



# **Capital Needs Assessment**

## **Multifamily Rental Housing With HUD-Insured (or -Held) Mortgages**



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U.S. Department of Housing and Urban Development**

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## NOTICE

This report, prepared by the staff of the U.S. Department of Housing and Urban Development (HUD), is based upon work-in-progress by Abt Associates, Inc., of Cambridge, Massachusetts—*Assessment of the HUD-Insured Multifamily Rental Stock*—which Abt is conducting under contract to HUD and with data collection by Applied Real Estate Analysis, Inc., Bradfield Associates, Dana Larsen Roubal Group, Lane, Frenchman Associates, and OKM Associates, Inc. These conclusions do not necessarily represent those of Abt Associates.

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## PREFACE

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This report assesses the capital needs of Federally assisted multifamily rental properties that are distressed. The U.S. Department of Housing and Urban Development (HUD) prepared this report in compliance with Section 204(c)(1) of the HUD Reform Act of 1989, which directs the Secretary to conduct a "Capital Assessment Study" to determine the:

physical renovation needs of the Nation's Federally-assisted multifamily housing inventory that is distressed and to estimate the cost of correcting deficiencies and subsequently maintaining that inventory in adequate physical condition.

Section 204(c) defines "Federally-assisted multifamily housing" to include only assisted properties having mortgages originally insured under three of HUD's programs. This report, however, while presenting the needs of these properties, goes beyond the Act's requirement by also presenting the capital needs of properties with mortgages insured under nearly all of the Department's programs for multifamily rental housing, whether assisted or unassisted. These additional properties are important both because they provide affordable housing and because they represent major contingent liabilities for HUD's mortgage insurance funds.

This *Capital Needs Assessment* was prepared by HUD's research staff, drawing heavily from preliminary analyses and draft reports written by Abt Associates. Abt, under contract with HUD to conduct a large study, *Assessment of the HUD-Insured Multifamily Rental Stock*, has assembled detailed property-level data on a national sample of multifamily properties. Under this major study-in-progress (which includes both sound and distressed properties), Abt is creating a computerized financial analysis model that will enable HUD to test *future* consequences of various policy and program options. The model will also allow HUD to simulate strategies for remedying distressed properties. In its final report, to be completed later this year, Abt will explore the financial impact on properties of receiving remedial assistance through HUD's traditional loan management tools, Federal tax credits for low-income housing, and incentives under the Low-Income Preservation and Resident Homeownership Act of 1990. In that report, Abt will simulate the financial impact on properties and on HUD of awarding these kinds of assistance to properties using current program rules.

As noted above, this *Capital Needs Assessment* presents the national backlog of physical needs of distressed properties—the number of distressed properties and the estimated national cost of restoring them to physically sound condition. This report finds that the national backlog cost is



concentrated among a small proportion of properties that need extremely costly repairs and replacements. The report goes on to note that it may be more cost effective to retire rather than repair some of these properties. This report does not, however, attempt to estimate how many properties fall into this category, which would require information beyond the scope of HUD's study.

This report does not evaluate the effectiveness of HUD's current remedial assistance programs—Flexible Subsidy Loans and Section 8 Loan Management Set Aside. A true evaluation of effectiveness would require examining historical data on physical and financial condition of properties prior to their receipt of remedial assistance. Available historical data, unfortunately, are neither suitably uniform nor sufficiently precise to permit accurate comparisons with present condition. This report does, however, examine the extent of previous use of these programs; and does present the current physical and financial condition of properties after receipt of remedial assistance. Further assessment of these remedial programs will be reported upon completion of Abt's final report.

The Department has proposed the new RESTORE program to remedy the physical and financial problems of distressed properties. RESTORE would replace current remedial programs with one integrated program, combining comprehensive multifamily servicing with new forms of assistance that bring the efficiencies of the housing market to bear, while, at the same time, better protecting the interests of tenants and the Federal government.

Two other programs were created by the National Affordable Housing Act of 1990 that will address properties' physical and financial problems in the process of meeting other objectives:

- "HOPE for Homeownership of Multifamily Units" (HOPE 2) provides grants to help residents of distressed (and other) multifamily properties to purchase, restore, and maintain their homes. HOPE 2 not only enables low-income families to make needed repairs, but also empowers them, as new homeowners, to manage the properties.
- The "Low-Income Housing Preservation and Resident Homeownership Act" (the Preservation Act) offers assistance to preserve for low-income occupancy, properties whose HUD-insured mortgage would otherwise have permitted owners to convert them to market-rate uses. While not designed as a remedial program for distressed properties, the Preservation Act may help some distressed properties. It provides incentives to owners to repair (as needed) and maintain low-income use of their properties; to tenants to purchase and repair the properties for homeownership (as under HOPE 2); or to other non-profit or for-profit entities to purchase and repair the properties and maintain their low-income use. (The Preservation Act also permits prepayment under very limited conditions.)

HUD will report on these new programs after they have been underway for a period sufficient to have had impacts on Federally assisted rental housing.



# EXECUTIVE SUMMARY

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## OVERVIEW

Over 13,000 multifamily rental properties have mortgages insured by the U.S. Department of Housing and Urban Development (HUD), or held by HUD after assignment from a private lender. On the one hand, the mortgages represent a major contingent Federal liability, with most of the original \$34 billion insured principal still outstanding. On the other hand, these privately owned, managed, and financed properties are a major housing asset, providing homes for nearly 1.5 million families, most of whom have low incomes.

This study reports on the physical and financial condition of these properties, with a special focus on those that are distressed. Findings are based on physical inspections and surveys of a scientifically selected national sample of multifamily properties.

HUD has administered numerous mortgage insurance and assistance programs. To simplify presentation, this report discusses findings in terms of three categories of multifamily properties:

*Unassisted properties*—properties under any mortgage insurance program with no HUD rental assistance and no mortgage interest subsidy. (Most are insured under the Section 221(d)(4) or 207 programs.) There are **3,080 unassisted properties housing 451,703 families**. Fifty-nine percent of these families have low incomes (below 80 percent of local median income), including 22 percent who have very low incomes (below 50 percent of local median income). Unassisted properties include a mix of the oldest and newest insured properties.

*Older assisted properties*—properties under any mortgage insurance program that receive either mortgage interest subsidies (under the Section 236 or 221(d)(3) Below Market Interest Rate (BMIR) programs) or rental assistance under one of the following programs: Section 8 Loan Management Set Aside (LMSA), Rent Supplement, Rental Assistance Payment, or Section 8 Property Disposition. (Most, but not all, of the properties receiving rental assistance are insured under the Section 236, 221(d)(3) Market Interest Rate, or BMIR programs). There are **6,037 older assisted properties housing 674,227 families**. Most residents (94 percent) have low incomes, including 77 percent with very low incomes. Generally insured between the late 1960s and mid-1970s, many older assisted properties are in need of repair.

*Newer assisted properties*—properties under any mortgage insurance program that receive rental assistance under either the Section 8 New Construction, Substantial Rehabilitation, or Moderate Rehabilitation programs. (Most are insured under the Section 221(d)(4) program.) There are **4,154 newer assisted properties housing 361,882 families**. Most residents (98 percent) have low incomes, including 90 percent who have very low incomes. Newer assisted properties, insured after the 1974 Housing Act, are generally in good repair because of their relatively new physical systems and high average subsidy levels.

HUD prepared this report in compliance with the HUD Reform Act of 1989, which directs the Secretary to conduct a study to "determine the physical renovation needs of the nation's Federally-assisted multifamily housing inventory that is distressed." The Act defines "Federally-assisted"

narrowly to include 5,891 assisted properties with mortgages originally insured under three HUD programs—Sections 236, 221(d)(3) BMIR, and 221(d)(3) Market Interest Rate assisted with Section 8 or Rent Supplement. These properties, called the "Capital Needs Study properties" in this report, are virtually identical to the study's older assisted category: 96 percent of the Capital Needs Study properties are older assisted, and 4 percent are newer assisted. Conversely, 94 percent of older assisted properties are also Capital Needs Study properties. Thus, while this study reports on the Capital Needs Study properties as Congress defined them, it should be noted that all findings on older assisted properties also hold for the Capital Needs Study properties, particularly those that are distressed. This report, however, goes beyond the Act's requirement by presenting the capital needs of the entire multifamily stock, including newer assisted and unassisted properties.

## STUDY FINDINGS

The study's principal findings are presented under the following topics: 1) properties' need for repairs and replacements; 2) properties' ability to cover repairs and replacements using internal funds; 3) properties' ability to cover operations, mortgage payments, and future capital needs from income; 4) distressed properties and their physical needs; 5) national capital needs of the distressed multifamily stock; and 6) remedial assistance programs for distressed Capital Needs Study properties. All physical needs and financial resources are expressed in 1989 dollars per dwelling unit.

### 1) Properties' need for repairs and replacements—*Total Backlog of Physical Needs.*

The study inspected 116 physical systems in each property to assess its **total backlog of physical needs**. Total backlog was defined as the cost of repairs and replacements needed beyond those that would be covered by routine maintenance.

- For the entire multifamily stock the mean backlog was \$1,520 per unit.
- About a fourth of the mean backlog was in systems related to health and safety, including heating and cooling, electrical, bathroom fixtures, and interior unit construction systems.
- Most properties were keeping up with repairs and replacements, having total backlogs under the \$1,000 per unit that, on average, a property accrues each year. Half of all properties had backlogs below \$654 per unit (median).
- More than a fifth of properties had serious backlogs of from \$2,500 to over \$7,500 per unit.
- Serious backlogs were most common among older assisted properties.
  - Older assisted properties had a mean backlog of \$2,115, more than double that of newer assisted or unassisted properties.
  - Thirty percent of older assisted properties had serious backlogs of over \$2,500 per unit. This was more than twice the proportion of unassisted or newer assisted properties with serious backlogs.

## 2) Properties' ability to cover their repairs and replacements using internal funds—*Unfunded Backlog of Needs*.

Properties have internal funds that they may use to remedy their physical backlogs: (i) each insured property is required to maintain a *reserve for replacements* account to cover physical needs; (ii) some properties maintain *other reserve* accounts for special purposes, such as painting reserves; (iii) some properties are required to deposit non-distributable profits (surplus cash) into *residual receipts* accounts which, although not repair funds, may be used for that purpose. Residual receipts accounts are required for non-profit owners and those for-profit owners who are restricted by HUD as to the amount of profits that they may distribute (limited-dividend owners and certain others).

The **unfunded backlog of physical needs** was computed for each property by subtracting its internal funds from the total backlog. The unfunded backlog is the amount of backlog for which a property would have to seek funds from: cash flow, increases in rent or occupancy, loans, cash advances from owners, grants from State or local programs, or HUD's remedial assistance programs.

- Most of the backlog was unfunded—the mean *unfunded* backlog was \$1,214 per unit, only slightly smaller than the mean *total* backlog (which was \$1,520).
- Older assisted properties were worse off than the other categories, with a mean unfunded backlog of \$1,726 (2½ times that of newer assisted properties, and nearly double that of unassisted properties).
- Thirty-two percent of older assisted properties had unfunded backlogs exceeding \$2,000, compared with 13 percent of newer assisted and 14 percent of unassisted properties.

## 3) Properties' ability to cover operations, mortgage payments, and future capital needs from income—*Annual Net Cash Flow* (per unit)

A property's per unit annual **net cash flow**, is its total annual revenue (per unit) less annual expenses (per unit) to cover operations and maintenance, mortgage payments, and deposits to the reserve for replacements. A property with *breakeven* net cash flow could cover current operations as well as put aside reserve funds for future capital needs. A property with *positive* net cash flow could, in addition, take on a portion of its unfunded backlog.

- Annual net cash flow averaged \$330 per unit, with most properties (68 percent) having positive cash flow. Median cash flow was \$184.
- Newer assisted properties had the highest cash flow, with a mean of \$665 per unit. Few had large deficits and 87 percent had positive cash flow. By comparison, mean cash flow was \$232 for unassisted properties and \$149 for older assisted properties.
- Unassisted properties and older assisted properties were similar to each other in proportions with positive cash flow (60 percent and 59 percent, respectively). But the distribution of cash flow within the two groups differed markedly, probably reflecting the differences in relative risks and rewards between subsidized and market operations:

-On the low end, 19 percent of unassisted properties had large cash flow *deficits* exceeding \$500, compared with only 10 percent of older assisted properties.

-On the high end, 36 percent of unassisted properties had large *positive* cash flows exceeding \$500, compared with only 11 percent of older assisted properties.

#### 4) Distressed properties and their physical needs—*Distress Index*

A distressed property is one whose combined physical and financial problems are severe enough to jeopardize tenant well-being, impair sound operations, or lead to financial failure. Using the concepts of physical and financial condition explored above, the study computed a **Distress Index**—a combined indicator encompassing both annual net cash flow and unfunded backlog. Negative values of this Distress Index indicate distress while positive values indicate adequate financial resources to meet both physical and financial needs. The Distress Index, a modified cash flow, was computed by taking a property's *annual net cash flow* per unit, reducing it by the *amortized cost of remedying its unfunded backlog*, and then increasing it by *new revenues to be achieved by reducing vacancy losses*. The resulting index shows a large deficit for properties having high unfunded backlogs or high cash flow deficits, or some combination of the two. The Distress Index relies on two concepts that require further explanation—amortizing the unfunded backlog and reducing vacancy losses.

**Amortizing the Unfunded Backlog.** A property that had accumulated a backlog over years would not usually execute and pay for a repair program all at once. The Distress Index computation amortizes the backlog by *assuming the effect* of taking out a 9-percent interest loan over 20 years. (This is equivalent to paying for 10.8 percent of the backlog each year for 20 years, where 10.8 percent is the debt service factor on a 9-percent, 20 year loan.) Loan amortization simulates the *combination of ways* by which an owner might spread remedial repair costs over time, such as:

- staging work over time, beginning with highest priority items;
- "borrowing" from creditors by deferring full payment of the property's obligations (especially from creditors related to the owner such as identity-of-interest firms providing property management, accounting, legal, or plumbing services);
- "borrowing" from the mortgagee by deferring a portion of mortgage debt service;
- providing advances to the property from the owner's own funds (or from loans secured by the owner and not the property); and, finally, by actually
- taking out a loan secured by the property.

**Reducing Vacancy Losses.** Improved operations and conditions can improve cash flow. This adjustment (which applies only to high-vacancy properties) assumes that improvements enable properties with very high vacancies to reduce them to that of the 75th percentile of vacancies for their assistance category; and properties with moderately high vacancies to reduce them to the median for their assistance category.

The resulting Distress Index would be highly negative (a deficit) for properties having very high unfunded physical needs backlogs, very high negative net cash flows, or some combination of the two. To facilitate presenting findings, the report sets three ranges of the Distress Index:

**Sound Properties—Distress Index Breakeven or Positive (no deficit)**—would have sufficient resources to cover operations, debt service, deposits to the reserve for replacements, and amortizing the backlog.

**Stressed Properties—Distress Index *deficit* up to \$250 per unit per year**—would be likely to develop serious problems in the absence of improved income or operations. However, because this deficit is small (less than \$21 per unit per month), many properties, especially those assisted through Section 8, may be able to close the gap with rent increases. Other stressed properties may survive small deficits by juggling payments and cutting corners.

**Distressed Properties—Distress Index *deficit* exceeding \$250 per unit per year**—face severe resource shortfalls and would be at risk of failing to remedy critical backlog items, fund essential operations, or pay full mortgage debt service. The \$250 deficit threshold (by no means unique) is equivalent to any of the following conditions: having a large unfunded backlog (of \$2,300 per unit), having an annual cash flow deficit as large as 9 percent of average annual operating expenses, or needing monthly rent increases of more than \$21. Any of these conditions could constitute a major problem.

The findings below are reported first for the entire multifamily rental stock, and second for Capital Needs Study properties.

**(i) Findings on the entire multifamily rental stock**

Nearly a quarter of all properties were distressed—3,168 properties housing over 380,000 families—while 14 percent were stressed, and 62 percent were sound. Distress was particularly concentrated and severe among older assisted properties.

- Thirty-one percent of older assisted properties and 30 percent of unassisted properties were distressed, compared with only 9 percent of newer assisted properties.
- Twenty-one percent of older assisted properties were stressed, compared with only 10 percent of unassisted properties and 6 percent of newer assisted properties.
- The mean Distress Index was positive \$276, showing that overall, properties' financial resources more than covered backlogs and financial obligations. The mean Distress Index by assistance category was \$625 for newer assisted properties, \$293 for unassisted properties, and only \$28 for older assisted properties.
- Distressed properties had a mean unfunded backlog of \$2,999 per unit, more than double that of stressed properties and close to six times that of sound properties.
- Many distressed properties were, for the moment, providing good housing to residents. The study's inspectors rated 68 percent of distressed and 88 percent of stressed properties as being of excellent or good overall quality (compared with 94 percent of sound properties). Backlogs were not yet impacting on current quality.
- Conversely, 9 percent of sound properties had high unfunded backlogs exceeding \$2,000. They had cash flow available to cover their backlogs, but needed comprehensive loan servicing by HUD to make them apply it to repairs.

- Annual net cash flow averaged a large deficit for distressed properties (minus \$880 per unit), near breakeven for stressed properties (minus \$28), and a large surplus for sound properties (\$871).

## (ii) Findings on Capital Needs Study properties

Capital Needs Study properties are a subset of assisted properties that include 5,663 older assisted properties and 228 newer assisted properties.

- Over 28 percent of Capital Needs Study properties (1,646 properties housing over 159,000 families) were distressed, 21 percent were stressed and 51 percent were sound.
- The mean Distress Index was \$84 per unit, marginally better than for older assisted properties because Capital Needs Study properties include a few newer assisted properties.
- Distressed properties had a mean unfunded backlog of \$3,882 per unit, more than 2½ times that of stressed properties and nearly 7 times that of sound properties.
- Many distressed properties were, for the moment, providing good housing to residents. Inspectors rated 53 percent of distressed and 87 percent of stressed properties as being of excellent or good quality (compared with 89 percent of sound properties).
- Conversely, 10 percent of sound properties had high unfunded backlogs exceeding \$2,000. They had cash flow available to cover their backlogs, but needed comprehensive loan servicing by HUD to make them apply it to repairs.
- Annual net cash flow averaged a large deficit for distressed properties (minus \$268 per unit), near breakeven for stressed properties (minus \$5), and a large surplus for sound properties (\$567).

## 5) National capital needs (unfunded backlog) of the distressed multifamily stock

The unfunded backlog for all distressed and stressed properties in the entire multifamily stock (nearly 5,000 properties with 586,000 units) was nearly \$1.2 billion (in 1989 dollars). This includes \$898 million for 3,200 distressed properties, and \$286 million for 1,800 stressed properties.

This backlog is concentrated among a relatively small number of extremely high backlog properties: Nearly 45 percent of the unfunded backlog (\$528 million) is attributable to properties with backlogs of \$5,000 or more per unit. Yet these high backlog properties are just 16 percent of all distressed and stressed properties and contain only 12 percent of the units in such properties (about 71,000 units). It may be more cost effective to retire rather than repair some of these high backlog properties while providing alternative assistance to residents, depending upon the properties' overall quality, desirability to tenants relative to other available housing, and current annual subsidy costs (if any).

For this as well as other reasons, the \$1.2 billion unfunded backlog is the upper limit on the amount of additional Federal resources needed to restore distressed and stressed properties to sound physical condition. Many properties can cover some of this backlog from cash flow, increases in rent and occupancy, loans, cash advances from owners, or State or local grants.



The unfunded backlog for distressed and stressed Capital Needs Study properties (over 2,900 properties with 296,000 units) was \$779 million. This includes over \$564 million for 1,600 distressed properties and \$215 million for nearly 1,300 stressed properties.

Again, this \$779 million is the upper limit on the amount of additional Federal assistance needed to restore these properties to sound physical condition. Nearly 41 percent of this unfunded backlog (\$318 million) is attributable to properties with unfunded backlogs of \$5,000 or more per unit. These high backlog properties are 18 percent of all distressed and stressed properties (510 properties) and contain only 14 percent of units in such properties (under 42,000 units). Some of these high backlog properties may not be cost effective to repair; and other distressed or stressed properties can cover some of their backlogs from sources other than HUD remedial assistance.

## **6) Remedial assistance programs for distressed Capital Needs Study properties**

### **(i) Current Remedial Tools—Flexible Subsidy and Section 8 LMSA**

The study examined the extent of use by troubled properties of Flexible Subsidy and Section 8 LMSA, and the "after" condition of recipient properties. ("Troubled" is a programmatically defined term very close to this study's definition of distress.) HUD had no uniform, precise data on properties' prior condition to permit rigorous "before-after" assessment.

**Flexible Subsidy**, a competitively awarded program, provides reduced-interest direct loans to Capital Needs Study properties. It consists of two components. The older Operating Assistance Loan Program for troubled properties is a deferred loan for correcting physical deficiencies caused by deferred maintenance, financial deficiencies, or projected deficits for the assistance year. The Capital Improvement Loan Program for troubled as well as some non-troubled properties, is an amortizing loan. Under both components, owners must prepare Management Improvement and Operating Plans, and profit-motivated owners must make 25 percent matching capital contributions to their properties. Receipt of Operating Assistance Loans requires that the property remain in low-income use for the balance of the original mortgage term and suspends owners' rights to distribute dividends (until the loans are repaid). None of the study properties had received Capital Improvement Loans as of 1989.

Nearly 900 Capital Needs Study properties have received Flexible Subsidy Operating Assistance Loans, of which 376 are currently sound, 141 stressed, and 350 distressed. Because only troubled properties were eligible for the program, it is clear that at least the currently sound properties improved. The program is likely to have been a contributing factor. There is no way to assess whether the remaining properties improved.

**Section 8 LMSA**, paying owners the difference between full rent and 30 percent of low-income tenants income, is a subsidy to properties rather than to tenants (unlike Section 8 Certificates or Vouchers). LMSA can be used as a competitively awarded remedial tool to help troubled properties increase occupancy or raise rents to sustain operations (although most LMSA is non-remedial and has been used to replace Rent Supplements). Any troubled property (regardless of assistance status or insurance program) may compete for remedial LMSA, but most recipients are Capital Needs Study properties.

Over 1,600 Capital Needs Study properties have received remedial LMSA, of which 661 are now sound, 445 stressed, and 518 distressed. Because only troubled properties were eligible for LMSA, it is clear that at least the currently sound properties have improved. LMSA is likely to have been a contributing factor.

Recipients compared with non-recipients of either Flexible Subsidy Operating Assistance Loans or Section 8 LMSA:

- have higher unfunded backlogs. This is not surprising, given that all recipients were troubled prior to receiving loans.
- have a higher mean, but a lower median, net cash flow. This shows that while a few recipient properties have large positive cash flow (raising the mean), most have lower cash flow than non-recipients.

In summary, one would expect properties receiving Flexible Subsidy or LMSA to have improved, given time. It appears that many have, but most remain troubled. It may be that the remedial tools helped, but were inadequate; that they permitted improvement for a limited time, but that underlying weaknesses in recipient properties caused problems to resurface; or that receipt of the tool was too recent to have made an impact.

#### **(ii) RESTORE Proposal for Troubled Multifamily Housing**

The Administration proposed RESTORE as a competitive program to replace Flexible Subsidy and remedial LMSA in 1993. (RESTORE also includes a non-competitive program to replace Property Disposition Set Aside for formerly insured properties being sold from the HUD-held or HUD-owned inventory. This program is not discussed in this report.) The competitive program, for troubled or potentially troubled assisted properties, consists of RESTORE loans for operating assistance, capital improvements, and repairs; and RESTORE rental assistance:

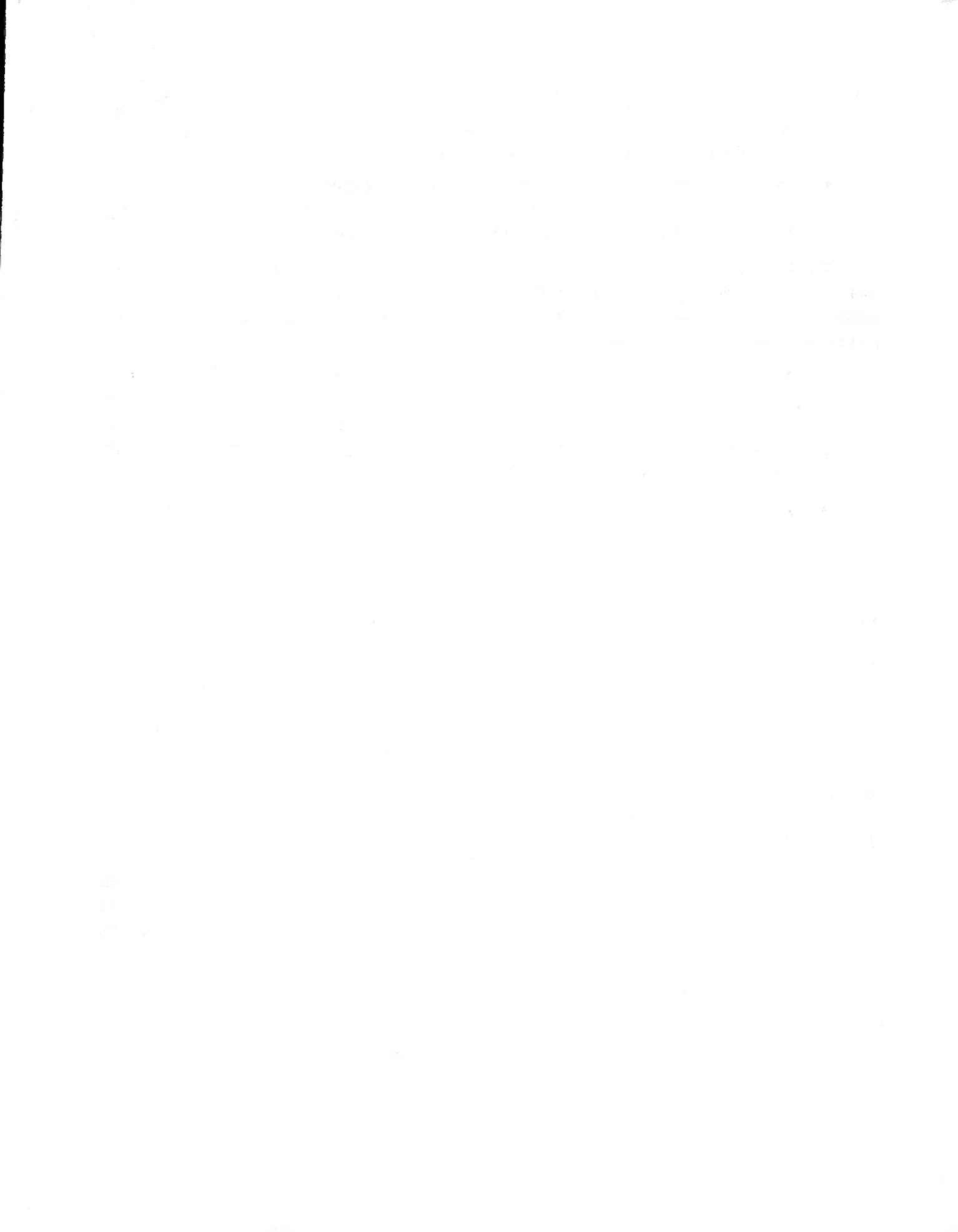
- 1) RESTORE is an integrated program permitting owners to apply for both loans and rental assistance. Under current programs, properties needing both loans and rental assistance must apply separately for each.
  - 2) RESTORE, tied to HUD's comprehensive multifamily servicing, recognizes the need for partnership among owners, residents, and HUD to carry out plans of action to bring properties into compliance with standards for physical condition, financial management, and operations.
  - 3) RESTORE loans require that if a property is sold or re-financed, residents share a portion of property appreciation resulting from improvements funded by the loans.
  - 4) RESTORE rental assistance, in the form of project stabilization vouchers, would be restricted to use in the property for about 2 years, after which tenants could use them in housing of their choice.
- Unlike LMSA, which shields owners from market forces, stabilization vouchers bring market pressure to bear, enhancing the impact of regulatory enforcement.
  - Stabilization vouchers give tenants choice of housing and neighborhood.

- Stabilization vouchers would be administered by local housing authorities with their other voucher allocations. Local authorities would be encouraged to market insured properties to all of their voucher and certificate holders.
- For some insured properties, current residents may choose to move elsewhere while other voucher holders may not choose to move in. This may indicate that further subsidizing these properties is an inefficient use of scarce Federal funds.

The key properties eligible for RESTORE are the distressed and stressed assisted properties (both newer and older assisted)—nearly 3,800 properties with 392,000 units). For the reasons cited above, \$955 million is an upper limit on need for additional Federal remedial assistance to restore these properties to sound physical condition:

- A minority of extremely high backlog properties may not be cost effective to repair. Over 41 percent of the unfunded backlog (\$393 million) is concentrated among properties with unfunded backlogs of \$5,000 or more per unit. These extremely high backlog properties are just 17 percent of all distressed and stressed properties (623 properties) and contain only 13 percent of the units in such properties (51,073 units).
- A portion of the national backlog could be covered from properties' cash flow and sources other than HUD remedial assistance.

In contrast to the fundamental program reform that the RESTORE Program would have accomplished, the Housing and Community Development Act of 1992 made relatively small changes to the existing programs. Some of the incremental changes to application requirements and selection criteria in the Flexible Subsidy Program correspond to Administration proposals, but two of the key RESTORE components—project stabilization vouchers and sharing net proceeds from project appreciation with residents—were not enacted. (A form of stabilization vouchers was included in the Senate bill, but was dropped in conference.) Furthermore, the Act added features that are inconsistent with the market incentives aspect of RESTORE. Recipients of future Flexible Subsidy awards would be locked into low-income use for the remaining useful life of the project, as opposed to the remaining term of their contracts with HUD, eliminating their incentive to maintain the marketability of the projects. In addition, new provisions require HUD to "approve" comprehensive needs assessments and funding requests that all owners of covered projects must submit. These provisions are structured as if Congress will, in the near future, appropriate adequate funds for all the needs that owners identify. This approach would entail a move away from the current competitive funding process, and back toward negotiated funding (eschewed by the HUD Reform Act of 1989). It also assumes that all projects are equally worthy of retaining and avoids any serious review of the fundamental problems of this type of housing assistance.



# CHAPTER ONE

## INTRODUCTION AND OVERVIEW

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This report describes the condition of the nation's multifamily housing that has mortgages insured or held by HUD.<sup>1</sup> It is based upon on-site physical assessments by inspectors hired specifically for this study, owners' annual profit-and-loss statements, and other information obtained by HUD and its research contractors. This information was used to identify and measure the extent of the physical and financial problems of the properties, and to identify the properties are distressed.

This chapter provides an overview of the insured multifamily rental stock and the role of HUD's loan servicing. It also summarizes the study's methods for collecting and analyzing data. Chapter Two describes the physical and financial condition of the multifamily stock, and estimates the capital needs that properties are unable to meet using their own financial resources. Chapter Three identifies the portion of the stock that is distressed. It provides information on the characteristics of distressed properties, including the extent of their problems, type of HUD assistance received, tenant composition, neighborhood characteristics, and size of physical needs backlog. Chapter Four examines HUD's remedial assistance programs for troubled properties. It reports the number of properties that have received each type of remedial assistance and their current condition and distress status. The chapter concludes by describing HUD's RESTORE proposal which would replace the present set of remedial assistance programs.

### **1.1 HUD's Mortgage Insurance, Assistance Programs, and Loan Servicing**

The subject of this report, often called the "HUD-insured multifamily rental stock," is rental housing having five or more units per property that has generally been developed, financed, owned, and managed by private entities, but with HUD insurance of the mortgage. HUD's Federal Housing Administration (FHA) programs insure mortgage lenders against financial loss due to borrower default. This insurance increases lenders' willingness to make mortgages at favorable terms, and thereby adds to the supply of affordable rental housing. In cases of owner default (and in certain other situations) a lender may assign the mortgage note

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<sup>1</sup>The Department gratefully acknowledges the substantial editorial contributions to this report by Enid A. Hodes, a Washington-based editor with the U.S. Department of Agriculture.

to HUD and receive payment from HUD for an insurance claim. HUD, in effect the new lender for the "HUD-held" note, assumes full responsibility for collecting loan payments.

In addition to providing mortgage insurance, HUD has also provided various kinds of subsidy assistance to some properties. Assistance—in the form of interest subsidies, rent subsidies, or grants—is intended to keep rents affordable to low-income families, reduce vacancies to prevent insurance claims, assure rent levels that are adequate to cover operations and maintenance, or help remedy accumulated physical or operating problems that could lead to a property's financial failure.

HUD mortgage insurance and assistance (if any) provide benefits to owners, lenders, and tenants, but also impose contractual rights and obligations on the owners, lenders, and HUD regarding properties' operations. Depending upon the programs involved, HUD's loan servicing responsibilities may include regulating any or all of the following: rents, occupancy, profit distributions to owners, re-selling the property to new owners, or prepaying the mortgage. HUD's responsibilities generally include setting minimum standards for financial reporting and management, physical condition, and maintaining reserve accounts for future capital needs. Both HUD and lenders are required to make periodic on-site inspections of each property's physical condition. HUD also evaluates management and operations.

A property's success depends in large part on effective partnership among HUD, owners and their agents, lenders, and tenants and their organizations. While HUD may impose sanctions on negligent owners, sanctions are a weak substitute for having in place an interested owner who provides effective, responsive management.

### **Loan Servicing and Remedial Tools**

As part of regular loan servicing, HUD can help identify operating and management deficiencies, particularly those affecting tenant conditions, unit marketability, efficiency, and revenues. In properties with HUD-regulated rents, HUD works with owners to achieve rental rates that permit sound operation and high occupancy. For various reasons, however, situations arise where property revenue falls below levels needed to meet operating and physical needs.

Owners may be able to overcome specific problems through a combination of financial contributions from their own funds, conventional loans, HUD-insured supplemental loans, or HUD remedial assistance programs (for eligible properties). (HUD's current remedial assistance programs are the Section 8 Loan Management Set Aside (LMSA), Flexible Subsidy Operating

Loan, and Flexible Subsidy Capital Improvement Loan programs. These are described in Chapter Four.) To the degree that such efforts also improve long-term net revenues (for example, by reducing losses from excess vacancies and uncollected rents, or by improving the property's efficiency), troubled properties may be restored to sound operation.

In some cases, improvement may require replacing the owner's management agent. In other cases, HUD may approve the owner's sale of the property to a new owner who is better equipped to operate the property.

#### **Property Workout—Reinstatement Plan (HUD-Held Mortgages)**

Persistent problems may result in an owner's defaulting on the mortgage and the lender's assigning the mortgage to HUD. In such cases, the Department and owner may be able to agree to a workout and reinstatement plan. The plan is based on a joint analysis of the property's management, physical condition, local rental market, and owner's financial options. It identifies the property's weaknesses and devises specific actions to be taken by the owner and HUD to restore physical and financial soundness. A workout may include using the financial resources discussed above, HUD's deferring required payments of mortgage principal or interest, and the owner's conducting a repair program.

#### **Property Disposition—Removing Current Owner**

As a last recourse, HUD may foreclose the mortgage and sell the property, when neither the remedies available for an insured mortgage nor the workout procedures for a HUD-held mortgage, prove sufficient to restore sound operations. HUD effects sale of the property to a new owner either through a foreclosure sale or by acquiring title and selling it at a HUD property sale. As part of foreclosure, many financial claims against the property are legally extinguished. HUD makes or requires repairs, provides rental assistance to low-income tenants and formerly subsidized units in the property (through Section 8 Property Disposition Set Aside or Vouchers), and the new owner may be required to make comprehensive repairs as a condition of purchase. In most cases, the property disposition process prevents the loss of affordable units from the national stock while protecting affected low-income tenants. The process, however, tends to be costly to the government in part because Federal disposition law may require that HUD subsidize low-income tenants who did not previously receive any subsidy or to deepen the subsidy by substituting an income-based subsidy (Section 8) for a mortgage-based subsidy.

## 1.2 Study Coverage

This study covers the entire multifamily rental stock of 13,271 rental housing properties that have mortgages either insured or held by HUD.<sup>2</sup> To facilitate analyzing and discussing the condition of the stock, the study classified each property into one of three categories based on whether or not it was receiving HUD financial assistance, and, if so, the type of assistance. These *assistance categories*, shown in Exhibit 1.1, are:

- **Unassisted properties**, which include both the oldest and newest insured properties, have market interest rate mortgages (no interest subsidies) and receive no rental assistance. It is important to note that 59 percent of the residents of unassisted properties have low incomes (below 80 percent of the local median income) despite the absence of any Federal property-based subsidies.
- **Older assisted properties**, generally developed under programs that pre-date the Housing and Community Development Act of 1974 (the 1974 Housing Act), receive mortgage interest subsidies (such as Section 236) and/or rental assistance under the Section 8 LMSA, Rent Supplement, Rental Assistance Payment, or Section 8 Property Disposition programs.<sup>3</sup> As a group, they are more exposed than are newer assisted properties to physical or financial problems because of their aging physical plants and their lower average level of subsidy.
- **Newer assisted properties**, developed after the 1974 Housing Act with mortgage insurance and rental assistance under the Section 8 New Construction, Substantial Rehabilitation, or Moderate Rehabilitation programs. As a group, they are generally in good physical and financial condition because they have new physical plants and most have 100 percent of units subsidized.

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<sup>2</sup>While this study includes the overwhelming majority of insured multifamily rental properties, it is important to note that it excludes the following mortgage programs, geographic areas, and property uses: properties outside the contiguous states or in remote rural areas (necessary to reduce data collection costs); non-residential, non-rental, or single family properties such as nursing homes, condominiums, certain cooperatives, hospitals, and mobile homes; uninsured properties, such as Section 202 direct loans for elderly or disabled households, or state-financed uninsured properties receiving subsidies under Section 236 or Section 8; properties owned by public bodies; properties insured as war housing or veterans housing under Sections 608 or 803; co-insured (or formerly co-insured) properties; and HUD-acquired properties, for which HUD is the temporary owner pending sale.

<sup>3</sup>While most older assisted properties were developed and insured prior to 1975, a small minority are newer than this (as is shown in Exhibit 1.2). This is because the study used *subsidy type*, not *age*, to classify properties. These anomalies—newer properties in the older assisted stock—are either: properties that were originally insured without any assistance, but were later awarded rental assistance under Section 8 LMSA to remedy problems; or properties that HUD sold (after mortgage failure) with Section 8 Property Disposition Set Aside and that obtained new mortgage insurance. These properties generally have mortgage insurance under the Section 207 or 221(d)(4) programs.



Exhibit 1.1

**MULTIFAMILY RENTAL HOUSING—DEFINITIONS  
OF ASSISTANCE CATEGORIES USED IN THIS REPORT**

**UNASSISTED PROPERTIES.** Properties insured under any of the following programs (listed in descending order of occurrence) that receive no HUD assistance beyond mortgage insurance:

- Section 221(d)(4) Multifamily Rental Housing
- Section 207 Multifamily Housing
- Section 220 Urban Renewal Housing
- Section 231 Elderly Housing
- Section 221(d)(3) Market Interest Rate Housing

**OLDER ASSISTED PROPERTIES.** Properties insured and assisted under the following programs (listed in descending order of occurrence):

- Section 236 Interest Supplement on Rental and Cooperative Housing
- Section 221(d)(3) Below Market Interest Rate Housing (BMIR)
- Section 221(d)(3) Market Interest Rate Housing originally assisted with Rent Supplement
- Any mortgage insurance program with rental assistance through:
  - Section 8 Loan Management Set Aside (LMSA)
  - Rent Supplement or Rental Assistance Payment (RAP or Deep Subsidy)
  - Section 8 Property Disposition Set Aside

These forms of rental assistance—which are available for any insurance program—have been used with properties insured under the three programs listed above as well as with Sections 207 and 221(d)(4).

**NEWER ASSISTED PROPERTIES.** Properties developed with insured mortgages and rental assistance under any of the following programs:

- Section 8 New Construction
- Section 8 Substantial Rehabilitation
- Section 8 Moderate Rehabilitation.

These forms of rental assistance were used most often with Section 221(d)(4) mortgage insurance, but were also used with Sections 221(d)(3), 231, and 220.

Exhibits 1.2 and 1.3 give an overview of the multifamily rental stock with HUD-insured or HUD-held mortgages. Exhibit 1.2 presents basic characteristics of the stock—total units, unit size, occupancy type, sponsor type, production method, building type, and year of mortgage origination. Exhibit 1.3 presents tenant characteristics—race/ethnicity, household size, percent headed by elderly, and income. This information was derived from data collected for the study sample, discussed in Section 1.4.

### **1.3 Relationship between the Capital Needs Study Properties and Older and Newer Assisted Properties**

The HUD Reform Act of 1989, Section 204(c)(1), directs HUD to study the capital needs of properties having mortgages originally insured under Sections 236 or 221(d)(5) [commonly known as 221(d)(3) Below Market Interest Rate, or BMIR]; or originally insured under Section 221(d)(3) and receiving rental assistance under Section 101 [Rent Supplement] or Section 8. This study will refer to these properties as the Capital Needs Study properties.

It appears that Congress, in defining the Capital Needs Study properties, intended to focus on the portion of the Federally assisted stock that is most likely to be distressed, that is, the older assisted category as described in Section 1.2. However, Congress's definition excluded a small number of older assisted properties that are likely to be distressed, and at the same time included a small number of newer assisted properties that are very *unlikely* to be distressed. The two minor differences between older assisted and Capital Needs Study properties are:

- Capital Needs Study properties are limited to the three mortgage insurance programs listed above. Older assisted properties also include any other insurance program when used in conjunction with one of the following types of rental assistance: Section 8 LMSA, Rent Supplement, Rental Assistance Payment, or Section 8 Property Disposition Set Aside. Thus, the Capital Needs Study properties exclude older assisted properties receiving rental assistance that are insured, for example, under Sections 207 or 221(d)(4). Some of these properties were originally unassisted—insured by HUD with no subsidy—but became assisted when HUD added rental assistance. Six percent of older assisted properties are insured under such other programs and have a likelihood of having physical or financial problems.
- Capital Needs Study properties include a small number of newer assisted properties that are insured under Section 221(d)(3) and that receive rental assistance under the Section 8 New Construction, Substantial Rehabilitation, or Moderate Rehabilitation

Exhibit 1.2

**ATTRIBUTES OF MULTIFAMILY RENTAL HOUSING  
WITH HUD-INSURED (OR HELD) MORTGAGES**

Characteristic	Total	Total		Assisted	
		Unassisted	Assisted	Older Assisted	Newer Assisted
Number of properties <sup>1</sup>	13,271	3,080	10,191	6,037	4,154
Percent of total properties	100%	23%	77%	59%	41%
Number of units	1,487,812	451,703	1,036,109	674,227	361,882
Percent of total units	100%	30%	70%	65%	35%
<b>Number of Units per Property</b>					
< 50	19%	10%	21%	18%	25%
50-99	34%	29%	35%	32%	40%
100-199	35%	42%	34%	36%	29%
≥ 200	12%	19%	10%	14%	5%
Average Number of Units	112	147	102	112	87
Median Number of Units	96	120	84	99	75
<b>Unit Size (average bedroom count)</b>					
< 2.25 BR	80%	95%	76%	73%	81%
≥ 2.25 BR	20%	5%	24%	27%	19%
Average unit size	1.7	1.6	1.8	1.8	1.6
<b>Occupancy Type</b>					
Family	76%	90%	72%	81%	59%
Elderly/Handicap (Part or Full)	24%	10%	28%	19%	41%
<b>Sponsor Type</b>					
Non-Profit/Coop	18%	3%	22%	36%	3%
Limited Dividend	37%	4%	46%	60%	27%
For Profit	45%	92%	31%	4%	71%

<sup>1</sup>In this and most other exhibits, *number of properties*, *number of units*, and their percentages add horizontally across their respective rows. Most other items in these exhibits add vertically down their columns. Column sums may not add to 100% due to rounding. Percentages in the older and newer assisted categories total 100% of the total assisted category's 77%.

(exhibit continues on next page)

Exhibit 1.2 (continued)

**ATTRIBUTES OF MULTIFAMILY RENTAL HOUSING  
WITH HUD-INSURED (OR HELD) MORTGAGES**

Characteristic	Total	Total		Assisted	
		Unassisted	Assisted	Older Assisted	Newer Assisted
Number of properties	13,271	3,080	10,191	6,037	4,154
<b>Production Method</b>					
New Construction/Sub Rehab	85%	81%	86%	90%	81%
Existing (including refinance/reinsurance)	15%	19%	14%	10%	19%
<b>Building Type</b>					
High Rise	28%	29%	28%	21%	40%
Walk-up	44%	54%	40%	46%	33%
Single-Family Attached	28%	17%	31%	34%	26%
Single-Family Detached	0%	0%	1%	0%	1%
<b>Mortgage Origination Year</b>					
Pre-1970	6%	8%	5%	9%	0%
1970-1979	54%	43%	57%	86%	14%
1980 or later	40%	48%	38%	5%	86%
<b>Preservation Status</b>					
Can prepay any time	54%	97%	42%	6%	94%
May be eligible for incentives under the Preservation Act	26%	0%	34%	56%	3%
Locked in for full mortgage term	19%	3%	24%	39%	3%

Table based on study analysis sample of 570 properties. See Section 1.4 of this report.

Sources: HUD MIDLIS data base, HUD Field Office files, inspectors.

Note: Column sums may not add up to 100% due to rounding.

Exhibit 1.3

**TENANT CHARACTERISTICS OF MULTIFAMILY HOUSING  
WITH HUD-INSURED (OR HELD) MORTGAGES**

	Total	Total		Assisted	
		Unassisted	Assisted	Older	Newer
Total Properties	13,271	3,080	10,191	6,037	4,154
Percent	100%	23%	77%	59% <sup>1</sup>	41% <sup>1</sup>
<b>Household Race/Ethnicity</b>					
White	58%	68% **	55%	50% **	63%
Black	32%	21% **	35%	39% **	29%
Hispanic	5%	3%	6%	6%	4%
Other	5%	8% *	4%	5%	3%
<b>Household Size</b>					
1 Person	41%	44%	40%	34% **	50%
2 People	27%	36% **	24%	26%	21%
3 People	16%	11%	17%	19%	14%
4 People	10%	6%	11%	14%	8%
5 People	3%	1%	4%	5%	3%
≥6 People	3%	1%	3%	2%	4%
Average Household Size	2.1	1.8	2.2	2.4	2.1
<b>Elderly Head of Household</b>					
Percent	33%	19% **	37%	30% **	47%
<b>Household Income</b>					
< 50% of Median	68%	22% **	82%	77% **	90%
50-80% of Median	19%	37% **	13%	17% **	8%
80-100% of Median	8%	23% **	3%	4%	2%
≥100% of Median	6%	18% **	2%	3%	1%

\*\* Signifies that the differences in proportions between the distressed and sound or stressed and sound properties are statistically significant at the 95% level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance.

\* Signifies that the differences in proportions between the distressed and sound or stressed and sound properties are statistically significant at the 90% level.

Source: Owner/Manager Survey, HUD 50059s provided by property owners/managers, HUD Prepayment data base, NHP study.

<sup>1</sup> Percentages in the older and newer assisted categories total 100% of the total assisted category's 77%.

programs.<sup>4</sup> Such properties are unlikely to be distressed, being newer and having high average levels of subsidy. Four percent of Capital Needs Study properties are newer assisted properties.

Older assisted properties and Capital Needs Study properties are nearly identical: 96 percent of Capital Needs Study properties are older assisted properties, and 94 percent of older assisted properties are Capital Needs Study properties. Therefore, throughout this report, findings regarding older assisted properties also hold for the Capital Needs Study properties, particularly for *distressed* Capital Needs Study properties. Nevertheless, in response to Congress's stated interests, most exhibits in Chapter Two, and special exhibits and text in Chapters Three and Four, focus specifically on the Capital Needs Study properties.

#### 1.4 Study Sample<sup>5</sup>

The study is based upon a 570-property national sample that was drawn to represent the 13,271 properties in the multifamily rental stock. Within a given budget, sampling enables researchers to collect information that is of higher quality and more reliable than would be possible in a study based on the full universe of properties. This study's intensive on-site physical inspections and market analyses would have been prohibitively costly, were researchers to have attempted collecting this information for every property in the entire multifamily stock.

Sampling was conducted in two stages—first, selecting a sample of geographic areas, then selecting specific properties within each of these areas. By clustering the sample properties by geographic area (rather than scattering them over the entire nation), the study was able to reduce travel and other data collection costs. (The number of clusters was large enough, however, to assure that the sample would be well representative of the national stock of multifamily insured properties.) In simplified form, the sample was selected as follows:

*First Stage—Choose Areas.* The contiguous 48 states and District of Columbia were divided into 217 geographic sampling areas, each composed of a Metropolitan Statistical Area together with its contiguous nonmetropolitan counties. From these 217 areas, 53

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<sup>4</sup>While for most purposes the 221(d)(3) and 221(d)(4) programs are identical, the former permits 100 percent financing but limits distribution of dividends while the latter permits only 90 percent financing but does not limit distributions. As a result, non-profit sponsors often preferred 221(d)(3) in developing Section 8 projects while profit-motivated sponsors used 221(d)(4).

<sup>5</sup>Detailed descriptions of sampling and other methodological issues will accompany the final study report by Abt Associates, *Assessment of the HUD-Insured Multifamily Rental Stock*.

areas were drawn for the sample. Each of the 217 areas had a probability of being selected that was proportional to its share of the nation's insured multifamily stock.

*Second Stage—Choose Properties.* Properties were selected from within each of the 53 geographic areas chosen above. The properties within the 53 areas were stratified by the three assistance categories to assure that the sample would contain a predetermined portion of properties that would be unassisted, older assisted, and newer assisted.<sup>6</sup> Within each category, properties were selected randomly.

Exhibit 1.4 compares the universe (entire multifamily rental stock), the original sample (as drawn), and the final sample (remaining properties at the conclusion of data collection). As the exhibit shows, 30 properties were dropped for the final sample, either because they did not belong in the universe (new information revealed that they had been classified incorrectly, e.g., they no longer had HUD-insured or held mortgages, or were being used as nursing homes or other non-rental uses), or because property owners refused to cooperate with the study.

The exhibits in the remaining chapters use statistical weighting to present sample findings in terms of the entire universe of multifamily housing.

## 1.5 Data Collection

The data needed for this study were drawn from a variety of secondary and primary sources.<sup>7</sup> Data sources and key data elements include:

1. *HUD Computerized Data*—Multifamily Insured and Direct Loan Information System (MIDLIS), Section 8 Management Information System (MIS), Multifamily Information and Processing System (MIPS), F47 Payment Database, MARS Database on HUD-held properties, Civil Rights Tenant Characteristics/Occupancy Report (Form 949), Addresses and Site Codes of Multifamily HUD-assisted Housing (Form 951), Section 8 Fair Market Rents and Annual Adjustment Factors, HUD Prepayment Database:

- Basic project descriptors (mortgage insurance program, occupancy type, total units, production method, mortgage status, mortgage start year).
- Financial data (mortgage amount, balance, term and interest rate, property expenses and income, and information on Section 8, Flexible Subsidy, Rent Supplement or other assistance).

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<sup>6</sup>The selection procedure purposely over-sampled older assisted properties (particularly older assisted large unit properties that house larger families). This allows more precise analyses of these properties, which are of special policy concern.

<sup>7</sup>Abt Associates—with Applied Real Estate Analysis, Bradfield Associates, Dana Larsen Roubal Group, Lane Frenchman Associates, and OKM Associates—collected the data between July, 1990 and June, 1991.

Exhibit 1.4

**COMPARISON OF UNIVERSE AND STUDY SAMPLE  
Multifamily Rental Housing with Hud-Insured (or Held) Mortgages**

	<b>Unassisted</b>	<b>Older Assisted</b>	<b>Newer Assisted</b>
<b>Universe 13,271 properties</b>	3080 (23%)	6037 (45%)	4154 (31%)
<b>Original Sample 600 properties</b>	123 (21%)	324 (54%)	153 (26%)
<b>Final Sample 570 properties</b>	115 (20%)	309 (54%)	146 (26%)



**2. HUD Field Office Loan Management Records—Mail/Phone Surveys:**

- Verification/correction of key data from HUD computer files.
- Financial data not available on computer files (replacement reserves and other reserves—balance and recent withdrawals, residual receipts).
- Transfers of Physical Assets (TPAs, which are property sales with mortgage assumption), Section 8 contracts.

**3. Property Owners/Managers—Mail/Phone Surveys:**

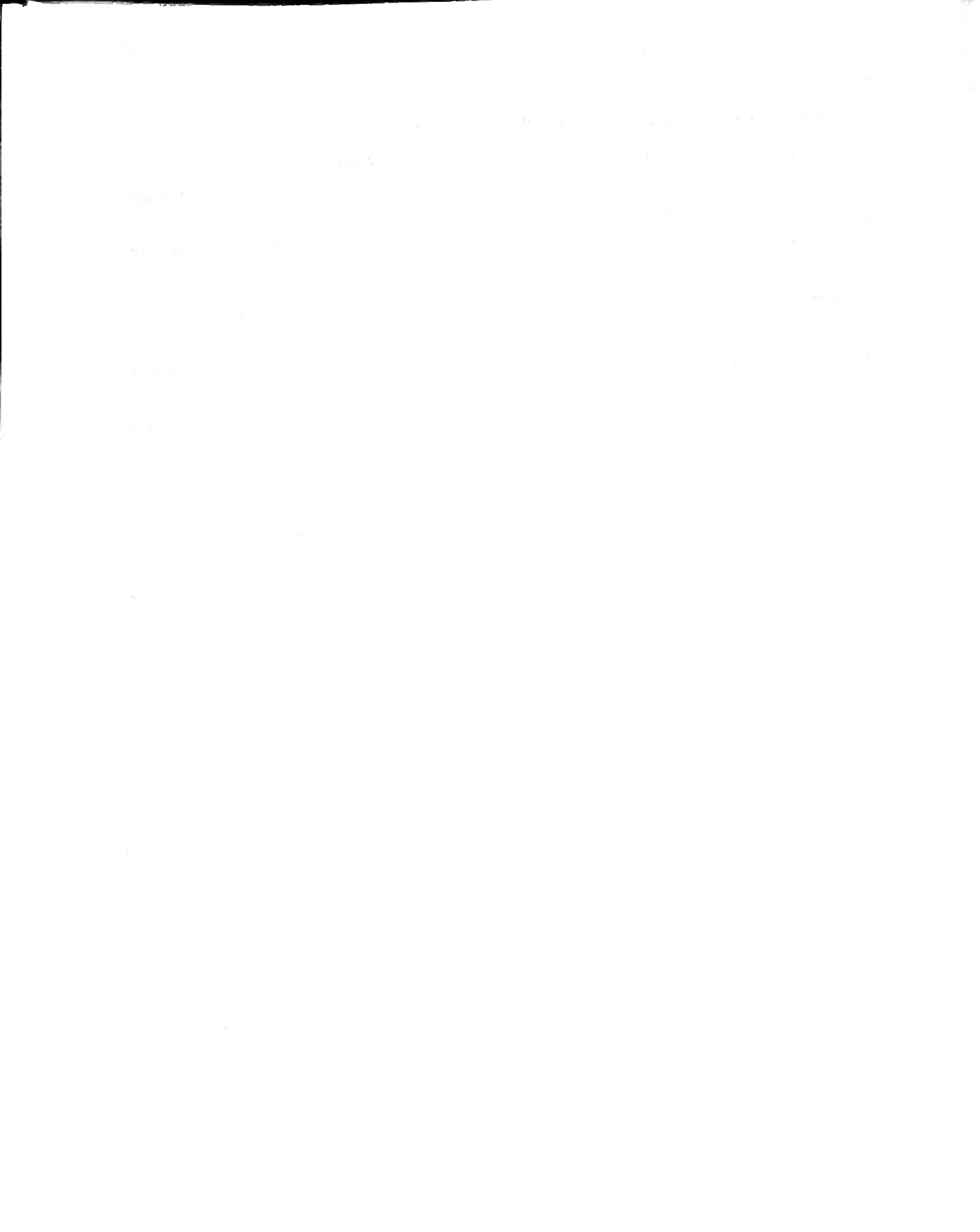
- Ownership structure information.
- Tenant characteristics (copies of HUD Form 50059 Tenant Certifications where available; otherwise, owner/manager estimates).
- Financial information not available from other sources (such as additional mortgages and trust notes).

**4. Physical Inspections (on-site inspection of units, buildings, and sites plus a windshield survey of the neighborhood):**

- Current physical condition, backlog of maintenance and repair needs, inventory of systems for estimates of future accruals.
- Conversion potential (from a physical perspective) to moderate market, high-end market or condominium use.
- Overview of neighborhood condition.

**5. Market Value Data Collection**

- HUD Field Office Economists—Mail Survey:
  - Market trends.
  - List of competitive properties and local market contacts.
- Physical Inspectors—On Site:
  - Neighborhood photographs and windshield surveys (drive-by ratings of condition of exteriors of neighborhood properties and of streets, parks, and other public infrastructure).
  - Photographs of subject properties.
  - List of competitive properties and local market contacts.
- Public Officials, Realtors, Competitive Properties, Managers—Telephone Surveys:
  - Unassisted market rents and values—as is condition and highest and best use.
  - Neighborhood condition and recent trends.



## CHAPTER TWO

# PHYSICAL AND FINANCIAL CONDITION OF MULTIFAMILY RENTAL HOUSING WITH HUD-INSURED (OR HELD) MORTGAGES

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A property's physical and financial condition taken together indicate whether it is sound or in distress. This chapter examines the physical and financial condition of the national stock of multifamily rental housing with HUD-insured (or held) mortgages. It provides the basis for the discussion in Chapter Three of distressed properties.

### 2.1 Physical Condition

This study defines a property's *current physical condition*, or *backlog of physical needs*, as the cost to repair or replace all deteriorated components to restore them to original working condition.<sup>8</sup> Physical condition affects tenants' living standards and, in the case of serious deficiencies, may indicate demand for HUD's remedial assistance programs or may contribute to claims against HUD's insurance funds. This section describes how physical needs were assessed and presents the current backlog of physical needs for the multifamily rental stock.

#### Procedures for Estimating Physical Needs

Physical needs were assessed using the Observable System Method, which combines on-site inspection and rating of a property's condition with a computerized costing system based on a consistent set of repair/replacement costs that are adjusted for regional price differences.<sup>9</sup> The inspectors, a group of architects and engineers trained in the Observable System Method, made on-site inspections using standardized forms and procedures. They inspected each of the study's 570 properties, including direct inspections of 1,089 buildings and 1,520 units.

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<sup>8</sup>This study excluded from physical needs, minor maintenance items such as replacing a faucet washer, repairing a torn window screen, replacing a toilet float, or replacing a damaged light switch cover. It also excluded three categories of expenditures that many owners may decide to make: modifications for handicapped accessibility, as required by Section 504 of the Rehabilitation Act of 1973, as amended; measures taken solely to mitigate hazards of lead paint or asbestos; and improvements for increasing energy efficiency. The only exception is that replacing, for example, a heating system or appliance, assumes installing a standard quality replacement according to *current practice*, and not simply replicating the old system.

<sup>9</sup>Dixon Bain et al., Abt Associates, Inc., *Study of the Modernization Needs of the Public and Indian Housing Stock* (Washington, DC: HUD Office of Policy Development and Research, March 1988). This inspection method proved sufficiently effective that it has been adapted and used by commercial firms.

At each site, 116 mechanical, electrical, and architectural systems were observed and assessed. Exhibit 2.1 lists most of these key systems, grouped by major property elements (site, building, or unit) and by 17 system groups. For each system, inspectors determined and recorded the level of remedial action needed to restore it to original working condition. The action levels ranged from "No Action" through stages of repair to "Replacement." "No Action" indicated that any minor problems noted were within the routine maintenance covered by the annual operating budget. Other action levels indicated need for non-routine repairs. "Replacement" of a system indicated that a system was worn out or non-functioning beyond repair.

A property's physical needs backlog was computed using a standardized set of costs for each action level multiplied by the appropriate quantity—e.g., the number of windows in the property that the inspector determined needed replacement were multiplied by the cost of replacing a window (of the appropriate type and size). The final cost for each property was computed by combining costs for all systems and adjusting for regional price differences.

To facilitate comparing costs across properties having different *numbers of units*, each property's costs were expressed on a "per unit basis." Furthermore, to permit comparisons across properties having different *sized units* (since a property of predominantly efficiency units will have lower costs than an otherwise identical property of 3-bedroom units), all property-level costs were normalized on the basis of each property's "2-bedroom equivalent units" (henceforth referred to as "2BR units") rather than its actual number of units.<sup>10</sup>

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<sup>10</sup>The number of 2BR units per property was calculated by dividing the total square footage of living space in the property by the national average square footage of a 2 bedroom/1 bath unit (844 square feet). As shown below, the number of 2BR equivalent units is smaller than the actual number, indicating that, on average, actual units are somewhat smaller than 844 square feet. The Capital Needs Study properties are a subset of 5,663 older assisted properties and 228 newer assisted properties.

Assistance Category	Actual Units	2BR Equivalent Units
Unassisted	452,760	427,278
Older assisted	673,390	660,426
Newer assisted	361,398	332,886
TOTAL	1,487,548	1,420,591
Capital Needs Study properties	634,457	623,752

## Exhibit 2.1

### SYSTEM GROUPS AND KEY SYSTEMS INSPECTED

**Site Areas**—landscaping, property-owned roadways, parking areas, paved walkways, curbing, fencing, retaining walls, site drainage, pole-mounted site lights.

**Site Amenities**—site furniture, yards, dumpsters, pools, tennis & basketball courts.

**Site Distribution Systems**—electrical & heating water distribution, domestic hot & cold water lines, main water service, gas lines, sanitary lines, septic system, sewage ejectors, hydrants.

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**Building Mechanical & Electrical**—heating risers, building gas distribution, building domestic water sanitary distribution, fire suppression systems, sump pumps, compactors, switchgear, emergency lights, communication system, emergency call alarm systems, master TV antenna, closed circuit TV.

**Building Heating & Cooling**—central ventilation system, central air conditioning, furnaces, boilers, boiler room piping & peripherals, domestic hot water generation.

**Building Elevators**—including shaftways, shaftway doors, cabs, controller/dispatcher, machinery.

**Building Exterior Closure**—foundation or slab, exterior walls & insulation.

**Building Roofs**—roofs & roof systems such as parapet walls, chimneys, roof hatches, skylights, penthouses, roof drainage systems.

**Building Windows & Doors**—all windows, exterior common doors, unit entry & screen doors.

**Building Exterior Features**—canopies, exterior stairs, building mounted site lights, fire escapes, porches & decks, attached storage sheds.

**Building Common Areas**—vestibules, corridors, stairs, interior lights in common areas, building mail facilities, laundry rooms, laundry equipment, common rooms.

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**Unit Interior Construction**—wall & ceiling partitions (excluding kitchen & bath), floors & sub-bases (all rooms).

**Unit Interior Finishes**—wall & ceiling surfaces (all rooms), kitchen & bathroom wall & ceiling partitions, floor coverings, interior doors & frames.

**Unit Kitchen Fixtures**—cabinets, counters, sinks, ranges, refrigerators, garbage disposals, dishwasher, microwaves, trash compactors.

**Unit Bathroom Fixtures**—fixtures, accessories, vanities.

**Unit Heating & Cooling**—HVAC units, radiation systems, unit boilers, unit furnaces, unit level domestic hot & cold water generation, temperature controls, wall air conditioners.

**Unit Electrical**—electric panel, wiring, bell/intercom system, unit closed circuit TV, unit emergency call alarm system, smoke/fire detection equipment.

In the tables that follow, the costs for the 570 inspected properties were weighted to reflect the universe of 13,271 insured properties, thus providing estimates of the physical needs of the entire stock of HUD-insured properties.

### Current Backlog of Physical Needs

Exhibit 2.2 shows physical needs backlogs for the multifamily housing stock by assistance category.<sup>11</sup> For ease of reference, the physical needs backlog has been divided into four levels. As the exhibit shows, 20 percent of the properties had virtually *no backlog*—the current backlog was less than \$10 per 2BR unit. Another 25 percent of properties had physical needs that can be considered *normal backlog*—\$10-to-\$500 per 2BR unit—which is less than half of the physical needs that an average property would accrue in a year. (On average, a property will accrue physical needs of \$1,049 per 2BR unit each year.) This level of physical need is not considered problematic. Thirty-four percent of the properties had *moderate backlog*—\$500-to-\$2500 per 2BR unit—the equivalent of one half to 2½ years' worth of physical needs accruals. This level of backlog may be a cause of concern for some properties. Twenty-one percent of properties had *serious backlog* needs—over \$2,500 per 2BR unit—which is more than 2½ years' worth of physical needs accruals. This level of backlog needs is likely to have negative effects on a property's tenants, marketability, or, ultimately, financial viability.

The incidence of physical needs backlogs differs across assistance categories, with older assisted properties being in far worse condition than other properties:

- Far fewer older assisted properties had no backlog (10%) than did newer assisted (25%) or unassisted properties (32%). Similarly, fewer older assisted properties had normal backlogs (20%), than did newer assisted (31%) or unassisted (25%).<sup>12</sup>
- Far more older assisted properties had serious backlogs of over \$2,500 per unit (30%) than did either newer assisted (14%) or unassisted (14%).

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<sup>11</sup>In this and most other exhibits in Chapter Two, data for the Capital Needs Study properties are listed in the last column in response to Congress's interest in this group of properties. However, because the characteristics of the Capital Needs Study properties are virtually identical to those of older assisted properties, the report will economize on text by limiting most discussions in Chapter Two to the older assisted properties. Chapters Three and Four will discuss the Capital Needs Study properties in detail.

<sup>12</sup>Older assisted properties are more exposed than are newer assisted properties to physical and financial problems because of aging physical plants and lower average subsidy levels. In fact, Exhibit 2.8, below, shows that older assisted properties spend less on operations and maintenance than do newer assisted properties.

Exhibit 2.2

**DISTRIBUTION OF BACKLOG OF PHYSICAL NEEDS  
(Per 2BR Equivalent)**

	Total	Total		Total Assisted		Capital Needs Properties
		Unassisted	Assisted	Older	Newer	
Total Properties	13,271	3,080	10,191	6,037	4,154	5,891 <sup>2</sup>
Percent	100%	23%	77%	59% <sup>1</sup>	41% <sup>1</sup>	
<b>Backlog Per 2BR Unit</b>						
No Backlog	20%	32% **	16%	10% **	25%	11%
<\$10	20%	32%	16%	10%	25%	11%
Normal Backlog	25%	25%	25%	20% **	31%	21%
\$10 to <\$500	25%	25%	25%	20%	31%	21%
Moderate Backlog	34%	29%	36%	41% **	30%	39%
\$500 to <\$1,000	13%	14%	12%	14%	10%	13%
\$1,000 to <\$1,500	9%	5%	11%	11%	10%	10%
\$1,500 to <\$2,000	8%	8%	8%	8%	8%	8%
\$2,000 to <\$2,500	4%	2%	5%	7%	2%	8%
Serious Backlog	21%	14% **	24%	30% **	14%	29%
\$2,500 to <\$3,000	4%	3%	4%	5%	4%	4%
\$3,000 to <\$4,000	6%	3%	8%	8%	6%	9%
\$4,000 to <\$5,000	4%	3%	4%	6%	1%	6%
\$5,000 to <\$7,500	5%	3%	5%	7%	2%	7%
≥\$7,500	2%	2%	3%	4%	1%	4%
<b>Statistics on Backlog of Physical Needs</b>						
Mean	\$1,520	\$1,052 **	\$1,662	\$2,115 **	\$1,003	\$2,072
Standard Error	\$ 92	\$ 163	\$ 108	\$ 149	\$ 125	\$ 147
Median	\$ 654	\$ 193	\$829	\$1,291	\$ 322	\$1,219

Source: Physical inspections, costing program.

Note: Column sums may not add to 100% due to rounding.

\*\* Signifies that the assisted/unassisted or older assisted/new assisted difference is statistically significant at the 95% confidence level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance.

<sup>1</sup>Percentages in the older and newer assisted categories total 100% of the total assisted category's 77%.

<sup>2</sup>Capital Needs Study properties are a subset of 5,663 older assisted properties and 228 newer assisted properties.

The mean physical need backlogs reinforce this finding. Older assisted properties had mean backlogs of \$2,115 per 2BR unit, about double those of newer assisted properties (\$1,003) or unassisted properties (\$1,052).

The medians for the backlog of physical needs were far lower than the means, which indicates that some properties have extremely high backlogs. The median for older assisted properties was \$1,291—much better than the mean, but still indicating that half of these properties have backlogs exceeding one year's average accrual of physical needs. In comparison, the medians for newer assisted properties (\$322) and unassisted properties (\$193) are well below half of an average year's accrual.

The effects of a given backlog of physical needs depend on the types of systems affected and the repairs and replacements that are required. Backlog needs that are in systems that directly affect tenant health and safety—such as interior construction, heating and cooling, and building mechanical systems—are of special concern. The immediate threat to tenants is diminished to the extent that the needed repairs are in systems that are more cosmetic such as site amenities or interior finishes. Even these more cosmetic backlog needs, however, may very directly affect tenants' quality of life, and may impair a property's income by increasing vacancies and lowering effective rents.<sup>13</sup> Other repair needs such as roofs or gutters may not pose immediate threats to tenants but may eventually damage buildings, create financial burdens for the property, and contribute to vacancies.

To allow a closer look at which systems account for the highest physical needs backlog, the repair costs for the 116 observed systems have been grouped by major property elements (site, building, and unit) and the 17 system groups that were introduced in Exhibit 2.1. Exhibit 2.3, presenting the backlog by major property element, shows that most of the repair costs (59 percent overall) were attributed to unit-level systems. Although there is some variation, the proportion of physical needs was similar across all assistance categories. Building systems were the next largest component of repair backlog, accounting for 31 percent of needs overall. The smallest groups of systems, in terms of physical needs, were those associated with sites, accounting for only 10 percent of all physical needs.

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<sup>13</sup>This is most likely to be the case for unassisted properties and for assisted properties located in markets offering alternative housing that is reasonably attractive and affordable.



Exhibit 2.3

**BACKLOG OF PHYSICAL NEEDS BY MAJOR PROPERTY ELEMENT  
(Percent Distribution)**

	Total	Total		Total Assisted	
		Unassisted	Assisted	Older Assisted	Newer Assisted
Total Properties Percent <sup>1</sup>	13,271 100%	3,080 23%	10,191 77%	6,037 59%	4,154 41%
<b>Property Element</b>					
Site Costs	10%	13%	9%	9%	8%
Building Costs	31%	35%	30%	30%	32%
Unit Costs	* 59%	51%	61%	61%	61%
<b>Mean Backlog per 2BR Equivalent</b>					
	\$1,520	\$1,052	\$1,662	\$2,115	\$1,003

\* Signifies that the assisted/unassisted difference is statistically significant at the 90% confidence level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance.

Source: Physical inspections, costing program.

Note: Column sums may not add to 100% due to rounding.

<sup>1</sup> Percentages in older assisted and newer assisted categories total 100% of the total assisted category's 77%.

Exhibits 2.4 and 2.5 provide a more detailed breakdown of the backlog by system groups, by dollar values and by percents of total physical needs, respectively.

- Unit Interior Finishes alone accounted for 37 percent of the mean physical need backlog—\$564 of the \$1,520 mean repair cost per 2BR unit. Interior finishes are largely cosmetic elements such as wall and ceiling surfaces and interior doors. These elements are subject to a high level of tenant use and generally wear out quickly.
- The second largest component of need was Kitchen Fixtures (14 percent of total backlog costs), which includes items such as cabinets, counters, ranges, and refrigerators. Kitchen Fixtures are also subject to a high level of tenant use and wear out more quickly than most other systems.
- The third largest component of backlog need was Building Exterior Closure (10 percent of backlog costs). This system group includes foundations, slabs, exterior walls, and insulation. While Building Exterior Closure includes important structural systems, most of the backlog in this category was generally due to neglected painting and caulking (which can remain cosmetic problems for quite awhile before causing structural damage), and insulation needing replacement (which can be costly).

While the level of repair needs is much higher in older assisted properties than in either unassisted or newer assisted properties, the **distribution** of costs by system group was similar across assistance categories.

### **Costs Associated with Health and Safety Systems**

A property's physical needs backlog may be a problem for residents as well as for owners, particularly if it threatens residents' health and safety. For purposes of this study, a subset of the 17 systems groups has been identified that is most relevant to health and safety:<sup>14</sup>

- Unit Interior Construction
- Unit Bathroom Fixtures
- Unit Heating and Cooling
- Unit Electrical
- Building Heating and Cooling
- Building Mechanical and Electrical
- Building Elevators
- Site Distribution Systems

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<sup>14</sup>See Exhibit 2.1 for the list of key systems included in these system groups.

Exhibit 2.4

**BACKLOG OF PHYSICAL NEEDS BY SYSTEM GROUP**  
**(Dollars per 2BR Equivalent Unit)**

Systems	Total	Total		Total Assisted	
		Unassisted	Assisted	Older Assisted	Newer Assisted
Total Properties Percent <sup>1</sup>	13,271 100%	3,080 23%	10,191 77%	6,037 59%	4,154 41%
Mean Site Costs	\$148	\$140	\$150	\$200	\$78
Site Areas	115	97	120	161	60
Site Amenities	30	39	27	33	18
Site Distribution	3	4	3	5	0
Mean Building Costs	471	373	500	626	316
Mechanical & Electrical	19	7	22	32	8
Heating & Cooling	86	61	93	104	77
Elevators	5	5	5	6	2
Exterior Closure	158	109	173	215	113
Roofs	49	39	52	67	31
Windows and Doors	93	105	90	117	49
Exterior Features	14	17	13	20	3
Common Areas	47	29	52	65	33
Mean Unit Costs	902	539	1,012	1,289	609
Interior Construction	13	5	15	24	2
Interior Finishes	564	307	642	788	429
Kitchen Fixtures	212	175	223	311	96
Bath Fixtures	55	38	60	83	28
Unit Heating & Cooling	20	9	24	28	17
Electrical	34	3	44	49	36
Mean Backlog per 2BR Unit	\$1,520	\$1,052	\$1,662	\$2,115	\$1,003

Source: Physical inspections, costing program.

<sup>1</sup> Percentages in older assisted and newer assisted categories total 100% of the total assisted category's 77%.

Exhibit 2.5  
**BACKLOG OF PHYSICAL NEEDS BY SYSTEM GROUP**  
 (Percent Distribution)

Systems	Total	Total		Total Assisted	
		Unassisted	Assisted	Older Assisted	Newer Assisted
Total Properties Percent <sup>1</sup>	13,271 100%	3,080 23%	10,191 77%	6,037 59%	4,154 41%
Mean Site Costs	10%	13%	9%	9%	8%
Site Areas	8%	9%	7%	8%	6%
Site Amenities	2%	4%	2%	1%	2%
Site Distribution	0%	0%	0%	0%	0%
Mean Building Costs	31%	35%	30%	30%	32%
Mechanical & Electrical	1%	1%	1%	2%	1%
Heating & Cooling	6%	6%	6%	5%	8%
Elevators	0%	0%	0%	0%	0%
Exterior Closure	10%	10%	10%	10%	11%
Roofs	3%	4%	3%	3%	3%
Windows and Doors	6%	10%	5%	6%	5%
Exterior Features	1%	2%	1%	1%	0%
Common Areas	3%	3%	3%	3%	3%
Mean Unit Costs	59%	51%	61%	61%	61%
Interior Construction	1%	0%	1%	1%	0%
Interior Finishes	37%	29%	39%	37%	43%
Kitchen Fixtures	14%	17%	13%	15%	10%
Bath Fixtures	4%	4%	4%	4%	3%
Unit Heating & Cooling	1%	1%	1%	1%	2%
Electrical	2%	0%	3%	2%	4%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
Mean Backlog per 2BR Unit	\$1,520	\$1,052	\$1,662	\$2,115	\$1,003

Source: Physical inspections, costing program.

Note: Column sums may not add to 100% due to rounding.

<sup>1</sup> Percentages in older assisted and newer assisted categories total 100% of the total assisted category's 77%.

The mean costs for Health and Safety Systems (by properties' assistance category) are shown in Exhibit 2.6. For all properties, 25 percent of all physical needs (mean of \$377 and median of \$23 per 2BR unit) were in Health and Safety Systems. This percentage was relatively constant across assistance categories, but as with other needs, older assisted properties had higher Health and Safety System needs (mean of \$515 and median of \$101 per 2BR unit). Most unassisted and newer assisted properties had virtually no backlogs in Health and Safety Systems.

## 2.2 Financial Condition

*Financial condition* was examined in terms of a property's *annual net cash flow* (per unit), and *ability to cover its backlog of physical needs* from its available reserve funds. Net cash flow (before tax) shows the degree to which a property can cover current operations (including routine maintenance), mortgage debt service, and annual deposits to its replacement reserve fund (to cover future physical replacements). Ability to cover the backlog of physical needs shows the degree to which a property can fund repairs to restore all systems to original working condition.

### Annual Net Cash Flow (per unit)

A property's annual net cash flow is its total revenues (income) less expenses. The primary revenue source for most properties is apartment rents paid by residential tenants. In assisted properties, subsidies paid by HUD are also a major revenue source. Other revenue sources may include commercial rent, financial revenue (such as interest income from reserve accounts), or forfeited tenant deposits. Property expenses include operating and maintenance costs, debt service, and deposits to the replacement reserve account. This study will report all financial items on a per 2BR unit basis (as was done in the previous section on physical needs) to allow comparisons across properties of different sizes (unit counts) and unit compositions (distribution of units by bedroom counts).

The study computed annual net cash flow as follows:

- (1) 3-year weighted average total revenues
- (2) *Minus* 3-year weighted average operating expenses
- (3) *Minus* Deposits to replacement reserve account (maximum of actual and required deposit)
- (4) *Minus* Mortgage debt service (including interest, principal, and mortgage insurance premium).

Exhibit 2.6

**BACKLOG OF PHYSICAL NEEDS FOR HEALTH AND SAFETY SYSTEMS<sup>1</sup>**  
**(Per 2BR Equivalent Unit)**

	Total	Total		Total Assisted	
		Unassisted	Assisted	Older Assisted	Newer Assisted
Total Properties	13,271	3,080	10,191	6,037	4,154
Percent <sup>2</sup>	100%	23%	77%	59%	41%
<b>Total Backlog (for All Property Systems)</b>					
Mean	\$1,520	\$1,052	\$1,662	\$2,115	\$1,003
<b>Backlog for Health and Safety Systems</b>					
Mean	\$377	\$277	\$407	\$515	\$250
Standard Error	\$ 36	\$ 61	\$ 43	\$ 59	\$ 56
Median	\$ 23	\$ 0	\$ 39	\$101	\$ 0
Health and Safety Backlog as Percent of Total Physical Backlog	25%	26%	25%	24%	25%

Source: Physical inspections, costing program.

Note: Column sums may not add to 100% due to rounding.

<sup>1</sup>Health and safety systems are defined as the following 8 of the 17 system groups assessed in this study: Unit Interior Construction, Unit Bathroom Fixtures, Unit Heating and Cooling, Unit Electrical, Building Heating and Cooling, Building Mechanical and Electrical, Building Elevators, and Site Distribution.

<sup>2</sup>Percentages in older assisted and newer assisted categories total 100% of the total assisted category's 77%.

Net cash flow is a key indicator of a property's viability, showing whether it can meet its ongoing obligations.<sup>15</sup> It is also a key element used by HUD in ranking applicants for its major remedial assistance programs, Flexible Subsidy and Section 8 LMSA).<sup>16</sup>

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<sup>15</sup>In assessing a property's viability, net cash flow must be examined concurrently with physical needs and property management. A property could have deceptively positive cash flow by failing to make necessary expenditures for repairs and replacements. Conversely, a property could have deceptively negative cash flow because a new owner or manager has begun a crash repair program to eliminate an accumulated backlog of physical needs.

<sup>16</sup>In further explanation of the computation of net cash flow:

(1) By averaging over 3 years, the measure focused on long-term revenue flows in a property and reduced the effect of one-time outliers. A higher weight was applied to more recent years to incorporate trends into the measure. The 3-year weighted average of property revenues includes actual rental income (net of any vacancy losses) from tenant paid apartment rents, rental assistance payments, and any commercial or financial income received. (This is taken from HUD Form 92410, as reported in MIPS, line 5000 Total Revenue less line 5200 Vacancy Loss. In the case of Section 236 properties, Form 92410 nets out any rental income in excess of basic rent that owners are required to return to HUD.) A 3-year weighted average (over the most recent 3 years) was used, where the more recent years receive higher weights. (For the 430 properties with 3 years of data, the weights are 0.2 for the earliest year, 0.3 for the middle year, and 0.5 for the most recent year. For the 86 properties with 2 years available, the weights are 0.4 and 0.6, and for the 27 properties with only one year, the weight is 1. Data were imputed for the remaining properties based on each property's assistance category and primary building type.)

(2) The 3-year weighted average operating expenses equal the sum of the cost components reported in the project financial statements—administrative costs, utility expenses, operating and maintenance expenses, and tax and insurance expenses. This was taken from Form 92410, as compiled in MIPS, Line 6263 Total Administrative Expense plus line 6400 Utilities Expenses plus line 6500 Operating and Maintenance Expense plus line 6700 Total Tax and Insurance Expense.

(3) Deposits to the reserve for replacement account are the maximum of actual deposits as reported by HUD Field Offices in the study's data collection survey, and required deposits, which this study approximated as 0.5 percent of the original mortgage amount. About 16 percent of all properties did not report payments to the replacement reserve account. These properties either did not make or did not report the required deposits. Not making payments to reserve accounts may be a way that owners of properties with cash flow problems react in the short run. Thus, in order to be sure that such lapses are dealt with, the study attributed the required deposit amount to properties reporting low or no payments.

(4) Mortgage debt service was computed from mortgage amount, term and interest rate. Mortgage insurance premium (0.5% of the outstanding principal balance) was added to the debt service costs. (Section 221(d)(3) BMIR properties pay no mortgage insurance premium.) For the majority of properties mortgage data were compiled from HUD's F47 database. For HUD-held properties, mortgage data was from HUD's MARS database.

Exhibit 2.7 shows annual total revenues (and some of its components) by property assistance category. All data are presented in 1989 dollars (per 2BR unit).<sup>17</sup> Total revenues include commercial, financial, or other revenues, in addition to tenant paid apartment rent and tenant assistance payments from HUD. The exhibit shows that:

- Total revenues were much lower in older assisted properties (\$4,664 per 2BR unit) than in either newer assisted (\$7,571) or unassisted (\$6,162) properties. This reflects (in large part) the lower rents needed in older assisted properties to cover debt service. (See discussion of annual expenses, below.)
- Tenant paid apartment rents were lower in assisted than unassisted properties (\$2,747 vs. \$6,079), largely reflecting the portion of expenses covered by HUD subsidies.
- Tenant paid apartment rents were higher in older assisted than newer assisted properties (\$2,836 vs. \$2,623), despite the much higher total revenues (and monthly rents) in newer assisted properties. This difference is because newer assisted properties: have deeper subsidies than many older assisted properties (Section 8 rather than interest subsidies); were targeted to households earning less than 50 percent of local median income; and were more likely to have 100 percent of their units assisted.
- Vacancy losses were much higher in unassisted properties (8.2%) than in assisted properties (2.6%). Unassisted properties may face stiffer market competition than assisted properties, for which low-income tenants are more of a captive market.
- Among assisted properties, older assisted properties have higher vacancy losses (3.4%) than do newer assisted properties (1.3%). This probably reflects programmatic differences (more newer assisted properties have 100 percent Section 8), but may also reflect the poorer physical condition and higher tenant paid rents in some of older assisted properties, which together, make older assisted properties less attractive.

Exhibit 2.8 shows the components of annual expenses including total operating and maintenance costs, deposits to the replacement reserve account, and debt service costs.

- Operating and maintenance expenses were virtually identical between assisted (\$3,098 per 2BR unit) and unassisted properties (\$3,091).

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<sup>17</sup>Very few properties had 1990 data available at the time of data collection, so 1989 was chosen as the base year for financial data. For a few properties, data were available only for 1990, and the study used the 1990 data expressed in 1989 dollars. The Housing Component of the Consumer Price Index was used to convert non-1989 values into 1989 dollars.



Exhibit 2.7

**COMPONENTS OF ANNUAL TOTAL REVENUES  
(Per 2BR Equivalent Unit)<sup>1</sup>**

	Total	Total		Assisted		Capital Needs Properties
		Unassisted	Assisted	Older	Newer	
Total	13,271	3,080	10,191	6,037	4,154	5,891 <sup>3</sup>
Percent	100%	23%	77%	59% <sup>2</sup>	41% <sup>2</sup>	
<b>Total Revenues (Net of Vacancies)</b>						
Mean	\$5,922	\$6,162 **	\$5,859	\$4,664 **	\$7,571	\$4,737
Standard Error	\$128	\$378	\$125	\$118	\$208	\$122
Median	\$5,173	\$5,089	\$5,215	\$4,240	\$6,874	\$4,268
<b>Apartment Rent (Tenant-paid)</b>						
Mean	\$3,527	\$6,079 **	\$2,747	\$2,836 **	\$2,623	\$2,800
Standard Error	\$108	\$292	\$81	\$71	\$180	\$74
Median	\$2,979	\$5,116	\$2,503	\$2,729	\$1,951	\$2,699
<b>Tenant Assistance Payments (Subsidies)</b>						
Mean	\$2,202	\$0 **	\$2,847	\$1,532 **	\$4,765	\$1,662
Standard Error	\$108	\$0	\$122	\$78	\$231	\$87
Median	\$1,156	\$0	\$2,105	\$1,194	\$4,746	\$1,245
<b>Vacancy Loss (As Percent of Rent Revenue)</b>						
Mean	3.9%	8.2% **	2.6%	3.4% **	1.3%	3.3%
Standard Error	0.002	0.007	0.002	0.002	0.001	0.002
Median	1.9%	6.5%	1.5%	1.9%	0.9%	1.9%

\*\* Signifies that the assisted/unassisted or older assisted/newer assisted difference is statistically significant at the 95% confidence level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance.

Source: HUD MIPS database.

<sup>1</sup> Expressed in 1989 dollars; equals a weighted average of the 3 most recent years of data available.

<sup>2</sup> Percentages in the older and newer assisted categories total 100% of the total assisted category's 77%.

<sup>3</sup> Capital Needs Study properties are a subset of 5,663 older assisted properties and 228 newer assisted properties.

Exhibit 2.8

**COMPONENTS OF ANNUAL EXPENSES**  
(Per 2BR Equivalent Unit)<sup>1</sup>

	Total	Total		Assisted		Capital Needs Properties
		Unassisted	Assisted	Older	Newer	
Total Properties	13,271	3,080	10,191	6,037	4,154	5,891 <sup>3</sup>
Percent	100%	23%	77%	59% <sup>2</sup>	41% <sup>2</sup>	
<b>Total Operating and Maintenance Expenses</b>						
Mean	\$3,093	\$3,098	\$3,091	\$2,977 **	\$3,256	\$2,973
Standard Error	\$54	\$150	\$56	\$63	\$106	\$64
Median	\$2,807	\$2,747	\$2,846	\$2,756	\$2,972	\$2,756
<b>Replacement Reserve Deposit (Actual)</b>						
Mean	\$167	\$103 **	\$186	\$202 **	\$163	\$206
Standard Error	\$7	\$10	\$8	\$11	\$12	\$11
Median	\$132	\$94	\$151	\$145	\$155	\$151
Percent Non-Zero	83%	73%	86%	87%	86%	88%
<b>Replacement Reserve Deposit [max(Actual, Required)]</b>						
Mean	\$202	\$162 **	\$214	\$219 **	\$207	\$221
Standard Error	\$7	\$12	\$8	\$11	\$10	\$11
Median	\$159	\$128	\$170	\$152	\$186	\$153
<b>Total Debt Service (including mortgage insurance premium)</b>						
Mean	\$2,297	\$2,670 **	\$2,184	\$1,318 **	\$3,443	\$1,332
Standard Error	\$77	\$255	\$68	\$35	\$114	\$37
Median	\$1,786	\$1,911	\$1,764	\$1,189	\$3,163	\$1,192

\*\* Signifies that the assisted/unassisted or older assisted/newer assisted difference is statistically significant at the 95% confidence level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance.

Source: HUD MIPS database.

<sup>1</sup>Expressed in 1989 dollars; equals a weighted average of the 3 most recent years of data available.

<sup>2</sup>Percentages in the older and newer assisted categories total 100% of the total assisted category's 77%.

<sup>3</sup>Capital Needs Study properties are a subset of 5,663 older assisted properties and 228 newer assisted properties.

- Examination of operating and maintenance expenses of the two assisted categories reveals that older assisted properties spend less than do newer assisted properties (\$2,977 vs. \$3,256). This is consistent with the finding, above, that older assisted properties have higher physical needs backlogs than do newer assisted properties.
- Replacement reserve deposits were lower in unassisted properties compared with assisted properties (\$103 vs. \$186 per 2BR unit), reflecting the lower construction costs and mortgages of unassisted properties.
- Replacement reserve deposits were higher for older assisted than newer assisted properties (\$202 vs. \$163), perhaps reflecting ongoing efforts by older assisted properties to deal with physical backlogs.
- Total debt service costs were highest in newer assisted properties (\$3,443 per 2BR unit) and lowest in older assisted properties (\$1,318). This reflects differences in mortgage amounts (construction costs at different times), interest rates, and HUD interest rate subsidies. Newer assisted properties, being most recently built, had high nominal construction costs and were financed during periods of high prevailing interest rates. (Unassisted properties, being on average oldest, are in the opposite situation.) Older assisted properties, in addition to having been built for lower nominal amounts, include properties with subsidized mortgage interest (Sections 236 and 221(d)(3)BMIR).

Exhibit 2.9 brings together annual revenue and expenses (discussed above) to display annual net cash flow. The exhibit shows that, overall, 68 percent of the multifamily housing stock had positive net cash flow, with a mean of \$330 per 2BR unit. Another 14 percent had small annual *deficits* of less than \$250 (which on a monthly basis is under \$21 per 2BR unit). However, 4 percent of properties had annual deficits exceeding \$1,000 per 2BR unit.

As would be expected from the previous analyses of revenue and expenses, there are significant differences in net cash flow among assistance categories:

- Newer assisted properties had the best cash flow—87 percent had positive cash flow, and the mean cash flow was \$665. Among the small group of properties with negative cash flow, deficits tended to be small, with extremely few properties having large negative cash flow.
- Unassisted and older assisted properties had similar proportions of positive cash flow properties (60 percent and 59 percent, respectively). However, the distribution of cash flow across properties differs markedly between the two assistance categories, reflecting the respective benefits of subsidized and market operations.

-High percentages of unassisted properties had large negative cash flow—11 percent with deficits exceeding \$1,000, and 8 percent with deficits from \$500 to \$1,000. By contrast, only 2 percent of older assisted properties had deficits exceeding \$1,000, and 8 percent had deficits of from \$500 to \$1,000. HUD

Exhibit 2.9

**ANNUAL NET CASH FLOW**  
(Per 2BR Equivalent Unit)

	Total	Total		Assisted		Capital Needs Properties
		Unassisted	Assisted	Older	Newer	
Total Properties Percent	13,271 100%	3,080 23%	10,191 77%	6,037 59% <sup>1</sup>	4,154 41% <sup>1</sup>	5,891 <sup>2</sup>
Negative Net Cash Flow	32%	41% **	29%	40% **	12%	38%
<-\$1,000	4%	11%	2%	2%	1%	0%
-\$1000 to <-\$500	6%	8%	5%	8%	1%	7%
-\$500 to <-\$250	8%	9%	8%	10%	4%	10%
-\$250 to <\$0	14%	13%	14%	20%	6%	21%
Positive Net Cash Flow	68%	60% **	72%	59% **	87%	62%
\$0 to <\$250	25%	14%	28%	35%	16%	36%
\$250 to <\$500	13%	10%	15%	13%	16%	13%
\$500 to <\$1,000	14%	10%	16%	6%	29%	7%
≥\$1,000	16%	26%	13%	5%	25%	6%
<b>Statistics on Annual Net Cash Flow</b>						
Mean	\$330	\$232 **	\$359	\$149 **	\$665	\$211
Standard Error	82.4	329	53	74	56	74
Median	\$184	\$153	\$187	\$51	\$559	\$56

Net Cash Flow = 3 year weighted average revenues  
minus 3 year weighted average expenses  
minus mortgage debt service  
minus deposit to replacement reserve account

\*\* Signifies that the assisted/unassisted or older assisted/newer assisted difference is statistically significant at the 95% confidence level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance.

Source: HUD MIPS database.

Note: Column sums may not add to 100% due to rounding.

<sup>1</sup>Percentages in the older and newer assisted categories total 100% of the total assisted category's 77%.

<sup>2</sup>Capital Needs Study properties are a subset of 5,663 older assisted properties and 228 newer assisted properties.

subsidies and regulation appear to protect older assisted properties from severely negative financial consequences of bad markets or inefficient operation.

-On the positive end of the scale, 26 percent of unassisted properties had extremely large positive cash flow of better than \$1,000, and another 10 percent of from \$500 to \$1,000. Older assisted properties, on the other hand, had only 5 percent with positive cash flow exceeding \$1,000, and 6 percent with positive cash flow of from \$500 to \$1,000. Regulated operation limits the opportunity of older assisted properties to reap higher returns that may be available in strong markets or to efficient operators.

- Newer assisted properties, nevertheless, surpass even unassisted properties in the proportion that have large positive cash flow—25 percent had cash flow exceeding \$1,000 per unit per year, and another 29 percent had cash flow of from \$500 to \$1,000. These properties had their initial rents effectively set by new construction market rates, and have had annual adjustments reflecting inflation in market rents and utilities. Older assisted properties, on the other hand, generally had tighter limits on initial rents, and annual adjustments generally tied to prior expenses or projected budgets.

#### **Ability to Cover the Current Backlog of Physical Needs from Reserve Funds**

An important factor in a property's long-term viability is its having adequate reserve funds. This section examines the size of a property's reserve fund balance relative to its backlog of physical needs.

There are three accounts in which properties may have accumulated funds that could be used for funding major repairs and replacements:

- **Reserve for Replacements.** All HUD-insured or held properties are required to establish and fund a reserve for replacements account. This is their primary resource for funding major repairs and replacements.
- **Other Reserves.** Some properties have established special-purpose reserve accounts, such as painting reserves. Only 12 percent of properties have such other reserve accounts.
- **Residual Receipts Accounts.** Non-profit owners and certain for-profit owners are restricted by their mortgage regulatory (or other) contracts in their being able to take profits from the property's annual surplus cash after expenses. They are required to deposit non-distributable surplus cash into a residual receipts account. Non-profit owners, and owners who have received special remedial assistance or assistance under a workout, may not distribute any profit. Limited dividend owners may distribute a restricted amount, and only under stipulated conditions. While residual receipts accounts are not reserves for the property, HUD may require owners to contribute these funds (if any) for repairs in the case of physically deteriorated properties. Sixteen percent of properties have positive residual receipts balances.

Exhibit 2.10 shows balances in these accounts. The replacement reserve is the primary source of funds to cover needed repairs, with an average balance of \$854 per unit. Average balances were significantly lower for unassisted properties (\$489) than for assisted properties (\$964). Residual Receipts and Other Reserves accounts exist for a minority of properties, but are significant for some properties.

Low reserve balances in themselves may not indicate problems. Reserve balances may be low, for example, because a major repair program was recently completed. However, if reserve balances are low in a property with a high backlog of physical needs, problems may be indicated. It is important, therefore, to examine available resources relative to the backlog of physical needs.

Exhibit 2.11 shows the *backlog coverage ratio* for the insured stock. The backlog coverage ratio equals the available resources divided by the backlog of physical needs. Specifically, *available resources* are defined as the sum of (a) any amount by which the reserve for replacement balance exceeds two years' worth of annual reserve deposits,<sup>18</sup> plus (b) residual receipts balance, plus (c) other reserves balances. Available resources is somewhat less than the sum of the resources shown in Exhibit 2.10 for those properties that have more than two years' worth of annual reserve deposits in their reserve for replacements. Exhibit 2.11 shows that:

- Forty-five percent of properties had sufficient fund balances to cover backlog needs. This includes 20 percent of properties that had no backlog needs and 25 percent with some needs.
- Fifty-five percent of properties lacked sufficient funds to cover backlog needs. This includes 13 percent that had no reserves available, and 23 percent that had in their reserves less than one-fourth the amount needed to cover current needs.
- Sixty-five percent of older assisted properties lacked sufficient funds to cover backlog needs. This includes 19 percent that had no reserves available and 30 percent that had reserve balances that could meet less than one-fourth of their backlog.
- Fifty-one percent of unassisted properties lacked sufficient funds to cover backlog needs, including 14 percent with no reserves available and 24 percent with reserves that could meet less than one-fourth of their backlog.

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<sup>18</sup>Retaining 2 years' worth of deposits is in keeping with HUD's general loan servicing practices. An assumption that properties could use their entire reserves would add less than \$400 on average, and less than this or nothing for properties with reserve balances below this amount. Dropping this restriction would make little difference in the ability of most properties to cover their backlog needs.

Exhibit 2.10

**RESOURCES FOR COVERING PHYSICAL NEEDS  
(Replacement Reserves, Residual Receipts, and  
Other Reserves per 2BR Equivalent Unit)**

	Total	Total		Assisted		Capital Needs Properties
		Unassisted	Assisted	Older	Newer	
Total Properties	13,271	3,080	10,191	6,037	4,154	5,891 <sup>2</sup>
Percent	100%	23%	77%	59% <sup>1</sup>	41% <sup>1</sup>	
<b>Total Replacement Reserve Balance</b>						
Mean	\$854	\$489 **	\$964	\$864 **	\$1,109	\$886
Standard Error	\$33	\$38	\$40	\$55	\$50	\$56
Median	\$643	\$385	\$814	\$551	\$1,022	\$616
<b>Residual Receipts</b>						
Mean	\$179	\$0 **	\$226	\$305 **	\$111	\$226
Standard Error	\$53	\$0	\$68	\$103	\$48	\$47
Median	\$0	\$0	\$0	\$0	\$0	\$0
Percent Non-Zero	16%	0%	20%	30%	7%	31%
<b>Other Reserves</b>						
Mean	\$67	\$46 **	\$73	\$98 **	\$37	\$106
Standard Error	\$11	\$32	\$11	\$16	\$13	\$16
Median	\$0	\$0	\$0	\$0	\$0	\$0
Percent Non-Zero	12%	5%	14%	19%	8%	20%

\*\* Signifies that the assisted/unassisted or older assisted/newer assisted difference is statistically significant at the 95% confidence level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance.

Source: HUD Field Offices.

<sup>1</sup>Percentages in the older and newer assisted categories total 100% of the total assisted category's 77%.

<sup>2</sup>Capital Needs Study properties are a subset of 5,663 older assisted properties and 228 newer assisted properties.

Exhibit 2.11

**BACKLOG COVERAGE RATIO**  
(Available Resources Relative to Physical Needs Backlog)

	Total	Total		Assisted		Capital Needs Properties
		Unassisted	Assisted	Older	Newer	
Total Properties	13,271	3,080	10,191	6,037	4,154	5,891 <sup>2</sup>
Percent	100%	23%	77%	59% <sup>1</sup>	41% <sup>1</sup>	
<b>Backlog Coverage Ratio<sup>3</sup></b>						
Insufficient Resources	55%	51%	56%	65% **	44%	62%
Backlog > 0 and No Available Resources <sup>4</sup>	13%	14%	13%	19%	5%	17%
Ratio > 0 to < 0.25	23%	24%	23%	30%	13%	29%
Ratio 0.25 to < 0.5	10%	10%	10%	10%	10%	9%
Ratio 0.5 to < 1	9%	3%	10%	6%	16%	7%
Sufficient Resources	45%	49%	44%	35% **	57%	38%
Ratio ≥ 1	25%	17%	28%	25%	32%	26%
Physical Needs ≤ \$10 per 2BR	20%	32%	16%	10%	25%	12%

<sup>1</sup>Percentages in the older and newer assisted categories total 100% of the total assisted category's 77%.

<sup>2</sup>Capital Needs Study properties are a subset of 5,663 older assisted properties and 228 newer assisted properties.

<sup>3</sup>Backlog Coverage Ratio =

$$\frac{\text{Available Resources after Deposit to Replacement Reserve Account} \div \text{Backlog of Needs}}{\text{If Resources} > 0 \text{ and Backlog} > 0}$$

<sup>4</sup>This means that the existing reserve account balances are less than two years' worth of deposits to replacement reserve account, so that no internal resources are currently available to cover the backlog of physical needs.

\*\* Signifies that differences between older assisted and newer assisted are statistically significant at the 90% confidence level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance.

Source: Physical Needs: Inspections and Costing program.  
Resources: HUD Field Offices.

Note: Column sums may not add to 100% due to rounding.



Exhibit 2.12 shows the resulting *unfunded backlog* of physical needs, which is the total backlog reduced by available resources (as defined as above). The mean **unfunded** backlog of physical needs was \$1,214 per 2BR unit (and the median was \$228). In contrast, the mean **total** backlog (as was shown in Exhibit 2.2 earlier in this chapter) was \$1,520 (and the median was \$654). This shows that about 80 percent of the entire backlog is unfunded. The unfunded backlog is, however, concentrated among a relatively small number of properties. Twenty-two percent of all properties had unfunded backlogs exceeding \$2,000 per 2BR unit—about 2 years' average accrual of needs; and (included in this 22 percent), 7 percent had extremely high unfunded backlogs exceeding \$5,000 per 2BR unit.<sup>19</sup>

As with other resource problems, high levels of unfunded backlogs are most common in older assisted properties (which had a mean unfunded backlog of \$1,726 compared with \$687 for newer assisted properties and \$922 for unassisted properties). Thirty-two percent of older assisted properties had over \$2,000 of unfunded backlogs, compared with 13 percent of newer assisted properties and 14 percent of unassisted properties.

In order to remedy these unfunded backlogs, properties will have to cover them from current positive cash flow, owner contributions, loans, vacancy loss reductions, operating improvements, rent increases, State or local grants, or additional subsidies. The next chapter on distressed properties discusses properties' likely ability to cover these unfunded backlogs.

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<sup>19</sup>As is discussed in Section 3.5 of this report, these extremely high backlog properties account for nearly 45 percent of the national unfunded backlog of distressed properties.

Exhibit 2.12

**UNFUNDED BACKLOG OF PHYSICAL NEEDS  
(Per 2BR Equivalent Unit)**

	Total	Total		Assisted		Capital Needs Properties
		Unassisted	Assisted	Older	Newer	
Total Properties	13,271	3,080	10,191	6,037	4,154	5,891 <sup>2</sup>
Percent	100%	23%	77%	59% <sup>1</sup>	41% <sup>1</sup>	
\$0	44%	46%	44%	35%	56%	38%
\$0 to <\$500	14%	20%	12%	10%	14%	9%
\$500 to <\$1,000	10%	7%	10%	12%	9%	11%
\$1,000 to <\$2,000	12%	13%	11%	13%	8%	12%
\$2,000 to <\$5,000	15%	9%	17%	22%	10%	22%
\$5,000 to <\$7,500	5%	4%	5%	6%	3%	6%
\$7,500+	2%	1%	2%	4%	0%	3%
<b>Statistics on Unfunded Backlog of Physical Needs</b>						
Mean	\$1,214	\$922 **	\$1,303	\$1,726 **	\$687	\$1,735
Standard Error	\$88	\$157	\$104	\$147	\$113	\$145
Median	\$228	\$11	\$291	\$683	\$0	\$638

\*\* Signifies that the assisted/unassisted or older assisted/newer assisted difference is statistically significant at the 95% confidence level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance.

Source: Inspections, HUD MIPS database, and HUD Field Offices.

Note: Column sums may not add to 100% due to rounding.

<sup>1</sup>Percentages in the older and newer assisted categories total 100% of the total assisted category's 77%.

<sup>2</sup>Capital Needs Study properties are a subset of 5,663 older assisted properties and 228 newer assisted properties.

## CHAPTER THREE

### DISTRESSED MULTIFAMILY RENTAL HOUSING WITH HUD-INSURED (OR HELD) MORTGAGES

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This chapter focuses on distressed multifamily housing. Drawing on the data presented in Chapter Two on properties' physical and financial condition, a **Distress Index** is devised. This index provides a basis for comparing properties, assessing extent of distress, and classifying properties as sound, stressed, and distressed. The remainder of this chapter examines characteristics of distressed properties, with special focus on Capital Needs Study properties about which Congress has expressed particular concern.

#### 3.1 Distress Index—Measuring Distress

A property is distressed when it seriously fails to provide sound housing and lacks resources to correct deficiencies, or if it is likely to fail financially. As the previous chapter has shown, these two aspects of distress are intertwined. To measure distress, an index has been developed that reflects a property's annual net cash flow per unit, other financial resources, and backlog of physical repair needs. The Distress Index, actually a financial resource index, measures a property's financial capacity to meet current annual expenses, set aside reserves for future physical needs, and undertake a repair program to address its backlog of physical needs. Negative values of the index indicate distress while positive values indicate adequate financial resources to meet both physical and financial needs. This index is used in this chapter to identify distressed properties from among all properties with HUD-insured or held mortgages, and to measure the degree of distress.

The Distress Index, a modified annual net cash flow, is computed by taking:

- a) Annual Net Cash Flow per unit
- b) *Minus* amortized annual cost of remedying Unfunded Backlog of Physical Needs
- c) *Plus* added annual rent from improving vacancy losses

The computation begins with annual net cash flow per unit, which measures a property's capacity to meet current expenses and make deposits to its replacement reserves account.<sup>20</sup> Net

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<sup>20</sup>Profit distributions to owners, where permitted, come from cash flow, after all of the property's needs have been met.

cash flow is then reduced by the amortized cost of remedying the unfunded backlog of physical needs, which represents the annual cost of undertaking a physical improvement program. This simulates an owner's likely attempt to spread the remedial costs over time by spreading the work over time or spreading payments by borrowing. The final step in computing the Distress Index is to add back a portion of a property's excess vacancy loss (if any) to represent higher revenues resulting from improved operations and physical condition. These elements of the Distress Index are discussed below.

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*Annual Net Cash Flow* (per unit)

**Annual Net Cash Flow (Weighted 3-Year Average) =**

**Total Revenue (Weighted 3-Year Average)**

*Minus* **Operating and Maintenance Expenses** (Weighted 3-year average, including expenses for administration, operations and maintenance, utilities, taxes and insurance)

*Minus* **Mortgage Debt Service** (interest, principal and mortgage insurance premium as required by mortgage)

*Minus* **Replacement Reserve Deposit** (using the greater of the property's actual deposit or an amount equal to 0.5% of the original mortgage)

(where all amounts are computed per 2BR unit)

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Annual net cash flow per unit is computed as explained in Chapter Two, taking a weighted average over the most recent 3 years (expressed in 1989 dollars per 2BR unit). Averaging over 3 years focuses on problems that are significant or chronic, while applying a higher weight to more recent years incorporates trends into the index. Mortgage debt service (including insurance premium) was computed based on the original mortgage principal, interest rate, and mortgage term. The replacement reserve deposit was set at the greater of the amount paid in 1989 or an amount equal to 0.5 percent of the original mortgage principal (which approximates the contractually required deposit).

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*Amortized Annual Cost of Remediating the Unfunded Backlog of Physical Needs*

Amortized annual cost of remediating the unfunded backlog of physical needs =

Annual debt service on a loan amount equal to the unfunded backlog cost  
(20 year term at 9% interest)

where **Unfunded Backlog Cost = Total Backlog Cost - Available Resources**  
(or 0 if resources exceed the total backlog)

and where **Available Resources =**

**Replacement Reserve Balance in excess of 2 years' annual deposits**

**Plus Residual Receipts Account Balance**

**Plus Other Reserve Account Balances (such as painting reserves)**

(where all amounts are computed per 2BR unit)

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At this step a property's backlog of physical needs for replacements and non-routine repairs is taken into account. As explained in Chapter Two, a property's *unfunded backlog* of physical needs is its *total backlog* less *available resources* from the replacement reserve fund, special reserve accounts, and residual receipts account. Where resources exceed the total backlog cost, there is no unfunded backlog.

In computing the Distress Index, annual net cash flow is reduced by the amortized cost of the unfunded backlog, which is the annual cost of a loan (20-year term at 9 percent interest) for the amount of the unfunded backlog. (The annual debt service payment on such a loan would equal 10.8 percent of the unfunded backlog of physical needs.) This computation does not mean that an owner would necessarily take out a loan at these terms to cover the needed repairs. Rather, it represents the real world situation where an owner, faced with years of accumulated backlog, spreads a repair program and payments over the future. An owner may effectively spread payments by a combination of:

- staging repairs over time, beginning with highest priority items

- "borrowing" informally from creditors by deferring full payment of the property's obligations, including those to any identity-of-interest management agents or vendors (e.g., related accounting, legal, or plumbing firms)
- deferring a portion of mortgage debt service (in the case of HUD-held mortgages under workout agreements)
- providing advances to the property from the owner's own funds (or from loans secured by the owner and not the property), and, finally,
- taking out a loan secured by the property (but at an interest rate likely to exceed 9 percent).

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*Added Annual Rent from Improving Vacancy Losses*

**Added annual rent from improving vacancy losses =**

**(1) For properties with vacancies in excess of the 75th percentile of vacancy losses for properties in the same assistance category**

**Current vacancy loss - 75th Percentile Vacancy Loss** (for properties in the same assistance category)

**(2) For properties with vacancies between the median and 75th percentile of vacancy losses for properties in the same assistance category**

**Current vacancy loss - Median Vacancy Loss** (for properties in the same assistance category)

**(3) For all other properties—No adjustment**

(where all amounts are computed per 2BR unit)

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In computing the Distress Index, the modified net cash flow figure is further adjusted by adding back a portion of the property's excess vacancy losses. This represents the income that would result if improved management and physical condition brought a property's excessive vacancy losses closer to the norm for the property's assistance category.

This computation is based on the assumption that properties whose vacancy losses exceed the 75th percentile of vacancy losses (among properties in their assistance category) will be able to reduce their vacancy losses down to the 75th percentile; that properties with vacancies between the median and the 75th percentile will be able to reduce vacancy losses to the median

level for their assistance category; and that for all other properties, vacancy losses will remain as they are.<sup>21</sup>

Pulling all of the above together yields the Distress Index, which can be thought of as a modified annual net cash flow per unit. A breakeven or positive Distress Index will mean that a property has the financial capacity to meet all current annual expenses, make reserve deposits for future physical needs, and undertake a physical improvement program to eliminate its entire unfunded backlog of physical needs. A negative Distress Index—a deficit—will mean that a property cannot fully meet all of annual financial and physical repair obligations and, in the absence of improved finances, may be in danger of becoming distressed. With a relatively small deficit an owner can probably continue operating by juggling which obligations will be short-changed—for example, by continuing to defer backlog items, especially those that don't substantially reduce occupancy or rent levels. However, a large annual deficit on the Distress Index means that a property's obligations greatly exceed its resources, and probably exceed the respite to be gained from just cutting corners. Such a property is clearly distressed.

To facilitate presenting properties' distress status, the following thresholds and terms will be used: Distressed Properties (Distress Index *deficit* exceeding \$250 per unit per year), Stressed Properties (Index *deficit* up to \$250 per unit per year), and Sound Properties (Index Breakeven or Positive). These terms are discussed below:

**Distressed Properties—Distress Index *deficit* exceeding \$250 (per unit per year)**

Properties having a Distress Index deficit exceeding \$250 are considered *distressed*. In monthly terms, this deficit exceeds \$21 per unit, is large relative to typical tenants' incomes,<sup>22</sup> and exists even after applying all of the property's resources and improving vacancy losses. An annual deficit exceeding \$250 is more than 9 percent of median

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<sup>21</sup>For the unassisted properties the 75th percentile of vacancy loss is 10.5 percent, and the median is 6.4 percent. Thus, the quarter of unassisted properties with the highest vacancy losses will reduce their vacancy losses to 10.5 percent (and will add rents equal to the difference between actual vacancy loss and 10.5 percent). Similarly, vacancy losses for the quarter of unassisted properties with vacancy losses between the median and 10.5 percent are reduced to the median (6.4 percent). Older assisted properties are treated in two separate subcategories. For older assisted properties with small units (property average of < 2.25 bedrooms per actual unit), the thresholds are 3.5 percent (75th percentile) and 1.9 percent (median). For the older assisted properties with larger units (property average of ≥ 2.25 bedrooms per actual unit) the thresholds are 4 percent (75th percentile) and 2 percent (median), and for the newer assisted the thresholds are 1.7 percent (75th percentile) and .9 percent (median).

<sup>22</sup>Using the affordability standard of 30 percent of income, a monthly rent increase of at least \$21 would require an increase in tenant income of at least \$70 for the tenant's rent burden to remain constant.

total operating expenses. This level of shortfall in financial resources seems likely to exceed a property's ability to economize by postponing non-essential activities, even in the short run. At deficits exceeding this threshold, properties would be at risk because one or more of the following would suffer:

- Remedying the outstanding physical needs backlog in critical systems.
- Funding essential operations, including minimum annual maintenance.
- Paying full mortgage debt service.

A Distress Index deficit of over \$250 per unit per year could occur through combinations of physical and financial problems. For example, a property would be distressed, even with *no* cash flow problem, but with an unfunded backlog exceeding approximately \$2,300 per 2BR unit ( $\$250 \div 10.8$  percent, the debt service factor). This amount exceeds 2 years' average annual accrual of physical needs. A Distress Index deficit of over \$250 could also occur in a property with *no* unfunded backlog, but with cash flow negative by as much as 9 percent of operating expenses.

Distressed properties will need drastic operating changes, remedial assistance, or (in the case of unassisted properties in soft markets), improved market outlooks if they are to survive as HUD-insured properties.

#### **Stressed Properties—Distress Index *deficit* up to \$250 (per unit per year)**

Properties with a Distress Index between \$0 and minus \$250 will be considered *stressed*. In the absence of improved income or operations, these properties will develop serious problems. However, their monthly shortfall of no more than \$21 per unit may be within reach of achievable improvements and rent increases, and can probably be juggled for a long time by cutting corners. These properties need intensive loan servicing by HUD to assure that problems will be remedied rather than accumulated further. The negative Distress Index indicates that these properties must be falling short either on upkeep or mortgage payment or some combination of the two.

#### **Sound Properties—Distress Index Breakeven or Positive (No Deficit)**

Properties with a Distress Index of breakeven or better have adequate resources to meet all of the property's current physical and financial obligations. Some of these properties may, nevertheless, have large physical needs backlogs: however, they are either on the verge of using their resources to remedy these problems, or they can be made to do so through HUD's regulatory sanctions. In either case, outside financial resources are not needed.



### 3.2 Distress in Multifamily Rental Housing with HUD-Insured (or Held) Mortgages

Exhibit 3.1 shows the result of applying the Distress Index to the entire stock of multifamily rental housing with HUD-insured or held mortgages. The mean index value was positive overall and for each assistance category, but only marginally positive for older assisted (\$28), highly positive for newer assisted (\$625), and intermediate for unassisted (\$293). This is consistent with the findings in the previous chapter on the physical and financial components of the Distress Index.

Overall, 24 percent of properties were distressed—they had Distress Index deficits of more than \$250 per 2BR unit per year. The percent distressed varied sharply by assistance category. Only 9 percent of newer assisted properties were distressed, compared with 31 percent of older assisted and 30 percent of unassisted.

Distress was especially prevalent among older assisted properties serving larger families. Forty-three percent of older assisted properties with average bedroom size of 2.25 bedrooms or more were distressed. By contrast, only 27 percent of older assisted properties having smaller bedroom sizes (less than 2.25 bedrooms per unit on average, many of which serve elderly households) were distressed. These older assisted non-family properties were about on par with unassisted properties (which, on the whole, also provide smaller units) in terms of proportion in distress.

The *degree* of distress was most severe among unassisted properties, followed by older assisted properties. Twelve percent of unassisted properties had Distress Index deficits exceeding \$1,000 per unit, and another 10 percent had deficits between \$500 and \$1,000. Among older assisted properties, 6 percent had Distress Index deficits exceeding \$1,000, and 12 percent between \$500 and \$1,000. Comparable figures for newer assisted properties are only 1 percent with deficits of over \$1,000 and 3 percent of from \$500 to \$1,000.

On the other extreme of the Distress Index, 85 percent of newer assisted properties were sound, compared with 60 percent of unassisted properties, and only 49 percent of older assisted properties. The latter figure is particularly important. It shows that about half of older assisted properties had sufficient internal resources, under current operations, to cover all of their current financial and physical obligations. The other half of older assisted properties (about 3,000 properties) will require careful loan servicing, operating improvements, rent increases, or remedial assistance in order to remain viable in their current low-income use.

Exhibit 3.1

**DISTRESS INDEX BY ASSISTANCE CATEGORY**  
**Multifamily Rental Housing with HUD-Insured (or Held) Mortgages**

Distress Index per 2BR Equivalent Unit	Total	Total		Assisted	
		Unassisted	Assisted	Older Assisted	Newer Assisted
Total Properties Percent <sup>1</sup>	13,221 100%	3,080 23%	10,191 77%	6,037 59%	4,154 41%
Distressed (Index < -\$250)	24%	30%	23%	**31%	9%
< -\$1,000	6%	12%	4%	6%	1%
-\$1,000 to <-\$500	9%	10%	9%	12%	3%
-\$500 to <-\$250	9%	8%	10%	13%	5%
Stressed (Index -\$250 to \$0)	14%	10%	15%	**21%	6%
-\$250 to \$0	14%	10%	15%	21%	6%
Sound (Index ≥ \$0)	62%	60%	63%	**49%	85%
\$0 to <\$250	20%	15%	21%	26%	14%
\$250 to <\$500	13%	9%	15%	13%	18%
\$500 to <\$1,000	13%	8%	14%	5%	28%
≥ \$1,000	16%	29%	13%	5%	25%
<b>Statistics on Distress Index</b>					
Mean	\$276	\$293	\$271	**\$ 28	\$625
Standard Error	\$82	\$326	\$ 55	\$ 75	\$ 62
Median	\$145	\$184	\$142	\$(20)	\$530

Distress Index = Net Cash Flow + Added Rent from Reduced Vacancies - Loan Repayment on Unfunded Physical Backlog

Source: Computed based upon physical inspections and financial data collected from MIPS and Field Offices.

Note: Column sums may not add to 100% due to rounding.

\*\*Signifies that the differences in proportions between older assisted and newer assisted properties are statistically significant at the 95% level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance. (The differences between assisted and unassisted properties are not statistically significant.)

<sup>1</sup> Percentages in older and newer assisted categories total 100% of the total assisted category's 77%.

### 3.3 Characteristics of Distressed Properties—Multifamily Rental Housing with HUD-Insured (or Held) Mortgages

This section presents the characteristics of the distressed, stressed, and sound properties in the entire multifamily rental stock with HUD-insured (or held) mortgages. These characteristics help show the context of distressed properties. In this section (as well as the next), data are presented by properties' distress status and not by their assistance categories.<sup>23</sup>

Exhibit 3.2 presents the characteristics of residents by property distress category. This exhibit is important in showing who is most affected by the problems of distress.

- The overall income distribution of tenants tended to be similar across distress categories. There was, however, a small but significant difference in that distressed properties compared to sound properties had proportionately more tenants above median income and fewer tenants below 50 percent of median income. This finding appears counter-intuitive, but it reflects the fact that over 80 percent of distressed properties are unassisted or older assisted properties, both categories of which include more moderate-income and fewer very low-income tenants than do newer assisted properties.<sup>24</sup>
- In all three distress categories whites constituted the largest racial or ethnic group. Distressed properties had, on average, 49 percent of households headed by whites. However, distressed and stressed properties, compared with sound properties, each had proportionately fewer households headed by whites, and proportionately more households headed by blacks. Hispanics and other minorities were equally distributed across the property distress categories.
- Sound properties had proportionately more single people and households headed by elderly members, and fewer large families.

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<sup>23</sup>Exhibit 3.1 shows that only a small proportion of newer assisted properties are distressed or stressed (15 percent); and conversely, a high proportion of older assisted properties (51 percent) or unassisted properties (40 percent) are distressed or stressed. Therefore, the comparisons of distressed versus sound properties presented in this current section often reflect differences between newer assisted properties on the one hand, and unassisted properties and older assisted properties on the other hand.

<sup>24</sup>Newer assisted properties (of which only 9 percent are distressed) are often 100 percent assisted by Section 8, which HUD has targeted to very low-income households. Exhibit 1.3 showed that 90 percent of residents of newer assisted properties have very low incomes, while only 1 percent have incomes at or above median. By contrast, unassisted properties (30 percent of which are distressed) have 18 percent of residents with incomes at or above median, but only 22 percent with very low-incomes. Similarly, older assisted properties (31 percent of which are distressed) have 3 percent of tenants with incomes at or above median and only 77 percent with very low-incomes. Multivariate analyses, which HUD will publish in a future report, confirm that this relation between distress category and income category is largely explained by properties' assistance category. Indeed, this explanation is also supported by Exhibit 3.8, which, for the Capital Needs Study properties alone, shows no relationship between distress category and income category.

Exhibit 3.2

**TENANT CHARACTERISTICS BY DISTRESS STATUS<sup>1</sup>**  
**Multifamily Rental Housing with HUD-Insured (or Held) Mortgages**

	Total	Distressed	Stressed	Sound
Total Properties	13,271	3,168	1,816	8,287
Percent	100%	24%	14%	62%
Race/Ethnicity				
White, non-Hispanic	58%	49% **	51% **	64%
Black, non-Hispanic	32%	41% **	40% **	26%
Hispanic, any race	5%	5%	4%	5%
Other	5%	5%	5%	5%
Household Size				
1 Person	41%	33% **	31% **	47%
2 People	27%	28%	28%	26%
3 People	16%	18%	20% **	14%
4 People	10%	13% *	14% **	8%
5 People	3%	5%	4%	3%
6+ People	3%	3%	2%	2%
Mean Household Size	2.2	2.4	2.5	2.0
Elderly Head of Household				
Percent	33%	25%	23% **	38%
Household Income				
< 50% of Median	68%	62% *	68%	70%
50-80% of Median	19%	19%	20%	18%
80-100% of Median	8%	9%	8%	7%
≥ 100% of Median	6%	10% **	4%	4%

<sup>1</sup>Percents show the tenant characteristics of the average property in the category indicated by the column heading. For example, the column headed "Distressed" shows that the average Distressed property has 49 percent of units occupied by families headed by whites, 33 percent of units occupied by 1-person households, and 62 percent of units occupied by households with income under 50 percent of median.

- \*\* Signifies that the differences between Distressed and Sound or Stressed and Sound properties are statistically significant at the 95% confidence level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance.
- \* Signifies that the differences between Distressed and Sound or Stressed and Sound properties are statistically significant at the 90% confidence level.

Source: Owner/Manager Survey, HUD Form 50059 provided by property owners, and managers, HUD prepayment database, NHP study.

Note: Column sums may not add to 100% due to rounding.

Exhibit 3.3 describes the characteristics of properties by their Distress Index.

- Distress was more prevalent in larger properties, with average property size being 124 units for distressed properties, compared with 107 and 109 units, respectively, for stressed and sound properties. This reflects the large proportion of distressed properties that are unassisted or older assisted, which tend to be larger than the new assisted properties (as is shown in Exhibit 1.2).
- There were no significant differences in the types of buildings that were distressed versus sound (although stress was more common in walk-ups and less common in high-rises).
- Sound properties had smaller units (i.e., lower average bedroom count) on average compared with stressed and distressed properties. This is consistent with the higher concentration of single and elderly households in sound properties.
- Overall project quality is a rating the study's physical inspectors gave to each property at the end of the inspection. Not surprisingly, distressed and stressed properties were less likely to be rated as excellent by inspectors, and were more likely to be rated as fair or poor. Nevertheless, inspectors rated 68 percent of distressed and 88 percent of stressed properties as being excellent or good (as opposed to 94 percent of sound properties). This reveals that despite distress status, for the moment, most insured properties seemed to be providing tenants with good housing. (Over the longer run continued financial shortfalls or neglected backlogs may reduce project quality.)

Exhibit 3.4 describes by distress status, properties' locations and HUD programs.

- Distressed and stressed properties tended to be located in neighborhoods that were in worse condition than those in which sound properties were located.<sup>25</sup> Distressed properties were also more likely to be found in central cities, and less in non-metropolitan areas, than were sound properties.
- Distressed and stressed properties, compared with sound properties, were more likely to be older assisted and less likely to be newer assisted. Older assisted properties accounted for 46 percent of the insured stock, but accounted for 59 percent of the distressed properties and for 68 percent of the stressed properties. In contrast, newer assisted properties accounted for 31 percent of the stock, but only for 13 percent of distressed properties and 14 percent of stressed properties.

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<sup>25</sup>As part of the neighborhood windshield survey, inspectors rated neighborhoods on such items as condition of housing exteriors and yards, condition of streets and curbs, maintenance of streets, presence of litter, and presence of amenities or nuisances. Based on these ratings, inspectors developed summary ratings of each neighborhood relative to the city as a whole and as a residential neighborhood.

Exhibit 3.3

**PROPERTY CHARACTERISTICS BY DISTRESS STATUS**  
**Multifamily Rental Housing with HUD-Insured (or Held) Mortgages**

	Total	Distressed	Stressed	Sound
Total Properties	13,271	3,168	1,816	8,287
Percent	100%	24%	14%	62%
Property Size				
< 50 Units	19%	19%	19%	18%
50-99 Units	34%	27% *	32% **	37%
100-199 Units	36%	39%	39%	34%
≥ 200 Units	12%	15%	11%	11%
Mean Units	112	124 **	107	109
Standard Error	3.5	8.7	7.1	4
Median Units	96	100	98	90
Average Unit Size				
< 2.25 Bedrooms	80%	75% **	68% **	85%
≥ 2.25 Bedrooms	20%	25% *	32% **	15%
Mean Unit Size	1.7	1.8 **	2.0 **	1.6
Standard Error	0.03	0.05	0.06	0.03
Median	2.0	1.9	2.1	1.7
Building Type				
High Rise	28%	28%	14% **	32%
Walk-Up	44%	43%	54% **	41%
SF Attached	28%	29%	30%	26%
SF Detached	0%	0%	2% *	0%
Overall Project Quality				
Excellent	39%	26% **	33% **	45%
Good	48%	42%	55%	49%
Fair or Poor	13%	32% **	12% **	6%

\*\* Signifies that the differences between Distressed and Sound or Stressed and Sound properties are statistically significant at the 95% confidence level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance.

\* Signifies that the differences between Distressed and Sound or Stressed and Sound properties are statistically significant at the 90% confidence level.

Source: Inspections.

Note: Column sums may not add to 100% due to rounding.

Exhibit 3.4

**NEIGHBORHOOD AND PROGRAM CHARACTERISTICS BY DISTRESS STATUS**  
**Multifamily Rental Housing with HUD-Insured (or Held) Mortgages**

	Total	Distressed	Stressed	Sound
Total Properties	13,271	3,168	1,816	8,287
Percent	100%	24%	14%	62%
Neighborhood Quality Relative to City <sup>1</sup>				
Better than Average	36%	33%	26% **	39%
Average	35%	28% **	38%	38%
Worse than Average	28%	38% **	35% **	21%
Quality as Residential Neighborhood <sup>1</sup>				
Excellent or Good	69%	61% **	66% **	73%
Fair or Poor	31%	39% **	34% **	26%
Central City Status				
SMSA, Central City	57%	66% **	58%	54%
SMSA, not Central City	32%	28%	31%	33%
Non-SMSA	11%	6% **	11%	13%
Assistance Category				
Unassisted	23%	29%	18%	22%
Older Assisted	46%	59% **	68% **	36%
Newer Assisted	31%	13% **	14% **	42%
Sponsor Type				
Non-Profit/Coop	18%	22% **	29% **	14%
Limited Dividend	37%	39%	43% *	34%
For Profit	46%	39% **	27% **	52%
Mortgage Start Year				
Before 1970	6%	8%	4%	5%
1970-1979	54%	47%	73% **	52%
1980 or later	41%	45%	23% **	43%
Preservation Status				
Can Prepay Any Time	54%	46% **	30% **	63%
Eligible for Preservation Incentives	26%	29%	39% **	23%
Locked in for Full Term	19%	25% **	30% **	14%

(exhibit continues on next page)

<sup>1</sup>Based on neighborhood windshield surveys by physical inspectors, rating condition and quality of structure exteriors and public improvements, maintenance of streets, and presence of amenities or nuisances.

\*\* Signifies that the differences between Distressed and Sound or Stressed and Sound properties are statistically significant at the 95% confidence level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance.

\* Signifies that the differences between Distressed and Sound or Stressed and Sound properties are statistically significant at the 90% confidence level.

Source: Windshield Survey, HUD MIDLIS database.

Note: Column sums may not add to 100% due to rounding.

Exhibit 3.4 (continued)

**NEIGHBORHOOD AND PROGRAM CHARACTERISTICS BY DISTRESS STATUS**  
**Multifamily Rental Housing with HUD-Insured (or Held) Mortgages**

	Total	Distressed	Stressed	Sound
Total Properties	13,271	3,168	1,815	8,203
Percent	100%	24%	14%	62%
<b>Property Rents + Local FMR</b>				
<0.5	5%	7% **	7% *	3%
0.5-<1	59%	69% **	72% **	53%
1-<1.5	28%	19% **	19% **	34%
≥ 1.5	8%	5% *	2% **	10%
<b>Tenant Paid Rents + Local FMR</b>				
<0.25	18%	13% *	18%	20%
0.25-<0.5	36%	39%	40%	34%
0.5-<1	35%	37%	36%	33%
≥ 1	11%	11%	6% *	13%
<b>Neighborhood Vacancy</b>				
Tight	40%	28% **	41%	44%
Tight-Average	20%	21%	26%	18%
Average	18%	19%	14%	18%
Average-Soft	11%	13%	7%	10%
Soft	11%	18% **	12%	9%
<b>Property Vacancy Relative to Neighborhood Vacancy</b>				
Property Vacancy below Neighborhd.	44%	43%	51%	42%
Property Vacancy same as Nghbrhd.	34%	26% **	28% *	38%
Property Vacancy above Neighborhd.	22%	31% **	21%	20%

Source: Market Valuation Summary on Neighborhood Vacancies, HUD MIPS database for Property Rents, Tenant Paid Rents and Property Vacancies, HUD Fair Market Rent Data

- \*\* Signifies that the differences in proportions between the distressed and sound or stressed and sound properties are statistically significant at the 95% level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance.
- \* Signifies that the differences in proportions between the distressed and sound or stressed and sound properties are statistically significant at the 90% level.



- Distressed and stressed properties were more likely than sound properties to have nonprofit (or cooperative) owners and were less likely to have for-profit owners (unrestricted as to dividend distributions). These findings largely reflect differences in programs rather than differences in owners: For-profit owners predominate among newer assisted properties (where non-profits played a small ownership role); and non-profits (and cooperatives) were concentrated in older assisted properties (where unrestricted for-profits were all but absent).<sup>26</sup>
- Distressed and stressed properties were more likely than sound properties to have rents below the local Section 8 fair market rent (FMR) levels.
- Distressed properties were more likely to be in soft markets (and less likely to be in tight markets) than were sound or stressed properties—a condition beyond owners' control. However, distressed properties were likely to have higher vacancies than the general vacancy rates in their neighborhoods—a condition which owners may be able to improve.

Exhibit 3.5 shows that, as expected, distressed properties were more likely to have high backlogs of physical needs compared with sound properties.

- On average distressed and stressed properties had higher total physical backlogs (\$3,273 and \$1,581 per 2BR unit, respectively) than did sound properties (\$837).
- On average distressed and stressed properties also had higher unfunded physical backlogs (\$2,999 and \$1,284 respectively) than did sound properties (\$516). In other words, not only did these properties have high repair needs, but they also lacked the resources to make the necessary repairs.
- The median unfunded backlog for distressed properties was \$2,156. This means that even with positive net cash flows these properties were likely to be classified as distressed. The median backlog for sound properties was \$0.

Also as expected, Exhibit 3.6 shows that mean annual cash flow for distressed properties (minus \$880) and stressed properties (minus \$28) was far lower than for sound properties (positive \$871). Thus, even before addressing their physical backlogs, many distressed and stressed properties had insufficient revenues for operations and maintenance, debt service, and deposits to reserve accounts. Only 13 percent of distressed properties, and 38 percent of stressed properties, had positive cash flows, compared with 97 percent of sound

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<sup>26</sup>This explanation that higher distress among nonprofit owners is more due to differences among programs than to differences among owners is borne out in Exhibit 3.10, below. Among the Capital Needs Study properties, which are largely older assisted, distressed properties are not more likely than sound to have nonprofit owners.

Exhibit 3.5

**TOTAL BACKLOG AND UNFUNDED BACKLOG OF PHYSICAL NEEDS  
BY DISTRESS STATUS**

**Multifamily Rental Housing with HUD-Insured (or Held) Mortgages**

	Total	Distressed	Stressed	Sound
Total Properties	13,271	3,168	1,816	8,287
Percent	100%	24%	14%	62%
Total Backlog per 2BR Eq. Unit				
< \$10	20%	16% *	12% **	23%
\$10 to < 500	25%	9% **	15% **	33%
\$500 to < 1,000	13%	7% **	18%	14%
\$1,000 to < 2,000	17%	13%	22%	18%
\$2,000 to < 3,000	8%	12% **	15% **	6%
\$3,000 to < 4,000	6%	8%	12% **	4%
\$4,000 to < 5,000	4%	8% **	5%	2%
\$5,000 to < 7,500	5%	16% **	2% **	1%
≥ \$7,500	2%	10% **	0%	0%
Mean	\$1,522	\$3,273 **	\$1,581 **	\$837
Standard Error	\$92	274	157	64
Median	\$654	\$2,311	\$1,269	\$341
Unfunded Needs Backlog per 2BR Equivalent Unit				
\$0	44%	21% **	25% **	57%
\$0 to < 500	14%	11%	11% *	15%
\$500 to < 1,000	10%	7%	17% **	9%
\$1,000 to < 2,000	11%	10%	19% **	10%
\$2,000 to < 5,000	15%	28% **	26% **	8%
\$5,000 to < 7,500	5%	16% **	1% **	1%
≥ \$7,500	2%	7% **	0% **	0%
Mean	\$1,214	\$2,999 **	\$1,284 **	\$516
Standard Error	\$88	268	152	54.0
Median	\$228	\$2,156	\$744	\$0

\*\* Signifies that the differences between Distressed and Sound or Stressed and Sound properties are statistically significant at the 95% confidence level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance.

\* Signifies that the differences between Distressed and Sound or Stressed and Sound properties are statistically significant at the 90% confidence level.

Source: Physical inspection, costing program, and HUD Field Office data on resources.

Note: Column sums may not add to 100% due to rounding.

Exhibit 3.6

**ANNUAL NET CASH FLOW BY DISTRESS STATUS**  
**Multifamily Rental Housing with HUD-Insured (or Held) Mortgages**

	Total	Distressed	Stressed	Sound
Total Properties	13,271	3,168	1,816	8,287
Percent	100%	24%	14%	62%
<b>Annual Net Cash Flow Per 2BR Equivalent Unit</b>				
<b>Negative Cash Flow</b>	<b>32%</b>	<b>86%</b>	<b>62%</b>	<b>4%</b>
< -\$1,000	4%	16% **	0%	0%
-\$1,000 to <-\$500	6%	23% **	0%	0%
-\$500 to <-\$250	8%	28% **	5%	1%
-\$250 to < \$0	14%	19% **	57% **	3%
<b>Positive Cash Flow</b>	<b>68%</b>	<b>13%</b>	<b>38%</b>	<b>97%</b>
\$0 to <\$250	25%	11% **	34%	28%
\$250 to <\$500	13%	2% **	3% **	20%
\$500 to <\$1,000	14%	0% **	1% **	23%
≥ \$1,000	16%	0% **	0% **	26%
<b>Statistics on Net Cash Flow</b>				
Mean	\$330	(\$880) **	(\$28) **	\$871
Standard Error	32.4	184	18.8	100
Median	\$184	(\$378)	(\$25)	\$482
<b>Mortgage Status</b>				
In Force-Current	89%	79% **	90%	93%
Other	11%	21% **	10%	7%

\*\* Signifies that the differences between Distressed and Sound or Stressed and Sound properties are statistically significant at the 95% confidence level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance.

\* Signifies that the differences between Distressed and Sound or Stressed and Sound properties are statistically significant at the 90% confidence level.

Source: HUD MIDLIS and MIPS data bases, HUD Field Offices.

Note: Column sums may not add to 100% due to rounding.

properties.<sup>27</sup> Sixty-seven percent of distressed properties had large cash flow deficits exceeding \$250 per unit (compared with only 5 percent of stressed, and 1 percent of sound properties)—they were likely to be distressed regardless of their physical condition.

Distressed properties were more likely than sound properties to have had mortgage delinquency or assignment. Mortgage insurance was in-force and the mortgage current for 93 percent of sound properties compared with only 79 percent of distressed properties.

### **3.4 Distress in Capital Needs Study Properties**

This section focuses on the Capital Needs Study properties. Most of the exhibits and discussions will parallel those in the previous sections on the entire multifamily stock. As noted in Chapter One, Congress expressed particular concern about the Capital Needs Study properties, a total of 5,891 assisted properties consisting primarily (but not exclusively) of a subset of older assisted properties. Specifically, they consist of 5,663 of the 6,037 older assisted properties (current or former Sections 236, 221(d)(3)BMIR, or 221(d)(3) with Rent Supplement or Section 8 LMSA); and 228 of the 4,154 newer assisted properties (Section 221(d)(3) with Section 8 New Construction or Substantial Rehabilitation). The characteristics of Capital Needs Study properties, therefore, are virtually identical to those of older assisted properties, which, as discussed previously, have a high incidence of distress.<sup>28</sup>

Exhibit 3.7 shows the distribution of the Distress Index for the Capital Needs Study properties. Twenty-eight percent were distressed, 21 percent were stressed, and 51 percent were sound. Capital Needs Study properties were somewhat more likely to be distressed, and considerably more likely to be stressed, than the overall assisted stock.

Exhibit 3.8 describes the characteristics of residents in distressed, stressed, and sound Capital Needs Study properties.

- Residents' income distribution tends to be similar across distress categories—among residents of Capital Needs Study properties, the lowest income households were no

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<sup>27</sup>Four percent of sound properties showed negative cash flow. These properties were not in the stressed or distressed categories because their negative cash flows are due to higher than average vacancies, which are assumed to be remedied by management and operating improvements.

<sup>28</sup>These numbers show that 96 percent of the Capital Needs Study properties are older assisted, or, that 94 percent of older assisted properties are Capital Needs Study properties.

Exhibit 3.7

**DISTRESS INDEX**  
**Capital Needs Study Properties vs. All Assisted Properties**

Distress Index per 2BR Equivalent Unit	Total for All Assisted Properties	Capital Needs Study Properties
Total Properties	10,191	5,891
Distressed (Index < -\$250)	23%	28%
< -\$1,000	4%	3%
-\$1,000 to < -\$500	9%	11%
-\$500 to < -\$250	10%	13%
Stressed (Index -\$250 to \$0)	15%	21%
\$250 to \$0	15%	21%
Sound (Index ≥ \$0)	63%	51%
\$0 to < \$250	21%	26%
\$250 to < \$500	15%	13%
\$500 to < \$1,000	14%	5%
≥ \$1,000	13%	6%
<b>Statistics on Distress Index</b>		
Mean	\$271	\$ 84
Standard Error	\$ 55	\$ 76
Median	\$142	\$ 6

**Source:** Computed based upon physical inspections and financial data collected from MIPS and Field Offices.

**Note:** Column sums of percentages may not add to totals due to rounding.

Exhibit 3.8

**TENANT CHARACTERISTICS BY DISTRESS STATUS<sup>1</sup>**  
**Capital Needs Study Properties**

	Total	Distressed	Stressed	Sound
Total Properties	5,891	1,646	1,266	2,979
Percent	100%	28%	21%	51%
Race/Ethnicity				
White, non-Hispanic	51%	41% **	46% **	59%
Black, non-Hispanic	37%	48% **	44% **	30%
Hispanic, any race	6%	6%	4%	7%
Other	5%	5%	6%	4%
Household Size				
1 Person	35%	30% *	29% *	41%
2 People	25%	25%	26%	25%
3 People	19%	20%	22%	17%
4 People	13%	15%	16%	11%
5 People	5%	6%	5%	4%
6+ People	3%	4%	3%	2%
Mean Household Size	2.4	2.6	2.6	2.2
Elderly Head of Household (Percent)	32%	27% *	27% *	36%
Household Income				
< 50% of Median	77%	76%	75%	78%
50-80% of Median	17%	16%	19%	16%
80-100% of Median	4%	4%	4%	4%
≥ 100% of Median	3%	4%	2%	2%

<sup>1</sup>Percents show the tenant characteristics of the average property in the category indicated by the column heading. For example, the column headed "Distressed" shows that the average Distressed property has 41 percent of units occupied by families headed by whites, 30 percent of units occupied by 1-person households, 27 percent of units occupied by families with elderly heads, and 76 percent of units occupied by households with income under 50 percent of median.

- \*\* Signifies that the differences between Distressed and Sound or Stressed and Sound properties are statistically significant at the 95% confidence level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance.
- \* Signifies that the differences between Distressed and Sound or Stressed and Sound properties are statistically significant at the 90% confidence level.

Source: Owner/Manager Survey, HUD Form 50059 provided by property owners, and managers, HUD prepayment database, NHP study.

Note: Column sums may not add to 100% due to rounding.

more likely to live in distressed properties than were households with higher incomes.<sup>29</sup>

- Distressed properties had, on average, 41 percent of households headed by whites, somewhat less than did stressed (46 percent) or sound properties (59 percent). Distressed and stressed properties had higher proportions of households headed by blacks (48 percent and 44 percent, respectively) than did sound properties (30 percent). Hispanics and other minorities were equally distributed across the types of properties. While most households in distressed properties were non-black, clearly, black households were somewhat more severely impacted by distress than were other groups.
- Single people and households headed by elderly members were more likely to live in sound properties compared with larger families.

Exhibit 3.9 describes the characteristics of properties by their Distress Index. In contrast with sound properties, both distressed and stressed properties tended to have fewer, but larger units. This is consistent with the higher concentration of single and elderly households in sound properties. Distressed and sound properties were similar in terms of prevalent building types, though stress was more prevalent in properties that consisted of walk-ups.

Distressed and stressed properties were less likely to be rated as excellent or good by the study's inspectors, and distressed properties were more likely to be rated as fair or poor. However, 53 percent of distressed properties were rated excellent or good (compared with 87 percent of stressed and 89 percent of sound properties).

As shown in Exhibit 3.10, both stressed and distressed properties tended to be located in neighborhoods that were in worse physical condition than those in which sound properties were located. Distressed properties also were more likely to be found in central cities than were sound properties. Distressed properties were less likely than sound to be in tight markets.

Since most Capital Needs Study properties were older assisted, it is not surprising that there was no difference in mortgage age for distressed versus sound properties (most of the mortgages involved were issued during the 1970s). There is also no difference in properties' categorical eligibility for incentives under the Preservation Act. However, the poorer neighborhood conditions and high repair backlogs of distressed properties make it unlikely that

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<sup>29</sup>It should be noted however, that 93 percent of all households in the Capital Needs Study properties had incomes below 80 percent of the median for their area, and 77 percent had incomes below 50 percent of the median. Thus, the bulk of the tenants in distressed properties are very low income, although no more so than those in sound properties.

Exhibit 3.9

**PROPERTY CHARACTERISTICS BY DISTRESS STATUS**  
**Capital Needs Study Properties**

	Total	Distressed	Stressed	Sound
Total Properties	5,891	1,646	1,266	2,979
Percent	100%	28%	21%	51%
Property Size				
< 50 Units	19%	27% **	16%	15%
50-99 Units	33%	30%	33%	35%
100-199 Units	37%	35%	43%	35%
≥ 200 Units	12%	8%	9%	15%
Mean Units	108	96 **	104 **	116
Standard Error	4.2	7.0	7.5	6.6
Median	96	80	100	98
Average Unit Size				
< 2.25 Bedrooms	71%	61% **	68% **	79%
≥ 2.25 Bedrooms	29%	39% **	32% **	21%
Mean Unit Size	1.8	1.9 **	2.0 **	1.8
Standard Error	0.04	0.08	0.08	0.05
Median	2.0	2.1	2.1	2.0
Building Type				
High Rise	21%	17%	17%	25%
Walk-Up	46%	44%	54% **	43%
SF Attached	33%	39%	28%	32%
Overall Project Quality				
Excellent	26%	14% **	24%	34%
Good	52%	39% **	63% **	55%
Fair or Poor	22%	47% **	13%	11%

\*\* Signifies that the differences between *Distressed and Sound* or *Stressed and Sound* properties are statistically significant at the 95% confidence level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance.

\* Signifies that the *differences between Distressed and Sound* or *Stressed and Sound* properties are statistically significant at the 90% confidence level.

Source: Inspections.

Note: Column sums may not add to 100% due to rounding.



Exhibit 3.10

**NEIGHBORHOOD AND PROGRAM CHARACTERISTICS BY DISTRESS STATUS**  
**Capital Needs Study Properties**

	Total	Distressed	Stressed	Sound
Total Properties	5,891	1,646	1,266	2,979
Percent	100%	28%	21%	51%
Neighb. Quality Relative to City <sup>1</sup>				
Better than Average	21%	14% **	17% **	28%
Average	38%	33%	42%	39%
Worse than Average	40%	52% **	41% *	33%
Quality as Residential Neighbhd. <sup>1</sup>				
Excellent or Good	60%	50% **	64%	66%
Fair or Poor	40%	50% **	36%	34%
Central City Status				
SMSA, Central City	59%	67% **	62%	53%
SMSA, not Central City	30%	25%	28%	35%
Non-SMSA	11%	8%	11%	12%
Sponsor Type				
Non-Profit/Coop	38%	39%	42% *	35%
Limited Dividend	62%	61%	58% *	65%
Mortgage Start Year				
Before 1970	9%	13%	5%	8%
1970-1979	86%	80%	92%	87%
1980 or later	5%	7%	2%	5%
Preservation Status				
Eligible for Preservation Incentives	60%	55%	56%	63%
Locked in for Full Term	40%	45%	44%	37%

(exhibit continues on the next page)

<sup>1</sup>Based on neighborhood windshield surveys by physical inspectors, rating condition and quality of structure exteriors and public improvements, maintenance of streets, and presence of amenities or nuisances.

- \*\* Signifies that the differences between Distressed and Sound or Stressed and Sound properties are statistically significant at the 95% confidence level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance.
- \* Signifies that the differences between Distressed and Sound or Stressed and Sound properties are statistically significant at the 90% confidence level.

Source: Neighborhood windshield surveys by physical inspectors, HUD MIDLIS database.

Note: Column sums may not add to 100% due to rounding.

Exhibit 3.10 (continued)

**NEIGHBORHOOD AND PROGRAM CHARACTERISTICS BY DISTRESS STATUS**  
**Capital Needs Study Properties**

	Total	Distressed	Stressed	Sound
Total Properties	5,891	1,646	1,266	2,979
Percent	100%	28%	22%	51%
<b>Property Rents ÷ Local FMR</b>				
<0.5	9%	11%	11%	7%
0.5-<1	83%	84%	84%	82%
≥1	8%	5%	5%	11%
<b>Tenant Paid Rents ÷ Local FMR</b>				
<0.25	11%	11%	12%	10%
0.25-<0.5	58%	64%	55%	56%
0.5-<1	30%	24%	33%	31%
≥1	1%	0%	0%	3%
<b>Neighborhood Vacancy</b>				
Tight	36%	28% **	34%	41%
Tight-Average	24%	24%	28%	22%
Average	19%	23%	16%	19%
Average-Soft	9%	11%	4%	9%
Soft	12%	14%	18% *	9%
<b>Property Vacancy Relative to Neighborhood Vacancy</b>				
Property Vacancy below Neighborhd.	50%	52%	60% **	45%
Property Vacancy same as Nghborhd.	33%	26% *	29%	38%
Property Vacancy above Neighborhd.	17%	22%	11%	17%

Source: 1) Market Valuation Summary on Neighborhood Vacancies  
 2) HUD MIPS database for Property Rents, Tenant Paid Rents and Property Vacancies  
 3) HUD Fair Market Rent Data

\*\* Signifies that the differences in proportions between the distressed and sound or stressed and sound properties are statistically significant at the 95% level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance.

\* Signifies that the differences in proportions between the distressed and sound or stressed and sound properties are statistically significant at the 90% level.

owners could demonstrate preservation equity needed to receive incentives under the Preservation Act.

As expected, distressed and stressed properties had much higher total backlogs of physical needs than did sound properties (Exhibit 3.11). On average, distressed properties had backlogs of \$4,222 per unit compared with \$1,793 for stressed, and \$1,003 for sound properties. Only 17 percent of distressed properties had total physical backlogs of less than \$1,000, compared with 37 percent of stressed, and 63 percent of sound properties.

The average *unfunded* backlog was also much higher in distressed properties (\$3,882) and stressed properties (\$1,454) than in sound properties (\$576). In other words, distressed and stressed properties lacked resources to remedy their high backlogs. Sixty-seven percent of distressed properties had unfunded backlogs of over \$2,000, and included in these, 30 percent had unfunded backlogs of over \$5,000 per 2BR unit. This means that even with positive net cash flows these properties were likely to be classified as distressed.<sup>30</sup>

Regarding finances, 82 percent of distressed properties had negative annual cash flows, compared with 54 percent of stressed, and only 7 percent of sound properties (Exhibit 3.12). This means that on an ongoing basis, even before addressing physical needs, revenues were insufficient to cover operations and maintenance, mortgage debt service, and deposits to reserve accounts. On average, distressed properties had a cash flow deficit of \$268 per unit per year (which is likely to yield a Distress Index below the distress threshold even before covering physical needs). The stressed properties also had negative average cash flows of minus \$5 per unit per year, with 46 percent having positive cash flows. In contrast the sound properties had positive cash flows averaging \$567 per year, and 93 percent had positive cash flows.<sup>31</sup>

### 3.5 Capital Needs of Distressed Multifamily Housing

The previous sections of this chapter defined distress by using the study's data on physical and financial condition together with rules drawn from HUD's loan servicing practices. This definition was used to identify the portion of the multifamily rental stock that was

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<sup>30</sup>The actual level of unfunded repairs which yields a distress index of below -\$250 (i.e., a deficit of over \$250) is \$2,315 (10.8 percent of \$2,315 = \$250).

<sup>31</sup>Seven percent of sound properties showed negative cash flow. These properties were not in the stressed or distressed categories because their negative cash flows are due to higher than average vacancies, which are assumed to be remedied as part of management improvements.

Exhibit 3.11

**TOTAL BACKLOG AND UNFUNDED BACKLOG OF PHYSICAL NEEDS  
BY DISTRESS STATUS  
Capital Needs Study Properties**

	Total	Distressed	Stressed	Sound
Total Properties	5,891	1,646	1,266	2,979
Percent	100%	28%	21%	51%
<b>Total Backlog per 2BR Eq. Unit</b>				
< \$10	11%	3% **	13%	15%
\$10 to < 500	21%	7% **	7% **	34%
\$500 to < 1,000	13%	7%	17%	14%
\$1,000 to < 2,000	18%	10%	24%	19%
\$2,000 to < 3,000	12%	15%	14%	9%
\$3,000 to < 4,000	9%	10% *	18% **	4%
\$4,000 to < 5,000	6%	13% **	5%	3%
\$5,000 to < 7,500	7%	21% **	2%	1%
≥ \$7,500	4%	13% **	0%	0%
Mean	\$2,072	\$4,222 **	\$1,793 **	\$1,003
Standard Error	147	364	186	103
Median	\$1,219	\$3,636	\$1,619	\$513
<b>Unfunded Needs Backlog per 2BR Equivalent Unit</b>				
\$0	38%	12% **	25% **	57%
\$0 to < 500	9%	6%	2% **	12%
\$500 to < 1,000	11%	6%	22% **	9%
\$1,000 to < 2,000	12%	9%	19%	12%
\$2,000 to < 5,000	22%	37% **	31%	9%
\$5,000 to < 7,500	6%	18% *	2% **	1%
≥ \$7,500	3%	12% **	0%	0%
Mean	\$1,688	\$3,882 **	\$1,454 **	\$576
Standard Error	145	362	183	84
Median	\$638	\$3,425	\$1,059	\$0

\*\* Signifies that the differences between Distressed and Sound or Stressed and Sound properties are statistically significant at the 95% confidence level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance.

\* Signifies that the differences between Distressed and Sound or Stressed and Sound properties are statistically significant at the 90% confidence level.

Source: Physical inspection, costing program, and HUD Field Office data on resources.

Note: Column sums may not add to 100% due to rounding.

Exhibit 3.12

**ANNUAL NET CASH FLOW BY DISTRESS STATUS**  
**Capital Needs Study Properties**

	Total	Distressed	Stressed	Sound
Total Properties	5,891	1,646	1,266	2,979
Percent	100%	28%	21%	51%
<b>Annual Net Cash Flow Per 2BR Equivalent Unit</b>				
Negative Cash Flow	38%	82%	54%	7%
< -\$1,000	0%	0%	0%	0%
-\$1,000 to <-\$500	7%	23% **	0%	1%
-\$500 to <-\$250	10%	31% **	3%	2%
-\$250 to < \$0	21%	28% **	51% **	4%
Positive Cash Flow	62%	18%	46%	93%
\$0 to <\$250	36%	13% **	40%	47%
\$250 to <\$500	13%	4% **	5% **	22%
\$500 to <\$1,000	7%	1% **	1% **	12%
≥\$1,000	6%	0% **	0%	12%
<b>Statistics on Net Cash Flow</b>				
Mean	\$211	(\$268) **	(\$5) **	\$567
Standard Error	74.0	32.0	21.3	143.0
Median	\$ 56	(\$271)	(\$4)	\$229
<b>Mortgage Status</b>				
In Force-Current	89%	87%	90%	90%
Other	11%	13%	10%	10%

\*\* Signifies that the differences between Distressed and Sound or Stressed and Sound properties are statistically significant at the 95% confidence level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance.

\* Signifies that the differences between Distressed and Sound or Stressed and Sound properties are statistically significant at the 90% confidence level.

Source: HUD MIDLIS and MIPS data bases, HUD Field Offices.

Note: Column sums may not add to 100% due to rounding.

distressed, measure the degree of distress, and examine characteristics of distressed properties. This concluding section provides national estimates of the capital needs of distressed properties, measured by taking the national unfunded backlog of physical needs (which was derived from on-site inspections of properties and discussed in Chapter 2).

Recall that a property's being **distressed** means that it had a Distress Index *deficit* exceeding \$250 per unit (annually) while being **stressed** means it had a smaller Distress Index *deficit* of no more than \$250 per unit. By definition, both distressed and stressed properties were unable to fund fully all of their needs—their current operations, deposits to their replacement reserves for future needs, debt service, and amortized cost of remedying their unfunded backlog of physical needs. However, distressed properties had more severe problems that were likely to jeopardize essential operations, basic housing quality, or ability to make mortgage payments (resulting in an insurance claim to HUD).

Exhibit 3.13 and the discussion below begin broadly by examining distressed and stressed properties in the entire multifamily rental stock; then focus on distressed and stressed properties in assisted properties; and finally, focus more narrowly on distressed and stressed properties in the group of assisted properties that constitute the Capital Needs Study properties.

### **Entire Multifamily Rental Housing Stock**

Exhibit 3.13 shows that among the entire multifamily rental housing stock with HUD-insured (or held) mortgages, there were 3,168 distressed properties containing 382,358 2BR units. These properties had a total backlog of physical needs of nearly \$989 million. Of this amount, nearly \$898 million was unfunded backlog.<sup>32</sup> There were an additional 1,816 stressed properties (with 203,513 2BR units) that had a total backlog of physical needs of \$338 million,

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<sup>32</sup>*Total physical needs backlog* is the cost to restore all systems to original working condition. *Unfunded physical needs backlog* is the amount by which the total backlog exceeds funds available in a property's replacement reserve or residual receipts accounts. Based on HUD practice, any amounts up to two years' reserve deposits is considered unavailable.

Exhibit 3.13

**TOTAL CAPITAL NEEDS OF DISTRESSED MULTIFAMILY HOUSING**  
**Entire Multifamily Rental Stock, Assisted Properties,**  
**and Capital Needs Study Properties**  
**Housing with HUD-Insured (or Held) Mortgages**

	Distressed Properties	Stressed Properties	Total Distressed & Stressed
<b>Entire Multifamily Rental Stock</b>			
No. Properties	3,168	1,816	4,984
No. Units (2 BR equivalents)	382,358	203,513	585,871
Total Backlog of Physical Needs (in \$ millions)	\$989	\$338	\$1,327
Unfunded Backlog of Physical Needs (in \$ millions)	\$898	\$286	\$1,184
<b>Assisted Properties</b>			
No. Properties	2,258	1,494	3,752
No. Units (2 BR equivalents)	229,235	162,662	391,897
Total Backlog of Physical Needs (in \$ millions)	\$786	\$292	\$1,078
Unfunded Backlog of Physical Needs (in \$ millions)	\$708	\$247	\$955
<b>Capital Needs Study Properties</b>			
No. Properties	1,646	1,266	2,912
No. Units (2 BR equivalents)	159,297	136,804	296,101
Total Backlog of Physical Needs (in \$ millions)	\$619	\$256	\$875
Unfunded Backlog of Physical Needs (in \$ millions)	\$564	\$215	\$779

Source: Physical inspections and financial data from HUD MIPS and Field Offices.

Note: Multifamily Rental Stock includes all assisted and unassisted properties. Assisted properties includes Capital Needs Study properties as well as all other assisted properties. Capital Needs Study properties are assisted properties insured under Section 236 or Section 221(d)(3).

of which nearly \$286 million was unfunded backlog. Thus, the combined unfunded backlog for distressed and stressed properties was nearly \$1.2 billion.<sup>33</sup>

Nearly 45 percent of this unfunded backlog (\$528 million) is attributable to properties with extremely high unfunded backlogs of \$5,000 or more per 2BR unit. Yet these high backlog properties are just 16 percent of all distressed and stressed properties (783 properties) and contain only 12 percent of the units in such properties (71,309 2BR units). Remedying the backlogs of all of these extremely high backlog properties may not be feasible or cost effective from a Federal budgetary standpoint. Depending upon the overall quality of these high need properties, their locational desirability to tenants relative to other housing options, and their current annual subsidy costs (if assisted), it may be more cost effective to retire many of these properties from the HUD-insured stock while providing alternative housing options for low-income tenants.

For this as well as the following reasons, the \$1.2 billion unfunded backlog represents the upper limit on the amount of additional Federal resources that these distressed and stressed insured properties would need to fund all repairs and replacements:

- **Many distressed and stressed properties had positive cash flow that could be applied toward remedying their physical backlogs.** As was shown in Exhibit 3.6, 13 percent of distressed properties and 38 percent of stressed properties had some positive cash flow even at their current levels of rent, occupancy, and operating efficiency.
- **Many properties could fund some of their backlog by improving cash flow.** By improving operations or staging repairs, some distressed and stressed properties could improve occupancy, efficiency, or rent levels, thus increasing cash flow available to remedy backlogs (or amortize repair loans).
- **Owners of some unassisted properties could reap higher rents and occupancy by investing their own funds in remedying backlogs.** Unlike assisted properties, whose rents and occupancy are tightly regulated, many unassisted properties are able to command market rents commensurate with the quality of housing they provide.

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<sup>33</sup>The backlog for sound properties was purposely omitted from Exhibit 3.13 because sound properties have sufficient internal resources (from their reserve accounts, cash flow, and potential operating improvements) to cover their backlogs while continuing to make deposits to their reserve accounts to cover future physical needs. For completeness, however, it can be reported that there were 8,287 sound properties containing 834,720 2BR units. These properties had a total backlog of \$707 million, of which \$452 million was unfunded backlog. These properties should be able to make all necessary repairs and replacements without additional Federal assistance.



- For some distressed properties, lack of a cooperative owner may make it impossible to undertake an effective program of physical improvements. HUD's ability to assist properties depends upon the presence of a cooperative owner. While HUD may resort to administrative and legal sanctions to motivate some uncooperative owners, and may be able to effect the replacement of others; in some situations (such as weak local market conditions, limited financial potential of a property) it may be difficult for HUD to install an owner who will undertake an effective physical improvement program even with HUD assistance.

### Assisted Properties

Exhibit 3.13 shows that assisted properties comprise a major portion of the distressed and stressed multifamily rental stock (discussed above): There were 2,258 distressed properties (containing 229,235 2BR units), and 1,494 stressed properties (containing 162,662 2BR units). Distressed properties had a total needs backlog of \$786 million, of which \$708 million was unfunded backlog. Stressed properties had a total needs backlog of \$292 million, of which \$247 million was unfunded. Thus, the combined unfunded needs backlog of assisted properties that are either distressed or stressed was \$955 million.<sup>34</sup>

For the same reasons given above, this \$955 million in capital needs represents the upper limit on properties' need for additional assistance from HUD to restore these properties to sound physical condition. Over 41 percent of this unfunded backlog (\$393 million) is attributable to properties with extremely high unfunded backlogs of \$5,000 or more per 2BR unit. These high backlog properties are just 17 percent of all distressed and stressed properties (623 properties) and contain only 13 percent of the units in such properties (51,073 2BR units). Remedying the backlogs of these extremely high backlog properties may not be feasible or cost effective in some cases (as discussed above).

These distressed and stressed properties among the assisted stock are the set of properties that would be eligible to apply for special assistance under the Administration's RESTORE proposal, which is discussed in Chapter Four. Many are also currently eligible to apply for the Department's existing remedial assistance programs—Section 8 LMSA, Flexible

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<sup>34</sup>For completeness it can be reported that there were 6,439 sound assisted properties containing 602,415 2BR units. These properties had total physical needs backlogs of \$530 million of which \$302 million was unfunded backlog. However, as was true of sound properties in the entire multifamily stock, these sound properties have sufficient internal resources to cover their full backlogs without need for additional Federal assistance.

Subsidy Operating Loans, and Flexible Subsidy Capital Improvement Loans (which are also discussed in Chapter Four).

### **Capital Needs Study Properties**

Exhibit 3.13 shows that of the Capital Needs Study properties (which are a subset of assisted properties discussed above), there were 1,646 distressed properties (containing 159,297 2BR units) and 1,266 stressed properties (containing 136,804 2BR units). Distressed properties had a total backlog of physical needs of \$619 million, of which \$564 million was unfunded backlog. Stressed properties had a total physical needs backlog of \$256 million, of which \$215 million was unfunded. Thus, the combined unfunded backlog for distressed and stressed properties was \$779 million.<sup>35</sup>

For the same reasons given previously, this \$779 million in capital needs represents the upper limit on properties' need for additional assistance from HUD to restore them to sound physical condition. **Nearly 41 percent of this unfunded backlog (\$318 million) is attributable to properties with extremely high unfunded backlogs of \$5,000 or more per 2BR unit. These high backlog properties are just 18 percent of all distressed and stressed properties (510 properties) and contain only 14 percent of the units in such properties (41,753 2BR units).** Remedying the backlogs of these extremely high backlog properties may not be feasible or cost effective in some cases (as discussed above).

Distressed and stressed Capital Needs Study properties would be eligible to apply for assistance under the proposed RESTORE program, and are eligible for the current remedial assistance programs.

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<sup>35</sup>Again, for completeness it can be reported that there were 2,979 sound Capital Needs Study properties containing 327,656 2BR units. These properties had total physical needs backlogs of \$336 million of which \$193 million was unfunded backlog. However, as was true of sound properties in the entire multifamily stock, these sound properties have sufficient internal resources to cover their full backlogs without need for additional Federal assistance.

## CHAPTER FOUR

### USE OF HUD'S REMEDIAL ASSISTANCE PROGRAMS By Capital Needs Study Properties

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The previous chapter of this report described the properties in the multifamily rental stock that are distressed as measured by their physical or their financial condition. It also presented the capital needs (backlog of physical needs) of distressed properties—the estimated cost to restore these properties to physically sound condition. This chapter examines the remedial assistance programs that HUD has available to help owners restore their properties.

The first section of the chapter describes the major remedial assistance programs (remedial tools) as they have been used by Capital Needs Study properties. The section presents historical usage of each tool and the current physical and financial condition of properties after receipt of assistance.<sup>36</sup> This report cannot assess the extent to which tool receipt has actually improved properties' condition. This is because the Department lacks detailed, standardized historical data that would permit comparisons of properties' prior condition with their current condition as measured in this study. The current condition data do show, however, that after tool receipt, many formerly troubled properties are no longer distressed while others continue to have serious problems.<sup>37</sup>

The second section of the chapter discusses the RESTORE program, which the Department proposed for Fiscal Year 1993 to replace the current array of remedial tools. The proposal is based on the belief that RESTORE, relative to the current remedial tools, would improve conditions for tenants, provide stronger motivation for owners to maintain and manage their properties effectively, and increase the cost-effectiveness of limited Federal budgets.

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<sup>36</sup>Some of these remedial tools are also available to properties with HUD-insured (or held) mortgages that are outside the Capital Needs Study properties.

<sup>37</sup>The final report of the *Assessment of the HUD-Insured Multifamily Rental Stock*, being prepared by Abt Associates, will simulate application of these remedial loan management tools on the multifamily stock. This will enable Abt to explore impacts of tool receipt on property condition. Abt's final report will also include statistical analyses that attempt to relate distress status with tool receipt and various property characteristics.

#### **4.1 HUD's Current Remedial Tools for Troubled Properties**

Exhibit 4.1 shows usage of the major remedial tools by Capital Needs Study properties. It also lists the portion of properties in each distress category that have received the tools. Each of these remedial tools is discussed below.

##### **Section 241 Supplemental Insurance**

Section 241 Supplemental Insurance insures private loans for improvements to multifamily properties that have HUD-insured (or held) mortgages.<sup>38</sup> Section 241 loans are unsubsidized loans that carry market interest rates and that begin amortizing immediately (i.e., they are not deferred loans). As Exhibit 4.1 shows, Section 241 is rarely used by Capital Needs Study properties regardless of their current distress status. On the one hand, distressed properties are unlikely to qualify for these loans because without additional Federal assistance such as Section 8, they lack cash flow needed to support loan repayment. On the other hand, properties that are financially well off may have no need for the credit enhancement that loan insurance provides; instead, such properties may choose conventional (uninsured) financing. For these reasons, the demand for Section 241 loans has been small.

##### **Flexible Subsidy Loans**

Flexible Subsidy is a competitively awarded program that provides reduced-interest direct loans to Capital Needs Study properties.<sup>39</sup> It consists of two components. The traditional Operating Assistance Loan Program for troubled properties is a deferred 1 percent interest loan. It can be used to correct physical deficiencies caused by deferred maintenance, financial deficiencies, and projected deficits for the assistance year. The newer Capital Improvement Loan Program, for troubled as well as some non-troubled properties, is an amortizing direct loan that carries a 3-to-6 percent interest rate set by HUD. It cannot be used for capital improvements that are the result of deferred maintenance. Under both components,

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<sup>38</sup>In addition to multifamily properties, health care facilities having HUD-insured (or held) mortgages are also eligible for Section 241 insured loans. Section 241 has been expanded, in conjunction with the 1990 Preservation Act, to permit eligible owners to insure equity take out loans or acquisition loans related to preserving properties in low-income use. These new options under Section 241 are not discussed in this chapter.

<sup>39</sup>Flexible Subsidy is also available to properties constructed prior to 1974 under the Section 202 direct loan program for elderly and disabled residents, and for uninsured properties developed under State programs that receive Federal assistance under the Section 236 or Rent Supplement programs (or Section 8 in place of former assistance under these programs).

Exhibit 4.1

**RECEIPT OF REMEDIAL TOOLS BY DISTRESS STATUS**  
**Capital Needs Study Properties**

	Total	Distressed	Stressed	Sound
Total Properties	5891	1646	1266	2979
Percent	100%	28%	22%	51%
Received Section 241 Loan	1%	2%	0%	2%
Did Not Receive Section 241 Loan	99%	98%	100%	98%
<b>Received Flexible Subsidy<sup>1</sup></b>				
Received Flexible Subsidy <sup>1</sup>	15%	21%	8%	13%
Did Not Receive Flexible Subsidy	85%	79%	92%	87%
<b>Flexible Subsidy Date (for Flexible Subsidy Properties):</b>				
Before 1/1/80	15%	15% **	28% **	11%
1/1/80-12/31/85	81%	77% **	72% **	89%
1/1/86 and After	3%	8%	0%	0%
<b>Had a Transfer of Physical Assets</b>				
Had a Transfer of Physical Assets	21%	23%	27%	18%
Did Not Have a TPA	79%	77%	73%	82%
<b>TPA Date (for TPA properties)</b>				
9/15/80 or before	16%	16%	13%	16%
9/16/80-12/31/84	45%	52%	30%	48%
1/1/85-2/4/88	25%	26%	31%	20%
2/5/88 or later	14%	6% **	20%	16%
<b>Section 8 LMSA—Remedial</b>				
Section 8 LMSA—Remedial	28%	31%	35%	22%
<b>Section 8 LMSA—RS Conversion</b>				
Section 8 LMSA—RS Conversion	39%	41%	33%	41%
<b>Other Section 8/No Section 8</b>				
Other Section 8/No Section 8	33%	28%	32%	37%

\*\* Signifies that the proportions of Distressed and Sound or of Stressed and Sound are significantly different at the 95% level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance.

<sup>1</sup>Flexible Subsidy Operating Assistance Loans only. None of the study sample properties had received any Capital Improvement Loans.

an owner must prepare and abide by a Management Improvement and Operating Plan, and a profit-motivated owner must make a 25 percent matching capital contribution to the property.<sup>40</sup> Receipt of Operating Assistance Loans also requires that the property remain in low-income use for the balance of the original mortgage term<sup>41</sup> and suspends an owner's right to distribute dividends (until the loans are repaid).

Exhibit 4.1 shows that 15 percent of Capital Needs Study properties (867 properties) have received Flexible Subsidy Operating Assistance Loans.<sup>42</sup> Thirteen percent of the properties that are currently sound (376 properties) have received Operating Assistance Loans. This may indicate that these properties have improved since time of application, because only troubled properties were eligible for the program. However, 21 percent of currently distressed properties (350 properties) and 8 percent of currently stressed properties (141 properties) have also received assistance under the program, indicating that, whether or not these properties improved, they are still troubled.

#### **Transfers of Physical Assets**

Transfers of Physical Assets (TPAs) are changes in ownership that keep the original HUD mortgage in place (mortgage assumptions), and require HUD's approval. As a condition of approval, HUD generally requires owners to contribute funds (if needed) to bring properties up to a reasonable standard of repair or to eliminate outstanding financial deficiencies.<sup>43</sup> Thus, TPAs provide HUD with the opportunity to require cash infusions to troubled properties.

Exhibit 4.1 shows that overall, 21 percent of Capital Needs Study properties (1,252 properties) had TPAs, with no pattern based on current distress status. However, for properties that are currently distressed, the proportion of TPAs since February 5, 1988 has declined relative to TPAs among properties that are currently stressed or sound. This may indicate that TPAs have become less useful as a remedial tool in recent years (as changes in Federal tax laws

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<sup>40</sup>Nonprofit owners may provide in-kind services to property residents rather than make capital contributions.

<sup>41</sup>This requirement for receipt of operating assistance loans generally makes owners of recipient properties ineligible for preservation incentives under the 1990 Preservation Act.

<sup>42</sup>HUD Field Offices did not report any study properties' receiving Capital Improvement Loans.

<sup>43</sup>HUD's enforcement of this requirement was substantially increased beginning in October 1979. In practice, whether it is the seller or buyer who provides the funds may be negotiable.

made them less advantageous to sellers and buyers).<sup>44</sup> (Given the short interval between these recent TPAs and the study's data collection, it is unlikely that new owners had a chance to effect changes that would have improved properties' distress status.)

### Section 8 Loan Management Set Aside (LMSA)

The program was initiated in 1976 as part of the Section 8 Rental Assistance Program. LMSA, a subsidy to properties rather than to tenants (unlike Section 8 Certificates or Vouchers), pays owners the difference between the full rent level and 30 percent of a low-income tenant's income. HUD's major use of LMSA has been to replace subsidies under the older Rent Supplement or Rental Assistance Payment programs. (This use of LMSA is referred to as LMSA RS Conversion in the exhibits in this Chapter.) However, LMSA has also been used as a competitively awarded remedial tool to help troubled properties increase occupancy or raise rents to levels sufficient to sustain operations. Any troubled multifamily property (regardless of prior assistance status or insurance program) is eligible to compete for remedial LMSA.<sup>45</sup> In practice, most remedial LMSA has been awarded to Capital Needs Study properties, particularly those originally insured under Section 236.

Exhibit 4.1 shows that 28 percent of Capital Needs Study properties (1,624 properties) have received remedial LMSA. There is no pattern of receipt of remedial LMSA based on current distress status. Of properties that are now sound, 22 percent (661 properties) have received remedial LMSA. This may indicate that LMSA contributed to their turn-around because troubled status was an eligibility requirement for receiving LMSA. However, 31 percent of currently distressed properties (518 properties) and 35 percent of currently stressed

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<sup>44</sup>TPAs were often made possible because sellers provided deferred second notes to buyers. Large second notes had several financial advantages to both buyers and sellers prior to the 1984 and 1986 Tax Acts. Prior to the 1984 Tax Act, buyers were able to deduct annually from taxable income, the amount of accruing interest on these notes; while sellers were able to defer taxes on interest income until it was actually paid. However, the "original issue discount" provisions of the 1984 Tax Act, by requiring both buyers and sellers to recognize interest as it accrued, eliminated this advantage of TPAs. The second notes also greatly increased the buyer's tax basis for depreciation, which was particularly valuable (under the accelerated depreciation rules and tax brackets in effect in the early 1980s) in sheltering the buyer's taxable income. The 1986 Tax Reform Act, however, reduced the rate at which residential properties could be depreciated and lowered tax brackets of upper income investors, thereby reducing the tax shelter value of investing in lower-income housing. Thus, by the late 1980s, the tax benefits of buying properties was reduced relative to the economic benefits of operating them, making TPAs of distressed properties less attractive.

<sup>45</sup>This includes any multifamily property with a HUD-insured or held mortgage, any property financed by a Section 202 direct loan, and any of these properties whose title has been assigned to HUD.

properties (445 properties) have also received remedial LMSA, showing that whether or not LMSA alleviated distress or deferred financial failure, these properties are still troubled.

Exhibit 4.2 shows the physical needs backlog of Capital Needs Study properties by receipt of remedial tools.<sup>46</sup> It presents the total backlog and unfunded backlog of physical needs for properties that have and have not received tools. The exhibit shows that properties that have received remedial assistance of any type have higher total backlogs and higher unfunded backlogs than do properties that have not received that particular type of remedial assistance. Clearly, properties receiving either Flexible Subsidy or remedial LMSA had to be deemed troubled as a condition of eligibility: it is not surprising, therefore, that despite assistance they are still in worse physical condition than properties not certified as troubled. Nevertheless, one would have expected recipient properties to have improved, given time. It is possible that the tool helped, but was inadequate; that the tool provided improvement for a limited time, but that underlying weaknesses caused problems to resurface; or that receipt of the tool was too recent to have had impact. These hypotheses could not be examined because the study has no measures of the physical or financial condition of properties prior to their having received remedial assistance, nor during the interval from tool receipt to the time of the study's inspections.

Exhibit 4.3 shows that mean net cash flow was higher among properties that have received any particular type of remedial assistance than among properties that have not. However, this unexpected finding was the result of a minority of tool recipient properties having very high levels of cash flow. Comparing tool recipients and non-recipients, there was no difference in the percent of properties having positive cash flow, except in the case of remedial LMSA, where a *smaller* percent of recipients than non-recipients had positive cash flow. Furthermore, the median cash flow for recipients was uniformly lower than that for non-recipients. Taken together, these findings show that while some tool recipients had very highly positive cash flow (raising means), most recipients still had lower cash flow than non-recipients.

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<sup>46</sup>The number of Section 241 loans is too small for inclusion in either Exhibit 4.2 or 4.3. Note that some properties have received assistance through more than one tool.



Exhibit 4.2

**TOTAL BACKLOG AND UNFUNDED BACKLOG  
BY RECEIPT OF REMEDIAL TOOLS  
Capital Needs Study Properties**

	Total	Flexible Subsidy		Transfer of Physical Assets (TPA)		LMSA		
		Received	Did Not Receive	Yes	No	Remedial	Rent Sup Conversion	No LMSA
Total Properties	5,891	867	5,023	1,252	4,639	1,624	2,297	1,970
Percent of Total	100%	15%	85%	21%	79%	28%	39%	33%
<b>Total Backlog of Physical Needs (Per 2BR Equivalent Unit)</b>								
Mean	\$2,072	\$3,372 **	\$1,848	\$2,223 **	\$2,032	\$2,148 **	\$2,155 **	\$1,914
Standard Error	\$147	\$488	\$146	\$324	\$165	\$263	\$235	\$286
Median	\$1,219	\$2,210	\$1,023	\$1,749	\$1,200	\$1,495	\$1,232	\$878
<b>Unfunded Backlog of Physical Needs (Per 2BR Equivalent Unit)</b>								
Mean	\$1,688	\$2,847 **	\$1,488	\$1,938 **	\$1,621	\$1,821 **	\$1,796 **	\$1,453
Standard Error	\$145	\$502	\$142	\$315	\$163	\$263	\$232	\$259
Median	\$638	\$1,670	\$540	\$1,059	\$511	\$1,207	\$638	\$279

\*\* Differences between the means for properties that received the tool and the means for those that did not are statistically significant at the 95% level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance.

Exhibit 4.3

**ANNUAL NET CASH FLOW BY RECEIPT OF REMEDIAL TOOLS  
(Per 2BR Equivalent Unit)  
Capital Needs Study Properties**

	Total	Flexible Subsidy		Transfer of Physical Assets (TPA)		LMSA		
		Received	Did Not Receive	Yes	No	Remedial	Rent Sup Conversion	No LMSA
Total Properties	5,891	867	5,023	1,252	4,639	1,624	2,297	1,970
Percent of Total	100%	15%	85%	21%	79%	28%	39%	33%
Percent Positive Net Cash Flow	62%	56%	63%	54%	64%	48% **	60% **	76%
Percent Negative Cash Flow	38%	44%	37%	46%	36%	52% **	40% **	24%
<b>Statistics on Net Cash Flow</b>								
Mean Net Cash Flow	\$211	\$292 **	\$197	\$340 **	\$176	\$286 **	\$141 **	\$230
Standard Error of Mean	\$75	\$158	\$84	\$299	\$46	\$243	\$64	\$67
Median Net Cash Flow	\$56	\$28	\$74	\$15	\$80	(\$3)	\$51	\$134

\*\* Differences between the Means or Proportions for properties that received the tool and the values for those that did not are statistically significant at the 95% level. This means that the difference observed is highly likely to reflect real differences between the two groups and is unlikely to have occurred by chance.

## 4.2 RESTORE for Troubled Multifamily Housing

The Administration's RESTORE proposal includes a new competitive program that would replace Flexible Subsidy Operating Assistance Loans, Flexible Subsidy Capital Improvement Loans, and remedial Section 8 LMSA.<sup>47</sup> This competitive program consists of RESTORE loans for operating assistance, capital improvements, and repairs; and RESTORE project stabilization vouchers.

Unlike Flexible Subsidy (which is available only to Capital Needs Study properties) and remedial LMSA (which is available to properties under most assisted and unassisted multifamily insurance programs), RESTORE is available to troubled or potentially troubled assisted properties, including any property (regardless of mortgage insurance program) that has more than 50 percent of units receiving project-based rental assistance.

RESTORE is designed to overcome key shortcomings of the current remedial tools:

- 1) It is an integrated program that permits owners to apply for comprehensive assistance that combines loans and rental assistance. Under the current remedial tools, properties needing both loans and rental assistance to restore physical and financial soundness must apply separately for each, and HUD's awards are separate.
  - 2) It is tied to the Department's Comprehensive Multifamily Servicing policy, which recognizes the partnership among owners, residents, and HUD to develop and carry out plans of action to correct deficiencies, and bring properties into strict compliance with standards for physical condition, financial management, and project operation.
- Emphasis on partnership is based on experience that without cooperative owners and effective managers, remedial subsidies are ineffective. Evidence of good management is a selection criterion for awarding assistance.
  - Resident involvement helps focus improvements on items that contribute most to the living environment, engenders cooperation that can improve the effectiveness of operations, and empowers residents. Resident involvement is also a selection criterion for awarding assistance.
  - The plan of action is important in addressing all of a project's needs, and identifying sources of all needed resources (not just assistance under RESTORE). Unless all underlying problems are resolved, benefits of remedial assistance may be fleeting or marginal.

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<sup>47</sup>RESTORE also includes a non-competitive program of rental assistance for HUD-held and HUD owned properties that are being sold. This program, replacing the Property Disposition Set Aside Program, is not discussed in this report.

3) RESTORE loans require that at the time the property is sold or re-financed residents share any property appreciation resulting from improvements funded by the loans. This element of the program recaptures some of the benefit of public investments and applies it to the public purpose of assisting low-income residents.

4) RESTORE rental assistance is in the form of project stabilization vouchers. These vouchers would be restricted to use in the property for 2 to at most 3 years, after which tenants would be free to use them in housing of their choice.

- Unlike LMSA, which can shield an owner from market forces, stabilization vouchers bring market pressure to bear on owners' decisions regarding repairs and operations. Market pressure can be superior to regulatory enforcement alone in assuring effective operations.
- Stabilization vouchers permit tenants to select the best housing and neighborhood they can afford.
- Stabilization vouchers would be administered by local housing authorities with their other voucher allocations. Local authorities would be encouraged to market insured properties to all of their voucher and certificate holders. (Under current programs, many authorities are unaware of housing available in insured multifamily properties.)
- It may be the case for some insured properties that tenants will choose to move to other properties or neighborhoods; and that other families holding vouchers (i.e., vouchers issued from the local jurisdiction's voucher program) will not choose to use their vouchers to move into the property. This may indicate that further subsidy to the insured property would be an inefficient use of scarce Federal funds.

The group of properties eligible to compete for RESTORE corresponds closely to the distressed and stressed assisted properties identified in Exhibit 3.13 of Chapter Three.<sup>48</sup> As shown in the exhibit, this includes nearly 392,000 units in over 3,700 properties, which together, have an unfunded backlog of physical needs of \$955 million. HUD's highest initial priority would be addressing the distressed properties in this group, which account for about 60 percent of the properties and units, but 74 percent of the unfunded backlog needs (\$708 million).

In contrast to the fundamental program reform that the RESTORE Program would have accomplished, the Housing and Community Development Act of 1992 made relatively small changes to the existing programs. Nonetheless, many of the changes to the Flexible Subsidy Program correspond to Administration proposals, including the coordination of awards with

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<sup>48</sup>Properties with direct loans under Section 202 are also eligible for RESTORE, but are not included in Exhibit 3.13 or this study.

applications for LMSA. Owners applying for assistance will be required to have a feasible plan to involve residents in project decisions. The selection criteria for awards will also be modified to include opportunities for resident management and evidence that the owner has provided competent management and complied with all regulatory and administrative instructions (including the Department's Comprehensive Multifamily Servicing policy).

Two key RESTORE components—project stabilization vouchers and sharing net proceeds from project appreciation with residents—were not enacted.<sup>49</sup> Furthermore, the Act added features that are inconsistent with the market incentives aspect of RESTORE. Recipients of future Flexible Subsidy awards will be locked into low-income use for the remaining useful life of the project, as opposed to the remaining term of their contracts with HUD, eliminating their incentive to maintain the marketability of the projects. In addition, new provisions require HUD to "approve" comprehensive needs assessments and funding requests that all owners of covered projects must submit. (These are called "Multifamily Housing Planning and Investment Strategies.") These provisions are structured as if Congress will, in the near future, appropriate adequate funds for all the physical and financial needs that owners identify. This approach would entail a move away from the current competitive funding process, and back toward negotiated funding (eschewed by the HUD Reform Act of 1989). It also assumes that all projects are equally worthy of retaining and avoids any serious review of the fundamental problems of this type of housing assistance.<sup>50</sup>

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<sup>49</sup>A form of stabilization vouchers had been included in the Senate bill. Use of the rental assistance would have been restricted to the property for an initial contract term of at least five years. After this contract term, the assistance would have been convertible to vouchers administered by local housing authorities. Stabilization vouchers were dropped from the bill during conference.

<sup>50</sup>For Fiscal Year 1993 the Administration requested of Congress a \$412 million program level for RESTORE. This would support \$100 million in RESTORE loans and \$202 million in RESTORE stabilization vouchers, as well as another \$110 million for the non-competitive RESTORE property disposition program. Actual appropriations for Fiscal Year 1993 support \$141 million in Flexible Subsidy program activity and provide \$202 million for LMSA and \$93 million for property disposition. That is, Congress provided \$41 million more than was requested for capital improvements and emergency assistance, and \$17 million less for rental assistance. These program budgets cannot be compared directly with the unfunded backlog estimate of \$955 million for assisted properties (developed in this study). On the one hand, the remedial programs cover not only properties' physical backlogs, but also their additional financial needs for operations and annually accruing repairs and replacements. On the other hand, as noted previously, many properties can cover some of their physical backlogs using cash flow rather than additional Federal assistance.

