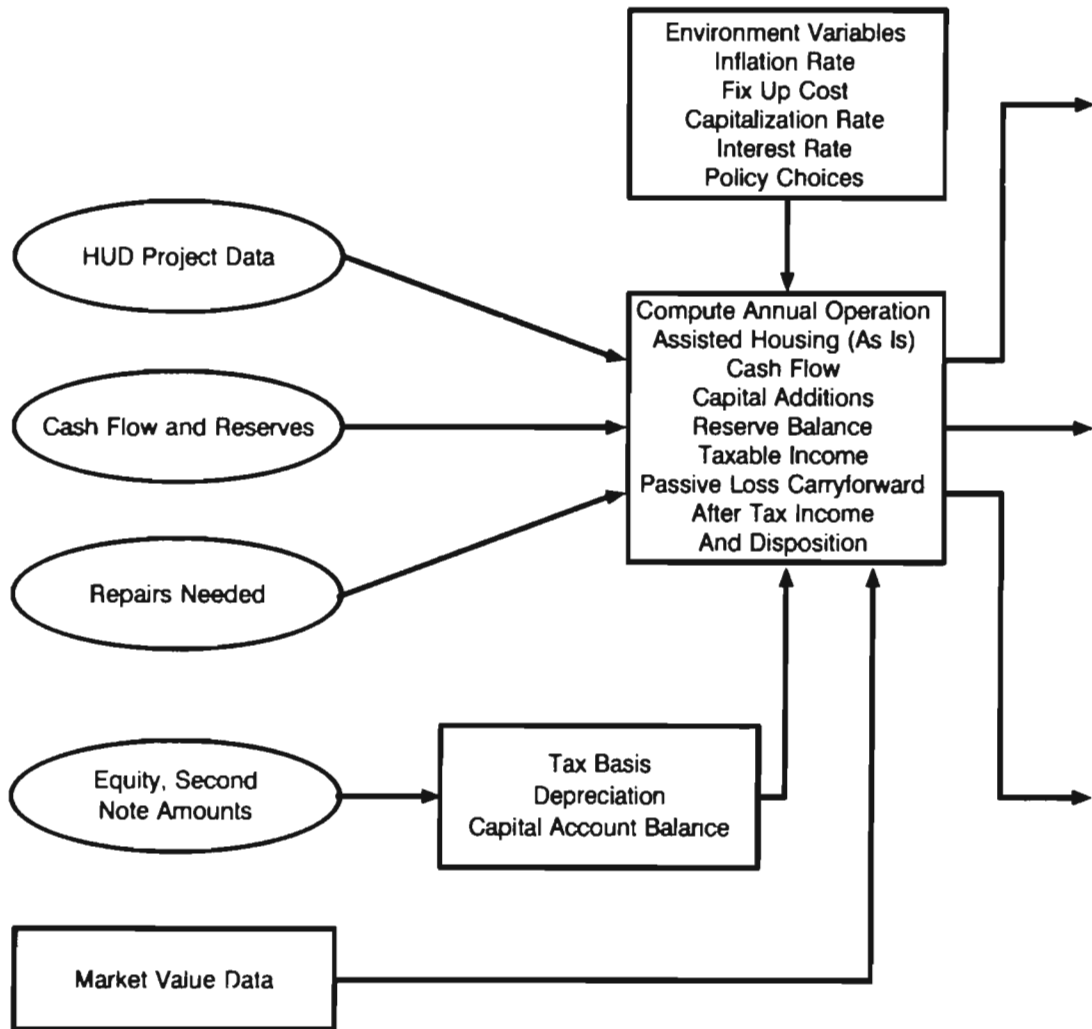
The Commission established a Technical Advisory Group (TAG) and invited to membership 12 of the foremost authorities on housing in the Nation.

The Commission staff were charged with developing an economic model capable of evaluating the financial health of properties, predicting the owners' likely disposition of the properties, and estimating the costs of deterring such actions. In addition, the Commission decided to undertake the major task of collecting, from a representative sample of the owners and managers of properties, information about the physical condition of properties, their economic health, and their tenants.

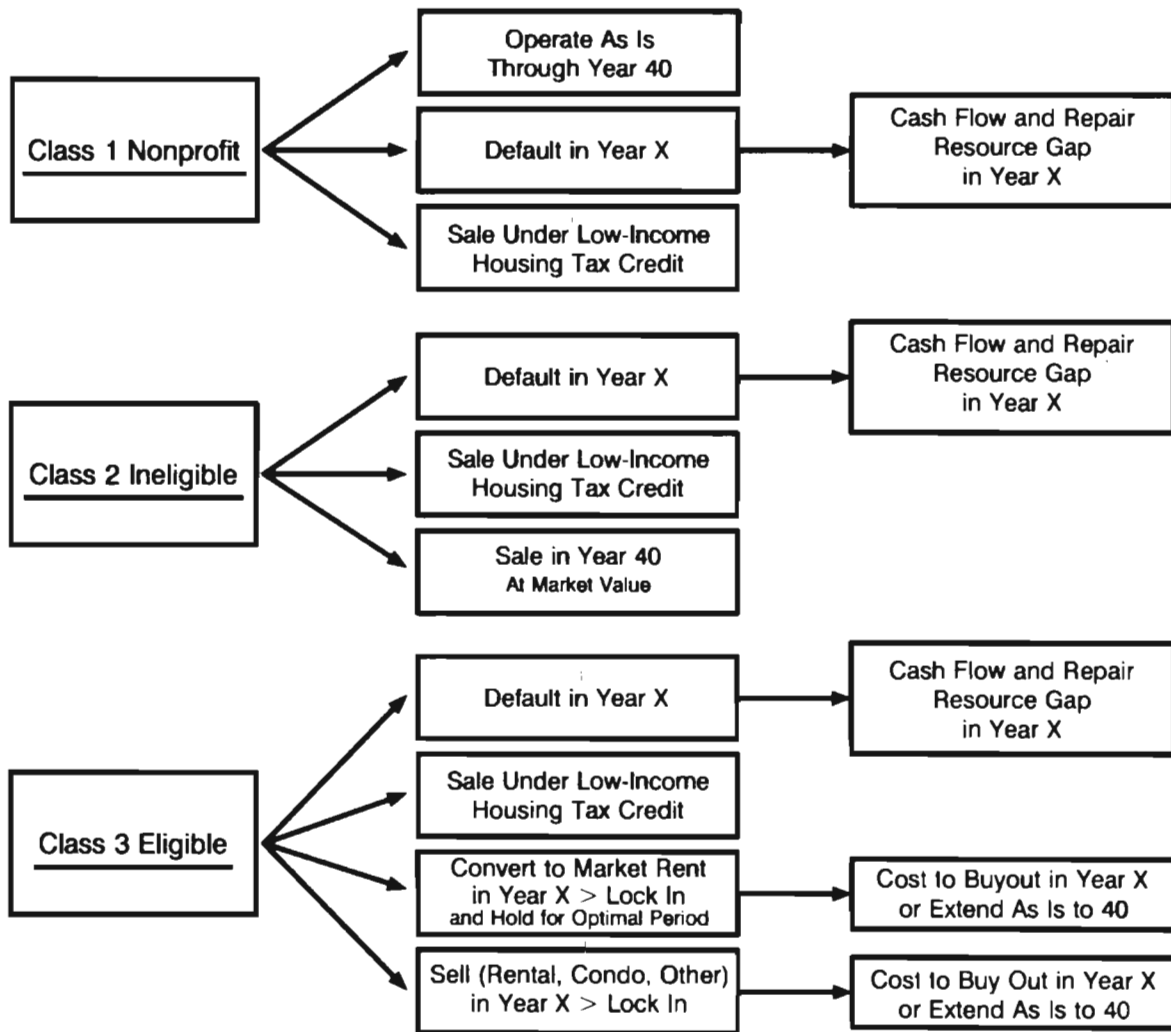
This chapter describes the Preservation Analysis Model and the likely actions, vis-a-vis their properties, of owners of low-income housing in the absence of any special new government actions. As the research progressed, the Technical

¹ Several other studies have looked at various aspects of the older, subsidized stock. See: Congressional Budget Office, *The Potential Loss of Assisted Units as Certain Mortgage Interest Subsidy Programs Mature*, March 1987; U.S. Department of Housing and Urban Development, Laurent Hodes, et al., *HUD/FHA Insured Rental Housing: Physical and Financial Condition of Multi-Family Properties Insured Before 1975*, April 1987; Neighborhood Reinvestment Corporation, Dr. Phillip Clay, *At Risk of Loss: The Endangered Future of Low Income Rental Housing Resources*, May 1987; Government Accounting Office, *Rental Housing: Potential Reduction in the Privately Owned and Federally Assisted Inventory*, June 1987; and National Association of Home Builders, *Low- & Moderate-Income Housing: Progress, Problems & Prospects*, 1986.

Exhibit 2-1 Preservation Analysis Model



Source: National Low Income Housing Preservation Commission.



Advisory Group met regularly to assist in the project design and to ensure the overall credibility and reliability of the model's results. The model was developed by Abt Associates of Cambridge, Massachusetts, under the leadership of Dr. James E. Wallace.

The Preservation Analysis Inventory Model

The Commission's Preservation Analysis Model provides a mechanism for answering the major questions about the future of the stock in the Preservation Analysis Inventory. In the simplest terms, the model simulates the economic choices available to owners of low-income housing and predicts what they are most likely to do with their real estate. Using a variety of financial, market, and legal factors that affect owner choices, the model estimates how many owners are likely to: operate their housing as low-income properties through the end of the mortgage period; default on their mortgages; or prepay their loans and convert to market-rate housing.

The model simulates the economic choices available to owners of low-income housing and predicts what they are most likely to do with their real estate.

The model can evaluate the economic condition of low-income housing both within the current policy and political framework and under a variety of assumed conditions. The first level of analysis is called the base case and reflects the current legal, financial, tax, and subsidy environment of properties in the absence of any changes: rental assistance contracts expire and are not renewed; prepayment of mortgages is allowed when contractual agreements permit; the low-income housing tax credit remains available to owners unchanged and only until its sunset in 1989; no new subsidies are available to properties; passive loss limitation rules are unchanged; and Congress enacts no major changes in the tax law affecting real estate.

The first level of analysis is called the base case and reflects the current legal, financial, tax, and subsidy environment of properties in the absence of any changes.

In addition to estimating the pattern of choices owners are likely to make, the base case analysis helps to clarify *when* prepayments or defaults may occur, the *costs* to deter such action, and the *consequences* for people who live in low-income housing. After developing a thorough picture of what may occur if no action is taken, the model assesses the effects of various financial interventions (called preservation actions) on the pattern, timing, and costs of owners' actions.

The model is designed to answer these questions:

- How many owners are likely to default, meaning that they will not simply fall behind on one payment but incur such high operating deficits that they give up altogether?
- How many properties are likely to continue as subsidized housing throughout the 40-year term of their mortgage?
- How many owners are likely to use the low-income housing tax credit?
- How many owners are likely to prepay and discontinue operation of their properties as housing for low-income tenants?
- What is the probable timing of these actions?
- How much money might be needed to alter an owner's economic decisions?

Exhibit 2-1 provides a schematic drawing of the model, and Appendix III describes the model and how it works in detail. The exhibit shows, in boxes on the left, the major sources and types of information entered into the model including information about the financial, physical, and legal status of selected low-income properties. The box

in the center indicates the financial evaluations that are performed for properties. The right side of the model depicts the likely choices that each of three classes of property owners might make.

Information entered into the model comes predominantly from an in-depth, random sample of 300 older, subsidized properties, called the Preservation Analysis Inventory Sample. The Commission staff mailed detailed surveys in June 1987 to the owners and managers of these 300 properties seeking information about their tenancy and financial condition. Because the returns from owners and managers were incomplete, supplementary information on tenant characteristics was obtained from HUD and financial characteristics were correlated with related industry data, as explained in Appendix III, to complete the full sample of 300 properties for analysis. In addition, Commission staff asked local real estate experts and local government staff in each community for data about market conditions and government-sponsored low-income housing programs. Because the sample was drawn from a subset of properties previously studied by HUD, additional information about the physical and financial condition of these particular properties was also readily available.

Given limited resources, the Commission decided to address the problems of the older stock because threats to it are imminent.

The sample includes a representative number of properties from each of the following housing programs: Section 221(d)(3) Below Market Interest Rate, Section 221(d)(3) Market Rate with rental assistance, and Section 236. The model was not designed to address properties produced under the more recent Section 8 New and Substantial Rehabilitation Programs or the Farmers Home Administration Section 515 Program. The Commission believes that properties developed under these programs are also vulnerable to loss as low-income housing, and that future studies on these properties

are needed. Given limited resources, the Commission decided to address the problems of the older stock because threats to it are imminent. The Commission recognizes that some aspects of the Section 8 and 515 Programs are similar to the programs that it studied, but believes that it would need to undertake additional research and analysis before it could arrive at firm conclusions regarding the financial and physical viability of other programs.

Exhibit 2-2a provides a profile of the properties in the sample. The sample includes a representative number of the properties from the Preservation Analysis Inventory (Exhibit 2-2a). Most of these properties are of modest size, consisting of between 50 and 200 units; only 11 are larger than 300 units (Exhibit 2-2b). The vast majority of units require repairs in excess of \$250 per unit, and 30 percent require repairs that exceed

**Exhibit 2-2a
Preservation Sample Properties,
Units by Program**

<u>Program</u>	<u>Number of Units</u>	<u>Number of Properties</u>	<u>Percent</u>
Section 236	21,642	194	65%
Section 221(d)(3) BMIR	5,921	72	24
Section 221(d)(3) MR	<u>5,559</u>	<u>34</u>	<u>11</u>
Totals:	33,122	300	100

\$500 per unit (Exhibit 2-2c).

Five categories of data were collected on the 300 properties in the sample. *Tenant information* collected from property owners and managers was augmented by data from HUD's Office of Multi-Family Housing Management. The *physical condition* of properties and estimates of the costs of needed repairs was taken from a HUD study of the physical and financial conditions of multifamily housing.² Owner surveys, together with the HUD study files, provided data on the *financial and mortgage situation* of the properties as well as the number of units, ownership, contract restrictions, and availability and expiration of rental assistance. Industry norms regarding market operating costs

² See: U.S. Department of Housing and Urban Development, April 1987.

**Exhibit 2-2b
Size of Properties in Preservation Sample**

<u>No. of Units</u>	<u>Total Properties</u>	<u>Percent</u>
Less than 50	67	22%
50-100	103	34
101-200	98	32
201-300	21	7
More than 300	<u>11</u>	<u>3</u>
Totals:	300	100%

**Exhibit 2-2c
Estimated Annual Repair Needs of Sample**

<u>Annual Repair Needs/Units</u>	<u>Number of Properties</u>	<u>Percent</u>
Less than \$ 100	53	17%
100-250	62	20
251-500	90	30
501-750	47	15
751-1,000	23	7
1,001-1,250	12	4
More than 1,250	<u>13</u>	<u>4</u>
Totals:	300	100%

Source: National Low Income Housing Preservation Commission.

augmented this information. *Market data* for each of the properties were obtained through telephone interviews with experts in the local housing market who were asked for their best estimate of the most likely alternative use of the property and the estimated market rents. Last, *descriptive information* about the local real estate environment, property owners, and local conditions was collected from owners, managers, and local housing and planning officials. Appendix III contains detailed information about the data sources and assumptions used for model inputs.

In developing the model, staff was particularly careful to record accurately property financial information, especially the status and timing of rent assistance contracts (both Section 8 Loan Management Set Asides and rent supplement con-

tracts), because the expiration of these subsidies directly affects cash flows. Also, the effects of second trust notes placed on properties resyndicated, sold, or transferred between 1981 and 1984 were included in the data collection and model. (Some 38 percent of all low-income properties eligible to prepay were resyndicated during this period to take advantage of favorable depreciation benefits.)

As second notes become due in the 1990s, they will virtually require conversion of the property to non-subsidized use.

Resyndication not only provided needed repair funds for the properties and valuable tax shelter benefits to the new property owners, but also generated long-term acquisition notes in excess of the property's value as low-income housing. As second notes become due in the 1990s, they will virtually require conversion of the property to non-subsidized use in order to pay the note or trigger a transfer of the property to the note holder, if the payment cannot be made, or, in some cases, trigger a default.

Likely Actions of Owners: Default, Continue as Subsidized, or Prepay

Using data derived from the 300 sample properties, the model extrapolates to the entire stock of the Preservation Analysis Inventory the likely distribution, timing, and cost of actions by owners over the next 15 years. The model selects the most financially favorable (or in many cases least onerous) choice for property owners, reflecting the timing and estimated value of the choice to the owner. The various owner actions considered in the model are:

- Default;
- Continue the property as subsidized, low-income housing; or
- For owners eligible to do so, prepay the existing subsidized mortgage and convert the property to market-rate housing.

Defaults

Properties in the Preservation Analysis Inventory whose owners default on their mortgages are in such poor financial condition that, absent any government intervention, the owners' best economic alternative is to stop making principal and interest payments. Because the mortgages on these properties are insured by the FHA, the properties are returned to HUD. While such properties may technically remain in the inventory of low-income housing, their financial condition is precarious and any new owners, including HUD, face continued serious cash losses. Although HUD now tries to cure many incipient defaults, it lacks the resources to cope with large increases in the

Properties in the Preservation Analysis Inventory whose owners default on their mortgages are in such poor financial condition that, absent any government intervention, the owners' best economic alternative is to stop making principal and interest payments.

numbers of such troubled properties. These properties may be: lost to the low-income housing supply because of serious cash losses, disrepair, and neglect; maintained as low-income housing; or lost to the low-income housing supply by being sold and converted to some other use. (The Housing and Community Development Act of 1987 requires HUD to ensure that foreclosed properties retain their low-income character in any subsequent disposition and to provide the subsidy necessary to permit occupancy by low-income tenants.)

Continue as Subsidized

The properties in the Preservation Analysis Inventory likely to remain in low-income use

include those where the owner's best option is to continue to operate the property as subsidized housing until the end of the mortgage period and those where the owner has elected to use the low-income housing tax credit and, in exchange, has promised to maintain the property as low-income housing for 15 years. The model predicts how many owners might find the low-income housing tax credit financially attractive, but it cannot predict the number of those who would actually be able to obtain the credit. The tasks of negotiating with State authorities for available tax credits and fulfilling the low-income occupancy requirements of the credit (units qualifying for the tax credit must be occupied by households earning less than 60 percent of the area's median income) may reduce the availability of the credit to eligible and willing investors.

Prepay

Eligible owners will prepay their mortgages only when this choice is financially more attractive than defaulting or continuing to operate their property as low-income housing. Owners who choose to prepay are financially better off to discontinue the low-interest-rate loans and the associated rent restrictions imposed by Government regulations. Although after prepayment, owners may initially charge market rents that may not far exceed the controlled rent of the subsidized project, they will no longer be bound by rent controls, tenant protections, and other regulations imposed by their previous mortgages and associated regulatory agreements.

Classes of Properties

The choices for owners about what to do with their properties are limited by complex webs of contractual and regulatory agreements. In order to make examination of these choices more manageable, the model looks separately at three classes of properties:

Class 1: Properties held by non-profit owners who are obligated to maintain them as subsidized housing throughout the 40-year life of the mortgage;

Class 2: Properties owned by for-profit owners who are obligated to maintain them as subsidized housing for the 40-year life of the mortgage because they have received flexible subsidy funds (technically the mortgage could be prepaid provided the property continued as low-income housing), were transferred from non-profit to for-profit ownership, or have rent supplement contracts in force; and

Class 3: Properties owned by for-profit owners who are eligible to prepay their mortgages after 20 years, thus removing all mortgage-related rent and tenant restrictions.

Exhibit 2-3 shows the distribution of properties in the Preservation Sample by both class and section of the Housing Act. The largest portion of properties and dwelling units are those in Class 3.

For Class 1 properties, the basic financial analysis requires an examination of cash flow and reserves in relationship to estimated repair needs. Non-profit owners are assumed to operate their properties for low-income use to the end of the mortgage term unless cumulative operating deficits reach \$5,000 or more per unit. If a non-profit owner must invest cash to meet operating deficits greater than the \$5,000 per unit, that owner is assumed to be likely to default on the property. The

model then tests whether the low-income housing tax credit provides sufficient financial incentive to "preserve" the property as low-income housing. If not, the model assumes that the property will default on its mortgage at the point when operating cash deficits reach \$5,000 per unit.

If a non-profit owner must invest cash to meet operating deficits greater than the \$5,000 per unit, that owner is assumed to be likely to default on the property.

The analysis for Class 2 property owners is similar. Because Class 2 properties are owned by for-profit sponsors, the model uses the highest discounted present value of the stream of after-tax returns to estimate the owner's likely economic decision. If the tax credit option has the highest discounted present value, the model predicts the year of a tax credit conversion. The actual year of a potential default by the first note holder is triggered upon the earliest of three events: when the cumulative cash operating deficits reach \$5,000 per unit, or the current-year operating cash deficits

**Exhibit 2-3
Distribution of Sample Properties and Units
By Class and Section of the Housing Act**

		Project			Units		
		<u>236</u>	<u>BMIR 221(d)(3)</u>	<u>MR 221(d)(3) Assisted</u>	<u>Total</u>	<u>Number of Units</u>	<u>Percent of Units</u>
Class 1:	Non-profit, No prepay	33	25	8	66	7,847	24%
Class 2:	For-profit, No prepay	18	12	6	36	4,475	13%
Class 3:	For-profit, Eligible to Prepay	<u>143</u> 194	<u>35</u> 72	<u>20</u> 34	<u>198</u> 300	<u>20,800</u> 33,122	<u>63%</u> 100%

Source: National Low Income Housing Preservation Commission.

equal 20 percent of the capital gains tax required to be paid upon default, or when the cumulative operating cash deficit reaches 40 percent of the capital gains tax to be paid upon default. If the first note holder cannot make the required payments, the second note holder is assumed to foreclose and the options are evaluated from the second note holder's position. If the model finds that the "best" financial option is for the new owner to default, the model reports a "default."

Class 3 owners have all of the options discussed above, plus the choice of prepaying their mortgages after 20 years and converting to a market-rate use. The model tests the financial advantages of each option and selects the one with the highest discounted present value. For prepayment to be a realistic option for the owner, the

Class 3 owners have all of the options discussed plus the choice of prepaying their mortgages after 20 years and converting to a market-rate use.

model assumes that any second note must be satisfied upon refinancing or sale. When considering the discounted present value of a conversion to market rate, the model imposes several conditions, including that refinancing occur at market interest rates, that sufficient funds are available to cover new operating expenses, that repairs of either \$5,000 or \$20,000 per unit are economically feasible (which depends upon the market rent of the uncontrolled units), and that lenders are willing to make a loan for 80 percent of the value supported by no more than 90 percent of net operating income. If, under the conditions imposed, the first note holder elects default because a sale would not pay off the second note at its due date, the model assumes that the second note holder will foreclose and evaluates options from the second note holder's perspective.

Limitations of the Preservation Sample

Although the Preservation Sample adequately represents the Preservation Analysis Inventory in terms of size, ownership class, and general features, the sample is not large enough to make accurate estimates about what may happen within a particular community or even a particular State. In addition, while some inferences may be drawn regarding the likely action of owners of Section 8 and FmHA Section 515 properties, neither the model nor the sample were designed to predict the actions of these owners.

On the other hand, owners of real estate seldom operate in circumstances as predictable and objective or with information as complete as those in the model. Many factors, other than pure economics, drive their decisions.

The model is designed to emulate the economic decision making process of owners of the older, subsidized housing stock and, like all economic models, it has both differences from and advantages over real life. The advantages include the fact that the model can assemble a whole host of complicated and related financial and market information, make reasonable assumptions about trends, and project a future course of probable action that would be extremely difficult for an individual owner to foresee without constructing a similar analytic tool. On the other hand, owners of real estate seldom operate in circumstances as predictable and objective or with information as complete as those in the model. Many factors, other than pure economics, drive their decisions. Several factors will no doubt moderate the model's suggested "likely" and "probable" actions:

- Local real estate markets will "heat up" and "cool off" in ways that cannot be accounted for in the model;

- Local politics will influence financial decisions of owners and affect the choices they make regarding their subsidized housing;
- Concerns of owners about the effect of rent increases on current residents and about the problem of displacing tenants will affect owners' decisions about the future use of their properties;
- Risks inherent in changing the economic character of real estate are not easily assessed, and therefore trade-offs will occur between the potential rewards of increased rent rolls and those risks; and
- Financial information will not always be perfect, and property owners will not always react to information consistently even though the model treats them as though they will react consistently.

What Will Happen to the Subsidized Stock if Nothing Is Done?

Based on the model's estimates, the stock in the Preservation Analysis Inventory is in grave jeopardy. Not only are a substantial number of units likely to prepay their mortgages, but an even larger number are in danger of default.

Exhibit 2-4 summarizes the predicted actions of owners. For all classes of projects combined, the model estimates that 43 percent of all

Based on the model's estimates, the stock in the Preservation Analysis Inventory is in grave jeopardy. Not only are a substantial number of units likely to prepay their mortgages, but an even larger number are in danger of default.

units (280,000 units and 2,570 properties) are likely to default on their mortgages, and an additional 38 percent (243,000 units and 2,030 properties) are

likely to prepay. While 122,000 units (890 properties) will continue to operate as subsidized housing during the next 15 years, none is likely to take advantage of the low-income housing tax credit in the next 2 years. Apparently the value of the tax credit is not sufficient to offset the operating deficits of properties likely to default or to compete favorably with the discounted present value of conversion to market rate at some future date.

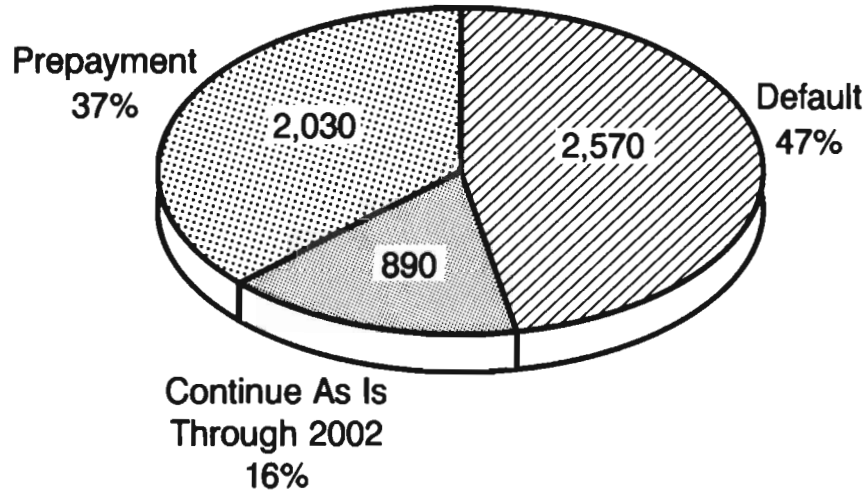
Exhibit 2-5 displays the likely actions of owners for each class of properties and depicts very different actions for those who can prepay and those who cannot. The analysis suggests that 63 percent of owners (243,000 units and 2,030 properties) who are eligible to prepay will find it in their best financial interest to do so. This outcome is in sharp contrast to the actions of owners in Classes 1 and 2 who, given limited choices, are much more likely to default than take any other actions. Seventy-five and 76 percent of the owners in Classes 1 and 2, respectively, are likely to default, in contrast with only 27 percent of the owners in Class 3.

The analysis suggests that 63 percent of owners who are eligible to prepay will find it in their best financial interest to do so.

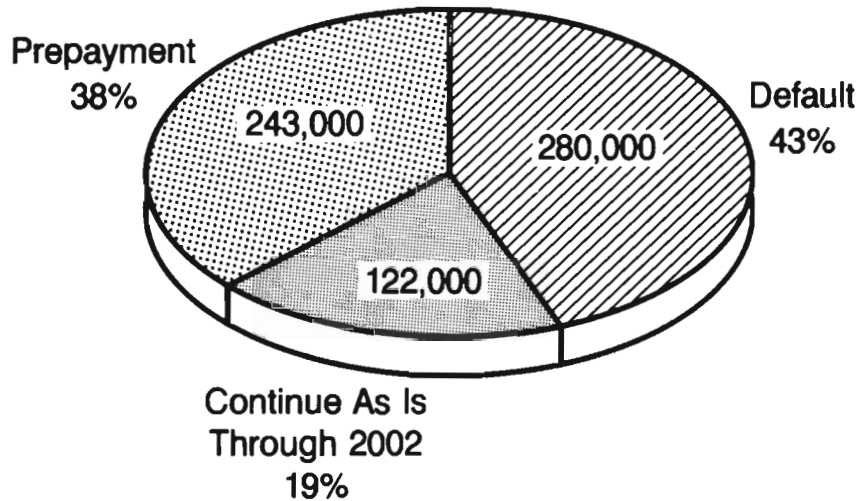
Forty percent of the for-profit properties in the Preservation Analysis Sample had undergone a transfer of physical assets (TPA) during 1981 through 1984. The model assumed that all TPAs in this period resulted in second trust notes being attached by the seller. Second trust notes were attached to more than 50 percent of the Class 2 properties (for-profit but locked in to low-income use for 40 years) and to 38 percent of the Class 3 properties (eligible to prepay at 20 years). In the model, if the property reaches the fifteenth anniversary of the TPA, when the second trust notes typically become due with accrued interest, and a market conversion either is impossible or raises too little money after the first mortgage is paid, the second note holders are assumed to foreclose and make their own decisions as to retention or disposition of the property. The model results indicate that only 7 percent of the properties with second

Exhibit 2-4
Base Case
Likely Actions of Owners
Through 2002

Properties



Units



Source: National Law Income Housing Preservation Commission Preservation Analysis Model, Weighted Results for 300 Properties.

Exhibit 2-5

Predicted Actions of Owners During the Next 15 Years

	Base Case			
	Properties	%	Units	% Units
Not-For Profit --				
Not Eligible to Prepay				
Default	1,070	75%	117,000	68%
Tax Credit	0	0	0	0
As Is Through Next 15 Years	360	25	54,000	32
Subtotal	1,430	100%	171,000	100%
For Profit w/o Sale Option --				
Not Eligible to Prepay				
Default	620	76%	78,000	74%
Tax Credit	0	0	0	0
As Is Through Next 15 Years	200	24	28,000	26
Subtotal	820	100%	106,000	100%
For Profit w/Sale Option --				
Eligible to Prepay				
Default	880	27%	86,000	23%
Tax Credit	0	0	0	0
As Is Through Next 15 Years	330	10	39,000	11
Prepayment/Market Conversions	2,030	63	243,000	66
Subtotal	3,240	100%	368,000	100%
All Types of Properties Combined				
Default	2,570	47%	280,000	43%
Tax Credit	0	0	0	0
As Is Through Next 15 Years	890	16	122,000	19
Prepayment/Market Conversions	2,030	37	243,000	38
		100%		100%
Subtotal - Preserved (Tax Credit + As is Through Next 15 Years)	890	16%	122,000	19%
Total:	5,490	100%	645,000	100%

Note: Totals may differ due to rounding.

Source: National Low-Income Housing Preservation Commission.

trust notes would be able to satisfy the second note. In all the other cases, the owner's only remaining option would be to default; the model checks to see what the most economically advantageous disposition would be for the second note holder. The model results show that the 93 percent of properties with second note foreclosures predicted have the following pattern of decisions by the second note holders:

- 36 percent default.
- 36 percent prepay and convert to market.
- 21 percent continue subsidized operation through the remaining 15 years.

These results are reflected as the ultimate disposition decisions reported.

Effect of Inflation on Likely Actions of Owners

The model assumes that inflation increases at 5 percent per year as a national average. This rate exponentially increases net operating income and thus increases the value of all properties in the sample. In many real estate markets, and particularly low-income neighborhoods within those markets, real rents do not inflate at all and may even lose pace with escalating expenses. Values are not inflating in many low-income markets; they are, in fact, stable or declining. The model can accommodate varying assumptions about the general inflation rate, but it is not designed to adjust for the varying inflation levels of individual markets.

The model assumes that inflation increases at 5 percent per year as a national average. This rate exponentially increases net operating income and thus increases the value of all properties in the sample.

To test the effect of a more conservative assumption about inflation, the model ran a variation of the base case analysis assuming price inflation at 0 percent. Exhibit 2-6 compares the likely owner

actions under a zero-inflation assumption and under a 5 percent inflation assumption. The conservative inflation estimate (0 percent) pushes many more properties from the likely to prepay category into the default category and results in fewer prepayments. While under 5 percent inflation, 243,000 units would have prepaid, only 131,000 would do so in the zero inflation case. Of the 112,000 properties that will no longer prepay, 75,000 move to default status, the balance remain as low-income housing, and a handful elect to use the low-income housing tax credit. The zero inflation assumption has the most pronounced effect on the actions of for-profit owners. If rents are not increasing, many more owners will find default the most attractive action. Although the Commission's base case and the preservation actions discussed in Chapter 3 use 5 percent as the estimated rate of inflation, the predictions regarding potential default and the resulting costs will be underestimated if the real inflation rate is less than 5 percent and, conversely, will be overestimated if the inflation rate exceeds 5 percent.

Timing of Likely Owner Actions

The model projects that over the next 15 years, total defaults will be as follows:

Years	Number of Defaults Likely to Occur	Number of Prepayments Predicted
1988-1992	105,000	103,000
1993-1997	82,000	91,000
1998-2002	<u>93,000</u>	<u>49,000</u>
Totals Through 2002	280,000	243,000

Exhibit 2-7 charts the year in which defaults and prepayments are likely to occur for all the properties studied. Three peak periods occur for properties likely to default: current, around 1992, and near the end of the century. The early defaults tend to occur with respect to very troubled properties where operating cash deficits are particularly high and growing rapidly. The later predicted defaults appear to be related to the expiration of Section 8 LMSAs, which will reduce property cash flows and induce high cash operating deficits. Exhibit 2-8 shows, by year, the expiration of LMSA contracts. The timing of the peaks in LMSA expira-

Exhibit 2-6

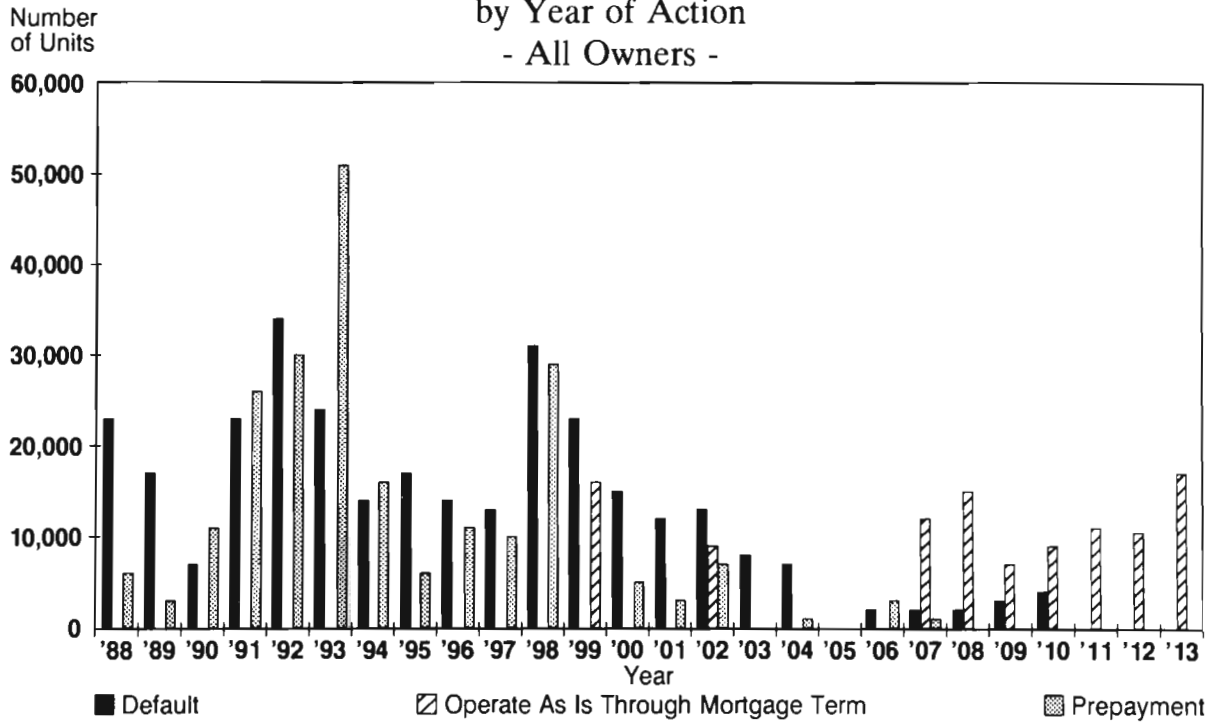
**Predicted Effects of the Inflation Rate on Actions of
Owners During the Next 15 Years**

	<u>Zero Inflation</u>			<u>Base Case</u>		
	Properties	Units	% Units	Properties	Units	% Units
Not-For Profit—						
Not Eligible to Prepay						
Default	981	110,000	64%	1,067	117,000	68%
Tax Credit	0	0	0	0	0	0
As is through Next 15 Years	442	61,000	36	356	54,000	32
Subtotal	1,423	171,000	100%	1,423	171,000	100%
For Profit w/o Sale Option --						
Not Eligible to Prepay						
Default	528	72,000	68%	619	78,000	74%
Tax Credit	32	4,178	4	0	0	0
As is Through Next 15 Years	257	30,000	28	198	28,000	26
Subtotal	817	106,000	100%	817	106,000	100%
For Profit w/ sale Option --						
Eligible to Prepay						
Default	1,593	172,000	47%	882	86,000	23%
Tax Credit	26	2,047	1	0	0	0
As is Through Next 15 Years	552	62,000	17	333	39,000	11
Prepayment/Market Conversions	1,070	131,000	36	2,026	243,000	66
Subtotal	3,241	367,000	100%	3,241	368,000	100%
All Types of Properties Combined						
Default	3,102	355,000	55%	2,568	280,000	43%
Tax Credit	58	6,225	1	0	0	0
As is Through Next 15 Years	1,251	152,000	24	887	122,000	19
Prepayment/Market Conversions	1,070	131,000	20	2,026	243,000	38
			100%			100%
Subtotal - Preserved (Tax Credit + As is Through Next 15 Years)	1,309	159,000	25%	887	122,000	19%
Total:	5,481	645,000	100%	5,481	645,000	100%

Note: Totals may differ due to rounding.

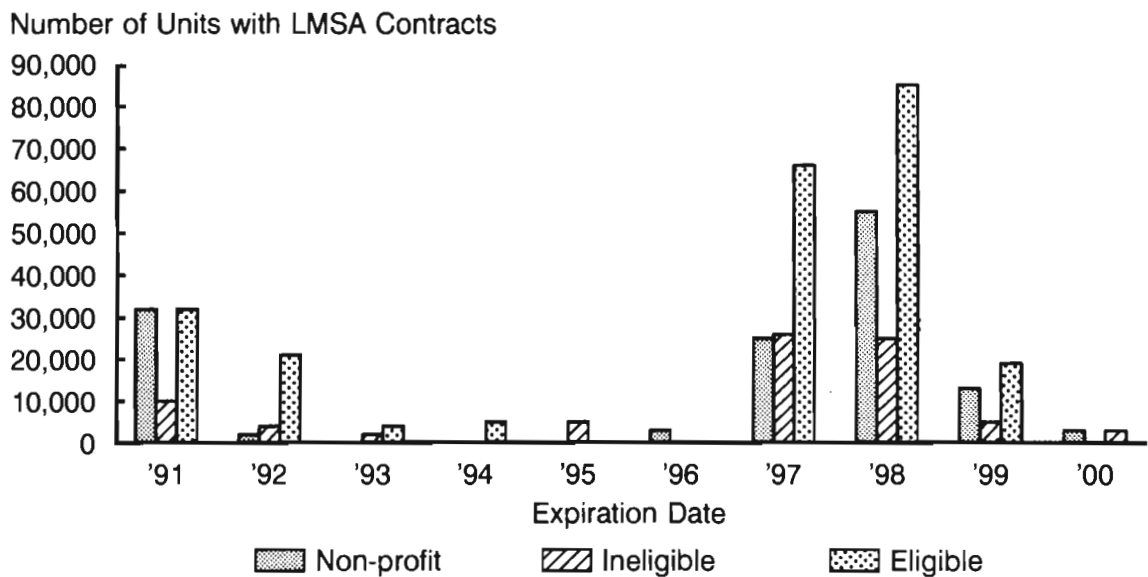
Source: National Low Income Housing Preservation Commission.

Exhibit 2-7
 Base Case
 Likely Actions of Owners
 by Year of Action
 - All Owners -



Source: National Low Income Housing Preservation Commission.

Exhibit 2-8
 Number of Units with LMSA Contracts Expiring Each Year,
 by Type of Ownership



Source: National Low Income Housing Preservation Commission Tabulations; HUD Data.

tions correlate closely to the peaks in the pattern of defaults.

The peak in predicted prepayments occurs in the 1991 to 1994 period and reaches its maximum level in 1993 (Exhibit 2-7). This peak coincides closely with the peak in the number of properties reaching their twentieth mortgage anniversary. The close relationship between the timing of prepayment and eligibility to do so suggests that it is in the best economic interest of most owners to prepay as soon as they can.

The peak in predicted prepayments occurs in the 1991 to 1994 period and reaches its maximum level in 1993.

Exhibit 2-9 illustrates the cumulative defaults and prepayments that are likely to occur over the next 15 years. While losses to the housing

supply in the next 2 to 3 years are modest, the number of units at risk increases significantly after 1990.

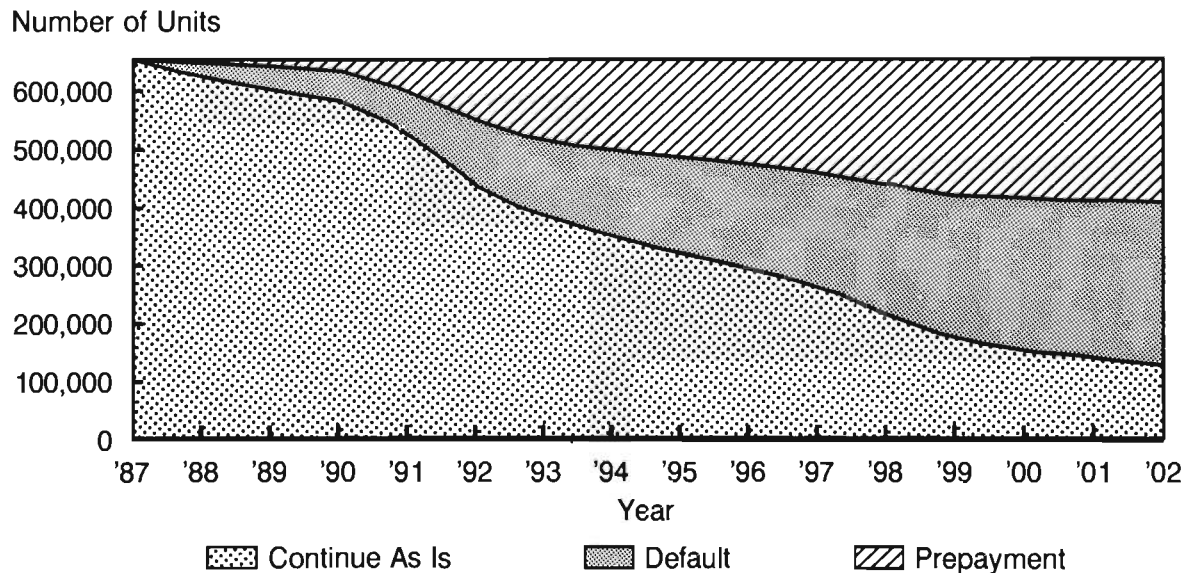
Effects of Likely Owner Actions on Tenants

Because owner actions are so important to tenants, the Commission looked at the distribution of tenant income and household composition in units likely to be affected. The income of tenants is surprisingly low given the original target population of the older, subsidized stock (generally 80 to 95 percent of median when the programs first started). Perhaps because tenant incomes have not kept pace with inflation or recent public policy gives priority to very low-income tenants, most residents of the stock have incomes below 80 percent of median.

Approximately 486,000 lower income households (income of less than 80 percent of area median) live in units vulnerable to loss, units

Exhibit 2-9

Number of Units Affected by Cumulative Prepayments, Cumulative Defaults, Balance Continuing As Is



Source: National Low Income Housing Preservation Commission.

whose owners are likely to default or prepay within the next 15 years.

Most households (70 percent) living in the Preservation Analysis Inventory are very low income (less than 50 percent of median income for their community), while very few (7 percent) have incomes more than 80 percent of the median. Those living in projects for the elderly are relatively poorer than the general population.

Exhibit 2-10 shows that most households (70 percent) living in the Preservation Analysis Inventory are very low income (less than 50 percent of

median income for their community), while very few (7 percent) have incomes more than 80 percent of the median. Those living in projects for the elderly are relatively poorer than the general population. Approximately 95 percent of those living in elderly projects have incomes less than 80 percent of the area median. As suggested by Exhibit 2-11, virtually no difference appears in tenant income characteristics when viewed in relationship to the predicted owner intention to prepay or default.

Two groups of households--large families and the elderly--are particularly vulnerable to losses associated with prepayments and defaults (Exhibit 2-12). Large households occupy a significant portion of the older, subsidized housing stock. Households containing four persons or more occupy more than 25 percent of the units likely to prepay. These families, most of them households with children, often report that it is difficult to find standard units of suitable size, available at affordable rent. If forced to move as a result of prepayments and rent increases, large families in some housing markets, even if provided rental assistance

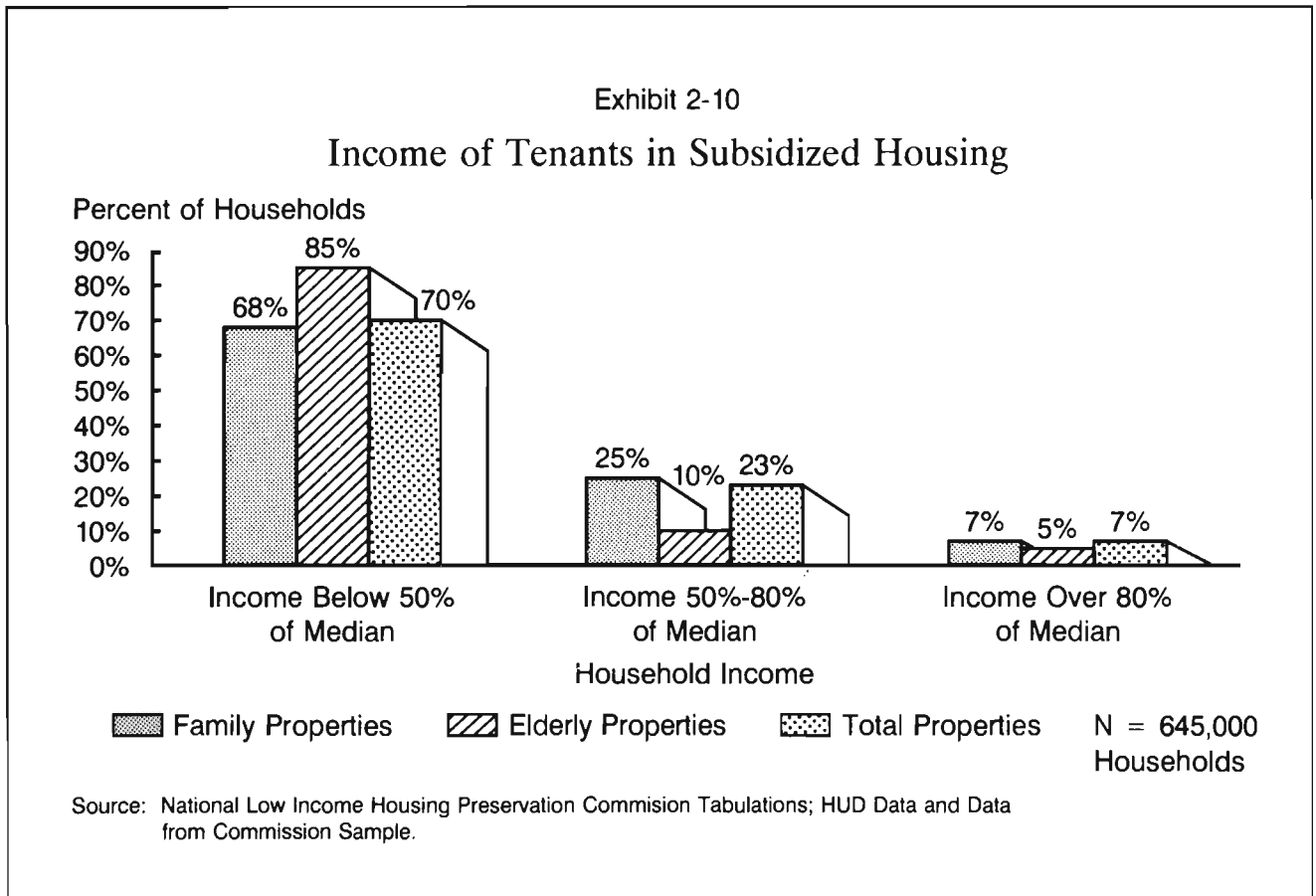
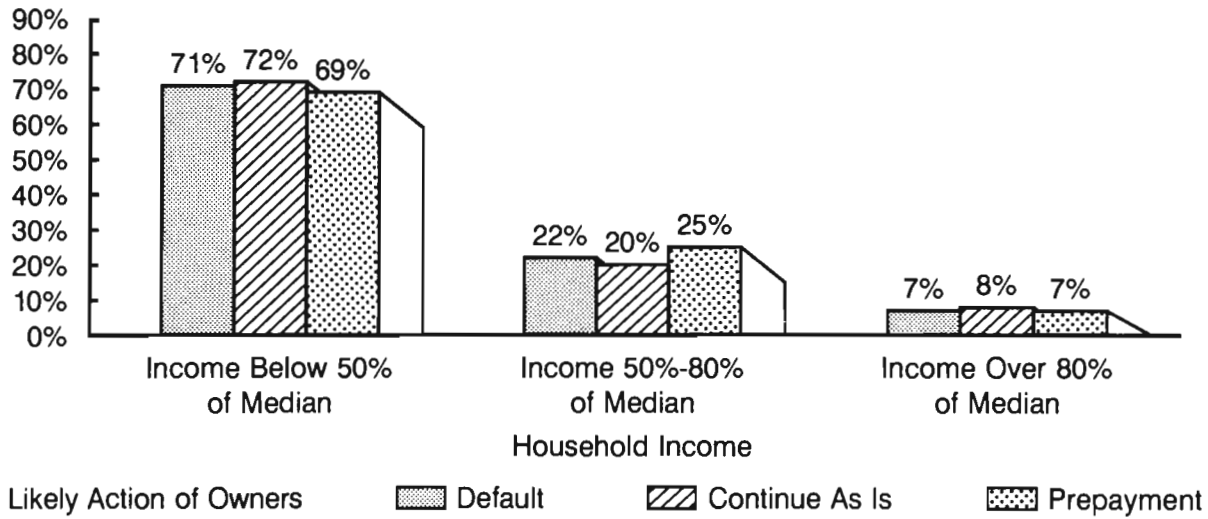


Exhibit 2-11

Income of Tenants in Subsidized Housing, by Action of Owners

Percent of Households

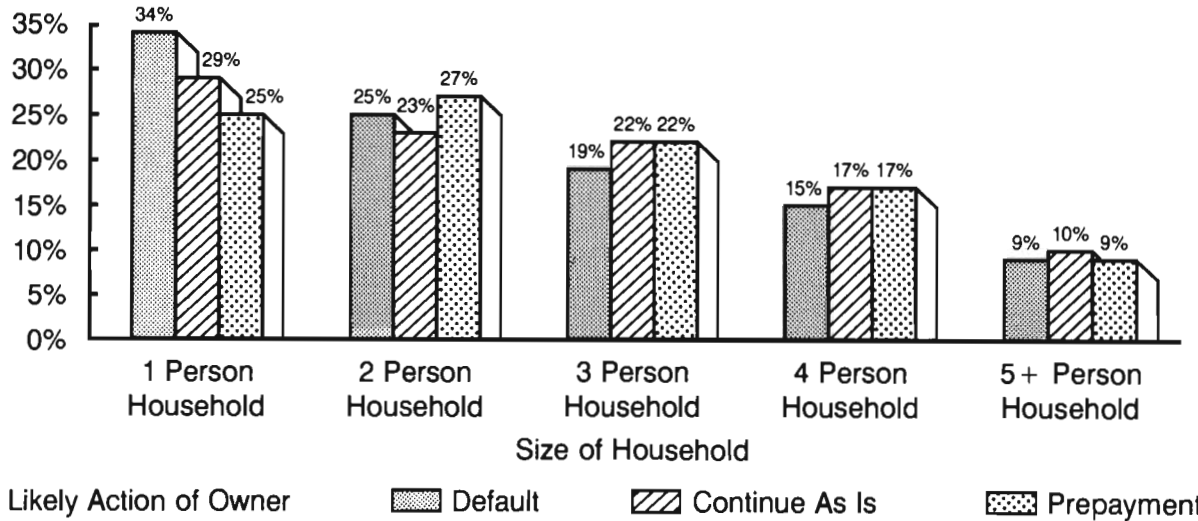


Source: National Low Income Housing Preservation Commission Tabulations; HUD Data.

Exhibit 2-12

Household Size of Tenants in Subsidized Housing, by Action of Owners

Percent of Households



Source: National Low Income Housing Preservation Commission Tabulations; HUD Data.

through Section 8 certificates or vouchers, may find their housing options limited.

Two groups of households-- large families and the elderly-- are particularly vulnerable to losses associated with prepayments and defaults. Large households occupy a significant portion of the older, subsidized housing stock.

Exhibit 2-12 also shows that the effects of prepayment and default on the elderly is substantial. One-person households, virtually all of them elderly, occupy 25 percent of all units that prepayment is likely to affect. In addition, an unknown number of the tenants in two-person households, representing 27 percent of the units that might prepay, are elderly. Some 85 percent of the elderly residents in subsidized housing are very low-income. They might find it difficult to obtain other housing, should they be displaced, depending upon the geographic location. Although defaults may not necessarily lead to displacement, they can still disrupt the lives of the elderly tenants who make up 34 percent of the residents in properties likely to be affected.

Community awareness of the possibility of prepayment and/or default appears to be quite low, according to Commission research carried out in the summer of 1987. When local officials were asked what their communities were doing to address the potential of default or prepayment, 25 percent answered nothing. In contrast, property

owners and managers were more aware of the potential future change in property use. When asked how hard it might be for displaced tenants to find alternative housing, more than 84 percent of the managers felt it would be very or somewhat difficult for the tenants to locate other affordable units. Local housing and planning officials agreed. When asked about the most likely alternative housing for persons displaced by prepayment or default of subsidized housing, 26 percent indicated that no alternative housing was available. Another 15 percent suggested that housing vouchers, which help to make rents affordable, would be the best available option.

Community awareness of the possibility of prepayment and/or default appears to be quite low, according to Commission research carried out in the summer of 1987.

Summary

The Preservation Analysis Model finds that the Nation's current privately owned, heretofore federally assisted housing stock is in serious trouble. Without additional funding, the supply of standard and affordable, low-income housing is at risk. What actions are possible? What interventions are most cost effective? How much will be needed to change the actions of owners to permit them to retain their commitment to low-income housing? Chapter 3 explores these questions and examines several possible answers.



Some Possible Preservation Actions to Maintain the Supply of Affordable Low-Income Housing

Defaults and prepayments could remove 523,000 units — 81 percent — from the Preservation Analysis Inventory of 645,000 units over the next 15 years. This prediction is the central product of the Preservation Analysis Model, which assessed the likely responses of owners to a series of preservation initiatives, estimated the cost of various actions, predicted the approximate times when various expenditures might be needed, and assessed the effect on tenants of changing an owner's predicted actions.

Basic Approaches

The Commission considered three major types of actions to accomplish the most cost-effective preservation:

- **Default Remedies:** property-specific actions to deter default;
- **Prepayment Remedies:** property-specific negotiations with owners of properties to dissuade them from prepaying, or to induce them to convey to an entity that would continue the property's low-income character; and
- **Broad Programmatic Remedies:** broad, relatively self-implementing strategies available to the Preservation Analysis Inventory such as provision of a subsidy equal to the current property-based subsidy (Section 8) or expansions in the Low-Income Housing Tax Credit.

The first two approaches require property-by-property negotiations with each owner intending to default or prepay a loan. The third approach,

involving broad, self-implementing actions, allows comparison of the costs and benefits of actions requiring much less administrative investment and oversight. For each of these approaches, the Preservation Analysis Model calculates the total cost of changing owners' actions and the average costs per unit preserved. "Units preserved" refers to units that are maintained in the stock of housing for low-income persons and that otherwise would have defaulted or prepaid and been converted to market-rate units. The model results suggest that remedies dealing directly with defaults and prepayments on a property-by-property basis would be the most cost effective. The results indicate the likely costs in dealing directly with prepayment and defaults, but do not attempt to define the particular combinations of subsidy tools to use to meet these costs.

Timeframe

The Commission's analysis uses a 15-year timeframe, beginning with 1988, to count the units retained as low-income housing and the number of years that they are maintained. The Commission chose a 15-year timeframe because of its interest in long-term preservation and because so much of the predicted loss of low-income housing occurs 10 to 15 years from now. Also, during the 15-year timeframe most Section 8 Loan Management Set Aside (LMSA) contracts will expire and many large second trust notes, attached to properties that were resyndicated between 1981 and 1986, will come due.

The Commission's analysis counts any property that has not defaulted or prepaid (converted to market) within the 15-year period as "preserved." Units preserved for this 15-year

period, however, might prepay or default in the remaining years of the mortgage term.

A property operating "as is" for 14 years before defaulting or prepaying obviously offers more to low-income households than a property that only operates for a year before defaulting or prepaying.

In comparing preservation strategies, it is also important to know how many years a property continues to be available to low-income households, even if it does eventually default or prepay. To capture this dimension of preservation, this Report computes the average number of units preserved as low-income housing over the 15-year period, called "15-year average units" or "15-year

equivalent units." This measure simply adds up the outstanding units in properties that have not defaulted or prepaid — that is, operating as subsidized housing — for each year of such operation in the 15-year period, and divides the sum by 15 to obtain a 15-year average number of preserved units. A property operating "as is" for 14 years before defaulting or prepaying obviously offers more to low-income households than a property that only operates for a year before defaulting or prepaying. For example, if 500,000 subsidized units were maintained for 14 years, then dropped to zero in the fifteenth year, the average number preserved would be:

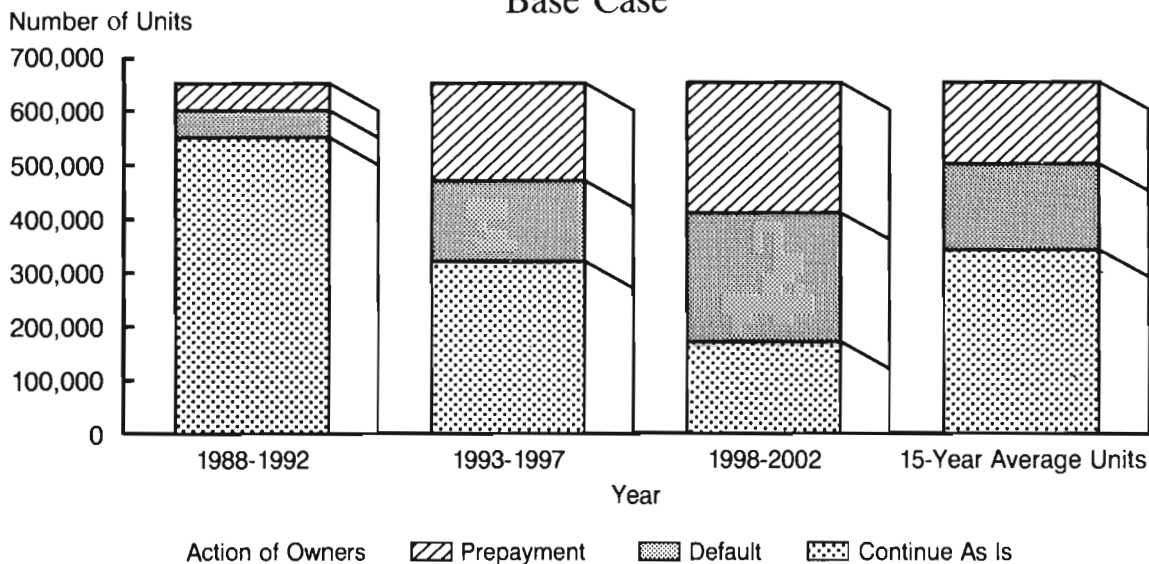
$$(500,000 \times 14 + 0 \times 1) / 15 = 467,000 \text{ units.}$$

If 500,000 units were maintained only for 1 year, then all were lost to defaults and prepayments, the average number preserved would be:

$$(500,000 \times 1 + 0 \times 14) / 15 = 33,000 \text{ units.}$$

Even though both scenarios end with all units lost by the end of the period, they have very different preservation results. Exhibit 3-1 shows for the base case the 5-year average numbers of units for predicted prepayment and defaults and the balance

Exhibit 3-1
**Five-Year and 15-Year Average Units
 by Likely Actions of Owners
 Base Case**



Source: National Low Income Housing Preservation Commission.

operating as subsidized as well as the overall average for the 15-year period.

Cost Comparisons

Predicted costs of various preservation actions are compared to the estimated cost of tenant-based subsidies provided through rental assistance payments, generally referred to as vouchers or certificates. Tenant-based subsidies assist low-income tenants by making up the difference between 30 percent of tenant income and an established maximum. Tenants are free to use the assistance to rent any available, modest-cost, standard unit and do not lose their assistance if they move. By using this reference, the Commission does not imply that tenant-based subsidies would necessarily be a realistic alternative for every unit threatened with default or prepayment.

The Office of Management and Budget (OMB) estimates the national average for the annual first-year cost of a rental assistance certificate (or voucher) at \$2,940 per household in 1988.¹ Assuming inflation and discount rates consistent with the Preservation Analysis Model, the average discounted present value per 15-year voucher is approximately \$30,000. For a particular property, the tenant-based assistance costs may be lower or higher than the national average because subsidy levels vary by locality and, for tenants in properties located in expensive, low-vacancy areas, tenant-based assistance may not be a practical alternative.

The predicted cost of preservation actions should also be compared with a higher, maximum cost for replacement housing. Such higher costs might be necessary to support rehabilitation or new construction to provide replacement units in markets where little alternative rental housing is available that would meet quality standards. One reference cost is the discounted present value of a new unit of public housing. OMB estimates this national average to be \$70,000, including construction and operating subsidies. Per-unit costs for rehabilitated housing can be lower than this figure and new construction costs much higher. Again, the local market defines the effective alternatives. None of the properties predicted to default or prepay would require more than \$80,000 per unit

(discounted present value) in new funds to prevent these owner actions.

Property-Specific Default Remedies

Properties likely to default share a common problem: they suffer from operating cash deficits because income does not cover expenses. In addition, these properties often need repairs that the limited available cash cannot cover. As the repair problems become worse, tenants may leave, further aggravating the already poor cash flow.

The Preservation Analysis Model tabulated the operating cash deficits accumulated from the predicted year of default through the year 2002 for each of the properties predicted to default. These annual operating cash deficits are a rough proxy both for physical and financial needs of these properties. By dividing the total costs per property by the number of units in the property, an approximate per-unit cost of deterring a property from default was calculated as a one-time payment

Properties likely to default share a common problem: they suffer from operating cash deficits because income does not cover expenses. In addition, these properties often need repairs that the limited available cash cannot cover.

in the year of the default.² This one-time amount was discounted to 1988 as a common frame of reference, using a Government discount rate of 8.7 percent.

Exhibit 3-2a and b presents the total number of units and properties that could be deterred from default at various average costs per unit. The costs shown are discounted present value in \$10,000 per-unit increments. That is, all the properties with less than \$10,000 per unit (discounted present value) in

¹ This figure is lower than the estimate provided by the Congressional Budget Office--\$4,310 per household in first year costs. The corresponding discounted present value for a 15-year voucher would be \$44,000 per household.

² The Commission recognizes that the actual form of the remedy could be a series of payments over time as opposed to a one-time lump sum action.

Exhibit 3-2a

Number of Units Saved from Default by Average Cost Per Unit

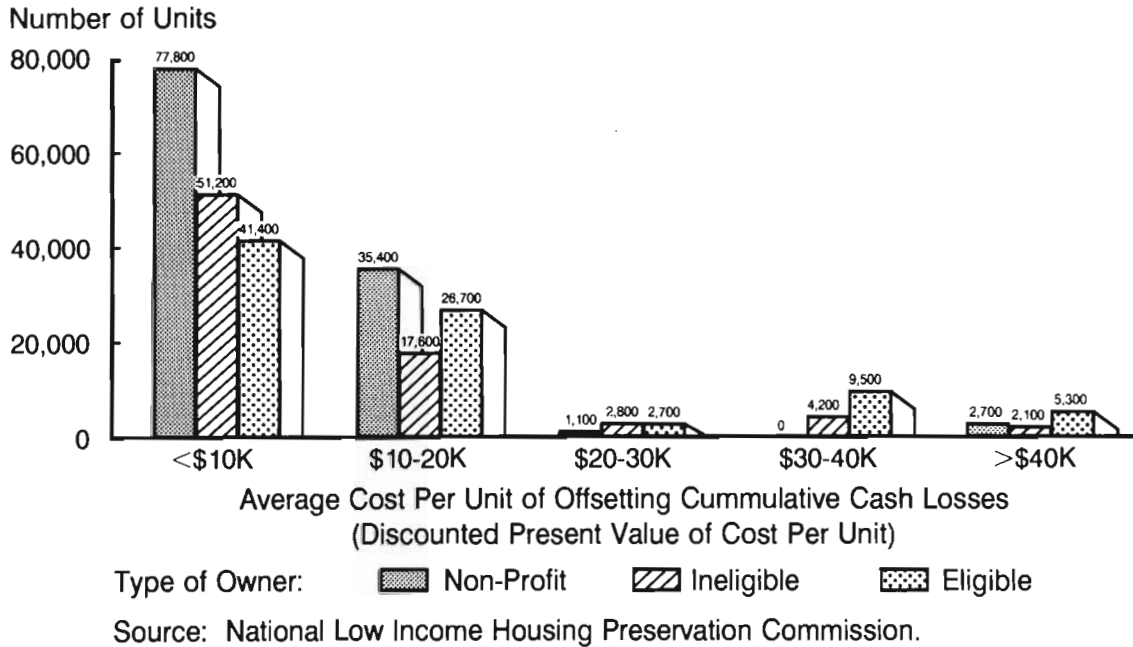
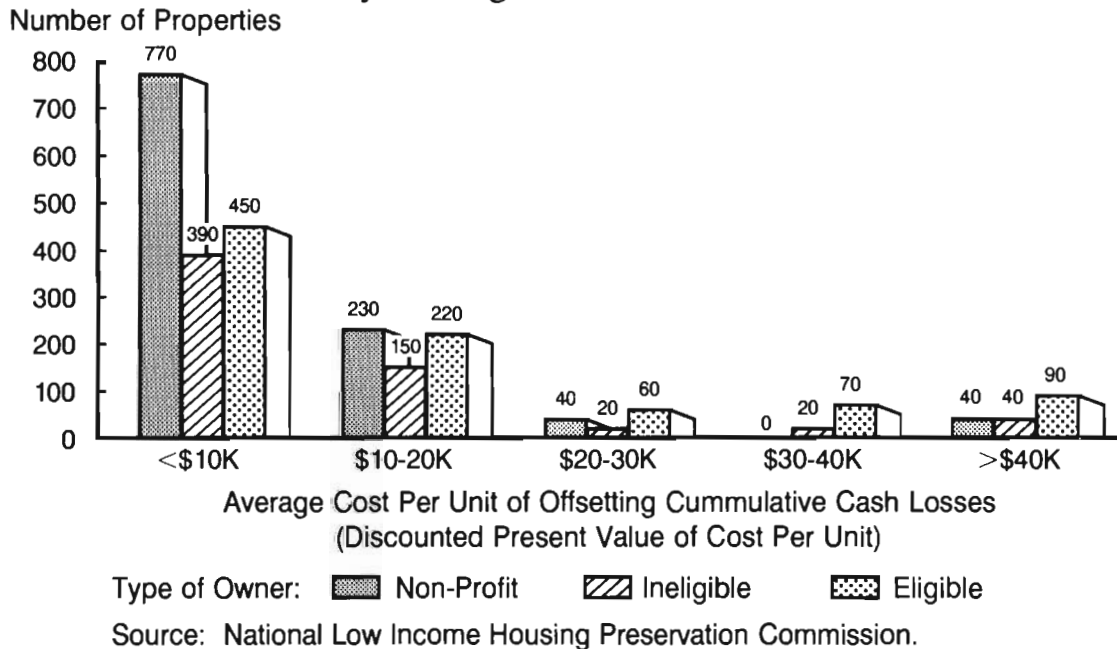


Exhibit 3-2b

Number of Properties Saved from Default by Average Cost Per Unit



future operating cash deficits are added together, then those with costs between \$10,000 and \$20,000 per unit, and so on.

Costs for Deterring Defaults Assuming a \$30,000 Per Unit Cap

The Preservation Analysis Model suggests that most units are in properties that could be deterred from default with an investment of less than \$30,000 per unit (discounted present value). Excluding properties with costs above \$30,000 to

used the discounted present value of the stream of future costs. The Commission computed the discounted present value of the subsidies that would be necessary to offset annual operating cash deficits and divided this value by the 15-year average number of defaults. The discounted present value of the 15-year stream of costs is \$1.4 billion for properties with defaults that could be cured within the \$30,000 cap. The 15-year average number of defaults remedied is 131,000 units for properties with defaults. The cost per unit thus is \$11,000 on a discounted present value basis.

**Exhibit 3-3
Five-Year Costs to Remedy Defaults for Units Costing Under \$30,000 Per Unit**

Period	Estimated Average Annual Budget	Average Additional Defaults During Period	Average Outstanding Defaults Cured	Total Defaults Cured by End of Period
1988-1992	\$ 50 million	35,000	35,000 units	78,000
1993-1997	\$215 million	97,000	132,000 units	161,000
1998-2002	\$390 million	94,000	226,000 units	255,000
1988-2002	\$220 million	--	131,000 units	--
Total:	\$3.3 billion			

Source: National Low Income Housing Preservation Commission.

deter default, approximately 2,330 properties (255,000 units of the 280,000 threatened) could be preserved from default over the next 15 years.

Clearly, the timing of the events and the corresponding implications for budget outlays are important. Using the Preservation Analysis Model, the Commission has estimated the approximate need for funds each year to deter default over the next 5, 10, and 15 years. Assuming a cost cap of \$30,000 per unit, the costs presented in Exhibit 3-3 represent the average annual budget needs for offsetting future cash operating deficits for defaulting properties for each 5-year segment.

The total 15-year costs divided by the 15-year average number of defaults cured amounts to \$25,000 per unit.

To measure costs per unit for curing defaults in order to compare alternatives, the Commission

On-Going Existing Subsidies

These numbers do not represent the total costs of deterring defaults. For every Section 236 unit that does not default, a continuing mortgage interest subsidy payment exists that the Government is already obligated to make. A property with a continuing Section 8 Existing LMSA rental subsidy contract in effect will also continue to receive these subsidy payments at least through the contract term. This Report assumes that these payments run for the maximum time for which the owners could opt under current contracts. These numbers are not treated as new costs because the Federal budget already accounts for these on-going obligations, but they must be included to compare costs of maintaining units in the subsidized stock with alternatives such as housing vouchers.

For the \$30,000 cap, the Commission estimates that these continuing subsidies represent an additional total 15-year cost of \$3.3 billion, or \$25,000 per unit (\$11,000 in discounted present value) per 15-year average unit preserved. Thus, adding the two types of subsidies—curing defaults and providing a subsidy that is equal to on-going subsidy payments under Section 236 and Section 8—produces a 15-year total of \$6.6 billion for all the properties retrieved from default within the \$30,000 cap. The total cost per unit is \$50,000 and the cost in discounted present value is \$22,000.

Providing Vouchers for Tenants in Units Not Saved

Consistent with its assumption that tenants should be protected in the event of loss of subsidized units through defaults or prepayments, the Commission computed the cost of providing 15-year voucher protection for as many households as would be affected by permitting defaults in properties costing more than \$30,000 per unit (discounted present value) to cure. The Commission estimates that the 15-year cost for such replacement vouchers would total \$1.7 billion.³

Total Costs for Deterring Defaults Assuming a \$30,000 Per Unit Cap

Exhibit 3-4 summarizes the cost elements in dealing with defaults whose new costs would be no more than \$30,000 per unit (discounted present

value). The exhibit indicates the average annual amounts and the 15-year total for:

- Costs to remedy defaults (fund future operating cash deficits);
- Costs of housing vouchers for the number of households affected by permitting properties exceeding the \$30,000 cap to default; and
- Costs of continuation of subsidies previously granted by the Federal Government (Section 236 and Section 8).

The average annual total for all these cost elements combined is \$185 million in each of the next 5 years, and it builds to a 15-year combined total of \$8.3 billion. New cost elements alone (remediating defaults and voucher coverage) start at an annual average of \$125 million and build to a 15-year total of \$5 billion.

Costs to Prevent All Defaults

If no limit were placed on the aggregate per-unit expenditures for curing defaults, the operating cash deficits for all 280,000 defaults (156,000 units, on average, over the 15 years) could be addressed for outlays of an estimated \$4.5 billion. If the on-going interest and Section 8 subsidies for these properties are added to the cost of curing defaults, the overall 15-year total is \$8.4 billion.

**Exhibit 3-4
Annual and Total Costs to Remedy Defaults Costing Under \$30,000 Per Unit or Provide Housing Vouchers**

Period	Estimated Average Annual Budget to Remedy Defaults	Estimated Average Annual On-going Subsidies (Section 236, Section 8)	Estimated Average Annual Housing Voucher Cost for Units Costing Over \$30,000 to Remedy	Annual Total
1988-1992	\$ 50 million	\$ 60 million	\$ 75 million	\$185 million
1993-1997	\$215 million	\$220 million	\$115 million	\$550 million
1998-2002	\$390 million	\$375 million	\$145 million	\$910 million
15-Year Total	\$3.3 billion	\$3.3 billion	\$1.7 billion	\$ 8.3 billion
Average Number of Units with Defaults Remedied:		131,000 (of 156,000)		
Number of Units with Defaults Remedied by 2002:		255,000 (of 280,000)		

Note: The voucher costs are based on the national average first-year cost per household provided by Office of Management and Budget, which amounts to a discount present value of \$30,000 under inflation and discount rate assumptions of the Preservation Analysis Model.

Source: National Low Income Housing Preservation Commission.

³ If the CBO estimated cost of \$44,000 per unit for vouchers is used, the 15-year cost would be \$2.5 billion.

The total cost per unit would be \$54,000 and the discounted present value would be \$24,000. Exhibit 3-5 provides the annual average and total costs in each category.

If all households affected by default were granted a tenant-based subsidy and no other preservation actions were taken to remedy defaults, the total 15-year cost for these subsidies would be \$11 billion. This amount averages out to \$72,000 per unit (15-year average number of defaults) or \$30,000 in discounted present value.⁴

Mortgage Insurance Fund Losses in a Default

Although it wants to prevent defaults primarily to preserve housing for low-income persons, the Federal Government also has a financial stake in avoiding defaults. As Exhibit 3-6 shows,

When a property owner decides to stop mortgage payments, the lender will require the FHA insurance fund to pay off the balance of the mortgage on the property.

the Federal Government originally insured \$10.8 billion in mortgages for the Preservation Analysis Inventory. When a property owner decides to stop mortgage payments, the lender will require the FHA insurance fund to pay off the balance of the

The process of foreclosure is often long and costly. The costs of disposition, including loss upon sale, average 60 percent of the outstanding mortgage balance. Thus, the Federal Government nets only approximately 40 cents on the dollar from the sale of a property after foreclosure.

mortgage on the property. Usually, at the outset the lender assigns the property to HUD, making it HUD's responsibility to keep up mortgage payments. Eventually, HUD can foreclose and take over ownership of the property. But these transactions cause the Federal Government substantial expenses. Today, the "market" interest rates on these mortgages are lower than current interest rates, so that the value of the remaining stream of payments

**Exhibit 3-5
Annual and Total Costs to Remedy All Defaults**

Period	Estimated Average Annual Budget to Remedy Defaults	Estimated Average Annual On-going Subsidies (Section 236, Section 8)	Annual Total
1988-1992	\$120 million	\$ 95 million	\$215 million
1993-1997	\$300 million	\$260 million	\$560 million
1998-2002	\$480 million	\$420 million	\$900 million
15-Year Total	\$4.5 billion	\$3.9 billion	\$8.4 billion

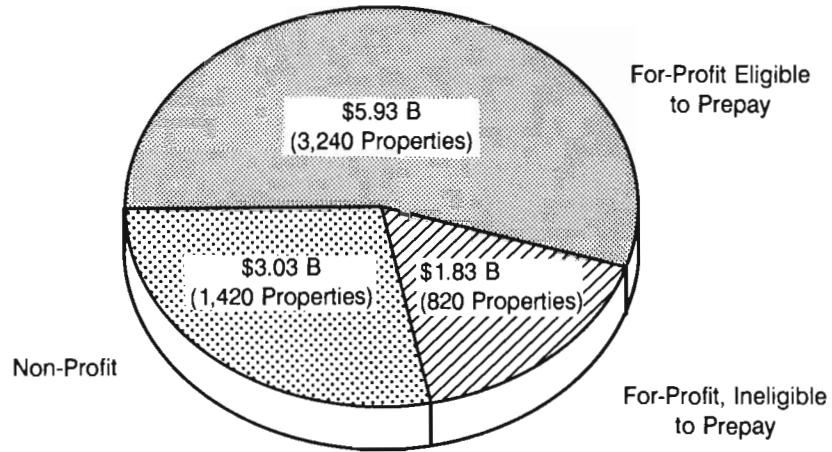
Average Number of Units with Defaults Remedied: 156,000 units
 Number of Units with Defaults Remedied by 2002: 280,000 units

Source: National Low Income Housing Preservation Commission.

⁴ If the CBO estimated cost of vouchers is used, the 15-year cost would be \$16 billion. This amount averages to \$106,000 per unit (15-year average number of defaults) or \$44,000 in discounted present value.

Exhibit 3-6

Original Insured Mortgage Amount
by Type of Owner



Total Original Mortgage Amount \$10.8 Billion
(Total Properties = 5,480)

Source: National Low Income Housing Preservation Commission; Tabulations from HUD Data.

due is less than the outstanding mortgage balance. Also, during the period when the property is HUD-assigned, HUD must pay whatever expenses are necessary to keep the property operating. Finally, the process of foreclosure is often long and costly. The costs of disposition, including loss upon sale, average 60 percent of the outstanding mortgage balance. Thus, the Federal Government nets only approximately 40 cents on the dollar from the sale of a property after foreclosure. These economics are not likely to change in light of the requirement in the Housing and Community Development Act

of 1987, which directs HUD to maintain the low-income character of foreclosed properties in subsequent dispositions. Exhibit 3-7 summarizes these estimated Federal costs for defaulting properties by prepayment eligibility class.

The \$1.9 billion in the estimated loss to the insurance fund amounts to \$7,000 per unit (\$4,000 in discounted present value). This loss is offset by any capital gains tax paid by for-profit owners. The average capital gains tax due is \$2,500 per unit (\$1,000 in discounted present value). To the extent that these figures include operating subsidies to keep a property going, the costs overlap with the estimated future costs of offsetting operating cash deficits that the model tabulated as costs to remedy defaults.

Exhibit 3-7

Potential Default Losses to the Insurance Fund
1988 - 2002

Non-profit properties	\$770 million
For-profit, ineligible	
To prepay	\$575 million
For-profit, eligible	
To prepay	<u>\$580 million</u>
Total	\$1.9 billion

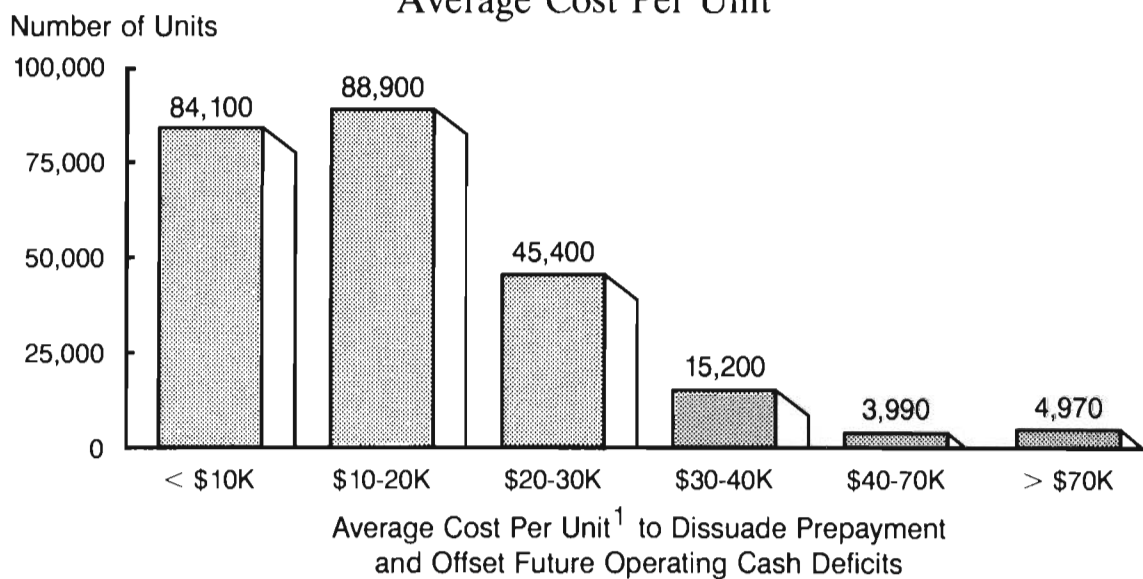
Source: National Low Income Housing Preservation Commission.

Costs of Property-Specific
Prepayment Remedies

3,000 units would be prepaid by the end of the year 2002, which amounts to 145,000 units, on average, over the 15-year period. A strategy to

Exhibit 3-8a

Units Saved from Prepayment by Average Cost Per Unit

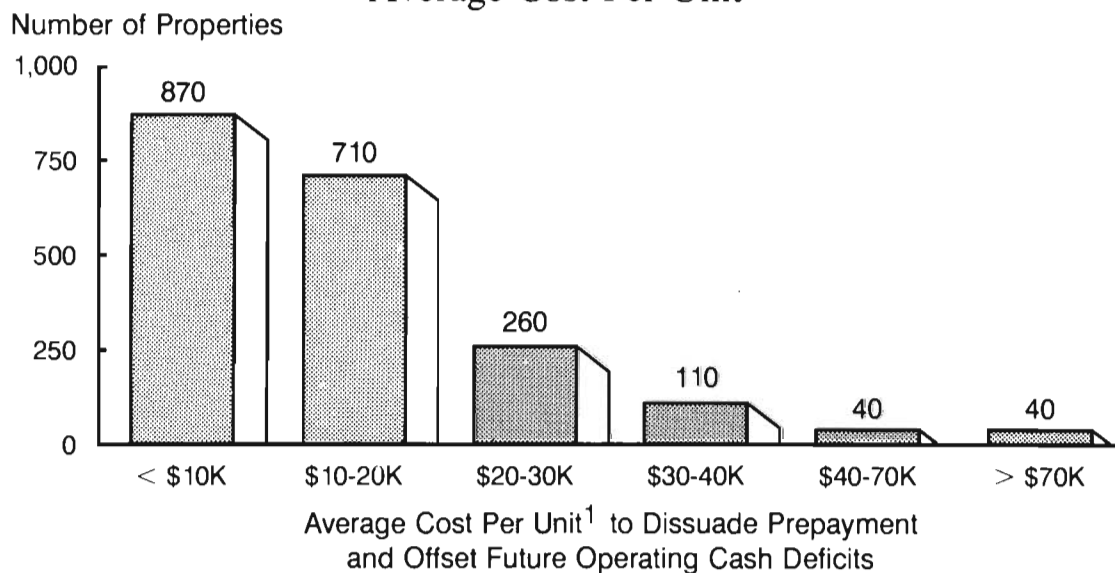


¹ Discounted Present Value of New Costs Per Unit.

Source: National Low Income Housing Preservation Commission.

Exhibit 3-8b

Properties Saved from Prepayment by Average Cost Per Unit



¹ Discounted Present Value of New Costs Per Unit.

Source: National Low Income Housing Preservation Commission.

save low-income properties from prepaying would involve matching the value to the owner of a market disposition, or acquiring the property and transferring it to new owners who would agree to operate the property as low-income housing. This strategy has two components of cost:

- The value of the property when converted to market use; and
- The amount required to offset any future operating cash deficits.

In principle, the costs are identical whether a current owner has incentives to continue to operate a property as low-income housing or a new owner is found who will agree to the same conditions. In addition, a current or new owner will require continuing subsidies to make up for any future operating losses.

How many properties could be saved from prepayment and at what costs per unit? Exhibit 3-8a and b tabulates the estimated number of units and properties deterred from prepayment, at various costs. As in the case of defaults, the exhibit groups together properties with prepayment prevention costs (acquisition and operating subsidies) of less than \$10,000 per-unit (discounted present value), those with per unit costs between \$10,000 and \$20,000, and so on.

**Total Costs for Deterring Prepayments
Assuming a \$30,000 Per Unit Cap**

These results suggest that most properties would require combined acquisition and operating cost subsidies of less than \$30,000 per unit (dis-

counted present value). Using a \$30,000 per-unit cap, the model estimates that 218,000 units of the 243,000 units in properties predicted to prepay could be preserved — prepayment and conversion avoided — through the year 2002, which amounts to 126,000 units, on average, over the 15-year period.

The costs for preventing prepayments would not be incurred all at once. Rather, the acquisition portion would be incurred over the 15-year period at the points when prepayments otherwise would occur, and the operating subsidy portion over the remaining years (to the end of the fifteenth year).

The estimated annual costs over the next 5-, 10-, and 15- year periods are summarized in Exhibit 3-9, assuming potential prepayments are intercepted up to a limit of \$30,000 per unit (discounted present value) to deter prepayment. As expected from the base case analysis presented in Chapter 2, the higher costs occur in the period 1993 through 1997 when a large number of properties reach the point of eligibility to prepay.

The estimated cost of vouchers to assist tenants in units not preserved within the \$30,000 cap is \$1.3 billion.

**Exhibit 3-9
Five-Year Costs To Prevent Prepayment
For Units Costing Under \$30,000 Per Unit**

Years	Estimated Average Annual Cost	Average Additional Predicted Prepayments During Period	Average Prepays Prevented	Total Prepays Prevented by End of Period
1988-1992	\$275 million	28,000	28,000	89,000
1993-1997	\$370 million	114,000	142,000	170,000
1998-2002	\$355 million	64,000	206,000	218,000
1988-2002	\$330 million		126,000	
Total	\$5 billion			

Source: National Low Income Housing Preservation Commission.

Exhibit 3-10
Costs to Prevent Prepayment
All Units Costing Less Than \$30,000/Unit*

Period	Direct Costs to Deter Default			Vouchers for Tenants in units not saved	Total Annual Expenditures
	Preservation Costs**	On-going Subsidies	Total to Deter Default		
1988-1992	\$275 million	\$ 50 million	\$325 million	\$ 30 million	\$355 million
1993-1997	\$370 million	\$235 million	\$100 million	\$100 million	\$705 million
1998-200	\$355 million	\$340 million	\$130 million	\$130 million	\$825 million
15-Year Total**	\$ 5 billion	\$ 3.1 billion	\$ 8.1 billion	\$ 1.3 billion	\$ 9.4 billion
Average Cost/ 15-Year Units Preserved	\$40,000	\$25,000	\$65,000	\$68,000	\$65,000
DPV/15-Year*** Unit Preserved	\$21,000	\$11,000	\$32,000	\$32,000	\$32,000
Average Number of Units with Prepayments Prevented: 126,000 (of 145,000)					
Average Units Prepaying: 19,000					
Number of Units with Prepayments Prevented by 2002: 218,000 (of 243,000)					

* Discounted Present Value/Unit

** Cost of preservation and offset of future operating cash losses

*** DPV - Discounted Present Value per 15-year average unit preserved

Source: National Low Income Housing Preservation Commission.

The Commission estimates the total 15-year costs to prevent prepayment at \$5 billion. For the 15-year average of the 126,000 units that prepayments affect, this total amounts to \$40,000 per unit or \$21,000 in discounted present value. As with defaults, the on-going Section 236 interest subsidies and Section 8 contracts in place add to total Government costs. The 15-year total for these subsidies would be \$3.1 billion, which amounts to \$25,000 per unit or \$11,000 in discounted present value. The combined costs are \$8.1 billion over the 15 years, representing a total of \$65,000 per unit or \$32,000 in discounted present value. Units not preserved from prepayment may require housing vouchers as a replacement. The estimated cost of vouchers to assist tenants in units not preserved within the \$30,000 cap is \$1.3 billion.

**Total Costs for Deferring Prepayments
Assuming a \$30,000 Per Unit Cap**

Exhibit 3-10 summarizes the cost elements as annual averages for 5-year periods and provides 15-year totals. The average annual total for all cost elements combined is \$355 million in each of the next 5 years, and it builds to a 15-year combined total of \$9.4 billion.

Costs to Prevent All Prepayments

If new expenditures of as much as \$80,000 per unit (discounted present value of the most costly properties) were as cost effective as local alternatives, all 243,000 properties predicted to prepay could be preserved for 15-year total costs of \$10.1 billion, including \$6.5 billion in new funds to prevent prepayments and \$3.6 billion in on-going Section 236 and Section 8 subsidies. The 15-year total costs amount to an average of \$70,000 per unit for the 15-year average of 145,000 units preserved. On a discounted present-value basis, these costs are \$35,000 per unit.⁵ Exhibit 3-11 provides the estimated annual requirements for each of the cost elements.

**Cost of Permitting All Prepayments to Occur and
Assisting Tenants with Vouchers**

If all 243,000 units affected by prepayments were replaced by housing vouchers and no other preservation action were taken to prevent prepayments, the total 15-year cost would be \$10 billion. For the 145,000 units lost on average over the 15 years, the total amounts to \$72,000 per unit or \$30,000 in discounted present value.

⁵ This amount is \$9,000 per unit less than the \$44,000 discounted present value of vouchers using the CBO estimate.

A Note on Model Results

Some fundamental caveats apply to all the Preservation Model results on defaults and prepayments:

- They are at best projections based on a relatively small sample of properties (300) and a set of reasonable assumptions about the future and about owners' likely decisions.
- Even if the predictions regarding owner actions and costs are right, owners might well be willing to settle for a package that offered less than the computed preservation cost because of altruism, concern for tenant displacement, political repercussions, avoiding the cost and risk of a market conversion, or other reasons. The computed preservation costs are, in this sense, a maximum amount.

ly expensive to carry out. Administrative costs might well average \$1,000 to \$5,000 per unit. A broad, programmatic approach could be preferable to an administratively complex and expensive one that requires project-by-project decisions.

The potential problem with generally available financial assistance is that owners who would have continued their properties as low-income housing, either "as is" or under a tax credit conversion, may nonetheless take advantage of generally available Government aid.

Broad, Programmatic Approaches

Having assessed the possibilities for dealing on a property-specific basis with properties that would default and those that would prepay, the Commission acknowledges that such a strategy could be administratively demanding and potential-

Ideally, financial assistance would be generally available, easily understood by owners and government officials, require relatively minimal on-going monitoring, minimize bureaucratic decisionmaking, save the government time and money, and reduce the potential for political in-

**Exhibit 3-11
Costs to Prevent Prepayment
All Units**

Period	Direct Costs to Deter Default			Vouchers for Tenants in units not saved	Total Annual Expenditures
	Preservation Costs*	On-going Subsidies	Total to Deter Default		
1988-1992	\$350 million	\$ 55 million	\$405 million	-	\$405 million
1993-1997	\$550 million	\$280 million	\$830 million	-	\$830 million
1998-2000	\$400 million	\$390 million	\$790 million	-	\$790 million
15-Year Total**	\$ 6.5 billion	\$ 3.6 billion	\$ 10.1 billion		\$ 10.1 billion
Average Cost/ 15-Year Units					
Preserved	\$45,000	\$25,000	\$70,000		\$70,000
DPV/15-Year***					
Unit Preserved	\$24,000	\$11,000	\$35,000		\$35,000
Average Number of Units with Prepayments Prevented: 145,000					
Number of Units with Prepayments Prevented by 2002: 243,000					

* Cost of preservation and offset of future operating cash losses

** Sums do not add exactly due to rounding

*** DPV - Discounted Present Value per 15-year average unit preserved

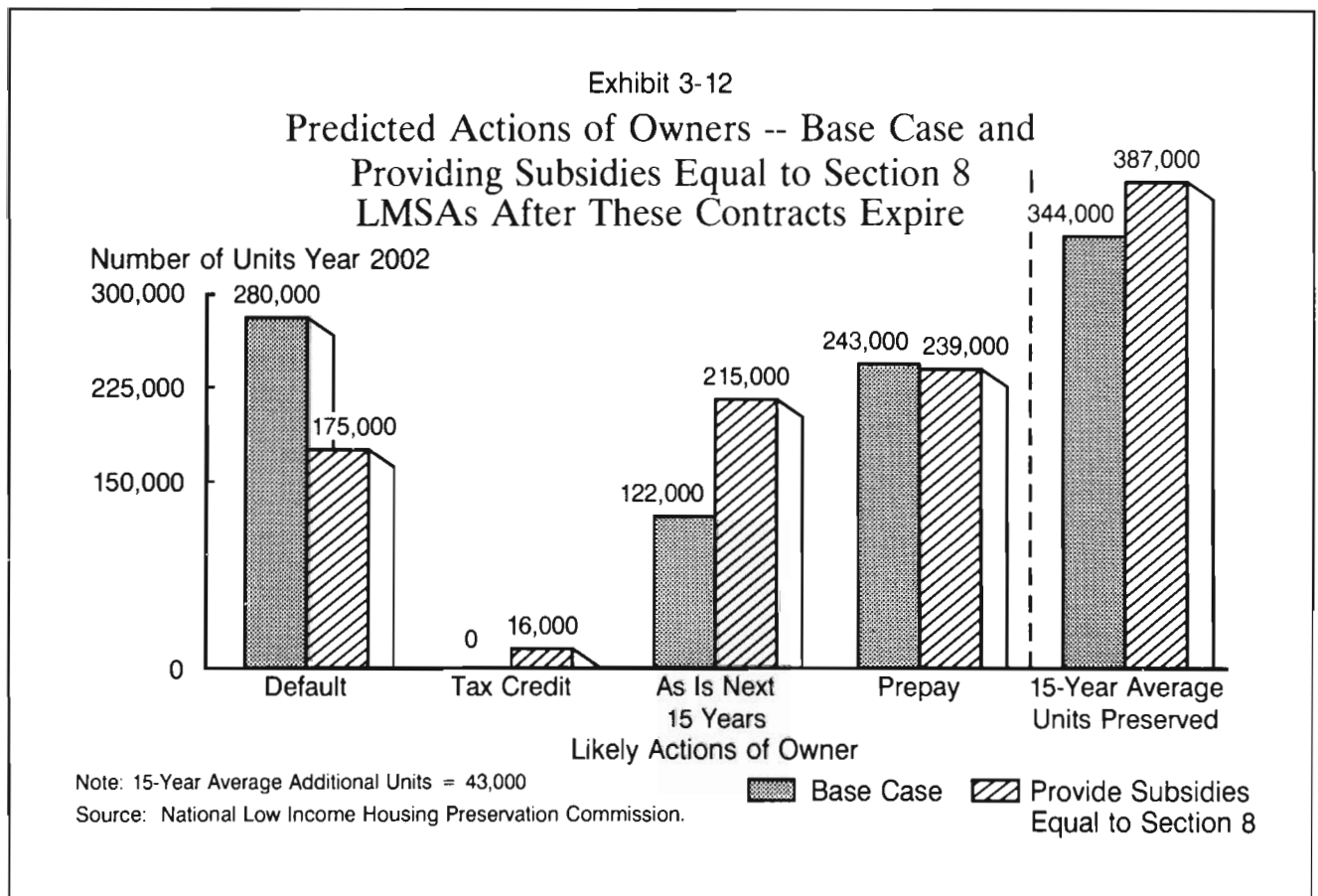
Source: National Low Income Housing Preservation Commission.

fluences. Given the highly varied financial condition of the properties in the Preservation Analysis Inventory, a "take it or leave it" approach would be particularly attractive to public officials who despair at unravelling the various interests in the particular properties. The potential problem with generally available financial assistance is that owners who would have continued their properties as low-income housing, either "as is" or under a tax credit conversion, may nonetheless take advantage of generally available government aid.

The Commission considered two basic kinds of general approaches—additional subsidies and expanded tax benefits. It considered variations on two basic programs already in place, funding equal to the property-based Section 8 rental assistance and the low-income housing tax credit. The specific strategies tested were:

1. Provide a subsidy equal to the Section 8 Loan Management Set Asides after the expiration of those contracts;
2. Provide a subsidy equal to maximum additional Section 8 subsidy to every property;

3. Extend the availability of the low-income housing tax credit (no time limit or minimum period of ownership by current owner);
4. Provide a subsidy equal to the Section 8 Loan Management Set Asides after the expiration of those contracts and make the tax credit generally available;
5. Provide a subsidy equal to the Section 8 Loan Management Set Asides after the expiration of those contracts and increase the annual credit to 5 percent (from the 4 percent annual amount now available);
6. Provide a subsidy equal to the Section 8 Loan Management Set Asides after the expiration of those contracts and increase the annual credit to 6 percent; and
7. Provide a subsidy equal to the Section 8 Loan Management Set Asides after the expiration of those contracts and limit the seller's tax liability to the cash derived from the tax credit sale rather



than taxing the seller's full capital gain (which can be large if the property is fully depreciated).

The Commission considered two basic kinds of general approaches—additional subsidies and expanded tax benefits.

Additional Subsidies or Tax Credit Availability

Preservation Strategy #1: Provide a Subsidy Equal to the Section 8 Loan Management Set Asides After the Expiration of Those Contracts

Using the Preservation Analysis Model, the Commission tested the likely responses of owners already receiving Section 8 assistance to an offer to extend that assistance for as long as the owner wanted it. Because the model assumes that rent receipts decline severely when subsidies begin to expire, typically at the end of a 15-year contract, this approach would restore cash available to the property.⁶ Exhibit 3-12 and Appendix Exhibit IV-1 tabulate the results.

The Commission tested the effect of extending Section 8 assistance for as long as the owner would use it, notwithstanding that this extension might only delay but not eliminate an owner's decision to default or prepay. The Commission assumed that each additional year that a unit served the low-income population was a net gain. The Commission did not test the more stringent strategy of providing additional Section 8 assistance only if the owner relinquished all rights to prepay through the mortgage term, an offer that undoubtedly fewer owners would accept.

The model predicts that providing a subsidy equal to the Section 8 LMSAs after the expiration of current contracts would enable 231,000 units to operate as low-income housing through 2002 —

The model estimates that providing a subsidy equal to the Section 8 LMSAs after the expiration of current contracts would have very little effect on the owners who would decide to prepay and convert to a market use.

109,000 more than with no intervention. This outcome would preserve the 15-year average of 387,000 units, compared with 344,000 units for the base case predictions (no programmatic change) or a 15-year average of 43,000 additional units. The model estimates that providing a subsidy equal to the Section 8 LMSAs after the expiration of current contracts would have very little effect on the owners who would decide to prepay and convert to a market use.

Preservation Strategy #2: Provide a Subsidy Equal to Maximum Additional Section 8 Subsidy to Every Property

A common suggestion to deter prepayments is to increase the effective returns to owners, on condition that the property be maintained as low-income housing. Ideally, such a subsidy would be

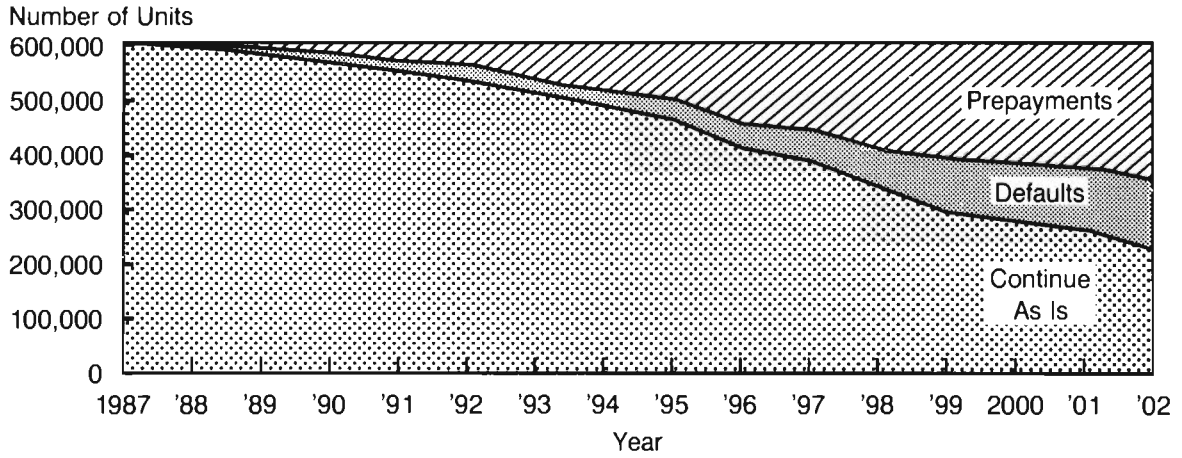
The current average rent of units in the Preservation Analysis Inventory is approximately \$100 less than the local fair market rents (FMRs).

limited to those owners who would otherwise prepay or default. But identifying those owners entails difficulties that always attend property-by-

⁶ The Preservation Analysis Model may overstate the loss of rent receipts to an owner in the absence of Section 8 Assistance because it assumes only the tenant payment will be received. In some instances, owners will be able to recover the full rent by finding new tenants who can afford higher rents or charging existing poor tenants excessively high rents in relationship to their income.

Exhibit 3 - 13

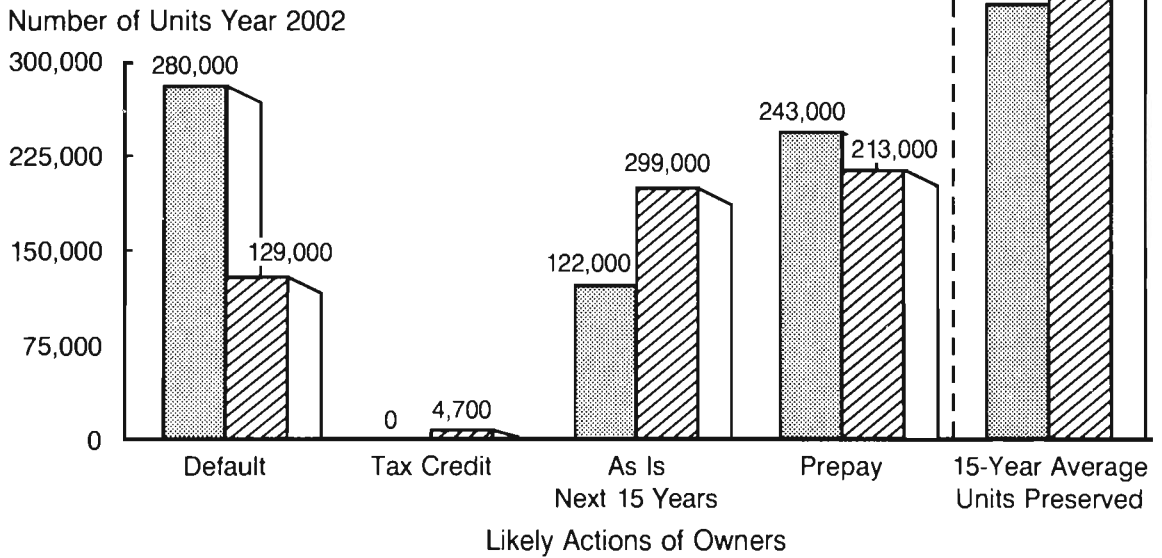
Effect of Providing Additional Subsidy of \$100/Month/Unit



Source: National Low Income Housing Preservation Commission.

Exhibit 3 - 14

Predicted Actions of Owners -- Base Case and Additional Subsidy of \$100/Month/Unit



Note: 15-Year Average Additional Units = 149,000

Source: National Low Income Housing Preservation Commission.

Legend: Base Case (solid grey), \$100/Month/Unit Increase (hatched)

property negotiations. Preservation Strategy #2 tests the simpler administrative mechanism of offering such a subsidy to all owners.

Based on the data gathered for properties in the Preservation Analysis Sample, the Commission estimates that the current average rent of units in the Preservation Analysis Inventory is approximately \$100 less than the local fair market rents (FMRs). To approximate the effect of providing a subsidy equal to maximum permissible Section 8 assistance to every possible unit, the Commission tested the results of providing an additional \$100 per month subsidy to every unit. In the model, the for-profit owners treat this subsidy as additional income; the non-profit owner treats it as an additional resource for repairs and replacements.

The results suggest that this strategy would preserve 303,000 units over the next 15 years (181,000 more than the base case). The 15-year average number of additional units preserved as a result of this strategy is 149,000 more units. Exhibit 3-13 shows the 15-year projection of the effects of this preservation strategy. Exhibit 3-14 and Appendix Exhibit IV-2 compare the units preserved with the base case analysis.

Preservation Strategy #3: Extend the Availability Of the Low-Income Housing Tax Credit

The low-income housing tax credit provides 10 years of tax credits to owners in exchange for their commitment to maintain rentals for low-income households for 15 years. In its current configuration, the tax credit is poorly suited to encourage preservation for two reasons. First,

Many of those electing a tax credit conversion are owners who would otherwise continue to operate their properties as low-income housing without the credit—thus failing to create a net increase in units preserved.

properties that have changed hands in the past 10 years are not eligible unless HUD waives the

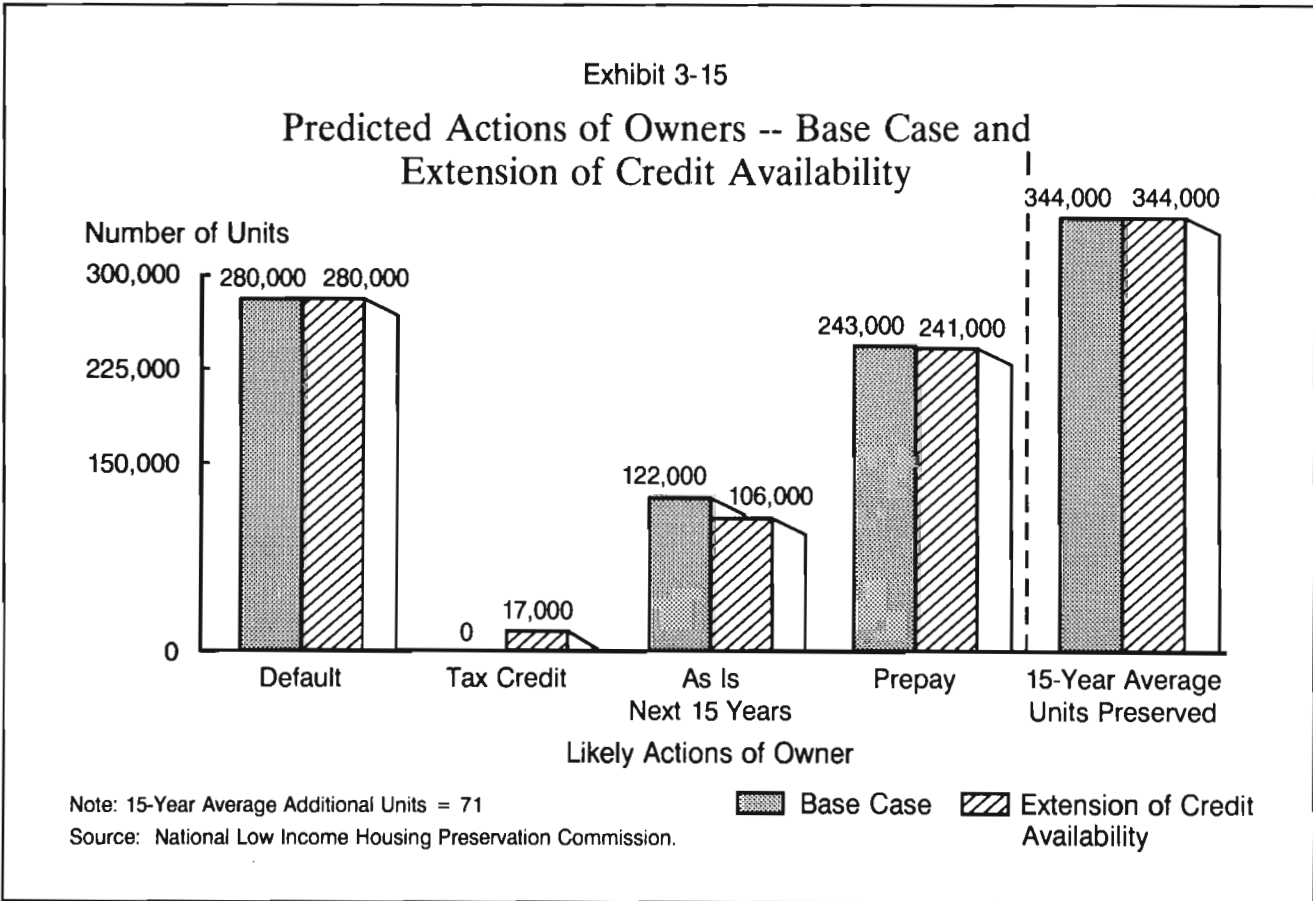
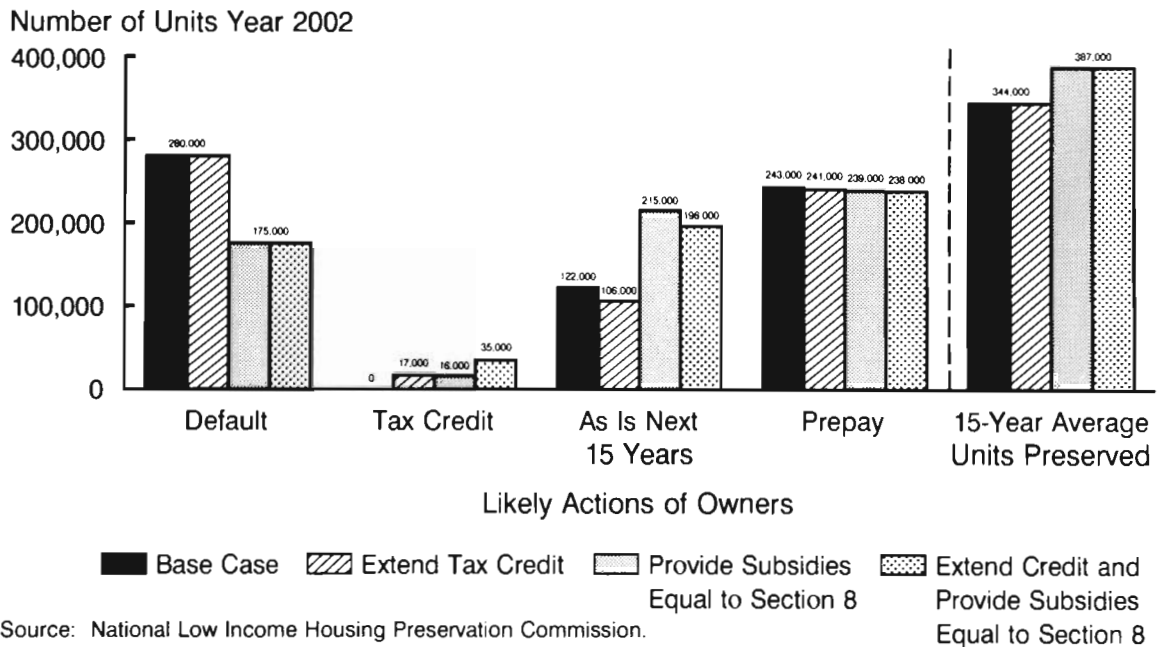


Exhibit 3 - 16

Predicted Actions of Owners -- Base Case, Credit Extension, Providing Subsidies Equal to Section 8 LMSAs After Contract Expiration, and Tax Credit and Subsidies Equal to Section 8



restriction, which excludes a large number of properties that were resold under the inducements of the 1981 Economic Recovery Tax Act. Second, a statutory sunset provision ends the credit in 1989, which is before owners of many of the properties at risk would find it of most benefit.

To test the potential usefulness of the low-income housing tax credit in dealing with the preservation problem, the Commission modeled the most generous hypotheses about eligibility of properties for the credit. The Commission tested the effect of: extending indefinitely the time period (removing the 1989 sunset); removing the minimum required period of ownership of a property; and assuming that 100 percent of the households met the income eligibility requirements. (In fact, the Commission estimates that some 85 to 90 percent of current tenants would qualify as having incomes below the required 60 percent of median income.)

The tax credit alone does not appear to be a powerful tool for preservation (Exhibit 3-15 and Appendix Exhibit IV-3). Although owners of 17,000 units (79 properties) are predicted to take advantage of the credit by the year 2002, very few apparently would choose this alternative to default

or to prepayment. The 15-year average number of additional units preserved is only 71. Many of those electing a tax credit conversion are owners who would otherwise continue to operate their properties as low-income housing without the credit—thus failing to create a net increase in units preserved.

At such a low level of predicted effect, the model could "miss" some owners who might find this credit attractive because of factors not reflected in the model. These factors include the following:

- Inflation. The model assumes a steady 5 percent inflation rate. If much lower inflation rates actually prevail for particular properties or periods of time, market values will not rise as much as predicted by the model and the tax credit could be relatively attractive.
- Practical, uneconomic considerations by the owners. These include altruistic motives, the possibility that conversion to a tax credit would be much easier than a market conversion (the bird in the hand),

pressure by the limited partners to act now and not wait for a projected enhancement of market value, and local political pressures.

Provide Funds Equal to the Expiring Section 8 Subsidy with Tax Credit Actions

Although the tax credit alone exerts little net positive effect on preservation, it might do so if teamed with a subsidy that is the equivalent of Section 8 rental subsidies or with other increased benefits. The model tested several possible combined actions.

Preservation Strategy #4: Provide a Subsidy Equal to the Section 8 Loan Management Set Asides After the Expiration of Those Contracts and Make Tax Credit Generally Available

Exhibit 3-16 and Appendix Exhibit IV-4 summarize the results of both providing a subsidy equal to the expiring Section 8 rental assistance and making the tax credit generally available and compares this approach with the base case, extension of the tax credits and extension of Section 8 alone. This approach appears to add very little to the units preserved. The 15-year average additional units is virtually the same as providing a subsidy equal to Section 8.

Even combined with a Section 8 subsidy, the benefits of the tax credit do not compete with the lure of market-use conversions. They do not provide sufficient margin to overcome the unattractiveness of subsidized properties with operating losses. The lure of market conversions will be drastically curtailed where steady inflation is not driving prices up.

To find out if the tax credit might work better if it offered richer benefits, the Commission tested a combination of enhanced tax credits with an extension of Section 8 subsidies:

Preservation Strategy #5: Provide a Subsidy Equal to the Section 8 Loan Management Set Asides After the Expiration of Those Contracts and Increase the Annual Credit to 5 Percent (from the 4 Percent Annual Amount Now Available)

Preservation Strategy #6: Provide a Subsidy Equal to the Section 8 Loan Management Set Asides After the Expiration of Those Contracts and Increase the Annual Credit to 6 Percent

Preservation Strategy #7: Provide a Subsidy Equal to the Section 8 Loan Management Set Asides After the Expiration of Those Contracts and Limit the Tax Liability to the Seller to the Cash Derived from the Tax Credit Sale Rather than Taxing the Seller's Full Capital Gain

Exhibits 3-17 and Appendix Exhibits IV-5 to IV-7 summarize the predicted results for each of these preservation actions. Preservation Strategy #6 (providing a subsidy equal to Section 8 in combination with a 6 percent credit) preserves the most additional units for low-income households. Over the next 15 years, it would save, as is or with the tax credit, 24,000 units more than Preservation Strategy #4 (providing a subsidy equal to Section 8 contracts in combination with the current tax credit). Compared with the base case (no preservation strategy), Preservation Strategy #6 saves 134,000 additional units; in 15 years, it adds 56,000 equivalent units over the no-intervention case.

Exhibit 3-18 shows the 15-year pattern of predicted owner actions. The 6 percent credit combined with an extension of a subsidy equal to Section 8 assistance is most effective in reducing defaults.

Benefit-Cost Analysis of Broad, Programmatic Remedies

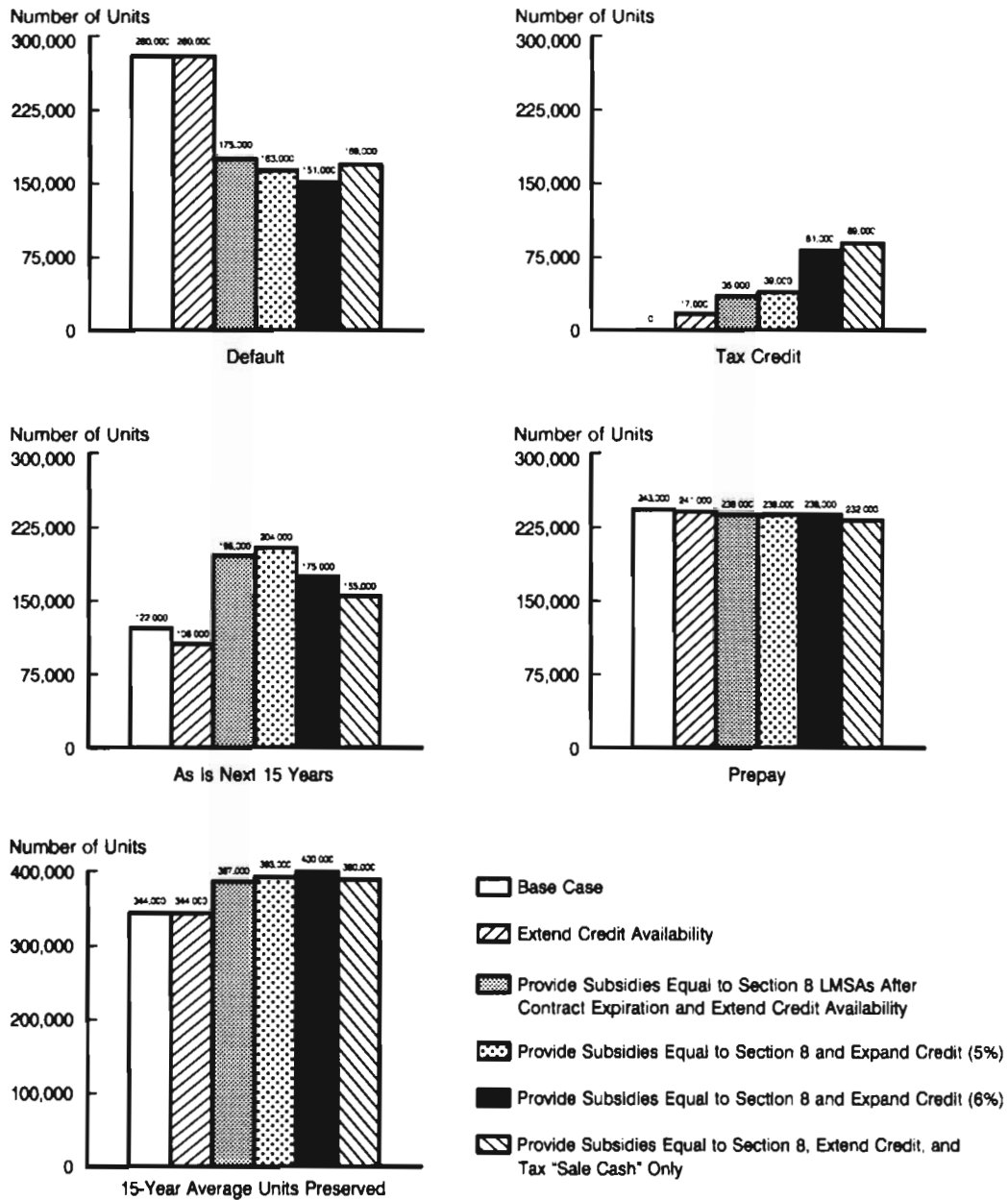
When calculating the costs of broad, programmatic strategies, the Commission tried to include all costs. The Commission tabulated Government costs for each property, tracking all tax collections and subsidies (such as the tax credit) for each property. The Commission counted Section 8 and Section 236 interest subsidy payments as effective costs to the Government while a property operates as low-income housing. When properties stopped operating as low-income housing, the Commission treated the amounts of Section 8 funds and Section 236 interest subsidy funds already committed as offsetting costs to the Government.

Under this analysis, the primary categories of costs to the Government tracked for each property were:

- Tax loss to the Government from annual property operations (taxes collected are negative costs to the Government; taxes foregone because the taxpayer shelters

Exhibit 3-17

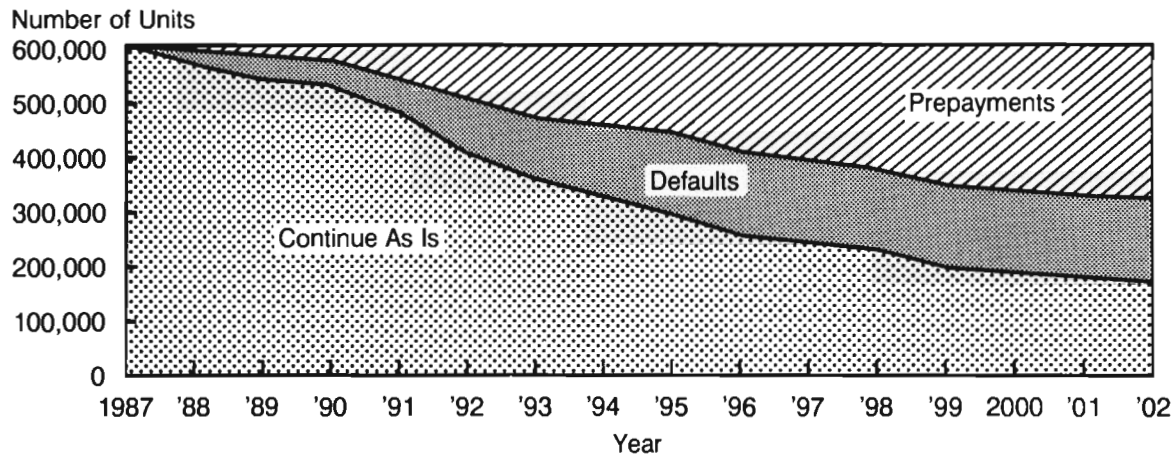
Predicted Actions of Owners Base Case and Variations on Tax Credit



Source: National Low Income Housing Preservation Commission.

Exhibit 3-18

Effects of Providing Subsidies Equal to Section 8 LMSAs After Contract Expiration and Expanded Tax Credit (6%)



Source: National Low Income Housing Preservation Commission.

other income from tax are positive costs to the Government).

- Sales tax due to the Government (properties with a positive capital gains tax due at sale generate Government revenues and are treated as a negative cost).
- Costs to the Government associated with default, estimated at 60 percent of the outstanding mortgage balance.
- Tax credits lost to the Government. These losses reflect the cost of the tax credit allowances for owners electing this form of conversion.
- Section 8 subsidies. These amounts are treated as positive costs while the units receiving subsidy are operated as low-income housing and as a saving (negative cost) for any years when the current Section 8 subsidy contract is not used because the project defaults or converts to market use; new Section 8 subsidies that go beyond current contracts or that cover properties not already receiving Section 8

assistance are regarded as new costs in the year paid.

- Section 236 subsidy. This subsidy is the annual interest-rate subsidy attached to Section 236 properties, which is treated as a positive cost while the property operates as low-income housing and a saving (negative cost) for any years during which a property is not operated as low-income housing. The 221(d)(3) Below Market Interest Rate properties have no on-going interest rate subsidy associated with them; the Government absorbed all of that cost the day the below-market interest loan was issued.

To compare costs to the Government of shouldering each of the broad preservation strategies, the Commission divided net Government costs over the 15 years by the 15-year equivalent of net number of units kept as low-income housing (all relative to no intervention, the base case). Exhibit 3-19 shows these per-unit costs using simple undiscounted sums of net Government costs; Exhibit 3-20 shows results for the

Exhibit 3-19
Units Preserved and Undiscounted Government
Costs by Preservation Action

Preservation Action	15-Year Average Units Preserved (As Is + Tax Credit)	Net 15-Year Average Units Over Base Case	Undiscounted Costs Per 15-Year Average Unit Preserved (Millions of Dollars)
Base Case, No Intervention	344,000	-0-	-0-
Provision of Section 8-Like Subsidies	387,000	43,000	\$ 90,000
\$100/Month Subsidy	493,000	149,000	\$ 76,000
Make Tax Credit Available	344,000	71	\$680,000
Provision of Section 8-Like Subsidies in combination With Tax Credit:			
4 Percent Credit	387,000	43,000	\$ 92,000
5 Percent Credit	393,000	49,000	\$ 86,000
6 Percent Credit	400,000	56,000	\$ 84,000
Tax Only Cash On Sale	390,000	46,000	\$ 96,000

Source: National Low Income Housing Preservation Commission.

discounted present value (discounting at 8.7 percent). Preservation Strategy #2 (provide maximum Section 8 subsidies) both yields more 15-year equivalent units of preserved low-income housing and is the lowest net cost per unit of the broad preservation strategies. The model predicts that it would provide 149,000 more 15-year equivalent units than no action and that the discounted present value of the net costs to the Government would be \$42,000 per unit.⁷

Conclusions on Cost Effectiveness

The best of the broad strategies (#2, provide a subsidy equal to the maximum additional Section 8 subsidy to every property) is inferior to the property-specific strategies. The maximum provision of a Section 8-like subsidy would allow more units to be lost to defaults and prepayments (152,000 units of 15-year equivalents), and it is more costly than the property-specific strategies. Exhibit 3-21 compares the average per-unit costs

of property-specific strategies with those of broader strategies. The roughly comparable cost

***The best of the broad
strategies is inferior to the
property-specific strategies.***

per unit that the Commission developed for curing all defaults is \$24,000 (including already contracted subsidies). For preventing prepayments, the inclusive cost measure to prevent all prepayments is \$35,000 per 15-year equivalent unit preserved for low-income households. No imaginable allowance for expenses of administering the property-specific strategies seems likely to reach the per-unit gap between the best broad strategy and the estimated costs of direct prevention of prepayments and defaults.

⁷ The cost of the various broad strategies can be compared to the property-specific strategies. For example, the \$100-a-month subsidy strategy (2) can be evaluated just in terms of the new funds (\$100 a month) and the on-going Section 236 and Section 8 subsidy costs. The 15-year total costs of the strategy are \$12.6 billion to preserve 149,000 net 15-year average units, or \$84,000 per unit. On a discounted present-value basis, the cost per net units preserved is \$47,000.

Exhibit 3-20
Units Preserved and Undiscounted Government
Costs by Preservation Action

Preservation Action	15-Year Average of Units Preserved (As Is + Tax Credit)	Net 15-Year Average Unit Over Base Case	Discounted Costs Per 15-Year Average Unit Preserved (Millions of Dollars)
Base Case, No Intervention	344,000	-0-	-0-
Provision of Section 8-Like Subsidies	387,000	43,000	\$ 42,000
\$100/Month Subsidy	493,000	149,000	\$ 42,000
Make Tax Credit Available	344,000	71	\$340,000
Provision of Section 8-Like Subsidies in Combination With Tax Credit:			
4 Percent Credit	387,000	43,000	\$ 43,000
5 Percent Credit	393,000	49,000	\$ 40,000
6 Percent Credit	400,000	56,000	\$ 38,000
Tax Only Cash On Sale	390,000	46,000	\$ 45,000

Source: National Low Income Housing Preservation Commission.

No imaginable allowance for expenses of administering the property-specific strategies seems likely to reach the per-unit gap between the best broad strategy and the estimated costs of direct prevention of prepayments and defaults.

Another important comparison is with the alternative of providing tenant-based assistance (Section 8 certificates or vouchers) to eligible households displaced by defaults or prepayments and conversions. The estimated discounted present value costs of tenant-based assistance per 15-year equivalent unit is \$30,000. This amount exceeds

the Commission's estimated cost to cure all defaults (\$24,000), although it is slightly lower than the estimated upper range of costs for preventing all prepayments — \$35,000.⁸

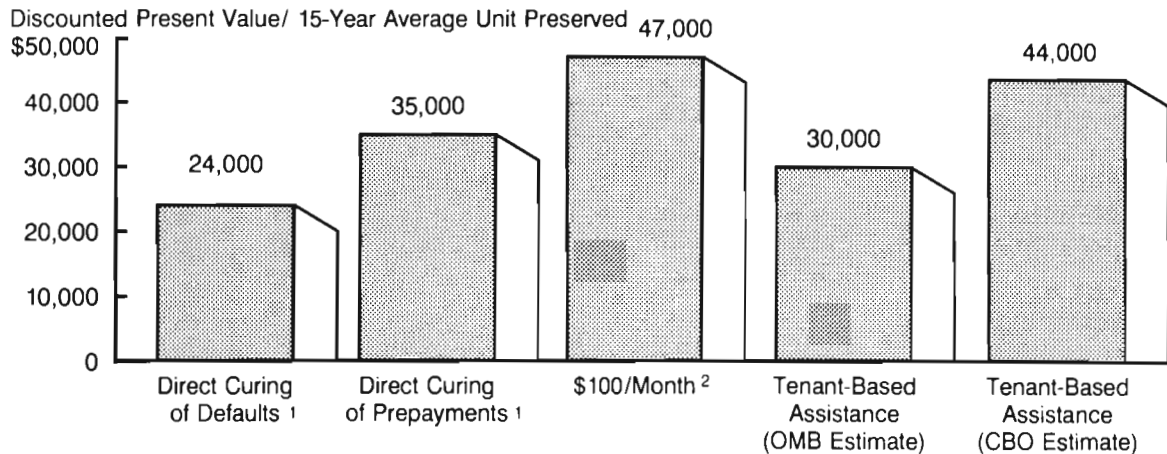
The model results should not be over-interpreted. As a cost reference the Commission used national figures for tenant-based assistance, even though the cost varies according to the location of a particular property. Further, tenant-based assistance may simply be inappropriate in some markets, and the alternatives may involve costs of substantial rehabilitation or new construction. It should also be noted that the Congressional Budget Office's estimate of the national figure for the 15-year cost of a housing voucher is \$44,000, not \$30,000 as computed by OMB. Obviously, the cost comparisons of various preservation strategies are affected by the figure used as a baseline. This Report has used the more conservative estimate.

The longer term results of the model should be viewed with some skepticism. Many things could occur that are not included in the model or reflected in the assumptions used—particularly the

⁸ If the CBO estimated cost of vouchers (\$44,000 per unit) is used as a basis for comparison, however, it is less expensive.

Exhibit 3-21

Comparison of Preservation Costs Property-Specific Actions vs. Broad Strategies



¹ Assumes All Units Preserved from Default and Prepayment (523,000 Units) and Includes Costs of Section 236 and Section 8 Subsidies Previously Granted by the Federal Government.

² Includes On-going Subsidies and \$100/Unit/Month Additional Subsidy. Preserves 303,000 Units of the 523,000 Subject to Default or Prepayment.

Source: National Low Income Housing Preservation Commission.

overall inflation rate of 5 percent, compounding each year.

Finally, the findings of the model about cost-effective options for preservation should not discourage the adoption of related strategies that have policy objectives other than preservation of the current stock of housing for low-income households but would have a positive effect on preservation. For example, if States efficiently target the tax credit to properties that need it, the tax credit becomes an important tool for the property-specific strategies. Also, if the features of the low-income housing tax credit were enriched for the more general goals of provision of low-income housing, the preservation problem would clearly be substantially ameliorated (approximately 55,000 units of 15-year equivalent housing would be preserved), even though the Commission's analysis suggests that the preservation issue alone does not justify such changes.

Tenant Effects

The Commission intended all of the preservation strategies considered to preserve housing

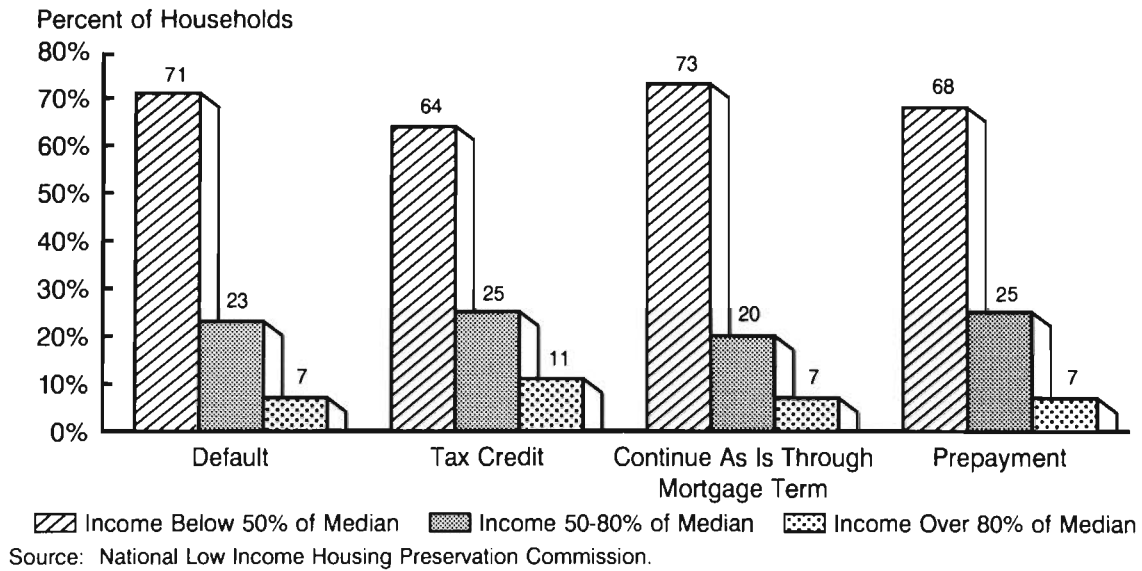
that is affordable and accessible to low-income tenants. Given the fact that more than 90 percent

In all of the categories of owner actions, essentially the same fractions of households affected are very low-income (under 50 percent of median).

of the tenants in the older HUD-insured housing that the Commission studied have incomes under 80 percent of median (70 percent have incomes under 50 percent of median), all of the findings about risk of loss and preservation of units have profound implications for these low-income households.

It is important to know whether low-income tenants would be affected differently depending on the preservation strategy used. As illustrated in Exhibit 3-22 for Preservation Strategy #1, none of the preservation actions affects tenants differentially.

Exhibit 3-22
**Income of Tenants in Subsidized Housing,
 by Actions of Owners**
**Preservation Strategy #1: Provide Subsidies Equal to
 Section 8 LMSAs After Contract Expiration**



In all of the categories of owner actions, essentially the same fractions of households affected are very low-income (under 50 percent of median). Although no data are presented here, the same pattern is true of household sizes and for the other preser-

vation strategies. Low-income households are definitely at risk in the case of prepayments and may be at risk in the case of defaults, depending upon the post-default use of the property.

Findings and Recommendations

The data and calculations in Chapter 3 establish the base on which the Commission arrives at findings and makes recommendations for the preservation of federally assisted low-income housing. In this chapter, the Commission presents its findings on a portion of the low-income housing inventory, tenant income levels, Federal insurance exposure, the threat of default and prepayment, the overall threat to units and tenants, and -- the bottom line -- the costs to government to prevent default and prepayment.

Findings

1. The 645,000-Unit Low-Income Housing Inventory

a. Preservation Analysis Inventory

Based on HUD internal data, the Nation's Section 221(d)(3) and 236 inventory comprises approximately 645,000 units as follows:

	Properties	Units
Section 236	3,603	406,000
Section 221(d)(3) BMIR	845	159,000
Section 221(d)(3)		
Assisted Market Rate	<u>1,034</u>	<u>80,000</u>
Total:	5,482	645,000

b. Section 8 Assistance

Project-based assistance under Section 8 has been provided to the Preservation Analysis Inventory as follows:

	Number of Units with Section 8 Assistance
Section 236	180,000
Section 221(d)(3) BMIR	30,000
Section 221(d)(3)	
Assisted Market Rate	<u>72,000</u>
Total:	282,000

Thus, of the 645,000 units in the Preservation Analysis Inventory, 282,000 -- approximately 44 percent -- receive rental subsidies under Section 8. These units are located in 76 percent of the projects in the Preservation Analysis Inventory.

c. Ownership Composition

The Preservation Analysis Inventory unit holdings fall in the following ownership categories (see Exhibit 4-1 below).

2. Tenant Income Levels

Tenants in the Preservation Analysis Inventory have low or very low incomes.

- 70 percent of households have incomes below 50 percent of median.

Exhibit 4-1

	Non-Profit	For-Profit Not Eligible To Prepay	For-Profit Eligible to Prepay	Total
Section 236	97,400	55,000	253,500	405,900
Section 221(d)(3) BMIR	23,000	41,400	94,400	158,800
Section 221(d)(3) Assisted Market Rate	<u>51,000</u>	<u>9,800</u>	<u>19,500</u>	<u>80,300</u>
Total:	171,400	106,200	367,400	645,000

- 90 percent of households have incomes below 80 percent of median.

3. Federal Insurance

By virtue of its role as insurer, the Federal Government has a significant economic interest in the Preservation Analysis Inventory. Federal insurance issued for Section 236, Section 221(d)(3) BMIR, and Section 221(d)(3) Assisted Market Rate properties has a current balance on outstanding mortgages of \$8.5 billion.

4. Threat of Default

a. Totals

The possibility of default is the most significant threat to the Preservation Analysis Inventory. The model projects that over the next 15 years, total defaults will be as follows:

Years	Number of Defaults Likely
1988-1992	105,000 units
1993-1997	82,000 units
1998-2002	<u>93,000</u> units
Total:	280,000 units

b. By Ownership Category

Although defaults are greatest among non-profit owners, significant losses of units

attributable to defaults in all ownership categories will occur over the next 15 years (see Exhibit 4-2 below).

c. Federally Insured Mortgage Balances for Defaulting Properties

According to HUD, a property that the owner assigns to HUD costs the Federal Government roughly 60 percent of the mortgage balance in operating subsidies, insurance fund losses, and disposition costs.

Further, the Housing and Community Development Act of 1987 requires that subsidized low-income properties returned to HUD as a result of default must maintain their low-income character and be subsidized sufficiently to keep units affordable by low-income tenants. Under current law, therefore, the Federal Government lacks the option of disposing of low-income properties in a manner that would return the highest economic value to the Treasury. Outstanding current mortgage balances total \$3.2 billion for FHA-insured properties that the model predicts will default through the year 2002.

If HUD continued to receive only 40 percent of the value of its insurance payments upon disposition, the cost to the Federal Government from default would total 60 percent of \$3.2 billion -- or \$1.9 billion, distributed across ownership categories as follows: (This amount would be partially offset by taxes paid by for-profit owners when they dispose of their properties. It also includes some of the funds HUD must pay out to

Exhibit 4-2

	Defaulting Projects	Defaulting Units	Total Units in Ownership Category	Percent of Units Defaulting in Ownership Category
Non-profit	1,070	117,000	171,000	68%
For-profit, Not Eligible To Prepay	620	78,000	106,000	74%
For-profit, Eligible to Prepay	<u>880</u>	<u>86,000</u>	<u>368,000</u>	<u>23%</u>
Total:	2,570	280,000*	645,000	43%

* Totals do not add exactly due to rounding.

cover operating deficits in order to maintain the properties prior to final disposition.)

	<u>FHA Payment</u>
Non-Profit	\$770 million
For-Profit Not Eligible To Prepay	\$575 million
For-Profit Eligible to Prepay	<u>\$580 million</u>
Total:	\$1.9 billion

5. Threat of Prepayment

As use restrictions expire, significant loss of units attributable to prepayment will also occur. The model projects that 66 percent of the for-profit owners eligible to prepay will do so. Units affected are as follows:

<u>Years</u>	<u>Units Predicted To Prepay</u>
1988-1992	103,000 units
1993-1997	91,000 units
1998-2002	49,000 units
Total:	243,000 units

6. Overall Threat to Units and Tenants

Over the next 15 years, the model predicts that the combined losses from defaults and prepayment could mount to 523,000 units, or 80 percent of the total. This combined threat builds up as follows:

1988-1992:	208,000 units
1993-1997:	additional 173,000 units
1998-2002:	additional 142,000 units
15-year total:	523,000 units

Properties predicted to default, those predicted to prepay, and those remaining in the subsidized stock currently have equally high percentages of low-income tenants -- 70 percent have incomes less than 50 percent of median income and

more than 90 percent have incomes less than 80 percent of median income.

7. Costs to Prevent Default and Prepayment

The costs to preserve the existing stock of federally subsidized units will be substantial. A full description of the annual cost described in this section is presented at the end of this chapter.

a. Costs to Prevent Defaults

The Preservation Analysis Model projects that, of the total 645,000-unit low-income housing inventory, 280,000 units will default over the next 15 years because of financial difficulties or deterioration.

- (i) To retain all 280,000 units for low-income use from the point of projected default through the end of the 15-year period, would cost \$8.4 billion. These costs are made up of two elements:

- (1) \$4.5 billion in subsidies to cover projected operating cash deficits and repairs.
- (2) \$3.9 billion, the amount of the Federal subsidies already in place for these properties (i.e., Section 236 interest subsidy payments and Section 8 project-based assistance contracts) would be required for the 15-year period if the properties continue for 15 years operation as subsidized housing rather than being allowed to default.

The 15-year total of \$8.4 billion amounts to an average total cost of \$54,000 per unit. Using an 8.7 percent discount rate, the discounted present value per unit is \$24,000.

- (ii) If no preservation actions were taken to cure defaults (an extreme alternative presented only for comparison), and all households displaced were provided housing vouchers, the estimated 15-year total cost to the Federal Government would be roughly \$13 billion. The two cost components are:

- (1) Up to \$2 billion in HUD costs related to defaults to cover foreclosure expenses, transaction costs, and mortgage insurance fund losses, part of which

would be offset by collection of capital gains taxes on the for-profit properties;

- (2) \$11 billion in 15-year vouchers for the tenants in defaulting properties. The \$11 billion for vouchers amounts to an average of \$72,000 per unit or \$30,000 in discounted present value.¹ This amount is greater than the \$24,000 discounted present value of the full \$8.4 billion alternative to cure defaults.

(iii) A third alternative recognizes that curing all 280,000 defaulting units might not be cost effective. If defaults were allowed to take place in the 25,000 units that cost the most to cure, the total cost for 255,000 units over 15 years would be \$8.2 billion. Total costs per unit of the 255,000 would be \$50,000 (or \$22,000 discounted present value). These costs are made up of the following three elements:

- (1) \$3.3 billion in additional subsidies to cover projected operating cash deficits and repairs.
- (2) \$3.3 billion, the amount of the Federal subsidies already in place for these properties (i.e., Section 236 interest subsidy payments and Section 8 project-based assistance contracts) would be required for the 15-year period.
- (3) \$1.7 billion for vouchers or toward other housing for the residents of the 25,000 units allowed to default.

The \$8.2 billion can be compared with the \$8.4 billion cost of the first alternative, which attempts to cure all 280,000 defaults, and the \$11 billion required to give vouchers to all households in all defaulting properties.

b. Costs to Prevent Prepayments

The model projects that over the next 15 years, owners will prepay mortgages covering 243,000 units in order to convert them to market use. This number amounts to an average of 145,000 units over the 15-year period.

- (i) The total 15-year estimated cost of discouraging prepayment for these units for 15 years would be \$10.1 billion. The two components are:

- (1) \$6.5 billion in new subsidies required to match the market value of the property to the owners and to cover projected operating cash deficits in these properties from the point of predicted prepayment through the rest of the 15-year period.

- (2) \$3.6 billion, the amount equal to continuing the Section 236 interest subsidy and the current Section 8 assistance beyond the point when these properties would have been prepaid.

The \$10.1 billion averages \$70,000 per unit or \$35,000 in discounted present value.

- (ii) If no actions were taken to prevent prepayments and tenants in all affected units received a housing voucher, 15-year costs for these vouchers would total \$10 billion, amounting to \$72,000 per unit, or \$30,000 in discounted present value.

- (iii) In some properties, the cost of preventing prepayment will exceed \$30,000. Applying this limit of \$30,000 per unit in new subsidies (in discounted present value), the model predicts that 218,000 units (not the full 243,000) could be kept from prepayment -- a 15-year average of 126,000 units -- at a total cost of \$9.4 billion. This amounts to \$65,000 per unit or \$32,000 in discounted present value. Owners willing to accept less than the full equivalent market value would reduce these costs. As with defaults, the third alternative for prepayments is less costly than the first and second alternatives. The 15-year costs to stem prepayment for 15 years break down as follows:

- (1) \$5 billion in new costs for new subsidies to the owners required to match the market value of the property and to

¹ The \$30,000 voucher figure is based on figures provided by the Office of Management and Budget. Based on higher figures provided by the Congressional Budget Office, the discounted present value of the 15-year vouchers would be \$44,000, and the total cost of providing vouchers for tenants in defaulting properties would be \$16 billion.

cover projected operating cash deficits from the point of predicted prepayment through the rest of the 15-year period.

- (2) \$3.1 billion, an amount equal to maintaining the Section 236 mortgage interest subsidy and Section 8 project-based rental subsidy.
- (3) \$1.3 billion for vouchers for the residents of the 25,000 units allowed to prepay.²

Recommendations

Recommendation #1 Federal Commitment

The existence of 645,000 units of privately owned, federally subsidized housing represents a prior Federal commitment to provide this number of units for occupancy mainly by low-income households. The Federal Government should accept primary responsibility for maintaining that commitment for at least the next 15 years.

Recommendation #2 Cost-Effective Preservation

The Federal Government, in cooperation with State and local governments, should work to preserve these units in good condition and to continue to make them available for low-income households, where that approach is more cost-effective than other means of providing a like number of units for such occupancy.

Recommendation #3 Cost-Effective Alternatives

In high-cost housing communities with tight markets where the most cost-effective course causes a reduction in the existing number of units in this inventory, Federal, State, and local governments should work together to provide for a like number of units available for such occupancy elsewhere in those communities.

Recommendation #4 State and Local Role

State and local governments should participate actively in developing and implementing Preservation Plans covering properties in their jurisdictions. The Commission believes that im-

plementation of preservation programs must be flexible and that this flexibility can best be obtained by active participation of State and local governments. Flexibility is indispensable because:

- *Geography.* The United States is enormously diverse. Economic strength varies by region and locality. Although all regions share problems of poverty and homelessness, some have stronger economies than others. Few would deny that most parts of California, Massachusetts, and New York have far lower vacancy rates than most parts of Texas, Oklahoma, and Arkansas. The sample of properties analyzed with the model was too small to permit predictions about specific cities in which defaults or prepayments would occur, but it can be stated that defaults and prepayments are directly related to conditions existing in the local housing market as well as to a specific property's physical and financial condition.
- *Time.* The Commission addresses problems that will unfold over time. The effect of defaults or prepayments on communities, States, the Federal Government, and tenants may be quite different in 1999 from today, and judgments with respect to preservation may correspondingly differ.
- *Economic Condition.* Real estate markets will change. Economic conditions will inevitably vary over time and by region. The prevailing interest or inflation rate will probably determine the likelihood of prepayment in a given year more than will any other factor.
- *Changes in Programs.* Over time, State and local governments will develop and revise their own housing programs, thereby necessitating changes in Federal responses.

Each State and local government should designate an agency to act as its liaison with HUD to negotiate and implement Preservation Plans and Proposals. The State Agency, working with local agencies within its jurisdiction,

² If the CBO cost estimate for vouchers were used instead of OMB's, the cost would rise to \$1.9 billion.

should identify properties at risk of loss and develop Preservation Proposals to maintain the projects as low- and moderate-income housing. State Agencies can enlist full State government support (e.g., real estate tax abatement) and private funds or services, which are so necessary to the successful implementation of a preservation strategy.

Recommendation #5

Housing Preservation Plans and Proposals

Each State Agency should promptly prepare a Housing Preservation Plan that identifies and describes federally assisted units that are likely to lose their low-income housing character. The Plan should include a property-specific Preservation Proposal for each property threatened with loss from default or prepayment.

The Preservation Plan should reflect how the State Agency, working with local governments, proposes to maintain the same number of units for low-income households as currently exists in its jurisdiction. The Plan should include specific Proposals for dealing with projects threatened with loss. It should identify financial contributions that will be made by private, non-profit, State, and local entities, and propose such HUD preservation assistance as the State Agency deems necessary to achieve the goal of preservation. HUD and the State and local agencies should formulate preservation strategies based on this information.

Recommendation #6

Low-Income Housing Preservation Office

HUD should create a special Low-Income Housing Preservation Office and staff it with financial and legal experts to assist HUD field offices.

Recommendation #7

Annual Owner Statement

HUD should obtain from each owner of a Section 236 or a 221(d)(3) housing project an annual statement as to whether the owner thinks the project is likely to be disposed of through default or prepayment of its mortgage at any time within 24 months from the required date for submission of the statement. HUD should send copies of such statements to the appropriate State Agency.

Recommendation #8

Preservation Assistance by HUD

HUD should evaluate the State Agency's Preservation Plan and Proposals, and should provide such part of the requested preservation assistance as it determines to be necessary and cost effective. Possible HUD responses could include:

- Permit property owners to raise all rentals to the maximum Section 8 fair market rent levels.
- Provide Section 8 assistance for up to 100 percent of the property's tenants.
- Amend regulatory agreements with owners to activate preservation incentives offered by the Housing and Community Development Act of 198.
- Offer preservation grants or loans in amounts needed to make the Preservation Proposal viable.

HUD should establish and publish guidelines for use by State and local governments in determining what Federal resources are available and how costs are to be shared.

The aim of a Preservation Proposal is to ensure the continued low-income character of a project. Thus, where a Proposal enables a for-profit owner to avoid transferring the property and thus defer the capital gains tax on sale, the Proposal should impute to the owner benefits from this deferral in calculating overall benefits.

Conversely, the Proposal may include transfer from for-profit owners to entities such as a State or local authority or a non-profit that would guarantee continued low-income occupancy. In such a case, the Proposal might include grants to the owners to compensate them partially for the capital gains taxes for which they would become liable as a result of the transfer. Preservation costs in this Report are net of capital gains.

Recommendation #9

Tenant Rents

Tenant rents should not be increased to more than 30 percent of tenant income. Data on the Preservation Analysis Sample document that low-income and very low-income tenants occupy the properties in the Preservation Analysis Inventory.

Recommendation #10

Studies of Additional Housing Programs

HUD and the Department of Agriculture's Farmer's Home Administration should undertake and finance analytical studies of the federally assisted, privately owned housing stock not considered in this Report, principally the properties financed through the Farmers Home Section 515 Program and the Section 8 New Construction and Substantial Rehabilitation Programs. HUD should continue to monitor the 300-property in-depth Preservation Sample as a reference point for measuring the extent of potential loss and the role of preservation actions.

Recommendation #11

Cost of Preservation Assistance

The Commission believes that units needed in the locality and shown to be cost effective should be preserved. The cost of preserving for 15 years 473,000 of the 523,000 units estimated to be in danger of loss, and protecting the 50,000 displaced households, would be \$11.3 billion in new funding plus \$6.4 billion to continue subsidies previously granted by the Federal Government to these properties, for a 15-year total cost of \$17.7 billion.³ The \$11.3 billion in *new funding* would be composed of \$3.3 billion for defaults, \$5.0 billion for prepayments, and \$3.0 billion to provide for long-term vouchers or other housing for the 50,000 households in properties not preserved from default or prepayment.

³ It would cost an additional \$0.9 billion, including subsidies already committed to the properties, to preserve all of the 523,000 units at risk of loss.

**Cost Elements for Remedying Defaults and Preventing Prepayments
For Properties with New Funds Requirement Less Than \$30,000 Per Unit
in Discounted Present Value**

**Average Annual Costs in Period
(Millions of Dollars)**

	1988-1992	1993-1997	1998-2002	15-Year Total ¹
Cost Elements:				(billions)
New Funding to Remedy Defaults	\$ 50	\$ 215	\$ 390	\$3.3
Voucher Payments for Units in Properties w/ Default not Remedied	75	115	145	1.7
New Funding to Prevent Prepayments	275	370	355	5.0
Voucher Payments for Units in Properties w/ Prepayment Not Prevented	30	100	130	1.3
Total New Funding ¹	430	800	1,020	11.3
To Continue Section 236 and Section 8 Subsidies Previously Granted by the Federal Government				
In Properties w/ Defaults Remedied	60	220	375	3.3
In Properties w/ Prepayments Prevented	50	235	340	3.1
Total Continuing ¹ Subsidies	110	455	715	6.4
Grand Total, All Costs ¹	\$540	\$1,255	\$1,735	\$17.7

¹ Totals do not add exactly due to rounding.

Source: National Low Income Housing Preservation Commission.

Glossary of Terms

BMIR:

See Section 221(d)(3) Below Market Interest Rate.

Excess income account:

For Section 236 properties only, this account receives monthly income in excess of basic rent (after adjustments); funds accumulated in this account are used to finance the Flexible Subsidy Program and are not available to the owners of properties.

FHA:

Federal Housing Administration.

Flexible Subsidy Program:

Enacted in 1978, this program provides a one-time infusion of funds to take care of the physical and financial needs of "troubled properties" through cash grants and loans on favorable terms to both Section 221(d)(3) and Section 236 properties. In return for the Flexible Subsidy funds, owners must extend their rent control agreements, forgoing their prepayment option, to the end of their 40-year mortgage term. Since 1983, Flexible Subsidies have been financed exclusively out of funds collected from Section 236 tenants paying more than the basic rent, although use of funds is not limited to Section 236 properties.

FMR:

Fair market rent.

HUD:

U.S. Department of Housing and Urban Development.

Income:

Passive income: Income generated from a passive activity. A passive activity involves: (1) the conduct of any trade or business in which the taxpayer does not materially participate; (2) to the extent

provided in the regulations, the conduct of an activity for profit in which the taxpayer does not materially participate in the activity; or (3) any rental activity regardless of whether the taxpayer materially participates in the activity. Material participation exists when a taxpayer is involved in the operations of an activity on a regular, continuous, and substantial basis.

Phantom income: Income generated by a partnership in excess of the amount of cash distributions actually received. Examples include rental income used to pay mortgage principal, or net income in excess of allowable dividends that is required to be placed in a reserve account. Also see Residual Receipt Account.

Low income: Generally used to refer to families with incomes no greater than 80 percent of the area's median, adjusted for family size, or sometimes those in the 50 to 80 percent range.

Moderate income: Generally refers to families with incomes between 80 and 95 percent of the area's median.

Very low income: Generally used to refer to families with incomes no greater than 50 percent of the area's median, adjusted for family size.

Loan Management Set Aside (LMSA):

Since 1976, this form of rent supplement has been available through the Section 8 Program to both Section 221(d)(3) and Section 236 properties. For some properties, LMSAs replaced 40-year rent supplements or Rental Assistance Payments. This exchange was advantageous to owners because it shortened the length-of-use

restrictions and because Section 8 provides a budgetary cushion to cover inflation in the operating costs, allowing owners to improve their cash flow to financially troubled properties. Like the other rental assistance programs, Section 8 aid limits tenants' rent payments to 30 percent of adjusted income. The term of Section 8 contracts is 15 years. Prior to 1983, owners were permitted to cancel their contracts every 5 years. Since 1983, this "opt out" provision is no longer offered to owners. With LMSA, rents on projects older than 6 years are renegotiated. The newly established rent generally may not exceed the Section 8 Existing fair market rent (FMR) for the area.

Property Disposition Program:

Because low-income properties built with Federal assistance all carry FHA mortgage insurance, owners who have been unable to maintain the financial viability of their properties through supplemental assistance may default on their mortgages, leading to insurance claims against HUD. The process whereby lenders notify HUD that an owner intends to default on a mortgage, and before HUD actually pays the claim and assumes the mortgage, is usually complex and drawn out and involves negotiations to try to keep the original owner in place as long as possible and to keep the property serving low-income tenants. The Housing and Community Development Act of 1987 required that property acquired by HUD through foreclosure and eventually resold — must carry with it a commitment by the new owner to maintain the property as low-income housing. HUD must also provide enough subsidy to make this use as low-income housing economically possible for the new owner.

Rent:

Basic rent: The minimum rent charged for a unit in Sections 221(d)(3) and 236 properties. Calculated by determining the operating expenses, allowed returns, and debt service at 1 or 3 percent interest. Tenants pay the basic rent or 30 percent of their income (but never more than "market" rent), whichever is greater. For very low-income tenants not receiving additional rent subsidies, such as rent supplement payments or Section 8, this can mean a rent burden much higher than 30 percent of income. For higher income

tenants, the rent payment is proportionate to their income but not necessarily as much as the unit would command if rents were totally uncontrolled.

FHA rent: The rent calculated to accommodate debt service at a below-market interest rate, operating costs, and, for limited-dividend sponsors, a reasonable rate of return.

Contract rent: The rent an owner actually charges for a unit occupied by a tenant receiving Section 8 assistance. The contract rent can be less than the applicable FMR, but may not exceed it for a unit of a given size and type.

Market rent: In the Section 221(d)(3) and 236 Programs, the maximum rent that can be charged based on a calculation of operating expenses, allowable returns, and debt service at market rate. This rent is identical to basic rent, except that it includes an allowance to cover the mortgage insurance premium, and the component meant to amortize the unit's mortgage is calculated at a level sufficient to pay off the loan at the full unsubsidized interest rate at which it was written. Any amounts collected by landlords over the basic rents revert to HUD. This "market rent" is not the same as the usual use of the term to describe the going economic rent for similar apartments in a market area. The Section 236 "market rent" may be higher or lower than the true market rent, and may also be different from the so-called fair market rent (FMR) or "allowable rent" that HUD permits under the Section 8 Existing Housing Program. See also Section 236 market rent.

Rent Supplement and Rental Assistance Payment Programs:

Enacted in 1965, these programs provided subsidies to reduce rent burdens of low-income tenants in Section 221(d)(3) and 236 properties to 30 percent of tenant income. The subsidies made up the difference between the basic rent and what low-income tenants could afford to pay for rent at 30 percent of their income. Up to 100 percent of the tenants in Section 221(d)(3) properties and 40

percent (with the HUD Secretary's approval) of the tenants in Section 236 properties could be assisted through rent supplements. Without such subsidies, rents in the properties were not affordable to many tenants, particularly those with incomes below 50 percent of median. Payments were available for a maximum of 40 years (or for the remaining life of the mortgage), but starting in 1976 many were replaced by Loan Management Set Asides.

Residual receipt account:

An account established by the mortgagee on behalf of an owner of a Section 221(d)(3) or 236 property. This account, which may bear interest, receives any money available at the end of the fiscal year that is in excess of the allowable 6 percent dividend. Money cannot be withdrawn from the account without HUD approval, but is available to the owner when the mortgage is repaid.

Section 8 Existing Housing Program:

A tenant-based subsidy program that makes up the difference between what a tenant can afford to pay for rent at 30 percent of adjusted income and the rent being charged for a modest, standard apartment. The subsidy is paid to the owner on behalf of the tenant. Tenants are free to occupy any unit that meets acceptable standards of repair (Housing Quality Standards) and that rents at or below an established maximum rent level (existing fair market rent). Unlike the Section 8 Substantial Rehabilitation and New Construction Programs, tenants receiving Section 8 Existing assistance are free to move and take their assistance with them.

Section 8 fair market rents (FMR):

Rent annually calculated by HUD and used to establish maximum rents that may be charged for Section 8 properties. The rents represent the 45th percentile of rents paid by renters that have moved into a standard existing non-subsidized dwelling unit during the past 2 years, adjusted for size, type, and the particular housing market. The FMR for existing housing is adjusted upward to reflect accurately the higher rents for rehabilitated and newly constructed units.

Section 8 Rehabilitation and New Construction Programs:

Housing programs implemented under Section 8 of the Housing Act of 1974. Under these programs, private developers own and construct or rehabilitate housing that they then rent to lower income tenants. The maximum rents charged by

owners to tenants are restricted. The difference between 30 percent of a tenant's adjusted income and the rent being charged for the unit is paid to the owner by the Government. Section 8 rental payments for substantial rehabilitation and new construction are made to the owner for 20 to 40 years, depending upon the precise terms of the contract, and for 15 years in the case of moderate rehabilitation. The subsidies are property-based--a tenant who moves from an assisted building no longer receives assistance.

Section 221(d)(3) Below Market Interest Rate (BMIR):

Enacted in 1961 and continued through 1968, this program provided an up-front subsidy effectively reducing interest rates on privately written FHA mortgages to 3 percent. In return, rents paid to the limited dividend and non-profit owners were controlled by the FHA. New tenants generally could not have an income exceeding 95 percent of median. Tenants paid the established FHA rent or, if their income exceeded 110 percent of the median for the area, an amount equal to 120 percent of the FHA rent. Returns on equity for limited dividend owners were limited to 6 percent, with any excess going into a special "residual receipts account."

Section 236 Program:

Active between 1968 and 1973, although some final endorsement dates (start of mortgage loan) were as late as 1980, this program provided subsidies to reduce mortgage interest rates to 1 percent. In exchange for the favorable interest rates, owners were required to keep rents low and to rent to tenants with incomes at 80 percent of the median or below. Tenants paid a "basic rent" or 30 percent of income (up to an established market rent), whichever was higher. Very low-income tenants paying more than 30 percent of their income for the basic rent were assisted through rent supplements. Limited-dividend owners were limited to 6 percent return on equity. Any excess income derived from relatively higher income tenants paying more than the basic rent was returned to an "excess income account."

Transfer of physical assets (TPA):

Primarily between 1982 and 1984, many Section 221(d)(3) and 236 properties underwent a transfer of some or all of their assets from the original owner to a new owner through a process

known as a "transfer of physical assets." The transaction was primarily intended, without the infusion of Federal funds, to provide financially troubled projects with needed resources, usually through sale to an entity -- often profit-making -- with greater financial strength. The TPA needed HUD's approval. In return for permitting a new owner to assume the assets, liabilities, and obliga-

tions of the property and also the tax benefits of re-starting the depreciable base for tax purposes, HUD required that the new owner complete all deferred maintenance and needed capital improvements and eliminate any outstanding financial delinquencies. Tax changes in 1984 significantly reduced the use of this mechanism by deflating its tax value to new owners.

Analysis of the Low-Income Housing Portfolio Of the National Corporation for Housing Partnerships

From its portfolio of approximately 500 properties, the National Corporation for Housing Partnerships (NCHP) selected 228 properties established under the same sections of the Housing Act as those in the Preservation Analysis Inventory (Section 236, Section 221(d)(3) and Section 221(d)(3) assisted). Data parallel to those obtained in the Preservation Analysis Sample were collected on these NCHP properties. These NCHP properties provide a point of reference for comparison with the results obtained in the random sample of 300 properties in the Preservation Analysis Sample. For the NCHP properties, NCHP provided its own estimates of local market values of each property (rather than using local experts as did the Preservation Analysis Sample); NCHP also estimated repairs needed and operating cash available for its properties, whereas the U.S. Department of Housing and Urban Development (HUD) provided amounts for the Preservation Analysis Sample.

The NCHP properties were analyzed using the Preservation Analysis Model to estimate the appropriate economic choice in each instance. Appendix Exhibit II-1 provides the results of this analysis along with those for the base case analysis for the Preservation Analysis Sample. The most direct comparison is for properties in Class 3, for-profit owners who are eligible to prepay. In this class, the model forecasts for the NCHP properties:

- Relatively fewer defaults (15 percent compared with 23 percent in the base case for the Preservation Analysis Sample);
 - Some use of the low-income housing tax credit (4 percent as contrasted with none in the base case);
 - Relatively more properties operating as subsidized throughout the next 15 years (23 percent compared with 11 percent in the base case); and
 - Relatively fewer properties prepaying (58 percent compared with 66 percent in the base case).
- The NCHP staff assessment of these results is that, while the forecasted patterns do not represent a prediction of NCHP actions on specific properties, the results are plausible in comparison with the base case sample drawn from all such properties because:
- NCHP has kept up with repairs and maintenance of its properties more than the average owner, and it has maintained an above average replacement reserve posture to cover future capital expenditures. Thus, NCHP is in a better position to stay with the property or take advantage of the tax credit and less likely to face such operating losses as to trigger default.
 - NCHP properties were among the "tougher" projects undertaken under Sections 221(d)(3) and 236 of the Housing Acts and are less likely to be located in areas of high market value.
 - Although a number of factors are at work, the high incidence of Section 8 assistance in the NCHP sample (90 percent of the properties had some assistance, compared with 76 percent of the Preservation Analysis Sample) may be the primary factor in retaining more properties as subsidized throughout the next 15 years.

Exhibit II-1

**Predicted Effects Actions
Of Owners During Next 15 Years**

	<u>Base Case</u>			<u>NCHP: Properties</u>		
	Properties	Units	%	Properties	Units	%
Not-For-Profit--Not Eligible to Prepay						
Default	1,067	116,978	68%	n/a	n/a	n/a
Tax Credit	0	0	0	n/a	n/a	n/a
As Is Through Next 15 Years	356	54,443	32	n/a	n/a	n/a
Subtotal	1,423	171,421	100%	n/a	n/a	n/a
For-Profit w/o Sale Option--Not Eligible to Prepay						
Default	619	77,888	73%	8	1,589	70%
Tax Credit	0	0	0	0	0	0
As Is Through Next 15 Years	198	28,233	27	4	673	30
Subtotal	817	106,121	100%	12	2,262	100%
For-Profit w/ Sale Option --Eligible to Prepay						
Default	882	85,621	23%	30	4,727	15%
Tax Credit	0	0	0	8	1,235	4
As Is Through Next 15 Years	333	39,314	11	54	7,183	23
Market Rent	1,763	191,236	52	124	18,107	58
Sale	263	51,206	14	-	-	-
Subtotal	3,241	367,467	100%	216	31,252	100%
All Types of Projects Combined						
Default	2,568	280,487	-	38	6,316	-
Tax Credit	0	0	-	8	1,235	-
As Is Through Next 15 Years	887	121,990	-	58	7,856	-
Market Rent	1,763	191,326	-	124	18,107	-
Sale	263	51,206	-	0	0	-
Subtotal--Preserved (Tax Credit + As Is Through Next 15 Years)	887	121,990	19%	66	9,091	27%
Subtotal--Lost (Default + Market Conversion)	4,594	523,019	81%	162	24,423	73%
Total	5,481	645,009	100%	228	33,514	100%

Note: Totals may differ due to the rounding of weighted sums.

Source: National Low Income Housing Preservation Commission Preservation Model Analysis of 300 HUD-insured Properties and National Corporation for Housing Partnerships Parallel Database of 228 Properties.

- In the model, many of the ultimate choices predicted were those of the second trust note holders because their balloon payment could not be met in the fifteenth year of the note. Sixty-five percent (149 of 228) of the NCHP properties had second notes compared with 38 percent in the Preservation Analysis Sample. The model indicates that, in most of these cases (140 of 149), the second note holders make the controlling decision.

Managers of the 169 properties in the NCHP sample of properties also provided income distributions of the tenants in their properties. The income levels of tenants in the NCHP properties were consistently lower than those in the Preservation Analysis Sample, with 87 percent having income under 50 percent of median income, compared with 70 percent in the Preservation Analysis Sample, as

shown in Appendix Exhibit II-2. This pattern persists through the income distributions of tenants within family and elderly properties (Appendix Exhibit II-3), and as they relate to predicted owner actions (Appendix Exhibit II-4). In all categories, very low-income households predominate in the NCHP properties.

In general, the analysis of NCHP properties tends to support the overall findings of the Preservation Analysis Sample, thus lending credibility to the Commission's database. This conclusion constitutes an important step in the complex process of on-going analysis and debate on the substantial national policy issues that the Commission addresses, because the database can be the foundation for testing the effects of various intervention proposals of diverse constituencies.

Exhibit II-2

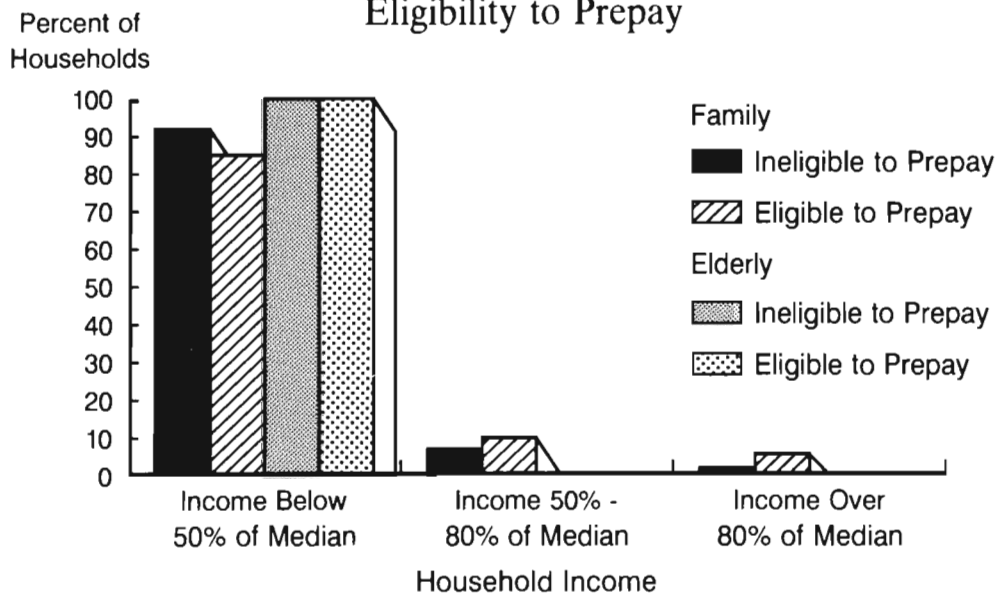
Tenant Income Distributions In NCHP Properties

	Percentage in Base Case Preservation Analysis Sample	Percentage in NCHP Sample
Income less than 50% of median	70%	87%
Income between 50% And 80% of median	23%	10%
Income more than 80% Of median	7%	2%

Source: National Low Income Housing Preservation Commission.

Exhibit II-3

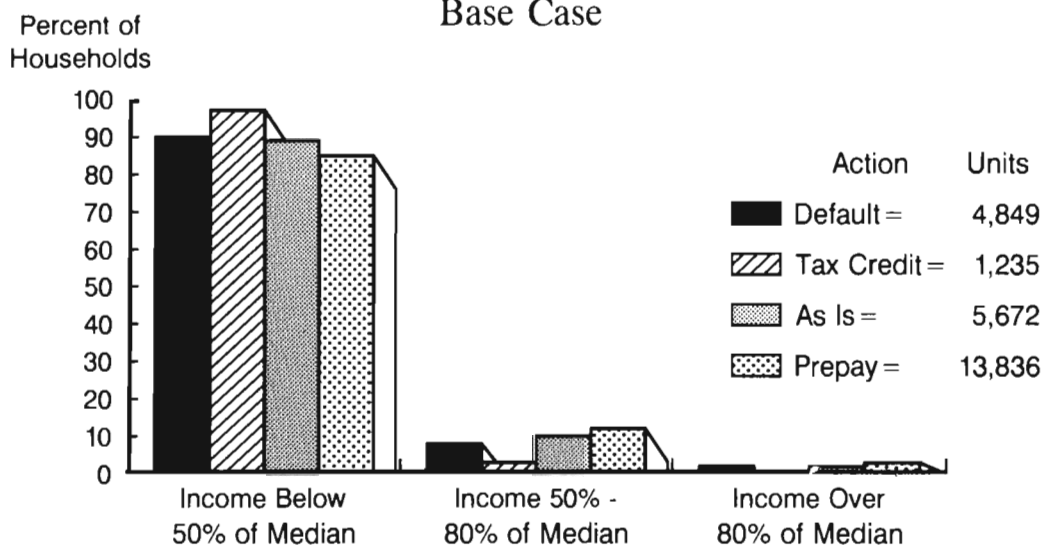
NCHP Sample Income of Tenants by Type of Property and Eligibility to Prepay



Source: National Low Income Housing Preservation Commission.

Exhibit II-4

NCHP Sample Income of Tenants by Likely Action Base Case



Source: National Low Income Housing Preservation Commission.

Technical Description of the Preservation Analysis Model

Objectives of the Model

The fundamental purpose of the Preservation Analysis Model is to make an estimate of the character and magnitude of the preservation problem. It uses a strictly economic/financial analysis to answer the questions:

- How many properties are likely to default; that is, have the owners not just fall behind in mortgage payments but resign from the project?
- How many properties are likely to continue throughout the 40-year term of the mortgage as assisted housing?
- How many properties are likely to use the low-income housing tax credit?
- How many properties are likely to prepay the mortgage loan and convert to a market use when regulatory agreements permit this option?
- What is the likely timing of these actions, in what year?
- How much money might be required to alter these decisions so as to retain as assisted housing those that would default or convert?

The Preservation Analysis Model is intended first to model the consequences of no intervention, that is, allowing current rules as to

subsidies and tax consequences, investment environment, and market conditions to determine owners' decisions about properties. Thus, the initial objective of the model is to provide an empirical basis for judging the likelihood of various owner decisions. The model also provides a dollar estimate of the value to for-profit owners for the optimal conversion to market. With such measures, the model can then assess the possible costs of intervention to prevent conversions to market operation and can measure the workability of various intervention strategies.

The model uses as much available data as possible about each of a sample of 300 individual properties and models the financial characteristics of each project in its market environment. Local market data were obtained for each of the 300 properties. U.S. Department of Housing and Urban Development (HUD) data were used for financial and operating data. For for-profit owners the model estimates the most likely decisions of the owners as to how long it would be economically feasible to operate the project as assisted housing or the optimal point at which to default, and, when permitted under regulatory agreement, whether it would be to the owners' economic advantage to convert to a market option. The options include market rent, condominium conversion, or conversion to non-residential use. The simplifying assumption made throughout for for-profit owners is that the owner will elect whichever option is worth the most (or costs the least) in terms of present value of the stream of future after tax returns through the point of sale. Non-profits are assumed to operate the property through the term of the mortgage unless operating cash deficits mount up; then the feasibility of a tax credit conversion is tried, to avoid default.

The model is also intended to provide a dollar estimate of the value of each of these options for the for-profit owners. Using these dollar estimates in those instances in which the owners would elect a market conversion provides a measure as to the dollar size of the intervention strategy or strategies that would have to be used to compete with or mitigate the market alternative of the owners. With such estimates of likely use decisions, timing of these use decisions, and measures of conversion values to owners, the economic value of various intervention strategies can then be tested against the conversion value. This testing will assess the extent to which intervention creates enough value to the owners to make them indifferent, in an economic sense, between their market alternatives and continuing the project as assisted--or transferring it to another owner committed to operation as assisted housing. Although this description uses the term "owners," the model treats the ownership of a given property as a single entity. The model does not attempt to disaggregate the varied and often conflicting interests, for example, that exist in reality between the general partner and the limited partners in a limited partnership. Neither does the model take into account other very real influences on an owner's decision. It does not reflect whatever altruistic motives the owner may have or the role that tenant opposition or local political pressures might play in use or conversion decisions.

General Design of the Model

The model computes project operations over a period of years and estimates the present value to the owner of the stream of annual after tax returns plus the consequences of sale for several alternative use decisions of the owners. The model then selects the highest discounted present value (the presumed choice of the owners), the type of disposition, and the optimal year of disposition. The choices open to an owner depend upon the nature of the regulatory agreement, contracts with HUD, and market conditions.

For the model, three classes of properties were defined:

Class 1 Properties held by non-profit sponsors obligated to maintain them

as assisted housing throughout the 40-year life of the HUD-insured mortgage;

Class 2 Properties held by for-profit sponsors obligated to maintain them as assisted housing throughout the 40-year term of the HUD-insured mortgage because they had a non-profit sponsor originally, have a current Rent Supplement contract in force, or have obtained the use of Flexible Subsidy funds from HUD for project repairs; and

Class 3 Properties held by for-profit sponsors whose restriction to maintain the project as assisted expires after 20 years into the mortgage term, a point referred to in the model as the LOCKIN year.

The choices open to these owners obviously vary in terms of when various options might be exercised. The model tests for all the available options as to continued use, default (in the sense of resigning from the property and turning in the deed, not simply getting behind in mortgage payments), conversion to a low-income housing tax credit property, or conversion to market.

For properties with property-based Section 8 rental assistance contracts, a particularly critical point comes at expiration of these contracts (called the EXPIRE year). These contracts cover the difference between 30 percent of tenant incomes (for eligible tenants) and the rent level based on whatever interest subsidy there is on the property mortgage. At the expiration of the Section 8 contracts the model assumes the cash flow of the property to be reduced by the amount of the subsidy contract.

For Class 1 properties, those held by non-profit owners, the basic financial analysis of these properties is the examination of cash flow and reserves against estimated repairs needed, as discussed in the section on model operation. Properties are assumed to run through the end of the mortgage term unless cumulative operating deficits would lead to a default, in which case the model checks for the possibility of a conversion to a tax credit property to avoid default.

Class 2 properties may continue for a period of years and then default, may opt to sell the

project as a low-income housing tax credit project, or may operate throughout the mortgage term, at which point they have the option of conversion to market. The model chooses the most economically attractive option.

Class 3 properties may operate through the LOCKIN year as assisted housing or default or convert to a low-income housing tax credit property at any point prior to LOCKIN. They may, after the LOCKIN year, continue to operate as assisted housing for a period, or, in any year, default, do a low-income housing tax credit conversion, or convert to a market use of the property.

Appendix Exhibit III-1 provides a schematic diagram of the basic operations of the model. It shows in ovals or rounded boxes the input sources for the model, traces the sequence of computations, and indicates the categories of output generated.

The model accepts as input: HUD project data, market value data, equity and second trust note amounts, and environment variables (inflation, discount, capitalization, interest rates, fix-up costs, and options to use for testing interventions).

These values then allow properties to be classified under the three categories described above and provide the information necessary to compute mortgage amortization, basis for tax purposes, depreciation, annual cash flow and tax benefits or detriments, and the cash and tax consequences of default or market conversion.

Class 1 (non-profit) properties are computed for AS IS operation, that is, as assisted housing, testing each year for the possibility of default. If the property accumulates such operating deficits that a default is predicted, the model first checks to see if a conversion to a low-income housing tax credit property would be viable. Otherwise, the project runs on through the life of the mortgage. For non-profit properties, default is deemed to occur if the property accumulates as much as \$5,000 per dwelling unit in cash operating deficits.

For the years in which it is currently available (through 1989), the low-income housing tax credit is tested as a preferable alternative to default. This credit, made available by the Tax Reform Act of 1986, provides for a 4 percent annual tax credit for 10 years for properties rented to low income households. The model assumes each project to have a tenancy qualifying it for the credit whether that reflects the current tenant composition or not. No use is made of the optional 9 percent credit for new construction or substantial

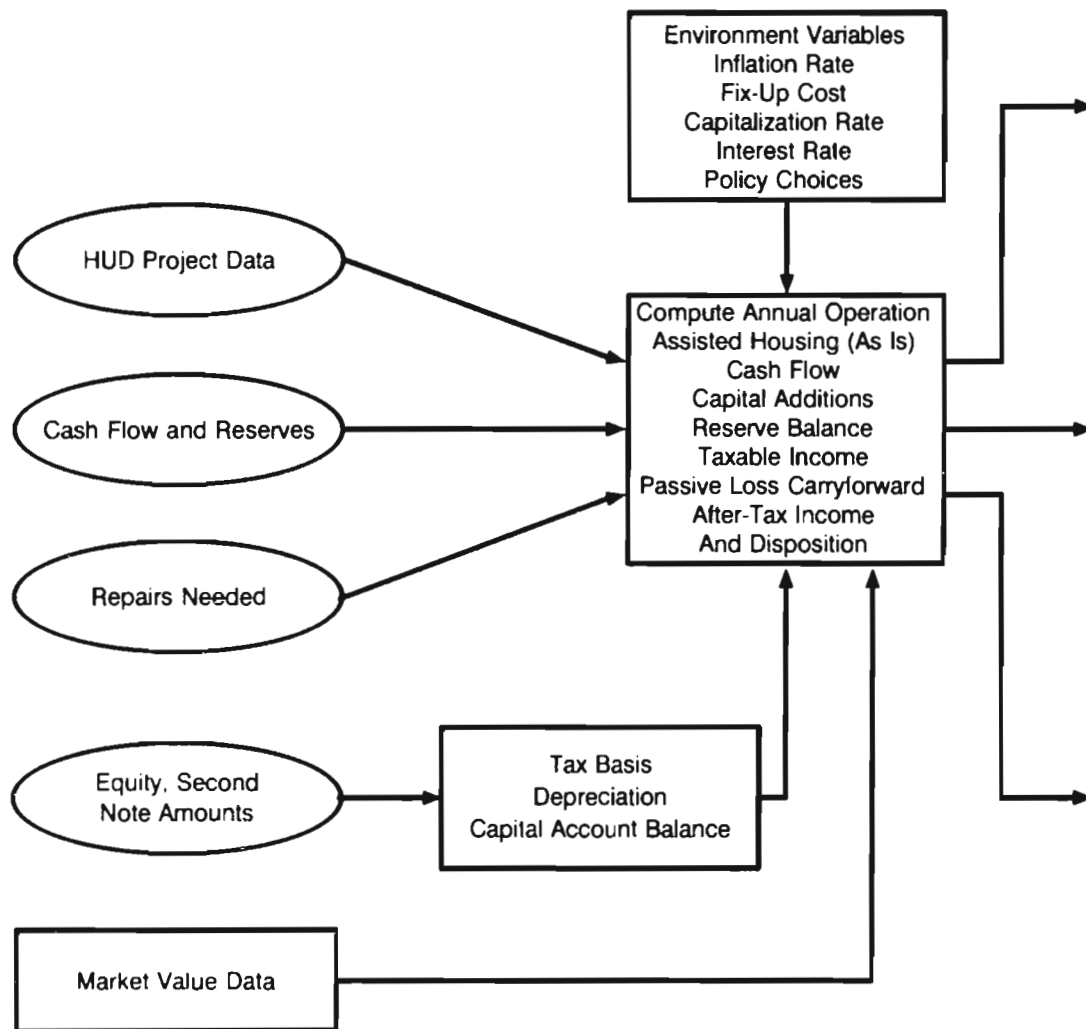
rehabilitation. The model performs several legal and financial tests, as described later, and checks to see if the sale of the project to a new owner using the credit provides a positive net contribution from the new owners over and above funds required for development fees and transaction costs. If so, the financial consequence of a sale to another owner of the property as low-income housing is tested by computing the gain to the seller for each possible such year of tax credit conversion.

Class 2 (ineligible to prepay) properties are computed for AS IS operation, that is, as assisted housing, through the remaining mortgage term, testing each year for the consequences of default or conversion to a low-income housing tax credit project and for the consequences of market conversion at the end of the mortgage term. For a project indicating default as the optimal choice, the model computes the actual year of predicted default as the point when the cumulative cash operating deficit has reached \$5,000 per unit, when the current year of operating cash deficit equals 20 percent of the gains tax to be paid upon default, or when the cumulative operating cash deficit reaches 40 percent of the gains tax to be paid upon default.

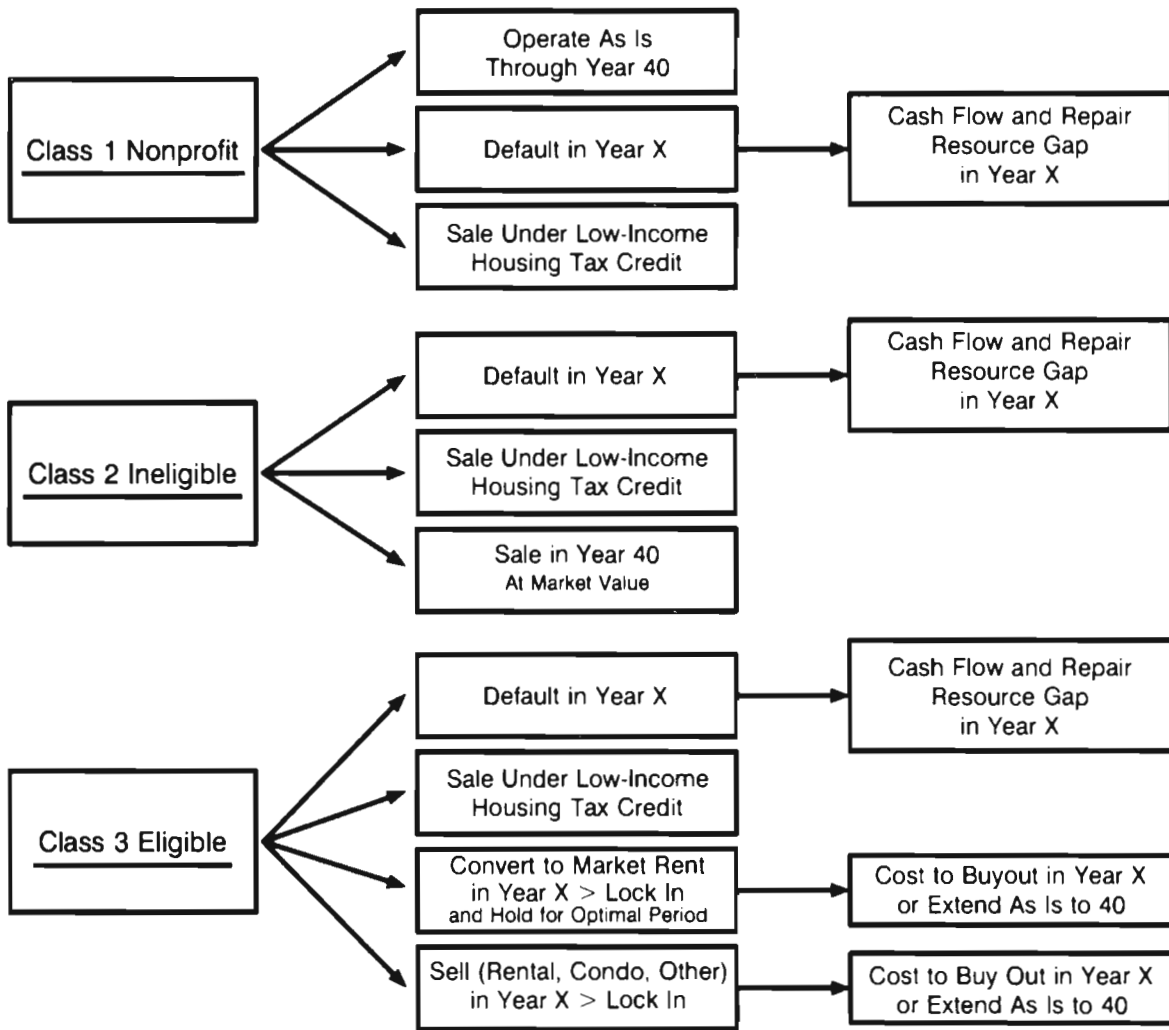
For Class 3 properties (eligible to prepay) all of the above tests are computed, and, for each year from LOCKIN forward, the market conversion option is tested. For properties for which the market value data indicate market rental as the most likely use, both a conversion to market rental by the current owner (assuming refinancing) and sale to another owner as a market rental property are tested. If the market value data indicate condominium conversion or a nonresidential use, these sale options also are tested each year throughout the remaining term of the mortgage. Each of these market conversion options is explained more fully below.

The objective of the model is to test all the available possibilities for each year and to identify the most financially favorable choice, together with its timing, for each project. For the for-profit properties, the presumed choice is the one with the most positive discounted present value considered as of now, the current year. This choice also identifies the year in which the most profitable action would be taken. The exception is a default, whose presumed timing for all properties is set by the year when the project accumulates excessive operating cash deficits.

Exhibit III-1 Preservation Analysis Model



Source: National Low Income Housing Preservation Commission.



Input Data

HUD Project Data

Basic project description data, summarized in Appendix Exhibit III-2 were drawn from HUD files. As indicated below in the subsection on sample weights, the in-depth sample of 300 properties selected for the Commission study was a subsample of a sample of properties previously studied by the HUD Office of Policy Development and Research (PD&R) (Laurent Hodes, Donald Bradley, Stevenson Weitz, and James Hoben, *HUD/FHA-Insured Rental Housing: Physical and Financial Condition of Multifamily Properties Insured Before 1975*, U. S. Department of Housing and Urban Development, Office of Policy Development and Research, April 1987). As a result, the project description data available from standard

HUD data files had been thoroughly reviewed and revised and supplemented with specific measures of available cash flow, resources available for repairs, and estimates made by HUD Field Office staff on the needs for repairs in these properties. These data provide the source for classifying properties and for measures of repair needs, reserves, and cash flow. Because systematic estimates of repair needs were available from no other source than the HUD PD&R database, this sample of properties from 1961 to 1974 was used as the base for the Commission estimates, even though approximately 17 percent of the properties in the universe of concern (Section 236, Section 221(d)(3) Below Market Interest Rate, and assisted 221(d)(3) Market Rate properties) were developed between 1975 and 1980. For properties on which direct information on cash flow and reserves was obtained by the Commission from property

Exhibit III-2 HUD Data

<u>Variable</u>	<u>Meaning</u>
MID85	Original HUD-insured loan amount.
UNITS	Number of dwelling units.
TREPAIRS	Annual repairs needed beyond current repair expenditures, 5-year costs (from PD&R study).
TPA	Indicator that property has had a transfer of physical assets (TPA).
TPAYEAR	Year of TPA.
VAGE	Year of final endorsement.
LMAMT	Total amount of Loan Management Set Aside contracts (Section 8 Housing Assistance Payment contracts).
EXPIRE	Expiration year of Section 8 contract(s) (the latest year is used if there is more than one contract).
LOCKIN	Expiration year of use restrictions (20 years from final endorsement, the start of the project).
CLASS	1 = Non-profit. 2 = For-profit ineligible to prepay for 40 years. 3 = For-profit eligible to prepay after 20 years.
AVCASH	Annual cash available <i>after</i> operating expenses and payment of full debt service plus mortgage insurance premium (before contribution to reserves or annual dividend) (from PD&R study).
RESOURCE	Resources available for repairs, from replacement reserve and remaining TPA payments (from PD&R study).
MID54	Indicator for new construction, existing housing, substantial rehabilitation from HUD MIDLIS file.
AVBR	Average number bedrooms

managers, these data substantiated the data used in the model.

Appendix Exhibit III-3 provides descriptive data on the sample properties from the HUD data file, with columns for each of the three classes of properties. The properties are typically on the

order of 100 units, with very few having more than 300 units. Annual repairs needed per unit are under \$500 for most properties in all classes. Resources available per unit for repairs from reserves and residual commitments made to obtain HUD approval of a transfer of physical assets

**Exhibit III-3
HUD Data on Commission In-Depth Sample**

	Class 1		Class 2		Class 3	
	<u>Non-Profit</u>		<u>Other Ineligible To Prepay</u>		<u>Eligible To Prepay</u>	
<u>Number of Units</u>	<u>Number of Projects</u>	<u>%</u>	<u>Number of Projects</u>	<u>%</u>	<u>Number of Projects</u>	<u>%</u>
Less than 50	16	24	8	22	43	22
50 - 100	17	26	14	39	72	36
101 - 200	25	38	6	17	67	34
201 - 300	6	9	5	14	10	5
Over 300	<u>2</u>	<u>3</u>	<u>3</u>	<u>8</u>	<u>6</u>	<u>3</u>
	66	100	36	100	198	100
<u>Annual Repairs Needed Per Unit</u>						
Under \$100	21	32	7	19	25	13
\$100 - 250	15	23	9	25	38	19
\$251 - 500	11	17	7	19	72	36
\$501 - 750	7	11	7	19	33	17
\$751 - 1,000	7	11	1	3	15	8
\$1,001 - 1,250	2	3	3	8	7	4
\$ Over 1,250	<u>3</u>	<u>4</u>	<u>2</u>	<u>6</u>	<u>8</u>	<u>4</u>
	66	101*	36	99*	198	101*
<u>Resources Available for Repairs from Reserves and TPA Commitments, Per Unit</u>						
Under 250	19	29	4	11	40	20
250 - 500	21	32	11	31	72	36
501 - 1,000	21	32	10	28	63	32
1,001 - 2,000	5	8	6	17	21	11
2,001 - 3,000	-	-	4	11	-	-
Over 3,000	<u>-</u>	<u>-</u>	<u>1</u>	<u>3</u>	<u>2</u>	<u>1</u>
	66	101*	36	101*	198	100
<u>Annual Cash Available After Expenses, Per Unit</u>						
Below - \$1,000	1	2	1	3	4	2
-\$1,000 - -\$500	3	4	3	8	4	2
-\$500 - -\$250	4	6	1	3	5	2
-\$250 - -\$1	12	18	3	8	24	12
\$0 - \$250	33	50	10	28	100	50
\$251 - \$500	7	11	15	42	45	23
\$501 - \$1,000	4	6	3	8	13	7
\$ Over \$1,000	<u>2</u>	<u>3</u>	<u>-</u>	<u>-</u>	<u>3</u>	<u>2</u>
	66	100	36	100	198	100

* Percentages do not add to 100% due to rounding.

Source: HUD Office of Policy Development and Research data file, used in Hodes et al., 1987.

(TPA) are quite modest. Relatively few properties have more than \$1,000 per unit available. Finally, annual cash available is positive for about four-fifths of the properties. Available cash refers to net income after subtracting regular operating expenses and maintenance (not including the additional repairs the HUD PD&R study indicated were needed) plus debt service and mortgage insurance premium but before subtracting any contribution to replacement reserves (required as a percentage of the original mortgage amount annually, to the extent available) or distribution of dividends.

Market Value Data

Market data for each of the properties were obtained through telephone interviews with experts in the local housing market. Those contacted included HUD Field Office staff, local planning officials, real estate brokers, and appraisers. The respondents were asked to provide their best estimate as to the most likely alternative use of the property, were it not to continue as assisted housing, and to estimate the likely market value--either in terms of gross rents obtainable in the local market, condominium sale values, or value as a non-residential property use. The graduate students in business and planning conducting the interviews had been instructed to choose a central tendency in the estimates provided, and also to weigh more heavily those estimates that were obtained from persons familiar with the specific property.

Operating costs were obtained for the market rental cases from the publication of the Institute for Real Estate Management on operating expenses in non-government rental housing (*Income/Expense Analysis: Conventional Apart-*

ments, 1986 Edition, Institute of Real Estate Management of the National Association of Realtors, Chicago, Illinois). This operating expense thus includes all normal vacancy allowances and repairs or reserves for repairs. These operating expenses are tabulated as a percentage of gross income, according to locality and type of building (judged from size of the property). As a floor, or minimum amount, the model uses 80 percent of the average annual operating costs from the HUD data file.

Appendix Exhibit III-4 summarizes the items of data collected on market value data and the key variables directly derived from these data. Appendix Exhibit III-5 indicates the range of values obtained on market rents, condominium values, and estimates of value for non-residential purposes. The local experts primarily indicated that they thought the property would continue to be a rental property (more than 90 percent of the Class 3 properties, for which prepayment is an option) though at relatively modest rents in most instances. Monthly rents of \$400 a month or less were indicated for most of the properties. Most of the relatively few condominium conversions projected were under \$100,000 per unit. Some experts thought the property would be used for non-residential purposes, or, in a few cases, simply could not imagine any particular use because of undesirable location. To avoid losing cases because of missing values for these properties, the model simply used a standard estimate of value of \$1,000 per unit on the assumption that land values probably do not drop below such a range, even in neighborhoods undesirable for residences.

As another check on the rent levels, market rent estimates were compared with the Section 8

Exhibit III-4 Market Value Data Form

MONTHLY RENT	Estimated monthly market rent for average unit size (bedrooms).
OPCOST	Annual per-unit operating cost for market units as percentage of gross possible income, by geography and size of property (Institute for Real Estate Management).
NETRENT (derived)	Annual net operating income before debt serve (MONTHLY RENT minus OPCOST).
CONDOPRICE	Estimated market value for average-sized unit as a condominium unit.
OTHERSALE	Estimated total value of property for nonresidential use.

Exhibit III-5

**Estimated Market Value Data by Most Likely Alternative
For Properties in the Commission In-Depth Sample**

<u>Monthly Market Rent</u>	Class 1 Non-Profit		Class 2 Other Ineligible To Prepay		Class 3 Eligible To Prepay	
	Number of Projects	%	Number of Projects	%	Number of Projects	%
Under \$200	-	-	1	3	-	-
\$200 - \$300	16	29	16	53	78	43
\$301 - \$400	20	36	3	10	48	26
\$401 - \$500	4	7	2	7	30	17
\$501 - \$600	5	9	4	13	11	6
\$601 - \$700	5	9	1	3	9	5
\$701 - \$1,000	5	9	1	3	5	3
Over \$1,000	<u>1</u>	<u>2</u>	<u>2</u>	<u>7</u>	<u>-</u>	<u>-</u>
	56	101*	30	99*	181	100
<u>Condominium Value, Per Unit</u>						
Under \$30,000	1	20	-	-	-	-
\$30,001 - \$50,000	-	-	1	25	5	38
\$50,001 - \$100,000	2	40	2	50	6	46
\$100,001 - \$150,000	1	20	1	25	1	8
\$150,001 - \$200,000	-	-	-	-	1	8
Over \$200,000	<u>1</u>	<u>20</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
	5	100	4	100	13	100
<u>Equivalent Value per Unit for Non-Residential Uses</u>						
	Number of Projects	%	Number of Projects	%	Number of Projects	%
\$1,000 or less	3**	60	2**	100	1	25
\$1,001 to \$20,000	2	40	-	-	1	25
\$20,000 to \$40,000	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>2</u>	<u>50</u>
	5	100	1	100	4	100

* Percentages do not add to 100% due to rounding.

** No value given by experts for three Class 1 projects and one Class 2 project.

Value = \$1,000/unit attributed for model use.

Source: Market Value Data Form recording telephone interview responses for each property in the Commission's in-depth sample.

Existing Housing Fair Market Rent (FMR) levels for the project locality. The results, shown in Appendix Exhibit III-6, indicate that the market rent estimates correlate well with the FMRs and that they fall below the FMRs for a majority of the properties.

Equity and Second Trust Note Amounts

In order to use the HUD project data for computations of the building depreciation allow-

able each year for the properties, it was necessary to make an estimate of the original basis of the building at the last point of change of ownership. The original tax basis of the properties is computed as BASIS = EQUITY CONTRIBUTIONS + MORTGAGE AMOUNT + SECOND TRUST NOTE AMOUNT. The depreciable basis is BASIS less the value attributable to land (as a non-depreciable asset). The mortgage amount was available from HUD records. To obtain relationships between mortgage amounts and the other elements

Exhibit III-6

**Comparison of Market Rent Estimates and Section 8
Existing FMRs for Sample Properties**

Section 8 FMRs for City/County

Monthly Rents	0-\$250	\$251-\$350	\$351-\$450	\$451-\$550	\$551-\$650	\$651-\$750	\$751-\$999
0 - \$250		15	19	4	1		
\$251 - \$350	1	29	61	22	2		
\$351 - \$450		8	19	17	6	1	
\$451 - \$550		2	2	11	3	2	
\$551 - \$650			1	9	8	3	1
\$651 - \$750				1	3	1	4
\$751 - \$999				2	1	3	2
\$1,000 and Over				1			2
					<u>Number</u>	<u>Percent</u>	
Market Rents 2 or more categories below local FMRs					58	21.7%	
Market Rents 1 category below local FMRs					103	38.6%	
Market Rents same category as local FMRs					70	26.2%	
Market Rents 1 category above local FMRs					28	10.5%	
Market Rents 2 or more categories above local FMRs					<u>8</u>	<u>3.0%</u>	
					267	100.0%	

Sources: Market Value Data Form for the Commission in-depth sample; and Section 8 Existing FMRs as published in Federal Register, 24 CFR Part 888, Vol. 52, No. 82, April 29, 1987, and Vol. 52, No. 125, June 30, 1987.

of the tax basis, information was obtained from organizations with large holdings of these properties on the typical experience of a range of properties with changes of ownership at different times. The relationships correlated well with financial data received from those owners of the 300-property Preservation Analysis Sample who returned a mail survey. Appendix Exhibit III-7 summarizes the working assumptions for the typical equity contributions by limited partners, primarily in exchange for the tax shelter provided by the properties. The equity amounts are scaled by, or shown as fractions of, the outstanding balance on the first mortgage at the original closing or at the time of change of ownership. The reason the mortgage balance is a convenient scaling variable is that the property value securing the mortgage loan is includable in the depreciable basis of the building for tax purposes. The equity amounts differ in each of the following time periods:

1. The period from the earliest of the 221(d)(3) properties, 1961, until the Tax Reform Act of 1969;

2. The period from 1969 up until the 1981 Economic Recovery and Tax Act (ERTA); and
3. The period from 1981 through the Tax Reform Act of 1986.

The substantial tax advantages of ERTA in 1981 induced many changes of ownership in which the original owner(s) took partial payment in the form of a soft second trust note against the new partnership. The original owner(s) were left with a form of claim against whatever residuals the property might have upon refinancing or resale and, by offering this note, the new owners were allowed to include it in their depreciable basis, thereby increasing the tax shelter value of the project and justifying a larger cash contribution from the original owner. There were limits placed on this artifact by both HUD and the Internal Revenue Service. Even so, the typical second trust note was equal to two-thirds of the outstanding first mortgage balance at the time of the transfer. Among the 198 Class 3 properties (eligible to prepay) in the sample, 75 (38 percent) had second trust notes. Second trust notes were attached to

Exhibit III-7

Equity and Second Trust Note Assumptions

	Year of Origin or Most Recent Change of Ownership		
	<u>1961-1968</u>	<u>1969-1980</u>	<u>1981-1986</u>
Equity as a Function of Outstanding First Mortgage*		Initial	
New Construction	.15	.185	.3
Existing	.15	.15	.3
Rehabilitation	.15	.222	-
		.23 Upon ownership change	
Second Trust Note as a Function of Outstanding First Mortgage	-	-	.67**

* These approximations are oversimplifications of the actual pricing of equity contributions to these projects, which took into account variations in financing, construction period expenses, and other factors.

** Applied to Class 3 projects (eligible to prepay) and Class 2 projects (for-profit but ineligible) for purposes of estimating tax basis, even though Class 2 projects will generally be unable to pay second trust notes coming due before the end of the mortgage term.

Source: Industry consultation by National Low Income Housing Commission staff.

half the properties in Class 2 (those with use restrictions through the life of the mortgage) and given terms that will fall short of the end of these restrictions.

The typical interest rate was 10 percent simple interest and the term 15 years, with interest accruing. As a final twist, until stopped by the tax revisions in 1984, the owners were able to claim the interest accrued on these notes as an expense, even though not paid in that year, while the note holders were allowed to defer reporting the accrued interest until actually received--another benefit to the new buyers worth cash at the front end. The effect of the Tax Reform Act of 1984 was to require second notes with 10 percent simple interest and to deduct interest at 5.8 percent compounded annually for the last half of 1984 (after June 8), and from January 1985 on to result in notes with a stated interest rate of 9.2 percent compounded annually to reflect the requirements of "economic accrual." The Act also required a matching of interest income with expense, resulting in a marked reduction in the use of such instruments.

Depreciation Rules

Each property is assumed to have used the most advantageous depreciation allowance available, as a function of the type of building (new

construction, used, substantial rehabilitation), and the year in which the building was placed in service or transferred to a new owner. Appendix Exhibit III-8 summarizes the depreciation rules used. The annual depreciation is computed by multiplying the adjusted basis by the applicable rate. For example, for a 1968 new construction project the applicable rate would be 2 divided by 33 or 0.06. The adjusted basis for the following year would then be the previous year's adjusted basis less the depreciation taken.

Environment Variables

A number of variables are set external to the model to permit sensitivity testing and to facilitate testing of various intervention policies. Appendix Exhibit III-9 summarizes these environment variables. These include basic assumptions about inflation and interest rates, investor discount rates (expected after tax rates of return), and fix-up parameters for market rent or condominium conversions. Note that a more conservative investor discount rate is used for negative after-tax returns to reflect the fact that investors think of real losses as eventualities that more than offset positive after-tax returns in other periods. Another way of viewing this is to think of actual losses as being anticipated by setting up a sinking fund from

Exhibit III-8

Depreciation Rules

	Year of Origin or Last Change of Ownership			
	1961-1968	1969-1980	1981-1986	1987+
Depreciation Life* (Years)				
New Construction	33	21	15	27.5
Existing	33	20	15	27.5
Rehabilitation**	33	5	5	27.5
Depreciation Rate as a Multiple of Straight-Line Rate (1/Life)				
New, Low Income	2.0	2.0	2.0	1.0
Used, Low Income	1.5	1.25	2.0	1.0

* These lifetimes are approximate averages from industry practice and do not reflect variations in such details as component depreciation.

** Rehabilitation expenses were assumed to be half of the depreciation basis for projects identified in the HUD data files as substantial rehabilitation.

Source: Internal Revenue Code.

positive returns that compound at a modest, conservative rate more typical of savings accounts than real estate investment. The last eligible year of the low-income housing tax credit is entered as a variable to permit testing the effects of extending it beyond 1989.

Model Operations

Annual Operation and Balances

In each year of operation as an assisted housing project, the model used the HUD estimate of annual repairs needed, TREPAIRS. The model assumes that 5 years of application of this amount does not exhaust the need for repairs (the HUD report assumed 5 years would suffice), but assumes that repairs continue to be required each year, inflating at FIXINFL. If the amount available from reserves (RESERVE) and available cash, AV-CASH, is not sufficient to cover costs of needed repairs, the model assumes that the general partner must make additional contributions, CAPADDS, to keep the project going. On the other hand, if sufficient funds are available from RESERVE and AV-CASH (which is assumed to remain a fixed dollar amount, not inflating) to cover needed repairs, the excess surplus cash is applied to the required con-

tribution to the replacement reserve, RESERVE, then to the allowable dividend, then to RESERVE, if some cash remains after paying the dividend. Properties with a Section 8 subsidy (Loan Management Set Aside (LMSA)) contracts are assumed to lose this amount of income after the expiration of the longest-lasting of the LMSA contracts (the EXPIRE year).

The passive loss limitations of the 1986 tax act are also implemented. Only 65 percent of negative taxable income is allowed in 1987, 40 percent in 1988, 20 percent in 1989, 10 percent in 1990, and zero thereafter. Negative income disallowed is carried forward to apply against any future positive taxable income of the project.

The CAPADDS balance serves to increase the capital account balance of the owners, thereby reducing the taxable gain at sale. Taxable gain at sale is:

$$\text{GAIN} = \text{SALEPRICE} - \text{DEBT} - \text{CAPITAL ACCOUNT BALANCE}$$

where

$$\text{CAPITAL ACCOUNT BALANCE} = \text{EQUITY} + \text{CAPADDS-DEPRECIATION} + \text{REPLACEMENT RESERVE BALANCE.}$$

Exhibit III-9

Environment Variables

<u>Variable</u>	<u>Meaning</u>	<u>Nominal, Base Case Value</u>
CAPRATE	Capitalization rate, used as divisor with net rental income to yield capitalized value (price).	.095
PRICEINFL	Annual inflation rate for condominium prices and net operating income from market rents.	.05
FIXINFL	Annual inflation rate for fix-up, rehab costs.	.05
TAXRATE	Combined Federal and State income tax rate	.3
CONDOFIX	Fix-up costs for converting project for sale as condominiums as fraction of total sale price.	.3
DISCP	Investor discount rate for positive after-tax returns.	.13
DISCN	Investor discount rate for negative after-tax returns.	.07
GOVDISC	Government discount rate, taken as the average of long-term Treasury bonds and short-term notes, used to obtain present value of government outlays, revenues, and revenue losses.	.087
MTG2INT	Assumed interest rate for second trust notes.	.10
LASTCREDITR	Last year in which low-income housing tax credit is available.	1989
MKTFIXC	Cosmetic conversion costs per unit for conversion to modest rent (up to \$425 per month).	\$ 5,000
MKTCONV	Conversion costs per unit for conversion to high market rates (more than \$425 per month).	\$20,000
NEWRATE	Interest rate for new mortgage loan to refinance market rate conversion (assumed term, 20 years).	.12
LFAC	Land costs as a fraction of original mortgage amount.	.10

Action Choices of Owners

Owners of Class 1 properties operate through the mortgage term, unless the project would default, in which case the model tests the possibility of a tax credit conversion. The timing of the default is determined by the year when the cumulative cash operating deficit reaches \$5,000 per unit. For Class 2 properties, the model tests the options of operating until the point of optimal default, of operating to the point of optimal sale to a new owner for the benefit of the low-income housing tax credit (to the extent this is a live option), or of holding the property through the mortgage term, at which point the model assumes a market conversion. In each case the stream of annual after tax returns and the after-tax proceeds from sale are discounted back to the present and the resulting discounted present value is used as the measure of attractiveness of the various options to the owner. Timing of defaults is set by computing

the point when the annual cash operating deficit is 20 percent of the gains tax liability upon default, the cumulative cash operating deficit reaches 40 percent of the gains tax liability upon default, or the cumulative deficit reaches \$5,000 per unit.

Owners of Class 3 property are allowed a number of options, and each is tested. These are: default in an optimal year or sale to a new owner for the low-income housing tax credit, or, once past the LOCKIN year, conversion to market rent, or sale. In the case of testing conversion to market rent or sale to a buyer who would operate at market rents, the model presumes refinancing, with limits on the loan amount of 80 percent of capitalized value (NETRENT/CAPRATE) and that no more than 90 percent of NETRENT is devoted to debt service (loan payments). The model prohibits a market-level rent conversion if the refinancing cannot pay off the second trust note. A mandatory action is triggered if, at the end of the second note term, taken to be 15 years, when the principal and

accrued interest are due, a refinancing cannot pay off both the first mortgage and the second note. In such a case, the second note holders at this point have the contractual right to foreclose on the property and the model evaluates optimal action. Second note holders also are presumed to control the decision on a default and, if the sale proceeds do not pay off the second note, market sales.

The low-income housing tax credit option is approximated in a number of ways for testing in this model. First, the model presumes that the tenancy of the project qualifies it for the credit; that is, that all of the units qualify for the credit by being occupied by households having incomes of 60 percent of median or less. In addition, the model assumes that the state agencies allocate as much tax credit as is needed. The current 4 percent annual credit for 10 years has an estimated value to new investors of 30 percent of the mortgage balance if all units qualify.¹ Then a number of setup costs are deducted, including a transaction cost of 20 percent of cash contributions, a \$1,000 per unit fix-up cost, and the discounted present value of any portion of the 15-year compliance period required for the credit that is projected to suffer negative cash flow (often triggered by expiration of contracts for Section 8 subsidies). If, after deducting these amounts, the remaining value of the credit is positive, the option is recorded. The option is not regarded as viable under any of the following conditions:

- Year is beyond the current sunset year, LAST CREDIT YEAR, of 1989;
- A transfer of ownership has occurred within the past 10 years (a current statutory restriction that HUD can waive to avoid a foreclosure);
- Presence of an outstanding second trust note (amounts due exceed the value of the credit); or
- Net value of the credit of less than zero.

Model Output

The model thus identifies the most positive of the discounted present values of all the available alternatives and the year in which the most favorable disposition action is taken. These non-intervention predictions provide the intervention analysis with several fundamentally important pieces of information:

- What is the most likely disposition of the project?
- In what year is that most likely to occur?
- What is the discounted present value to the current owner of the most attractive course of action?
- What is the present value of that action in the year the disposition action is taken (this is the point of intervention and therefore the value to be matched at that point in time)?
- What is the overall cost to government, including direct subsidies and revenues or revenue losses, annually and in total?

Preservation Categories

For the properties that the model predicts will default, it is difficult to estimate what would be required to sustain those properties as viable low-income housing. Such an outcome suggests that the possibility of a market conversion is not attractive enough to be worth it to the owner to continue holding the property, and, in most cases will be associated with negative cash flow, especially after attending to needed repairs. For these properties, the preservation action used in the model presumes continued operation of the project and tabulates the cumulative cash requirements to make up for the stream of cash operating deficits from the predicted year of default. The cost to government of a default is taken to be 60 percent of the outstanding mortgage balance, to account for the discounted value of the mortgage and HUD property disposition costs. The reported results treat

¹ This estimate is based on the tax credit representing 15.7 percent of investor contributions and land costs at 6 percent of the mortgage balance, and transaction costs at 20 percent of cash invested. The qualified basis on which the tax credit is computed is INVESTOR CASH + MORTGAGE BALANCE - TRANSACTION COSTS - LAND. Thus, for other credit rates (CRED RATE as a fraction), the investor contributions are computed from INVESTOR CASH = PRICE FACT * MORTGAGE BALANCE where PRICE FACT = 0.94 / [(0.157/CRED RATE) - 0.8].

these as choices; either one or the other is used, not both.

For properties that are predicted to elect the current low-income housing tax credit as the best available option, the model takes this as a sufficiently desirable outcome and presumes that no further intervention is needed, although it rests upon the assumption that committed subsidies (Section 236 interest subsidies and Section 8 rental assistance) remain in place. (The model will also estimate which additional properties would use the credit under broadened rules or as a result of other changes such as extension of the availability of Section 8 subsidies.)

For properties predicted to convert to market, the model tests two fundamentally different strategies that are equivalent from a cost perspective. In one case, the policy would be to dissuade the current owners from a market conversion in order to extend their operation of the project as assisted housing. This option is DIS-SUADE and would trigger no capital gains tax liability. The other major option is to buy out (BUYOUT) the owner's interest, and transfer the property to a new owner under a requirement that it be operated as low-income housing. The BUYOUT option presumes that it is a sufficient inducement to match the discounted present value, in the year the conversion is elected, of the market conversion action that would have been chosen by the owner--out of which the owner pays any capital gains tax liability. Report results are presented for the DISSUADE costs, that is, costs net of capital gains tax collections.

For either option, the model also tabulates the cumulative amount needed to offset any estimated operating cash deficit as a minimum inducement required by a continuing owner or a new one. This nominal amount required to extend subsidized operation is labeled as "Offset Operating Cash Deficits" in the tables of results. The cash operating deficit is computed assuming that all current subsidies (below market interest mortgage and Section 8 contracts) remain in place through their current expiration dates, with allowed renewals.

Effectiveness of Preservation Actions

Now that the actions to be altered and the measures of inducement required to prevent conversion have been identified, the leading preserva-

tion action strategies can be tested. The model is constructed to test the following basic actions:

1. Extension of the low-income housing tax credit through the most distant of the mortgage terms of these properties (that is, removing the 1989 sunset) and relaxing the requirement that a property have been held for 10 years. The model also tests for the effects of providing for 5 and 6 percent annual credits instead of the current 4 percent and tests for the effects of restricting the gains taxes to those on the actual cash gain from the conversion to a low-income housing tax credit property;
2. Allowing subsidies equivalent to current Section 8 Loan Management Set Asides to continue after the expiration of current contracts.
3. Allowing for additional income in fixed monthly amounts. Providing for these interventions presumably will shift some properties that otherwise would have defaulted or converted to market to shift to the tax credit or simply continue subsidized operation. The model indicates the number of properties and units preserved.

Costs of Preservation

The cost-to-government analysis described below helps to assess the cost effectiveness of these interventions. In either the non-intervention case or with the tested interventions, the model provides an estimate of the cost that would be required to dissuade or buyout those owners predicted to prepay and convert the property to a market, unsubsidized use.

The model provides a basis for computing costs to government under non-intervention and alternative intervention strategies, over a 15-year horizon:

- Tax revenue losses (or tax collected) from annual operations and sale or default (a purchaser of a condominium unit is assumed to have an annual tax saving on their mortgage interest payments, computed as $0.8 * \text{CONDOPRICE} * \text{NEWRATE}$; for a sale for non-residential use no annual tax is computed);

- Costs to the mortgage insurance fund and HUD for properties that default, estimated at 60 percent of the outstanding mortgage balance;
- Annual costs of the low-income housing tax credit, computed as $CREDRATE * QUALIFIED BASIS$ where $QUALIFIED BASIS = .157 * PRICE FACT * MORTGAGE/CREDRATE$ (see footnote 1 for terms);
- Interest subsidy contracts (or amounts freed for properties allowed to convert); and
- Rent Supplement and Section 8 contracts (or amounts freed for properties allowed to convert).

Sensitivity Tests

To test the sensitivity of the model results to changes in basic parameters of the model, a series of runs were made. Appendix Exhibit III-10 summarizes the model parameters for which changes

were made to observe effects on basic model output. In general, the base case parameter values are maintained on all variables except the one being tested. That is, combinations of parameter changes were not tested, with the exception of simultaneous changes in the two inflation rates (on price, PRICEINFL, and fix-up costs, FIXINFL) and the per unit costs for converting a property to market use (MKTFIXC for cosmetic costs for units with market rents under \$425 per month and MKFCONV for remodeling costs for units with market rents of \$425 or higher).

Sensitivity to inflation rate is shown in Appendix Exhibit III-11, which summarizes the model results for the in-depth sample of 300 properties for the base case and the effects of reducing inflation rate to zero. The model results for the predicted choices of owners are grouped according to the possible choices within each of the eligibility classes--non-profit, for-profit without a prepayment option, and for-profit with the prepayment option.

Zero inflation reduces the relative attractiveness of prepayment and market conversion, be-

Exhibit III-10

Sensitivity Tests Performed on Model Results

<u>Model Parameter</u>	<u>Base Case Value</u>	<u>Low Value</u>	<u>High Value</u>
Inflation Rate on Prices and Fix-Up Expenses	5%	0%	--
Annual Repair Needs Per Unit	property-level variable	\$150	\$300
Income Tax Rate	30%	25%	35%
Discount Rate for Investors	13%	10%	16%
Interest Rate for New Mortgages	12%	9%	15%
Capitalization Rate for Estimating Price from Net Income	9.5%	7.5%	11.5%
Rehabilitation Costs for Market Conversions			
Cosmetic Cost Per Unit	\$ 5,000		\$ 7,500
Conversion Costs Per Unit	\$20,000		\$30,000

Source: Preservation Analysis Model.

Exhibit III-11

**Predicted Effects of Inflation Assumptions
On Actions of Owners--Through Remaining Mortgage Term**

	Base Case (5% Inflation)			Zero %Inflation*		
	Properties	Units	% Units	Properties	Units	% Units
Not-For-Profit -- Not Eligible to Prepay						
Default	1,226	139,301	81%	1,095	123,709	72%
Tax Credit	0	0	0	0	0	0
Operate Through Mortgage Term	196	32,119	19	327	47,711	28
Subtotal	1,422	171,420	100%	1,422	171,420	100%
For-Profit w/o Sale Option --Not Eligible to Prepay						
Default	619	77,888	73%	587	77,567	73%
Tax Credit	0	0	0	32	4,178	0
Operate Through Mortgage Term	198	28,232	27	198	24,375	23
Subtotal	817	106,120	100%	817	106,120	100%
For-Profit w/ Sale Option --Eligible to Prepay						
Default	914	89,827	24%	1,646	178,015	48%
Tax Credit	0	0	0	26	2,047	0
Operate Through Mortgage Term	258	31,455	9	211	33,063	9
Prepayment/Market Conversion	2,070	246,185	67	1,359	154,342	42
Subtotal	3,242	367,467	100%	3,242	367,467	100%
All Types of Properties Combined						
Default	2,759	307,016	48%	3,328	379,291	59%
Tax Credit	0	0	0	58	6,225	0
Operate Through Mortgage Term	652	91,806	14	736	105,149	16
Prepayment/Market Conversion	2,070	246,185	38	1,359	154,342	24
			100%			100%
Subtotal -- Preserved (Tax Credit + Operate Through Mortgage Term)						
	652	91,806	14%	794	111,374	17%
Total:	5,481	645,007	100%	5,481	645,007	100%

*Zero inflation means PRICEINFL and FIXINFL are set to zero.

Note: Totals may differ due to rounding.

Source: National Low Income Housing Preservation Commission Preservation Model Analysis of 300 HUD-insured properties.

cause future rents and values do not rise, and leaves default as the fallback option. The percentage of units affected by predicted prepays drops from 38 percent at 5 percent inflation to 24 percent; units affected by defaults increase from 48 percent to 59 percent.

While zero inflation is unlikely to prevail at the national level, it is possible that some local markets can experience near zero inflation for a

period of time. Obviously the model overestimates prepayments and underestimates defaults in such cases. Some markets may also be "hotter" than the 5 percent inflation assumed in the base case and be more likely to induce prepayments.

Repairs needed are regarded by the model as made out of owners funds if not supported by property income. One might question, therefore, whether the assumption that the HUD PD&R 5-

Exhibit III-12a

**Predicted Effects of Repair Costs
On Actions of Owners--Through Remaining Mortgage Term**

	\$300/Year Repairs			Base Case		
	Properties	Units	% Units	Properties	Units	% Units
Not-For-Profit -- Not Eligible to Prepay						
Default	1,348	161,266	94%	1,226	139,301	81%
Tax Credit	0	0	0	0	0	0
Operate Through Mortgage Term	74	10,154	6	196	32,119	19
Subtotal	1,422	171,420	100%	1,422	171,420	100%
For-Profit w/o Sale Option --Not Eligible to Prepay						
Default	642	83,671	80%	619	77,888	73%
Tax Credit	0	0	0	0	0	0
Operate Through Mortgage Term	175	21,449	20	198	28,232	27
Subtotal	817	105,120	100%	817	106,120	100%
For-Profit w/ Sale Option --Eligible to Prepay						
Default	819	83,497	23%	914	89,827	24%
Tax Credit	0	0	0	0	0	0
Operate Through Mortgage Term	224	31,354	9	258	31,455	9
Market Rent	1,935	201,411	55	1,807	194,979	53
Sale	263	51,206	14	263	51,206	14
Subtotal	3,241	367,468	100%	3,242	367,467	100%
All Types of Properties Combined						
Default	2,809	328,434	51%	2,759	307,016	47%
Tax Credit	0	0	0	0	0	0
Operate Through Mortgage Term	473	63,957	10	652	91,806	14
Market Rent	1,935	201,411	31	1,807	194,979	30
Sale	263	51,206	8%	263	51,206	8%
Subtotal -- Preserved (Tax Credit + Operate Through Mortgage Term)	473	63,957	10%	652	91,806	14%
Subtotal -- Lost (Default + Market Conversions)	5,007	581,051	90%	4,829	553,201	85%
Total:	5,480	645,008	100%	5,481	645,007	100%

Note: Totals may differ due to rounding.

Source: National Low Income Housing Preservation Commission Preservation Model Analysis of 300 HUD-insured properties.

year repair needs should have been allowed to inflate over the remaining life of a property. The model was tested by substituting for the PD&R figure for unmet needs for annual repairs a fixed annual cost per unit--\$150 on the low side and \$300 on the high side. These fixed amounts were

inflated at FIXINFL of 5 percent, as in the base case. The results are compared to the base case results in Appendix Exhibit III-12a and 12b. The \$300 figure yields a default incidence of 50 percent, compared with 47 percent in the base case and 10 percent of units being carried through full

Exhibit III-12b

**Predicted Effects of Repair Costs
On Actions of Owners Through Remaining Mortgage Term**

	\$150/Year Repairs			Base Case		
	Properties	Units	% Units	Properties	Units	% Units
Not-For-Profit -- Not Eligible to Prepay						
Default	1,181	145,489	85%	1,226	139,301	81%
Tax Credit	0	0	0	0	0	0
Operate Through Mortgage Term	242	25,931	15	196	32,119	19
Subtotal	1,423	171,420	100%	1,422	171,420	100%
For-Profit w/o Sale Option --Not Eligible to Prepay						
Default	526	75,279	71%	619	77,888	73%
Tax Credit	0	0	0	0	0	0
Operate Through Mortgage Term	291	30,842	29	198	28,232	27
Subtotal	817	106,121	100%	817	106,120	100%
For-Profit w/ Sale Option --Eligible to Prepay						
Default	613	59,959	16%	914	89,827	24%
Tax Credit	15	2,586	0	0	0	0
Operate Through Mortgage Term	444	54,329	15	258	31,455	9
Market Rent	1,906	199,388	54	1,807	194,979	53
Sale	263	51,206	14	263	51,206	14
Subtotal	3,241	367,468	100%	3,242	367,467	100%
All Types of Properties Combined						
Default	2,320	280,727	44%	2,759	307,016	47%
Tax Credit	15	2,586	0	0	0	0
Operate Through Mortgage Term	977	111,102	17	652	91,806	14
Market Rent	1,906	199,388	31	1,807	194,979	30
Sale	263	51,206	8%	263	51,206	8%
Subtotal -- Preserved						
Tax Credit + Operate Through Mortgage Term)	992	113,688	18%	652	91,806	14%
Subtotal -- Lost						
(Default + Market Conversions)	4,489	531,321	82%	4,829	553,201	85%
Total:	5,481	645,009	100%	5,481	645,007	100%

Note: Totals may differ due to rounding.

Source: National Low Income Housing Preservation Commission Preservation Model Analysis of 300 HUD-insured properties.

mortgage terms compared with 14 percent in the base case. The \$100 repair figure yields predicted results on just the other side of the base case (43 percent defaults and 17 percent operating through mortgage term).

None of the other parameter variations had large effects on predicted owner choices. Most of the effects are within the plus or minus 5 percentage point, 90 percent confidence interval supported by the 300-property sample. The results can be summarized as follows:

- Tax rate: change of less than 3 percent in any action category;
- Discount rate: change of 2 percent;
- Interest rate: change of 2 percent;
- Capitalization rate: increase of 18 percent in prepayments for the low capitalization rate;
- Fix-up costs: 3 percent decrease in prepayments at higher conversion costs; and
- Cumulative cash loss to default: effect is felt among non-profit properties for which the owner threshold (\$2,500 cumulative operating cash deficit) leads to a 30 percent decrease in the number of properties running through the mortgage term.

Sample Weights

Because the model results are based upon a random sample of the properties of concern, it is possible to weight the model results back up to the universe of properties from which the sample was drawn. The HUD PD&R data file from which the 300 properties were selected was itself a random set of 441 properties from among three groups of older FHA-insured assisted properties--Section 236, Section 221(d)(3) Below Market Interest Rate (BMIR) properties, and Section 221(d)(3) Market

(Interest) Rate properties with assistance in the form of Section 8 Housing Assistance Payments contracts or Rent Supplement contracts. (The HUD PD&R sample was 552, including market-rate properties. Of these, HUD dropped 75 for lack of data. Of the 477 remaining properties in the HUD sample, 441 were assisted. The Preservation Analysis sample is a random subset of the 441.)

The HUD sample is described in Hodes et al. The original HUD PD&R sample was found quite congruent with the universe from which selected on a number of basic characteristics. However, the HUD sample was not stratified on any geographic attribute, such as HUD Field Office or Region. Differences in local markets are expected to have important effects on the relative attractiveness of prepayment and conversion to market uses for the estimates in the current study. It was important, therefore to compare the regional distribution of the 300-project in-depth sample chosen for this study with the regional distribution of the universe of such properties.

The HUD Office of Multifamily Programs provided a file with counts of properties and units by HUD Regions for the universe of properties under study. For those properties eligible to prepay (Class 3, in the terminology of this report), the HUD universe file also provided subcounts within HUD Region by Section of the Act. These counts for the universe enabled the model to make geographic and section-of-the-Act adjustments in the average weighting factor of 20.25275. The

Exhibit III-I3

Weight Adjustment Factors by HUD Region (MIDI) And Section of the Housing Act

HUD Region	Factor for Properties Ineligible to Prepay	Factor for Properties Eligible to Prepay		
		Section 236	Section 221 (d)(3)MR	Section 221 (d)(3)BMIR
1	0.593	1.288	0.617	1.777
2	0.969	0.762		2.469
3	0.960	0.843	0.420	1.481
4	0.414	1.027	0.123	
5	1.712	0.796	0.016	0.760
6	1.961	0.702	0.742	2.222
7	2.324	0.063		
8	0.586	0.741	2.098	0.247
9	1.587	0.582	0.494	1.358
10	0.303	0.994	0.839	0.420

Weight = Factor *20.25275.

Exhibit III-14

Comparison of Universe Counts and Weighted Sample By Section of the Housing Act

Ineligible Properties

<u>Section of Act</u>	<u>Number of Properties</u>		<u>Number of Units</u>	
	<u>Universe</u>	<u>Weighted Sample</u>	<u>Universe</u>	<u>Weighted Sample</u>
Section 236	1,659	1,231	178,364	152,403
221(d)(3)MR	162	686	13,661	60,781
221(d)(3)BMIR	<u>355</u>	<u>323</u>	<u>47,964</u>	<u>64,383</u>
Total:	2,176	2,240	239,989	277,567

Eligible

<u>Section of Act</u>	<u>Number of Properties</u>		<u>Number of Units</u>	
	<u>Universe</u>	<u>Weighted Sample</u>	<u>Universe</u>	<u>Weighted Sample</u>
Section 236	2,372	2,372	266,754	253,246
221(d)(3)MR	348	348	23,240	19,546
221(d)(3)BMIR	<u>522</u>	<u>522</u>	<u>72,255</u>	<u>94,393</u>
Total:	3,242	3,242	362,249	367,485

resulting adjustment factors are summarized in Appendix Exhibit III-13.

Although the HUD PD&R sample was drawn from properties insured before 1975, the HUD Office of Multifamily Housing file indicated that 17 percent of the properties for the universe of concern were insured between 1975 and 1980. In forming the sample weights, planners of the model elected to use the full universe rather than the counts truncated at the end of 1974, even though the sample does not strictly permit such imputations. This election was made in order to provide estimates for the complete universe, but it means that the estimates of the timing of actions are obviously biased toward somewhat earlier actions than would be true of the full universe because none of the sample properties was insured after 1974.

Appendix Exhibits III-14 and III-15 show the resulting weighted counts for properties and units are shown by section of the Housing Act and HUD Region, compared with the universe counts provided by the HUD Office of Multifamily Housing for properties ineligible to prepay (Classes 1 and 2), for properties eligible to prepay (Class 3), and for all types of properties combined. Model

planners decided to set the weights so that the weighted total of projects in Class 3 yielded the count in the universe. As a result, the weighted total of units (645,000) is higher than the universe count of 602,000. Note that the universe figures are for FHA-insured properties and do not include approximately 110,000 Section 236 interest subsidy properties financed by State housing finance agencies.

Precision of Estimates

Appendix Exhibit III-16 indicates the statistical precision of estimates from the model as a function of sample size. The 300-project in-depth sample provides a 90 percent confidence interval on estimates of proportions of no greater than plus or minus 5 percentage points for the whole sample (that is, for estimates of the whole universe of properties sampled). This confidence interval means, for example, that if the model estimates half of the properties will default, the actual percentage of properties defaulting could be in the range 45 percent to 55 percent, within the statistical precision of the sample. In addition to sampling error, there may be other sources of error or bias in the estimates, through faulty input data or

Exhibit III-15

**Comparison of Universe Counts and Weighted Sample
By HUD Region**

Ineligible Properties

<u>HUD Region</u>	<u>Number of Properties</u>		<u>Number of Units</u>	
	<u>Universe</u>	<u>Weighted Sample</u>	<u>Universe</u>	<u>Weighted Sample</u>
1	96	160	8,060	29,619
2	137	137	20,042	25,159
3	175	175	20,181	22,903
4	176	176	22,579	22,957
5	624	624	66,441	66,329
6	239	238	28,193	27,563
7	141	141	17,766	27,440
8	95	95	7,546	6,433
9	450	450	46,460	47,440
10	<u>43</u>	<u>43</u>	<u>2,721</u>	<u>1,724</u>
Total:	2,176	2,239	239,989	277,567

Eligible Properties

<u>HUD Region</u>	<u>Number of Properties</u>		<u>Number of Units</u>	
	<u>Universe</u>	<u>Weighted Sample</u>	<u>Universe</u>	<u>Weighted Sample</u>
1	308	307	43,931	46,428
2	182	183	24,648	33,364
3	328	393	53,419	62,031
4	527	462	55,545	45,404
5	482	482	60,262	54,142
6	348	301	42,153	31,734
7	160	207	16,124	22,500
8	195	195	12,068	9,993
9	415	415	38,770	47,474
10	<u>297</u>	<u>297</u>	<u>15,329</u>	<u>14,414</u>
Total:	3,242	3,242	362,249	367,484

Eligible and Ineligible Combined

<u>HUD Region</u>	<u>Number of Properties</u>		<u>Number of Units</u>	
	<u>Universe</u>	<u>Weighted Sample</u>	<u>Universe</u>	<u>Weighted Sample</u>
1	404	467	51,991	76,046
2	319	320	44,690	58,523
3	503	568	73,600	84,934
4	703	638	78,124	68,362
5	1,106	1,106	126,703	120,471
6	587	539	70,346	59,297
7	301	348	33,890	49,940
8	290	290	19,614	16,426
9	865	865	85,230	94,914
10	<u>340</u>	<u>340</u>	<u>18,050</u>	<u>16,139</u>
Total:	5,418	5,481	602,238	645,052

Exhibit III-16

Statistical Precision of Sample-Based Estimates

<u>Section of the Housing Act</u>	<u>Sample Size</u>	<u>90-Percent Confidence Interval*</u>
236	194	±0.06
221(d)(3)MR(Assisted)	72	±0.10
221(d)(3)BMIR	34	±0.14
Total Sample:	300	±0.05
<u>Eligibility Class</u>		
Non-Profit	66	±0.10
For-Profit, Ineligible	36	±0.14
For-Profit, Eligible	198	±0.06
Total Sample:	300	±0.05

*Binomial distribution confidence interval for estimates of proportions when the true proportion in the population is 0.5. Precision increases (confidence intervals get smaller) as the population proportion departs from 0.5.:

modeling of owner behavior. For the groups with relatively smaller sample sizes, the precision is not as good. Estimates for BMIR properties or for Class 2 properties (ineligible, for-profit) have a confidence interval of plus or minus 14 percentage points.

The model results should not be stretched to making statements about fine categories of proper-

ties, for which the sample sizes are simply too small to permit precise statements. For example, some HUD Regions have samples as small as 15 properties, for which the confidence interval is 25 percentage points. This means that an estimate of 50 percent may represent a true percentage of anywhere between 25 percent and 75 percent.



Predicted Effect of Broad, Programmatic Preservation Actions on Owners During the Next 15 Years

Exhibit IV-1

Extend Section 8 Subsidies

	<u>Base Case</u>		<u>Extend Section 8 Subsidies*</u>	
	Properties	Units	Properties	Units
Not-For-Profit -- Not Eligible to Prepay				
Default	1,067	116,978	501	56,201
Tax Credit	0	0	0	0
As Is Through Next 15 Years	356	54,443	921	115,219
Subtotal	1,423	171,421	1,422	171,420
For-Profit w/o Sale Option --Not Eligible to Prepay				
Default	619	77,888	379	48,810
Tax Credit	0	0	44	12,907
As Is Through Next 15 Years	198	28,233	394	44,404
Subtotal	817	106,121	817	106,121
For-Profit w/ Sale Option --Eligible to Prepay				
Default	882	85,621	708	70,003
Tax Credit	0	0	34	3,090
As Is Through Next 15 Years	333	39,314	459	55,262
Prepayment/Market Conversion	2,026	242,532	2,041	239,112
Subtotal	3,241	367,467	3,242	367,467
All Types of Properties Combined				
Default	2,568	280,487	1,588	175,014
Tax Credit	0	0	78	15,997
As Is Through Next 15 Years	887	121,990	1,774	214,885
Prepayment/Market Conversion	2,026	242,532	2,041	239,112
Subtotal -- Preserved (Tax Credit + As Is Through Next 15 Years)	887	121,990	1,852	230,882
Total	5,481	645,009	5,481	645,008
Net Preserved Over Base Case	-	-	965	108,892
15-Year Average Units Preserved		344,070		387,241
15-Year Average Additional Units				43,171

Note: Totals may differ due to rounding of weighted sums.

*"Extend Section 8" means provide a subsidy equal to Section 8 LMSAs after the expiration of current contracts.

Source: National Low Income Housing Preservation Commission Preservation Model Analysis of 300 HUD-insured Properties.

Exhibit IV-2

Additional Subsidy of \$100 a Month

	<u>Base Case</u>		<u>Additional Subsidy of \$100 a Month*</u>	
	Properties	Units	Properties	Units
Not-For-Profit -- Not Eligible to Prepay				
Default	1,067	116,978	337	39,750
Tax Credit	0	0	0	0
As Is Through Next 15 Years	356	54,443	1,086	131,670
Subtotal	1,423	171,421	1,423	171,420
For-Profit w/o Sale Option --Not Eligible to Prepay				
Default	619	77,888	432	63,973
Tax Credit	0	0	0	0
As Is Through Next 15 Years	198	28,233	385	42,148
Subtotal	817	106,121	817	106,121
For-Profit w/ Sale Option --Eligible to Prepay				
Default	882	85,621	260	25,143
Tax Credit	0	0	30	4,629
As Is Through Next 15 Years	333	39,314	1,139	124,807
Prepayment/Market Conversion	2,026	242,532	1,812	212,888
Subtotal	3,241	367,467	3,241	367,467
All Types of Properties Combined				
Default	2,568	280,487	1,029	128,866
Tax Credit	0	0	30	4,629
As Is Through Next 15 Years	887	121,990	2,610	298,625
Prepayment/Market Conversion	2,026	242,532	1,812	212,888
Subtotal -- Preserved (Tax Credit + As Is Through Next 15 Years)	887	121,990	2,640	303,254
Total	5,481	645,009	5,481	645,008
Net Preserved Over Base Case				
	-	-	1,753	181,264
15-Year Average Units Preserved		344,070		493,297
15-Year Average Additional Units				149,227

Note: Totals may differ due to rounding of weighted sums.

*"Additional Subsidy" means an additional, unrestricted property income of \$100 per month per unit.

Source: National Low Income Housing Preservation Commission Preservation Model Analysis of 300 HUD-insured Properties.

Exhibit IV-3

Make Tax Credit Available

	<u>Base Case</u>		<u>Make Tax Credit Available*</u>	
	Properties	Units	Properties	Units
Not-For-Profit -- Not Eligible to Prepay				
Default	1,067	116,978	1,067	116,978
Tax Credit	0	0	0	0
As Is Through Next 15 Years	356	54,443	356	54,442
Subtotal	1,423	171,421	1,423	171,420
For-Profit w/o Sale Option --Not Eligible to Prepay				
Default	619	77,888	619	77,888
Tax Credit	0	0	0	0
As Is Through Next 15 Years	198	28,233	198	28,233
Subtotal	817	106,121	817	106,121
For-Profit w/ Sale Option --Eligible to Prepay				
Default	882	85,621	882	85,621
Tax Credit	0	0	79	16,946
As Is Through Next 15 Years	333	39,314	270	23,432
Prepayment/Market Conversion	2,026	242,532	2,010	241,468
Subtotal	3,241	367,467	3,241	367,467
All Types of Properties Combined				
Default	2,568	280,487	2,568	280,487
Tax Credit	0	0	79	16,946
As Is Through Next 15 Years	887	121,990	824	106,107
Prepayment/Market Conversion	2,026	242,532	2,010	241,468
Subtotal -- Preserved (Tax Credit + As Is Through Next 15 Years)	887	121,990	903	123,053
Total	5,481	645,009	5,481	645,008
Net Preserved Over Base Case	-	-	16	1,063
15-Year Average Units Preserved		344,070		344,141
15-Year Average Additional Units				71

Note: Totals may differ due to rounding of weighted sums.

**"Make Tax Credit Available" means to remove the current 10-year ownership requirement and remove the current 1989 sunset of the low-income housing tax credit.

Source: National Low Income Housing Preservation Commission Preservation Model Analysis of 300 HUD-insured Properties.

Exhibit IV-4

Extend Subsidies and Make Tax Credit Available

	<u>Base Case</u>		<u>Extend Subsidies and Make Tax Credit Available*</u>	
	Properties	Units	Properties	Units
Not-For-Profit -- Not Eligible to Prepay				
Default	1,067	116,978	501	56,201
Tax Credit	0	0	0	0
As Is Through Next 15 Years	356	54,443	921	115,219
Subtotal	1,423	171,421	1,422	171,420
For-Profit w/o Sale Option --Not Eligible to Prepay				
Default	619	77,888	379	48,810
Tax Credit	0	0	79	15,438
As Is Through Next 15 Years	198	28,233	360	41,873
Subtotal	817	106,121	818	106,121
For-Profit w/ Sale Option --Eligible to Prepay				
Default	882	85,621	708	70,003
Tax Credit	0	0	113	20,036
As Is Through Next 15 Years	333	39,314	396	39,380
Prepayment/Market Conversion	2,026	242,532	2,025	238,048
Subtotal	3,241	367,467	3,242	367,467
All Types of Properties Combined				
Default	2,568	280,487	1,588	175,014
Tax Credit	0	0	192	35,474
As Is Through Next 15 Years	887	121,990	1,677	196,472
Prepayment/Market Conversion	2,026	242,532	2,025	238,048
Subtotal -- Preserved (Tax Credit + As Is Through Next 15 Years)	887	121,990	1,869	231,946
Total	5,481	645,009	5,482	645,008
Net Preserved Over Base Case	-	-	982	109,956
15-Year Average Units Preserved		344,070		387,312
15-Year Average Additional Units				43,242

Note: Totals may differ due to rounding of weighted sums.

*"Extend Subsidies" means [see IV-1]. "Make Tax Credit Available" means to remove the current 10-year ownership requirement and remove the current 1989 sunset of the low-income housing tax credit.

Source: National Low Income Housing Preservation Commission Preservation Model Analysis of 300 HUD-insured Properties.

Exhibit IV-5

**Five Percent Tax Credits,
Section 8 Subsidies Extended***

	<u>Tax Credit Available**</u>		<u>5% Credit</u>	
	Properties	Units	Properties	Units
Not-For-Profit -- Not Eligible to Prepay				
Default	501	56,201	501	56,201
Tax Credit	0	0	0	0
As Is Through Next 15 Years	922	115,219	921	115,219
Subtotal	1,423	171,420	1,422	171,420
For-Profit w/o Sale Option --Not Eligible to Prepay				
Default	379	48,810	354	47,268
Tax Credit	79	15,438	168	17,880
As Is Through Next 15 Years	359	41,873	295	40,973
Subtotal	817	106,121	817	106,121
For-Profit w/ Sale Option --Eligible to Prepay				
Default	708	70,003	621	59,751
Tax Credit	113	20,036	173	21,538
As Is Through Next 15 Years	395	39,380	423	48,145
Prepayment/Market Conversion	2,025	238,048	2,025	238,033
Subtotal	3,241	367,467	3,242	367,467
All Types of Properties Combined				
Default	1,588	175,014	1,476	163,220
Tax Credit	192	35,474	341	39,418
As Is Through Next 15 Years	1,676	196,472	1,639	204,337
Prepayment/Market Conversion	2,025	238,048	2,025	238,033
Subtotal -- Preserved (Tax Credit + As Is Through Next 15 Years)	1,868	231,946	1,980	243,755
Total	5,481	645,008	5,481	645,008
Net Preserved Over Basic Tax Credit				
	-	-	112	11,809
15-Year Average Units Preserved		344,070		393,025
15-Year Average Additional Units				48,955

Note: Totals may differ due to rounding of weighted sums.

**"Section 8 Subsidies Extended" means [see IV-1].

***"Tax Credit Available" means to remove the current 10-year ownership requirement and remove the current 1989 sunset of the low-income housing tax credit.

Source: National Low Income Housing Preservation Commission Preservation Model Analysis of 300 HUD-insured Properties.

Exhibit IV-6

**Six Percent Tax Credit,
Section 8 Subsidies Extended***

	<u>Tax Credit Available**</u>		<u>6% Credit</u>	
	Properties	Units	Properties	Units
Not-For-Profit -- Not Eligible to Prepay				
Default	501	56,201	501	56,201
Tax Credit	0	0	0	0
As Is Through Next 15 Years	922	115,219	922	115,219
Subtotal	1,423	171,420	1,423	171,420
For-Profit w/o Sale Option --Not Eligible to Prepay				
Default	379	48,810	277	42,169
Tax Credit	79	15,438	397	40,566
As Is Through Next 15 Years	359	41,873	143	23,386
Subtotal	817	106,121	817	106,121
For-Profit w/ Sale Option --Eligible to Prepay				
Default	708	70,003	528	52,611
Tax Credit	113	20,036	320	40,629
As Is Through Next 15 Years	395	39,380	368	36,194
Prepayment/Market Conversion	2,025	238,048	2,025	238,033
Subtotal	3,241	367,467	3,241	367,467
All Types of Properties Combined				
Default	1,588	175,014	1,306	150,981
Tax Credit	192	35,474	717	81,195
As Is Through Next 15 Years	1,676	196,472	1,433	174,799
Prepayment/Market Conversion	2,025	238,048	2,025	238,033
Subtotal -- Preserved (Tax Credit + As Is Through Next 15 Years)	1,868	231,946	2,047	242,141
Total	5,481	645,008	5,481	645,008
Net Preserved Over				
Basic Tax Credit	-	-	498	10,195
15-Year Average Units Preserved		344,070		399,711
15-Year Average Additional Units				55,641

Note: Totals may differ due to rounding of weighted sums.

*"Section 8 Subsidies Extended" means [see IV-1].

**"Tax Credit Available" means to remove the current 10-year ownership requirement and remove the current 1989 sunset of the low-income housing tax credit.

Source: National Low Income Housing Preservation Commission Preservation Model Analysis of 300 HUD-insured Properties.

Exhibit IV-7

**Tax on Sale Cash Only,
Section 8 Subsidies Extended***

	<u>Tax Credit Available**</u>		<u>Tax on Sale Cash Only</u>	
	Properties	Units	Properties	Units
Not-For-Profit -- Not Eligible to Prepay				
Default	501	56,201	501	56,201
Tax Credit	0	0	0	0
As Is Through Next 15 Years	922	115,219	921	115,219
Subtotal	1,423	171,420	1,422	171,420
For-Profit w/o Sale Option --Not Eligible to Prepay				
Default	379	48,810	354	47,268
Tax Credit	79	15,438	390	43,677
As Is Through Next 15 Years	359	41,873	74	15,176
Subtotal	817	106,121	818	106,121
For-Profit w/ Sale Option --Eligible to Prepay				
Default	708	70,003	667	65,209
Tax Credit	113	20,036	293	45,570
As Is Through Next 15 Years	395	39,380	273	24,314
Prepayment/Market Conversion	2,025	238,048	2,009	232,374
Subtotal	3,241	367,467	3,242	367,467
All Types of Properties Combined				
Default	1,588	175,014	1,522	168,678
Tax Credit	192	35,474	683	89,247
As Is Through Next 15 Years	1,676	196,472	1,268	154,709
Prepayment/Market Conversion	2,025	238,048	2,009	232,374
Subtotal -- Preserved (Tax Credit + As Is Through Next 15 Years)	1,868	231,946	1,951	243,956
Total	5,481	645,008	5,482	645,008
Net Preserved Over Basic Tax Credit	-	-	498	12,010
15-Year Average Units Preserved		344,070		390,394
15-Year Average Additional Units				46,324

Note: Totals may differ due to rounding of weighted sums.

**"Section 8 Subsidies Extended" mean [see IV-1].

***"Tax Credit Available" means to remove the current 10-year ownership requirement and remove the current 1989 sunset of the low-income housing tax credit.

Source: National Low Income Housing Preservation Commission Preservation Model Analysis of 300 HUD-insured Properties.

Biographies of Members and Executive Staff Of the National Low Income Housing Preservation Commission

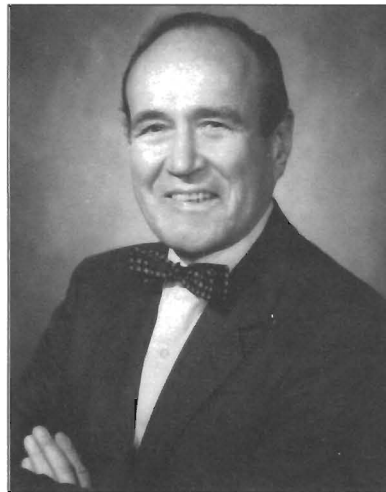
Amy S. Anthony



Amy S. Anthony was appointed by Governor Michael S. Dukakis on January 6, 1983 as the Secretary of the Massachusetts Executive Office of Communities & Development. She is also Co-Chair of the Massachusetts

Housing Partnership. Previously, she established and directed the activities of Amy Anthony Associates, a housing consulting and development company based in Boston and Springfield. From 1973 to 1980, Ms. Anthony served as Director of the Housing Allowance Project in Springfield. She has served, and remains active on, a number of associations and commissions concerned with housing and development issues.

Mortimer Caplin



Mortimer Caplin is a member of the law firm of Caplin & Drysdale in Washington, D.C. Following his graduation from the University of Virginia Law School, he practiced law in New York City from 1941 to 1950, with time

out for military service in the U.S. Navy. Mr. Caplin then returned to the University of Virginia as a Professor of Law, specializing in tax and corporate law. From 1960 until January 1961, Mr. Caplin served on President Kennedy's Task Force on Taxation. President Kennedy then appointed him U.S. Commissioner of Internal Revenue. He served in that post until 1964, when he resumed private law practice with his current firm. On leaving the Federal Government, Mr. Caplin received the Alexander Hamilton Award, the highest award conferred by the Secretary of the Treasury "for outstanding and unusual leadership during service as U.S. Commissioner of Internal Revenue."

Phillip L. Clay



Phillip L. Clay is an Associate Professor in the Department of Urban Studies and Planning at the Massachusetts Institute of Technology. He is an honor's graduate of the University of North Carolina at Chapel Hill.

He holds a Ph.D. in City Planning from MIT. Professor Clay is author of *Neighborhood Renewal and Neighborhood Politics and Planning* as well as numerous reports and articles, including *At Risk of Loss: The Endangered Future of Low Rent Housing Resources*. Professor Clay is a former Assistant Director of the MIT-Harvard Joint Center for Urban Studies, and now directs the master's degree program in the MIT Urban Studies and Planning Department. In addition to his MIT responsibilities, Professor Clay is involved in numerous community activities.

Cushing N. Dolbeare



Cushing N. Dolbeare is a consultant on housing and public policy. She began her housing career in 1956 as Assistant Director for the Housing Association of Delaware, where she was subsequently named Managing Director.

From 1974 to 1977, Ms. Dolbeare was Executive Secretary for the National Rural Housing Coalition. In 1976, she founded the Low Income Housing Information Service and served as its Executive Secretary until 1984. She founded the National Low Income Housing Coalition in 1979, served as President from 1979 through 1984, and continues to serve as Chairperson. From 1981 to 1982, she participated on the President's Commission on Housing as staff and as alternate to Commissioner Edward W. Brooke. Ms. Dolbeare performs analyses of housing needs and programs affected by pending housing legislation for various public interest organizations, and frequently testifies on housing needs and pending legislation before House and Senate Committees on behalf of public interest groups. She has served on a number of boards concerning housing and development issues, and remains active on several.

Anthony Downs



Anthony Downs is a Senior Fellow at the Brookings Institution in Washington, D.C. He was a member and then Chairman of Real Estate Research Corporation, a nationwide consulting firm advising private and public

decisionmakers on real estate investment, housing policies, and urban affairs. He has served as a consultant to many of the Nation's largest corporations, major developers, government agencies, and private foundations. Dr. Downs received a Ph.D. in economics from Stanford University, and is the author or co-author of 15 books and more than 300 articles.

Dianne Feinstein



Dianne Feinstein was elected 35th Mayor of the City and County of San Francisco by the Board of Supervisors on December 4, 1978, to fill the unexpired term of the late Mayor George Moscone. She was elected to a full term on Decem-

ber 11, 1979, and was reelected November 8, 1983. In 1970, she became the first woman elected as President of San Francisco's Board of Supervisors, serving a total of 9 years as a Supervisor, 5 of them as President. During her tenure, she has doubled housing production and established an Office of Housing and Economic Development that pursues innovative programs such as using mortgage revenue bonds and requiring office developers to fund housing. Mayor Feinstein is a graduate of Stanford University.

Martin S. Feldstein



Martin S. Feldstein is the George F. Baker Professor of Economics at Harvard University and President of the National Bureau of Economic Research, a private, non-profit research organization that specializes in

producing objective quantitative studies of the U.S. economy. From 1982 through 1984, Dr. Feldstein was, as Chairman of the Council of Economic Advisers, President Reagan's chief economic adviser. Dr. Feldstein graduated from Harvard College and received his Ph.D. from Oxford University. He is the author of more than 200 articles on a wide range of economic subjects. Dr. Feldstein is a Director of four corporations and is an economic adviser to several businesses in the United States and abroad. He is a regular contributor to the Wall Street Journal, and with his wife Kathleen, writes a monthly column for The Washington Post and The Los Angeles Times.

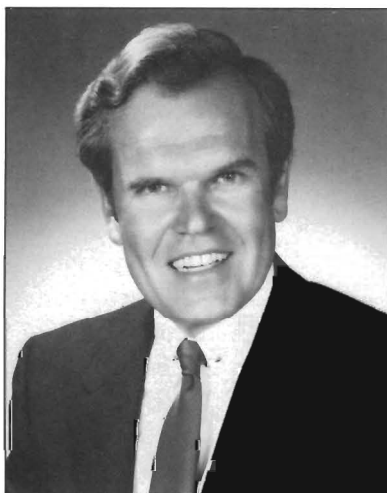
Maurice A. Ferre



Maurice A. Ferre served as Mayor of Miami, Florida, from 1973 through 1985. He began his political career upon his election to the Florida House of Representatives, and was a City of Miami Commissioner from 1967 to 1970.

Mr. Ferre held several Presidential appointments, including membership on the 1975 President's Advisory Board on Ambassadorial Appointments and to the 1978 UNESCO General Assembly in Paris. He has been decorated by the countries of Columbia, the Dominican Republic, Spain, and Venezuela. He was Chairman of the Downtown Development Authority from 1973 to 1985, and is a member on the Board of Governors of the Greater Miami Chamber of Commerce. Currently, Mr. Ferre is involved in a variety of business and philanthropic activities and is based in Coral Gables.

J. Roderick Heller, III



J. Roderick Heller, III, is President and Chief Executive Officer of the National Corporation for Housing Partnerships, a Congressionally authorized entity created to encourage the construction of low- and moderate-in-

come housing. Prior to joining NCHP, Mr. Heller was President and Chief Operating Officer of Bristol Compressors, Inc. An honors graduate of Princeton University and the Harvard Law School, Mr. Heller joined the Washington law firm of Wilmer, Cutler & Pickering in 1963. He left Wilmer, Cutler in 1965 and served with the U. S. Agency for International Development in India and Pakistan until 1968. He rejoined Wilmer, Cutler in 1968 and practiced law there until 1985, serving as partner from 1971 to 1982 and as counsel from 1982 to 1985. He is a Director of Riggs National Bank, Washington, D.C. and the Auto-trol Technology Corporation, Denver, Colorado.

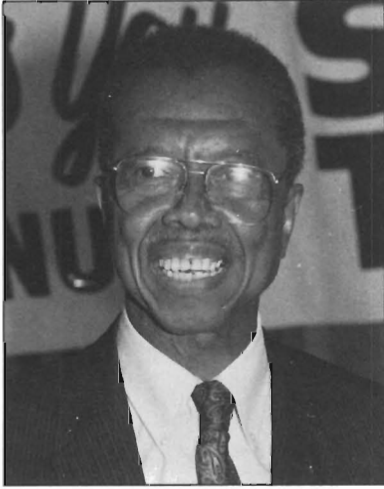
Carla A. Hills



Carla Anderson Hills is a partner in the law firm of Weil, Gotshal & Manges. She served as Secretary of Housing and Urban Development in the Ford Administration. From 1974 to 1975, she was Assistant Attorney General,

Civil Division, U. S. Department of Justice. In 1976, Time magazine named her as one of its 10 Women of the Year. In 1981 and 1982, she served as Vice-Chairman of President Reagan's Commission on Housing and in 1985 and 1986 as a member of President Reagan's Commission on Defense Management. Mrs. Hills currently serves on the boards of IBM, Chevron Corporation, the Federal National Mortgage Association, Corning Glass Works, The Henley Group, Inc., and American Airlines. She has been Chairman of the Urban Institute since 1983. Mrs. Hills received her bachelor's degree from Stanford University and her law degree from Yale University, and has studied at Oxford University.

M. Carl Holman



M. Carl Holman has been President of the National Urban Coalition since 1971. Prior to joining the Coalition in 1968 as Vice President of Programs, Mr. Holman was Deputy Director of the U.S. Commission of Civil Rights. He was

a Professor of English at Clark College in Atlanta and also taught at Atlanta University and the Hampton Institute. He was the founding editor and publisher of the award-winning weekly newspaper, the Atlanta Inquirer. Mr. Holman was a founding Board Member of Jobs for America's Graduates, and serves on a number of boards and committees, including the National Center for Neighborhood Enterprise, the Field Foundation, the Manpower Demonstration Research Corporation, and the National Endowment for the Humanities.

Stan Lundine



Stan Lundine was elected Lieutenant Governor of New York in 1986. He began his political career upon his election to the office of Mayor of Jamestown, New York, in 1969. In a special election in 1976, he was elected to

the U.S. House of Representatives for New York's 34th District, where he was subsequently re-elected for five terms. As a Member of the Banking, Finance and Urban Affairs Committee, he helped lead the fight to provide emergency aid to New York City during its fiscal crisis in the late 1970s. In the housing field, he initiated the Rural Preservation Grant Program, which works with private non-profit groups to rehabilitate existing structures. He has also led the Congressional task forces on trade and on industrial innovation and productivity. Lieutenant Governor Lundine attended Duke University and holds a law degree from New York University.

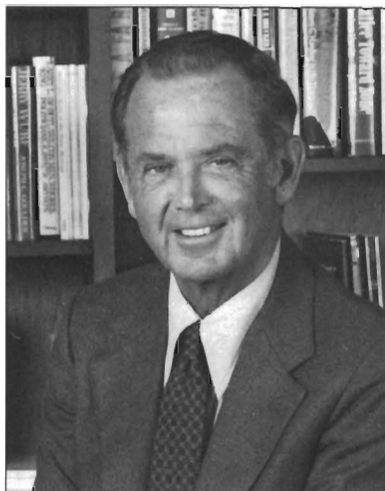
David O. Maxwell



David O. Maxwell is Chairman of the Board and Chief Executive Officer of the Federal National Mortgage Association (Fannie Mae). He joined the Corporation as President in February 1981 and was elected Chairman on May 21, 1981.

Prior to joining Fannie Mae, Mr. Maxwell was Chairman and CEO of Ticor Mortgage Insurance Company, Los Angeles, from 1973 to 1981. He served as General Counsel for the U.S. Department of Housing and Urban Development from 1970 to 1973, and as Insurance Commissioner and then Secretary of Administration and Budget Secretary of the Commonwealth of Pennsylvania from 1967 to 1970. A graduate of Yale College and the Harvard Law School, he practiced law in Philadelphia from 1959 to 1967. He serves on the Board of Directors of Kaufman and Broad, Inc., the Board of Trustees of The Urban Institute, the Board of Directors of The Enterprise Foundation, and the Board of Directors of the Alliance to Save Energy.

William G. Milliken



William G. Milliken retired in 1983 as Michigan's longest serving Governor. Governor Milliken's experience in politics includes election to the State Senate in 1960 and 1962 and service as Senate Majority

Floor Leader in 1963. First elected Governor in 1970, Governor Milliken moved up to that office after serving as Lieutenant Governor. He is a member of the Boards of Directors of the Chrysler Corporation, the Unisys Corporation, The Ford Foundation, Coachmen Industries in Indiana, E.F. Hutton Group Inc., and Total Petroleum Ltd. and is Chairman of the Board of The Center for the Great Lakes in Chicago. Prior to his political career, he was President of J.W. Milliken and Company, a chain of Michigan department stores. He is a graduate of Yale University and is a recipient of numerous honorary degrees, including honorary doctor of law degrees from the University of Michigan and Yale University.

Richard Ravitch



Richard Ravitch is the former Chairman of the Board and Chief Operating Officer of The Bowery Savings Bank. He is a General Partner of Waterside Redevelopment Company, Stevenson Commons Associates,

Manhattan Plaza Associates, and Central Westchester Associates and is a Director of Interstate Bakeries Corp. Mr. Ravitch was formerly Chairman of several organizations, including Metropolitan Transportation Authority, New York State Urban Development Corporation, New York State Economic Development Board, and the American Stock Exchange Nominating Committee. He was recently awarded the UJA Annual Award (Banking and Finance Division) and the Award for High Civic Service, Citizens Budget Commission. Mr. Ravitch is a Phi Beta Kappa graduate of Columbia College and is a graduate of Yale University School of Law. He is admitted to practice before the Supreme Court of the United States.

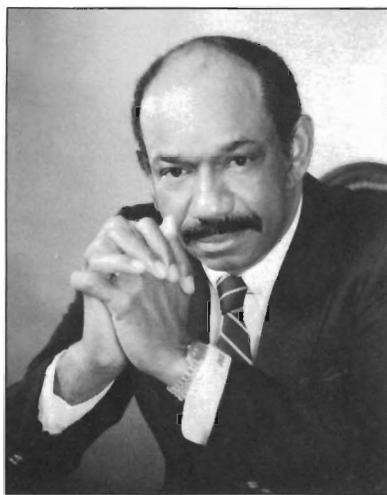
Henry S. Reuss



Henry S. Reuss represented the 5th District of Wisconsin (Milwaukee) in the U.S. House of Representatives from 1955 to 1983. He served as Chairman of the House Committee on Banking, Finance and Urban Affairs from 1975 to

1981 and of the Joint Economic Committee from 1981 to 1983. Mr. Reuss's legislative accomplishments are many and include the Peace Corps, the Mass Transit Research Act, the Federal Reserve Reform Act, the Financial Institutions Deregulation Act, and numerous measures to promote full employment and price stability. He is a Director of the Enterprise Foundation, the Committee on the Constitutional System, Former Members of Congress, Common Cause, and the Committee on Developing American Capitalism. Prior to service in Congress, Mr. Reuss practiced law in Milwaukee. He is a graduate of Cornell University and the Harvard Law School, and is the recipient of many honorary degrees.

Herman J. Russell



Herman J. Russell is President and Chairman of the Board of H.J. Russell & Co., in Atlanta, Georgia, a computer data processing and management service established in 1959. He is President and CEO of several companies he founded during

his career, ranging from construction and real estate development to property management, and including the Paradise Apartments Management Company, H.J. Russell Construction Co., Interstate Construction Co., Georgia Southeastern Land Co., Gibraltar Land, Inc., and Diversified Project Management. Mr. Russell serves on a number of boards, including those of Prime Cable, First Atlanta Corporation, Atlanta Chamber of Commerce, Georgia Chamber of Commerce, Atlanta Commerce Club, Central Atlanta Progress, and the Business Council of Georgia. He is involved in numerous civic activities and has been recognized for his many achievements, being honored recently for the Presidential Achievement Award presented by the Georgia Association of Black Elected Officials. He is a graduate of Tuskegee Institute, of which he is now a member of the Board of Directors.

Lawrence B. Simons



Lawrence B. Simons is a partner in the Washington, D.C., law firm of Powell, Goldstein, Frazer and Murphy, which specializes in development, housing, and financial matters. Prior to joining Powell,

Goldstein, Mr. Simons served as Assistant Secretary for Housing/Federal Housing Commissioner, Department of Housing and Urban Development from 1977 to 1981. He has published articles in various trade publications and has spoken at seminars and trade association meetings on problems affecting housing and the real estate industry. He is a Director of the National Association of Home Builders, the National Housing Conference, and the National Housing Rehabilitation Association and is a member of the American Bar Association. He is a Director of the Pennsylvania Avenue Development Corporation in Washington, D.C., and is a Trustee of Bayley Seton Hospital in Staten Island, New York. Mr. Simons received his undergraduate degree from Duke University and his law degree from Columbia University.

Robert L. Woodson



Robert L. Woodson is President of the National Center for Neighborhood Enterprise and Chairman of the Council for a Black Economic Agenda. He was formerly Resident Fellow and Director of the American Enterprise In-

stitute Neighborhood Revitalization Project and previously directed national and local community development programs that included work among a broad cross-section of the American public, from blacks in Chicago to farm workers in California. He received a B.S. from Cheyney State College and an M.S.W. from the University of Pennsylvania and attended the University of Massachusetts doctoral program. Mr. Woodson serves on the President's Board of Advisors on Private Sector Initiatives and on a number of boards, including those of the Rockford Institute, Americans for Tax Reform, American Association of Enterprise Zones, Capital Research Center, National Adoption Center, and Corporation for Enterprise Development.

Executive Staff

Linda Parke Gallagher

Linda Parke Gallagher is a public policy consultant and communications executive. She is President of Linda Parke Gallagher Associates, a public policy consulting firm located in Washington, D.C., and specializing in national policy issues in areas such as telecommunications, energy, the environment, and housing. She has served as a Senior Vice President, Corporate Affairs, for the Federal National Mortgage Association and in various public affairs positions with AT&T. As a loaned executive from AT&T, she was Executive Director of the Alliance to Save Energy. Ms. Gallagher received her bachelor's degree from George Washington University and has done graduate work there toward an M.B.A.

James E. Wallace

James E. Wallace is a policy analyst specializing in program evaluation in housing development and finance, tax and legal aspects of housing, alternative ownership options, housing economics (including costs and affordability), and other aspects of housing. He is a Project Director with Abt Associates of Cambridge, Massachusetts. Dr. Wallace served as a Chief Policy Analyst with the President's Commission on Housing and has performed many planning and development studies for the U.S. Department of Housing and Urban Development, the U.S. Agency for International Development, the U.S. Department of Health and Human Services, the U.S. Department of Agriculture, municipalities, and associations in the real estate field. Dr. Wallace has been published widely on many subjects in the housing field. He received his bachelor's degree with high honors from North Carolina State University at Raleigh, a master's degree in aeronautical engineering from Cornell University, and his doctorate, in urban studies and planning, from the Massachusetts Institute of Technology.



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