BY THE COMPTROLLER GENERAL

# Report To The Congress

OF THE UNITED STATES

# Evaluation Of Alternatives For Financing Low And Moderate Income Rental Housing

The cost of subsidizing housing is escalating rapidly while demand for lower income housing far exceeds supply. A key question is how effectively are present programs encouraging housing production for needy households.

GAO analyzed a number of the financing arrangements for housing subsidized under section 8 of the National Housing Act and for the older public housing program. Costs, financial risks, production incentives, and program beneficiaries were compared. This report contains recommendations to the Congress and HUD that could reduce housing subsidy costs and improve program effectiveness.



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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

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To the President of the Senate and
the Speaker of the House of Representatives

This report presents a comprehensive analysis of the various financing mechanisms for the production of rental housing under section 8 of the National Housing Act, HUD's principal housing assistance program for low and moderate income households. A vast array of financing alternatives used in conjunction with section 8 are offered to investors in the subsidized housing market. Accordingly, the cost efficiency and effectiveness of these service delivery mechanisms varies considerably. Moreover, the tenants served, the incentives for private sector involvement, length of housing service, financial risk and the life cycle costs vary from one alternative to another. This report presents a framework within which all of these factors can be identified, analyzed and appropriate recommendations made to reduce the cost and increase the effectiveness of present programs. These section 8 alternatives are also compared to the nation's oldest finance mechanism under the conventional public housing program.

Although a fairly new program, section 8 financing alternatives are now responsible for the majority of subsidized new construction and substantial rehabilitation activity. It is essential that the best alternatives available be utilized if we are to achieve our nation's subsidized housing goals.

Officials of the Department of Housing and Urban Development have reviewed our draft report. Their comments are included in this report. Copies are being sent to the Secretary of HUD.

Comptroller General
of the United States

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COMPTROLLER GENERAL'S REPORT TO THE CONGRESS

# EVALUATION OF ALTERNATIVES FOR FINANCING LOW AND MODERATE INCOME RENTAL HOUSING

## D I G E S T

During the last 10 years a quiet revolution has been set in motion in Government-subsidized housing finance. The direction of change has been away from more traditional and well-understood financing methods, such as public housing or private lending insured by the Federal Housing Administration (FHA) and toward more unusual combinations of the basic building blocks of the older programs--namely private lending, tax-exempt bonding, special tax treatment of real estate investment, and private and public ownership of housing. The new mechanisms have been created ostensibly to overcome the problems of older programs. The result: higher costs and some new problems.

This report compares new and old alternatives for financing subsidized multifamily housing in terms of

--total costs over the lives of projects;

--operating lives of subsidized units;

--risk of financial failure;

--adequacy of incentives to lenders, builders, and investors; and

--tenant groups served.

The alternatives studied include

--the conventional public housing program,

--private lending insured by the Federal Housing Administration,

--State housing agency financing using tax-exempt bonds and private ownership,

--financing by public bodies who issue tax-exempt bonds under section 11(b) of the National Housing Act (42 U.S.C. 1437i(b)), and

--certain subalternatives and combinations of these methods.

Except for public housing, each financing alternative uses rental assistance payments from the Department of Housing and Urban Development (HUD) under section 8 of the National Housing Act (42 U.S.C. 1437f). GAO made a more detailed comparison of two important section 8 alternatives--lending insured by the Federal Housing Administration and State agency tax-exempt financing.

## THE COST OF SUBSIDIZED HOUSING

The Government cost of producing and supporting subsidized housing units of identical quality varies considerably, depending on the financing alternative used. (See p. 27.) GAO compared the costs of the major financing alternatives for a housing life cycle of 20 years, which should be the minimum length of service provided by any of the options. Public housing units will likely serve needy tenants for a much longer period than the section 8 alternatives, providing it an additional advantage. (See p. 23.) GAO found that the long term costs of providing housing through public housing and Federal Housing Administration insurance alternatives were much lower than the State housing and section 11(b) options. The cost comparisons included both the direct subsidies and indirect costs such as discounts on mortgages purchased by the Government and the tax expenditures due to real estate tax shelters.

If implemented, GAO's recommendations (see p. 112) to the Congress and HUD would:

--Increase the use of the public housing program, which is the least expensive method. (See p. 26.)

--Prohibit the use of tax-exempt bonds by State housing finance agencies which add an additional cost to an already costly method. (See pp. 33-34.)

--Reevaluate the use of section 11(b) tax-exempt financing, a very costly high risk alternative. (See p. 36.)

--Encourage the use of mortgage-backed securities to raise equity capital for subsidized lending. (See p. 31.)

These changes could result in large, long term cost savings. (See pp. 37-38.)

GAO also recommends that HUD provide budget estimates for housing subsidy programs to the Congress which include all the major indirect costs including lost tax revenues. (See pp. 112-113.)

FINANCIAL RISK

The section 8 program will probably experience fewer financial failures than past rental subsidy programs because

--the subsidy mechanism is more flexible,

--fewer inherently risky projects are being undertaken, and

--State housing finance agency participation is increasing and they are generally good managers of risk.

There will still be failures under section 8, and the Government's cost will vary depending upon the financing alternative. (See pp. 46-55.)

A financial failure for an FHA insured loan occurs when the project fails to meet mortgage payments and the lender takes legal action. The loan or the project then becomes the property of HUD which must pay the lender's insurance claim. For uninsured projects (e.g., State financed), the technical outcome is different but the consequences just as dire.

Section 8 subsidy mechanism is flexible

Section 8 risk is lower than under past subsidy programs (such as section 236) where subsidies were tied to the mortgage interest rate

and fixed for the entire project life. If maintenance expenses, utilities, or taxes increased, then tenants absorbed the costs, or the project went into arrears, or the owners made up the shortages. Section 8 subsidies are adjusted each year to meet inflation, and may be increased to meet exceptional cost increases. This adjustment should avoid some failures, but it may be costly. This flexibility is analogous to the necessary, but controversial, public housing operating subsidy. (See p. 46.)

Risk as a function of project mix

GAO expects section 8 to have fewer failures than past Federal Housing Administration subsidized programs because it is using fewer nonprofit sponsors, subsidizing less rehabilitation, and producing fewer projects for families. These factors have been strong indicators of high risk under past programs. (See pp. 43-44.) Based on these major risk factors--and there are others--GAO calculated relative risks for projects insured by the Federal Housing Administration and State-financed projects using past program experience. Under section 8, both financing alternatives could be expected to have low failure rates. (See pp. 50-53.) Since these two alternatives have been used most often, it is reasonable to expect lower overall section 8 failure rates unless other less widely used methods, such as section 11(b), prove exceptionally risky and increase in popularity.

If projects insured by the Federal Housing Administration turn out to have a somewhat higher failure rate than projects financed under other section 8 alternatives, one reason may be that FHA is producing a larger percentage of family projects.

Project monitoring during construction and operation

Construction and early operation are the most risky periods in a projects's life. If monitoring by the lender is good, risk should be reduced. State agencies, which serve as lenders, generally are better

managers of risk than private lenders and are staffed and motivated to monitor progress. (See p. 47.) Private lenders with FHA insurance are insured almost completely against financial loss and therefore are not always motivated to monitor progress. FHA is really not staffed to perform this function in place of private lenders.

If implemented, GAO recommendations (see p. 120) to the Congress and HUD would

--reduce the insurance coverage provided by the Federal Housing Administration (see pp. 69-70, 120);

--deny Federal Housing Administration insurance for projects financed under section 11(b) which may prove exceptionally risky, since they often involve no established lender; and

--avoid providing Federal Housing Administration insurance for State-financed projects thus encouraging continued good risk management. (See p. 128.)

PRODUCTION INCENTIVES ADEQUATE BUT SOME PROBLEMS EXIST

The financing alternatives studied by GAO, while providing the necessary enticements to encourage housing production, still have some shortcomings. (See p. 58.)

In combination, these alternatives could provide more housing than the Federal budget could support since there are many capable builders, and investor demand for tax shelter has been strengthened by inflation and tax law changes. Private lenders will continue to seek risk-free FHA insured investments. State agencies are growing and there are thousands of public housing authorities, many of which could develop new projects.

A number of shortcomings, however, do exist:

--The incentives for long term private ownership of subsidized housing are probably much weaker than believed,

necessitating continued Government control. (See p. 66.)

--The alternatives involving insurance by the FHA clearly induce lenders to lend, but not to share the financial risks. (See pp. 68-69.)

--State agencies lack effective incentives to control the absolute cost of subsidized housing. (See pp. 92-95 and p. 121.)

WHO IS SERVED BY MULTIFAMILY PROGRAMS?

Section 8 was designed to serve a wide range of eligibles in accordance with local housing need estimates. GAO found, however, that housing produced under section 8 has primarily been serving elderly and small nonelderly families. (See p. 76.) Very little of section 8 housing being built will accommodate families with children or large households. In contrast, public housing and other earlier programs provided a much larger percentage of units to family housing.

None of the alternatives serves a wide income range. In particular, the large group of eligible nonelderly households who are above the poverty line but nonetheless have difficulty obtaining good housing at affordable rents are now getting a small share of housing assistance. (See pp. 78-82.) The older section 236 rental housing program targeted a large percentage of its housing at this group, sometimes referred to as moderate income or the working poor. (See p. 85.)

If implemented, GAO's recommendations (see p. 125) to the Congress and HUD regarding housing recipients would

--provide more subsidized housing for nonelderly households with children,

--provide more subsidized housing to eligible households above the poverty level who are presently underserved, and

--require HUD to report to the housing oversight committees on the progress made in better serving larger households and the working poor.

STATE HOUSING FINANCE AGENCIES COMPARED WITH THE FEDERAL HOUSING ADMINISTRATION

Since a large percentage of section 8 funds subsidizes units insured by the FHA or financed by State agencies, GAO compared the two methods in detail. GAO was particularly interested in State agencies because they were said to be less costly, require less processing time, and expose the Government to less risk of financial failure. GAO found that

--long term costs of projects financed by State agencies are higher than those insured by the FHA when construction costs are the same. (See p. 32, 127.)

--construction costs of State financed units are higher since there are no adequate controls on approved rents. (See pp. 92-95.)

--State agencies are said to process loans faster than HUD, but this is due in part to less stringent reviews, particularly the lack of rent reasonableness tests. (See p. 96.)

--there is some evidence that FHA has reduced processing time, thereby reducing this State agency advantage. (See p. 96.)

--State agencies have financial failures, but probably fewer than FHA because State agencies take fewer risks and manage risk better. As lenders, State agencies probably monitor projects more closely because failures impair their ability to borrow.

--financing insured by FHA is much less costly than State agency financing, even when the cost of more expected failures is considered. (See p. 127.)

GAO recommends that HUD require State agencies to prepare rent comparability tests and withdraw State agency authority to automatically exceed published fair market rents. (See p. 128.) HUD has since changed the applicable State agency regulations to require the agencies to certify the reasonableness of rents.

AGENCY COMMENTS

HUD made extensive comments on this report, disagreeing with many of GAO's recommendations but promising to make changes, some of which are already underway. (See appendix II for these comments.) GAO analyzed the comments and made several changes based on new information and upon HUD's points of view. It also redirected some recommendations to the Congress rather than to HUD. (Responses to HUD's comments are fully discussed in appendix I.)

One major point which HUD stressed in its comments to GAO was that section 8 was an excellent method for providing low and moderate income housing, but that a variety of finance mechanisms were desirable. GAO agreed with this conclusion and did not recommend doing away with section 8. Rather, GAO feels that greater emphasis on public housing and the section 8 FHA Tandem alternative could result in substantial savings, while other section 8 program changes would improve program effectiveness.

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# CHAPTER 1

## INTRODUCTION

Passage of the section 8 rental housing program, rising interest rates, a variety of housing policy decisions, and the growth of State Housing Finance Agencies has set in motion a quiet revolution in Government subsidized housing finance. The direction of change has been away from more traditional and well understood financing methods, such as tax-exempt public housing bonds or Federal Housing Administration (FHA) insured mortgages, and toward more unusual combinations of the basic building blocks of the older programs--namely private lending, tax-exempt bonding, special tax treatment of real estate investment, and private and public ownership of housing. These new methods, created ostensibly to overcome the problems of older programs, have generally brought with them higher costs and some problems of their own.

## SCOPE AND METHODOLOGY

This report explains how new or rehabilitated apartments which house subsidized tenants are being financed by either the conventional public housing program or HUD's principal housing assistance program--section 8 of the National Housing Act (42 U.S.C. 1437f). 1/ We analyzed these finance mechanisms because there was evidence that the mechanisms influenced who is served by the housing, how much it costs, and how well housing services are delivered. Since certain of the section 8 financing methods are too new to have been used much and others receive little activity, we concentrated on comparing alternatives which show great activity or which have great capacity for growth. The principal privately owned section 8 alternatives we analyzed were (1) FHA insured private lending with the Government National Mortgage Association (a public corporation within HUD) assisting in arranging permanent financing, (2) State Housing Agency financing using tax-exempt bonds, and (3) local nonprofit organizations issuing tax-exempt bonding and loaning funds to private developers, under section 11(b)(42 U.S.C. 1437i(b)).

We compared these alternatives to public ownership created by conventional public housing, the Nation's oldest and largest program for housing needy tenants, because previous

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1/Section 8 is a housing assistance program in which the Government pays project owners the difference between market rents and, in most cases, 25 percent of an eligible household's monthly income.

## ABBREVIATIONS

| | |
|---|---|
| ACC | annual contribution contract |
| BMIR | below market interest rate |
| BSPRA | builder sponsor profit and risk allowance |
| FHA | Federal Housing Administration |
| FMR | fair market rent |
| FNMA | Federal National Mortgage Association |
| GAO | General Accounting Office |
| GNMA | Government National Mortgage Association |
| HAP | housing assistance plan/payment |
| HFDA | housing finance and development agency |
| HUD | Department of Housing and Urban Development |
| LIHAPS | lower income housing assistance program information system |
| MBS | mortgage-backed securities |
| MIP | mortgage insurance premium |
| MIS | management information system |
| PHA | public housing agency |
| PILOT | payment in lieu of taxes |
| SHFA | State housing finance agency |
| TDC | total development cost |

construction in these States under the two programs at the time of our survey was roughly 27,000. The information collected included unit size, cost, geographic location, sponsor type, tenant characteristics and other information. This information established conclusions on program procedures or regulations common to all State agencies and verified the reasonableness of conclusions based upon national data or other published research. We also surveyed a number of other State agencies via telephone to answer certain specific questions such as the extent of nonprofit sponsor participation. Of great value in our understanding of the differences between State agencies and FHA financing was a book by Nathan S. Betnun. 1/

Cost analysis approach

We collected statistical information on the operations and the housing produced by FHA, GNMA, SHFAs and public housing authorities and reviewed program regulations and manuals in order to set assumptions regarding the relative costs of the various alternatives. Section 11(b) information was generally sketchy but we relied on official bond offering statements, regulations and a large number of discussions with bond counsels and other professionals involved in section 11(b) development. We also researched past literature on the tax expenditures incurred as a result of subsidized housing finance. Using this information we developed a life cycle cost model which incorporated the major direct and indirect costs of housing subsidies, many of which have been ignored in the past. The cost model aggregates the various subsidies incurred (on a unit basis) for each of the first 20 years of housing operation. Each of these yearly costs is then discounted back to present value. To buttress our statistical information we interviewed dozens of HUD and SHFA officials, bond counsels, and underwriters to verify that our model adequately represented reality. Where it was difficult to choose assumptions precisely we made calculations under a variety of assumptions and then chose those that understated the cost differences. Details of our approach are shown in the cost chapter and in appendixes III and IV which outline the major assumptions, the method of estimating development costs, and the treatment of indirect costs.

Risk analysis methodology

To analyze the risk of financial failure associated with the various program alternatives we surveyed past literature

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1/Betnun, Nathan S., Housing Finance Agencies, A Comparison Between States and HUD, (New York: Praeger, 1976).

research indicated that public housing might well be a less costly alternative. We used recent program experience to characterize these alternatives and analyze differences. Specifically we wanted to answer these questions about:

--Costs. What are the relative life cycle costs to produce and operate housing under the various financing methods for a projected life of 20 years? And, are there cost inefficiencies in any of the methods?

--Housing service life. How long will the privately owned section 8 housing serve subsidized tenants as compared to public housing?

--Financial risks. Since serious financial problems of subsidized projects have occurred under past insured programs, are the risks of those problems different under these alternatives, and can we expect high failure rates under section 8?

--Incentives. Are the incentives for lending, producing, and continuing operation of subsidized housing adequate? What incentives need strengthening and are there significant differences among alternatives in the effectiveness of these incentives?

--Beneficiaries. Who benefits from the various program alternatives?

The general approach was to look at a mix of previously collected data and published research and buttress this with a large number of interviews, and the collection of field data to build a series of analytical and conceptual models. The work was carried out primarily in Washington, D.C. by a small team of researchers, although some focused data collection and interviewing was done in Boston to develop cost estimating assumptions and to test the realism and degree of compliance of the written regulations and procedures for State housing finance agencies. The latter purpose was also served by the collection of annual statements and bond offering official statements from two dozen State agencies. These documents allowed us to better understand the implications of State agency financial failures. We also did some limited field work in FHA field offices and State agency offices to verify information gathered via mail and telephone from Wisconsin, Minnesota, and New Jersey. These States were used to provide a check on nationwide information supplied by HUD on FHA and SHFA financed projects. We selected these States because they were among the states with the largest State agency section 8 activity and also were seeing substantial FHA activity. The total number of units in operation or under

We had to resort to a number of sources and cautious double-checking to avoid making unwarranted conclusions about tenant households based upon the poor section 8 HUD tenant data. We discarded the majority of potential findings from several sources. Those conclusions which we did make we feel are quite reliable.

The report was reviewed by the Department of Housing and Urban Development and their comments are included in the appendixes along with our discussion of their comments.

In addition to the usual GAO quality assurance procedures, we called on the talents of a number of housing experts to read the draft and make suggestions. The panel of experts were:

--Dr. William Grigsby, Professor at the Institute for Environmental Studies, University of Pennsylvania;

--Dr. Frank B. Mittlebach, Professor of Real Estate and Urban Land Economics, University of California at Los Angeles;

--Dr. Morton Schussheim, Senior Specialist in Housing, Congressional Research Service; and

--Dr. George Sternlieb, Director, Center for Urban Policy Research, Rutgers University.

We incorporated many of the panel's suggestions in the final report.

## DESCRIPTION OF FINANCING ALTERNATIVES

### Public housing

Providing public housing is the oldest and most prolific method used to produce and finance subsidized housing. Public housing can be produced in a variety of ways. The one we consider in this report is conventional public housing. 1/

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1/A variation of conventional public housing is the "turn-key approach"--when the local housing authority will contract for and then purchase a completed project. The advantage of the turn-key method is that it probably results in faster project completion. One disadvantage is that the project cost will reflect conventional construction interest rates (which means a slightly more expensive project). Under the conventional approach, construction is financed with tax-exempt notes which have historically carried very low rates.

on the financial risk associated with subsidized multifamily housing programs and spoke with dozens of knowledgeable individuals in the Government and private industry. This allowed us to define variables which would likely affect the risk of the housing under the various financing alternatives. Since it is too early to have data on section 8 failures, we used earlier program experience to describe qualitatively how each of the important risk variables could be expected to impact financial success. For those variables where it was possible, we developed a method for assessing the intrinsic risk of financial failure for the various program alternatives by calculating failure rates associated with specific subsets of projects under past FHA programs and applying these failure rates to similar subsets of section 8 projects. When aggregated this gave us a measure of expected failures or relative risk. This analysis allowed us to isolate factors which were expected to affect individual project risk from those factors affecting the risk of the subsidy mechanisms themselves.

Production incentives analysis

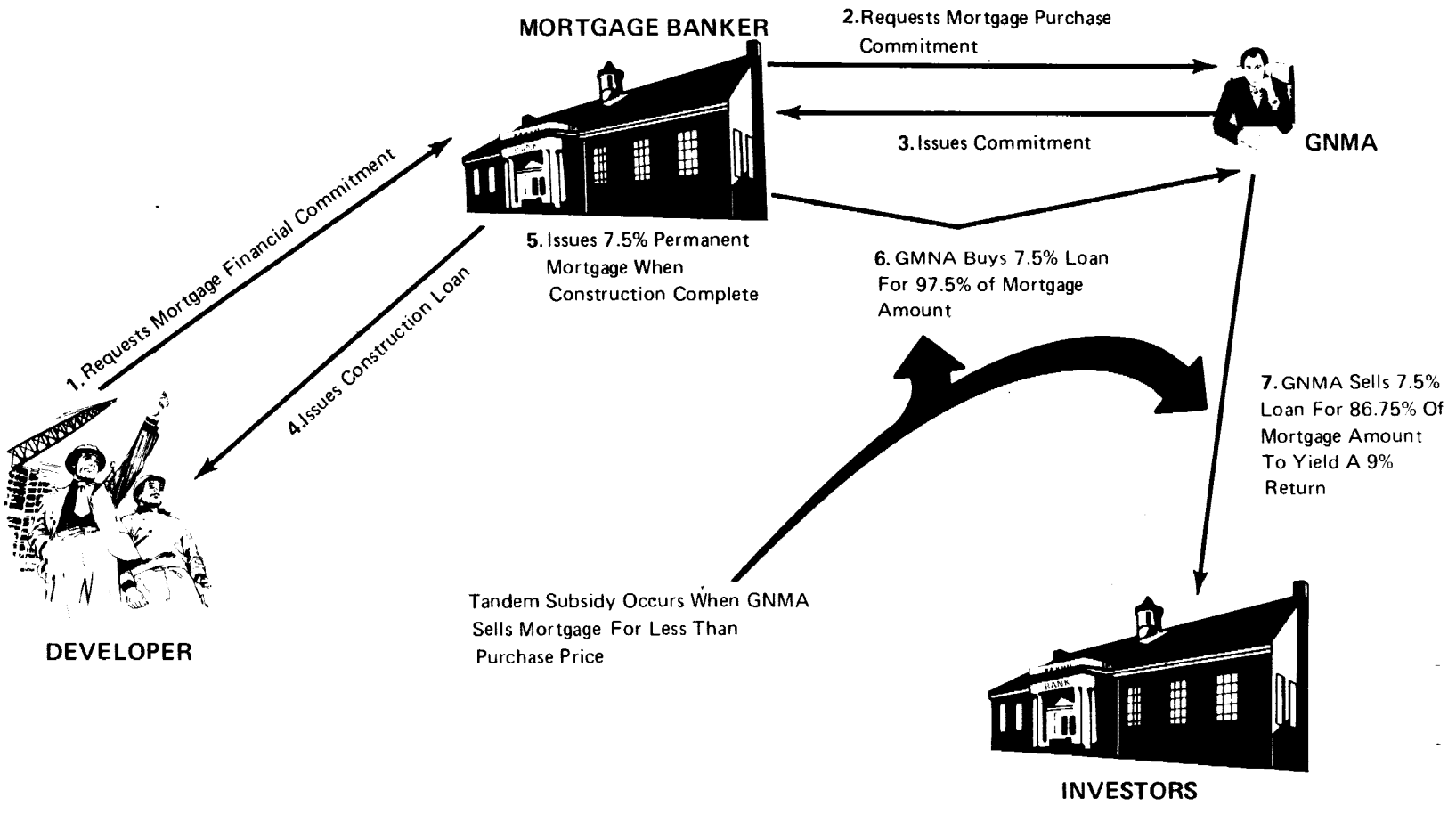
To compare the various alternatives in terms of incentives for housing production, we developed a conceptual model describing the various functions which must be present to produce subsidized multifamily housing. We then described each alternative in terms of the elements of this model based upon past literature on multifamily housing production, program regulations, and discussions with a variety of Government officials, bankers, developers, lawyers, syndicators, and others involved in housing production or housing program evaluation. In each case we made an informed judgment as to whether each production element was present and whether the incentives for its exercise were adequate.

Housing beneficiaries analysis

To analyze who was benefiting from these programs we relied primarily on comparisons among section 8, public housing, and section 236. We used the Annual Housing Survey and national poverty thresholds to make estimates of the eligible section 8 population and then relied on section 8 tenant characteristics data (which is very limited) to estimate the extent to which section 8 and older programs are impacting the target population. We also used a variety of data sources to establish that nonelderly households just above the poverty threshold were in significant housing need although receiving very little service from section 8. We relied to some extent on limited HUD contract research to make certain conclusions regarding the beneficiaries.

**Figure 1**

**HOW THE GNMA TANDEM SUBSIDY WORKS**



Under this approach, local housing authorities plan and contract for new construction and finance the project by selling federally guaranteed tax-exempt mortgage bonds. The debt service on these bonds is paid by the Federal Government, and the rents charged to the tenants reflect only the costs of maintenance, utilities, project operation, and a portion of real estate taxes. The obvious advantage of this approach is that the rents can be substantially lowered to assist low-income people, while achieving relatively low direct subsidies based upon the lower interest rates made possible by tax-exempt borrowing.

FHA insurance with GNMA financing

Under this financing vehicle, a builder/developer obtains a loan (insured by FHA) from a private lender. The lender then sells the loan to the Government National Mortgage Association (GNMA) who in turn sells the mortgage at a discount to other private institutional investors through its secondary mortgage market operations (see figure 1). This financing plan is termed the "tandem plan" because the Government and the private sector work in tandem to provide housing finance for low and moderate income households. The tandem plan was used extensively under section 236 1/ and plays a key role in financing projects under section 8.

This method of finance is important because it makes subsidized apartments feasible. First, the interest rate on these loans (currently 7.5 percent) is administratively set at well below conventional rates. Second, the fact that lenders can arrange mortgages and then sell them to GNMA for the face amount of the loan induces lenders to provide financing thereby reducing the perception that lending money for lower income housing is too risky. Third, GNMA can market these loans to other investors because FHA insures the buyer that in the event of a default by the borrower, the mortgage investor will receive 99 percent of the outstanding mortgage balance.

One disadvantage of this program is the large loan discount or tandem subsidy that GNMA must absorb when it sells 7.5 percent less-than-market interest rate loans at prices low enough to provide investors with a market yield. Another

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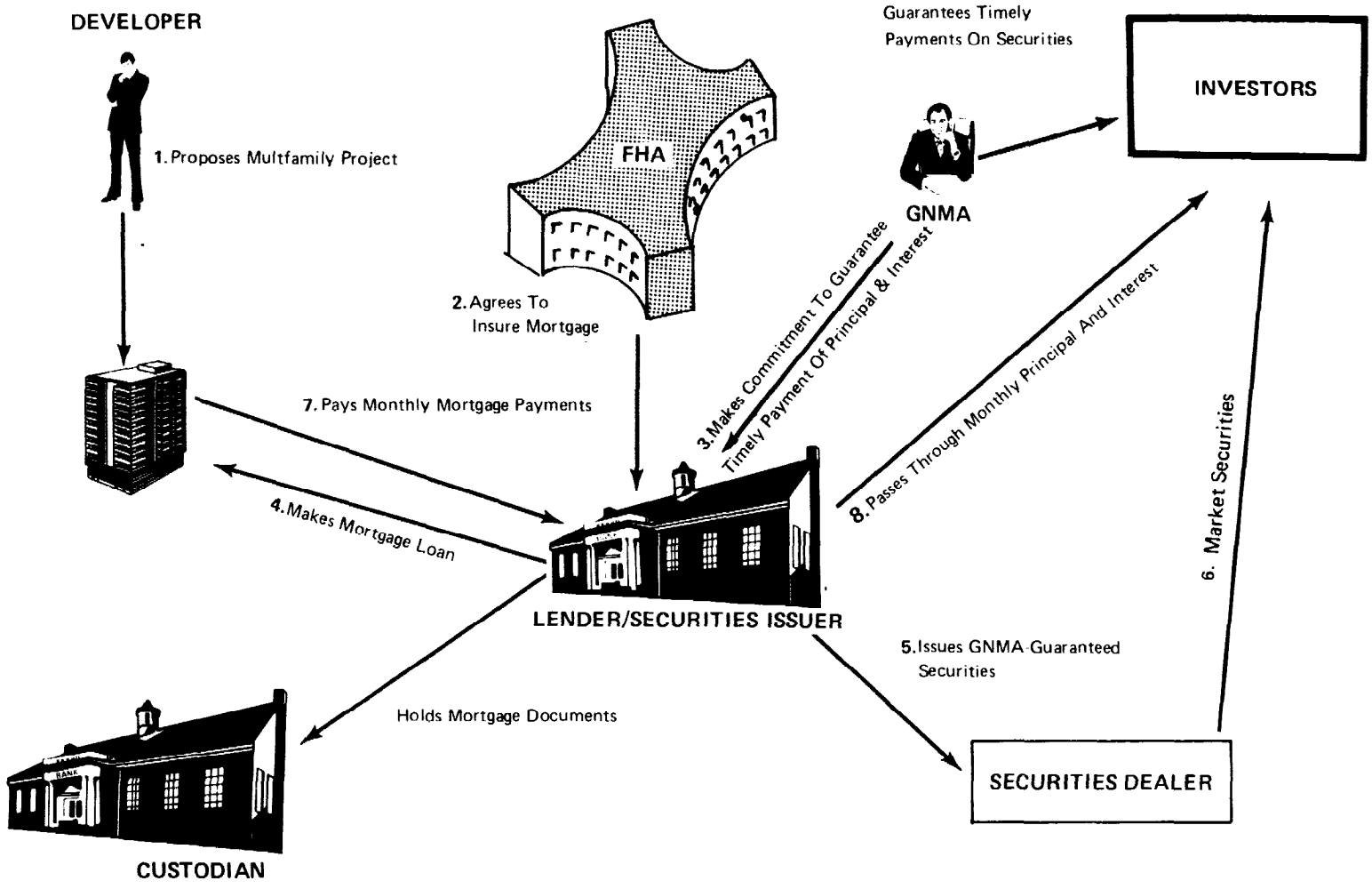
1/Section 236 of the National Housing Act provided interest rate reduction payments which lowered tenant rents on new and rehabilitated housing, plus mortgage insurance for FHA permanent financing.

**Figure 2**

**HOW THE GNMA MORTGAGE–BACKED SECURITIES PROGRAM WORKS**



disadvantage is that because mortgage lenders are fully insured against losses, they lack the incentives to carefully monitor project construction or operation to avoid financial problems.

FHA insurance with GNMA mortgage-backed securities (MBS)

A variation of the traditional FHA insurance with GNMA financing is called the mortgage-backed securities (MBS) program. Under this arrangement, a private lender makes an FHA insured loan and issues securities to other investors to finance the development. The GNMA guarantees that the security holders will receive the monthly principal and interest, regardless of whether the project is able to generate sufficient income (see figure 2).

The MBS program is relatively new for multifamily housing. However, this program is capable of providing much more section 8 project financing with potential cost savings. Since the securities are fully guaranteed by GNMA, and the project mortgage is insured by FHA, the mortgage interest rate, though not fixed at 7.5 percent as under Tandem, could generally be expected to be lower than comparable conventional mortgage rates. This method avoids the Tandem subsidy.

State housing finance agencies

State housing finance agencies (SHFAs) are essentially mortgage lenders who finance construction and permanent loans for low and moderate income housing by issuing tax-exempt notes and bonds. SHFAs were first used extensively as vehicles for Federal rent subsidies under section 236. Since then most States have created agencies that make loans on both single and multifamily housing at below market interest rates.

Much of the recent multifamily housing financed by SHFAs has been sponsored by private, profit-motivated developers who contract with HUD for section 8 rental assistance.

One advantage of SHFA section 8 development is that the tax-exempt bond interest rates are lower than conventional financing. These low rates generally allow a project to be economically feasible within the rent limitations set by HUD. Another advantage is that projects may be less likely to experience mortgage failures since SHFAs which generally lend without mortgage insurance are strongly motivated to monitor construction and operation. A disadvantage of this technique is the large hidden tax expenditures associated with tax-exempt bonds in combination with the usual real estate investment tax expenditures.

the Congress designed the section 8 program, 1/ which consists of two approaches: one is to use existing units and the other is to produce newly constructed and substantially rehabilitated units. Under either approach, the Government would pay the difference between a market competitive rent and 15 percent to 25 percent of a tenant's income depending on the severity of the household's financial situation. Section 8 was to avoid the problems of past programs by using privately owned units and private financing. In the first 2 years of operation, most of the section 8 subsidies went to existing housing instead of to new or rehabilitated units.

How section 8 differs from the past

The subsidy mechanism of past programs is connected to either the project debt or to the project operating costs while the section 8 subsidy is tied to a fair market rent (FMR). Fair market rents are set by HUD and are meant to allow the construction and operation of new rental housing.

Under public housing, which has traditionally served the lowest income group, a public housing authority finances construction by issuing tax-exempt bonds, while the Federal Government makes annual payments not to exceed the bonds' principal and interest. Originally tenants were to pay rent sufficient to cover operating expenses. These expenses only included payments in lieu of real estate taxes, maintenance, management, and utility costs, and thus allowed a very low income tenant to pay a rent substantially lower than private market rents. Under the Brooke amendment, 2/ adopted in 1969, tenants would not pay more than 25 percent of their income toward rent. When utility costs rose sharply in the early 1970s, tenants were unable to cover the increased cost. Thus, additional operating cost subsidies were added.

The section 236 program, originally designed primarily for moderate income tenants, used a very different type of subsidy, but also suffered from the same inability as public housing to keep up with increases in operating costs. Under section 236, the Federal Government paid the interest on the debt service except for one percentage point. Thus a tenant paid rent equal to the operating costs plus the mortgage principal and interest figured at one percent. Rents could

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1/Section 8 refers to section 8 of the National Housing Act of 1937, which was added by the Housing and Community Development Act in 1974.

2/Authority for tenant rent limitation is 42 U.S.C. 1437a(1).

Section 11(b) tax-exempt bonds

Section 11(b) is another method using tax-exempt bonds to finance low and moderate income housing under section 8. Section 11(b) refers to section 11(b) of a 1974 amendment to the National Housing Act of 1937, which authorized local housing authorities or their instrumentalities to issue tax-exempt notes and bonds to finance low and moderate income housing projects.

There are several alternatives available under section 11(b). Typically, a local housing authority creates a separate financing instrumentality called a public body which sells tax-exempt revenue bonds to raise funds and then lends these funds to a private builder/developer to construct section 8 housing. Another variation occurs when the public body obtains funds from a local savings and loan. The savings and loan earns interest on this loan which is tax-exempt, and is therefore willing to lend at rates low enough to make development feasible. The lower interest rate charged to a proposed project could be even lower if FHA insured the bond holder against losses, which is also possible.

Other variations

Since earlier GAO research 1/ adequately compared the cost of new construction to rehabilitation and profit-motivated development to nonprofit sponsorship, we treat nonprofit and rehabilitated developments primarily as they effect financial risk, since these situations are not prevalent under section 8.

How section 8 works

In 1973 the Administration suspended all principal subsidized housing programs 2/ on the grounds that the programs were cumbersome, inequitable, inefficient, and too costly. To solve these perceived problems, the Administration and

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1/"Section 236 Rental Housing--An Evaluation with Lessons for the Future," U.S. General Accounting Office, PAD-78-13, Jan. 10, 1978.

2/These programs were the conventional public housing program, section 236 rental assistance, and section 235 homeownership assistance.

Table 1

# PROGRAM BUILDING BLOCKS USED IN FINANCING ALTERNATIVES

| PROGRAM ALTERNATIVES | DIRECT SUBSIDY | LENDER | TAX EXEMPT BONDS | REAL ESTATE TAX INCENTIVES | OWNERSHIP | SECONDARY MORTGAGE MARKET INTERVENTION | MORTGAGE INSURANCE |
|---|---|---|---|---|---|---|---|
| 1. CONVENTIONAL PUBLIC HOUSING PROGRAM | ANNUAL CONTRIBUTIONS CONTRACT | TAX EXEMPT BOND HOLDER | YES | NO | PUBLIC AGENCY | NO | NO |
| 2. STATE HOUSING FINANCE AGENCIES | SECTION 8 | TAX EXEMPT BOND HOLDER | YES | YES | PRIVATE INVESTORS OR NONPROFIT GROUPS | NO | POSSIBLE |
| 3. FHA INSURANCE WITH GNMA TANDEM | SECTION 8 | PRIVATE LENDER | NO | YES | PRIVATE INVESTORS OR NONPROFIT GROUPS | YES | YES |
| 4. SECTION 11(b) | SECTION 8 | PRIVATE LENDER OR TAX EXEMPT BOND HOLDER | YES | YES | PRIVATE INVESTORS | NO | POSSIBLE |
| 5. MORTGAGE-BACKED SECURITIES WITH FHA INSURANCE | SECTION 8 | PRIVATE LENDER | NO | YES | PRIVATE INVESTORS OR NONPROFIT GROUPS | YES | YES |

be reduced to below market value, but could be kept considerally higher than those of public housing.

Two basic problems, however, existed with this program. The Administration claimed the program was inequitable because only moderate income tenants could afford the rents and it tried to fill the units with tenants who could barely afford the required rents. When utility costs shot up, starting in 1973, many tenants could not afford the increases in rent. This situation probably caused many projects to default on their loans. Section 236 thus exposed the Federal Housing Administration (FHA) to large insurance losses. When projects failed, FHA became the projects' owner and manager. FHA was faced with a severe management problem when it had to either manage or dispose of over 400 section 236 projects. To deal with the problem of excessive failures, the Administration attempted to reduce the role of FHA insurance and rely more heavily on other sources of financing, such as SHFAs. Diversification has taken place, but to a great extent FHA insurance still carries the bulk of the present production burden; the other alternatives are more expensive, and there is pressure now to insure these alternatives.

Under section 8, the subsidy is more flexible than under public housing because annual adjustments for such cost increases are built in and the subsidy initially covers up to 100 percent of the total project expenses over and above that which the tenant can pay with 25 percent of their household income. Since the section 8 subsidy pays the difference between a market rent and 25 percent of any eligible tenant's income, the program provides a much deeper subsidy than the subsidy under section 236. Theoretically section 8 can aid a wider income range of needy tenants.

Section 8 was also created to solve the problem of concentrating lower income people into one area, which was considered a problem in public housing and section 236 projects. The Congress seemed to accept the view that economic integration was a desirable goal and directed HUD to give preference to those proposed construction projects for which 20 percent or less of the tenants were to be subsidized. This preference has had little impact, most projects are 100 percent subsidized. Another goal of section 8 was to consolidate the many older programs into a single and coherent program. Although most subsidy dollars now flow through section 8, the extent of financing mechanism diversity is probably even greater than ever and many modifications and combinations of the older mechanisms are developing under the section 8 umbrella. Table 1 lists the various financing alternatives and the subsidy mechanisms used.

PUBLIC HOUSING

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

PUBLIC HOUSING

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

We did take into account the difference in soft construction costs, such as financing expenses, which are incorporated into a project's total costs. Starting with a two bedroom apartment, we estimated actual construction would cost $22,644 When we added the various soft costs, we found that the alternatives' total development costs differed. The total development cost for each alternative is shown in table 2.

Table 2

Total Development Cost
for a Two-Bedroom Apartment
for Various Financing Methods

| | FHA Tandem | FHA MBS | SHFAs | 11(b) | Public housing |
|---|---|---|---|---|---|
| Total improvements | $22,644 | $22,644 | $22,644 | $22,644 | $22,644 |
| Total development cost | $30,000 | $30,000 | $29,239 | $29,194 | $27,917 |

The variations in total development costs arise from differences in the one-time fees charged by the various lenders and the cost of construction financing. For example, public housing construction is financed with short term tax-exempt notes at low interest rates which in recent years have been in the 4 percent to 6 percent range while the FHA insured projects are financed at interest rates relatively close to the market interest rate on nonsubsidized apartments. The details of how the total development costs for our comparisons were constructed are shown in appendix III.

## SUBSIDY COSTS

The total dovelopment cost is one of the most important variables in determining the total life cycle cost of providing a unit of housing for 20 years. In the next several sections we explain the types of costs which are incurred and we explain how these costs depend on the total development costs.

For simplicity we divide subsidy costs into two categories:

--Direct subsidies are those costs arising from the difference between the full economic rent required to pay the debt service (which depends upon the total development cost), operating costs, profit, and property taxes, and the rent which tenants pay.

## CHAPTER 2

## SUBSIDY COSTS

The Federal Government is currently allowing subsidized housing to be financed by private, profit-motivated owners who have obtained financing through several relatively expensive means. All of these projects have assisted households through the section 8 housing assistance program. In contrast, very little housing has been provided by the less expensive conventional public housing program which was deemphasized in favor of section 8. If more emphasis were placed on public housing and certain other alternatives, millions of dollars could be saved each year.

In this chapter we compare the costs of the various financing methods used in conjunction with section 8 to those financed with the public housing program. We first assume that each alternative could provide the same type and quality of unit to a household with a specified income. We then consider all the costs of providing, producing, and subsidizing an identical unit of housing service over a 20-year life.

### TOTAL DEVELOPMENT COSTS

We assumed that each alternative would provide the same type and quality of unit because it allowed us to make an equal effectiveness cost comparison of the various alternatives. The results of this analysis should afford the Congress an opportunity to observe which finance method will provide a unit of housing service for the least amount of subsidy dollars.

This "equal effectiveness" assumption means that each alternative has identical costs of land and construction (equal brick and mortar costs), even though in reality these costs differ widely depending on location, project design, amenities, and many other factors. We made no attempt to investigate whether one alternative in general had higher brick and mortar costs than other alternatives. This would have been an impossible task, and even if real differences were observed, it would bias the cost comparison. For example, if one method had higher brick and mortar costs, it would likely be due to higher quality construction or more amenities at additional cost. Therefore, our equal brick and mortar cost assumption is the only way to observe what it costs to obtain the same benefit (i.e., an identical housing unit which will serve needy households for a period of 20 years).

Table 3

Annual Gross Rents
for a Two-Bedroom Apartment
for Various Financing Methods

| | FHA Tandem | FHA MBS | SHFA | 11(b) | Public housing |
|---|---|---|---|---|---|
| Total development cost | $30,000 | $30,000 | $29,239 | $29,194 | $27,917 |
| Mortgage amount | 27,000 | 27,000 | 26,315 | 26,275 | 27,917 |
| Interest rate | 7.5% | 8.0% | 7.5% | 6.75% | 6.0% |
| Mortgage insurance Premium rate | 0.5% | 0.5% | -0- | -0- | -0- |
| Principal, interest and insurance premium | 2,255 | 2,383 | 2,081 | 1,904 | 1,846 |
| Operating & maintenance expense | 1,354 | 1,354 | 1,354 | 1,354 | 1,354 |
| Reserve for replacements | 115 | 115 | 115 | 115 | 115 |
| Property taxes (or PILOT) | 450 | 450 | 450 | 450 | 50 |
| Cash return on investment (6% stated equity) | 180 | 180 | 175 | 174 | -0- |
| Trustee's fee | -0- | -0- | -0- | 30 | 28 |
| Gross rent | $ 4,354 | $ 4,482 | $ 4,175 | $ 4,027 | $ 3,393 |

With the exception of public housing, each alternative's mortgage amount was set at 90 percent of the total development cost. This is the approximate percentage which is applied in practice. For the public housing alternative, the mortgage amount is equal to the total development cost.

To determine the yearly principal and interest costs, we applied the interest rates which were in effect as of January 1978. Although the cost of borrowing has risen since that time, our analysis shows that they have risen proportionately for each financing alternative. Therefore, the relative position of the alternatives' gross rents should not be affected appreciably by fluctuations in the cost of money.

## Public housing has the lowest mortgage interest rate

The public housing alternative has the lowest gross rent because it is financed with short term tax-exempt notes which usually carry a lower interest rate on the mortgage. Normally,

--Indirect subsidies are those items which are not included in the full economic rent but which are paid by some level of government to support the projects or induce their production. The indirect subsidies considered in this analysis are (1) administrative fees incurred by Federal or other government bodies, (2) mortgage discounts absorbed by the Federal Government when it buys and resells FHA mortgages to provide lenders with liquidity, (3) insurance losses incurred when FHA mortgages go into default or foreclosure, (4) Federal taxes not collected due to the tax shelter aspects of real estate development and due to the issuance of tax-exempt bonds by local or State governments to finance the development of section 8 or public housing projects, (5) local property taxes foregone as a result of tax abatement policies for public housing or the not infrequent tax abatement afforded other housing for low and moderate income households.

## Direct subsidies a function of gross rent and tenant income

Under the section 8 program, the Government agrees to pay project owners the difference between the gross rent and 25 percent of a tenant's income. The direct subsidy is therefore dependent upon the economic factors making up the gross rent and the level of tenant income.

## Gross rents

The gross rents for each financing technique depend upon the actual project cost (total development cost), the debt service necessary to repay a mortgage (which is dependent on the interest rate), operating costs, property taxes, allowable cash returns on investments, and certain miscellaneous expenses. Table 3 illustrates the cost components which make up the gross rents for each finance method we studied.

## Mortgage interest rates affect gross rents

As can be seen from this table, we assumed that each alternative would have identical operating and maintenance costs, and, with the exception of public housing, all have identical property taxes and allowable returns on investments. The differences in gross rents between alternatives are therefore largely due to the differences in principal and interest payments (debt service). Since the size of the debt service depends on the project's mortgage amount and the interest rate used to amortize the mortgage, we were very careful in selecting these variables.

percent interest cost 1/, plus the one-half of one percent FHA mortgage insurance premium, yields a total mortgage interest rate of 8.53 percent; yet, this rate was lower than that obtainable through conventional lenders in early 1978.

## Tenant income level also determines direct subsidies

As noted earlier, the direct cost of subsidizing a tenant under section 8 or public housing depends upon the gross rent as well as the level of tenant income. The gross rents we showed in table 3 represent the maximum direct Federal subsidy needed to support a tenant with no income. As tenant income increases, the direct subsidy decreases by the rent which the tenant is required to pay. This tenant rent is based on 25 percent of the household's income after certain adjustments based upon program rules.

The following table shows the direct subsidy for a four member nonelderly household for each financing method. We have assumed an annual household income of $5,000.

Although we show no calculations for elderly households, we carried out parallel analyses for elderly housing. The cost relationships between the financing alternatives are the same for both elderly and nonelderly households and are unaffected by the tenant income level.

Figure 3 shows the relationship between tenant income and the direct subsidy for each finance method. The mortgage-backed securities option is not shown because of its close proximity to the GNMA Tandem alternative, shown in the figure as 7.5 percent FHA.

## Indirect subsidies and long term costs

The direct subsidy cost estimates we developed for each alternative provide a useful measure of costs which will be budgeted for one program as opposed to another. But there are indirect subsidies and long term costs measured over a housing unit's life which must be expressed to provide a fair comparison. For example, based upon direct subsidy cost estimates alone, it appears as if the mortgage-backed security (MBS) alternative is the most expensive finance method (see table 4). But when other hidden costs are included for the

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1/How we arrived at this interest rate is explained later in this chapter.

the Federal Government finances public housing projects by issuing long term tax-exempt bonds which carry a relatively low interest rate due to the tax-exempt status and the full faith and credit Federal guarantee. However, in recent years Federal officials have not sold long term bonds because they felt more money could be saved by merely "rolling over" a series of short term lower interest rate notes. We use a six percent interest rate for public housing which reflects the highest long term interest rate the Federal Government has allowed. Therefore, the gross rent for this alternative may be somewhat overstated relative to the other alternatives.

SHFA and 11(b) financed projects also have below market mortgage interest rates

Both SHFA and 11(b) financed projects take advantage of tax-exempt financing to provide low interest rate mortgage loans. At the time we set our study assumptions, we found that SHFA-financed projects were, on average, being financed with long term bonds at a 6.75 percent interest rate. This was the average interest rate paid to bond buyers in early 1978. However, the interest rate which is charged to an apartment project is somewhat higher than the bond interest rate because SHFAs typically add a charge of three-fourths of one percent interest to cover their cost of operations. Projects financed by public housing authorities which use 11(b) tax-exempt bonds typically do not add this service charge.

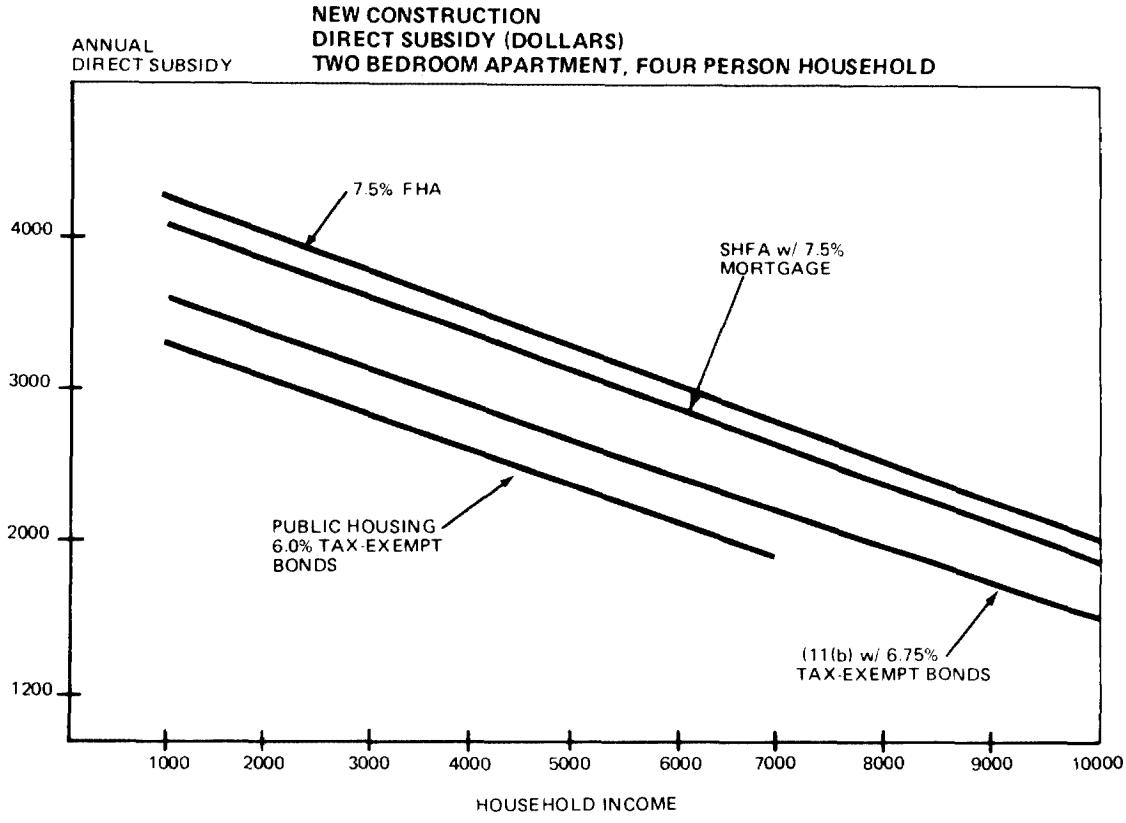
Projects financed through the GNMA Tandem plan carry a below-market interest rate

Projects which are insured by FHA and financed through GNMA's Tandem plan carry a 7.5 percent interest rate which is administratively set. Added to this is a one-half of one percent mortgage insurance premium which is paid to FHA to cover potential failures. Projects financed in this fashion therefore carry a mortgage interest rate of 8.0 percent. This rate allows the debt service (and consequently the economic rent) to be much lower than if the project were financed by a conventional lender. In early 1978 the interest rate on a conventional loan was about 9 percent or 9.5 percent.

Projects financed through GNMA's MBS carry the highest interest rate

This alternative has the highest economic rent because it carries the highest mortgage interest rate. The 8.03

Figure 3




cost expenditures to be compared by accounting for the true value of money.

The first step is to determine how long the Government will provide the service.

## Establishing subsidized housing life

In our analysis of the life cycle costs of housing units developed under the several financing mechanisms, we assumed a "subsidized life" of 20 years for housing units. We picked the period of 20 years for two reasons.

First, earlier subsidized private ownership insurance programs, such as sections 236 and 221(d)(4) (which is the section 8 insurance program) were insured and subsidized by HUD using a regulatory agreement (contract) between HUD and

other methods, the MBS option proves to be one of the cheapest ways to finance subsidized housing.

Many of these indirect costs occur nonuniformly over time and differ markedly from program to program. In this section we present a method for estimating indirect costs in a way which allows a much clearer idea about which finance alternative is most economical in terms of total costs over a useful life. After we explain this estimating technique, we present the results of our comparison and then explain how the major indirect costs alter the relative cost position of the alternatives.

Table 4

Annual Direct Subsidies
Under Various Financing Methods
Family of Four
(Gross Income = $5,000)

| | Section 8 Financing Alternatives | | | | Public housing |
|---|---|---|---|---|---|
| | FHA Tandem | FHA MBS | SHFA | 11(b) | |
| Two bedroom gross rent | $4,354 | $4,482 | $4,175 | $4,027 | $3,393 |
| Tenant contribution | 1,100 | 1,100 | 1,100 | 1,100 | 975 a/ |
| Direct subsidy | $3,254 | $3,382 | $3,075 | $2,927 | $2,418 |

a/The direct subsidy for public housing is $975 rather than $1,100 for section 8 because of different rules for adjusting tenant income prior to calculating rent.

## LIFE CYCLE COST ANALYSIS

The technique we use to compare the several finance methods is called life cycle costing. It is a method of comparing those alternatives which will accomplish similar objectives over an expected service life. This technique is difficult to apply because it requires that one make estimates of future costs, the timing of these costs, and then control for differences in benefits which are intrinsic to the alternatives under consideration. Since certain costs occur at different times and in different magnitudes from one alternative to another, it is necessary to normalize costs to a present value. This process allows a stream of

and other intricacies of the section 8 regulations virtually assured the loss of many units, thereby displacing low and moderate income tenants. We estimated that this would result in much higher future subsidy costs when these units were replaced by subsequent housing production.

We reported this situation in January 1979 to the major congressional committees having housing jurisdiction. 1/ Resulting legislation and necessary changes in HUD regulations have solved this problem by requiring minimum contract terms of 20 years on all section 8 contracts. 2/ However, for many of the units already in operation under the older section 8 regulations, early sale and conversion to unsubsidized housing is likely.

Projecting the costs

The second step in the process of life cycle cost analysis is to estimate future costs by examining direct and indirect subsidies. To complete the direct subsidy cost, it is necessary to estimate the direct subsidy costs for the remaining 19 years of service. Actual costs will depend upon the rates of change of tenant income and operating cost. We have assumed that both variables will remain constant over a unit's life and change in the same way for each alternative. Thus, even though this assumption will understate the actual direct subsidy costs, it will not affect the results of the analysis since we are attempting to make a present value comparison rather than predict price changes.

The indirect costs will also vary among each funding alternative and they will occur at different times for each. We have estimated these costs and we discuss them in detail after we show the results of the life cycle comparison.

The third step in the life cycle cost analysis is to select a rate of discount to bring the cost items back to present value. The results of any life cycle cost analysis are

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1/Letter report to the Honorable William Proxmire and other housing committee chairmen regarding the potential early sales of section 8 housing projects, January 16, 1979, (PAD-79-43).

2/On December 21, 1979, the Congress passed the Housing and Community Development Amendments of 1979 (PL 96-153) and it amended the section 8 program by requiring a minimum contract term of 20 years. Prior to passage of this amendment HUD required the 20 year minimum contract term in revised section 8 regulations published on October 15, 1979.

housing sponsors. Among its many provisions, the agreement required that project owners get permission from HUD to sell their properties should they choose to do so during the first 20 years of ownership. A similar agreement with owners under section 8 and recent congressional action regarding Housing Assistance Payment (HAP) contracts have the same effect and apply to all the alternatives studied except public housing.

Second, the economic incentives for sale of privately owned projects appear to be strong after the bulk of the tax shelter afforded by subsidized housing is consumed in the first 7 or 8 years, and after the disincentives for sale, due to the recapture of excess depreciation, have expired in the 16th year of ownership. Thus, when the 20-year ownership period regulated by HUD has passed, owners could well be expected to sell. This is not to say that some projects will not be held longer, but the control of ownership which establishes an effective minimum life of 20 years combined with strong incentives to sell prior to 20 years makes this holding period a good starting assumption.

Public housing, on the other hand, is likely to have a much longer subsidized life. These projects are owned by public agencies, which are usually associated with local or regional governments, and are motivated to provide lower income housing rather than making a profit or sheltering income The likely life of public housing units can be thought of as being equal to the physical life of the building itself. It is not necessary, however, to pinpoint accurately the average life of public housing since the life is clearly much greater than that of the private ownership alternatives. Nearly 99 percent of all public housing units produced in the early 1940s are still serving low income tenants.

Since public housing is less costly to subsidize than the other alternatives, even assuming a 20-year life, a longer life for public housing makes it even more attractive. We therefore chose the 20-year period as a basis for comparison. Using different useful lives for the two kinds of programs (private versus public ownership) merely complicates the analysis without adding much additional insight.

### Section 8 projects already in private ownership may not provide 20 years service

In the course of our research we discovered that the Housing Assistance Payment contract HUD executed with section 8 project owners allowed cancellation or renewal of the contract at the option of the owner, after 5 years (or multiples of 5 years). Strong economic incentives for many owners to dispose of their investments long before the end of 20 years

Table 5

Annual Discounted Cost
to Subsidize a Two-Bedroom
Apartment for a Family of Four
(Gross Income = $5,000)

| | FHA Tandem | FHA MBS | SHFA | 11(b) | Public housing |
|---|---|---|---|---|---|
| Direct subsidy | $1,725 | $1,793 | $1,630 | $1,543 | $1,282 |
| Tandem subsidy | 126 | -0- | -0- | -0- | -0- |
| HUD administrative fee | 20 | 20 | 10 | 10 | 20 |
| Federal taxes lost due to tax shelters: | | | | | |
| (a) Depreciation | 345 | 345 | 331 | 334 | -0- |
| (b) Tax-exempt bonds | -0- | -0- | 628 | 655 | 545 |
| Local taxes lost due to PILOT | -0- | -0- | -0- | -0- | 212 |
| Failure expense | (8) | (8) | -0- | -0- | -0- |
| Tax revenue upon sale | (29) | (30) | (28) | (27) | -0- |
| Total discounted per unit cost | $2,179 | $2,120 | $2,571 | $2,515 | $2,059 |

The public housing program had attained a reputation as being a failure because (1) there were a few notorious cases where projects failed due to poor location, or were very large and contained a high concentration of low income families; (2) the media and the public often confused public housing with any financially troubled or physically dilapidated housing which was either privately held or supported by other Government programs; and (3) many projects experienced financial difficulty and required operating subsidies.

There have been notably badly planned and badly managed public housing projects. An oft-cited example is the Pruitt-Igoe project in St. Louis, Missouri. This project was a very large group of poorly located structures where hundreds of very low income families were concentrated. Any project, regardless of how it is produced, would be difficult to manage under those circumstances. In fact, large, FHA-insured, family oriented projects have also had a similar history of management and financial difficulties. The problem is that many people tend to think that most public housing is similar

highly dependent on this variable. High discount rates tend to favor those alternatives which incur heavier costs in the future while low discount rates have the opposite effect. We used an 8 percent discount rate because it was the Treasury's cost of borrowing money with long term securities at the time we set our assumptions. However, we varied the discount rate upward and downward substantially and it did not change the basic results of our comparison.

## LIFE CYCLE COSTS OF THE VARIOUS FINANCE METHODS

Dividing the costs for 20 years of service by 20 gives a per unit yearly cost comparison. Table 5 illustrates the discounted per unit per year life cycle costs to provide a two-bedroom apartment unit for a family of four with a gross annual income of $5,000. The life cycle cost range is between about $2,000 and $2,600 per unit per year. In the next few sections we examine each alternative to explain the differences in life cycle costs.

### Public housing

The conventional public housing alternative is the least expensive way to finance subsidized housing because (1) it is publicly held and therefore does not incur the hidden cost of tax revenues foregone due to depreciation deductions, 1/ and (2) the debt service is lower due to the lower mortgage interest rate on the low interest bearing tax-exempt bonds and to the Federal guarantee behind the bonds. The conventional public housing alternative does have several indirect costs, such as the tax revenue lost due to the tax-exempt status of the bonds and the local property taxes which public housing projects avoid. The total of these expenses is offset by the lower direct subsidy and the additional hidden expenses that the other alternatives have such as the depreciation-related expense and the tandem subsidy (for the FHA alternative). Public housing is also less expensive than the FHA alternatives because it will have fewer financial failures.

The public housing alternative offers substantial cost savings but it is necessary to review some of the problems which public housing has had to ascertain whether it is a feasible alternative.

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1/Depreciation, an accounting term, is that portion of the value of an asset allowed to be charged as an expense against income. This typically results in a "paper loss" (no cash is involved).

For example, the Congressional Research Service (CRS) concluded that "... if current trends, administrative practices and legislative requirements are continued there is little likelihood that the public housing program can be significantly expanded in the near term...." 1/ This view was based on interviews with officials of 38 local housing authorities who cited problems ranging form deferred maintenance to inadequate operating subsidies to inadequate technical support from HUD. We believe it is possible to overcome these problems. Certainly, it would be imprudent for public housing authorities already experiencing difficulty to take on new developments. However, not all public housing authorities are suffering from the problems mentioned in the CRS survey. Most of those problems mentioned could be corrected if they were given adequate management attention and resources.

All subsidized housing production programs are essentially demand programs. Developers or local housing authorities who feel they can start new housing will apply; those that do not, will not. HUD cannot force development in an area; it can only make funds available to those where the necessary infrastructure exists.

There are thousands of local housing authorities with basically sound management. Many of these authorities have very small housing inventories under management and many of these inventories could probably expand. The very low level of current funding to public housing almost certainly constrains the amount of activity. The only way to find out how much the program could expand is to increase the public housing production goals and then carefully screen proposals to insure the strong likelihood of successful development.

FHA insurance with
GNMA Tandem financing

Projects insured by FHA and financed through GNMA's special assistance tandem program are relatively inexpensive when compared to the tax-exempt finance methods, but not as inexpensive as those produced and financed under public housing.

Tandem is more expensive than the public housing alternative because it incurs several costs not found under public housing. First, FHA-insured projects are privately held and

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1/"The Future of Conventional Public Housing: Some Views of Local Housing Officials," Congressional Research Service, July, 1979.

to the Pruitt-Igoe project when there is diversity in both design and management.

We felt that some portion of public housing's bad image is a result of confusion on the part of reporters and the public who believe that housing projects provided under section 236 or section 8, or nearly any other subsidy program, are actually public housing projects. In actuality, there are thousands of well-managed publicly assisted housing developments.

Public housing projects have required operating subsidies because local housing authorities have not been able to pay operating expenses. This subsidy is widely and incorrectly perceived as an inherent weakness or flaw in the public housing mechanism. The subsidy under the public housing alternative was designed to pay only the debt service cost. Operation maintenance, and utility costs were to be borne by the tenants' rent contribution. It was anticipated that tenant incomes would keep pace with operating expenses. However, operating expenses rose faster than tenant incomes and many tenants were paying a large portion of their incomes to meet these expenses. Therefore, in 1969, the Congress passed a law that limited a tenant's contribution to 25 percent of adjustable income. This law put a squeeze on local housing authority managers since there was no mechanism to increase the subsidy. As a result, the Congress was forced to authorize an operating subsidy and this subsidy increased as utility costs rose.

The same phenomenon occurred under the section 236 program. The subsidy was an interest reduction subsidy and the Congress assumed that tenants would be able to pay rents which would cover the costs of operation. However, as costs rose tenants could not afford the increased cost so the Congress also authorized an operating subsidy.

Operating cost increases were considered in the design of section 8 where the Government has the built-in flexibility to increase the direct subsidy if operating expenses outpace tenant incomes. This adjustment will probably solve the design flaws discovered with the public housing and section 236 programs however, it does not change the results of our analysis. The real difference in operating costs between section 8 and public housing is that operating cost increases are budgeted at the outset for section 8, while increases in cost under public housing are paid when needed.

Although public housing's future is inhibited to a great extent by its poor reputation, there are also legitimate problems.

public housing alternative, relative to the private ownership alternatives, is even lower than we show in our cost comparison.

We also estimate no failure-related costs for the SHFA and the section 11(b) alternatives. Their total life cycle costs are already much higher than the FHA and public housing alternatives, and inadequate data makes it difficult to estimate the magnitude of failures and the related costs. We believe failures will occur under these methods, but we avoid estimating the potential losses and costs to avoid unnecessary controversy.

FHA insurance with MBS financing

If a privately owned project is insured by FHA and financed with mortgage-backed securities, it is cheaper than if it were financed through the Tandem program or either of the tax-exempt methods (SHFA and 11(b)).

The MBS method is cheaper than the Tandem program primarily because it avoids the secondary mortgage marketing costs associated with the Tandem program and because the interest rate on MBS is very likely less than conventional mortgage rates. Excluding the one-half of one percent on a FHA mortgage insurance premium, we calculated the MBS debt service using about an 8 percent interest rate while conventional rates were at about the 9.0 percent level. 1/ This lower interest cost (and consequently the lower direct subsidy) is less because GNMA guarantees that security holders will receive monthly principal and interest payments even if a project defaults. Without the GNMA guarantee, the MBS direct subsidy would be higher, and consequently the MBS total life cycle cost would be about equal to the FHA/Tandem method. We calculate that the MBS program could save $59 per unit per year, on a discounted basis as compared to Tandem. If 50,000 of the FHA/Tandem section 8 units planned for fiscal year 1981 were financed with the MBS program instead, the Government could save about $59 million discounted over a 20-year period. Thus, even though the higher mortgage interest rate requires a higher per unit direct subsidy

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1/We found that GNMA/MBS yields on single family mortgages were about one percentage point lower than comparable yields on FHA/tandem mortgages after adjusting for discount points and other expenses. Another way of expressing this is that yields were one percentage point below conventional mortgage yields.

the project owners shelter income through allowances for depreciation. Secondly, the GNMA incurs an expense when it purchases below-market interest rate loans (7.5 percent at the time of our study) and then resells them to other investors at a discount. This cost is often referred to as the tandem expense. The process is very expensive, yet is essential to make projects feasible within rent limitations and encourage conventional construction lenders to participate.

Another factor which makes this method more expensive is the cost of failures. We estimate that FHA will sustain a 10 percent, 20 year cumulative failure rate. We base this estimate on past FHA insurance programs which had similar risk characteristics. 1/ Although it appears (in table 5) as if we have given the FHA alternative an $8 per unit "profit" for failures, we in fact have not; the $8 credit merely represents the surplus premium after we subtract FHA insurance claims. FHA insured projects are required to pay one-half of one percent of the mortgage's principal balance each month. This premium income is included as part of the direct subsidy amount, but actually is a failure-related cost.

Another failure expense is the adjustment to the other cost elements to account for lost units. This is necessary because after failures are subtracted, the Government is getting something less than 20 years of service for each unit started, yet the indirect costs are calculated assuming a full 20 years of service. For example, the discounted taxes lost due to depreciation allowances over a 20-year period for one unit is $320 per year. But because we expect a 10 percent failure rate within 20 years, we adjust this cost to $345 per unit, per year, reflecting the somewhat diminished service which we expect will be provided.

In contrast, we estimate no failure-related costs and adjustments for lost units under the public housing alternative because an earlier GAO study found that only a very small percentage of public housing units have been lost during the program's 40-year history (less than one percent). 2/ We believe public housing projects will very likely serve low and moderate income tenants much longer than the 20 years assumed in our estimates. Thus, the realistic cost of the

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1/Our estimating technique is explained in Appendix IV.

2/"A Comparative Analysis of Subsidized Housing Costs," U.S. General Accounting Office, PAD-76-44, July 28, 1976.

An analysis of the gross rents allowed for projects in three of the most active SHFAs (New Jersey, Wisconsin, and Minnesota) showed that those agencies uniformly approved rents that were about eight percentage points higher than FHA, as measured by approved fair market rents. The extent to which State agencies grant relatively higher rents is up to the management of each State agency and the local FHA office. But, Section 8 regulations allow higher rents for certain kinds of projects and contingencies, and some State agencies routinely approve these higher rents.

Given that State agencies have rents 8 percent higher than FHA insured projects, total unit development cost would increase by about $6,000 and the discounted per unit, per year total subsidy cost would increase to over $3,000, or about $900 more than the FHA/Tandem method. (Chapter 6 compares the FHA to SHFAs in more detail.)

Taxable bonds with Federal interest reduction payments can reduce SHFA costs

The SHFA financing method could be less expensive if State agencies issued taxable bonds and used the section 802 interest subsidy program. Under section 802 of the Housing and Community Development Act of 1974 (42 U.S.C. 1440), the Congress authorized HUD to make interest subsidy grants to those State agencies which use taxable bonds. The interest subsidy is designed to pay up to one-third of the interest on taxable bonds.

Since enactment, State agencies have shown little interest in this provision because the lower interest-bearing tax-exempt bonds have allowed greater flexibility under section 8 rules and fair market rent limitations. Under these provisions, projects must have gross rents which are generally equal to or less than a fair market rent (FMR) established for the area. If State agencies used the 802 program, we calculate that, under our set of assumptions, FMRs would have to be about 16 percent higher because the interest rate on the taxable bonds would drive up the monthly debt service on each unit. Thus, if HUD had allowed FMRs to accommodate the higher financing expense, some agencies might have opted for the taxable bond alternative, resulting in substantial savings to the Government.

Using the section 802 subsidy will save money because the interest subsidy on taxable bonds is less than the indirect subsidy paid to bond holders when tax-exempt bonds are used. The following tables illustrate how we estimate the cost savings. Table 6 shows the gross rent calculation

outlay than the 7.5 percent Tandem program, the consequent savings more than offsets the increase. 1/

State housing finance agencies

The most expensive method of financing subsidized projects is through tax-exempt bonds that are issued by state housing finance agencies (SHFAs). This financing technique is far more expensive than the public housing alternative even though public housing is also financed with tax-exempt bonds. First, public housing bonds carry a lower tax-exempt rate (6.0 percent) than a typical SHFA bond offering (6.75), because of the Federal guarantee on public housing bonds. Second, SHFA-financed projects are privately held and therefore incur an expense for real estate depreciation while public housing projects do not. Third, the SHFA alternative has a higher cost associated with the use of tax-exempt bonds since money must be raised to set up reserve accounts to provide bond buyers with reasonable protection from the possibility of financial problems. This results in higher tax expenditures per unit. 2/

The SHFA alternative is also more expensive than either of the FHA-insured finance methods. In comparing the SHFA alternative to the FHA/Tandem method, both have roughly the same cost for depreciation allowance, but other subsidies differ. The FHA/Tandem method has a higher direct subsidy cost (due to the higher interest rate) plus a tandem expense, but the sum of these two are outweighed by the high cost of the Federal revenue lost on the tax-exempt bonds.

Our cost comparison shows that, given the same brick and mortar costs, the SHFA unit will cost more than any other finance mechanism. However, SHFA-financed projects may be even more expensive.

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1/These results are highly dependent on the difference in mortgage yields between the market into which GNMA must sell mortgages and the mortgage-backed securities interest rates. We tracked the interest yield differences between the single family MBS and GNMA mortgages over a 5-year period and found the difference to be relatively constant. Therefore, our results will be the same regardless of interest rate fluctuations over time.

2/Any estimate of lost tax revenue depends on assumptions related to who holds the tax-exempt bonds and their tax brackets. Appendix IV contains a more detailed discussion of these assumptions and the rationale behind the estimates we made.

Table 7

Calculation of First Year Section 8 Subsidy
For Tax-Exempt Bonds and Taxable Bonds
Coupled With Section 802 Subsidies

| | Tax-exempt bonds Interest = 6.75% | Taxable bonds Interest = 9.6% |
|---|---|---|
| Gross rent | $4,175 | $4,862 |
| Less tenant contribution a/ | (1,100) | (1,100) |
| Direct subsidy before 802 subsidy | $3,075 | $3,762 |
| Less 802 subsidy | 0 | (908) |
| First year section 8 subsidy | $3,075 | $2,854 |

a/Tenant contribution to rent is based upon a family of four paying 25 percent of $5,000 annual income.

Table 8 illustrates that if a unit is financed with taxable bonds and uses the section 802 interest subsidy the cost of $264 per unit per year is cheaper than a unit financed with tax-exempt bonds. (Although not shown on the table, the undiscounted actual difference is about $500 per unit per year.) The Congress had appropriated $15 million annually for this interest subsidy, HUD later requested that the funds be rescinded and the Congress did so. If the $15 million were spent every year, the Government could finance about 16,000 units and save about $85 million in discounted dollars and $160 million in actual expenditures over a 20-year period.

Though State agencies will undoubtedly be reluctant to make such a change, the possible cost savings probably make a compelling argument to implement this taxable bond alternative. If it became impossible to sell such bonds, then the Government should stress using the less costly financing alternatives.

under both financing arrangements. Note that the first alternative uses tax-exempt bonds while the other uses taxable bonds with the tax-exempt rate at 70 percent of the taxable rate. Table 7 shows the amount of section 802 first year subsidy and the section 8 subsidy after tenant contributions are deducted. Table 8 shows the direct and indirect costs discounted at 8 percent for a 20-year period.

Table 6

Calculation of Gross Rents
When SHFAs Use Taxable and Tax-Exempt
Bonds to Finance Low and Moderate Income
Rental Housing Under Section 8

| | Tax-exempt bonds Interest = 6.75% | Taxable bonds Interest = 9.6% a/ |
|---|---|---|
| Total development cost per unit | $29,239 | $29,239 |
| Mortgage amount | 26,315 | 26,315 |
| Mortgage interest rate b/ | 7.5% | 10.35% |
| Principal and interest | $ 2,081 | $ 2,768 |
| Operating expenses | 1,354 | 1,354 |
| Reserves for replacements | 115 | 115 |
| Taxes | 450 | 450 |
| Return on investment | 175 | 175 |
| Gross rent | $ 4,175 | $ 4,862 |

a/The 9.6 percent interest rate is based upon a 70 percent differential between the taxable and tax-exempt bonds. The Department of the Treasury determined this differential holds over time so even though our interest rates are low by today's standards, the results of this comparison would be the same at today's higher interest costs.

b/The interest rate charged to the project is the bond coupon interest rate plus three-fourths of one percent to cover the agencies' operating expenses.

The lower direct cost is due to the lower bond interest rate we used to calculate debt service. We assumed a typical non-FHA insured 11(b) project would be financed with 6.75 percent bonds because this was the average interest rate on a sample of 11(b) projects in early 1978. A typical State agency can obtain financing at roughly the same interest rate, but adds about three-fourths of one percent to cover operating expenses. Thus, 11(b) financed projects have a direct subsidy based upon a 6.75 percent debt service while the SHFA subsidy is figured at 7.5 percent.

The 11(b) method incurs a higher tax expenditure cost because there are higher underwriting expenses and bond discounts which add to the total bond amount which increases the debt. Although there is higher cost of revenues lost, it is not high enough to offset the lower direct subsidy.

There are other section 11(b) finance alternatives (discussed in chapter 3) in which the section 11(b) method is more risky than an SHFA financed project and hence the bond interest rate might be higher, and consequently these alternatives' total costs would approach one another.

## OPTIONS FOR FUTURE COST SAVINGS

On the basis of our analysis, we believe the Federal Government could save millions if it financed more housing with the less expensive methods. The following table illustrates a few realistic steps HUD could take to achieve this under current legislation. These estimates are based on the total subsidy cost estimates shown in tables 5 and 8.

Table 8

Discounted Life Cycle Costs
When SHFAs Use Tax-Exempt and Taxable Bonds
(Coupled with Section 802 Subsidies) to
Finance Low and Moderate Income
Rental Housing under Section 8 a/

| | Tax-exempt bonds Interest = 6.75% | Taxable bonds Interest = 9.6% |
|---|---|---|
| Direct subsidies | | |
| Section 8 subsidy | $1,630 | $1,513 |
| Section 802 subsidy | 0 | 481 |
| Total direct subsidies | $1,630 | $1,994 |
| Indirect subsidies | | |
| HUD administrative fees | 10 | 10 |
| Taxes foregone due to depreciation | 331 | 331 |
| Taxes gained when unit is sold | (28) | (28) |
| Taxes foregone on tax-exempt bonds | 628 | 0 |
| Total discounted life cycle cost | $2,571 | $2,307 |

a/All cost items were discounted at 8 percent over a 20-year life of the unit.

Section 11(b)

The second most expensive way to finance subsidized housing, after the SHFA alternative, is through tax-exempt bonds which are issued by a local housing authority or its instrumentality under section 11(b) of a 1974 amendment to the Housing Act of 1937.

This alternative is more expensive than both public housing and the FHA-insured methods for the same reasons described under the SHFA methods (principally the Federal taxes lost due to tax-exempt bonds and the cost of depreciation allowances). However, the section 11(b) financing technique is less expensive than the SHFA method because of its lower direct subsidy.

Table 9

Examples of Possible Savings
Achievable by Shifting Emphasis
Among Financing Alternatives
(Discounted Dollars)

| | Action | Yearly savings | Total 20-year savings |
|---|---|---|---|
| 1. | Shift 30,000 units from SHFA financing to FHA/Tandem financing | $11,760,000 | $235,000,000 |
| 2. | Finance 20,000 units using taxable bonds and the 802 subsidy rather than SHFA tax-exempts | 5,280,000 | 105,600,000 |
| 3. | Shift 10,000 units from SHFA financing to public housing | 5,120,000 | 102,400,000 |
| 4. | Shift 40,000 units from FHA/Tandem financing to public housing | 4,800,000 | 96,000,000 |
| 5. | Finance 50,000 units through FHA/MBS rather than FHA/Tandem | 2,950,000 | 59,000,000 |
| 6. | Finance 10,000 units through public housing rather than 11(b) | 4,560,000 | 91,200,000 |


FHA INSURED SECTION 8
NATIONAL CORPORATION FOR HOUSING PARTNERSHIPS


SECTION 8
NATIONAL CORPORATION FOR HOUSING PARTNERSHIPS

# CHAPTER 3

## FINANCIAL RISKS

The section 8 program will probably have fewer failures than past subsidized programs because (1) fewer inherently risky projects are being undertaken, (2) the subsidy mechanism is more flexible--subsidies will rise automatically each year to meet inflation and may be increased to meet exceptional cost increases, and (3) a higher percentage of projects are being financed by State agencies, who are better managers of risk. There will, however, be failures under section 8 and the cost to the Government will vary depending upon the finanace mechanism. This greater flexibility will not, however, mitigate all risk.

In this chapter we analyze the major factors which contribute to subsidized housing production risk and describe how these factors affect the relative risk of the various financing mechanisms. Our concentration is on section 8 as opposed to public housing since the public housing program has had very few total failures--its stability can usually survive financial problems. As regards section 11(b), actual program experience is so scant that we confined our work to those factors related to program design.

### APPROACH

We first try to isolate and explain those risks related to the section 8 subsidy program, the financing methods, and the kinds of projects, sponsors, and tenants subsidized. To do this, we extrapolate from what we know of the recent past to what can reasonably be said about the future. This chapter is based on some hard evidence, some judgment and some speculation, and thus, is often descriptive and qualitative.

### IMPORTANCE OF RISK

The likelihood that housing projects will fail financially is of considerable interest when one compares housing production programs.

1) Financial difficulties which projects encounter may affect the quality of management and level of services to the tenants in the housing; when difficulties arise, maintenance and repairs generally decline.

2) Late payments on mortgages may result in higher costs to the Government than originally intended due to the necessity to raise subsidies, or to allow a longer payback on the loan, or perhaps

due to increased administrative costs to the Government in curing the problem.

3) More significantly, if the financial problems become severe enough, the project may cease to function, resulting in a loss of the housing services altogether.

4) When FHA-insured projects fail, insurance claims paid by HUD may drive up the total program cost if failures exceed the amount set aside from the direct subsidy as insurance premiums.

5) If uninsured projects fail, the cost must be absorbed by the Federal, State, or local government by additional subsidy or increased tax expenditures if losses are covered by selling additional tax-exempt bonds. The loss could fall upon the bond holders who receive no Federal or State guarantees, but this seems unlikely.

6) Whenever projects fail altogether, the cost of successful projects are raised indirectly, since the one-time subsidies for the unsuccessful units must necessarily be amortized over fewer successful units.

## THE MEANING OF A FAILURE

For FHA-insured projects, lenders are guaranteed that FHA will pay the mortgage balance if project owners default on the mortgage obligation. Lenders can file a claim for payment in two ways. The lender can either assign the mortgage note and receive 99 percent of the mortgage balance, or foreclose upon the loan and surrender the title to FHA for the entire mortgage balance. Most lenders elect to assign the note since foreclosure is generally a lengthy and costly process. These two kinds of insurance claims, assignment and foreclosure, are what we mean by failures. When a mortgage note is assigned, FHA essentially becomes the lender and tries to solve the financial difficulties with the project sponsor If the project loses too much money during this period and cannot be saved, the FHA will obtain title through foreclosure and attempt to sell the project. The cost of a failure is the difference between the amount for which the project is sold and its acquisition cost plus the net income or expense while it is held by FHA. This failure cost is met by the income generated from premiums paid on viable mortgages covered by the FHA insurance fund.

The possibility of a financial failure still exists for uninsured subsidized projects but the procedures for dealing with such a financial failure are not as clearly defined as with FHA-insured projects. We can, however, think of failures for uninsured projects as being analogous, since the causes and the problems in solving them will generally be similar.

## WHAT MAKES PROJECTS RISKY?

In an earlier report 1/ GAO analyzed factors related to the likelihood of subsidized projects failing financially, thus resulting in higher costs. That report showed that (1) much higher failure rates were experienced by rehabilitated projects than by new construction projects, (2) projects for the elderly have generally proven less likely to fail than projects for families (3) nonprofit projects were more likely to fail than projects developed under profit-motivated private ownership, and (4) failures were determined by a combination of factors unrelated to construction type and sponsorship. According to the GAO study:

--Some projects failed even before construction was complete. When sponsors are inexperienced or underfinanced, problems are more likely to lead to project failure. In addition, HUD's monitoring may have been inadequate since it emphasized planning versus follow-up but the Department was probably improperly staffed for monitoring.

--Operating costs were underestimated during project planning, and rents were inadequate to cover them.

--Utility costs rose unexpectedly in recent years, and HUD was probably slow in granting necessary rent increases. As a result, projects lacking strong financial assets were very likely to fail.

--Projects had insufficient reserves built into the rents to allow for unexpected cost increases. Limited dividend-sponsored projects must limit cash flow to about six-tenths of a percent of total development cost while similar privately financed projects plan a yearly return of 3 to 4 percent of the project's value. Nonprofit projects have no profit margin whatsoever.

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1/"Section 236 Rental Housing--An Evaluation With Lessons For The Future," U.S. General Accounting Office, PAD-78-13, January 10, 1978.

--Projects in urban renewal areas were more prone to fail.

This information on past program default experience is relevant since the alternatives studied here have a great deal in common with these past programs. Together these factors allow a better understanding of how risk arises and what risks the Government can and can not avoid. Avoiding risk (particularly unnecessary risk) is important; once a problem arises it may be difficult to work out.

Investor perspective

Once a project gets in financial trouble, whether it is a State, FHA, or 11(b) project, achieving a satisfactory resolution can be expected to be difficult. The legal arrangement under which most projects are owned (limited partnership) affords some immediate difficulty. Most projects under section 8 are privately owned by profit-motivated groups of passive investors. A general partner, who usually owns a very small percentage of the project, retains day-to-day control of the housing project, either directly, through a management firm, or through a salaried housing manager. This general partner represents the interests of the passive investors who receive tax shelter from the project's operation. In the case of a serious problem, the passive investors must concur on major decisions regarding the solution of a financial problem. For example, a decision to put up additional capital, or borrow significantly to save the project, will generally need their cooperation. Often when a project goes bad the passive investors who may not even know one another, may be at odds with the general partner. To take action they must agree with the general partner's approach to work out the problem or they must organize and wrest control of the project from the general partner. Such a measure can be quite difficult to do, particularly for a geographically diverse group of investors. If passive investors are successful in displacing the general partner and taking control, they may risk their passive income tax status by being taxed collectively as a corporation, thus losing the tax savings which initially caused them to invest. More likely, the general partner will maintain control but fail to get agreement on a method of solution from the passive investors.

Although all partners were initially willing to invest in the property, their relative tax positions at the time a problem arises may make some partners more willing than others to put up additional funds to maintain the tax shelter and avoid recapture and capital gains taxes. Some may have substantial losses from other investments that they feel will offset the adverse tax consequences of a foreclosure.

However, these tax consequences can be extremely harmful to most passive investors. Thus, these people do have some significant incentives to save the project if they can overcome the difficulty of doing so.

The attitudes of lenders

Once a project is in trouble, the willingness of the Government and the lender to work out a problem to save the project may be equally crucial. In FHA-insured projects the lender has relatively little incentive to save a troubled project, although options are available. For example, the lender can (1) stretch out the mortgage so that the payments in arrears are paid back slowly or (2) get actively involved in the project's management to help the owners better manage their finances. But the lender can avoid the problem altogether by (1) assigning the mortgage to HUD, who then becomes the lender, or (2) foreclosing on the property.

In the past the usual course of action was to assign the loan to FHA, collect 99 percent of the outstanding balance, and avoid any expense or difficulty involved in trying to cure the loan or foreclose upon it. The only incentives a lender might have to work out a mortgage delinquency would be a general reluctance to default on a loan and perhaps the desire to continue doing FHA-insured lending in the future. The tendency of lenders to avoid a solution complicates the plight of investors trying to save a project from financial failure. In the past, most loans on multifamily subsidized housing have been sold to the Federal National Mortgage Association, (FNMA) which often quickly assigned defaulted mortgages to HUD. Thus, since the initial lenders rarely held the mortgages much past the completion of construction, they had even less reason to be particularly concerned about the long term health of a project. In recent years FNMA has been more cooperative as a result of encouragement from the Congress and HUD, while GNMA may be placing more of its loans with private investors. Currently no information is available to allow us to conclude that the actions of FNMA and GNMA will have any effect on long term failures under section 8. Thus, this lack of lender incentive to place sound loans and adequately service and maintain them still remains a crucial problem.

A more encouraging aspect of the workout problem is HUD's current attitude towards financially troubled projects, to save the subsidized housing for low and moderate income households in the most economical way rather than using the earlier policy of foreclosing on HUD-held mortgages and disposing of the housing by sale to any buyer available.

## MORTGAGE DEFAULT AND FAILURE RISK UNDER SECTION 8

Section 8 provides a deeper and more flexible subsidy than past subsidy programs, which were generally limited to a portion of the debt service. Section 8 subsidies will rise automatically each year to meet inflation and exceptional increases may be approved to match legitimate operating cost increases where the owners can justify them. A more flexible subsidy program will not, however, eradicate all failures under section 8.

### Flexible subsidy mechanism

It is likely that the more flexible subsidy, which covers all costs in excess of a reasonable rent paid by the tenant rather than just a portion of the debt service, should allow otherwise unsound projects to operate successfully. Under older programs tenant rents were subject to HUD approval, which often came slowly. Many tenants could not afford the increases and the passive investors were usually reluctant to make up the difference; default and eventually foreclosure often occurred.

Putting it simply, projects fail when a project's income is not great enough to make mortgage payments and pay operating costs. Failure can be a result of insufficient rental income, bad management, rapid increase in operating costs, vandalism, or a variety of other causes. A principal advantage of the section 8 subsidy mechanism is providing sufficient funds for operating cost increases (when necessary). However, this factor alone will not erase all the problems which can and have resulted in financially troubled projects. In spite of the rapid inflation in operating costs (principally utilities) which were experienced by section 236 projects, only about 9 percent of newly constructed profit-motivated 236 projects have failed financially as compared to a 29 percent failure rate for profit-motivated rehabilitation projects. These profit-motivated (limited dividend) sponsors composed close to three-quarters of the section 236 insurance activity. Furthermore, high failure rates for rehabilitated projects occurred under older insurance programs prior to the rapid increase in operating cost expenses of the early 1970s. Thus, if a more flexible subsidy under section 8 does decrease the program's failure rate as compared to older programs, the reduction can only involve some portion of the risk inherent in multifamily housing development (an extremely risky business--even for unsubsidized housing).

Since no information base exists that would allow us to isolate the role that the rise in operating costs played among

the many determinants of failures, it would be imprudent to conclude that section 8 failures will be much lower due to this single factor. Poor managers will manage poorly. Family projects will continue to present greater management challenges and rehabilitation will still involve greater uncertainty and risk than new construction.

Project monitoring

One risk factor which may be very much determined by the financing mechanism is project monitoring and loan servicing. Projects are less likely to fail if the financing scheme includes lenders or insurers that carefully monitor project construction and operation. In the past, HUD has not been adequately staffed to review carefully project applications and monitor construction and operation.

Recent indications show that HUD is increasing its efforts in this area, which could mitigate some problems. But the stress on rapid processing and approvals and the current high volume of project activity might cause some unsound projects to slip through while construction monitoring suffers. This could result in a higher failure rate, as is often said to have happened under older programs, such as section 236. Construction monitoring should theoretically be handled by private lenders. But since private lenders have few incentives to do this, FHA has had to try to compensate for such lenders' shortcomings.

State housing finance agencies very likely do a better job of construction monitoring than does FHA, because their ability to borrow money depends on their ability to collect their mortgage payments and pay bondholders in a reliable fashion. This clearly provides an incentive to monitor carefully and then work out problems when they arise. This could be a major advantage of the SHFA alternative, but until better data is available on the actual experience of SHFA-financed projects, no firm conclusion is possible.

The monitoring problem and failure risks of both FHA and State projects under section 8 can be expected to be similar to the experiences of FHA and State projects under the section 236 program.

Risk in project monitoring is difficult to analyze in the 11(b) alternative since it involves four widely different alternatives, all relatively new. The four possibilities are, in order of importance:

--tax-exempt bonds without FHA insurance,

--tax-exempt bonds with FHA insurance,

--tax-exempt mortgages without FHA insurance, and

--tax-exempt mortgages with FHA insurance.

The alternative shown in our cost analysis uses tax-exempt bonds without FHA insurance to permanently finance the projects. This is the most prevalent method used and is probably the most risky if the construction financing is also tax-exempt. When tax-exempt bonds are issued to the public by a nonprofit entity, which is typically a shell corporation organized by a local housing authority, there is no responsible entity to insure that the project is constructed according to plan. This entity acts as a financing vehicle in that it issues the tax-exempt securities and is not exposed to financial losses. Although HUD has taken steps to provide inspections by the parent public housing authority, there is no financial motivation to assure quality monitoring.

Since there is no established lender, insurer, or any other institution which assumes a financial risk, this financing method is likely to result in a high failure rate. A 20-year cumulative failure rate of 10 percent or more should not be surprising for this method, since even the least risky FHA insurance programs are expected to result in cumulative failure rates approaching 10 percent.

For uninsured projects involving tax-exempt mortgages or tax-exempt construction financing we can expect a much lower failure rate. A private lender holds these mortgages with some considerable financial risk. These lenders can be expected to require greater down payments than the usual 10 percent required by FHA- and SHFA-financed projects and can be expected to exercise careful monitoring of project planning development, and operation. However, very little section 8 activity exists under this arrangement. 1/

Projects financed with tax-exempt mortgages or bonds and are FHA-insured expose the Federal Government directly to financial risk without providing any assurance of better monitoring. These alternatives should probably be avoided, since they are much more expensive than the traditional FHA insurance program, without offering any apparent advantages.

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1/Section 8 management information system (MIS) data on financing mechanism is sketchy but detailed checking of projects designated as 11(b) indicated very few developments with uninsured tax-exempt mortgage financing.

## Location

A major factor associated with failures under past programs was location. Projects in poor locations were considered undesirable and had difficulty attracting tenants. Poor location can mean proximity to undesirable industry, inadequate transportation, lack of shopping and community services or a combination of factors. We could not find any conclusive information on location for section 8 as opposed to older programs, but one study prepared for HUD 1/ indicated that many section 8 projects were in areas that were experiencing above average appreciation, which might indicate better overall locations. In addition, nothing seems to be known about the relative locations of projects under the various finance mechanisms.

## Section 8 is taking less risky projects

If failure rates decrease considerably under section 8 compared with those of older programs, then improved location improvements in monitoring, and the more flexible subsidy mechanism may be partially responsible. But a much more likely explanation will probably be the change in the kind of projects being undertaken, which really has little to do with the finance mechanism. A decrease in failure rates, nonetheless, will profoundly affect the perception of how well one alternative or another is working. Analyzing these other factors can be a powerful tool in understanding the likelihood of future projects and programs failing or succeeding.

The most important factors which caused differences in failures among subsidized projects in the past were probably (1) sponsor type, (2) tenant composition, and (3) whether the projects were new or rehabilitated. Although these factors were important for most of the past FHA insurance programs, we will use the section 236 program as a basis for analysis, since its experience is the most recent and most like section 8. Section 236 failures expressed as a percentage of total projects of each type are shown in table 10.

Table 10 illustrates that after nearly 10 years of program experience, there are striking differences among project types. Family projects have failed at a much higher rate than elderly projects, nonprofit sponsors have failed more frequently than limited dividend sponsors, and rehabilitated

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1/Contract Research Corporation, "Research and Evaluation Regarding the Section 8 Housing Assistance Program in Regions IV & V," Oct. 30, 1977.

projects have failed at a higher rate than new construction. The rates range from a remarkable 1.7 percent for new elderly buildings sponsored by profit-motivated groups to a lamentable 65 percent failure rate for rehabilitated family buildings sponsored by nonprofit groups.

Table 10

Section 236
Cumulative Assignments and Foreclosures
by Type of Project a/
(Percent Failures)b/
as of September 30, 1977

| | New construction | | Substantially rehabilitated | |
|---|---|---|---|---|
| | Family | Elderly | Family | Elderly |
| Limited dividend sponsors | 7.10 | 1.65 | 31.30 | 13.60 |
| Nonprofit sponsors | 32.60 | 5.85 | 65.10 | 12.50 |

a/Cooperative projects have been excluded.

b/Based upon 3,700 section 236 projects.

Source: HUD's Directory of Multifamily Project Mortgage Insurance Programs, RR:02 Series, Jan. 31, 1978.

## FHA-insured section 8 project risk

This section 236 experience, though not predictive of the future, can be used as an indicator of relative risk for various project mixtures in the future. Applying failure rates from table 10 to the actual project activity of section 236 shown in table 11, we arrive at a cumulative failure rate of about 15 percent, roughly the current rate for section 236.

Applying the same section 236 failure rates from table 10 to the FHA-insured section 8 activity thus far under sections 221(d)(3), 221(d)(4), and 231 shown in table 12, we project a 10-year cumulative failure rate of 6.6 percent, if the project mix remains about the same over time.

Table 11

Section 236
Program Activity by Project Type a/
(Percent of Total in Each Category)
as of September 30, 1977

| | New construction | | Substantially rehabilitated | |
|---|---|---|---|---|
| | Family | Elderly | Family | Elderly |
| Limited dividend sponsors | 62.0 | 4.0 | 9.0 | 0.8 |
| Nonprofit sponsors | 15.0 | 5.0 | 3.5 | 0.4 |

a/Cooperative projects have been excluded.

Source: HUD's Directory of Multifamily Project Mortgage Insurance Program, RR:02 Series, Jan. 31, 1978.

Table 12

FHA-Insured Section 8
Program Activity by Project Type
(Percent of Total in Each Category)
as of January 31, 1978 a/

| | New construction | | Substantially rehabilitated | |
|---|---|---|---|---|
| | Family | Elderly | Family | Elderly |
| Limited dividend sponsors | 39.2 | 45.7 | 6.5 | 2.4 |
| Nonprofit sponsors | 1.3 | 4.5 | - | 0.3 |

a/Projects with insurance in force or under firm commitment under section 221(d)(3), 221(d)(4), and 231. These are the three insurance programs under which FHA has insured section 8 projects. The most prevalent is section 221(d)(3).

The projection is speculative and should not be taken as a forecast of what will happen, but rather as a reflection of the relative risk of section 8 based upon past FHA experience. Other factors may well cause significant changes in the projected failure rates. Nevertheless, the results demonstrate that the FHA section 8 activity thus far is

avoiding those projects which generally proved risky under section 236 and older programs. Even if no improvement were made in administering section 8, the avoidance of nonprofit and rehabilitation projects and the shift toward elderly households would indicate a much lower risk for the FHA insurance fund.

Roughly 90 percent of all insured section 236 projects were nonelderly or family projects, while less than 50 percent of FHA-insured section 8 projects are nonelderly projects. Much of the improvement will be at the expense of family housing, and indications so far are that even fewer family projects will be developed under State financing and 11(b).

SHFA risk

We have been able to make some generalizations about FHA insurance risk, but generalizing about the risks SHFAs assume is difficult because each agency follows different policies and procedures affecting risk. For example, some require substantial operating escrow accounts, while others do not. While such policies can make real differences in the actual risk pictures for individual SHFAs, the following risk calculations center around the types of projects and sponsors undertaken by States on the average.

According to HUD's information system, both FHA and States are undertaking about 10 percent rehabilitation projects, so the risk should be similar in this respect. However, unlike FHA, 70 percent of SHFA projects are for the elderly, so the risk for FHA projects should be higher due to the higher percentage of family projects. Also about 12 percent of the State section 8 units are sponsored by nonprofit entities. 1/

Given that 70 percent of all State-financed units are designed for the elderly, roughly 10 percent are rehabilitated, and 12 percent are sponsored by nonprofit groups, we constructed the rough picture of the SHFA activity shown in table 13. Using these percentages and applying the section 236 failure rates from table 10, we calculated a risk factor of 5.9 percent for the first 10 years of program operation, if the project mix remains the same over this period. This is not an estimate of what will happen, but rather an indication of the relative risk of projects being undertaken

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1/For more detail on nonprofit development being undertaken by SHFAs, see chapter 6, which compares State agencies to FHA.

by State agencies compared with those undertaken by FHA. The comparable figure for FHA was 6.6 percent. Even though the States are financing more projects sponsored by nonprofit groups, FHA is financing a larger proportion of family and rehabilitated projects.

Table 13

Approximation of SHFA Project Activity
(Percentage of Total)
as of July 1979

| | New construction | | Substantially rehabilitated | |
|---|---|---|---|---|
| | Family | Elderly | Family | Elderly |
| Profit-motivated sponsors | 23.76 | 55.40 | 2.64 | 6.16 |
| Nonprofit sponsors | 3.60 | 8.40 | - | - |

Risk as a function of project mix

The relative risk of failure versus project type can also be expressed as a set of simple relationships which allows one to make judgments about alternative project mixes. For example, if all other factors were fixed, the failure rate for a group of projects would increase as the number of rehabilitation projects increased. Figure 4 shows the relationship between risk and the amount of rehabilitation activity under the multifamily insurance program. It is based upon cumulative failures for various classes of projects under the section 236 program. Although section 8 is a different program in a different economic environment, section 236 is the most analagous program and past experience has shown that even unsubsidized multifamily housing for middle income tenants can be expected to have significant insurance losses over a long period. 1/

The significance of figure 4 is that it shows how failure rates rise steadily as the percentage of rehabilitated

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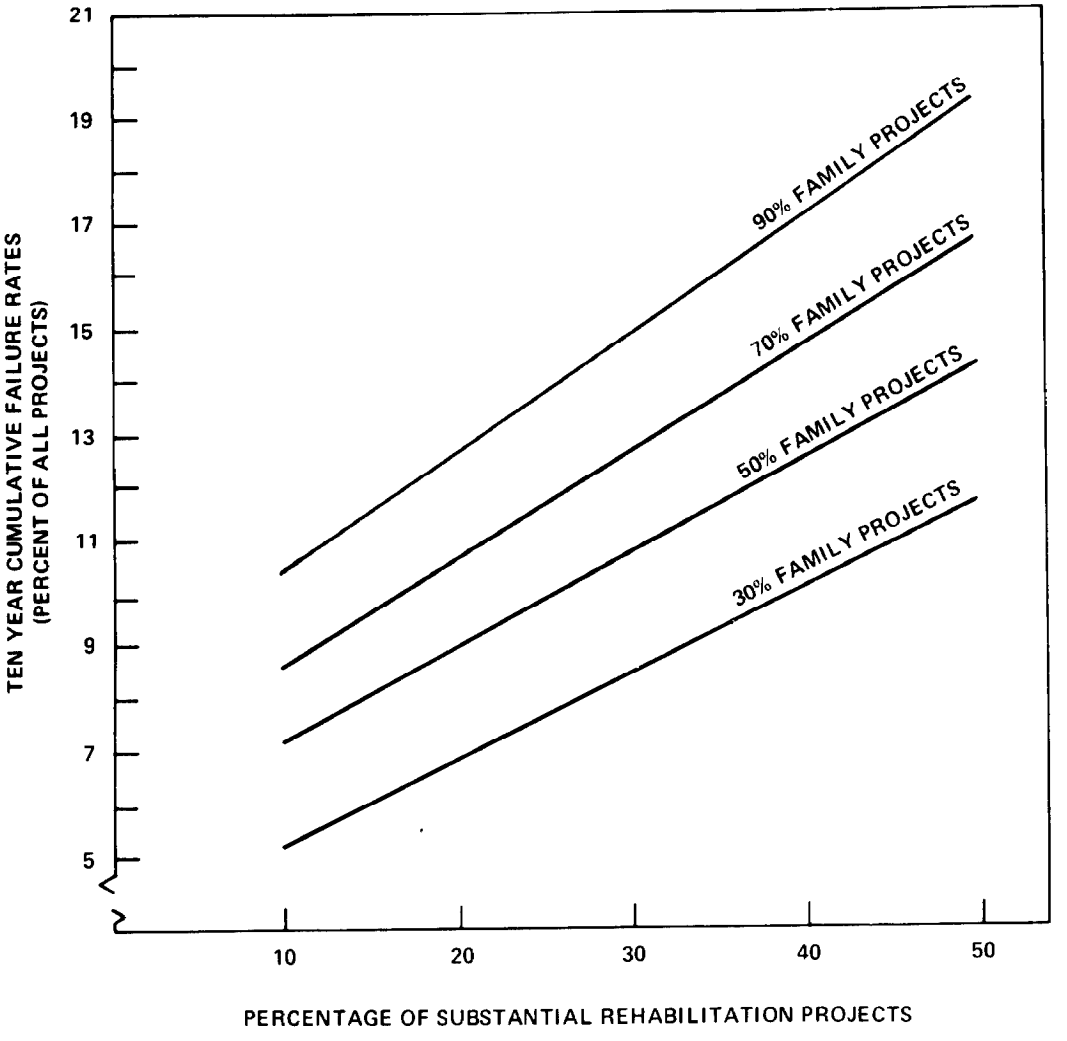
1/An earlier report by GAO (PAD-78-13) compared the failure experience of section 236 housing with that of section 207, an unsubsidized multifamily program for middle income tenants. For the same time period we showed the failure rates of the two programs were virtually the same for newly constructed projects sponsored by profit-motivated groups.

projects and family units increase. These statistics are of interest since HUD would like to increase the number of family projects and has been stressing rehabilitation as a method of saving the cities. If HUD could achieve 28 percent rehabilitation (the planning figure for fiscal year 1980) and these projects were spread evenly among the current mix of section 8 family and elderly projects, which is 30 and 70 percent respectively, then a long-term failure rate of about 8.5 percent would not be surprising.

Another interesting point can be made by looking at a project mix of 90 percent family projects and about 15 percent

Figure 4

EXPECTED CUMULATIVE FAILURE RATES AFTER TEN YEARS OF PROGRAM EXPERIENCE AS A FUNCTION OF THE PROPORTION OF REHABILITATED PROJECTS



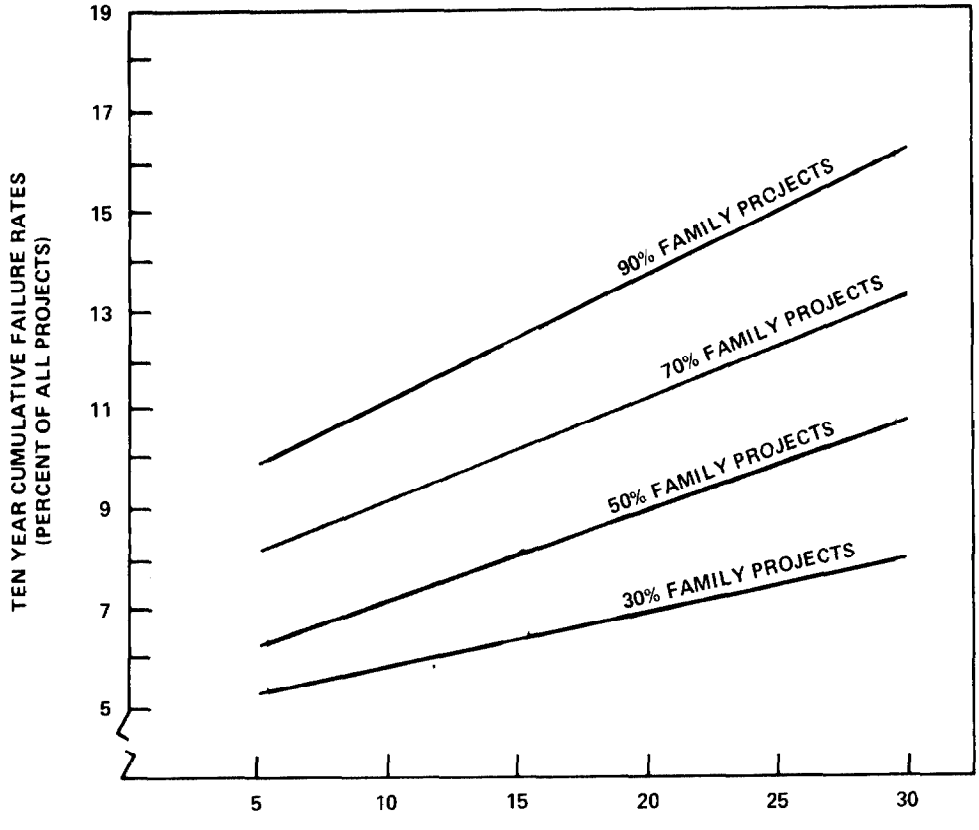
rehabilitated projects, which is similar to the 236 project mix (except for projects sponsored by nonprofit groups). In this case a failure rate of roughly 12.5 percent could be anticipated with an entirely different set of projects by trading off one set of high risk projects against another.

Figure 4 also shows how the risks, which can be expected under the various project mixes being experienced under State and FHA financing, can be related to the kinds of projects undertaken. This demonstrates again that although FHA seems to be doing a much better job of encouraging family housing, the risk it is undertaking is not that much greater than the State risk since both are still avoiding rehabilitation.

A similar relationship can be established to show how we could expect risk to increase with the proportion of non-profit sponsors, given that other factors remained the same. This relationship is shown in figure 5.

Figure 5

EXPECTED CUMULATIVE FAILURE RATES AFTER TEN YEARS OF PROGRAM EXPERIENCE AS A FUNCTION OF THE PROPORTION OF NON-PROFIT SPONSORS




FHA INSURED
DEPARTMENT OF HOUSING AND URBAN DEV

Table 14

## AN OVERVIEW OF THE PLAYERS AND THEIR INCENTIVES

| PLAYERS NEEDED | WHO ARE THEY? | WHAT DO THEY DO? | WHAT ARE THEIR INCENTIVES? |
|---|---|---|---|
| BUILDER OR DEVELOPER | DEVELOPER | • conceives idea<br>• designs project<br>• arranges financing<br>• locates/deals with owners<br>• facilitates production<br>• holds partial investment in project | • 10% BSPRA<br>• can sell investment to a profit motivated investor for about 20% of mortgage amount |
| | BUILDER | • actually builds project | • negotiated fee with developer usually 1 to 3% of mortgage |
| OWNER | PROFIT MOTIVATED INVESTORS | • provide money to developer; usually 15 to 20% of mortgage<br>• supervise management agent | • tax shelter<br>(1) accelerated depreciation<br>(2) construction period deductions<br>(3) rapid write-off if rehab<br>• opportunity for capital gain<br>• some cash flow |
| | NONPROFIT SPONSORS | • works with developer in conceiving idea<br>• supervises management agent | • provide housing for special groups such as needy families<br>• little equity required |
| MANAGEMENT AGENT | PROFESSIONAL MANAGERS | • screen applicants<br>• manage daily operations | • negotiated fee with owner |
| MORTGAGE LENDERS | MORTGAGE BANKER (FHA) | • locates construction funds<br>• locates permanent loans (usually GNMA)<br>• sometimes services mortgage<br>• evaluates project feasibility<br>• applies for FHA insurance<br>• monitors construction | • placement fee of 1.5 to 2.5% of mortgage amount<br>• servicing fees |
| | (MBS) | • arranges "pass through certificates" | |
| | STATE AGENCY (SHFA) | • evaluates project feasibility<br>• lends construction funds by floating construction notes or other borrowings<br>• supervises construction | • application fees ½ to 1½ of a percent of mortgage amount each month |

# CHAPTER 4

## PRODUCTION INCENTIVES

To provide low and moderate income tenants with adequate housing, the subsidy must provide the tenants with the necessary purchasing power. Even then, developers and lenders would be unwilling to invest and lend on such high risk ventures without exceptional inducements. Each of the financing alternatives studied provides the necessary enticements to produce housing. Together they could easily provide more housing than the Federal budget could subsidize in any given year. Many builders are capable of multifamily production. The demand for tax shelter has been strengthened by the combination of tax law changes and inflation and the various lenders will continue to be interested in essentially risk-free investment. Many State agencies are just getting started in multifamily housing and thousands of local public housing authorities can develop projects or help facilitate section 11(b) production. Yet some problems exist.

In this chapter we (1) identify the various participants in the production process and discuss the roles of the major ones, (2) explain why each is motivated to participate, (3) describe how the incentives differ among alternatives, and (4) describe some shortcomings and some needed improvements. The charts on the next two pages summarize the information on the participants' roles and incentives.

### BUILDER/DEVELOPER INCENTIVES ARE STRONG

Builder/developers are the prime movers in the production process. They conceive the ideas, buy the land, arrange financing, and plan and build projects. Their primary motivation is to make money. With the exception of public housing, developers earn a profit by (1) receiving a fee for their efforts (typically 10 percent of the project's development cost, which often substitutes for the builders cash equity) and (2) selling the project to passive investors interested primarily in using the depreciation deductions to shelter other income.

Typically developers sell subsidized projects to a group of investors (called a syndicated partnership) for about 15 to 20 percent of the mortgage amount. This syndication process is almost essential because it allows the developer to turn over the project and reinvest in other projects. With the exception of public housing, each of the financing alternatives allows syndication to a group of private investors.

Differences exist between alternatives which affect the developer's decision in obtaining financing. First, a developer may pay higher financing fees (which can translate into a larger cash investment) under certain alternatives. Under FHA Tandem these fees may be as large as 6 percent of the mortgage. FHA limits to 3.5 percent the amount of these fees which can be included in the mortgage. The FHA-financing fees include a 2 percent committment fee charged the lender for GNMA's guarantee that it will purchase the mortgage (at 97.5 percent of its total value), and a 2.5 percent discount when lenders sell the mortgage to GNMA. Under section 221(d)(4), the developer must pay the lenders at least 1.5 percent of the mortgage as a financing fee. Depending on prevailing interest rates, lenders might charge developers an additional 2 percent or 2.5 percent of the mortgage. Lenders can pass on these fees to the developers because the developers must put the money down before construction begins.

In contrast, SHFAs charge a finance fee of perhaps 2.5 percent, which can be included in the mortgage. Although other SHFA fees, such as working capital reserves or reserves for increases in construction costs differ from agency to agency, SHFAs in general seem to be more attractive to developers than FHA Tandem lenders.

However, FHA financing fees are probably greatly reduced if the developer uses the mortgage-backed securities program. Under this method, a developer might be required to pay only 1.5 percent to 2 percent of the mortgage as fees, depending on prevailing interest rates. These fees can also be included in the mortgage. Thus this method could be even more attractive than either FHA's Tandem program or SHFAs.

Developers will also prefer financing methods which have faster approvals and provide the greatest project design flexibility. FHA has been severely criticized for its lengthy approvals while SHFAs have been praised for their speed and reasonableness regarding project design. Although it is probably true that FHA takes longer and is more stringent in the approval process, many of the FHA requirements are necessary. For example, FHA screens proposals to ensure moderate cost housing design while maintaining decent, safe, and sanitary housing. This process can be lengthy since the proposed project must be compared with existing moderate housing.

SHFAs, on the other hand, probably have less concern about modest design and may be motivated to make apartments a little nicer than FHA projects. Although generalizing is difficult, most SHFAs probably feel that projects are more likely to be successful if they have better amenities.

## AN OVERVIEW OF THE PLAYERS AND THEIR INCENTIVES (con't)

| | | | |
|---|---|---|---|
| MORTGAGE LENDERS | PUBLIC BODIES (11(b)) | • distribute (sell) bonds<br>• work with developer to achieve HAP needs | • usually public body is a "shell" entity created by the LHA and the developer to facilitate tax-exempt housing finance |
| | BOND UNDER-WRITERS (11(b)) (SHFA) | • distribute (sell) bonds<br>• hire bond counsel for feasibility analysis and official statement preparation | • underwriter's fee<br>• gets spread between buying and selling prices |
| PERMANENT LENDERS | FNMA (FHA only) | • borrows money to buy FHA insured mortgage | • interest earned on mortgage |
| | LIFE INSURANCE COS.<br>BANKS<br>PENSION FUNDS | • purchase mortgage or mortgage-backed securities | • interest earned on mortgage |
| | LIFE INSURANCE COS.<br>FIRE AND CASUALTY COS.<br>BANKS<br>PENSION FUNDS<br>INDIVIDUALS | • purchase bonds, mortgages, or mortgage-backed securities | • interest earned on bonds, mortgages, or securities |
| FACILITATORS | GNMA | • buys mortgages from mortgage bankers<br>• resells mortgages to permanent lenders<br>• guarantees timely payment of principal and interest (MBS) | • to facilitate flow of funds to finance apartments for low and moderate income households |
| | SYNDICATORS (all) | • locate investors<br>• bring developer and investors together<br>• escrow funds<br>• pay investors when due | • syndication fee |
| | BOND COUNSEL (11(b)) (SHFA) (Public Housing) | • prepares official statement<br>• prepares bond resolution<br>• renders legal advise<br>• may perform feasibility analysis for underwriter | • bond counsel fee |
| | TRUSTEE (11(b)) (Public Housing) | • ensures timely payment of bond principal and interest to bond holders | • initial fee of about $1,000<br>• yearly service fee of ½ of 1% of total obligations |

stimulus for housing production. In this section we discuss why investors are attracted to this type of investment.

People who invest in subsidized housing are primarily interested in a tax shelter and the profit if the project appreciates in value. Investors are passive since they do not develop or manage the project but merely buy the investment from the builder/developer and turn the management over to a general partner. The developer of a section 8 project does not generally have sufficient income to take advantage of the considerable tax losses. As a result, the developer converts the available shelter into cash fees by selling equity interests in the project to these passive investors. These ownership interests may be sold to passive investors directly by the developer or through a syndicator or an underwriter. The sale of ownership interests generates cash for the developer to use for the legal and syndication fees, for cash requirements of the construction phase not covered by the mortgage, and for the profit that the developer makes. This mechanism, with its attendant benefits for the developer is a substantial inducement to develop a section 8 project.

Accelerated depreciation

The most noteworthy tax benefit for section 8 investors is the depreciation of construction cost during the project's operating phase. Depreciation is one of the few expenses against project income that is not a cash expense. The Internal Revenue Code permits several methods by which depreciation can be accelerated over the straight line method. Table 15 shows the methods that are permitted for different types of residential real estate. Section 8 has an advantage because the greater financing leverage gives the investor a higher ratio of depreciation losses to equity invested. Because of the greater financing leverage, the interest expense of the project mortgage is higher. Since most financing methods permit 40-year mortgages (as opposed to 20 or 25 years with conventional financing), the interest expense during the first years is greater than for a similarly mortgaged conventional project.

All new rental housing can be depreciated for tax purposes at a rate which is initially twice the normal rate. This method, known as the 200 percent declining balance method, shelters the income generated by the property in the case of private projects and allows section 8 investors to shelter income from other sources with the lower down payments and longer mortgage terms.

Thus developers probably find SHFAs more likely to approve expensive designs than FHA.

## Developers motivated to produce elderly projects

Economic incentives and section 8 procedures have combined to stress the production of elderly housing to the exclusion of family projects for several reasons. According to statistics on earlier FHA programs, family projects are more likely to experience defaults, management problems, and subsequent failures. Also, developers find it easier and more profitable to sell elderly housing to passive investors due to the reduced risk.

Some program procedures also encourage elderly housing production. All section 8 housing must comply with a housing assistance plan (HAP) prepared by the host community. Communities may avoid family projects--even though there may be a clear need--because these projects often mean additional school expenditures and other services not required with elderly projects. Family projects also may receive opposition from neighborhoods because of the increased number of children and the fear that the neighborhood's racial composition may change.

Some developers may be attracted to elderly projects because HUD regulations allow a 5 percent increase in FMRs for elderly projects. 1/ The increases were designed to compensate for the costs of certain features, such as wider doorways and larger bathrooms. Even though these features are probably necessary, a rent differential still acts as a penalty for developers contemplating family projects which also have special design needs. For example, because of the increased need for recreational activities, family projects need additional facilities which can add to project cost. For this reason, as well as the added management cost for family projects, we question the wisdom of this advantage given to elderly projects.

## TAX SYNDICATION ATTRACTS PASSIVE INVESTORS

As mentioned earlier, the tax syndication process is the primary attraction for investors and, in turn, acts as a

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1/This should not be confused with certain other approved rent adjustments for elderly housing which have been changed to equalize elderly and family development.

held for a certain period. In the case of low and moderate income housing, no excess depreciation is recaptured if the project has been held for 16 years and 8 months, while all excess depreciation is recaptured if the project is unsubsidized.

Rehabilitation write-off

For investors in multifamily rehabilitation under section 8, the Internal Revenue Code, in section 167(k), provides that any rehabilitation expense can be written off in 5 years rather than the remaining useful life of the project. This section, available only for expenses incurred after 1969, has been credited with stimulating development of a rehabilitation industry since then.

Expected gain upon sale

Investors also participate in section 8 projects because of expected gains when projects are sold. Under older subsidized housing programs (notably the section 236 program) projection of returns on initial investment assumed the projects would be sold for a value equivalent to the mortgage balances. However, returns on investment are likely to be more substantial under section 8 because (1) projects are considered more likely to appreciate in value than in the past and (2) capital gains laws are more favorable.

Although recapture and capital gains taxes have long been considered a factor in making continued ownership of subsidized housing preferable to passive investors, such considerations were generally based on the assumption that subsidized properties would not appreciate. There is ample reason to doubt this. HUD is already involved in a number of lawsuits in which property owners have prepaid mortgages and attempted to evict subsidized tenants despite clearly binding regulatory agreements. These projects are generally well located and have appreciated to the point where the owners expect to make significant profit by selling or converting them to condominiums. Sketchy data on section 8 project locations indicates that many new projects are in areas which are experiencing above average real estate appreciation.

Projects are also likely to appreciate faster than in the past because real estate values, in general, have grown rapidly and a housing shortage is predicted through the 1980s. In addition, section 8 projects should be worth more than past subsidized projects. Since they primarily house the elderly, they will probably be in better condition.

Table 15

Depreciation Methods Permitted by the Tax Reform Act of 1976

| Type of real estate | Most accelerated method permitted | Rules of recapture of excess depreciation |
|---|---|---|
| New residential for low and moderate income families | 200 percent declining balance and sum-of-the-years digits | Declines 1 percent per month after 100 months. No recapture after 16 years and 8 months. |
| All other new residential | 200 percent declining balance and sum-of-the years digits | All excess depreciation recaptured regardless of time of sale. |
| Used residential | 125 percent declining balance if useful life exceeds 20 years, otherwise straight line | All excess depreciation recaptured regardless of time of sale. |
| Section 167 (k) rehabilitation for low and moderate income housing | Straight line with 5-year useful life | Declines 1 percent per month after 100 months. No recapture after 16 years and 8 months. |
| Commercial | 150 percent declining balance | All excess depreciation recaptured regardless of time of sale. |

## Attractive recapture provisions

The Internal Revenue Code also provides other tax benefits to section 8 investors depending on the timing and manner of disposal of a project. As shown in table 15, different provisions for recapturing depreciation in excess of straight line depreciation apply to low and moderate income housing as compared with all other new residential multifamily properties. When an accelerated depreciation method is used and the project is sold, the excess depreciation is taxed as ordinary income unless the property has been

Table 16
Rate of Return for Profit-Motivated Passive Investor a/

| | Sale after 5 years | Sale after 10 years |
|---|---|---|
| Per unit investment b/ | 4,050 | 4,050 |
| Tax savings during holding period c/ | 5,093 | 7,365 |
| Gain when project is sold d/ | 7,976 | 18,613 |
| Tax liabilities upon sale | | |
| (a) Recapture of excess depreciation e/ | 3,401 | 3,402 |
| (b) Tax on capital gains f/ | 1,589 | 4,191 |
| Annual rate of return g/ | 28.54% | 32% |

a/Taxpayer is assumed to be in the 50 percent marginal tax bracket. Higher tax-bracketed investors, which are the norm, would realize even higher returns.

b/The investment is assumed at 15 percent of the mortgage amount which is $27,000 on a unit which costs $30,000.

c/Tax savings are depreciation charges and allowable cash flow. The depreciable base is $27,900 per unit.

d/Capital gain is based upon the difference between (1) the net sales prices of $34,000 and $43,980 for 5- and 10-year sale dates, respectively, and (2) the remaining mortgage balances.

e/This liability is calculated by taxing the amount of accelerated depreciation taken in excess of straight line according to Internal Revenue Service rules.

f/Capital gains tax is calculated by taxing 40 percent of the difference between the net sales price and the straight line depreciable basis at the 50 percent tax rate.

g/Annual rate of return is calculated by using the internal rate of return method.

market value rather than the project's depreciated cost may be deducted. The difference in the deduction could be substantial.

## NONPROFIT SPONSORS

Profit-motivated owners are usually passive investors who participate through the syndication process and, as discussed above, are motivated primarily by tax considerations. Nonprofit sponsors, on the other hand, sponsor a development

Returns on investment will also be higher than in the past because capital gains tax laws are more favorable. Before the 1978 tax law, only 50 percent of any gain (which is roughly the difference between the sales price and the depreciated value) was taxed at the ordinary income tax rate. Now only 40 percent of the gain is taxed at the ordinary rate. The following discussion illustrates a number of these ideas.

Tax incentive for continued section 8 private ownership is weak

If the Government did not require 20-year or longer contracts, section 8 investors would be highly motivated to sell their projects after only a few years of ownership because the return on investment would be substantial. We calculated the tax impacts and expected profits for owners of multifamily subsidized projects which appreciate at a rather moderate 5 percent per year. Even after sizable recapture and capital gains taxes are paid, passive investors in low marginal tax brackets (50 percent) could expect impressive yearly rates of return of about 28 percent and 32 percent if multifamily properties were sold after 5 and 10 years. Table 16 illustrates these returns. In the past it has generally been assumed that projects would not appreciate and this combined with the older and higher capital gains rate resulted in calculations that projects would need to be held for 20 years.

Although projects would continue to provide good returns after 10 years, the bulk of the tax shelter is exhausted in the first 10 years. Since tax shelter is the primary motivation for investment in subsidized projects, we believe that many owners would be highly motivated to sell or convert to condominiums even at moderate rates of appreciation. Higher appreciation rates, which are bound to occur in some areas, and higher investor tax brackets (which are the norm), result in an even greater incentive to dispose of such investments. (See also the discussion of ownership in Chapter 2).

Other tax benefits

The tax on the gain realized from the sale of a federally assisted rental project may be deferred if the project is sold to the tenants, a cooperative, or qualified nonprofit organization and if the seller purchases a similar type of subsidized housing (usually within 1 year from the date of sale of the first project). Moreover, treatment of excess depreciation (as described above) is dated from the date of acquisition of the first project. If the project owner donates the project to a qualified charitable organization, the fair

permanent lender to buy the permanent mortgages (which may mean arranging for GNMA to purchase the loans--see the section on permanent lenders), (3) service the mortgage, (4) evaluate the feasibility of projects, (5) arrange for FHA mortgage insurance, and (6) monitor construction. Each function must be performed to complete the entire development process. But given the fee structure for mortgage lenders, they are (as implied earlier) less likely to adequately perform those functions unrelated to their profit, such as carefully evaluating feasibility and monitoring construction.

For a conventional loan the mortgage lender is exposed to some risk since, if the loan goes bad prior to its placement with a permanent lender, the mortgage lender could take a substantial loss. To avoid such losses on conventional loans the lender will very likely (1) require a higher downpayment from the borrower, and (2) arrange for mortgage insurance from a private company. The risk is spread to the borrower and the insurer, but the latter party insures only a certain percentage of the loan. Thus, the lender still stands to lose if the loan goes bad and is, therefore, careful not to lend on an unacceptably risky venture.

With FHA insurance, risk is minimal, since FHA insures 99 percent of the loan. If the borrower defaults, the lender only stands to lose a portion of the profit. So the financial risk to the lender on FHA loans is really nonexistent.

Since FHA theoretically depends on the lender to examine carefully the project for feasibility and since the lender has little to risk, a fundamental principle of risk avoidance is violated. Mortgage lenders should closely watch construction and early project operation. Financial problems of an otherwise sound project can often snowball into financial failures if proper curative steps are not taken. The lack of financial risk with FHA insurance can deter the lender from doing whatever is necessary to cure a problem loan, since it may be more costly for the lender to solve the problem than to assign the loan to HUD, get the loan proceeds, and reinvest in a more profitable venture. This lack of risk-taking on the part of the lender is a serious problem which has plagued FHA-subsidized loans; so far no solution has been found.

## Coinsurance would enhance lender incentives

HUD has experimented with a procedure in which mortgage lenders would share in the risk of perhaps 80 or 90 percent of the mortgage amount insured by HUD. The remainder of risk would be the lenders' and would no doubt encourage them to

to house needy families or elderly people. These sponsors often involve church-related groups, for example, and are presumably motivated by social concerns. They are allowed 100 percent loans, do not receive any cash returns from the rents, and do not receive deductions for tax purposes.

## MORTGAGE LENDERS

Each alternative analyzed in this report must have a mortgage lender, although the motivations and goals of these lenders or brokers vary substantially from one alternative to another. The prototype for this discussion is the mortgage lender who provides the financing under the traditional FHA insurance alternative. This lender may be a savings and loan association, a commercial bank, or a mortgage broker. Federal law requires savings and loans to lend a certain percentage of their funds as residential mortgages. Although these banks characteristically opt for single family housing they do finance a substantial amount of multifamily housing. Commercial banks keep some portion of their funds in residential mortgages but do not lend money frequently for subsidized housing. Most FHA multifamily mortgages are placed by mortgage brokers who bring together the borrower and the permanent lender rather than using their own funds to hold mortgages for a long period. Any of these mortgage lenders may choose to hold multifamily mortgages as investments, but here these lenders are discussed in the role of brokers rather than permanent lenders.

A mortgage banker, mortgage broker, or mortgage lender, as contrasted to a permanent lender, is motivated primarily to earn a one-time fee for placing the loan and perhaps continuing to service the loan (collect payments and deal with the borrowers) for a monthly fee. The one-time fee, which may be 1.5 to 2.5 percent of the mortgage amount, is collected at settlement. The mortgage banker may also earn some initial profit by placing and holding the construction loan. By this description, one can gather that the profit of a mortgage banker is not really dependent on the long-term viability of the loan or the project but rather upon the size of the mortgage and the amount of its loan placement fee. The mortgage lender is really motivated to handle the transaction smoothly and at the least cost so as to maximize profit and enhance its reputation as a loan underwriter. A pattern of bad loans could conceivably result in FHA withdrawing the lender's ability to handle FHA loans.

### Functions of mortgage lenders

The principal functions of mortgage lenders are to (1) locate temporary construction funds, (2) arrange for a

FHA-insured lenders

After GNMA purchases FHA insured projects, it sells the mortgages to private lenders at auction. Purchasers are typically mortgage investment firms and, to a lesser extent, insurance companies and pension funds. These investors make money over the long run by borrowing at a lower cost than the return on the mortgages. FHA loans are particularly attractive because of their high insurance against loss.

In the past, many FHA project loans were purchased by the Federal National Mortgage Association, a quasi-government sponsored corporation chartered to help finance housing. FNMA, like other mortgage investors, wants to make a profit.

Bondholders are permanent lenders for SHFA financing

Individuals who hold SHFA bonds are motivated to purchase this type of security because of their after-tax return. The average bond rate in 1977, from a sample of SHFA bonds, was about 6.75 percent. If the bondholder is in the 50 percent tax bracket, the return on investment is equivalent to a taxable bond yielding 13.5 percent. Although corporate bonds can match this yield, they generally have much lower investment ratings. This factor alone has allowed a considerable amount of funds to flow into the housing sector through tax-exempt bonds.

Another factor which has helped finance projects under SHFAs is that bond denominations are small enough to attract many individual investors. In contrast, purchasers of FHA/GNMA project mortgages are large institutions and their ability to supply funds is limited by the number of firms and the amount of funds each firm can invest.

Bonds can be held by all types of investors, including commercial banks or savings and loan associations that desire tax-exempt securities. Although relatively little activity has occurred under the 11(b) financing method, many bondholders are actually local financial institutions. These lenders also find the tax-exempt securities lucrative, especially if they are in a high tax bracket.

Mortgage-backed securities attract permanent lenders

The introductory chapter explained that mortgage lenders can issue securities to permanently finance FHA-insured projects they originate. These securities are called mortgage-

do a better job in underwriting the loans since they would need to assure the permanent lender that the loans were sound and salable. So far, the program has not attracted much activity, probably because lenders would much rather have the full insurance which is still available from FHA. Why opt for 80 or 90 percent insurance when you can get 99 percent? A more viable method may be to decrease the amount of insurance gradually, say to 98 percent or 97 percent, without offering an alternative. Even such a moderate change, if properly structured, would offset the lender's profit and introduce better incentives into the system. (See chapter 3 on financial risk for a more complete discussion of lender motivation to carry out the monitoring function.)

SHFAs as mortgage lenders

State housing finance agencies are also mortgage lenders since they arrange the permanent financing (by issuing tax-exempt bonds), lend construction funds to developers, evaluate project feasibility, and monitor construction.

Like private mortgage lenders, SHFAs earn a placement or finance fee for their efforts. However, SHFAs are much more concerned about successful project completion, and therefore carefully monitor construction process. Construction delays can mean cost overruns and possible default. Such problems can mean either additional bonding or a default to bondholders. In either case, their bond ratings can fall and future bond borrowing could be jeopardized.

LHAs as mortgage lenders

Local housing authorities, or their instrumentalities, also serve as mortgage lenders since they arrange for both construction and permanent lending by either borrowing money from conventional lenders or arranging for the sale of tax-exempt bonds. The difference between FHA insured lenders, SHFAs lenders, and LHA lenders is that LHA lenders are not underwriters because they do not evaluate project feasibility. This function is typically carried out by bond underwriters (investment firms) who evaluate the underlying security and then market the bonds.

PERMANENT LENDERS

In contrast to mortgage brokers, permanent lenders are interested in a secure long term return on investment. This section describes (1) the permanent lenders under each financing mechanism, (2) the reasons they are motivated to invest in subsidized housing, and (3) the ways in which the motivations differ among alternatives.

backed securities (MBS) and are guaranteed by GNMA. The guarantee runs to the investor--the holder of the security certificate--and assures the timely payment of monthly principal and interest. The MBS are so-called "pass throughs," a term which indicates that the mortgage lenders (issuers) pass through to the investors the principal and monthly interest payment on the mortgages.

The majority of MBS are held by mortgage and investment bankers, savings banks, savings and loan associations, pension trusts, and individuals. All these entities invest in securities for five reasons. First, yield (or return on investment) is usually higher than that available from other U.S. investment agency issues and at times better than that avaiable from AAA-rated corporate bonds. Second, the securities are backed with the full faith and credit of the U.S. Government; the investor has absolute safety of principal and interest. Third, monthly payments of principal and interest provide a monthly cash flow. Fourth, the MBS are easily traded. Fifth, investors can invest in mortgages without the normal administrative burdens associated with managing a mortgage portfolio.

Federal financing provides permanent public housing funds

The last alternative is tax-exempt bonds issued on behalf of local housing authorities by the Federal Government to finance public housing projects. These bonds offer a low before-tax rate of return (never greater than 6 percent), but for very high income investors, yields can be significant. For example, an investor in the 50-percent tax bracket can earn the equivalent of the return on a taxable bond yielding 12 percent. In addition, these securities are absolutely risk-free since they too are backed by the full faith and credit of the Federal Government.

Since public housing bonds have not been issued since 1974, the Government is "rolling over" its debt by issuing short-term notes with interest rates much lower than 6 percent. A 1978 issue had a rate of about 4 percent. We could not tell exactly what entities invest in such low interest rate notes, but we believe most are held by very high bracketed investors, or by commercial banks to round out their investment portfolios.


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FHA INSURED SECTION 8
NATIONAL CORPORATION FOR HOUSING PARTNERSHIPS


FHA-INSURED SECTION 8
NATIONAL CORPORATION FOR HOUSING PARTNERSHIPS

# CHAPTER 5

## HOUSING BENEFICIARIES

Section 8 is concentrating its benefits on elderly households somewhat above the poverty level and to a much lesser extent on very poor and small nonelderly households. The program falls well short of its potential to produce nonelderly housing, particularly housing for large families. The program also provides little assistance to eligible nonelderly households who are somewhat above the poverty threshold but still quite needy. Section 236 did a good job of serving this group (thought of as the "working poor") and still does, but little new assistance is going to this group and the rents which such households can afford are rapidly disappearing. This group is generally not affluent enough to purchase housing to get the tax advantages of home ownership--a huge housing subsidy for middle- and upper-income Americans. The working poor are also less likely to qualify for welfare assistance, another mechanism for housing assistance. Consequently, though eligible for section 8 and in no less need of adequate housing at affordable rents, the working poor are perhaps the only subgroup in our society to receive little or no housing assistance. This chapter discusses who the programs (section 8, section 236, and public housing) serve and analyzes the extent of housing need of nonelderly households somewhat above the poverty threshold.

Information on the occupants of newly constructed section 8 housing is limited since the data in HUD's management information system (MIS) covers only a small percentage of the tenants and that data is geographically unrepresentative. This chapter describes a few characteristics for which the available information was sufficiently credible to make reasonable conclusions.

### SECTION 8 IS UNDERSERVING FAMILIES

Based upon data from HUD's MIS and national data on income-eligible renter households, and buttressed by our analysis of New Jersey, Wisconsin, and Minnesota, we believe new construction and rehabilitation under section 8 is very likely under-serving families with children. As of mid-1978, 69 percent of all section 8 units started were designed for the elderly. In our three-State analysis, which we made to check on HUD's national data and other survey findings, we learned that only 20 percent of the 27,000 units developed in those States by either SHFAs or with FHA loans were large enough to house families with children and some of these were in elderly projects. Only 17 percent of all units were in nonelderly projects and had two or more bedrooms. The Lower

Income Housing Assistance Program (LIHAP), HUD's data system which tracks section 8 tenants, gives us a similar finding based upon a small number of units reported. This information shows that 25 percent of all units were large enough for families with children. Section 236 provided 90 percent of its units to nonelderly households and more than 50 percent of these units had two or more bedrooms. The conventional public housing program also did a much better job of serving large nonelderly households. 1/

Clearly, section 8 has done little to meet the need among tenants for medium and large units. Whether the distribution of benefits is in accordance with need on a proportional basis is not totally clear, but based on our analysis, we feel it is not. We have developed certain proxy measures that give the best available indication of what the real situation is. Table 17 shows that both the HUD information system and our three-State case study provide similar results on unit sizes though the three States seem to provide somewhat fewer large units than the HUD data base indicates. However, the difference cannot be considered statistically significant.

Table 17
Distribution of Section 8 Units by Size (Percent)

| | Elderly | | Nonelderly | | Total | |
|---|---|---|---|---|---|---|
| | HUD data | Three States | HUD data | Three States | HUD data | Three States |
| Efficiency | 7.0 | 8.0 | 2.0 | 1.0 | 9.0 | 9.0 |
| One bedroom | 55.0 | 58.0 | 6.0 | 13.0 | 61.0 | 71.0 |
| Two bedrooms | 4.0 | 3.0 | 15.0 | 11.0 | 19.0 | 14.0 |
| Three bedrooms | 0.8 | -- | 9.0 | 5.0 | 9.8 | 5.0 |
| Four bedrooms or more | 0.2 | -- | 1.0 | 1.0 | 1.2 | 1.0 |
| | 67.0 | 69.0 | 33.0 | 31.0 | 100.0 | 100.0 |

Table 18 shows the actual percentage distribution of section 8 tenants by household size as compared with the household sizes of all income-eligible renter households as estimated using the Annual Housing Survey. Since the HUD data on unit sizes seem reasonable based on our three-State analysis

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1/For a more detailed description of the tenant beneficiaries of public housing and section 236 see "Section 236 Rental Housing--An Evaluation With Lessons For The Future," U.S. General Accounting Office, PAD-78-13, Jan. 10, 1978.

and other available data, we believe we can use household size from this source as an expression of section 8 activity thus far.

Table 18
Percentage Distribution of
Section 8 Tenants versus
All Section 8 Income-Eligible U.S. Renters

| | Household Sizes | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Elderly | | Nonelderly | | | | | |
| | One | Two | One | Two | Three | Four | Five | Six+ |
| Percent of total eligibles | 16 | 7 | 19 | 18 | 15 | 11 | 6 | 6 |
| Percent of section 8 households | 55 | 13 | 2 | 11 | 8 | 6 | 2 | 2 |

By aggregating these figures, we see that nearly 40 percent of nonelderly income-eligible renter households have three or more members while less than 20 percent of the units go to this group. 1/ Although these percentages alone do not constitute conclusive proof that elderly households are over-served by section 8, other facts reinforce this conclusion. The existing housing portion of the section 8 program is also providing about a third of its units to the elderly, and over 40 percent of public housing units are occupied by elderly tenants. Since section 8 is now the only program providing much production or engaging in new subsidy activity, the apparent overrepresentation of the elderly can only increase unless HUD is successful in changing this situation. HUD feels that it has solved this problem since its reservation and start activity shifted toward more nonelderly projects during 1979 as a result of various administrative actions. 2/ That these new reservations will translate into a significant change in program emphasis is far from assured

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1/One contract study performed for HUD on two regions showed that local housing assistance plans started for all new and substantially rehabilitated projects, 29 percent should serve the elderly, 59 percent small families, and 12 percent large families, yet 71 percent of the production in these regions was going to the elderly.

2/For a more detailed discussion of these changes, see appendix I.

since the production incentives for elderly projects still greatly outweigh those for family projects.

Another way of viewing whether section 8 over-serves elderly households is to look at the actual number of needy households served as a proportion of the total eligible population. This number also gives a somewhat more objective measure than program percentages. We calculated the number of tenant households as a ratio of income-eligible renter households and found that for every 1000 elderly income-eligible households, 15 elderly households occupied section 8 housing while only 5.5 per 1000 nonelderly eligible households were served. Table 19 compares these ratios with analagous ratios for section 236 and public housing.

Table 19
Ratio of Subsidized Households to Income-Eligible U.S. Renter Households a/

| | Elderly households | Nonelderly households |
|---|---|---|
| Public housing | 59:1,000 | 66:1,000 |
| Section 8 | 15:1,000 | 5.5:1,000 |
| Section 236 | 11:1,000 | 32:1,000 |

a/Although nonelderly households seem to be favored, when the three programs here are aggregated, this analysis shows how the emphasis has shifted under section 8. Including other programs would also change the overall picture.

Public housing seems to provide housing to both groups roughly in accordance with total eligibility, although as we show later it concentrates on the low income end of the eligible population, while section 8 emphasizes the elderly and section 236 concentrates on nonelderly households.

## SECTION 8 IS SERVING VERY LOW INCOME HOUSEHOLDS

Although section 8 is designed to serve the entire spectrum of income-eligible households, it tends to concentrate its benefits on a rather low-income group. Because of its emphasis on the elderly, it provides relatively little service to nonelderly households somewhat above the poverty level who

nonetheless cannot afford housing in the rental market 1/ and who are generally not eligible for other forms of welfare.

## Average income below that of public housing

Table 20 compares the average incomes of subsidized tenant households recertified for continued occupancy of section 8 housing in 1978 with those of tenants living in section 236 and public housing units.

Table 20

Average Income of Tenants Moving into Subsidized Housing

| | Section 8 period ending Dec. 31, 1978 | Section 236 period ending Sept. 30, 1978 | Public housing period ending Sept. 30, 1978 |
|---|---|---|---|
| Nonelderly | $5,301 | $7,056 | $5,512 |
| Elderly | $4,089 | $4,916 | $3,619 |

Since the HUD data for section 8 households were somewhat geographically unrepresentative, we also looked at those States where there was a substantial amount of reporting on the incomes of tenants moving into section 8 housing. In each State, the section 8 average income for nonelderly tenants was always well below that of section 236. In some States, it was actually less than that for public housing. We, therefore, conclude that national averages, while not considered accurate, are nonetheless representative of the proper relationship between tenants' incomes in these programs.

## Income distribution under section 8 also similar to public housing

Figures 6 and 7 show that elderly and nonelderly subsidized tenant incomes are distributed in much the same way for both public and section 8 housing, while the tenant household incomes under section 236 (which primarily serves nonelderly households) are considerably higher.

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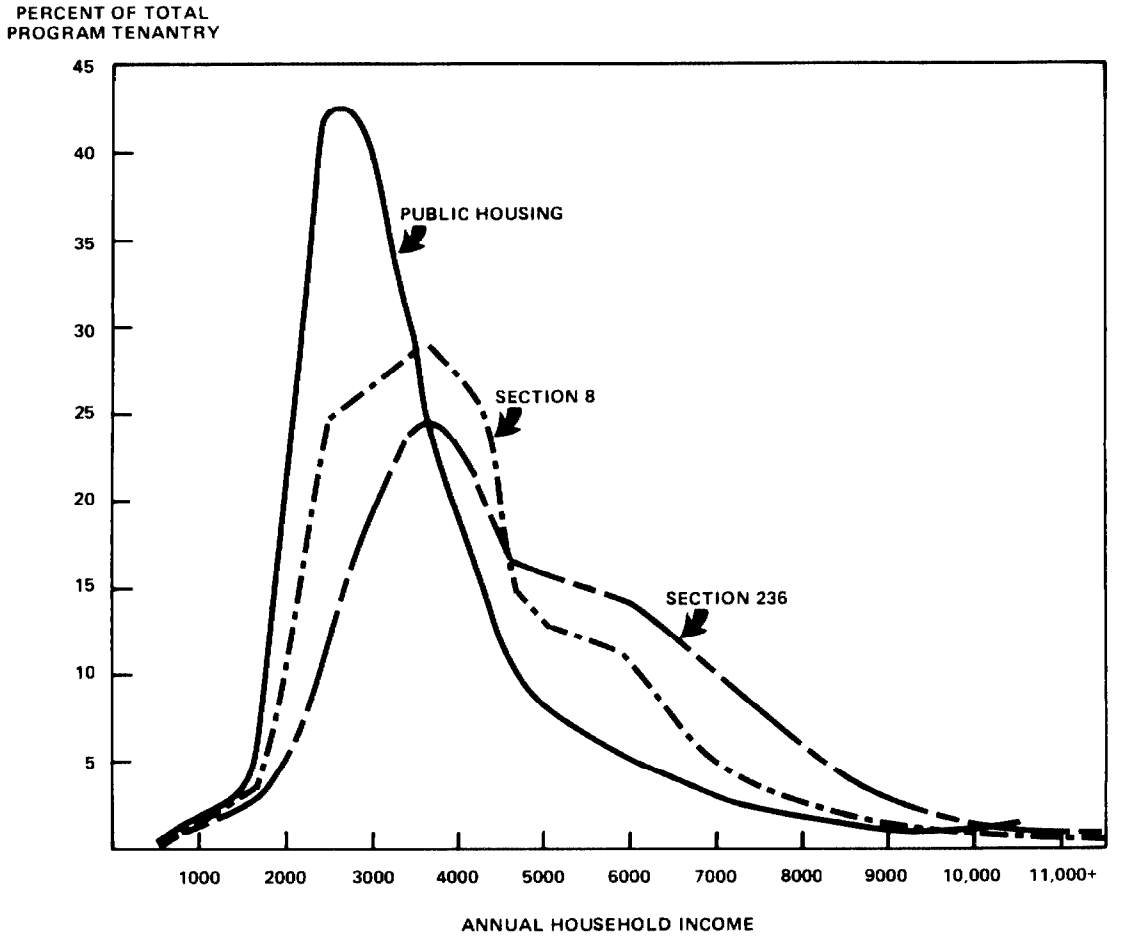
1/For a detailed treatment of the need for rental housing, see "Rental Housing: A National Problem That Needs Immediate Attention", CED, U.S. General Accounting Office, November 8, 1979.

Figure 6

DISTRIBUTION OF ELDERLY TENANT INCOMES
BY SUBSIDY PROGRAM[a/]



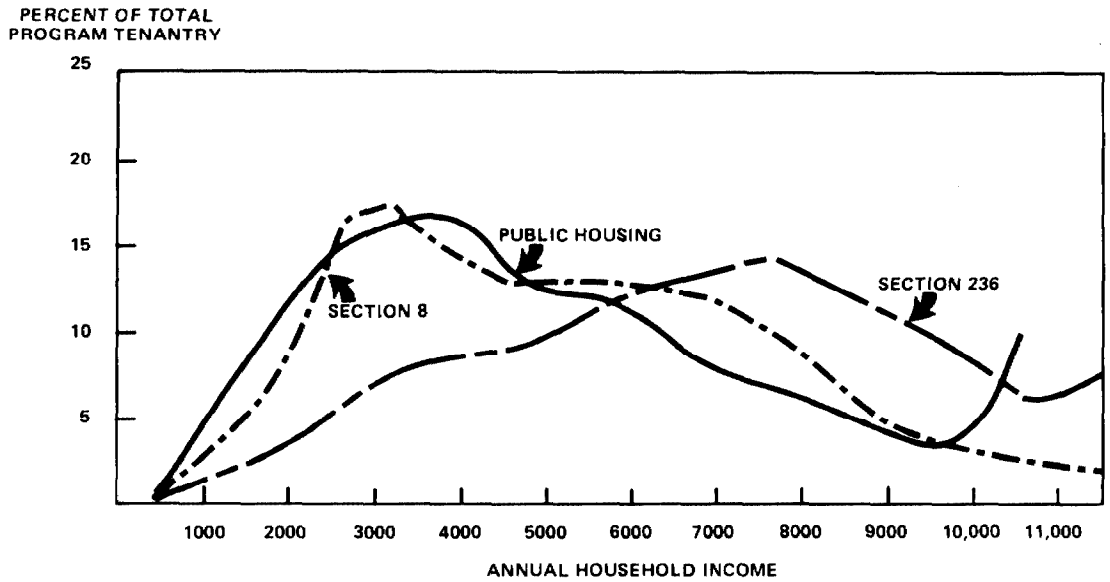

[a/]ALL TENANT DATA USED IN THESE CHARTS IS BASED ON HOUSEHOLDS RECERTIFIED FOR CONTINUED OCCUPANCY – AS OF DECEMBER 1978 FOR SECTION 8. DATA FOR PUBLIC HOUSING AND SECTION 236 ARE BASED UPON RECERTIFICATIONS BETWEEN OCTOBER 1977 AND SEPTEMBER 1978.

## Tenant income measured by poverty status

The above figures could be somewhat misleading, however, since family size (and project geographic location) might upset the relationships between programs. Table 21 shows comparisons which to an extent compensate for these factors since we adjust for family size and since the poverty threshold is a

Figure 7

DISTRIBUTION OF NONELDERLY TENANT INCOMES
BY SUBSIDY PROGRAM[a/]




[a/]ALL TENANT DATA USED IN THESE CHARTS IS BASED ON HOUSEHOLDS RECERTIFIED FOR CONTINUED OCCUPANCY – AS OF DECEMBER 1978 FOR SECTION 8. DATA FOR PUBLIC HOUSING AND SECTION 236 ARE BASED UPON RECERTIFICATIONS BETWEEN OCTOBER 1977 AND SEPTEMBER 1978.

Table 21
Average Subsidized Household Income
Compared to Poverty Threshold

| | Elderly | | | Nonelderly | | |
|---|---|---|---|---|---|---|
| | Sec.236 | Sec.8 | P.H. | Sec.236 | Sec.8 | P.H. |
| Avg. household size | 1.3 | 1.2 | 1.4 | 2.9 | 3.1 | 3.9 |
| Average income | $4916 | $4038 | $3619 | $7056 | $5301 | $5512 |
| Poverty threshold | $3357 | $3278 | $3436 | $5089 | $5316 | $6426 |
| Income as percent of threshold | 146% | 124% | 105% | 139% | 99% | 86% |

generally accepted national standard to define needy households. We have used the average family size, average income, and national poverty thresholds for each program to construct an index. This index is expressed by average income as a percentage of poverty threshold. These figures show that on an average, section 8 tenants probably fall between those of the other programs, but for nonelderly tenants the index for section 8 is well below that for section 236 and not far above that for public housing.

Income distribution by poverty level

Poverty threshold can also be used to study how benefits from subsidized programs are distributed according to need. We obtained information on income-eligible renter households and translated households in each income range to the number of eligible households in each income range. Figure 8 shows that for elderly households:

--the likelihood of receiving assistance from section 8 increases as need (measured by the relationship of income to poverty level) decreases;

--the likelihood of receiving section 236 benefits increases as need decreases;

--public housing concentrates its benefits on households with incomes below 125 percent of the poverty threshold while the other programs favor elderly households with incomes above 125 percent of this threshold.

For nonelderly households (see figure 9) which are receiving little assistance under section 8:

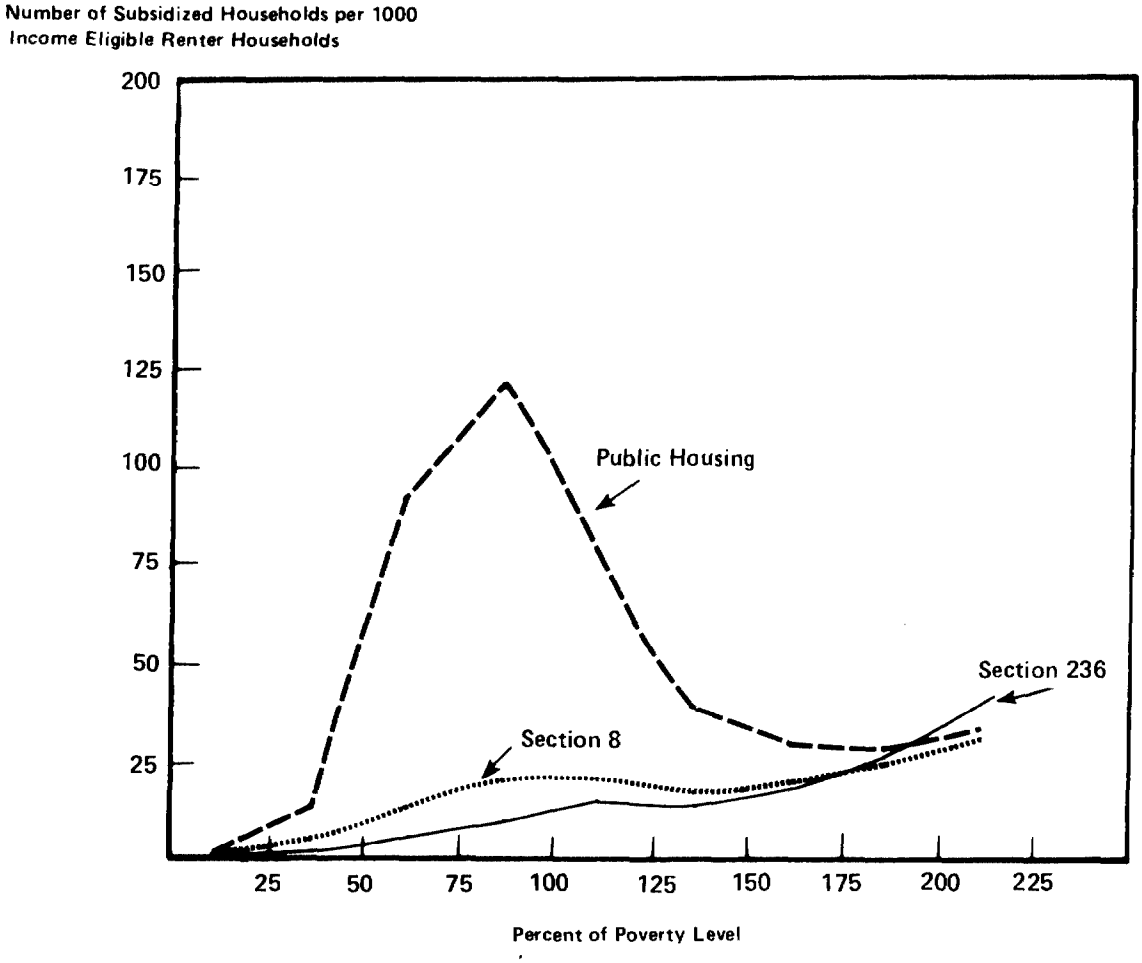
--section 236 program increases assistance coverage to eligible households as income increases with the bulk of its assistance going to those with incomes between the poverty threshold and 175 percent of the poverty threshold;

--section 8 program's service to the eligible population decreases as income increases. For example, for every 1,000 eligible nonelderly households with incomes between 75 and 100 percent of the applicable poverty thresholds, 8 households receive assistance, while 4 households per 1,000 eligibles with incomes between 125 and 175 percent of the poverty threshold receive assistance. Section 236 favored the latter group with roughly 50 of every 1,000 eligibles receiving assistance;

--public housing clearly concentrates its benefits on the poverty population with rather remarkable concentration from 50 to 75 percent of the thresholds (288 per 1,000), but it also provides much greater assistance to those above the threshold than does section 8.

Figure 8

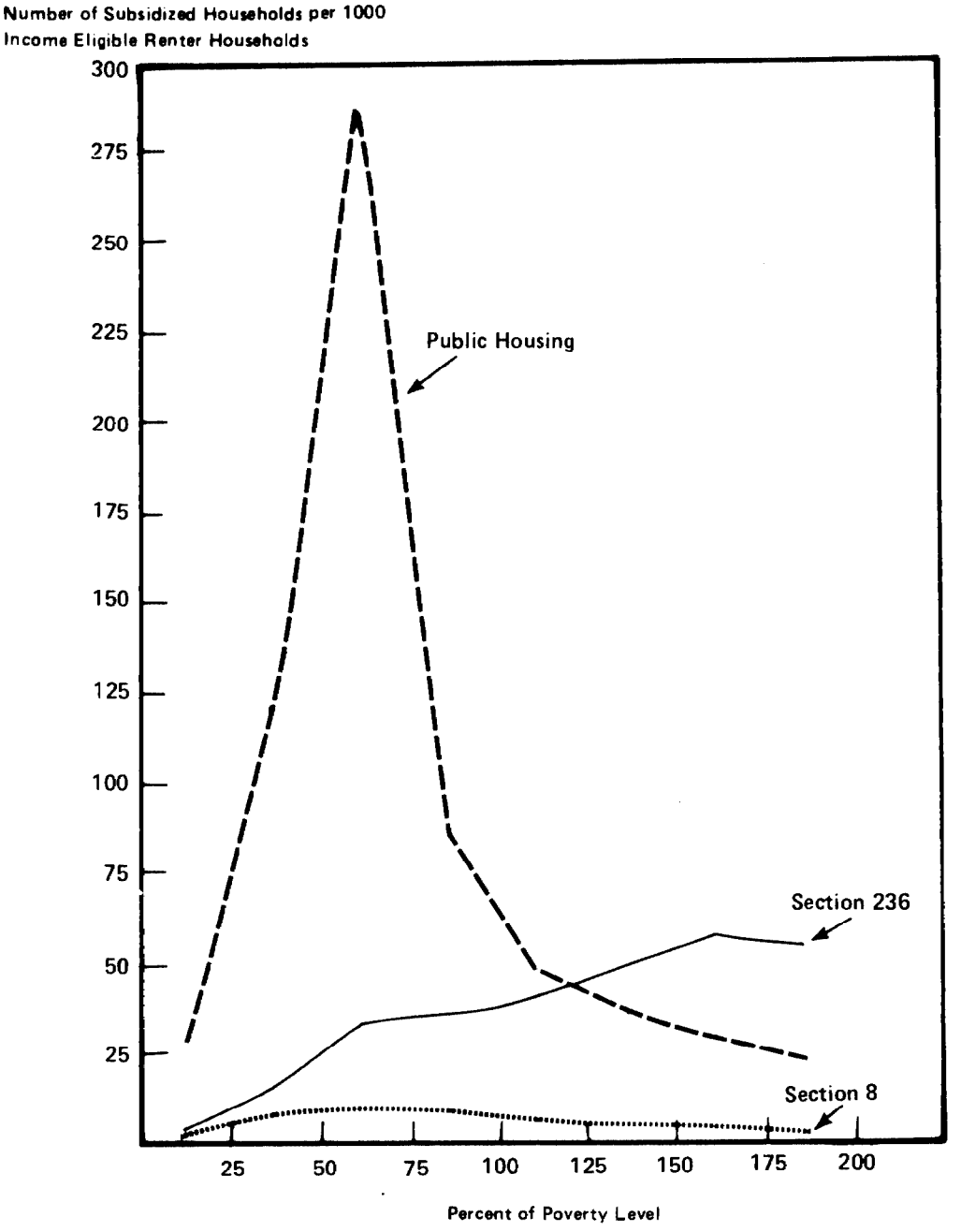
DISTRIBUTION OF SUBSIDIZED ELDERLY HOUSEHOLDS PER 1000 INCOME ELIGIBLE RENTER HOUSEHOLDS [a]




[a] All subsidized tenant income data is based on households recertified for continued occupancy during 1978

## Figure 9

DISTRIBUTION OF SUBSIDIZED NONELDERLY HOUSEHOLDS PER 1000 INCOME ELIGIBLE RENTER HOUSEHOLDS [a]




[a] All subsidized tenant income data is based on households recertified for continued occupancy during 1978

## WORKING POOR IN NEED OF ASSISTANCE

The previous analysis makes it clear that the section 8 program provides proportionately less service to eligible families above the poverty level than it does to those below it. We have not established that these somewhat higher income households or "working poor" are really in need of assistance. To illustrate this we will describe the situation of households with incomes between $7,000 and $15,000 per year which includes the group of households between 125 percent and 175 percent of the poverty threshold. This group was well served by section 236 but are now receiving little new housing assistance. We will show that:

--these households cannot, in general, afford to purchase homes;

--the supply of rental housing available to this group is shrinking; and

--rent constitutes a high percentage of income for a large proportion of this group.

The tenant data we analyzed in this chapter was compiled in 1978, at which time the income ranges of 125 percent to 175 percent of the poverty threshold would have translated into the real incomes shown in table 22.

Table 22

Household Size versus Poverty Threshold

| Household size | Income of 125% to 175% of poverty threshold |
|---|---|
| One person | $4,238 - $5,932 |
| Two persons | $5,287 - $7,403 |
| Three persons | $6,463 - $9,048 |
| Four persons | $8,287 - $11,602 |
| Five persons | $9,787 - $13,702 |
| Six persons | $11,038 - $15,542 |

For the larger nonelderly households with three or more members which are poorly served by section 8, most household

incomes fall between $7,000 and $15,000 per year. Although published data do not avail themselves of precise analysis we can create a picture of the housing need and the deteriorating situation of these households by looking at a variety of statistics.

Homeownership not an option for the working poor

In 1977, the most recent year for which several good data sets are available, the median price of a new home in the U.S. was $48,800 1/. Thus, a buyer would be required to meet a monthly housing expense of more than $500 per month, necessitating a family income of nearly $24,000 per year to purchase and operate.

According to another source, the median sales price of existing homes involving financing by institutional lenders was $50,200 2/. In 1979, the median resale price had increased to $57,300.

In 1978, when many of the section 8 households studied moved in, only 25,000 new units offered for sale were for less than $30,000 3/. This would be the maximum price that most households with incomes below $15,000 could afford with a typical mortgage. Most of these units were located in the South. At the same time there were roughly 20 million renter households with incomes below $15,000.

In the third quarter of 1978, one percent of FHA loans on new homes were for those costing less than $28,000; many of these were on small units. FHA traditionally serves the lower end of the home loan market. For existing homes, 11 percent sold for less than $28,000. This price home would be out of reach for any household earning less than about $13,000 per year. For the year we estimate that about 60,000 units, financed by FHA, were sold for less than $28,000 and which could could conceivably have been purchased by more than 9.5 million renter households earning between $7,000 and $15,000 per year. In actuality only 24,000 FHA mortgages

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1/"Characteristics of New Housing, Construction Report," Bureau of Census, Department of Commerce, August 1978, p. 48.

2/Federal Home Loan Bank Board Journal, January 1978, p. 48.

3/"Monthly Report October, 1979," Economics and Research Division, National Association of Realtors, p. 10.

for single family homes went to households with incomes below $13,000 per year.

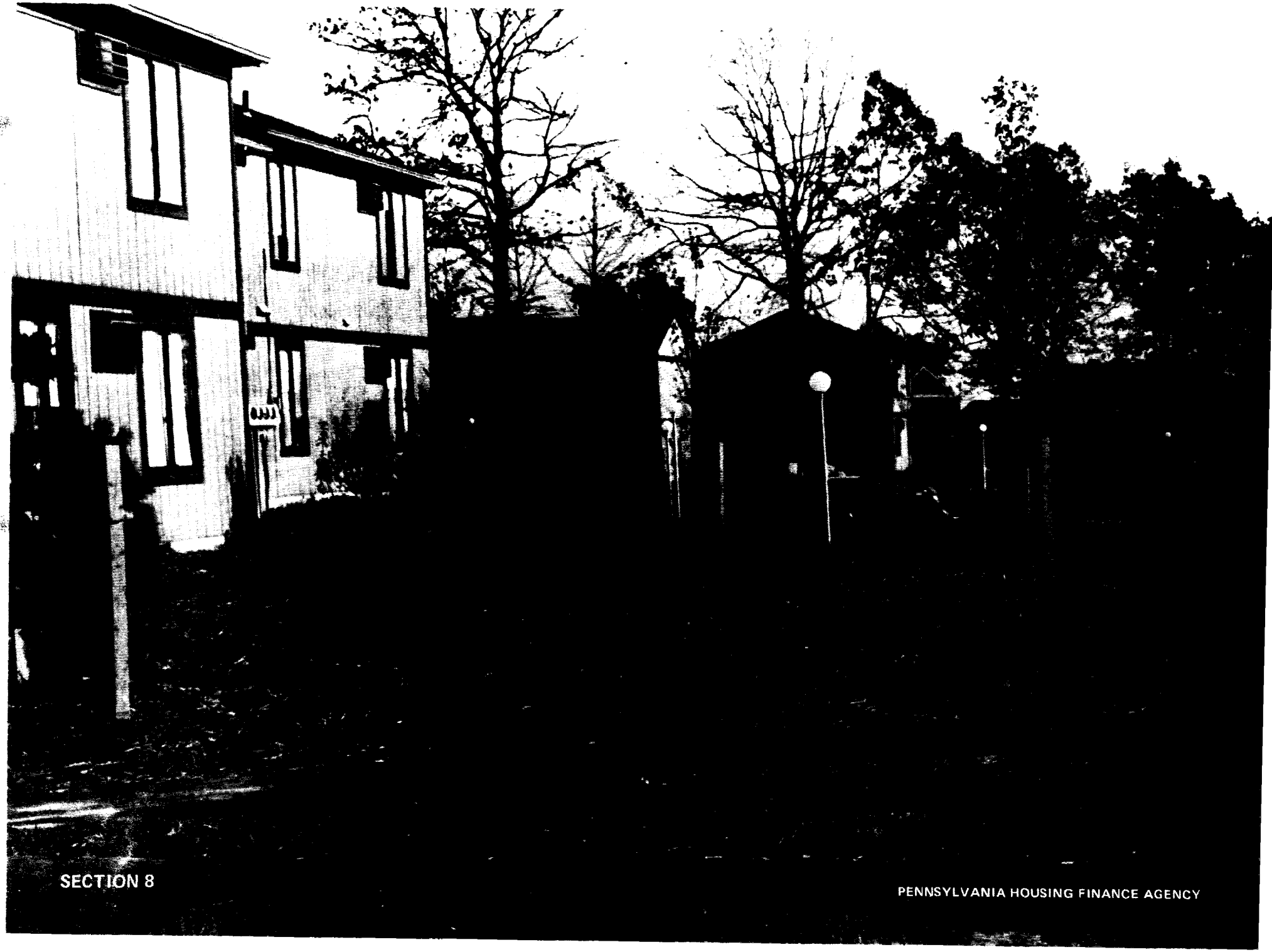
## Moderately priced rental housing stock shrinking

Between 1974 and 1977, the number of renter households earning less than $10,000 per year decreased by about 800,000 households from 15.7 million to 14.9 million. The number of renter households earning below $15,000 per year also decreased by about 600,000 households to 20.3 million households (roughly a 3 percent reduction). Yet the number of moderately priced rentals decreased substantially during this period. For example, the number of units with gross rents less than $200 per month decreased from 19.7 million to 14.2 million units (a remarkable 28 percent reduction) over the 3-year period. Thus the stock of units which a household earning less than $10,000 per year could conceivably afford dropped by roughly 5.5 million units while the potential renter population decreased very little. This situation was complicated in 1977 when 4.5 million of the remaining units with rents below $200 per month were occupied by households with incomes above $10,000 per year.

Although sufficient data to track the below $15,000 income renter population was unavailable in 1974, a look at 1977 indicated a tight market in that year, which can be expected to continue squeezing unaffluent renters. In 1977, there were about 22 million rental units which rented for less than $300 per month and about 20 million households who could not easily afford any higher rents, namely households with incomes below $15,000 per year. But 4.7 million of the 22 million units with rents below $300 per month were rented to higher income tenants (above $15,000 annual income).

## Rent constitutes an increasing burden for the working poor

In 1974, households with incomes between $7,000 and $15,000 per year generally paid less than 25 percent of their incomes for rent. Only about 21 percent paid more. By 1977, the percentage had increased substantially with 43 percent of all households in this income range paying more than 25 percent of their incomes for rent and 11 percent paying in excess of 35 percent of income for rent. While not all these households are needy, the larger households living in high cost areas will be the most severely affected. With rent increases beginning to accelerate in the last few years, these households' situations have probably continued to degenerate.


SECTION 8
PENNSYLVANIA HOUSING FINANCE AGENCY


HTHORITY

of past SHFA development 1/ but rather atypical for FHA, which has had significant nonprofit involvement under other programs. This earlier emphasis among SHFAs probably enhanced their image of experiencing low financial failures.

Most projects under both alternatives are new; perhaps 10 percent of the units under both are rehabilitated. This avoidance of rehabilitation is also closely associated with lower financial risk. Project size is also similar, and the overall appearances of projects probably are, within a particular geographical location, indistinguishable. There may be some differences in unit size and amenities.

## STATES PLACE GREATER EMPHASIS ON ELDERLY HOUSING

FHA-insured section 8 projects are very likely serving a much higher percentage of family households than SHFA-financed projects. HUD's management information system shows that for State projects 66 percent of all units are for the elderly. Our data on nearly 20,000 units financed by three of the largest State agencies show that 72 percent of these units are for the elderly while only 47 percent of the 7,400 FHA-insured units in these States are for the elderly. 2/ Although the aggregate data available is subject to error and the three States we surveyed cannot be expected to be representative, the weight of all available data indicate that FHA clearly is producing more units for families than the State agencies.

In addition, our analysis of the three States showed that 17 to 19 percent of all units in those States developed by SHFAs were in projects having a mix of elderly and non-elderly units while the FHA projects in those three States had no mixed projects. This finding agrees with findings from other research.

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1/This generalization about State agencies, like all others, covers a wide variety of experience from virtually non-profit projects in some States to rather heavy participation in others.

2/According to information on HUD-insured projects, developed from the Directory of Multifamily Project Mortgage Insurance Programs, 53 percent of the FHA-insured units are for the elderly. Directory of Multifamily Project Mortgage Insurance Programs, U.S. Department of Housing and Urban Development, March 31, 1979.

# CHAPTER 6

## STATE HOUSING FINANCE AGENCIES COMPARED TO THE FEDERAL HOUSING ADMINISTRATION

Subsidized housing financed by State housing finance agencies (SHFAs) is not markedly different from that financed with Federal Housing Administration insured loans. Yet there are some important differences in these alternatives regarding the tenants served, the size and cost of housing units, financial risk, location of housing, and in the way these alternatives are perceived.

Proponents of State financing have claimed that compared with FHA financing, SHFA provide lower cost financing, result in greater diversity of tenant mix, produce more attractive housing, have fewer financial failures, process applications faster, have a greater geographic distribution, and are more responsive to local needs. Critics say that State financing does not really result in the promised savings in finance costs, that SHFAs provide more expensive units, and that SHFAs are less responsive to the needs of urban areas and large families.

Since these two alternatives are very likely the most important section 8 production mechanisms and since they represent extremes in total cost, processing procedures, and Federal involvement, we have tried to delineate some of the major differences between them and describe some strengths and weaknesses. In some cases the differences are as much a difference in viewpoint as in fact. Since representative data on both alternatives were scarce, we have had to rely on a variety of sources to characterize their differences. To buttress the information, we collected data on a large number of units developed by the two mechanisms. These units were located in States having large section 8 production under both mechanisms--New Jersey, Wisconsin, and Minnesota.

### WHAT THESE PROGRAMS HAVE IN COMMON

Both alternatives are stressing profit motivated (or limited dividend) sponsorship which typically involves private ownership by a group of investors whose primary interests are to shelter personal income from taxes and eventually make a profit on the investment. Only about 5 percent of State and FHA projects are developed by nonprofit sponsors, whose primary motivation is to produce housing for social purposes. This profit orientation is probably more typical

Table 24

Minimum Room Size Requirements by Agency a/
(in square feet)

| | Living room/ dining area | Kitchen | First bedroom | Second bedroom | Total minimum requirements for major rooms | Minimum bedroom dimension | Reported average size Low rise | Reported average size High rise |
|---|---|---|---|---|---|---|---|---|
| Illinois | 260 | 60 | 130 | 100 | 550 | 9'4" | 1,028 | 994 |
| Massachusetts | n.s. | n.s. | n.s. | n.s. | n.s. | 10' | 909 | 1,118 |
| Michigan | 240 | 80 | 130 | 110 | 560 | 9' | n.r. | n.r. |
| New Jersey | 250 | 60 | 150 | 130 | 590 | 10' | n.r. | n.r. |
| New York | 245 | 74 | 150 | 130 | 599 | 10' | 932 | 880 |
| New York UDC | 210 | 60 | 138 | 120 | 528 | 9'4" | 1,101 | 1,169 |
| HUD | 260 | 60 | 120 | 80 | 520 | n.s. | 740 | 740 |

n.s. = No standard.

n.r. = Not reported.

a/Sources: IHDA, Architect's Guide, 1973, p. 33; interview with J.O.C. Enwonwu, MHFA chief of architecture; MSHDA, Townhouse Development Guide, 1970, p. 41; New Jersey HFA, "Minimum Design Standards," n.d., p. 7; New York DHCR, Design Standards and Procedures for Limited Profit and Limited Dividend Housing Projects, 1968, p. 15; New York UDC, Architect's Guide for UDC Projects, 1972, Bulletin No. 2, p. 42; HUD, Minimum Property Standards for Multifamily Housing (FHA Form 2600), pp. 70-71; Reported average sizes for HFAs taken from responses to UDC questionnaire, March 1973; HUD average size taken from HUD Statistical Yearbook, 1972, p. 268.

Source: Nathan S. Betnun, Housing Finance Agencies: A Comparision Between States and HUD.

## SIZE AND COST

No national figures exist to indicate whether SHFAs are providing larger or more expensive units than FHA, which many HUD officials felt was true. We investigated this claim in our three-State study based upon data for about 20,000 units in 248 projects. The measures we used were (1) unit size in square feet, which probably gives a good measure of size; and (2) approved contract rents, which can be judged against fair market rents for each locality.

### Housing unit size

Our three-State analysis strongly indicated that State-financed projects may be larger than those developed by FHA, although these results could prove unrepresentative for other States. For both elderly and nonelderly units, the State-financed unit generally has more square feet of living space, as shown in table 23.

Table 23

States versus FHA
Section 8 Housing Unit Size Averages
(Square Feet)

| | Nonelderly | | Elderly | |
|---|---|---|---|---|
| | SHFA | FHA | SHFA | FHA |
| Efficiency | 442 | 411 | 497 | 437 |
| One bedroom | 662 | 660 | 622 | 564 |
| Two bedrooms | 894 | 935 | 900 | 850 |
| Three bedrooms | 1,245 | 957 | 1,200 | - |
| Four bedrooms | 1,516 | 1,151 | - | - |
| Weighted average | 865 | 798 | 626 | 556 |
| Difference | 67 | | 70 | |

These results proved generally true for each of the three States, although for some States and a few unit sizes, the SHFA units were virtually the same size as FHA units. This finding is consistent with earlier research by Nathan Betnun published in 1976. 1/ Betnun found that for the major SHFAs providing low and moderate income housing in the early 1970s, room requirements and the average unit sizes reported were

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1/Nathan S. Betnun, Housing and Finance Agencies: A Comparison Between States and HUD, (New York: Praeger, 1976).

Section 8 regulations pertaining to SHFAs allowed gross rents to exceed published fair market rents for an area under a variety of conditions and with very little documentation. Gross rents should theoretically have been set at or below the FMRs. Each State agency had to certify to HUD that these rents were reasonable in relation to similar projects in the area. However, SHFAs were not required to actually document that their proposed projects were comparable with other projects in the market. HUD did not check whether a SHFA's gross rents were reasonable unless the rents exceeded 110 percent of the area's FMRs.

In January 1980, HUD revised the SHFA regulations to control the cost of all SHFA-financed projects. First, SHFAs were not only required to obtain HUD approval for gross rents in excess of FMRs (as they did in the past) but now SHFAs must certify to HUD on an "appropriate form" that they have performed comparability tests. In addition, any contract rents in excess of the rent of comparable units by no more than 20 percent must provide cost justification and cost certification at project proposal and completion stages. It is unclear, however, who designs the appropriate forms. If HUD prepares the form, then the rent reasonableness requirements may be valuable. However, if the certification forms are designed by each SHFA, we question the value of this new procedure.

To assure further that rents are reasonable in relation to those in comparable unassisted housing in an area, the revised regulations placed limits on project replacement costs and amenities. The new regulations contain limitations on unit cost which are basically the same as those under FHA.

The revised regulations exclude small and partially assisted projects from these cost containment provisions to the extent the proposed contract rents do not exceed 110 percent of the comparable rents. This was done to encourage family-oriented housing. When the gross rents of a small or partially assisted project fall between 110 and 120 percent of the area's FMRs the SHFA must the perform comparability tests or cost justification. In addition, partially assisted projects are exempt from the amenities restrictions as well as replacement cost limitations. This means that increases in initial gross rents for family projects will be easier to obtain than for elderly housing, which may tend to make family-oriented housing more attractive to developers concerned about high maintenance and management costs.

uniformly larger for SHFA-financed units than for FHA-financed units. These findings are summarized in table 24.

One reason why SHFA units are larger could be that developers may have found it easier to get higher rents under State financing. The likelihood that State agencies allow higher rents may be a national phenomenon since the rules that allow higher rents apply to all State agencies.

Rents higher for State-financed projects

In the early stages of program operation, State-financed projects had higher rents than those insured by FHA. SHFAs were not required to undergo stringent rent comparability tests, nor were they limited in the type of amenities they could include. HUD recently issued new regulations to control the cost of State-financed housing.

According to our three-State analysis, SHFA approved higher gross rents including utilities (measured as a percentage of fair market rents in existence at time of approval) than FHA. This may not be the case in every State but it is in the case of the three-States which are among the most frequent users of State agency section 8 financing. Table 25 shows these findings.

Table 25

Average Gross Rents as a Percentage of Fair Market Rents a/ (number of projects)

| | SHFAs | FHA |
|---|---|---|
| New Jersey | 105.6 (32) | 87.4 (19) |
| Wisconsin | 99.8 (58) | 94.1 (34) |
| Minnesota | 94.2 (81) | 86.5 (15) |
| Weighted average | 98.2 | 90.6 |

a/The State rents were adjusted downward to exclude a 5 percent contingency to cover higher bond interest rates than anticipated. If this adjustment were included in the SHFA rents, they would be even higher compared to FHA rents.

Until recently, HUD's laxity in imposing rent reasonableness requirements and cost certifications on SHFA-financed projects has probably contributed to these higher gross rents.

## GEOGRAPHIC DISTRIBUTION

Another difference between SHFAs and FHA housing is geographic distribution within individual States. It has been said that SHFAs are more likely to locate projects in rural areas and outside central cities. The map of our three State analysis, figure 10, shows a striking difference in the distribution of projects in these three States. State-financed projects are scattered somewhat evenly throughout the States while FHA projects tend to be centralized around larger cities and population centers. Although this cannot be generalized to the Nation, it does agree with anecdotal information.

## RISK

One advantage which State agencies have over FHA is their ability to avoid or manage serious financial problems. Although State agencies do enjoy some significant advantages, this difference in relative risk may be overstated. First, State agencies have generally financed lower risk projects than FHA so we can and should expect a much better record regarding financial projects. Second, the incidence of difficulty is probably underreported since there is no formal reporting system for SHFAs. When difficulty does arise the costs of solving financial problems may be difficult to detect and allocate against the housing services provided since State agencies have probably managed such financial problems better and thus avoided large numbers of catastrophic and very visible failures.

In this section we discuss how risk and the associated financial problems differ between State and FHA financing and try to explain why they differ.

### Risk avoidance

The most important difference may be that State agencies as a group have generally avoided risky projects. This is not to say, however, that all States do not take significantly higher risks. In the chapter on risk we linked the likelihood of serious financial problems to a series of project characteristics. Most important among these were nonprofit as contrasted with profit-motivated sponsorship, rehabilitation as contrasted with new construction, and family as contrasted with elderly housing. For all three of these factors State agencies have historically taken proportionally fewer of the higher risk projects than FHA. This means that other factors being equal we could expect lower failures under State financing than with FHA insured private lenders. For example, in Betnun's comparative analysis of State and FHA section 236 developments, he found that in each State on which he

## Higher rents may be tied to faster processing

The irony of this situation is that HUD recently attributed the less stringent application of the rent reasonableness test by State agencies to allowing SHFA projects to move more rapidly through processing. 1/ In the past, excessive processing time was often cited (without support) as increasing the cost of subsidized housing. If our research findings showing higher rents (and therefore higher subsidies) are indicative of what is happening nationwide, then faster processing (at least on this one factor) may prove to be more costly due to less stringent control of rents. 2/

This observation is particularly pertinent since a major justification for the use of state housing finance agencies is the somewhat faster processing time which States are said to achieve as compared to FHA-insured projects or public housing. In Housing in the Seventies 3/ HUD reported that State projects prior to 1973 were being processed much faster than FHA projects. However, in a more recent study 4/ HUD reported that the time elapsed from submission to construction start has been reduced considerably for all projects regardless of financing method. Projects meeting HUD's highest standards can be under construction within 6 months after the developer has submitted the preliminary proposal. Thus, HUD is probably on its way to solving its processing problems. This also means that faster processing time is less important than it once was and that it may be one of several factors which result in higher program costs in the section 8 projects developed by State agencies.

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1/U.S. Department of Housing and Urban Development, "Lower Income Housing Assistance Program (Section 8) Interim Findings of Evaluation Research", 1978, p. 173.

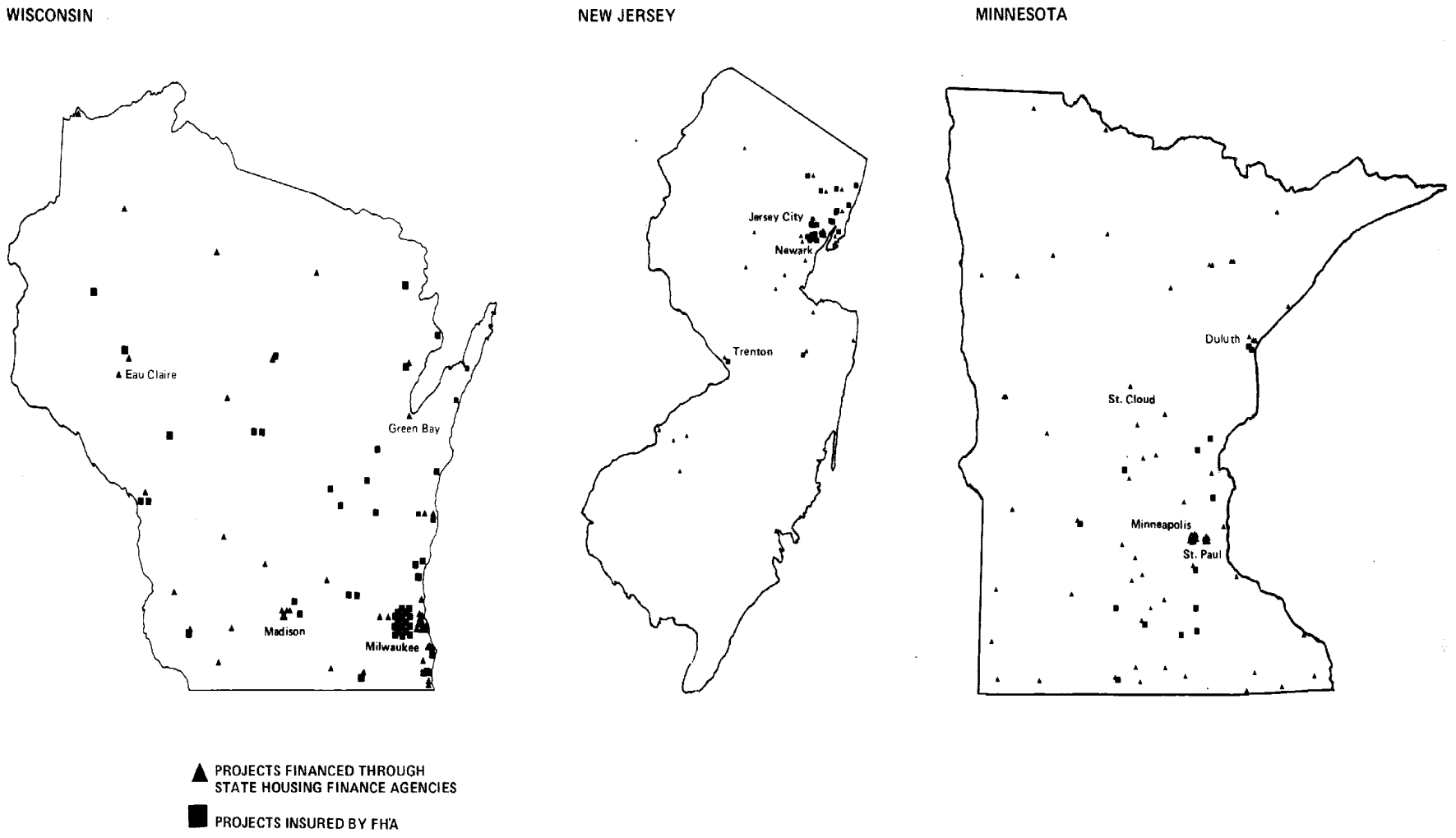
2/An analogy could also be drawn to the contention that many failures under the section 236 program could have been avoided by more careful scrutiny (taking more time) of proposals under section 236.

3/U.S. Department of Housing and Urban Development, Housing in the Seventies, Washington, D.C., 1974, p. 146.

4/U.S. Department of Housing and Urban Development, "Lower Income Housing Assistance Program (Section 8) Interim Findings of Evaluation Research", 1978, p. 173.

Figure 10

# Geographic Distribution Of Section 8 Housing In A Three State Comparison



100 percent subsidized just like FHA. These factors, combined with the fact that the HUD management portfolio was probably not well managed in the past resulting in significant financial losses per failure, created an impression that FHA was inherently far riskier that State financing as a subsidized production method.

Table 26

Section 8 SHFA Nonprofit Activity
as of June 1979

| SHFA | Total units | Total nonprofit units | Percentage nonprofits a/ |
|---|---|---|---|
| California | 2,931 | 1,149 | 39.2 |
| Colorado | 3,535 | 212 | 5.1 |
| Connecticut | 2,337 | 572 | 24.4 |
| Delaware | 975 | 529 | 54.2 |
| Idaho | 1,041 | 40 | 3.8 |
| Illinois | 9,437 | 305 | 3.2 |
| Kentucky | 645 | 320 | 4.7 |
| Louisiana | 3,336 | 480 | 6.95 |
| Maine | 1,368 | - | - |
| Maryland | 2,912 | 472 | 16.4 |
| Massachusetts | 7,360 | 60 | .8 |
| Michigan | 9,454 | 170 | 1.8 |
| Minnesota | 6,595 | | - |
| Missouri | 5,137 | 390 | 7.5 |
| Montana | 286 | 134 | 46.7 |
| Nevada | 308 | 208 | 67.5 |
| New Jersey | 11,552 | 5,350 | 46.0 |
| New York | 753 | - | - |
| Oregon | 1,578 | - | - |
| Pennsylvania | 6,903 | 1,002 | 14.5 |
| Rhode Island | 5,508 | - | - |
| South Dakota | 1,292 | 56 | 4.3 |
| Tennessee | 2,587 | 526 | 20.3 |
| Utah | 137 | - | - |
| Vermont | 742 | 11 | 1.4 |
| Virginia | 6,816 | 607 | 8.9 |
| West Virginia | 2,176 | - | - |
| Wisconsin | 7,768 | 85 | 1.0 |
| Total | 105,469 | 12,678 | 12.0 |

a/These figures are based solely on units sponsored by "true" nonprofit groups, such as community-based groups and church-related groups. No local housing authorities or limited partnerships composed of nonprofit sponsors and limited dividend 11(b) entities as cosponsors are included.

collected data, FHA insured a much higher percentage of rehabilitated projects than did SHFAs. 1/ For 5 States--Massachusetts, Illinois, Michigan, New Jersey and New York--he found that 5.4 percent of all State financed units were rehabilitated while 18.4 percent of the FHA insured units in those States were in rehabilitation projects. That is, during the 3 years studied, FHA was nearly 4 times as likely to insure rehabilitated units as were the State agencies.

In the same study, data were collected on nonprofit versus profit motivated sponsorship for the same States in the 1970-1973 time period. These data showed that nearly 40 percent of the FHA units were nonprofit sponsored compared to about 18 percent for the State agencies. Betnun also found that State agencies financed a lower percentage of nonelderly housing units which have proven to be more risky than elderly units. For units started between 1970 and 1973, FHA produced about 10 percent more family projects than State agencies.

The percentage of nonprofit sponsors we found among SHFAs is considerably higher than currently being experienced by FHA-insured projects (roughly 60 percent) and is surprising at first glance because of the perception that State agencies take fewer risks. One would expect that FHA would accept more nonprofit sponsors than SHFAs. However, the higher average percentage is explained by the fact that nonprofit activity is concentrated in a few States which provide lucrative seed money to encourage nonprofit sponsorship and in others where little multifamily development has occured in the private sector. The majority of State agencies do avoid nonprofit sponsorship. Table 26 shows data we collected on SHFA nonprofit activity under section 8 as of June 1979.

All three of these factors would indicate that the FHA portfolio under Section 236 was much riskier than those of State agencies. State agency projects also have other characteristics which might result in lower risks. For example, in the past they were probably more likely to have a mix of lower and middle income tenants and less likely to be located in central cities. The section 8 subsidy mechanism and methods for fund allocation could alter the way in which State agencies operate. Many states have mixed subsidized and unsubsidized tenants in the same projects under previous development; but, under section 8 most State projects are probably

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1/ Nathan S. Betnun, Housing Finance Agencies, A Comparison Between States and HUD, (New York: Praeger, 1976) p.75.

Table 28

Past Subsidized Housing Activity
(Selected States 1970-1973) a/

| | Percent nonprofit | Percent rehabilitation | Percent nonelderly |
|---|---|---|---|
| SHFA | 18 | 5.4 | 76 |
| FHA | 40 | 18.4 | 86 |

a/Nathan S. Betnun, Housing Finance Agencies, A Comparison between States and HUD, 1976. The information is based upon activity in Massachusetts, Illinois, Michigan, New Jersey and New York.

were sold rapidly in order to avoid the problem of managing them and to show some income to the insurance fund. In retrospect this appears to have been shortsighted because many potentially viable projects were lost.

We might also expect to find that (1) as the age of projects in the State portfolios increases and more cumulative failure experience is amassed, (2) as more and more of the State projects are fully subsidized under Section 8, and (3) as the impact of the deeper amd more flexible subsidy mechanism is felt, the failure rates for the State and FHA portfolios will indeed be much closer than they were in the past.

Another factor in State agency risk avoidance is the more active role they play in picking sites and making careful judgments about the viability of particular projects. HUD does this as well, but it is done more on a statistical or abstract basis using financial data and underwriting rules than on an individual project by project basis. The motivation and ability to do this is closely related to the different roles of State agencies and FHA.

Problem management

One major difference between FHA and States regarding risk is that FHA is an insurer in a relatively passive role, one who depends primarily on lenders to monitor the construction and early operation of housing projects. State agencies are the lenders (as well as the insurers), and their successful operation depends on their ability to collect on their mortgage debt and pay tax-exempt bond holders. This probably

Although we believe there is a clear difference in risk, the fact that FHA has always taken riskier projects, by choice, exaggerates the real differences. This point was illustrated in some detail in chapter 3 when we showed that given the current mix of projects being developed by FHA and State agencies, neither alternative could be expected to have particularly high failure rates. This is because both FHA and State agencies are now avoiding nonprofit and rehabilitated projects. We could expect a slightly higher failure rate for FHA since it is taking a much larger percentage of projects designed for families than are the State agencies. This information is summarized in table 27.

Table 27

SHFAs versus FHA
Activity and Risk under Section 8
Compared to Section 236 Experience

| | Percent nonprofits | Percent rehabilitation | Percent nonelderly | Expected risk a/ |
|---|---|---|---|---|
| SHFA | 12 | 10 | 30 | 5.9 |
| FHA | 5 | 10 | 50 | 6.6 |
| Section 236 | 30 | 15 | 90 | 15.0 |

a/Expected risks are based on the failure experience under section 236 for selected project types as shown in Table 9.

Both these project mixes are less risky than the agencies have taken in the past and much lower than the risk which HUD assumed under the section 236 program. Nathan Betnun's findings on past activity are summarized in table 28.

The lower intrinsic risk of projects now being started under both alternatives and the fact that failures thus far under section 8 have been minuscule may mean that the ability of State agencies to avoid risk is no longer as important a factor as it was previously when comparing FHA to State agencies. The projected risk of 6.6 percent shown for FHA insured units after 10 years of project operation would very likely mean that the FHA insurance fund would run a large surplus in the long run, particularly if FHA does a better job in disposing of projects acquired through foreclosure than it did in the 236 program. Under that program, projects

issue additional bonding or appeal to the State government for funds to absorb losses from their lending activity. State agencies also have the ability to use the remedies of conventional lenders such as allowing borrowers to pay interest only on the loan, extending the payback period, advancing additional mortgage funds, or arranging second mortgages.

Beyond this the State agency can involve itself in the everyday operation of a troubled project as a condition of granting additional credit. This gives the agencies considerable leverage in getting to the root of the problem underlying the default.

Such involvement and flexibility are not available to FHA, but are the prerogatives of the mortgage lender prior to assignment of the mortgage to HUD. After assignment, HUD's ability to carefully service a troubled loan is hampered because HUD is not really staffed to carefully monitor problems on a large number of loans. SHFAs, in contrast, must plan to handle all loans originated just as any ony other lender would do.

Another consideration in contrasting State agency and FHA abilities to solve problems, is that if problems are successfully avoided in the first place, then the need to work out problems becomes somewhat less important.

State agency project financial problems

In spite of the generally better default records of State agencies, they do indeed have financial difficulties and there is a cost associated with preparing for and handling failures. First of all, State agencies do not charge borrowers a mortgage insurance premium but they do charge an override or interest charge on the mortgage which is over and above the agency's cost of borrowing in the bond market.

This override may range from one-half to one and one-half percent of the outstanding mortgage amount per annum and this fee goes to defray the agency's operating cost which could include covering some limited mortgage defaults. This override is therefore included in the direct subsidy payment for section 8. In addition to this, State agencies generally have contingency reserve accounts which are set up from the proceeds of the bond sales and are available to pay bondholders in the event that the agencies loan payments fall behind and are not adequate to pay the principal and interest on the tax-exempt bonds when due.

These funds also result in a cost since the funds in these accounts were borrowed on a tax-exempt basis and the

makes a profound difference in the kinds of projects which State agencies as lenders will fund, how they monitor the construction and operation of projects, and what they do when faced with a project in financial trouble. With FHA insured financing the private mortgage lender is charged with carrying out these functions, but in actuality has no strong motivation to pursue them vigorously. Most mortgage lenders on FHA insured multifamily projects serve as brokers rather than permanent lenders. That is, they bring together the developer and an individual or corporation or group with money to lend. Thus, the mortgage lenders do not have a continuing interest in the transaction once a loan is placed. Even if the financial organization originating the loan intends to hold the mortage, which is not common, prior to construction it will purchase a committment from the Government National Mortgage Association to buy the loan at a time after construction is completed. It, therefore, can sell the loan to GNMA for the face amount of the mortgage. Under section 8 such commitments are necessary since the present mortgage interest rate on section 8 insured loans is set at 7.5 percent which is well below market. GMNA absorbs any loss when this 7.5 percent mortgage is resold to a permanent investor at a current market yield. What this means is that the mortgage lender (broker) knows in advance that the mortgage is salable without loss and could, therefore, be expected to be less concerned about the long term soundness of the project.

More importantly, FHA loans are almost fully insured. A lender who has difficulty in collecting payments on an insured mortgage will not suffer a loss since the insurance fund will make up any arrearage on the mortgage as well as pay off the principal if the mortgage is assigned by the lender to FHA. Assignment is a single procedure and the usual path for a troubled loan. The lender shifts the loan to HUD who then becomes the permanent lender. Other investors can also assign a troubled loan to HUD.

This is in marked contrast to what would happen with a conventional uninsured loan where the lender has considerable exposure to financial loss. In such a situation the lender would have an incentive to help the project owner work out the problem since the lender might lose a great deal of money if the project fails and foreclosure is necessary. (See chapter 4 for a more detailed discussion of the difficulties of working out financial problems.)

State agencies could be expected to act much more like private lenders without insurance, since their viability as successful organizations depends on financial solvency. State agencies have some additional flexibility in solving financial problems which private lenders do not have since they can



Table 29
Section 236 Dwelling Units in Permanently Financed Problem Projects by Agency a/
as of December 31, 1975

| | Arrearages or Defaults Over 3 Months | Modifications | Assignments or Foreclosures | Total Problems | Adjusted Total Problems b/ | Total 236 Units | Problems as Percent of Total | Adjusted Problems as Percent of Total b/ |
|---|---|---|---|---|---|---|---|---|
| HUD | | | | | | | | |
| Illinois | 439 | 1,370 | 2,201 | 4,010 | 4,010 | 13,057 | 31 | 31 |
| Massachusetts | 427 | 2,372 | 1,017 | 3,816 | 3,611 | 12,991 | 29 | 28 |
| Michigan c/ | 799 | 916 | 4,518 | 6,233 | 4,498 | 20,248 | 31 | 22 |
| New Jersey | 144 | 728 | 519 | 1,391 | 1,028 | 5,136 | 27 | 20 |
| New York | 2,083 | 3,799 | 584 | 6,466 | 4,940 | 14,299 | 45 | 35 |
| Total | 3,892 | 9,185 | 8,839 | 21,731 | 18,087 | 65,731 | 33 | 28 |
| State | | | | | | | | |
| Illinois | 0 | 0 | 0 | 0 | 0 | 4,134 | 0 | 0 |
| Massachusetts | 783 | 100 | 0 | 883 | 883 | 5,632 | 16 | 16 |
| Michigan c/ | 504 | 0 | 0 | 504 | 504 | 6,546 | 8 | 8 |
| New Jersey | 151 | 0 | 0 | 151 | 0 | 3,996 | 4 | 0 |
| New York | 0 | 0 | 0 | 0 | 0 | 3,464 | 0 | 0 |
| Subtotal | 1,538 | 100 | 0 | 1,538 | 1,387 | 23,772 | 6 | 5 |
| New York UDC | 6,777 | 0 | 0 | 6,777 | 6,777 | 8,598 | 79 | 79 |
| Total | 8,315 | 100 | 0 | 8,315 | 8,164 | 32,370 | 26 | 25 |

a/HUD, Selected Multifamily Status Reports: Mortgage Insurance Programs, 02 Series, as of December 31, 1975; HUD Housing Management files; IHDA, Official Statement, January 27, 1976; MSHDA Official Statement, January 29, 1976; MHFA Official Statement, December 5, 1975 (and telephone update to December 31); New York HFA telephone interviews; New Jersey HFA and New York UDC responses to Council of State Housing Agencies questionnaire.

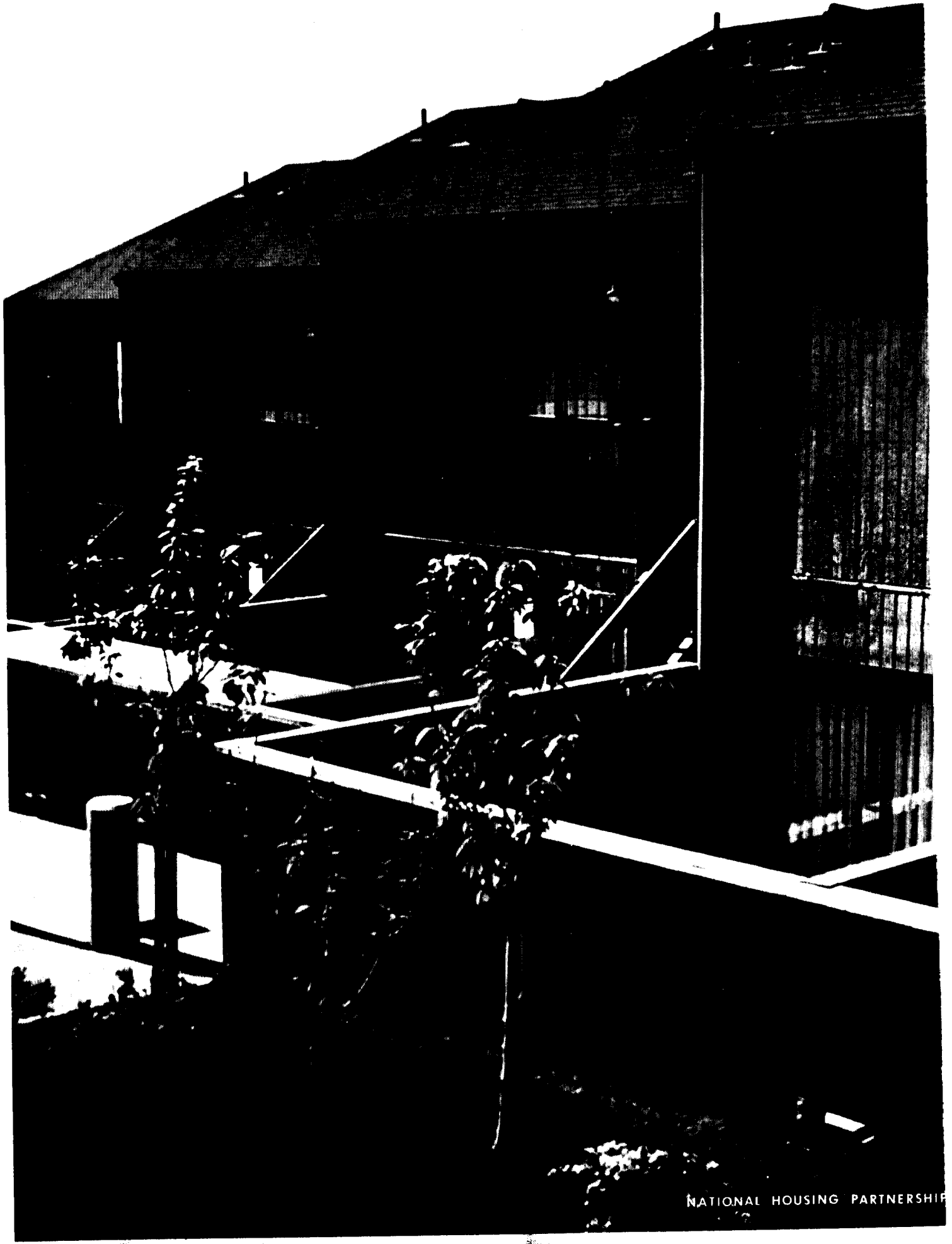
b/Adjustment made in data to compensate for difference in length of exposure data for projects with initial closings prior to June 30, 1970 taken as of December 31, 1974.

c/Includes 1,916 units (400 of which were in default to a substantial degree) that were financed by the Michigan state agency but insured by HUD.

Source: Betnun, Nathan S., Housing Finance Agencies: A Comparison Between States and HUD

interest paid on these funds result in no revenue to the Federal Government. These reserve accounts are generally required in amounts adequate to pay one year's debt service on the mortgage and can amount from 7 to 10 percent of the mortgage. This adds to the indirect cost of the projects. Though not included in the direct subsidy, it nonetheless results in a cost associated with the need to prepare for possible financial problems. This is discussed in detail in chapter 4 on risk and is expressed as an indirect cost in our cost comparisons. Thus, to say that State projects do not result in failure-associated costs is an error in perception.

The actual failures or financial problems which State agencies experience have varied widely from state to state and will likely continue to do so. Table 29 (prepared by Nathan Betnun) shows problems defined as defaults for selected finance agencies and FHA. In general FHA was experiencing much greater problems than the State agencies, but the State experience ranged considerably. This variation should give rise to major concerns for State financing. More recent information on State agencies which we collected also showed considerable variation in financial problems, but was insufficient to reach any meaningful conclusions.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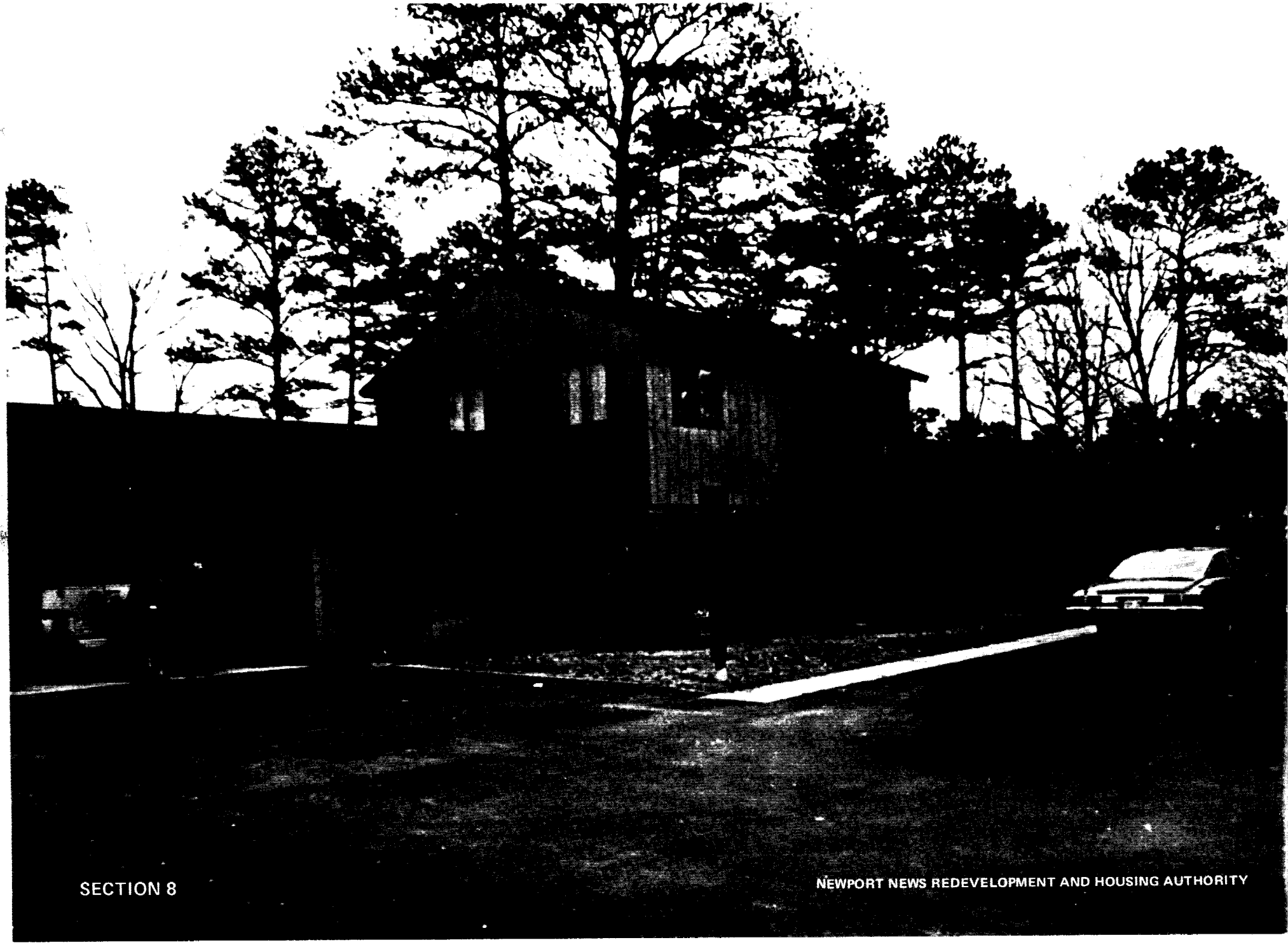
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mortar costs for each alternative and still show a much higher total cost for the State-financed units than for those developed using the other alternatives.

## First year direct subsidy costs

Table 30 shows the major finance alternatives with estimates of first year direct subsidy costs for each. This is typically how costs are analyzed for housing programs but this approach can lead to erroneous conclusions. The direct subsidy includes all costs needed to make mortgage payments and operate the projects, less the rent which the tenant pays. For public housing this can be thought of as including an operating subsidy which may be necessary due to the way in which the public housing subsidy is structured.

Table 30

Annual Direct Subsidies
under Various Financing Methods
Family of Four
(Gross Income = $5,000)

| | FHA Tandem | FHA MBS | SHFA | 11(b) | Public housing |
|---|---|---|---|---|---|
| Two bedroom gross rent | $4,354 | $4,482 | $4,175 | $4,027 | $3,393 |
| Tenant contribution | 1,100 | 1,100 | 1,100 | 1,100 | 975 |
| Direct subsidy | $3,254 | $3,382 | $3,075 | $2,927 | $2,418 |

## Total life cycle cost

Table 31 shows the other subsidies which are provided but which are often not estimated or even considered when thinking about housing subsidies. It also demonstrates that the basic cost relationships among alternatives change when indirect costs are considered on a life cycle basis. These total costs are calculated by estimating the yearly costs which will be incurred during production and 20 years of operation and then discounting all costs back to the year in which operation begins. By dividing the total of these costs by 20 for each alternative, we get an average yearly discounted cost which can be used to make comparisons between alternatives.

# CHAPTER 7

## CONCLUSIONS AND RECOMMENDATIONS

In this chapter we summarize our major research findings and recommendations to the Congress and the Department of Housing and Urban Development which are based on the five major areas of analysis and other pertinent information. Our detailed discussion of HUD's comments are in appendix I and the agency's letter is reproduced in full in appendix II.

## HOUSING SUBSIDY COSTS

The Federal Government is emphasizing subsidizing some of the more expensive finance alternatives under section 8. Since it is expensive to build new rental units, it is imperative that the Government look at every alternative to reduce these costs. Decisionmakers tend to base funding decisions on first year direct subsidies alone or the simple extension of these for a longer period of time, which distorts the cost of providing housing services. To understand the complete costs of any alternative, both direct and indirect costs, such as tax expenditures, must be counted over the expected life of the project. Other factors such as unexpected financial failures or loss of subsidized units must also be considered.

We compared the most important alternatives using a cost model which includes the costs which accrue to the Federal Government and some local costs, to provide a fair comparison among the alternatives. Cost estimates are based upon the assumption that each alternative provides the same type and quality of unit to the same income tenant household. This, in effect, gives us an equal effectiveness comparison so that observed differences in cost can be thought of as differences in the cost effectiveness of the various finance mechanisms. The comparisons can, therefore, be used to decide which method results in the lowest cost per unit of housing service provided.

Although there are some observable differences in the housing provided by the various programs, these differences are probably slight and could be controlled in order to control total cost. In fact, the alternatives which appear to provide more expensive housing (more housing services) also appear to be more costly when the same kind of housing is provided, thus, reinforcing our major cost conclusions. For example, the housing provided by State housing finance agencies is said to be more expensive than FHA insured housing and we have some evidence to bear this out, but for consistency and clarity we used the same land and brick and

HUD provide budget estimates to the Congress, which show all major costs over an expected subsidy life discounted to reflect current year dollars.

These estimates should include indirect costs such as tax expenditures due to special real estate tax treatments, which do not necessarily affect the Department's budget, yet are real costs of subsidizing needy tenants.

Public housing production should be expanded

Based on our analysis of the five major variables and other pertinent information we recommend that:

HUD place more emphasis on public housing by producing a larger proportion of assisted housing units with this mechanism and that Congress provide necessary funding shifts to make this feasible.

For units of the same quality, public housing is the least costly alternative over a 20-year subsidy life and it results in housing projects which are likely to provide service for much longer than privately owned section 8 units. Though it has been asserted that section 8 can serve a wider range of income-eligible households, public housing is actually serving a more diverse group. The public housing program also has virtually no failure costs since roughly 99 percent of all units started under the program are still in service today. This is despite notorious exceptions such as the huge inner city projects of the 1950s and 1960s which are really atypical of today's public housing. Although this program has never achieved the rapid production rate of FHA programs such as section 236, it has provided much larger production rates than those of recent years, approaching 100,000 units per year in 1970, and there has been a rapid growth in the number of local housing authorities during the last 10 years.

It is not our position that public housing should be the only financing mechanism available. The other alternatives tap the resources and development capabilities of a variety of public and private groups who collectively make development possible under many circumstances and in nearly all geographic locations. But with the relatively low current level of public housing production, a significant shift (of perhaps 20,000 to 50,000 units per year) from section 8 to public housing is possible and could result in substantial cost savings. There are practical restraints to greater use of public housing such as local resistance, program image, and management problems in some large housing authorities. We do not

Table 31

Annual Discounted Cost
To Subsidize a Two Bedroom
Apartment for a Family of Four
(Gross Income = $5,000)

| | FHA Tandem | FHA MBS | SHFA | 11(b) | Public housing |
|---|---|---|---|---|---|
| Direct subsidy | $1,725 | $1,793 | $1,630 | $1,543 | $1,282 |
| Tandem subsidy | 126 | 0 | 0 | 0 | 0 |
| HUD administrative fee | 20 | 20 | 10 | 10 | 20 |
| Federal taxes lost due to | | | | | |
| (a) depreciation | 345 | 345 | 331 | 334 | 0 |
| (b) tax-exempt bonds | 0 | 0 | 628 | 655 | 545 |
| Local taxes lost due to PILOT | 0 | 0 | 0 | 0 | 212 |
| Failure expense | (8) | (8) | 0 | 0 | 0 |
| Tax revenue upon sale | (29) | (30) | (28) | (27) | 0 |
| Total cost | $2,179 | $2,120 | $2,571 | $2,515 | $2,059 |

The costs shown here illustrate our general conclusions, but we also made many other comparisons using a variety of assumptions in order to satisfy ourselves that our results were not unduly sensitive to the interest rate chosen, the method of calculating lost tax revenue, or any of the other major study assumptions. We have attempted to make our estimates using assumptions which minimize the cost differences between the alternatives so that the dollar differences we show can be considered as under-estimates of the actual differences. The results are, therefore, stable over a range of reasonable study assumptions. These estimates indicate that there are significant opportunities to reduce the cost of housing subsidies by shifting some activity from the more expensive alternatives to the less expensive ones. It is also possible to reduce costs by making certain changes in the way programs are structured and administered.

## RECOMMENDATIONS REGARDING COST

### Life cycle costs should be used in presenting budget estimates

Because substantial savings could be made if decisions were based on long term total costs, we recommend that:

direct section 8 subsidy, but results in a sometimes large Tandem subsidy.

Selling securities backed by a mortgage probably allows somewhat greater liquidity to investors and the additional guarantee makes the securities somewhat more attractive. Such securities have been used more extensively for single family mortgages and our research indicates that for single family mortgages they result in savings to the Government as compared to FHA Tandem.

Section 11(b) financing should be eliminated

Due to its higher costs, likely higher risks, and other factors, we recommend that:

> The Congress reevaluate the use of the section 11(b) finance mechanism as presently structured.

This alternative is extremely costly and offers no clear advantage. The most prevalent form of this mechanism combines the usual real estate investment tax incentives present for FHA insured housing (and attendant tax expenditures) with the tax-exempt bond costs of public housing and State agency financing. But it does not get the rigorous underwriting which FHA-insured housing receives, it does not involve the socially motivated and stable public ownership which public housing provides, nor does it entail the careful risk management and project monitoring of State financing. It also results in higher tax-exempt bond rates than public housing since the security for bondholders is uncertain.

Since the public bodies which provide the tax-exempt financing are often associated with public housing authorities, it probably does not facilitate production in areas where no other mechanism is available. It would provide a mechanism for private development where no State agency was active but greater use of public housing or FHA-insured lending could probably fill this gap since these mechanisms have tended to be somewhat complimentary in their geographic coverage. Until some clear need which cannot be met by one of the less costly mechansims is demonstrated, there seems to be no strong justification for Section 11(b).

DEPARTMENT'S COMMENTS REGARDING COST ANALYSIS AND RELATED RECOMMENDATIONS

The Department made numerous comments regarding our cost analysis and the related recommendations. These were aimed at (1) raising doubts about the advisability of making

feel, however, that these constraints will limit production increases of the magnitude suggested here.

State housing finance agencies should use taxable bonds

Based on our analysis we recommend that:

Congress should require HUD to use taxable bonds rather than tax-exempts for State agency section 8 financing.

The tax-exempt mechanism results in a major tax expenditure which is not present under FHA financing in addition to incurring the usual tax expenditures associated with private real estate investment. This second tax expenditure is much larger than the decrease in direct subsidy resulting from the tax-exempt interest rate. To make taxable financing possible we recommend that:

The Congress should reappropriate funds for subsidizing state housing taxable bonds under another existing program, section 802, which provides an interest reduction payment to State agencies using taxable bonds. This would result in a lower total subsidy. HUD should also adjust section 8 fair market rents or approved contract rents to reflect the higher debt service needed for the use of taxable bonds.

Greater use of MBS would save money

Based on our cost analysis and the fact that this mechanism has worked well for single family housing we recommend that:

The Secretary of HUD experiment with the use of mortgage-backed securities to finance section 8 multifamily housing.

We believe this will result in a reduction in total subsidy cost as compared to FHA Tandem. The greater security and attractiveness to investors of purchasing securities as opposed to holding project mortgages should allow a lower net cost of borrowing and, hence, a lower total subsidy. Under the Tandem program the Government National Mortgage Association purchases project mortgages which carry a relatively low mortgage interest rate (7.5%) and then sell these at a discount to provide passive investors with a market yield on these mortgages. This lower interest rate reduces the

housing sponsors. Among its many provisions the agreement required that project owners get permission from HUD to sell their properties should they choose to do so during the first 20 years of ownership. A similar agreement with owners under section 8 and recent Congressional action regarding HAP contracts have the same affect and apply to all the alternatives studied except public housing.

Second, the economic incentives for sale of privately owned projects appear to be strong after the bulk of the tax shelter afforded by subsidized housing is consumed in the first 7 or 8 years, and after the disincentives for sale, due to the recapture of excess depreciation, have expired in the 16th year of ownership. Thus when the 20-year ownership period regulated by HUD has passed, owners could well be expected to sell. This is not to say that some projects will not be held longer, but the control of ownership which establishes an effective minimum life of 20 years combined with strong incentives to sell after 20 years makes this holding period a good starting assumption.

Public housing on the other hand has a much longer likely subsidized life. These projects are owned by public agencies which are usually associated with local or regional governments and are motivated to provide lower income housing rather than making a profit or sheltering income. The likely life of public housing units can be thought of as being equal to the physical life of the buildings themselves. It is not necessary, however, to pinpoint accurately the average life of public housing since the life is clearly much greater than that of the private ownership alternatives. Nearly 99 percent of all public housing units produced in the early 1940s are still serving low income tenants.

Since public housing is less costly to subsidize than the other alternatives, even assuming a 20 year life, a longer life for public housing makes it even more attractive. We therefore choose the 20-year period as a basis for comparison. Using different useful lives for the two kinds of programs (private versus public ownership) merely complicates the analysis without adding much additional insight.

Section 8 projects already in private ownership may not provide 20-year service

In the course of our research we discovered that the Housing Assistance Payment (HAP) contract which HUD executed with section 8 project owners allowed cancellation or renewal of the 20-year regulatory agreement, at the option of the owner, after 5 years (or multiples of 5 years). This contract

decisions on a life cycle cost analysis such as ours which they suggested was dependent upon the assumptions made, and (2) disagreeing with our specific recommendations.

Although we made certain changes in the wording of our recommendations and redirected certain proposals to the Congress since HUD correctly observed that they were required by law to implement certain program alternatives, we nonetheless feel that our recommendations to cut cost are sound and, therefore, have made no substantive changes from the draft which HUD reviewed.

As for HUD's assertion that our analysis is based upon assumptions which if changed would change the results, we feel that it is important to note that we chose our cost sensitive assumptions in a way which tended to minimize the differences in cost between alternatives. Thus, if reasonable changes in assumptions are made they tend to reinforce our findings. We also performed extensive sensitivity testing to assure ourselves that the relative positions of the various alternatives would not change over a variety of realistic specific circumtances and then chose reasonable but conservative baseline assumptions. We do not, therefore, feel that our findings or recommendations are particularly sensitive to changes in assumptions.

Regarding our major recommendation to put more emphasis on public housing and to alter or limit the use of other mechanisms, HUD countered that a mix of programs and mechanisms was needed to adequately meet housing goals. This is not inconsistent with our position and we agree that section 8 is a flexible program providing great potential for subsidized production. We agree that a mix of financing mechanisms and programs is desirable. This does not mean, however, that greater use of public housing is not warranted nor does it imply that all the section 8 alternatives are economical or effective as presently structured. The Department's detailed comments on each recommendation are discussed in appendix I.

## LENGTH OF SUBSIDIZED HOUSING SERVICE

In our analysis of the life cycle costs of housing units developed under the several financing mechanisms, we assumed a "subsidized life" of 20 years for housing units. We picked this term for two reasons.

First, earlier subsidized private ownership insurance programs such as section 236 and 221(d)(4) (which is the section 8 insurance program) were insured and subsidized by HUD using a regulatory agreement (contract) between HUD and

Risk as a function of project mix

Section 8 will have fewer failures than past FHA programs because it is utilizing fewer nonprofit sponsors, undertaking less rehabilitation, and producing fewer family oriented projects. Section 236, an earlier program, had about 30 percent nonprofit sponsors, 15 percent rehabilitated projects, and 90 percent family projects and experienced about a 15 percent failure rate over 10 years. Section 8 is taking roughly 5 percent nonprofit sponsors, 10 percent rehabilitated projects, and only 30 percent are family projects. These three factors have been strong indicators of risk under past programs.

Based on these major risk factors--and there are many others--GAO made calculations of relative risks for FHA-insured projects and SHFA financed projects using section 236 data and found that under section 8, both could be expected to have relatively low failure rates even without the more flexible subsidy.

If FHA-insured projects turn out to have a higher failure rate than other section 8 financing methods, a major factor will likely be that FHA is producing a larger percentage of family projects. GAO also noted that HUD's goals to increase rehabilitation under section 8 could be expected to result in a significantly higher failure rate but that these goals have not been met.

Risks related to lender involvement and motivation

Another important factor in determining risk is the quality of project monitoring during construction and early operation. GAO found that production and early operation are the riskiest periods in project life. Therefore, projects are less likely to fail if the financing scheme includes a lender or insurer who monitors carefully during this critical period.

--FHA insurance is probably still inadequately monitored because the lender is almost completely insured and the FHA is not properly staffed to do the job. The section 236 program which was probably inherently riskier due to its rigid subsidy mechanism had acceptable failure rates for the same class of projects which predominate under section 8; namely, profit-motivated development of new construction projects.

--State agencies are better managers of risk and they probably monitor their projects more carefully than FHA because they are lenders.

would take precedence over the regulatory agreement since there would be strong economic incentives for many owners to dispose of their investments long before the end of the 20 years generally anticipated. These factors and other intracacies of the section 8 regulations virtually assured the loss of many units thereby displacing low and moderate income tenants. We estimated that this would result in much higher future subsidy costs when these units were replaced by subsequent housing production.

We reported this situation in January 1979 to the major congressional committees having housing jurisdiction. 1/ Resulting legislation and necessary changes in HUD regulations have solved this problem by requiring minimum contract terms of 20 years on all section 8 contracts. 2/ However, for many of the units already in operation under the older section 8 regulations early sale and conversion to unsubsidized housing is likely.

## RISK OF FINANCIAL FAILURE

The section 8 program will probably have fewer failures than past subsidized programs because (1) fewer inherently risky projects are being undertaken, (2) the subsidy mechanism is more flexible, and (3) a significant number of projects are being financed by state agencies who are better managers of risk. There will, however, be failures under section 8 and the cost to the Government will vary depending upon the finance mechanism. The risks under section 8 are less than past FHA subsidized programs because older subsidies were tied to the mortgage interest rate and these subsidies were level over the entire project life. If a project had underestimated operating expenses, or if utilities or taxes soared, tenants absorbed the costs, or the project went into arrears, or the owners made up the shortages. Under section 8, however, subsidies will rise automatically each year to meet inflation and may be increased to meet exceptional cost increases.

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1/Letter report to The Honorable William Proxmire and other committee chairmen regarding the potential early sales of section 8 housing projects, PAD-79-43, January 16, 1979.

2/On December 21, 1979 Congress passed the Housing and Community Development Amendments of 1979 (PL 96-153) whereby it amended the section 8 program by requiring a minimum contract term of 20 years. Prior to passage of this amendment HUD required the 20 year minimum contract term in revised section 8 regulations dated October 15, 1979.

loan and there is therefore no real loss. If this penalty was larger by only a percent or two, and the lender stood to lose financially, there would be an incentive to work out troubled loans.

This is not a radical idea and HUD has experimented with the idea under what they call a coinsurance program. This program was not successful because HUD simultaneously offered both coinsurance on 90 percent of the loan amount and the more lucrative 99 percent insurance. It is little wonder that lenders continued to opt for the greater coverage.

## PRODUCTION INCENTIVES ADEQUATE BUT SOME PROBLEMS EXIST

We analyzed each of the financing alternatives in terms of their ability to encourage the necessary producers, lenders, and facilitators to play the roles necessary to achieve housing production. But we also looked at additional incentives needed to encourage the kind of behavior which results in programs which are effective in the longrun. We found that under each program alternative the necessary incentives were there to encourage production and that HUD had developed the necessary structure to support this production. There are, however, some problems.

The major shortcomings in the overall incentive picture are as follows:

--The incentives for long term private ownership are probably much weaker than previously believed, necessitating continued Government control of the term of private ownership of subsidized housing.

--The alternatives involving FHA insurance for private lenders clearly induce lenders to lend, yet not to share the risk of financial loss. Therefore, lenders are not motivated to carefully underwrite loans so as to avoid unacceptable risks or work out financial problems before they become untenable.

--Incentives to control the absolute cost of housing are lacking in State agencies. There are a number of exceptions to section 8 rules which allow higher rents and many SHFAs have routinely granted these rent increases, whereas FHA processors have probably been more likely to try to stretch the funds allocated. SHFAs are probably motivated to provide the best housing possible since this would attract both developers and bond purchasers. Since SHFAs generally lend

--Noninsured 11(b) projects using tax-exempt mortgages (not bonds) should involve lower risks and consequent failures because the private lender takes considerable risk and is motivated to properly monitor the project's construction and operation. The other 11(b) financing alternatives (particularly if FHA insurance is added) are not likely to involve adequate monitoring and, hence, the risk of failure is high.

RECOMMENDATIONS TO REDUCE RISK

Based upon our analysis of risks and lender incentives we recommend that:

HUD should decrease the insurance coverage on FHA-insured multifamily loans.

Currently FHA insures 99 percent of the mortgage amount. GAO believes this policy encourages poor monitoring and is very likely one of the major reasons why financial difficulties go undiscovered and uncorrected. Even a small reduction of 1 or 2 percent in the amount insured could conceivably have the desired impact. Although we generally question the advisability of section 11(b) tax-exempt financing for reasons of cost and risk, this method without FHA insurance can be relatively risk free if properly structured. If 11(b) tax-exempt financing is used, we recommend that:

HUD should emphasize mortgages rather than bonds and should ask the Congress for authority to deny FHA insurance for these alternatives.

DEPARTMENT'S VIEWS ON OUR RISK-RELATED RECOMMENDATIONS

The Department disagreed with our recommendation to reduce the FHA insurance coverage because, (1) they felt that the more flexible subsidy under section 8 makes the program virtually risk free, and (2) a reduction in the amount of insurance might scare off some lenders. What the Department does not address is the fact that under past programs many of the failures occured before project operation began so that a flexible subsidy mechanism which allows increases in operating costs is not likely to influence these early failures. Furthermore the process by which lenders dispose of troubled loans by assigning the debt directly to HUD, who then becomes the lender and pays the original lender 99 percent of the loan balance, may actually encourage lenders to force otherwise viable projects into default. The one percent penalty is coverd by fees the lender collected to close the

8 provides proportionately much greater service to the elderly.

Public housing seems to provide housing to both groups in roughly the same proportion to need although it concentrates on the low income end of the eligible population, while section 8 is emphasizing the elderly and section 236 is concentrating on nonelderly households.

Table 32

Household Size Percentage Distribution of Section 8 Tenants Versus All Income-Eligible U.S. Renters

| | Elderly | | Nonelderly | | | |
|---|---|---|---|---|---|---|
| | One | Two | One & two | Three & four | Five or more | Total |
| Percent of total eligibles | 16 | 7 | 37 | 26 | 12 | 98 |
| Percent of section 8 households | 55 | 13 | 13 | 14 | 4 | 99 |

Table 33

Ratio of Subsidized Households to Income-Eligible U.S. Renter Households

| | Elderly households | Nonelderly households |
|---|---|---|
| Public housing | 59:1,000 | 66:1,000 |
| Section 8 | 15:1,000 | 5.5:1,000 |
| Section 236 | 11:1,000 | 32:1,000 |

## Section 8 primarily serving low-income households

Although section 8 is designed to serve the entire spectrum of income-eligible households, it tends to concentrate its benefits on a rather low income group.

without insurance, better housing means better security for their loans and lower risk.

--Incentives are inadequate to produce and finance projects which will house families.

## WHO BENEFITS AND WHO DOES NOT

Although section 8 serves a somewhat more representative range of income-eligible households than earlier programs it focuses its benefits on elderly and small households. This systematically excludes larger nonelderly households in all eligible income ranges and provides even less assistance to the working poor (eligible households somewhat above the poverty level). For our analysis we defined the above group as those with incomes between 125 percent and 175 percent of the poverty threshold.

### Section 8 underserving families

Section 8 projects are underserving families with children. As of mid-1978, 69 percent of all section 8 units started were for the elderly. In three states where we collected data as a check on national HUD data, only 17 percent of units developed in those states by either SHFAs or FHA were large enough to house families with children and were located in nonelderly projects. The national data gave a similar finding with 25 percent of units adequate for families with children.

Section 236 projects provided 90 percent of its units to nonelderly households and more than 50 percent of these had two or more bedrooms. Public housing has traditionally done a much better job of serving large families than either of the other programs.

It is clear that section 8 is providing very few units for larger households. What is not clear is whether the distribution of program benefits is in accordance with need. This question can never be completely answered, but certain proxy measures give a good indication of the real situation. Table 32 shows the distribution of section 8 household sizes as compared to the household sizes of income-eligible renter households as estimated using the Annual Housing Survey.

Thus, nearly 40 percent of nonelderly income-eligible renter households have three or more members while 18 percent of the units go to this group.

Comparing the number of households served to the total eligible population gives another indication that section

the threshold, whereas section 236 favored this income range. A variety of information lead us to conclude that this income group was rapidly being squeezed out of the rental market.

RECOMMENDATIONS ON BENEFICIARIES

Housing assistance programs were restructured in 1974 with the creation of section 8 in order to provide a more equitable distribution of benefits to a much larger eligible population. Housing production was to be in accordance with local estimates of need. We found, based upon our estimates of housing need constructed using the Annual Housing Survey, that certain subgroups of eligible households are not receiving an equitable share of assistance. We also found evidence that the emphasis on elderly housing runs counter to local government Housing Assistance Plans.

Since the basic program incentives under section 8 which we analyzed in chapter 4 heavily favor elderly housing, we believe that some restructuring of the section 8 program and a funding constraint on elderly units are needed to insure a more equitable distribution of program benefits.

> HUD should develop a strategy to overcome some of the problems of producing family housing. This might be done by eliminating some of the incentives favoring elderly housing such as the higher fair market rents granted elderly housing.
>
> In addition, HUD should take steps to target some housing at the working poor.

GAO made a recommendation regarding the working poor earlier, 1/ based on the fact that the section 8 existing program was targeting its assistance on households with incomes even lower than those of public housing and that, with the lapse of section 236, little or no assistance was going to this group. The Department said at that time that the new construction portion of the section 8 program would very likely fill this gap. This has not yet happened.

The Congress should take the following steps to improve oversight and insure greater equity for families and the working poor:

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1/"Section 236 Rental Housing--An Evaluation with Lessons for the Future," U.S. General Accounting Office, PAD-78-13, January 10, 1978.

Table 34

Average Income of Tenants
In Subsidized Housing
(New Construction and Substantial Rehabilitation)

| | Section 8 | Section 236 | Public housing |
|---|---|---|---|
| Nonelderly | $5301 | $ [illegible] | $5512 |
| Elderly | $4089 | $4916 | $3619 |

Average income figures could be misleading, since family size may upset the relationships between programs. Table 35 shows a comparison which largely compensates for this factor. Average family sizes, average incomes, and national poverty thresholds were used to make program comparisons by expressing income as a percentage of a poverty threshold constructed for average household size for each program. On average, section 8 elderly tenants probably fall between those of the other programs but the nonelderly who receive little section 8 assistance have adjusted average incomes well below those for section 236 and close to public housing.

Table 35

Comparison of Subsidized Tenant Incomes as a
Percentage of Adjusted Poverty Threshold

| | Elderly | | | Nonelderly | | |
|---|---|---|---|---|---|---|
| | Sec. 236 | Sec. 8 | P.H. | Sec. 236 | Sec. 8 | P.H. |
| Average household size | 1.3 | 1.2 | 1.4 | 2.9 | 3.1 | 3.9 |
| Average income | $4916 | 4038 | 3619 | 7056 | 5301 | 5512 |
| Poverty threshold | $3357 | 3278 | 3436 | 5089 | 5316 | 6426 |
| Income as % of threshold | 146 | 124 | 105 | 139 | 99 | 86 |

Income distribution

We also analyzed the distribution of section 8 tenant household incomes expressed as a percentage of applicable poverty thresholds based on family size. We found that section 8 was providing very little assistance to nonelderly households earning between 125 percent and 175 percent of

state agencies which show great growth potential, we put major emphasis on comparing these finance methods. We were particularly interested in state agencies because they have been said to be less costly and require less processing time, and they do not expose the Federal Government to financial failures unless FHA insurance is combined with this mechanism, which is becoming more prevalent. We found that the two mechanisms were both emphasizing new construction as opposed to rehabilitation and that both were utilizing few nonprofit sponsors. The size of projects is also similar and the general appearance of projects within a given geographic area could be expected to be roughly the same although there may be some differences in quality. There are, however, some significant differences:

--Although the long term costs of projects financed by state agencies are higher than FHA insured projects when identical construction costs are involved, we also found evidence that construction costs of state financed units have also very likely been higher since HUD inadequately controls the way SHFAs approve section 8 rents.

--In three states having large state agency section 8 production, SHFA units had higher rents than FHA units, as measured as a percent of fair market rents. The state agency approved rents averaged nearly 10 percentage points higher than FHA approved rents. Although it is difficult to generalize on the basis of three states, we feel that it is likely that this is a nationwide phenomenon. Many HUD officials told us that state agencies routinely approved rents exceeding the fair market rents.

--State financed projects may be more geographically distributed. In our three state analysis, SHFA financed projects were scattered throughout the states while FHA projects tended to be centralized around the largest metropolitan areas.

--SHFAs will have financial failures, but probably fewer than FHA because state agencies take fewer risks and are better managers of risk than FHA lenders. For example, State agencies (which are lenders) seem to avoid family projects; FHA (as an insurer) does not. States probably monitor projects more closely because failures can impair their ability to do future business. FHA is not staffed to monitor all its projects, but is increasing its efforts to do a credible job. The lower failure rates could, however, result from

Require HUD to report periodically to the housing oversight Committees during the next 2 years on how well the needs of families and non-poverty lower income households are being met by the various housing programs. Such reports should compare the housing assistance provided to all income groupings in accordance with need on a national basis.

Enact legislation requiring that some percentage of housing assistance funds go to nonelderly households and particularly larger eligible households above the poverty threshold. This would be based on HUD's national needs assesment.

## DEPARTMENT'S COMMENTS ON BENEFICIARIES

HUD disagreed with our recommendations on tenant mix because (1) they said they had already taken steps to encourage family projects, (2) recent reservations for new projects indicated a turnaround in family/elderly emphasis, and (3) the law already requires that Housing Assistance Plans prepared by local governments be the basis for allocation.

The policy changes suggested by HUD, such as higher profits for family housing developers are unlikely to overcome the very strong incentives for elderly development unless HUD specifically limits the number of elderly units. Although HUD does seem to have made significant improvements in starting family housing, we are uncertain that this is a permanent change and feel that the situation bears continued monitoring and some further program changes to eliminate the imbalance in the production incentives. As for the Housing Assistance Plans, there is evidence to believe that production is not in accordance with these plans.

We feel that the information supplied to the Congress regarding recipients in the past has generally been inadequate for either oversight or program management because it has failed to include estimates of need for comparison purposes. Although we do not feel that needs estimates are the only criteria for goal setting, we do believe that some assessment of need should contribute to setting goals for service delivery to various eligible subpopulations and that HUD should manage toward achieving such goals. Housing Assistance Plans could provide another input to this decision process.

## STATE HOUSING FINANCE AGENCIES COMPARED TO FHA

Since a large percentage of the section 8 funds being used to subsidize units are insured by FHA or financed by

for FHA insurance is available, SHFAs can be expected to use insurance for the most risky projects and avoid it on those which are less risky, thus exposing HUD to high risks and denying HUD premium income on low risk projects. Such a situation cannot be viewed as desirable.

States avoiding family projects and other socially desirable kinds of development.

## RECOMMENDATIONS ON STATE FINANCING

To decrease the cost of subsidizing tenants who live in projects financed by state housing finance agencies we recommend that:

HUD require State agencies to produce full rent comparability tests. These tests should be subject to HUD review and approval.

Since State agency risk avoidance is probably encouraged by their role as a lender without insurance:

HUD should avoid granting mortgage insurance to projects financed by State agencies.

As noted in our cost analysis we believe that the tax exemption for State housing bonds is probably inefficient and that taxable revenue bonds are probably a more viable alternative.

## DEPARTMENT'S COMMENTS ON STATE AGENCIES

HUD agreed with our recommendation regarding rent comparability tests for State financed units and said that they would implement this in the new regulations for State agency section 8 operation. They disagreed with our recommendation that State agencies should not be granted mortgage insurance. They claimed that State agency underwriting was not necessarily superior to that of FHA and that this was the basis for our recommendation. Actually, we did not contend that FHA underwriting is superior, but a major justification for accepting the higher subsidy costs of State agencies has been the release of the Federal Government from financial risk and the better track record of State agencies in terms of financial problems.

Our position is based upon the fact that all past experience indicates that on average, lenders (and State agencies are lenders) are less careful in making loans and make less of an effort to work out financial problems when they arise, when the loans are insured. We feel that a major factor in State agency risk management, and there are others, is that financial failures affect their ability to sell revenue bonds. If their bond ratings decline due to financial problems, their costs soar and funds may be unavailable at interest rates which make housing production feasible. This must necessarily provide a strong incentive to good management. If an option

increases in operating costs. Under section 8 rules, project accounts are set up to maintain a reserve. HUD places an amount equal to the tenants rent into these accounts and in effect budgets to pay 100 percent of the rent on every section 8 development. Thus, if a project has a cash flow problem it can draw against this account to meet expenses. Under this arrangement, cost increases are paid by the Government and not the tenants, which was the case under section 236. Thus, the section 8 mechanism is indeed less risky than earlier programs but it will be so at a cost and these contingencies will not obviate risks introduced by a host of other factors.

DEPARTMENT STRESSES THE NEED FOR ALTERNATE MECHANISMS

The Department notes that "Each funding mechanism and delivery system has specific programming features which makes it useful in meeting national housing objectives." They also make the point that they have "...brought the section 8 program into full production by using the range of delivery systems and financing mechanism that the Congress..." made available.

GAO response

We believe that HUD misunderstood the emphasis we were placing on public housing and we agree with them in principle but differ in degree. We are not suggesting that public housing completely displace section 8, as HUD implies, or that the other methods are not useful. We are suggesting that greater use could be made of public housing and that this would result in large savings, particularly as compared with the more costly alternatives such as state financing. The other mechanisms play a role in encouraging construction and attracting capital and it would be foolish to assume that public housing could provide the same high level of production possible using various programs or that public housing would work in all locations. However, some shifts in the current emphasis and program procedures are warranted. For example, section 11(b) and State agency tax-exempt financing are much too expensive and needed capital could be obtained through taxable instruments at a lower net cost to the Government.

DEPARTMENT COMMENT ON SCOPE OF RESEARCH

The Department implied that we had not adequately addressed the effectiveness of the housing delivery and that we had missed the really important questions. HUD asserted that the larger questions for HUD and the Congress to consider were (1) whether these systems were being operated in the

## EVALUATION OF THE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT'S COMMENTS ON GAO'S DRAFT REPORT

The Department's comments on our draft report were divided into (1) general remarks directed at our conclusions on section 8 risk, the need it saw for having a mix of programs and the scope of our research, and (2) point by point discussions of our specific findings and recommendations. We will respond in the same order.

### DEPARTMENT COMMENTS ON SECTION 8 RISK

HUD suggested that section 8 financial risks are much different than those of past subsidized programs such as section 236 and 221(d)(3) BMIR. The Department felt that section 8 would be much less risky than past programs because it overcame the problems of serving large groups of low income people and their inability to pay for rising costs with a deeper and more flexible subsidy, thus lowering rents. They argue that "while project defaults are possible, they are unlikely." When defaults occur, they tend to result from project-specific factors, i.e., construction or management failures or extreme neighborhood conditions, as opposed to program related problems, such as the subsidy mechanism.

### GAO response

We agree that the section 8 subsidy is deeper, more flexible, and likely to result in fewer failures, but HUD downplays our conclusion that section 8 will likely have fewer failures because projects are mostly sponsored by limited dividend investors and are newly constructed. We made clear that the section 8 subsidy is more secure, but we stress that very low section 8 failures can be expected even without the more flexible subsidy mechanism itself (which may result in higher direct subsidies).

As far as HUD's allusion to section 8's ability to avoid concentrations of low income people, we believe that it can indeed do so, but that HUD failed to assure this. In reality, section 8 new construction and rehabilitation is concentrating its benefits primarily on low income people and appears to differ little from public housing in this regard.

The Department also felt that the section 8 program will be less risky, and hence have fewer failures, because the mechanism allows for certain contingencies such as exceptional

of reservations for family projects. 1/ Since they were raising the percentage of reservations for family projects, more units would be built for families.

GAO response

We made our conclusions not only on the percentage of units started for the elderly but also upon the small percentage of units in both elderly and nonelderly projects which can accommodate households with children. To really turn this situation around, not only will the number of nonelderly units have to be increased, but their size must increase as well.

Increasing the percentage of reservations for families in fiscal year 1979 to 65 percent should increase the number and percentage of construction starts for families. However, we feel that merely requesting more family projects in any one year will not correct the basic problem of disincentives for family projects. If the Congress mandates that a certain portion of housing be set aside for families, HUD will have to create the incentives necessary to encourage family developments. HUD may yet turn this situation around, but until it is clear that the size and type of units being produced are actually changing, we feel that some action is needed.

Although HUD agreed that most section 8 housing was serving elderly households, it disagreed with the method by which we showed that families were being underserved by construction and rehabilitation. Additional information in chapter 4 greatly reinforces our point that families are underserved by the new construction and substantial rehabilitation programs.

HUD also made a number of other comments on family versus elderly housing. First, the Department claimed that we had implied they permitted communities to keep families out because we had noted that low income family projects were more likely to meet local opposition. We have clarified this point in chapter 4 on incentives.

DEPARTMENT COMMENTS ON INCENTIVES FOR FAMILY PROJECTS

The Department asserts that they have overcome the resistance to new housing for families with certain policies

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1/A reservation, as defined by HUD, is the reserving by HUD of section 8 funds for a specific type of project a developer proposes to build.

most cost-effective manner, (2) whether each type of delivery system and financing mechanism was necessary to achieve national housing objectives, and (3) whether other systems and mechanisms could be made available to permit these objectives to be achieved at less cost.

GAO response

Although we have not addressed every important question of interest to the Congress, we have nonetheless provided information which is crucial to the question of these programs' cost effectiveness. Our comparisons of cost and our discussions of the relative merits of these program alternative in terms of risks, investment incentives, and program beneficiaries have been at the heart of congressional debate for many years. These topics are also of considerable interest at the present time.

Our cost comparisons use an equal effectiveness approach and we made adjustments in our methodology to compensate for program differences where we were sure they existed. On the other hand, much of the argument in the past regarding differences between the housing services provided by one alternative as opposed to another are not founded in objective research but rather in limited perceptions about one mechanism or another, often based upon spectacular failures as opposed to normative data. No adequate findings regarding the economic efficiency of these mechanisms have been developed although several attempts have been made. The cost comparisons we constructed start with the assumption that each mechanism can provide the same service. The fact is that the range of experience within each alternative is quite large and the overlap between the services provided by the alternatives is also large. Thus the cost estimate we develop can be thought of as expressing the relative efficiency of the mechanisms without regard to implementation.

To buttress this comparison we look at the effectiveness of the mechanisms from several other points of view and conclude that the less costly alternatives are at least as desirable as the more costly ones and that there are opportunties to reduce the cost of certain of the more desirable programs.

DEPARTMENT'S VIEWS ON FAMILY HOUSING

HUD disagreed with our recommendation that the Congress enact legislation to assure that a "reasonable percentage of housing assistance go to nonelderly, particularly large families." HUD said such a measure was unneeded because it was now requiring HUD officials to accept a higher percentage

can also be expected to have somewhat higher operating costs per unit.

DEPARTMENT COMMENTS ON MODERATE INCOME HOUSING

HUD agreed with our finding that section 8 is serving primarily low income households but felt that we exaggerated the degree to which section 8 underserved moderate income households because we had compared average section 8 tenant income to those of all income-eligible renter households. This comparison was said to be misleading since the elderly households which predominate have much lower incomes than nonelderly households. We presented the information very briefly in the draft report but provide a more detailed separation of data in this final report which supports our initial position.

DEPARTMENT COMMENTS ON LIFE CYCLE RECOMMENDATION

The Department sidestepped our recommendation to use life cycle cost estimates when presenting their budget saying that they were presenting long term cost estimates and suggesting that such estimates were subject to error. Estimates they present do not, however, include all indirect costs.

We believe that the inclusion of these indirect costs is essential in order for the Congress to understand what each alternative really costs and why the alternatives differ.

HUD stated that because there were so many variables and because they were subject to change over the life of the subsidy, attempting such an analysis was of limited usefulness because the key variables could be set to support the estimator's position. This comment reflects an inadequate understanding of the nature and implications of our analysis. Our approach was designed to show the real differences between financing schemes, and we took care to choose our assumptions very carefully so as to understate the real cost differences. HUD says that our results would have been different had we used a different inflation rate or an increasing tenant income level. The fact is that our estimates are based upon present value and the impact of inflation in operating costs could be expected to be invariant from one alternative to another.

Increases in incomes, operating expenses, and the share of rent paid by tenants will, indeed, alter the absolute cost of the programs, as will changes in construction costs, interest rates, etc. But they will change equally for all the programs, and thus will not affect the comparison between

designed "to give preference and priorities to partially assisted family projects and family projects in general." We see little evidence that these policies are having, or will have, the suggested result.

HUD claimed that allowing state agencies to approve higher rents without rent comparability tests had encouraged family housing. Yet all data available indicate that a much higher percentage of State-financed units serve the elderly than under FHA-insured projects, which must undergo stringent rent reasonableness tests. Thus the Government is paying a higher subsidy for State-financed units, as shown in chapter 6, but obtaining fewer family projects. Also, new regulations published since we first recommended rent comparability tests will require such tests for State-financed projects.

The Department also believed that an increase in the amount of cash distribution for family projects would attract developers. This is unlikely. Under recent regulations, a cash distribution of 10 percent of stated equity is allowed for family projects as opposed to 6 percent for elderly projects. Since stated equity is usually 10 percent of project development costs, the difference amounts to four-tenths of 1 percent of project development costs per year and is dwarfed by the much higher cash flows typical of private real estate investment. Furthermore this factor is minuscule when weighed against tax shelter which is the real incentive to invest in subsidized housing.

HUD suggested that open-ended notices of fund availability would entice proposals for family projects. Apparently, HUD believed that making the money available indefinitely would be enough to encourage family development. We doubt that this will overcome what we and others feel are overwhelming reasons for developers to favor elderly projects. Only time will show whether the cumulative effect of this and other minor measures will have an effect.

HUD disagreed with our recommendation to eliminate the 5 percent higher FMRs for elderly projects. These higher FMRs were justified by the extra costs of hand railings, elevators, wider cooridors, central dining facilities, and other amenities. Although we agree that elderly projects have these special design needs, we do not believe these needs are any more expensive than the design needs for family projects. For example, family projects need more open space for playgrounds and very likely require more parking spaces than elderly projects. It is, therefore, easy to see why developers opt for elderly projects which probably require less land, are allowed higher rent, are less inherently risky, and less likely to encounter community resistance. Family projects

The basis of HUD's objection fell into four categories: (1) a misconception about the emphasis we place on public housing as a production method, (2) a disagreement over comparing the section 8 and public housing subsidy mechanisms, (3) assumptions we use to calculate public housing's total development cost, and (4) savings would be insubstantial.

GAO response

We did not make the assumption which the Department describes. Rather we assumed that the cost of the tax-exemption is set by the difference in marginal tax brackets between those relatively low tax bracket investors who are indifferent to the choice between tax-exempts and taxable bonds and the average marginal tax bracket of all tax-exempt bondholders. That is to say the lowest tax bracket investors set the tax-exempt interest rate and all those above that receive a yield much higher than they could expect on similarly rated taxable bonds. This assumption is completely consistent with the position of the Department of Treasury and is the assumption used by HUD in its earlier arguments in favor of passage of the section 802 taxable bond option.

HUD's criticism also suggests that if a tax-exempt bond buyer were to shift to another tax-exempt, then this somehow obviates the cost or reduces it. What really happens when a bond buyer shifts from housing bonds to pollution control bonds (for example) is that the tax expenditure is shifted from housing to pollution control. This is unrelated to the magnitude of that expenditure or to the method of estimating that expenditure.

Substituting taxable bonds for tax-exempts

Our draft recommended that HUD encourage the use of taxable bonds and couple this with section 802 interest subsidies. ("Section 802" refers to section 802 of the Housing and Community Development Act of 1974, which has among its provisions provided for Federal guarantees of SHFA bonds and an interest subsidy which would cover one-third of an agency's interest expense.) We made this recommendation because, even though section 8 subsidies would be somewhat higher to cover the added interest expense, our calculations indicated that the total life cycle costs would be much less than if tax-exempt bonds were used.

HUD felt such a policy change was the responsibility of the Congress and we have revised our recommendation accordingly.

programs. These comparisons, which are inherent in program designs, were the focus of our research. We were interested in carefully pinpointing alternatives which in the long term could be more or less costly. Our technique is basic to rational decisionmaking. Our assumptions were generally fixed to minimize the differences in cost so as to provide conservative estimates of the cost savings available to the Government if the lower cost alternatives were used.

## DEPARTMENT COMMENTS ON RECOMMENDATIONS FOR COST SAVINGS

### Mortgage-backed securities

The Department criticized the method we used to compare the cost of mortgage-backed securities and concluded that had we included interest income to GNMA during the period that it holds Tandem mortgages, we would have found little or no difference in the costs of the two alternatives. They also suggested that our results were affected by certain other details of our methodology and noted that a shift from Tandem to MBS would mean an increase in direct subsidy.

### GAO response

We excluded the interest income to GNMA because we also assumed that their cost of capital (borrowing) was zero. Therefore, if we include or exclude one cost we must treat the other accordingly. We clear up this matter in the final report dropping the mortgage holding period, which gives us the same result--that mortgage-backed securities are less expensive than Tandem--while using a methodology more consistent with the Department's way of thinking. The real reason why the cost of the two alternatives differ is that mortgage-backed securities result in a lower net interest cost on the permanent financing. Our methodology is explained in greater detail in appendix IV. Regarding the Department's observation that mortgage-backed securities would result in higher budget cost to subsidize units than under Tandem, we agree that the section 8 subsidy will be higher and reflected this in our direct subsidy estimates. The overall cost would, however, be lower in the long run and this was our motivation in suggesting the greater use of these securities.

### Public housing versus section 8

The Department strongly disagreed with our analysis of and conclusions on the relative costs of section 8 and public housing. HUD concluded that we had not made a strong case to divert funds from section 8 to public housing in order to produce less costly units.

GAO response

After reviewing the regulations published June 12, 1979 (24 CFR 880.502), we determined that the language was still ambiguous because it called for a maximum contract term rather than a minimum. HUD apparently agreed and reissued regulations on October 15, 1979 which required a 20-year term for FHA-insured projects. We feel the proposed language should correct the situation for FHA-insured projects. However, the language concerning the contract term for other types of projects, such as those financed by SHFAs or section 11(b), was still ambiguous.

While HUD believed our recommendation to the Congress was consistent with its objectives, it implied the recommendation was not needed as it hoped to have the regulations finalized before the Congress could act. Longer contract terms for all section 8 projects have become law so our recommendation is no longer necessary.

DEPARTMENT COMMENT REGARDING MORTGAGE INSURANCE FOR STATE HOUSING FINANCE AGENCIES

Our draft recommended that HUD (1) require SHFAs to produce full rent comparability tests in order to reduce costs and (2) avoid granting mortgage insurance to SHFA-financed projects. HUD agreed with the first recommendation and stated it would incorporate such requirements into the regulations. This has since been done. But HUD disagreed with the second recommendation.

HUD seemed to think that we felt FHA underwriting was inadequate, and, therefore, that uninsured State agency projects would be safer. This was not the basis for our recommendation and we reiterate the point here for emphasis.

We believe FHA underwriting is a rigorous process under which proposals are carefully scrutinized. We also believe SHFAs carefully underwrite loans. The point is that SHFAs' motivations as lenders are different from FHA's as an insurer. SHFAs will exercise great care in their underwriting and project monitoring so long as they are exposed to the risk of mortgage defaults which can lead to bond defaults thereby hampering their ability to borrow in the future. If SHFA projects are insured, SHFAs' attitudes toward underwriting and monitoring will likely become more like conventional FHA-insured lenders. If insured projects default, the lenders have the option of assigning the projects to FHA for almost the entire mortgage balance.

Limiting the use of section 11(b)

Our draft also recommended that HUD discourage the use of the section 11(b) financing method because it is one of the costliest, and perhaps the riskiest financing method. We also noted that it offers no clear advantages over the traditional FHA Tandem or public housing methods. As with the SHFAs, section 817 of the Housing and Community Development Act prevents the Department from discriminating against projects financed with tax-exempt bonds. Consequently, our recommendation is directed to the Congress, but we feel that this charge is likely to occur only if the Department actively pursues it.

HUD noted that it has taken certain steps to decrease this alternative's costs. These steps may be fruitful in reducing certain costs but this program will still be costly because of its basic design. Furthermore, we feel it is unneeded when compared to the other proven methods which can produce the same housing at lower costs.

HUD also noted that we had erred in making two minor assumptions in our cost analysis which had little affect on total cost. We based these assumptions upon conversations with federal and local officials at a time when there was little actual 11(b) activity and there were a wide variety of practices being used. Recently published regulations have clarified these procedures and we have revised our estimates slightly. Our final result is the same: 11(b) is one of the most costly ways to finance and produce subsidized housing and offers no clear offsetting advantages.

DEPARTMENT COMMENT ON OUR RECOMMENDATION REGARDING SECTION 8 CONTRACT TERMS

HUD regulations for section 8 initially allowed shorter contract terms of 5 years, which were renewable solely at the option of the owner. We discovered this problem and brought it to the attention of HUD and the Congress in early 1979. Our draft reiterated our concern that owners could sell early and that such sales would greatly increase the long term cost of housing subsidies. We recommended that HUD change its regulations to require investors to continue to own and operate section 8 projects for at least 20 years. In addition, we recommended that the Congress pass pending legislation, introduced at our suggestion, requiring 20-year ownership terms.

The Department responded, that it had published amendments to section 8 regulations which would correct the problem.

Given these factors, we maintain that FHA should deny insurance to SHFAs.

## DEPARTMENT COMMENTS ON OUR ANALYSIS OF FINANCIAL RISK AND RESULTING RECOMMENDATIONS

HUD's comments related to our risk anslysis reflect a misreading of our position on program risk. We clarify our views in the following sections.

### Factors affecting risk

The first misunderstanding is related to our analysis of the factors which make projects high risk. FHA has taken a more risky mix of projects than other financing schemes, and this should result in somewhat higher failures. For example, FHA has insured more family and rehabilitated projects than SHFAs. HUD suggested that we were implying FHA should not insure such projects. HUD stated that taking these higher risk projects was the purpose of providing FHA insurance in the first place, since such projects could not obtain financing without the insurance. We agree, that getting mortgage lenders to provide low downpayment mortgage money on any subsidized project without FHA insurance is probably impossible. We do not contend that (1) FHA should avoid all risky activity, or (2) that it should cease insuring risky projects. Our point is that when a significant number of these higher risk projects are undertaken, the number of failures will increase. The crux of this argument is that certain classes of projects such as rehabilitated family projects sponsored by nonprofit groups, are exceptionally risky. More than half of such projects under past programs failed. Such a failure rate is clearly unacceptable. If these factors were controlled, considered during the underwriting process, and compared with the advantages which are offered, then even the riskiest projects could be successful. We, therefore, are not suggesting that FHA avoid risky projects. On the contrary, we recommended that HUD encourage more family activity. Certain factors influence risk and FHA should be aware of them when deciding what it will insure. If FHA intends to undertake high risk projects, it should expect more failures and the Congress should know about this ahead of time, not after the fact, as if it were something that had not been considered, or could not have been predicted.

### Lender incentives

The second misunderstanding involves how lenders view problem projects when FHA provides insurance. We note that

HUD disagreed with this position by stating that "the availability of FHA insurance does not reduce a state agency's concern for its project." HUD reasoned that "... since the bond rate is based upon full payment, an agency's reputation and ability to conduct future business would be affected by the failure of insured projects as well as uninsured projects in its portfolio." We agree that bond defaults would certainly affect the agency's reputation. But FHA-insured loans are nearly fully insured and agencies have the right to assign the loans if they fall severely into arrears. Insured projects can default on their loans, but bondholders will still be paid. The crux of our argument is that SHFAs which obtain FHA insurance are less likely to work out problems by modifying mortgages than if projects were uninsured. 1/

HUD also believed that SHFA-financed projects should not be denied FHA insurance because SHFAs would be driven away from risky projects such as family or inner city developments. It also claimed that some SHFAs required insurance, so by denying FHA insurance, SHFAs would either stop financing certain project types or would require private mortgage insurance resulting in higher cost. Assuming that denying insurance to State agencies would result in their avoidance of high risk projects, one could then conclude that granting insurance would encourage SHFAs to develop risks using a much more costly alternative when it could have subsidized the projects directly through Tandem at lower costs. HUD's counter-argument, therefore, does not lead to the conclusion that States should be granted FHA insurance, but rather that HUD should prefer Tandem.

Finally, not all family projects, and not all inner city projects are high risk. They merely belong to a class of projects which have in the past proved risky perhaps because of a combination of other risk factors. Denying insurance to SHFAs which have already demonstrated the ability to effectively lend and manage the consequent risk without insurance does not imply that these agencies will stop taking risks. Granting them insurance, on the other hand, tends to undercut their incentive to carefully underwrite and manage their loans. This contrasts sharply with FHA loans through private lenders that have shown no willingness to lend without insurance.

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1/Although not documented in this report, we found indications that some State agencies had insured section 236 projects in serious default while their uninsured loans were all current.

given the heavy subsidy involved. But minimizing risk requires active lender involvement. Under present circumstances, an insured lender has no financial stake in the success of the project and thus no incentive to perform adequate risk management--a function for which they have full responsibility on uninsured mortgages. This means that FHA must assume the entire responsibility for risk management. We believe this responsiblity can, and should, be shared and that the simplest way to accomplish this is by reducing slightly the insurance coverage.

Coinsurance is not a new idea

HUD claimed the section 8 program would be jeopordized if insurance were reduced because some investors would not participate. Yet HUD has experimented with a program called coinsurance under which it hoped lenders would take 10 percent of the risk. That program was unsuccessful because it exposed lenders to a much higher risk and HUD still provided the 99 percent insurance option. There was little chance of lender acceptance of such risk when the 99 percent insurance alternative was still available. However, a great deal of mortgage business goes through the FHA insurance program and a great number of lenders do make risky loans. The question is whether there is a way to achieve some small sharing of risk without cutting off the crucial source of funds. The answer is clearly judgmental. Our recommendation is aimed at spurring some HUD experimentation to see whether it can achieve stronger lender involvement. To do this effectively, HUD cannot offer two alternative insurance programs. It must offer the same insurance for all projects or lenders will always choose the one more favorable to their interests. As long as HUD provides nearly complete FHA insurance, there is little incentive for lenders to do an effective job of risk management.

FHA insured lenders might not be motivated to carefully review prospective projects and monitor their performance through operation. HUD misconstrued this, concluding that we felt FHA underwriting was inadequate and somehow increased the risk. For a specific project, its intrinsic risk is determined by project type, location, its management, and the general quality of the development. The presence of insurance does not affect the intrinsic risk. But the presence of insurance may mean that the lender is less careful about the kind of project it will lend on and worries less about a failure since it can assign the project to FHA in the event of serious default. Thus in a problem situation, the lender is less motivated to work out the problem by stretching the payback period, forebearing interest or making other accommodations to keep the project viable, since the assignment process allows the lender to swiftly and painlessly recoup its investment.

FHA does a good job of underwriting, and to the extent it is capable, monitors problem loans; but, we do not believe that lenders are motivated to take an active role in underwriting and monitoring and this greatly increases the likelihood of failures.

Recommendation on reducing mortgage insurance coverage

In an effort to motivate lenders, we recommended that HUD slightly reduce its insurance coverage. HUD disagreed first in a general way, by stating the program was already virtually riskfree and then, more specifically, by stating that without insurance, some investors would drop out of the program. We will respond to these in the same order.

HUD stated that since the mix of projects under section 8 was, according to our finding, much lower there than under earlier programs and since it had taken additional steps to guarantee projects' financial success through a more flexible subsidy mechanism and certain guarantees on lost rent from vacant units, the failure rate would be lower than under past programs. Consequently, HUD concluded that to take additional steps to try to guarantee some lender involvement would be unwise. We agree that an expected failure rate of 6, or 7, or 10 percent, which may be realistic for insured section 8 projects, is a great improvement over the 15 percent experienced under section 236. The question is whether the 6, 7, or 10 percent failure rate could be further reduced. We conclude that this could be accomplished if HUD provided a financial incentive for lenders to take an active role in underwriting and project monitoring. The section 236 program, and section 8 to a greater extent, are not inherently risky programs,

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The second general point is that the Department is committed to meeting the needs of low- and moderate-income persons through its assisted housing programs. To do so, we have brought the Section 8 program into full production by using the range of delivery systems and financing mechanisms that Congress and state and local governments have made available for low- and moderate income housing. Congress has structured the various financing mechanisms in such a way as to maximize the programs' delivery. While the cost of each financing mechanism is of great concern to HUD in our effort to contain program costs across the board, there is equal concern that a wide range of financing mechanisms be available.

Each financing mechanism and delivery system has specific programmatic features which make it useful in meeting national housing objectives. The various mechanisms, taken as a whole, provide capital and initiative for the development of assisted housing in varied ways which ensure: (1) the availability of financing in a timely manner, (2) a mix of private and public housing development, (3) the availability of different sources of housing credit in a quantity sufficient to produce each annual congressionally authorized housing goal, and (4) the flexibility which is needed to provide a mix of family and elderly housing using public housing and Section 8 new construction, substantial rehabilitation, and existing housing.

In part, these mechanisms are required by the complexity of the housing market itself. Thus, for example, FHA mortgage insurance, GNMA mortgage backed securities and state agency (HFDA) bonds each tap different sources of housing credit. Public housing, the Section 202 program, and private developer Section 8 each use different types of project owners and developers.

In part, the variety of mechanisms we use reflects specific Congressional priorities and determinations. Projects financed by the Farmers Home Administration or under Section 202 are the result of explicit Congressional intent. Projects financed with Section 11(b) tax-exempt bonds are the result of legislation making this source of capital available and prohibiting the Department from refusing to fund such projects.

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, D.C. 20410

OFFICE OF THE ASSISTANT SECRETARY FOR
HOUSING-FEDERAL HOUSING COMMISSIONER

August 31, 1979

IN REPLY REFER TO:

Mr. Henry Eschwege, Director
Community and Economic
Development Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Eschwege:

Your letter of July 18, 1979, transmitting to the Secretary of HUD a proposed report to the Congress entitled: "Subsidized Multifamily Housing Financing Alternatives -- How, How Much, How Well and For Whom?" has been referred to me for reply.

Before responding to the report's specific conclusions and recommendations, I would like to address some comments to the Section 8 program and its varied delivery systems in general.

Section 8 is an excellent vehicle for subsidizing the construction of low income housing, while avoiding project defaults and failures. Because it pays the difference between a reasonable rent level and 15 percent to 25 percent of the tenant's income, the Section 8 subsidy is deep enough and flexible enough to meet rising operating expenses without exceeding the rent-paying capacity of low income persons. While project defaults are possible under Section 8, they are unlikely. Where defaults occur, they will tend to result from project-specific factors, i.e., construction or management failures or extreme neighborhood conditions.

This contrasts sharply with the 236 and 221(d)(3) below-market-interest-rate (BMIR) programs which preceded Section 8. As the report points out, these programs were very effective at producing moderate to middle income housing. BMIR projects ran into trouble only when they served large numbers of low income persons, the low income tenancy could not pay rents high enough to meet rising costs, and sufficient additional subsidy was not provided.

In summary, BMIR project defaults were <u>program based</u> because the program was not suited to low income tenants. Section 8 defaults, if they occur, will tend to be <u>project based</u>, because the subsidy is deeper and grows with costs.

gram. As of August 17, 1979, 65 percent of FY 1979 Section 8 New/Rehab reservations are for families. This compares with 46 percent of FY 1978 reservations and with the 31 percent of construction starts as of June 30, 1978, cited by the report. Thus, since the period studied by the report, there has been a pronounced and significant shift toward family housing in the Section 8 New/Rehab program.

In addition, by looking at the Section 8 New/Rehab program alone, the report creates a misleading picture of the manner in which assisted housing funds are allocated to meet low income housing needs. The local Housing Assistance Plan (HAP) determines the distribution of need between family and elderly households for a given locality. Funds for all assisted housing programs -- Section 8 New/Rehab, Section 8 Existing, Public Housing -- are distributed, to the extent feasible, in accordance with the local HAP. Thus, one city may find it desirable to build new units for the elderly, while promoting integration and racial deconcentration by meeting family housing needs through the Section 8 Existing program. Another local government may not have enough vacant units to meet its large family needs, and therefore, use one of the new construction programs for this purpose. Whether the locality relies on the Section 8 or public housing program will depend, among other things, on the type of funds available and the relative building and management capacities of the local housing authority (if any) and the local housing industry, as well as the public's perception of which program will have a more favorable impact on the community.

In summary, it is misleading to view the performance of any single program in meeting the needs of family or elderly households. All assisted housing programs should be viewed together, in the context of housing needs and goals as expressed in local HAPs.

Several additional points are relevant:

a. The suggestion on page 131 of the report that HUD permits communities to keep out family projects is incorrect. We require all communities to meet their low income housing needs out of existing stock, if they have sufficient, suit-

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That there will be cost differences among various financing mechanisms and delivery systems is unavoidable. The larger questions, which the Department and the Congress must address, are (1) whether these systems are operated in the most cost-effective manner, (2) whether each type of delivery system and financing mechanism is necessary to achieve national housing objectives, and (3) whether other systems and mechanisms can be made available that will permit these objectives to be achieved in a less costly manner.

I will now respond to the report's findings and recommendations in the order in which they appear in the digest.

Recommendations on Tenant Mix

"HUD should develop a strategy to overcome some of the problems of producing family housing. This might be approached by eliminating some of the incentives favoring elderly housing such as the higher fair market rents granted elderly housing. In addition, HUD should take steps to target some housing at the moderate income group.....

"Congress should take the following steps to improve oversight and insure greater equity for families and the working poor:

-- require HUD to report to the Congress on how well the needs of families and moderate income households are being met by the various housing programs. Such reports should compare the housing assistance provided to all income groupings, including middle and upper income households.

-- enact legislation requiring some reasonable percentage of housing assistance to go to families, particularly large families and to moderate income families."

Reply:

1. Family housing. The Department has reversed the pattern of the past and sharply increased the proportion of families served by the Section 8 pro-

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this situation. Because the early Section 8 New projects were predominantly elderly, they had a great majority of one person households. The income of these households should be compared not to all eligible families, but to eligible one person households. Census figures (Current Population Survey) show that in 1977 the median annual income for a one person household was $5,905. It is entirely appropriate, then, to find Section 8 elderly tenants with incomes below $5,000.

The Department is concerned that Section 8 family projects avoid heavy concentrations of very low income families. Therefore, recent proposed revisions of the Section 8 New Construction regulations require project owners to seek to maintain an average household income of 40 percent of median. This requirement, together with a likely preference of project owners for higher income tenants, should produce a satisfactory income mix in Section 8 New/Rehab projects.

3. Recommendations to Congress. The Department believes that a formal requirement recommended by GAO to report to the Congress on the incomes of tenants and the relative need for housing among various income groups is unnecessary. Such data is routinely provided to the relevant authorizing and appropriations committees in response to questions during the Department's legislative and budget cycle. The data is available at any time upon request. In addition, a HUD Beneficiary Data Task Force is working on improving the quality, timeliness and comparability of the information we collect on program participants.

We do not believe it is necessary to enact legislation setting aside "some reasonable percentage" of units for families, because the law already requires this. Pursuant to Section 213(d) of the Housing and Community Development Act of 1974, assisted housing funds are allocated for family and elderly units ("household type") in accordance with the goals for such housing as expressed in local HAPs.

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able, vacant units. If new construction is necessary in order for Community Development Block Grant (CDBG) recipients to meet HAP goals, we require communities to apply for new construction funding at the risk of loss or reduction of their CDBG monies.

b. We recognize that many communities are reluctant to accept 100 percent subsidized low- and moderate-income housing. To overcome this resistance and promote the construction of family housing we give certain preferences and priorities to partially assisted family projects and family projects in general. For example, we have (1) allowed state agencies to approve higher rents without comparability testing for family projects, (2) provided in new Section 8 regulations for a higher distribution rate for family projects, (3) encouraged the use of open-ended Notices of Fund Availability (NOFAs) for family projects where initial responses are slow, and (4) refused to permit funds allocated to meet family needs in a locality to be used instead for elderly housing. We have also set aside housing funds to enable communities which are in danger of losing CDBG monies for failure to meet HAP goals -- usually family goals -- to provide the needed housing.

c. The 5 percent higher fair market rents (FMRs) for elderly units are justified by the amenities needed in such projects -- hand railings, elevators in low rise buildings, wider corridors and hallways, central dining facilities, etc. Note, too, that in every case the rent for a particular project must be justified by a comparison with equivalent units in the immediate market area. Thus, a 5 percent higher FMR does not produce a higher actual rent unless that rent is justified.

2. Moderate Income Housing. There is no question that the Section 8 program has been assisting, for the most part, low income households. The data relied on by the report, however, exaggerates

bond option. Taxable bonds result in lower total costs than the tax-exempt alternative. HUD would also need to adjust fair market rents to reflect the use of taxable bonds.

-- discourage the use of the 11(b) tax-exempt financing method. This method is the costliest way to finance housing, is probably the most inefficient, may be the riskiest, and offers no clear advantage.

"To contain the cost of providing housing subsidies and to serve more needy households, Congress should:

-- increase the relative share of funds for the conventional public housing program; and,

-- reappropriate funds for the Section 802 interest subsidy program to be used with state agency taxable bonds."

Reply:

1. Cost estimates. In accordance with the directive of the House and Senate Appropriations Committees, the Department will be providing long term cost estimates when it presents its budget. Because there are so many variables involved, however, (tenant income at occupancy, growth in tenant income, inflation in operating expenses, share of income paid toward rent, duration of contracts, and the variety of factors which affect development costs) and because long term estimates are highly vulnerable to slight shifts in assumptions, we do not believe these estimates will be very useful. The estimating process will, instead, invite the manipulation of assumptions to support whatever the estimator's position is at a particular time.

2. MBS vs. Tandem. The Department does not accept the analysis which claims that Mortgage Backed Securities (MBS) provide significantly less costly financing than the Tandem program. After discussions with GAO, GNMA staff have determined that the report's analysis omitted 12 monthly payments GNMA receives during the year in which it holds the Tandem loan. This error accounted for the higher cost GAO found for Tandem. GNMA further believes that the cost differential found between 7-1/2 percent interest rate Tandem and 8-1/2 percent Tandem are attributable to assumptions concerning the rate of discount, rather than actual programmatic distinctions. In summary,

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For the reasons set forth above, we do not believe it necessary to require by legislation that a specific portion of assisted units go to serve moderate income families. In addition, to the extent that Congress believes that many more moderate income families should be served by Federal housing programs, it may wish to consider using a shallower subsidy than Section 8 or public housing.

Recommendations for Cost Savings

"Since substantial savings could be made if Congress were provided estimates of all costs over the entire life of a project, GAO recommends that Congress require HUD to estimate all costs of each alternative over an expected project life when HUD presents its budget. These estimates should include indirect costs such as taxes lost due to special tax treatments, which do not necessarily effect the Department's budget, yet are real costs of subsidizing needy tenants.

"Based on life cycle cost analysis, GAO recommends the following steps to be taken by the Department of Housing and Urban Development to reduce subsidized housing costs:

-- expand the use of the Mortgage Backed Securities program used in conjunction with FHA insurance. This financing vehicle offers substantial cost savings over the GNMA's Tandem program which is the more traditional method of financing FHA insured projects.

-- reemphasize the public housing alternative as a prime method for producing housing for low- and moderate-income households. This alternative can provide the same housing services as privately owned projects at a much lower cost because the Federal guarantee of public housing bonds attracts capital at relatively low interest rates and does not involve private investor tax shelter or mortgage insurance losses.

-- disallow or severely limit the use of tax-exempt bonds as the primary money source for Section 8 units produced by state housing finance agencies. Instead, HUD could use the Section 802 taxable

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a broad based effort to meet lower income housing needs in all areas of the country, under all conditions of the housing market.

The comparison between the costs of Section 8 and public housing attempted by the report contains a number of specific errors or unjustified assumptions.

a. The differences in total development costs cited by the report (page 33) do not stand up to scrutiny. GAO's worksheets reveal that the alleged differences were based on the assumption that a public housing project is "written up" for development in the same manner as a Section 8, but without the various FHA fees and mortgage insurance premium. This is simply not the case. A public housing "development program" is written up in a different fashion, and will include various costs unique to public housing -- administrative costs, housing surveys, planning costs, relocation expenses -- which are not reflected in the GAO analysis or the FHA/Section 8 format on which it relied. These costs bring the actual development cost of a public housing project to approximately the same level as Section 8.

b. The largest real distinction in development and amortization costs between public housing and Section 8 is in the interest rate on construction capital and permanent financing. In terms of direct costs, public housing has the cheapest capital funding mechanism -- federally guaranteed, tax exempt bonds. Some Section 8 projects do receive low cost construction financing -- projects developed under Section 202, by FmHA, or with 11(b) bonds. Congress could choose to make this mechanism generally available to the Section 8 program, thereby eliminating a major part of the differences GAO found. In addition, public housing developed by the Turnkey method does not get the advantage of tax-exempt construction financing. This eliminates this part of the distinction for the majority of housing projects developed in recent years.

c. A second real cost difference between public housing and Section 8 is in the exemption of public housing from local real estate taxes. Congress could require similar exemption for Section 8 projects, but has chosen not to do so in order to make low income housing more acceptable to local communities.

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the differences among the three forms of GNMA financing considered by GAO -- MBS, 7-1/2 percent Tandem, 8-1/2 Tandem -- determine the distribution of housing program costs within HUD, not the net cost to the taxpayer.

We agree that the MBS program could substitute for financing provided through the Tandem Plan. It should be reemphasized, however, that this course of action would provide higher per unit budget costs for the Section 8 program. Therefore, unless Congress made additional Section 8 funds available, a switch from Tandem to MBS would mean fewer units built and fewer households assisted under the program.

3. Public housing vs. Section 8. The Department strongly disagrees with the report's analysis and conclusions on the relative costs of Section 8 New Construction and public housing.

At the outset, it should be emphasized that both public housing and Section 8 are essential tools for meeting the needs of lower income households. Because of the long and valuable experience of PHAs in delivering and managing low-income housing, we have worked -- successfully -- to restore PHA development capacity and to assure these agencies a consistent, reliable source of funding for development, modernization and operating subsidies. We have also sought to turn around those seriously troubled public housing projects which have tarnished the image of what has been, on the whole, a highly successful program.

Added to public housing, Section 8 gives us the means to draw upon the development, financing and management capacity of the private sector. While PHAs were still suffering the after effects of the moratorium, Section 8 allowed private developers and state agencies to restore the production of assisted housing. Today Section 8 (1) meets low- and moderate-income housing needs in areas in which there are no PHAs or where PHAs cannot develop, (2) complements PHA delivery capacity with that of the private sector, (3) brings a whole range of institutions-- the Farmers Home Administration, state agencies, non-profits -- into the provision of assisted housing, and (4) takes advantage of the quickness, flexibility and responsiveness of the private sector. Thus, together Section 8 and public housing have enabled us to conduct

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Operating costs in public housing tend to be lower because PILOT is less costly than the real estate taxes borne by Section 8 projects, and because some PHAs bear some operating costs out of non-Federal revenues. And public housing saves some overall costs because of the absence of the Section 8 tax shelter, although this savings is somewhat offset by losses through the tax-exempt status of public housing bonds.

On balance, we do not believe a case has been made for diverting funds from Section 8 to public housing in order to produce less costly housing as GAO has recommended to the Congress. Both programs are needed.

4. Limit HFDA tax exempt bonds. Congress has made tax-exempt financing available for Section 8 projects, and Section 817 of the Housing and Community Development Act of 1974 prohibits the Department from discriminating against projects financed with tax-exempt bonds. Thus, we could not comply with this recommendation without a legislative change.

In addition, the cost of tax-exempt state agency bonds, in terms of lost tax revenues, is probably overstated. GAO's calculations assume that the capital going into state agency bonds would otherwise go into taxable securities. It is equally likely that this capital would seek other tax-exempt securities, thus providing no net revenue gain to the government. The GAO analysis also ignores that some taxable state agency bonds would be bought by tax-exempt institutions, such as pension funds, with the net effect that the interest (now higher) would remain tax-exempt.

If the use of tax-exempt financing of Section 8 is limited or prohibited, it would be necessary for Congress to provide either a Section 802 interest subsidy, as GAO has recommended, or higher amounts of assisted housing funding in order to compensate for the increased direct program costs that would result. Otherwise, the production of subsidized housing would drop further.

5. Limit 11(b) financing. As with state agencies, Section 817 of the HCD Act prevents the Department from discriminating against projects financed with 11(b) tax-exempt bonds. We have, however, issued new regulations (24 CFR Part 811) which should cut costs and provide better controls in the 11(b) program. These regulations include (1) limits on maximum yields

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d. The report assumes no project "failure rate" for public housing while noting likely failure costs for FHA insured projects. While we believe the record of public housing on the whole is good, and we intend to avoid the policies of past administrations that contributed to major problems, it is incorrect to pretend that there have been no failures in the past and that there will be none in the future.

e. Even assuming GAO's analysis, the statement (on page iv) that public housing can be provided "at a much lower cost" is belied by the report. It finds the net cost of a public housing unit over 20 years, discounted to present value, to be only 7 percent less than a Section 8 unit with FHA-Tandem financing.

Beyond the specific problems with the report's assumptions, there is the fundamental difficulty of attempting to compare two mechanisms -- Section 8 and public housing--which operate entirely differently. Section 8 operates through rents and annual adjustments in those rents. Public housing operates through a direct subsidy of development costs, a formula-based reimbursement for PHA operating expenses (not project-specific) and a formula-and needs-based modernization program. Neither program passes through all development and operating costs directly, yet this is the assumption upon which the entire comparison is based. The GAO's method is useful for comparing various Section 8 financing alternatives, where except for the difference in financing, conditions in the programs compared can be assumed to be identical. This method is considerably less reliable where the programs compared are totally different and where these differences have not been taken into account.

The Department's experience is that Section 8 and public housing costs are roughly equivalent, to the extent that two quite different subsidy mechanisms, and projects subject to a hundred different variables, can be compared. Public housing has generally higher total development costs as a result of relocation expenses, the dedication of project space to public (non-dwelling) uses, and the cost of urban sites.

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every project shall continue to be used for lower-income housing for the maximum term of the Contract and that during this period there shall be no sale, assignment, conveyance or transfer in any other form of the Agreement, Contract, or project without prior HUD approval. We intend to include these provisions in all other applicable Section 8 regulations, and to assure that, in the event of an approved transfer of ownership, the obligation to maintain a project for low- and moderate-income use will run with the project. Thus, while the recommended Congressional action is consistent with our objective in these cases, we hope to have the implementing regulations in place before such action is completed.

Recommendations On State Financing

"To decrease the cost of subsidizing tenants who live in projects financed by state housing finance agencies, HUD should require state agencies to produce full rent comparability tests. Since state agency risk avoidance is probably a direct result of their role as a lender without insurance, the Department should avoid granting mortgage insurance to projects financed by state agencies."

Reply:

1. Rent comparability. The Department agrees with this recommendation and will incorporate such a requirement in our forthcoming revisions of the state agency regulations.

2. Denial of mortgage insurance. We disagree with the analysis leading to this recommendation and the recommendation itself. The underlying assumptions appear to be that FHA underwriting is inadequate, and therefore, that uninsured state agency projects will be "safer" because they will be relying on "cautious" state agency underwriting rather than the "risky" FHA. These assumptions misunderstand the FHA underwriting process and the relationship between state agencies and their insured projects.

First, contrary to the GAO's assertion, HUD multifamily underwriting is a rigorous and highly individualized process. Projects are analyzed by four basic disciplines:

(interest rates and discounts), (2) controls on issuance costs, (3) generally stronger PHA administration of contracts and (4) more careful HUD analysis of uninsured transactions which otherwise would not be subject to HUD underwriting.

Two of the report's assumptions about 11(b) financed projects deserve comment. First, most 11(b) projects are not exempt from local real estate taxes in the same way as public housing. Second, there is no basis for the assumption that tenant rent contributions in an 11(b)-financed Section 8 would be different from those in any other new Section 8 project. The report's financial analysis of 11(b) projects should therefore be redone.

A final point on tax-exempt financing in general: the Congress determines whether this type of financing is to be made available. The Department's responsibility is to assure that if this financing is used, its benefits go to reduce direct program costs. We believe we have fulfilled this responsiblity.

Recommendations On Ownership Controls

"HUD should change the pertinent Section 8 regulations, including those pertaining to state financed projects, to (1) require investors in Section 8 projects to continue housing low- and moderate-income tenants for at least 20 years and (2) preclude the sale or transfer of subsidized Section 8 housing for at least 20 years. Regulations to this effect have not yet been promulgated and projects are continuing to be approved under the existing rules. Therefore, GAO recommends enactment of the pending legislation requiring owners to own and operate their projects for a full 20 years."

Reply:

The Department published a proposed amendment to Section 8 New Construction regulations on June 12, 1979 which would implement GAO's recommendations. The current provision for an initial term renewable at the sole option of the owner for up to the maximum total term of the Housing Assistance Payments Contract has been deleted. The Contract will be executed for a single term of up to 20, 30, or 40 years without optional renewals. A new provision has been added to require that

Finally, the availability of FHA insurance does not reduce a state agency's concern for its projects. Since the bond rate is based upon full payment, an agency's reputation and ability to conduct future business would be affected by the failure of insured projects as well as uninsured projects in its portfolio. The agency still has the incentive to do sound underwriting and loan monitoring. Thus, FHA insurance on state agency projects provides an additional level of monitoring and review.

Beyond being unjustified, to the extent that the denial of mortgage insurance would drive state agencies into less "risky" projects it would reduce the number of family and inner city projects produced. This would be directly contrary to the objectives of the Section 8 program. Indeed, because some states require by law that state agency projects be insured, these agencies would be forced either to stop financing projects entirely or to obtain private mortgage insurance.

Recommendation To Reduce Risk

"HUD should decrease the insurance coverage on FHA multifamily insured loans....Even a small reduction of one or two percent in the amount insured could conceivably have the desired impact."

Reply:

Some of the assertions and conclusions upon which this recommendation is based deserve comment. First, to the extent that HUD encounters greater risks because it insures family and rehabilitation projects that could not otherwise get financing, this is precisely the purpose for which FHA insurance was intended. The law requires HUD to provide family and rehabilitated housing in accordance with local HAPs, and FHA insurance is an important means of enabling us to do so.

The second point is that, as noted in the previous segment, and as acknowledged by GAO, we have taken major steps to improve our underwriting and loan servicing. We do not believe that the presence of FHA insurance adds any significant risk to a project. The aggregate of FHA projects may be of a riskier type -- but that is what was intended.

a. Valuation - establishes land value based on sales of comparable properties, reviews each site for acceptability and environmental clearance, determines reasonable rents based on rental values of comparable projects.

b. Architectural and Engineering - reviews projects for compliance with Minimum Property Standards, provides assistance to Cost in estimating construction budget.

c. Cost - establishes construction budget based on amenities in the project, labor and material costs in the area.

d. Mortgage Credit - performs detailed credit check of the sponsor and developer, and determines if they have the financial capacity to own, operate and develop projects.

Once the four disciplines have reviewed the project and made their recommendations, the entire package is reviewed by the Housing Director/Chief Underwriter who makes the overall determination on project feasibility.

The report itself acknowledges the Department's work to improve loan monitoring:

"HUD is increasing its staffing in the field offices for this purpose and a recent reorganization has placed those in FHA who originate loans in the same subdivision as those who handle troubled projects. This should improve both HUD's capability to service loans and working out problems when loans go bad."

In addition, we are updating our Loan Servicing instructions to the field offices which will require:

1. More monitoring of insured projects;

2. Closer review of management plans and agreements;

3. Evaluation of management in specific projects which may lead to HUD requesting the replacement of poor management;

4. In-depth reviews of troubled projects with technical expertise necessary (e.g., architectural and engineering).

APPENDIX III

## ASSUMPTIONS USED TO ESTIMATE TOTAL DEVELOPMENT COSTS

In chapter 2 we looked at the direct and indirect subsidies incurred by all levels of government under each section 8 financing alternative as well as all costs associated with public housing. In order to estimate direct subsidies, we first had to calculate the total development cost (TDC) for each alternative. Our underlying assumption in the TDC analysis was based on the equal benefits principle. This allowed us to assume that a 100-unit family project was being built under each financing method while incurring the same costs for land, any improvements on the land, property taxes, and project operating expenses. Therefore, any variation in costs occurs from variations in the cost of construction financing and the one-time fees charged by the mortgage lenders or FHA.

In this appendix, we discuss how we arrived at each alternative's TDCs and explain why there are differences. We first explain how we arrived at a brick and mortar cost, then we describe which cost items created the differences in TDC's.

### The base cost model

To calculate a brick and mortar cost, we used replacement cost data of FHA-insured projects which were insured at the end of 1976. By applying the appropriate FHA rules, we worked backwards to obtain a total structure cost. From this figure, we built up each alternative's TDCs by including appropriate finance fees and charges. On table 36 we illustrate the total development cost of the 7.5 percent Tandem alternative on FHA Form 2264, which served as our base cost model. The TDCs of the other alternatives are shown at the end of this appendix.

The brick and mortar cost of $1,923,190 for all methods was based upon a sample of mortgage amounts of FHA-insured projects as of December 1976. From this sample, we obtained an average mortgage amount of $2,498,533. Since we knew that an FHA mortgage was typically 87 percent of the total replacement cost, we calculated a replacement cost of $2,871,900 and inflated it by 6 percent, which seemed an appropriate inflation rate for 1977. This resulted in a TDC of $3,000,000 for a 100-unit project. We then worked backwards on the Form 2264 by first assuming a land cost at 5 percent of the TDC and then applying FHA rules regarding insurance premiums, financing fees, and other charges. This gave us our base structure cost, which we assumed was identical for each method.

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The question of specific risk increasing or reducing actions must be reviewed against the background of the total magnitude of risk. As the report notes throughout, the likely failure rate of Section 8 projects is extremely low, much lower than the 15 percent rate on 236s. Therefore, with risk a relatively slight factor, and with a range of programmatic and administrative elements tending to reduce risk even further, there is no need to take additional actions which would interfere with important program goals.

For example, the programmatic impact of the GAO proposal to reduce the percentage of FHA insurance is likely to be significant. First, some investors would in all likelihood drop out of the program because their investment policies would not permit them taking a risk that was not insured to at least 99 percent. Secondly, any reduction in the amount of the mortgage insurance would result in a reduction in the price that would be paid for newly originated mortgages in the secondary market. A mortgage that is insured to 99 percent or 100 percent of face is significantly more valuable than one that is insured to 97 percent or 98 percent of its face. This would mean a higher interest rate for FHA-insured projects and reduced production of family, inner city and rehabilitated projects. The GAO findings do not address these issues, attempt to identify the cost differentials, or weigh this type of programmatic loss against the tiny benefit in risk reduction that would result.

While as the foregoing illustrates, I have serious disagreements with some of the report's findings and recommedations, I would also note that it has produced much helpful information. Particularly useful are the report's explanations of (1) the relatively low degree of risk in the Section 8 program, (2) the limitations of Section 8 as a device to produce moderate income housing, (3) the need for a variety of low cost financing mechanisms for Section 8, (4) the motives and incentives of the various participants in the Section 8 program and (5) some of the differences among particular Section 8 financing mechanisms.

I hope you find these comments helpful, and that they contribute to the usefulness of the report's findings.

Sincerely,

Lawrence B. Simons
Assistant Secretary

## Carrying charges and financing fees create differences between alternatives

Having determined the total brick and mortar costs, we next assumed that all alternatives would incur identical construction fees, such as architectural fees. These fees are shown on lines 43 through 48 on each Form 2264. This results in a total improvement cost of $2,264,403 for each alternative.

What makes each alternative's TDC different from one another, however, is the carrying charges and financing fees. These charges are shown on lines 53 to 63 on each Form 2264. The following table compares these charges and the discussion which follows explains why they are different.

Table 37

Carrying Charges and Financing Fees For the Various Financing Methods

| | FHA/Tandem | FHA/MBS | SHFA | 11(b) | Public housing |
|---|---|---|---|---|---|
| Construction interest | $151,875 | $151,875 | $98,682 | $147,796 | $ 69,793 |
| Taxes | 14,063 | 14,063 | 14,063 | 14,063 | 14,063 |
| Insurance | 9,875 | 9,875 | 9,875 | 9,875 | 9,875 |
| FHA insurance | 13,500 | 13,500 | 0 | 0 | 0 |
| FHA examination fee | 8,100 | 8,100 | 0 | 7,882 | 8,375 |
| FHA inspection fee | 13,500 | 13,500 | 0 | 13,137 | 13,137 |
| Financing fee | 40,500 | 40,500 | 65,788 | 39,412 | 0 |
| FNMA/GNMA fee | 54,000 | 54,000 | 0 | 0 | 0 |
| Title & recording fees | 8,594 | 8,594 | 8,594 | 8,594 | 8,594 |
| Total | $314,007 | $314,007 | $197,002 | $240,759 | $123,837 |

As can be seen from the table, the FHA insurance methods have the highest carrying charges and consequently have the

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## Table 36

### TOTAL DEVELOPMENT COST FOR A 100 UNIT FAMILY PROJECT FINANCED BY 7.5% GNMA TANDEM PLAN

**E. ESTIMATE OF ANNUAL EXPENSE:**

| | | |
|---|---|---|
| ADMINISTRATIVE– | | |
| 1. Advertising | | |
| 2. Management | | |
| 3. Other | | |
| 4. TOTAL ADMINISTRATIVE | | 23,047 |
| OPERATING– | | |
| 5. Elevator Maint. Exp. | | |
| 6. Fuel (Heating and Domestic Hot Water) | | |
| 7. Lighting & Misc. Power | | |
| 8. Water | | |
| 9. Gas | | |
| 10. Garb. & Trash Removal | | |
| 11. Payroll | | |
| 12. Other | | |
| 13. TOTAL OPERATING | | 47,340 |
| MAINTENANCE | | |
| 14. Decorating | | |
| 15. Repairs | | |
| 16. Exterminating | | |
| 17. Insurance | | |
| 18. Ground Expense | | |
| 19. Other | | |
| 20. TOTAL MAINTENANCE | | 54,773 |
| 21. Replacement Reserve (.0060 x total structures Line 41) | | 11,539 |
| 22. TOTAL OPERATING EXPENSE | | 136,699 |
| TAXES– | | |
| 23. Real Estate: Est. Assessed Value $ | | |
| $ per $1000 | 45,000 | |
| 24. Personal Prop. Est. Assessed Value $ | | |
| $ per $1000 | | |
| 25. Empl. Payroll Tax | 10,318 | |
| 26. Other | | |
| 27. Other | | |
| 28. TOTAL TAXES | | 55,318 |
| 29. TOTAL EXPENSE (Attach Worksheet) | | 192,017 |

**F. INCOME COMPUTATIONS:**

| | |
|---|---|
| 30. Estimated Project Gross Income (Line C. 32 Page 1) | |
| 31. Occupancy (Entire Project) Percentage | % |
| 32. Effective Gross Income (Line 30 x Line 31) | |
| 33. Total Project Expenses (Line 29) | |
| 34. Net Income to Project (Line 32 − Line 33) | |
| 35. Expense Ratio (Line 29 ÷ Line 32) | % |

**G. ESTIMATED REPLACEMENT COST:**

| | | |
|---|---|---|
| 36a. Unusual Land Improvements | | |
| 36b. Other Land Improvements | | |
| 36c. Total Land Improvements | | |
| STRUCTURES– | | |
| 37. Main Buildings | | |
| 38. Accessory Buildings | | |
| 39. Garages | | |
| 40. All Other Buildings | | |
| 41. TOTAL STRUCTURES | | 1,923,190 |
| 42. General Requirements | | 38,464 |
| FEES– | | |
| 43. Builder's Gen. Overhead @ 2 % | 39,233 | |
| 44. Builder's Profit @ % | | |
| 45. Arch. Fee-Design @ 4.0 % | 80,035 | |
| 46. Arch. Fee-Supvr. @ 1.33 % | 26,612 | |
| 47. Bond Premium | 14,875 | |
| 48. Other Fees | 142,000 | |
| 49. TOTAL FEES | | 302,755 |
| 50. TOT. For all Imprmts. (Lines 36c, 41, 42 & 49) | | 2,264,409 |
| 51. Cost Per Gross Sq. Ft. | | |
| 52. Estimated Construction Time | | Months |
| CARRYING CHARGES & FINANCING– | | |
| 53. Int. 15 Mos. @ 9 % on $ 2,700,000 | 151,875 | |
| 54. Taxes | 14,063 | |
| 55. Insurance | 9,875 | |
| 56. FHA Mtg. Ins. Pre. (0.5%) | 13,500 | |
| 57. FHA Exam. Fee (0.3%) | 8,100 | |
| 58. FHA Inspect. Fee (0.5%) | 13,500 | |
| 59. Financing Fee (1.5%) | 40,500 | |
| 60. AMPO ( %) | | |
| 61. FNMA/GNMA FEE ( %) | 54,000 | |
| 62. Title & Recording | 8,594 | |
| 63. TOTAL CARRYING CHGS. & FINANCING | | 314,007 |
| LEGAL, ORGANIZATION, & AUDIT FEE | | |
| 64. Legal | | |
| 65. Organization | | |
| 66. Cost Certification Audit Fee | | |
| 67. TOTAL LEGAL, ORGANIZATION, AUDIT FEES | | 12,500 |
| 68. Builder and Sponsor Profit & Risk | | 259,090 |
| 69. Consultant Fee | | |
| 70. Supplemental Management Fund | | |
| 71. Contingency Reserve | | |
| 72. TOTAL EST. DEVELOPMENT COST (Excl. of Land or Off-site Cost) (50+61+67+68+69+70+71) | | |
| 73. Warranted Price of Land – J-14(3) ____ sq. ft. @ $ ____ per sq. ft. | | 150,000 |
| 74. TOTAL ESTIMATED REPLACEMENT COST OF PROJECT (Add 72+73) | | 3,000,000 |

FHA insurance charges

For both FHA alternatives, we show insurance premiums, inspection fees, and examination fees according to FHA rules. Even though SHFA projects are not insured, inspections do occur and we have included this cost in the higher 2.5 percent financing fee which State agencies typically charge. Inspection and examination fees have been included for both the 11(b) and the conventional public housing alternatives.

Other differences in cost

Two other items on the Form 2264 vary across alternatives. The first is the builder and sponsor's profit and risk allowance (BSPRA). This is the fee which is paid to the developer for constructing the project. Since it represents 10 percent of a project's replacement cost, minus the cost of land, it varies under each alternative. The second difference is a contingency reserve (or in some states, a development cost escrow) which is applied to the SHFA alternative. This contingency reserve is 2 percent of the project's mortgage amount.

Operating costs

Also shown on the Form 2264 is a breakdown of maintenance and operating costs. Since we had no reason to believe that these expenses varied between alternatives, we assumed they were identical.

The itemized expenses shown on the Form 2264 were based on a sample of public housing projects' Statement of Operating Receipts and Expenditures for 1976. All costs for administration, operation, maintenance, and insurance are included in the "total expense" figure on line 29 of the forms. A reserve for replacement, representing six-thousandths of 1 percent of the total structure cost, is also included.

Since our operating expense data was based on 1976 data, we inflated the data based on the Consumer Price Index for such items. Fuel and utilities were inflated by 8.55 percent which represents the average growth rate between 1975 and 1977. Maintenance and repairs were inflated by 7 percent, which was the average growth rate between 1975 and 1977.

highest development cost. There are four cost categories which are responsible for this difference.

Construction interest rates

At the time we initiated this analysis, FHA's construction lending rate was administratively set at 9 percent. This was close to conventional lending rates. The construction interest shown in the above table is based upon a 9 percent rate for 15 months. For the SHFA alternative, we assumed the same construction period but we have applied a 6 percent interest rate. This was based upon a sampling of SHFAs whose financing ranged from bond anticipation notes (with very low rates) to borrowing from banks at the prime lending rate. For the 11(b) alternative we assumed a 9 percent rate since many of the projects we reviewed seemed to obtain conventional financing rather than tax-exempt notes. For public housing we applied a construction interest rate of 4 percent because this was the rate at which most public housing notes were yielding at the time we began our analysis.

Although there is a large difference in rates, we feel that the differences will remain constant as interest rates fluctuate in general.

Financing fees

We estimated that the FHA alternative and the 11(b) alternative will require at least one and one-half percent of the mortgage amount for the mortgage banker's financing fee. This fee is paid in exchange for services rendered and we believe it is a standard amount for a 100-unit project.

We assume a 2.5 percent financing fee for the SHFA alternative because it was the average amount charged by a large sample of State agencies at the end of 1977.

FNMA/GNMA fee

For both FHA alternatives we show an FNMA fee of 2 percent of the mortgage amount. This is the fee which GNMA charges the mortgage banker for purchasing the loan. (This expense is passed on to the developer who is allowed to place the expense in the loan amount.) We show this expense for the MBS alternative even though it does not exist. We do this because (1) it reflects the added financing fee which would have to be paid to give the MBS alternative the permanent interest rate we have calculated and (2) because it places the MBS alternative on a equal basis with the Tandem method as far as the developer is concerned.

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## Table 39
## TOTAL DEVELOPMENT COST FOR A 100 UNIT FAMILY PROJECT FINANCED BY SHFA TAX-EXEMPT BONDS

**E. ESTIMATE OF ANNUAL EXPENSE**

ADMINISTRATIVE–

| | | |
|---|---|---|
| 1. Advertising | | |
| 2. Management | | |
| 3. Other | | |
| 4. TOTAL ADMINISTRATIVE | | 23,047 |

OPERATING–

| | | |
|---|---|---|
| 5. Elevator Maint. Exp. | | |
| 6. Fuel *(Heating and Domestic Hot Water)* | | |
| 7. Lighting & Misc. Power | | |
| 8. Water | | |
| 9. Gas | | |
| 10. Garb. & Trash Removal | | |
| 11. Payroll | | |
| 12. Other | | |
| 13. TOTAL OPERATING | $ | 47,340 |

MAINTENANCE–

| | | |
|---|---|---|
| 14. Decorating | $ | |
| 15. Repairs | | |
| 16. Exterminating | | |
| 17. Insurance | | |
| 18. Ground Expense | | |
| 19. Other | | 54,773 |
| 20. TOTAL MAINTENANCE | $ | |
| 21. Replacement Reserve (.0060 x total structures Line 41) | $ | 11,539 |
| 22. TOTAL OPERATING EXPENSE | $ | 136,699 |

TAXES–

| | | |
|---|---|---|
| 23. Real Estate: Est. Assessed Value $ @ $ per $1000 | $ | 45,000 |
| 24. Personal Prop. Est. Assessed Value $ @ $ per $1000 | | |
| 25. Empl. Payroll Tax | | 10,318 |
| 26. Other | | |
| 27. Other | | 55,318 |
| 28. TOTAL TAXES | $ | |
| 29. TOTAL EXPENSE *(Attach Worksheet)* | $ | 192,017 |

**F. INCOME COMPUTATIONS:**

| | | |
|---|---|---|
| 30. Estimated Project Gross Income *(Line C 32 Page 1)* | $ | |
| 31. Occupancy *(Entire Project)* Percentage | | % |
| 32. Effective Gross Income *(Line 30 x Line 31)* | $ | |
| 33. Total Project Expenses *(Line 29)* | $ | |
| 34. Net Income to Project *(Line 32 − Line 33)* | $ | |
| 35. Expense Ratio *(Line 29 ÷ Line 32)* | | % |

**G. ESTIMATED REPLACEMENT COST**

| | | |
|---|---|---|
| 36a. Unusual Land Improvements | $ | |
| 36b. Other Land Improvements | | |
| 36c. Total Land Improvements | $ | |

STRUCTURES

| | | |
|---|---|---|
| 37. Main Buildings | $ | |
| 38. Accessory Buildings | | |
| 39. Garages | | |
| 40. All Other Buildings | | |
| 41. TOTAL STRUCTURES | $ | |
| 42. General Requirements | $ | |

FEES–

| | | |
|---|---|---|
| 43. Builder's Gen. Overhead @ % | $ | |
| 44. Builder's Profit @ % | | |
| 45. Arch. Fee-Design @ % | | |
| 46. Arch. Fee-Supvt. @ % | | |
| 47. Bond Premium | | |
| 48. Other Fees | | |
| 49. TOTAL FEES | $ | |
| 50. TOT. For all Imprmts. (Lines 36c, 41, 42 & 49) | $ | 2,264,409 |
| 51. Cost Per Gross Sq. Ft. | $ | |
| 52. Estimated Construction Time | | Months |

CARRYING CHARGES & FINANCING–

| | | |
|---|---|---|
| 53. Int. 15 Mos. @ 6 % on $ 2,631,534 | $ | 98,682 |
| 54. Taxes | | 14,063 |
| 55. Insurance | | 9,875 |
| 56. FHA Mtg. Ins. Prem. (0.5%) | | 0 |
| 57. FHA Exam. Fee (0.3%) | | 0 |
| 58. FHA Inspec. Fee (0.5%) | | 0 |
| 59. Financing Fee ( %) | | 65,788 |
| 60. AMPO ( %) | | 0 |
| 61. FNMA, GNMA FEE ( %) | | 0 |
| 62. Title & Recording | | 8,594 |
| 63. TOTAL CARRYING CHGS. & FINANCING | $ | 197,002 |

LEGAL, ORGANIZATION, & AUDIT FEE

| | | |
|---|---|---|
| 64. Legal | $ | |
| 65. Organization | $ | |
| 66. Cost Certification Audit Fee | $ | |
| 67. TOTAL LEGAL, ORGANIZATION, AUDIT FEES | $ | 12,500 |
| 68. Builder and Sponsor Profit & Risk | $ | 247,391 |
| 69. Consultant Fee | $ | |
| 70. Supplemental Management Fund | $ | |
| 71. Contingency Reserve | $ | 52,631 |
| 72. TOTAL EST. DEVELOPMENT COST *(Excl. of Land or Off-site Cost)* (50+61+67+68+69+70+71) | | 2,777,927 |
| 73. Warranted Price of Land J-14(3) ____ sq. ft. @ $ ____ per sq. ft. | $ | 150,000 |
| 74. TOTAL ESTIMATED REPLACEMENT COST OF PROJECT *(Add 72+73)* | $ | 2,923,927 |

APPENDIX III

## Table 38

### TOTAL DEVELOPMENT COST FOR A 100 UNIT FAMILY PROJECT FINANCED BY MORTGAGE-BACKED SECURITIES

**E. ESTIMATE OF ANNUAL EXPENSE:**

| | | |
|---|---|---|
| ADMINISTRATIVE– | | |
| 1. Advertising | $ | |
| 2. Management | | |
| 3. Other | | |
| 4. TOTAL ADMINISTRATIVE | $ | 23,047 |
| OPERATING– | | |
| 5. Elevator Main. Exp. | $ | |
| 6. Fuel *(Heating and Domestic Hot Water)* | | |
| 7. Lighting & Misc. Power | | |
| 8. Water | | |
| 9. Gas | | |
| 10. Garb. & Trash Removal | | |
| 11. Payroll | | |
| 12. Other | | |
| 13. TOTAL OPERATING | $ | 47,340 |
| MAINTENANCE– | | |
| 14. Decorating | $ | |
| 15. Repairs | | |
| 16. Exterminating | | |
| 17. Insurance | | |
| 18. Ground Expense | | |
| 19. Other | | |
| 20. TOTAL MAINTENANCE | $ | 54,773 |
| 21. Replacement Reserve (.0060 x total structures Line 41) | $ | 11,539 |
| 22. TOTAL OPERATING EXPENSE | $ | 136,699 |
| TAXES– | | |
| 23. Real Estate: Est. Assessed Value $ @ $ per $1000 | $ | 45,000 |
| 24. Personal Prop. Est. Assessed Value $ @ $ per $1000 | | |
| 25. Empl. Payroll Tax | | 10,318 |
| 26. Other | | |
| 27. Other | | |
| 28. TOTAL TAXES | $ | 55,318 |
| 29. TOTAL EXPENSE *(Attach Worksheet)* | $ | 192,017 |

**F. INCOME COMPUTATIONS:**

| | | |
|---|---|---|
| 30. Estimated Project Gross Income *(Line C 32 Page 1)* | $ | |
| 31. Occupancy *(Entire Project)* Percentage | | % |
| 32. Effective Gross Income *(Line 30 x Line 31)* | $ | |
| 33. Total Project Expenses *(Line 29)* | $ | |
| 34. Net Income to Project *(Line 32 – Line 33)* | $ | |
| 35. Expense Ratio *(Line 29 ÷ Line 32)* | | % |

**G. ESTIMATED REPLACEMENT COST:**

| | | |
|---|---|---|
| 36a. Unusual Land Improvements | $ | |
| 36b. Other Land Improvements | | |
| 36c. Total Land Improvements | $ | |
| STRUCTURES– | | |
| 37. Main Buildings | $ | |
| 38. Accessory Buildings | | |
| 39. Garages | | |
| 40. All Other Buildings | | |
| 41. TOTAL STRUCTURES | $ | 1,923,190 |
| 42. General Requirements | $ | |
| FEES– | | |
| 43. Builder's Gen. Overhead @ % | $ | |
| 44. Builder's Profit @ % | | |
| 45. Arch. Fee-Design @ % | | |
| 46. Arch. Fee-Supvr. @ % | | |
| 47. Bond Premium | | |
| 48. Other Fees | | |
| 49. TOTAL FEES | $ | |
| 50. TOT. For all Imprmts. (Lines 36c, 41, 42 & 49) | $ | 2,264,409 |
| 51. Cost Per Gross Sq. Ft. | $ | |
| 52. Estimated Construction Time | | Months |
| CARRYING CHARGES & FINANCING– | | |
| 53. Int. 15 Mos. @ 9 % on $ 2,700,000 | $ | 151,875 |
| 54. Taxes | | 14,063 |
| 55. Insurance | | 9,875 |
| 56. FHA Mtg. Ins. Pre. (0.5%) | | 13,500 |
| 57. FHA Exam. Fee (0.3%) | | 8,100 |
| 58. FHA Inspec. Fee (0.5%) | | 13,500 |
| 59. Financing Fee (1.5%) | | 40,500 |
| 60. AMPO ( %) | | |
| 61. FNMA GNMA FEE ( %) | | 54,000 |
| 62. Title & Recording | | 8,594 |
| 63. TOTAL CARRYING CHGS. & FINANCING | $ | 314,007 |
| LEGAL, ORGANIZATION, & AUDIT FEE | | |
| 64. Legal | $ | |
| 65. Organization | $ | |
| 66. Cost Certification Audit Fee | $ | |
| 67. TOTAL LEGAL, ORGANIZATION, AUDIT FEES | $ | 12,500 |
| 68. Builder and Sponsor Profit & Risk | $ | 259,090 |
| 69. Consultant Fee | $ | |
| 70. Supplemental Management Fund | $ | |
| 71. Contingency Reserve | $ | |
| 72. TOTAL EST. DEVELOPMENT COST *(Excl. of Land or Off-site Cost)(50+63+67+68+69+70+71)* | | 2,785,195 |
| 73. Warranted Price of Land J-14(3) sq. ft. @ $ per sq. ft. | $ | 150,000 |
| 74. TOTAL ESTIMATED REPLACEMENT COST OF PROJECT *(Add 72+73)* | $ | 3,000,000 |

APPENDIX III

## Table 41

### TOTAL DEVELOPMENT COST FOR A 100 UNIT FAMILY PUBLIC HOUSING PROJECT

**E. ESTIMATE OF ANNUAL EXPENSE:**

ADMINISTRATIVE–

| | | |
|---|---|---|
| 1. Advertising | | |
| 2. Management | | |
| 3. Other | | |
| 4. TOTAL ADMINISTRATIVE | | 23,047 |

OPERATING–

| | | |
|---|---|---|
| 5. Elevator Main. Exp. | | |
| 6. Fuel *(Heating and Domestic Hot Water)* | | |
| 7. Lighting & Misc. Power | | |
| 8. Water | | |
| 9. Gas | | |
| 10. Garb. & Trash Removal | | |
| 11. Payroll | | |
| 12. Other | | |
| 13. TOTAL OPERATING | | 47,340 |

MAINTENANCE–

| | | |
|---|---|---|
| 14. Decorating | | |
| 15. Repairs | | |
| 16. Exterminating | | |
| 17. Insurance | | |
| 18. Ground Expense | | |
| 19. Other | | |
| 20. TOTAL MAINTENANCE | | 54,773 |
| 21. Replacement Reserve (.0060 x total structures Line 41) | | 11,539 |
| 22. TOTAL OPERATING EXPENSE | | 136,699 |

TAXES–

| | | |
|---|---|---|
| 23. Real Estate: Est. Assessed Value $ @ $ per $1000 | | 45,000 |
| 24. Personal Prop. Est. Assessed Value $ @ $ per $1000 | | |
| 25. Empl. Payroll Tax | | 10,318 |
| 26. Other | | |
| 27. Other | | |
| 28. TOTAL TAXES | | 55,318 |
| 29. TOTAL EXPENSE *(Attach Worksheet)* | | 192,017 |

**F. INCOME COMPUTATIONS:**

| | |
|---|---|
| 30. Estimated Project Gross Income *(Line C 32 Page 1)* | |
| 31. Occupancy *(Entire Project)* Percentage | % |
| 32. Effective Gross Income *(Line 30 x Line 31)* | |
| 33. Total Project Expenses *(Line 29)* | |
| 34. Net Income to Project *(Line 32 – Line 33)* | |
| 35. Expense Ratio *(Line 29 ÷ Line 32)* | % |

**G. ESTIMATED REPLACEMENT COST:**

| | | |
|---|---|---|
| 36a. Unusual Land Improvements | | |
| 36b. Other Land Improvements | | |
| 36c. Total Land Improvements | | |

STRUCTURES–

| | | |
|---|---|---|
| 37. Main Buildings | | |
| 38. Accessory Buildings | | |
| 39. Garages | | |
| 40. All Other Buildings | | |
| 41. TOTAL STRUCTURES | | |
| 42. General Requirements | | |

FEES–

| | | |
|---|---|---|
| 43. Builder's Gen. Overhead @ % | | |
| 44. Builder's Profit @ % | | |
| 45. Arch. Fee-Design @ % | | |
| 46. Arch. Fee-Supvr. @ % | | |
| 47. Bond Premium | | |
| 48. Other Fees | | |
| 49. TOTAL FEES | | |
| 50. TOT. For all Imprmts. (Lines 36c, 41, 42 & 49) | | 2,264,409 |
| 51. Cost Per Gross Sq. Ft. | | |
| 52. Estimated Construction Time | | Months |

CARRYING CHARGES & FINANCING–

| | | |
|---|---|---|
| 53. Int. 15 Mos. @ 4 % on $ 2,791,717 | | 69,793 |
| 54. Taxes | | 14,063 |
| 55. Insurance | | 9,875 |
| 56. FHA Mtg. Ins. Pre. (0.5%) | | |
| 57. FHA Exam. Fee (0.3%) | | 8,375 |
| 58. FHA Inspect. Fee (0.5%) | | 13,959 |
| 59. Financing Fee ( %) | | |
| 60. AMPO ( %) | | |
| 61. FNMA GNMA FEE ( %) | | |
| 62. Title & Recording | | 8,594 |
| 63. TOTAL CARRYING CHGS. & FINANCING | | 124,659 |

LEGAL, ORGANIZATION, & AUDIT FEE

| | | |
|---|---|---|
| 64. Legal | 12,500 | |
| 65. Organization | | |
| 66. Cost Certification Audit Fee | | |
| 67. TOTAL LEGAL, ORGANIZATION, AUDIT FEES | | |
| 68. Builder and Sponsor Profit & Risk | | 240,156.2 |
| 69. Consultant Fee | | |
| 70. Supplemental Management Fund | | |
| 71. Contingency Reserve | | |
| 72. TOTAL EST. DEVELOPMENT COST *(Excl. of Land or Off-site Cost) (50+61+67+68+69+70+71)* | | 2,641,717 |
| 73. Warranted Price of Land – J-14(3) ____ sq. ft. @ $ ____ per sq. ft. | | 150,000 |
| 74. TOTAL ESTIMATED REPLACEMENT COST OF PROJECT *(Add 72+73)* | | 2,791,717 |

APPENDIX III

## Table 40
## TOTAL DEVELOPMENT COST FOR A 100 UNIT FAMILY PROJECT FINANCED BY PHA/11(b) TAX-EXEMPT BONDS

| | | |
|---|---|---|
| **E. ESTIMATE OF ANNUAL EXPENSE:** | | |
| ADMINISTRATIVE– | | |
| 1. Advertising | | |
| 2. Management | | |
| 3. Other | | |
| 4. TOTAL ADMINISTRATIVE | | 23,047 |
| OPERATING– | | |
| 5. Elevator Main. Exp. | | |
| 6. Fuel *(Heating and Domestic Hot Water)* | | |
| 7. Lighting & Misc. Power | | |
| 8. Water | | |
| 9. Gas | | |
| 10. Garb. & Trash Removal | | |
| 11. Payroll | | |
| 12. Other | | |
| 13. TOTAL OPERATING | | 47,340 |
| MAINTENANCE– | | |
| 14. Decorating | | |
| 15. Repairs | | |
| 16. Exterminating | | |
| 17. Insurance | | |
| 18. Ground Expense | | |
| 19. Other | | |
| 20. TOTAL MAINTENANCE | | 54,773 |
| 21. Replacement Reserve (.0060 x total structures Line 41) | | 11,539 |
| 22. TOTAL OPERATING EXPENSE | | 136,699 |
| TAXES– | | |
| 23. Real Estate: Est. Assessed Value $ @ $ per $1000 | 45,000 | |
| 24. Personal Prop. Est. Assessed Value $ @ $ per $1000 | | |
| 25. Empl. Payroll Tax | 10,318 | |
| 26. Other | | |
| 27. Other | | 55,318 |
| 28. TOTAL TAXES | | 192,017 |
| 29. TOTAL EXPENSE *(Attach Worksheet)* | | |
| **F. INCOME COMPUTATIONS:** | | |
| 30. Estimated Project Gross Income *(Line C 32 Page 1)* | | |
| 31. Occupancy *(Entire Project)* Percentage | | % |
| 32. Effective Gross Income *(Line 30 x Line 31)* | | |
| 33. Total Project Expenses *(Line 29)* | | |
| 34. Net Income to Project *(Line 32 − Line 33)* | | |
| 35. Expense Ratio *(Line 29 ÷ Line 32)* | | % |

| | | |
|---|---|---|
| **G. ESTIMATED REPLACEMENT COST:** | | |
| 36a. Unusual Land Improvements | | |
| 36b. Other Land Improvements | | |
| 36c. Total Land Improvements | | |
| STRUCTURES– | | |
| 37. Main Buildings | | |
| 38. Accessory Buildings | | |
| 39. Garages | | |
| 40. All Other Buildings | | |
| 41. TOTAL STRUCTURES | | 1,923,190 |
| 42. General Requirements | | 38,464 |
| FEES– | | |
| 43. Builder's Gen. Overhead @ % | 39,233 | |
| 44. Builder's Profit @ % | | |
| 45. Arch. Fee-Design @ % | 80,035 | |
| 46. Arch. Fee-Supvr. @ % | 26,612 | |
| 47. Bond Premium | 14,875 | |
| 48. Other Fees | | |
| 49. TOTAL FEES | | |
| 50. TOT. For all Imprmts. (Lines 36c, 41, 42 & 49) | | 2,264,409 |
| 51. Cost Per Gross Sq. Ft. | | |
| 52. Estimated Construction Time | | Months |
| CARRYING CHARGES & FINANCING– | | |
| 53. Int. 15 Mos. @ 9 % on $ 2,627,486 | 147,796 | |
| 54. Taxes | 14,063 | |
| 55. Insurance | 9,875 | |
| 56. FHA Mtg. Ins. Prem. (0.5%) | | |
| 57. FHA Exam. Fee (0.3%) | 7,882 | |
| 58. FHA Inspec. Fee (0.5%) | 13,137 | |
| 59. Financing Fee ( %) | 39,412 | |
| 60. AMPO ( %) | | |
| 61. FNMA G/NMA FEE ( %) | | |
| 62. Title & Recording | 8,594 | |
| 63. TOTAL CARRYING CHGS. & FINANCING | | 240,759 |
| LEGAL, ORGANIZATION, & AUDIT FEE | | |
| 64. Legal | | |
| 65. Organization | | |
| 66. Cost Certification Audit Fee | | |
| 67. TOTAL LEGAL, ORGANIZATION, AUDIT FEES | | 12,500 |
| 68. Builder and Sponsor Profit & Risk | | 251,766 |
| 69. Consultant Fee | | |
| 70. Supplemental Management Fund | | |
| 71. Contingency Reserve | | |
| 72. TOTAL EST. DEVELOPMENT COST *(Excl. of Land or Off-site Cost) (50+63+67+68+69+70+71)* | | 2,769,428 |
| 73. Warranted Price of Land – J-14(3) ____ sq. ft. @ $ ____ per sq. ft. | | 150,000 |
| 74. TOTAL ESTIMATED REPLACEMENT COST OF PROJECT *(Add 72+73)* | | 2,919,428 |

In making this immediate buy and sell assumption we feel we are probably underestimating the actual Tandem expense since interest rates have typically risen in recent years. On the other hand if a program like this operated continuously throughout increases and decreases in mortgage interest rates, then over time smart management should be able to even out the gains and losses in GNMA's Tandem portfolio. In essence we have assumed this long term positive effect with the simultaneous buy and sell assumption. Other assumptions result in virtually the same cost estimates.

HUD administrative costs

The second category of indirect cost is an overhead component to account for the cost of HUD's involvement in the production process. Although this cost is smaller relative to other cost components it is nonetheless real and should be different for the various methods because HUD's involvement is different.

For both FHA-insured methods we estimated HUD's involvement would cost about $20 per unit per year. This estimate was based upon a 1976 budget estimate which was adjusted for inflation. 1/ The cost covers FHA processing when the project is under feasibility study as well as monitoring construction and project operation. This estimate should not be thought of as a hard and fast cost because it is probably not well supported. Rather, it is intended to show how Federal involvement is different.

Consequently, we have assumed a $10 per unit per year administratve fee for both the State agency and 11(b) tax-exempt financing methods. We believe this cost adequately reflects the reduced Federal involvement. In both cases, HUD acts as an overseer rather than an underwriter as in the FHA-insured cases. Any costs associated with development or project monitoring in either the SHFA or 11(b) cases are built into the agencies' fees and the interest rates charged to the projects, or are already accounted for in rents. These costs are reflected in the direct subsidy.

We have assumed that HUD administrative involvement with public housing projects will be about the same as an FHA-

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1/This estimate was taken from a Library of Congress report entitled, "Comparative Costs and Estimated Households Eligible For Participation In Certain Federally Assisted Low Income Housing Programs," June, 1976.

## ASSUMPTIONS AND ESTIMATING METHODOLOGY USED TO CALCULATE INDIRECT SUBSIDY COSTS

In chapter 2 we developed a life cycle cost comparison in which we identified direct and indirect costs associated with providing a unit of housing service for 20 years. We illustrated how we arrived at the direct subsidy costs in that chapter but we were somewhat brief on how we estimated the indirect costs. In this appendix we explain in more detail the assumptions and estimating methodology we applied to arrive at those costs.

### The Tandem expense

The first indirect cost component appearing in the cost comparison in table 3 is an expense associated only with projects insured by FHA and financed through GNMA's Tandem program. This cost is incurred when the GNMA buys FHA-insured below market rate loans and then resells them to private institutional investors at a price lower than its purchase price.

To calculate this expense we made several assumptions based upon GNMA's usual operating procedures and FHA interest rates. First we assumed the mortgage interest rate was 7.5 percent (which is the rate GNMA arbitrarily sets) while the market yields for these mortgages was 9.0 percent. Second, we assumed the mortgages would have a 40-year term, and the 9.0 percent yield is based upon a loan repayment at the 20th year. GNMA collects 2.0 percent of the loan amount as a fee when it agrees to buy the mortgage and pays only 97.5 percent of the loan amount when the mortgage is actually purchased. (Both of these charges are passed through to the developer).

We also assume that GNMA buys and sells the loans simultaneously. We made this simplifying assumption even though in reality GNMA may hold the loan for one or perhaps two years. GNMA does this to select a time when market interest rates are as low as possible so as to minimize the loss. As a result, it is difficult to predict what the interest rate will be and the consequent Tandem costs. For example, if GNMA holds the mortgage for one year and sells the mortgage into a 10.5 percent market, then the Tandem expense would be about 20 percent of the loan amount. However, if market yields decrease to 8.5 percent, the Tandem expense would amount to about 5 percent of the mortgage. 1/

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1/Our Tandem cost estimate includes an adjustment for units lost through foreclosure and sale that do no complete a full 20 years of service.

tax-exempt securities to finance public projects. Much of the controversy revolves around how the losses would occur because they are highly dependent upon key assumptions about who holds tax-exempt bonds, their tax brackets, and what the holders would do if tax-exempts were unavailable. In the following discussion we present several estimates of losses and the assumptions about investor behavior underpinning these estimates. We also explain why we chose the assumptions we used to estimate this cost.

The simple approach--a low estimate

The simplest approach to estimate the taxes lost is to assume that the losses are merely the tax revenue which would have been collected if the bonds were taxable. To perform this calculation one needs to either know or assume who holds the bonds, their tax brackets, and what they would do if they could not invest in tax-exempts. The low estimate presented here assumes that a section 8 unit would be financed with a taxable bond and would be purchased by the lowest tax bracketed tax-exempt bondholder. Since the Treasury Department has determined that the tax-exempt rate is generally 70 percent of the taxable rate, this means that if the tax-exempt rate is 6.75 percent (as we assumed for the SHFA case) then in order for the last investor to be indifferent between a tax-exempt and taxable after tax yield, the taxable interest rate would have to be 9.64 percent. The subsequent tax loss for our $29,239 per unit bond amount is ($29,239)(.0964)(.3) or $845 per unit for the first year. This is the gross cost per unit for the taxes which are lost when tax-exempt bonds are used. This cost, however, is offset by the reduced interest cost chargeable to the unit when tax-exempts are used. Table 42 illustrates that there would be little net cost to the Treasury if all the taxable bonds were purchased by tax-exempt holders in the 30 percent tax bracket. The difference in the total first year cost between the alternatives (which considers only the direct subsidy and the indirect subsidy which occurs from the tax-exempt bonds, $148/unit), is really the opportunity cost the Treasury would pay to get one unit of housing by allowing tax-exempt bonds.

The problem with this estimate is that it assumes that only the 30 percent tax bracketed investors buy the securities, even though higher bracketed investors probably invest.

A more complex model--a high estimate

In this estimate we recognize that these higher tax bracketed investors are probably avoiding taxes, and the cost of doing so should be counted toward the cost of the unit. Here we assume that all the tax-exempt bondholders would

insured project, although the involvement is somewhat different. Therefore, we have assumed a cost of $20 per unit, per year.

Federal taxes lost due to depreciation allowances

The next indirect cost component shown in the cost comparison is one which reflects the Federal tax revenues which would have been collected from the owners of the apartment projects had they not been able to shelter other income with allowances for depreciation expenses.

As we mentioned in the cost chapter, depreciation is an accounting process which takes into account the declining value of an asset. For each year of service, limited dividend project owners are allowed to deduct a portion of the asset against other income. Since depreciation is treated as an expense, but does not result in an actual cash outlay, project owners sustain only a "paper loss" which allows them to shelter other income.

We estimated this cost by updating and modifying the assumptions of a study performed by the Touche Ross Company. 1/ The Touche Ross Company estimated the tax revenues lost by assuming (1) the project construction cost would be depreciated at an accelerated rate (200 percent of the straight line rate applied to a declining balance), and (2) the limited dividend investors would have 50 percent marginal tax brackets. We adjusted Touche Ross' yearly depreciation expenses, along with other expenditures, to account for a higher construction cost and we used a 60 percent tax bracketed investor to calculate losses. We also discounted the yearly tax saving benefits to present value at an 8 percent rate. The tax revenues loss we show in our cost comparison differs among the financing alternatives because the depreciable bases were slightly different. 2/

Federal tax revenues lost due to tax-exempt bonds

Over the past several years there has been much confusion and controversy over the net cost to the Treasury of using

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1/Touche Ross and Company, "Tax Incentives and Long Term Ownership of Section 236 Project," September 1973.

2/This indirect subsidy cost was also adusted for units lost through foreclosure and sales that did not complete a full 20 years of service.

table compares these methods using the same total development cost assumptions as before.

The difference between these two methods is $1,577 and represents the opportunity cost of allowing tax-exempts instead of using taxable bonds to finance a subsidized housing unit.

Table 43

First Year Cost Comparison
Between a Taxable and Tax-Exempt Bond
(A High Estimate)

| | Tax-exempt | Taxable |
|---|---|---|
| TDC per unit | $29,239 | $29,239 |
| Mortgage amount | 26,315 | 26,315 |
| Coupon rate | 6.75 | 9.64 |
| Mortgage rate (interest + fee) | 7.5 | 10.39 |
| **Direct Subsidy** | | |
| Gross rent | | |
| Principal and interest | $ 2081 | $ 2778 |
| Taxes | 450 | 450 |
| Maintenance and utilities | 1354 | 1354 |
| Reserves | 115 | 115 |
| Return on equity | 175 | 175 |
| Gross rent | 4175 | 4872 |
| less tenant contribution | 1100 | 1100 |
| Section 8 first year subsidy | 3075 | 3772 |
| **Indirect Subsidy** | | |
| Lost tax revenue (29,239)(.42)(.1164) | | (29,239)(.3)(.0964) |
| | $ 1429 | $ (845) |
| Total Cost | 4504 | 2927 |

Other estimates

As can be seen from the large difference between the low and high estimates, the assumptions used are critical. The last estimates assumed that the holders of tax-exempt bonds will invest all their funds in taxable securities which give them an equivalent after tax yield. Although we believe this is a reasonable assumption, it may represent an outer bound estimate of taxes foregone because these bondholders have other investment opportunities, and depending upon the type of investor, they will have different investment strategies.

invest in a taxable bond which provides an identical after tax return as the tax-exempt. Since the average tax bracket of tax-exempt bondholders is 42 percent, this means that the average tax-exempt bondholder would invest in a taxable security yielding 11.64 percent. This means that the gross tax loss for a tax-exempt bond with a $29,239 bond amount is ($29,239)(.1164)(.42), or $1429 per unit for the first year.

Table 42

First Year Cost Comparison
Between a Taxable and Tax-Exempt Bond
(A Low Estimate)

| | Tax-exempt | Taxable |
|---|---|---|
| TDC per unit | $29,239 | $29,239 |
| Mortgage amount | 26,315 | 26,315 |
| Coupon rate | 6.75 | 9.64 |
| Mortgage rate (interest + fee) | 7.50 | 10.39 |
| **Direct Subsidy** | | |
| Gross rent | | |
| Principal and interest | $ 2081 | $ 2778 |
| Taxes | 450 | 450 |
| Maintenance and utilities | 1354 | 1354 |
| Reserves | 115 | 115 |
| Return of equity | 175 | 175 |
| Gross rent | 4175 | 4872 |
| less tenant income | 1100 | 1100 |
| Section 8 first year subsidy | 3075 | 3772 |
| **Indirect Subsidy** | | |
| Lost tax revenue (29,239) (0.3) (0.0964) = | 845 | -0- |
| Total Cost | $ 3920 | $ 3772 |

To calculate the opportunity cost to the Treasury, we also must know how much it costs the Treasury to use the taxable bond option. Like the last estimate, we assume that the taxable bonds will be purchased by 30 percent tax bracketed investors, and the income which Treasury receives will offset the higher direct housing subsidy. Thus, the true cost of using a tax-exempt bond is the difference in the total cost between the taxable and the tax-exempt methods. The following

Example 1: An agency sells $1 million in tax-exempt bonds.

In order for the agency to be able to sell the tax-exempt bonds, the purchasers of the bonds must obtain an after-tax yield which is equal to or greater than the after-tax yield on taxable bonds. For persons in the 60 percent tax bracket, the after tax yield on taxable bonds would be 4.0 percent. For persons in the 30 percent bracket, the after-tax yield is 7.0 percent. Therefore, the agency will issue $1 million of 4.0 percent bonds and sell them to persons in the 60 percent bracket.

During a single year, the agency can apply a $60,000 saving to its projects. This represents the difference between the interest payments on a 10 percent bond and a 4.0 percent bond. The Federal Government will give up $60,000 in income tax. This represents the taxes that persons in the 60 percent tax bracket would have paid had they purchased 10 percent taxable bonds.

Example 2: An agency sells $2 million in tax-exempt bonds.

As in example 1, the agency must offer an after-tax yield that is greater than or equal to the after-tax yield on taxable bonds. However, in example 2, the agency must sell $2 million in bonds, which is more bonds than the persons in the 60 percent tax bracket can purchase. Therefore, the agency must raise the tax-exempt rate in order to attract investors in the 30 percent tax bracket. The agency must offer a 7 percent tax-exempt return which is the after-tax return if the 30 percent investor purchased the taxable 10 percent bonds.

Out of the $2 million issue of 6 percent bonds, $1 million will be sold to those in the 60 percent tax bracket and $1 million will be sold to those in the 30 percent bracket.

The agency will be able to pass on a savings of $60,000 when it makes mortgage loans. This represents the difference between the taxable 10 percent bonds and the tax-exempt 7 percent bonds on the $2 million issue.

However, the Federal Government will give up more than $60,000 in foregone tax revenue. For persons in the 60 percent tax bracket, the Federal Government will give up $60,000, the tax revenue which would have been obtained had the 60 percent tax bracket investor purchased taxable 10 percent bonds. For persons in the 30 percent bracket, the Federal

Although we have a good idea about who holds tax-exempt bonds, we can only speculate as to their investment motivations. However, two researchers recently attempted to lay out who would purchase tax-exempt bonds and what they might do in the absence of tax-exempts. They estimated that the lost revenue is 1.84 percent of the bond amount. 1/ This translates into $538 per unit the first year, which is between the two estimates presented above.

GAO estimate
(a median estimate)

To provide a conservative estimate and to use a generally accepted estimating approach and line of reasoning, we have adopted the approach of the Department of Treasury and HUD and calculated an estimate which lies between those we refer to as the high and low estimates. 2/

Although the Treasury Department has not estimated the net cost of housing bonds, they do look at this problem from a net cost approach. That is, the reason that tax-exempts are inefficient is because the loss in revenue to the Treasury is greater than the reduction in interest costs to the borrower because of the windfall gains to high-income purchasers of tax-exempt bonds. Treasury reasons that since tax-exempt interest rates have historically been 70 percent of taxable bond rates, the interest reduction subsidy to a housing project is 30 percent. But, because the average marginal tax rate of all purchasers of tax-exempts bonds is 42 percent, less than 75 percent of the Treasury revenue loss flows to subsidized projects.

This phenomena is illustrated by comparing the following two examples. For sake of simplicity, assume that there are only two potential tax-exempt bond purchasers with income brackets of 60 and 30 percent. Further, assume that the interest rate on taxable bonds is 10 percent, and that persons in the 60 percent tax brackets are capable of purchasing only $1 million in bonds per year.

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1/The Interest Rate and Tax Revenue Effects of Mortgage Revenue Bonds, Roger Kormendi and Thomas Nagle, July 26, 1979.

2/The Department of Treasury's rationale is contained within The President's 1978 Tax Program-Detailed Descriptions and Supporting Analyses of the Proposals, pp. 215-235.

provided a conservative estimate of the revenue which is lost due to the use of tax-exempt bonds.

Technical notes on our estimate of lost revenues

In chapter 2, we showed a discounted tax revenue cost of $628 per unit per year. This figure was not derived as simply as the equation above implies. The above equation assumes that a 9.64 percent taxable coupon would have been paid every year. However, in making our calculation, we used an actual bond offering which had a variable interest coupon structure (which seemed typical of all agency bonding) to calculate the actual interest paid in every year. We then modified these amounts by assuming the theoretical taxable interest paid in each year was based upon a 30 percent interest spread between tax-exempts and taxables.

We also based our estimate on a bond amount of $29,239 per unit which is $2924 more than the mortgage amount needed to finance the unit. This amount represents the amount of overbonding (about 11 percent) needed to pay bond discount points and one year's debt service reserve account. We feel this overbonding is typical of State agency and 11(b) financed projects.

Local property tax revenue lost due to public housing's payment in lieu of taxes

The next indirect cost shown in the cost comparison applies only to public housing and reflects the special treatment accorded public housing by local governments.

Under public housing's program rules, projects are not required to pay the full real estate taxes. Rather, a project will pay a payment in lieu of taxes (PILOT). The difference between the real estate taxes which would have been collected and the PILOT is the amount of local tax revenue lost.

To calculate this cost, we first assumed that the project would have paid the same property taxes as a privately owned project receiving section 8 assistance. We estimated this at $450 per unit per year. We next calculated the PILOT at 10 percent of a tenant's shelter rent, which is defined as the difference between the tenant's rent contribution and the utility costs. Since the yearly tenant contribution is $975

Government gives up $30,000, the tax revenue at 30 percent from $1 million of 10 percent bonds. The total cost to the Federal Government is thus $90,000, which is much larger than the gain to the agency.

Example 2 is roughly representative of what actually happens. The Department of Treasury determined that tax-exempt bonds have historically been 70 percent of taxables. 1/ This implies that the tax-exempt bond rate is being set by the 30 percent tax bracketed investor; the last or marginal investor. The Department of Treasury also found that tax-exempt bondholders have tax brackets which range considerably. Treasury found that the average tax-exempt bondholder is in the 42 percent tax bracket. Therefore, tax-exempt bonds would be efficient if the tax-exempt rate were 5.8 percent when long term taxables were selling for 10 percent. But since the tax-exempt rate is set by the marginal investor who is in the 30 percent tax bracket, the tax-exempt rate is higher than need be, and consequently tax-exempt bonding is inefficient.

By applying these results to the interest rates which were in effect in early 1978, we calculated the tax revenue foregone by multiplying the tax bracket of the average tax-exempt bondholder times the taxable interest rate times the bond amount.

In early 1978 we found that a typical SHFA could obtain A-rated bonds at about 6.75 percent. By applying the Treasury finding that long term tax-exempt bonds are roughly 70 percent of taxables, we calculated that the tax-exempt bondholders could have invested in taxable bonds carrying a 9.64 percent interest rate. Therefore we estimated the first year unit lost revenue as:

$$(.42)(.0964)(29,239) = \$1183$$

Implicit in this calculation is the assumption that the tax-exempt bondholders would have invested in comparably rated taxable bonds. It also assumes that a 9.64 percent interest rate is the best rate obtainable at the same risk rating. Although these implicit assumptions are not as rigorous as those in the earlier calculation we used this approach because it results in a lower estimate than the one we presented earlier, which we feel is logically consistent. Therefore by applying the Treasury's assumption we feel we have

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1/We duplicated this finding by comparing A-rated tax-exempt bonds to A-rated taxables for various terms.

motivated sponsors (which are identical to those under section 221(d)(4), the section 8 insurance program) had the same failure experience as those under section 207. 1/ Based upon the strong similarity between section 236, 207, and 221(d)(4) sponsors and the cumulative failure experienced of section 207, we predicted a 10 percent 20-year failure rate for section 221(d)(4) projects. 2/

When failures occur

When a failure occurs is crucial to whether an insurance fund shows a profit or a loss. If most failures occur early, mortgage balances will be high (and hence claims will be high), and very little premium income will have been collected so that the fund would sustain large losses. Just the opposite is true if (on average) failures occur years later when the insurance fund has benefited from accumulated premium income.

Obviously, it is difficult to predict the exact failure patterns likely to be experienced many years from now for a program which has just started. As a proxy for this pattern, we again relied on the section 207 experience. The following table shows how these mortgage failures occured during specific time periods.

Table 44

Mortgage Failures

| Period of project life | Percent of total failures during period | Cumulative percent of total failures occuring by end of period |
|---|---|---|
| 0 - 2 years | 6.8 | 6.8 |
| 3 - 4 years | 39.2 | 46.0 |
| 5 - 8 years | 30.0 | 76.0 |
| 9 - 12 years | 17.0 | 93.0 |
| 13 - 20 years | 7.0 | 100.0 |

1/"Viability of the Section 236 Program," by Mortimer Kaplan, F.C.A., October 14, 1975.

2/For a detailed comparison of these programs and their failure experiences see GAO's report "Section 236 Rental Housing--An Evaluation with Lessons For the Future," PAD-78-13, January 10, 1978, pp. 74-100.

for a family of four with an annual income of $5,000 1/ and the yearly utility cost in $473, the PILOT is $50 per year. This means that the lost property tax equals $400 per unit each year ($450 - $50).

Failure cost estimates

The cost comparison table in chapter 2 contained a failure related expense only for the FHA-insured alternatives. In this section we explain (1) how we arrived at this estimate and (2) why we exclude failure cost estimates for the revenuing alternatives, even though failures are likely.

FHA failure costs

There are two failure related cost components. The first is the net loss (or income), which includes mortgage insurance premiums, insurance claims, the costs of holding projects before disposition and the revenue obtained when projects are sold. The second cost component appears in the form of an adjustment to other subsidy costs which are sometimes upfront costs and therefore must be spread over the other existing units.

Any estimate of failure costs depends upon (1) an estimate of how large the failure rate will be, (2) when the failures occur, (3) how much premium income is collected before the project fails, (4) how long the project is held in HUD's inventory before it is sold, and (5) how much of the original investment will be recouped when the project is sold. The ultimate cost of failures, therefore, depends upon whether sufficient premium income is collected to cover the losses due to expected failures. In the next several sections we explain how we handled each of these variables.

The failure rate

We estimate that newly constructed profit motivated FHA-insured section 8 projects will sustain roughly a 10 percent, 20-year failure rate. We base this estimate on the 20-year failure experience of the section 207 program. We justify this proxy because an actuarial study revealed that during the first 6 years of program experience, section 236 profit

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1/The tenant's contribution is calculated at 25 percent of adjusted income. Adjusted income is gross income less $300 per minor, less 10 percent of gross income. Since gross income equals $5,000, the tenant's contribution is [$5,000 - .10x($5,000) - 2x($300)] x .25 or $975 per year.

failure experience. We also found that FHA held the section 236 projects for a 2-year period before sale. We expressed the costs to acquire and hold, and the sales revenues as a percent of the mortgage balance. The actual data for the first 4 years and the assumptions for the remainder are shown in table 46.

Table 46

Assumptions for Failure Loss Estimate

| Period of project life | Cost to acquire & hold as a percent of mortgage amount | Receipts recovered upon sale as percent of mortgage balance | Loss as percent of mortgage |
|---|---|---|---|
| 0 - 2 years | 77 | 31 | 46 |
| 3 - 4 years | 114 | 31 | 83 |
| 5 - 8 years | 100 | 50 | 50 |
| 9 - 12 years | 100 | 75 | 25 |
| 13 - 20 years | 100 | 100 | 0 |

Acquisition and holding costs for the first period are relatively low because most failures occur before project completion when only a portion of the mortgage funds have been disbursed by the lender. The second period costs were highest because they reflect the high probability of large mortgage delinquencies at the time of acquisition or during the 2-year holding period and relatively high mortgage balances at this early stage in project lives.

With the above information, we were able to calculate whether the FHA insurance fund would in general sustain a profit or a loss over a 20-year period. To accomplish this we assumed that 100,000 units were started in 1978 and then determined a series of positive and negative cash flows based upon the preceeding analysis. When we discounted these expenses and premium revenues back to present value, we found that the FHA insurance fund would be profitable.

Adjustments for lost units

The second type of failure related expense is in the form of an adjustment to other subsidies to account for units lost. The need for such an adjustment can best be explained if we look at the Tandem subsidy. If 10 projects are started in 1978 and all have benefited from the Tandem program (which is an upfront subsidy) and all but one project lasts through 1998, then the total Tandem cost must be spread over the remaining 9 projects to obtain a realistic cost of providing

In order to simplify our calculation of insurance claims and premium income, we assumed that all failures which occurred in a given period occured at one time within the period. To accomplish this we calculated mathematical moments which provide weighted average times of failure occurrences. The following table shows these averages.

Table 45

Weighted Average Times of Failure Occurrences of a Project

| Period of project life | Mathematical center point of failure occurence |
|---|---|
| 0 - 2 years | At year 2.0 = 24 months |
| 3 - 4 years | At year 3.0 = 36 months |
| 5 - 8 years | At year 5.5 = 66 months |
| 9 - 12 years | At year 9.3 = 112 months |
| 13 - 20 years | At year 15.3 = 184 months |

Failure losses

The combination of these tables provides a basis for calculating losses. Assuming that 100,000 units were started in 1978, we calculate the mortgage balances for the portion of units which are expected to fail in each period and the premium income to be collected for the remaining units. For example, during the first 2 years we expect 6.8 percent of the total 10,000 units expected to fail (680 units), to do so at the end of year 2. We then calculated the mortgage balance for these units and the insurance claims which were 99 percent of the outstanding balance. Premium income is one-half of one percent of the mortgage balance which, for the first period, would be calculated on all 100,000 units. For the following period, premium income would be based upon 100,000 less the 680 units lost in the first 2 years. This procedure was carried out for each time period of failures so that 90 percent of the units provide premium income for the full 20 years.

The last step in this process is to determine the loss the FHA insurance fund sustains. The loss is the amount of the insurance claim (usually 99 percent of the mortgage balance) plus holding costs, less any revenue received upon sale.

As previously mentioned, it is difficult to predict losses when an insurance program is new. To estimate net losses, we relied on the first 4 years of section 236 experience. For the remaining years, we made reasonable estimates of what the losses might be based on earlier program

SHFA officials and technical experts that financial problems are greatly underreported by State agencies and we did discover evidence of additional bond debt being incurred to cover mortgage delinquencies. Earlier studies on section 236 projects financed by State agencies, when most State agencies were just getting started, showed a much lower default rate for state projects than for FHA projects. There were clearly some good reasons for this, such as better loan management and project monitoring and other factors which are discussed in the chapter 3 on risk.

We have shown no failure cost for the SHFA alternative, not because we believe there will be none but because there is insufficient information to make a reliable estimate and because even without the failure cost State financing is much more expensive than the FHA and public housing programs. Any failures which do occur could be handled in two ways. Every bond issue must maintain a capital reserve fund for potential losses. This fund, the interest it earns, and the fees charged to the project are available to cover losses. 1/ But, if these items are insufficient, agencies may be required to foreclose and resell at a loss just as FHA has frequently done in the past. The loss could be passed on to the bondholders but this is unlikely since a default would essentially ruin an agency's rating and its ability to borrow in the future. A more likely scenario is for the agency to float additional tax-exempt bonds to cover delinquencies. Should this occur, the failure (or delinquency) expense would result in increased tax expenditures and hence increased costs. In our analysis we have assumed that agency income would be sufficient to cover possible losses. This is reasonable since the State financing alternative is shown to be one of the most expensive financing alternatives without including the additional costs for failures which could occur.

Failures under section 11(b)

Since the life cycle cost for the section 11(b) alternative is also much higher than the FHA and public housing alternatives before considering a failure expense, we show no failure cost for this alternative in our baseline comparison. We are fairly certain, however, that there will be

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1/The costs of these items are included in our model. The capital reserve fund represents excess bonding above the mortgage amount and its cost is shown only in the taxes lost from tax-exempt bonds. The lender fees charged to SHFA projects are included in the mortgage interest rate and is therefore included in the direct subsidy expense.

9 projects for 20 years. We applied this reasoning on a unit basis. If a unit that has received the benefits of a front end government subsidy fails within 20 years, then unamortized portions of the expenditure must be reallocated among the units that survive the full 20 years. Adjusting the present value of the 20-year unit cost projections for lost units insures that the full cost is accurately reflected among the units which survive. This adjustment is made by applying a factor to the discounted costs, which in effect, spreads these costs over all units according to the period for which they subsidized tenants. These factors were developed based upon our mortgage failure analysis.

Factors which affect failures for State housing finance and section 11(b)

In our cost comparisons we did not include estimates of the cost associated with possible failures under the section 11(b) and state housing finance agency alternatives. Yet it is likely that some failures will occur. We excluded these estimates for several reasons. First, section 11(b) is too new to have amassed any data base for prediction and there is no reliable or comprehensive data source for State agencies. Since it would have been extremely difficult to estimate the 11(b) costs with any accuracy and since the data collection effort for State agencies would have been extremely costly, we opted to exclude these costs from our baseline comparisons after preliminary calculations indicated that even without any failure costs, section 11(b) and State agencies would prove far more expensive than the public housing and FHA alternatives for which we had better information.

Failures under State housing finance agencies

Estimating the failure expense for the SHFA alternative is difficult because (1) it is difficult to predict a cumulative 20-year failure rate since most State agencies are relatively new, (2) little information is available on the variables affecting cost, (3) it is difficult to tell whether agency interest income and required financial reserves will be sufficient to cover an uncertain loss rate, and (4) it is uncertain how agencies will handle delinquencies or serious problems.

Many SHFA officials assured us that their projects were experiencing very few financial problems and that they expect no serious failures. There is no reporting mechanism or data base on the subject but the very sketchy information shows that the financial difficulty being experienced seems to vary drastically from state to state. We were assured by some

We calculated this revenue by multiplying 40 percent of the capital gained by the ordinary income tax bracket of the passive investor, which we assumed at 60 percent. To calculate the capital gain we subtracted a project's depreciated basis plus a 10 percent selling expense from the price at which it was sold, which we assumed to be the mortgage balance.

These assumptions were based upon the most recent tax laws concerning capital gain taxes and a reasonable estimate of the passive investors' tax bracket, which is consistent with our assumption for depreciation allowances. We may have understated the capital gain revenue because we assumed the sales price equals the mortgage balance, when in fact many projects are likely to appreciate in value over a 20 year life. This assumption, however, does not materially affect the results of our cost comparison because projects under each alternative will probably appreciate at about the same rate.

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failures and some associated costs under section 11(b). We omit this item from the cost summary to avoid pointless controversy over its magnitude. In this section we describe why failures will probably occur under 11(b).

To understand why a failure may occur it is important to know the risks involved. As we discussed elsewhere in the body of this report, financial risk depends upon location, tenant mix, construction type, form of sponsorship (management), and whether there exists a motivated lender to monitor construction and project operation. Since most projects under 11(b) will probably be well located, primarily serve the elderly, be newly constructed, and sponsored by a for-profit limited dividend entity, we isolate the risk to whether or not there is a lender who will insure that the project is well managed.

This factor is important for the 11(b) method because the degree of lender involvement can vary widely, depending on the financial arrangements. Section 11(b) can be financed through tax-exempt bonds or through a tax-exempt mortgage. In either case it may or may not be insured by FHA.

The least risky arrangement is where a local authority obtains a tax-exempt mortgage from a local bank (usually a savings and loan institution) and the loan is not FHA-insured. Since the local lender is exposed to a great deal of risk, he will probably exercise extreme care when making the loan and will carefully monitor project construction and operation to ensure quality management. In this case, there will probably be few project defaults.

The riskiest financial arrangement occurs when a project is not FHA-insured and is financed with tax-exempt bonds. In this situation, there is no lending institution to perform proper underwriting and project monitoring.

When 11(b) projects are FHA-insured we could expect a risk factor which would lie somewhere between the two arrangements mentioned above. This would apply regardless of the financial arrangement. We expect FHA would provide a degree of underwriting and project monitoring not found in the last case, but the quality of monitoring would not be as good as in the uninsured tax-exempt mortgage case.

Tax revenues upon sale

The last indirect cost item shown in our cost comparison is the revenue which the Government obtains from the capital gains tax when privately owned projects are sold in the 20th year.


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