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Report to Congressional Requesters

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RURAL RENTAL HOUSING

Cost Information on FmHA's Section 515 Program and Other Housing Options

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Resources, Community, and
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The Honorable William Proxmire, Chairman
Committee on Banking, Housing, and Urban Affairs
United States Senate

The Honorable Jake Garn, Ranking Minority Member
Committee on Banking, Housing, and Urban Affairs
United States Senate

The Honorable Alan Cranston, Chairman
Subcommittee on Housing and Urban Affairs
Committee on Banking, Housing, and Urban Affairs
United States Senate

The Honorable Chic Hecht
United States Senate

This report responds to the February 7, 1986, request from the Senate Committee on Banking, Housing, and Urban Affairs, and its Subcommittee on Housing and Urban Affairs. The report (1) identifies whom the section 515 program is serving and where housing is being provided, (2) assesses ways to reduce program costs, (3) compares program costs with costs of other federal housing subsidy options, and (4) identifies state programs that provide housing assistance in rural areas. It recommends that the Secretary of Agriculture direct the Administrator, Farmers Home Administration (FmHA), to finalize and implement regulations for reducing section 515 project development costs.

We are sending copies of this report to the appropriate House and Senate committees; the Secretary of Agriculture; the Administrator, FmHA; the Secretary of Housing and Urban Development; the Director, OMB; and other interested parties. We will also make copies available to others on request.

This report was prepared under the direction of John H. Luke, Associate Director. Other major contributors are listed in appendix VII.

J. Dexter Peach
Assistant Comptroller General

Executive Summary

Purpose

Since 1962, when the Congress authorized the section 515 rural rental housing program, the Department of Agriculture's Farmers Home Administration (FmHA) has made about 19,000 loans to developers, totaling $8.6 billion, to construct and operate about 360,000 low-rent housing units. Nevertheless, a need remains for adequate, affordable rental housing. Census data indicate that increasing numbers of low-income rural households—those with incomes of no greater than 80 percent of area median income—are paying excessive rents and living in inadequate housing.

The Chairmen of the Senate Committee on Banking, Housing, and Urban Affairs and its Subcommittee on Housing and Urban Affairs, requested that GAO review the section 515 program to

- identify whom the program is serving, and where housing is being provided;
- assess ways to reduce program costs;
- compare program costs with costs of other federal housing subsidy options; and
- identify state programs that provide housing assistance in rural areas.

Background

Under section 515, FmHA, through its state and district offices, subsidizes housing loans to developers who are otherwise unable to obtain credit at terms and conditions that would permit them to charge affordable rents. Loans can be made to developers for up to 50 years and at interest rates as low as 1 percent.

A primary objective of the section 515 program is to help low-income households obtain rental housing that they could not otherwise afford. Two other federally supported housing assistance programs—the section 502 homeownership program and the housing voucher program—have the same objective. Section 502 provides loans to low-income rural households to purchase single family homes, whereas housing vouchers provide cash subsidies to urban and rural households to help them rent adequate housing. The Rural Housing Amendments of 1983 direct the section 515 program to give greater priority to assisting very low-income households (those with incomes no greater than 50 percent of area median income) and those living in substandard housing. The amendments also specify ways that FmHA could reduce section 515 program costs.

Results in Brief

GAO found that the section 515 program is benefiting mostly very low-income households in rural areas. Furthermore, almost half of the households GAO contacted paid reduced rents after moving into section 515 apartments. Nevertheless, FmHA and GAO identified cost-reduction measures that could further reduce rents and save millions of dollars in subsidy costs, such as building smaller apartment units and increasing the number of units per acre.

GAO analyzed the costs of the three rural housing assistance programs and found that, in general, the section 515 program is the least expensive way to serve very low-income families. As initial household incomes rise, however, housing vouchers become the least expensive alternative. Prevailing inflation levels and interest rates also affect the relative cost of each program.

GAO identified only five states that have state-funded housing assistance programs that are targeted specifically to rural areas.

Principal Findings

Program Beneficiaries

FmHA data on about 269,000 section 515 households show that their average income was about $8,200. About 250,000, or 93 percent, were low-income. GAO compared the rents of about 1,100 households before and after moving into section 515 housing and found that 49 percent paid lower rents under section 515. When rents rose, it was often because households previously lived with family members and paid no rent or because their section 515 unit was an improvement over their prior housing.

Project Location

According to FmHA records, 93 percent of section 515 projects are located in areas with populations under 10,000, and more than half are in areas of 2,500 or less. In addition, most projects are a considerable distance from population centers. About 72 percent of the projects are more than 30 miles from population centers of over 50,000 and about half are over 50 miles away. Generally, these projects were also less expensive to build than those in more densely populated areas.

Opportunities for Reducing Section 515 Costs

As a result of the 1983 amendments, FmHA provided guidance to its state and district offices containing a number of measures to reduce section 515 costs and better serve low-income households. These measures included reducing the size of apartments; eliminating certain features, such as balconies, sliding glass doors, and excessive paving; and increasing the number of units constructed per acre.

Responses to a GAO questionnaire provided to developers of section 515 projects confirmed that these, as well as other measures, are practical and would result in substantial savings to the federal government. For example, developers who, in total, completed 220 projects in 1985 estimated that they could have saved about $7.9 million by implementing all of the measures each considered feasible. Although GAO could not project a dollar savings nationwide, considering that FmHA approves about 1,300 projects per year, wider adoption of these measures could result in far greater savings. FmHA is in the process of determining which of these measures to incorporate into its regulations.

Comparative Costs of Housing Options

GAO found that the federal cost of all three rural housing assistance programs fell dramatically as entry-level incomes of assisted households rose. However, the costs of vouchers respond differently to movements in inflation and interest rates than the costs of the section 515 and section 502 programs. Nevertheless, because inflation and interest rates generally move in the same direction as the economy fluctuates, they tend to balance each other out and thus become less significant than household income in determining which housing option is least expensive.

GAO found that the section 515 program was generally the least expensive way to serve very low-income households. However, vouchers became the least costly option as household income rose. For example, GAO estimated that with the section 515 program, the 20-year subsidy cost of serving an $8,000-income household was $18,797 compared with $29,015 using housing vouchers (assuming an 8-percent federal borrowing rate and 4-percent inflation). As income rose to $11,500, section 515 costs fell to $15,430, while the costs of vouchers dropped to $13,992. Section 502 costs tend to approximate section 515 costs, although they are generally somewhat higher for very low-income households.

In addition to program costs, other factors such as housing affordability and availability, as well as implications of the recently passed tax legislation, are important considerations for federal policymakers in deciding future directions of rural housing assistance.

State Housing Initiatives

GAO found that states varied widely in their financial commitment to housing assistance programs. Few states have multimillion-dollar, state-supported housing programs to assist low-income households, and they generally provide this assistance on a statewide basis rather than targeting it to rural areas. GAO identified only five states that have housing programs specifically targeting low-income households in rural areas.

Recommendation

GAO recommends that the Secretary of Agriculture direct the Administrator, FmHA, to finalize and implement regulations for reducing section 515 project development costs. These regulations should include such cost-saving elements as reducing housing size, increasing unit density, and eliminating certain features.

Agency Comments

The Department of Agriculture said that FmHA is in the process of revising program regulations to address cost-saving elements, and anticipates the revision will be published for final rule making by September 1, 1987, and will be effective October 1, 1987. (See p. 50.)

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Figures

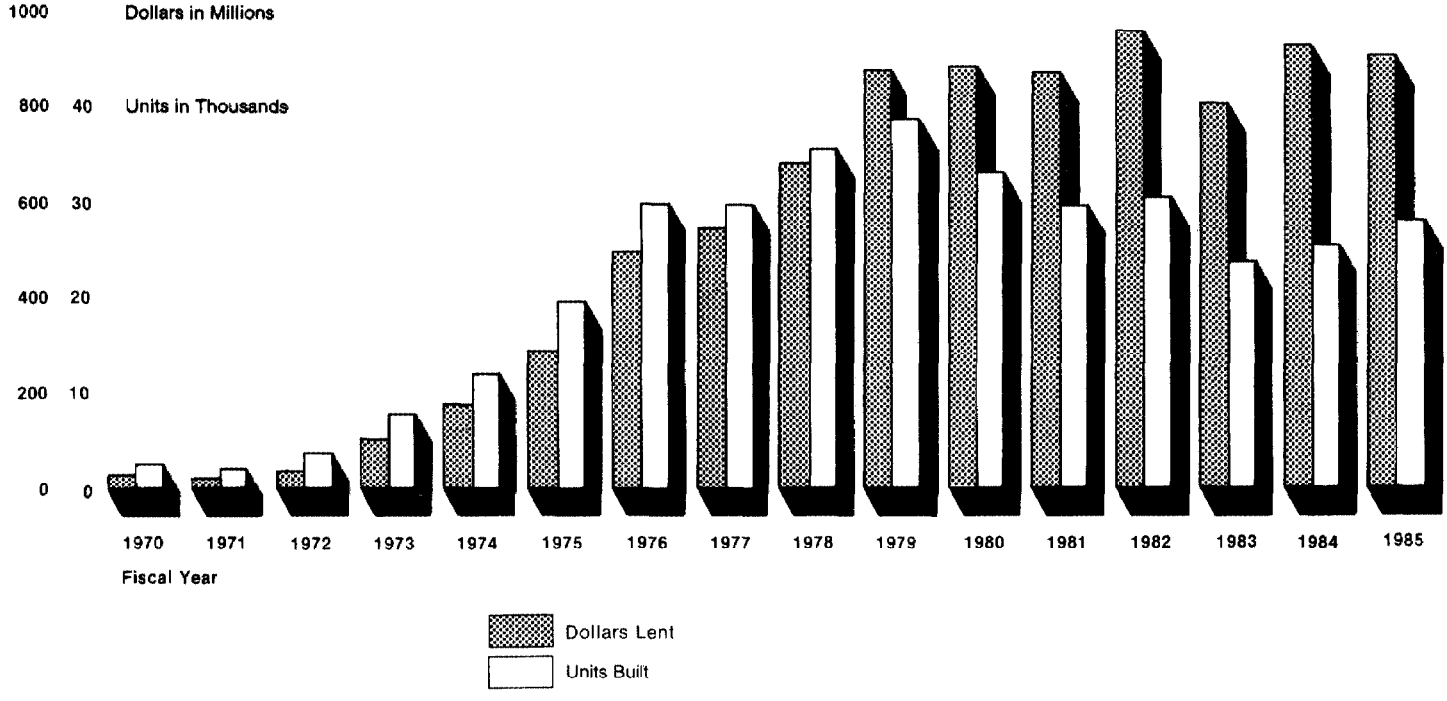
Abbreviations

FmHA	Farmers Home Administration
GAO	General Accounting Office
HUD	Department of Housing and Urban Development
MISTR	Multifamily Housing Information Status Tracking and Retrieval System
MSA	Metropolitan Statistical Area
OMB	Office of Management and Budget
PITI	Principal, interest, taxes, and insurance
RCED	Resources, Community, and Economic Development Division (GAO)

Introduction

The Housing Act of 1949 (42 U.S.C. 1441 et seq.), as amended, authorized the Farmers Home Administration (FmHA) of the Department of Agriculture to administer the section 515 rural rental housing program specifically for rural renters. FmHA has a well-established system of about 270 district offices that make section 515 housing loans and provide a delivery mechanism for various housing services. Since inception of the program in 1962 through 1985, about 19,000 loans have been made, totaling about $8.6 billion, to build, purchase, repair, and operate about 360,000 low-rent apartment units in rural communities. In 1985 FmHA made section 515 loans for about 1,200 projects with a total of 28,000 units. Figure 1.1 shows the number of units built and dollars lent annually under the section 515 program from 1970 through 1985.

Figure 1.1: Section 515 Rural Rental Housing Units Built and Dollars Lent



Source: FmHA headquarters, Washington, D.C.

Section 515 Rural Rental Housing Program

The section 515 program was originally authorized in 1962 to provide rental housing units for the elderly living in rural areas. Subsequently, it was expanded to serve low- and moderate-income families in rural areas. The program provides reduced-interest loans to borrowers (developers) who are willing to build, purchase, repair, and operate low-rent multifamily housing projects. To receive a section 515 loan, a developer must be unable to obtain credit elsewhere at terms that would allow rent levels that low- and moderate-income households could afford. Developers eligible for these loans include individuals, Indian tribes, consumer cooperatives, and private nonprofit organizations.

Regulations governing the section 515 program are contained in FmHA Instruction 1944-E, which sets out the policies and procedures and delegates authority for making loans. Supplementary instructions for carrying out the program are in administrative notices, which are also provided by FmHA headquarters to state and district offices.

Program Eligibility

Because the Congress was concerned about assisting those most in need and minimizing the cost of subsidized housing, it passed the Rural Housing Amendments of 1983 (Public Law 98-181, Nov. 30, 1983), part of the Housing and Urban-Rural Recovery Act of 1983. Under the 1983 amendments, FmHA is to give greater priority to assisting lower income households, i.e., low- and very low-income households, and those living in substandard housing. The amendments also specifically noted ways that FmHA could reduce costs to make housing more affordable, thus affirming the Congress' intent to limit program costs. Low-income families are those with incomes of 80 percent or less of local area median income and include very low-income households with incomes of 50 percent or less of local area median income. Moderate-income households are those with incomes not more than $5,500 above the low-income limit. As defined by FmHA, substandard housing lacks complete plumbing or has an occupancy of more than one person per room.

The loan program is generally limited to rural areas, which include towns, villages, and other places that have not more than 10,000 people, are not part of an urban area, and have a rural character. Loans may also be made in areas with a population in excess of 10,000 but less than 20,000 if the area is not included in a Metropolitan Statistical Area

(MSA),[1] and has a serious lack of mortgage credit for low- and moderate-income households.

All project development work, such as buildings, streets, water, waste disposal, heating, and electrical systems, must fully conform with applicable laws, ordinances, codes, regulations related to safety and building sanitation, and FmHA requirements. In addition, projects are to be located on desirable sites in residential areas easily accessible to community services and amenities, with an assured supply of safe drinking water and suitable arrangements for waste disposal approved by FmHA.

How the Program Works

Before a loan can be approved, developers must provide detailed plans, specifications, and cost estimates. The developers must provide complete architectural services, including inspections during construction. Further, developers are encouraged to obtain interim construction funds from local lenders or show that local construction funds are not available before FmHA will provide such funds.

Loans are written at an interest rate equal to current long-term Treasury securities and then reduced to as low as 1 percent. This reduction is called an interest credit. Loans to nonprofit organizations and state or local public agencies can cover up to 100 percent of the development cost or the value of the rental property, whichever is less. Loans to other developers are limited to 95 percent of the development cost or the appraised value. The maximum repayment period is 50 years.

The interest credit subsidies permit project developers to adjust rents down to a more affordable level for lower income families. In the case where even the interest credit subsidy does not reduce rent levels enough, low-income tenants may be eligible to receive further rental assistance through FmHA's section 521 rural rental assistance program or the Department of Housing and Urban Development (HUD) section 8 leased housing assistance program. Prior to September 30, 1986, FmHA tenants paid a minimum of 25 percent of their monthly adjusted income for rent and utilities. However, FmHA changed its regulations, effective

[1]As defined by the Department of Commerce, a Metropolitan Statistical Area (MSA) is a large population nucleus together with adjacent communities that have a high degree of economic and social integration within that nucleus. Each MSA must include at least one city with 50,000 or more people or one urban area of at least 50,000 with a total MSA population of at least 100,000 (75,000 in New England).

October 1, 1986, to increase the minimum tenant contribution to 30 percent to be consistent with HUD's regulations as required by the Housing and Urban-Rural Recovery Act of 1983.

Objectives, Scope, and Methodology

The Chairmen, Senate Committee on Banking, Housing, and Urban Affairs and its Subcommittee on Housing and Urban Affairs, asked us to provide information on certain issues pertaining to the FmHA section 515 program and alternatives to this program to assist rural renters. Areas of specific interest to the Committee and Subcommittee concerning the section 515 program were the characteristics of persons served by the program, the locations of the projects, ways for reducing project construction costs, and the effects of cost reductions in making the units more affordable. The request also specified interest in a comparison of the costs of the section 515 program with other federal housing subsidy programs, an assessment of the use of state-sponsored rural housing programs and FmHA's Housing Preservation Grant Program, and an analysis of the affordability and adequacy of housing occupied by low-income rural renters.

To accomplish these objectives we analyzed data obtained from a number of sources, including FmHA's national data base on section 515 housing, questionnaires from developers of section 515 projects, census data on rural housing needs, and interviews with FmHA representatives, developers, builder association officials, and rural housing interest groups.

We visited FmHA offices in 6 states and 44 projects financed by FmHA in these states. We selected states that were very active in the program and projects that were located in different geographic areas. During our visits we obtained information on measures that could be taken to reduce project costs, the impact that the section 515 program had on providing more affordable or adequate housing for low-income renters, and the availability of state-sponsored rural housing programs serving low-income rural households.

We also identified cost-reduction measures by sending questionnaires to 464 developers in 45 states who completed section 515 projects during 1985. We asked developers to comment on ways, and the extent to which, project construction costs could be reduced and how FmHA could best bring about these cost reductions. We received responses from 320 builders, or 69 percent of those to whom we sent questionnaires.

We reviewed data from the most recent Annual Housing Survey (1983) compiled by the Bureau of the Census, U.S. Department of Commerce, to determine rent burdens and housing conditions of lower income rural households. The Annual Housing Survey provides extensive information on housing units in the United States, including data on rents and other housing costs; income and other characteristics of households residing in the housing units; and indicators of housing quality, such as plumbing and kitchen facilities. We also obtained data from housing project managers on about 1,100 tenants in 63 FmHA projects in the 6 states we visited. These data showed whether tenants were living in substandard housing or were paying more than 30 percent of their income for housing before they moved into section 515 units.

We obtained information on about 17,000 FmHA housing projects from the FmHA's Multifamily Housing Information Status Tracking and Retrieval (MISTR) System, which is a national data file on section 515 housing projects. We analyzed these data to determine the cost, size, and location of projects and tenant demographic data. We did not attempt to verify statistically the accuracy of the centralized data because of the extent of the information. However, for the 44 projects we visited, we selectively compared data in the centralized file with actual project records and projects built to determine whether the computerized data accurately reflected the housing characteristics and demographic data. Overall, we considered the data suitable for our use.

We made our review during the period of March through October 1986. To the extent practical, we also obtained updated or supplemental information through November 1986. We performed our work in accordance with generally accepted government auditing standards.

Profile of Section 515 Housing and Its Beneficiaries

The section 515 program assists predominately low-income households in small rural areas. As of April 1986, about 93 percent of assisted households had low or very low incomes, and the average income of all households assisted was about $8,200. In addition, about 93 percent of the section 515 projects were located in rural areas with populations of 10,000 or less, including 56 percent in places with populations of 2,500 or less.

Although the section 515 program has provided over 360,000 housing units since the program's inception, the number of low-income rural households who pay more than 30 percent of their income for rent or who live in substandard housing has increased since 1975. At projects we surveyed, the program reduced the rent burden for close to half of the households who had been paying more than 30 percent of their income for housing. Providing housing for people who live in substandard housing has been a program priority since the rural housing amendments of 1983. Of the section 515 households we surveyed, 13 percent previously had been living in substandard housing.

The rural housing amendments also directed FmHA to bring section 515 program eligibility requirements for low-income households in line with HUD requirements. Although FmHA made two changes in 1986 to make its program more consistent with HUD's, low-income eligibility requirements under section 515 differ from HUD's in that they still allow higher income households to qualify for assistance.

Section 515 Housing Is Serving Small Rural Communities

FmHA housing projects are generally found in small rural communities. Most projects are located in communities with populations of 10,000 or less and about half are over 50 miles from population centers of 50,000 or more.

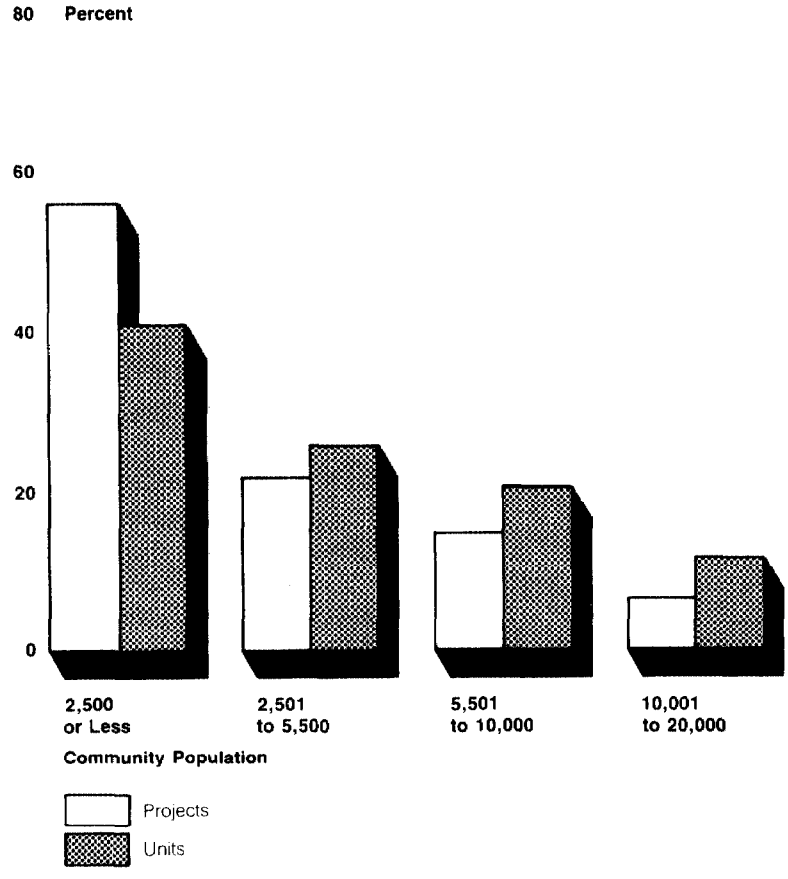
Housing Location

Section 515 project locations are generally limited by law to rural areas, which include towns, villages, and other places with no more than 10,000 people and that are not part of an urban area. Projects may be located in areas with populations between 10,000 and 20,000 if the area is not included in an MSA.

We analyzed the locations of 15,000 projects in FmHA's MISTR System and found that 93 percent of the apartment projects and 88 percent of the apartment units are located in areas with populations of 10,000 or less.

Over half of these projects are in areas of 2,500 or less. Figure 2.1 shows the percentage of projects and units located in communities of various sizes.

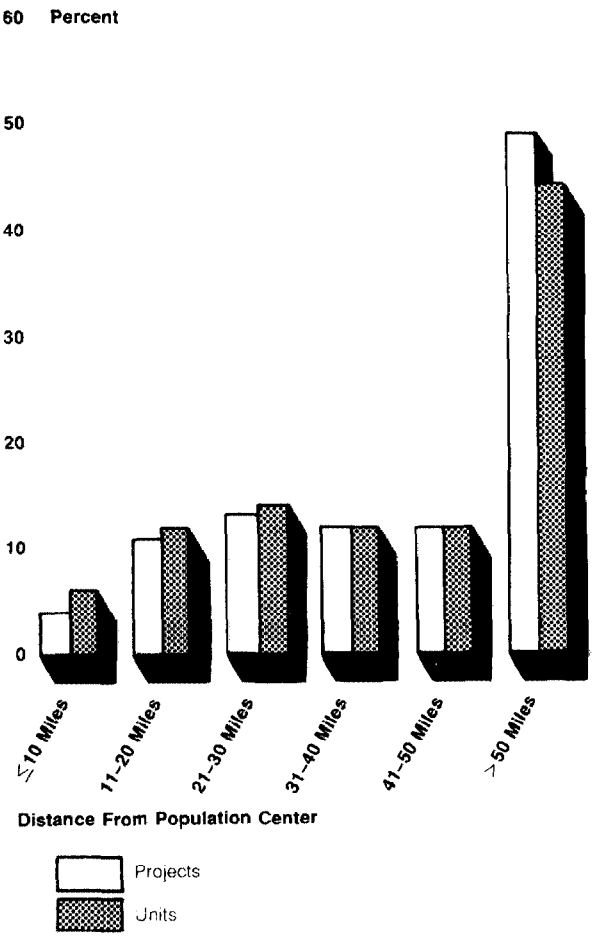
Figure 2.1: FmHA Projects and Units Located in Communities of Various Sizes



Source: GAO analysis of project location data reported by the FmHA MISTR System, Apr. 1986.

In addition, the projects are generally located a considerable distance from population centers of 50,000 or more. About 72 percent of the projects are located more than 30 miles from these population centers and about half are over 50 miles away. Figure 2.2 shows the distance of projects and units from places with populations of 50,000 or more.

Figure 2.2: Distance of FmHA Projects and Units From Population Centers of 50,000 or More



Source: GAO analysis of project location data reported by the FmHA MISTR System, Apr. 1986.

Trends in Affordability and Adequacy of Housing for Low-Income Rural Renters

The number of low-income rural households paying rents exceeding 30 percent of their income increased from about 815,000 in 1975 to about 1.5 million in 1983, according to Annual Housing Survey data.[1] The most significant increases occurred among households with incomes of 50 percent or less of their area's median family income. By 1983, nearly 42 percent of these households paid more than 50 percent of their incomes for rent, compared with 29 percent of the households in 1975. However, the percentage of low-income households living in inadequate housing decreased from 1975 to 1983.

Changes in Rent Burdens

Higher rent burdens mean that households pay a greater percentage of their incomes for rent, leaving them with less for other expenses. From 1975 to 1983, the number of low-income rural households with rent burdens exceeding 30 percent increased by 84 percent, or about 690,000—from 815,000 in 1975 to about 1.5 million in 1983—as shown in table 2.1.[2] Both FmHA and HUD use "30 percent or less of gross income" as a reasonable rent burden for a low-income household.

Table 2.1: Rent Burden of Rural Households With Incomes of 80 Percent or Less of Area Median Household Income

Households in thousands

	1975		1983	
Rent burden[a]	Households	Percentage of total	Households	Percentage of total
30 percent or less	1,069	57	1,154	43
Over 30 percent	815	43	1,506	57
Total	**1,884**	**100**	**2,660**	**100**

[a]Rent burden, or rent-to-income ratio, equals gross annual household rent divided by gross annual household income.

The most significant increases in the number of households with high rent burdens occurred among very low-income rural households. In 1975 about 678,000, or 60 percent of these households, had rent burdens exceeding 30 percent. By 1983, however, the number had increased to 1.25 million, or 72 percent. About 729,000 of these households were paying more than 50 percent of their income for rent in 1983, which represented an increase of 395,000 households since 1975.

[1]The Annual Housing Survey, prepared by the Bureau of the Census, provides information on the structural conditions of housing and gross rents.

[2]In identifying trends in rent burdens, we did not analyze the incomes of low-income households in relation to their overall living expenses. Accordingly, we are not drawing conclusions on the general well-being of these households.

Changes in Housing Conditions

As the number of low-income rural households increased between 1975 and 1983, the number of these households living in adequate housing rose while the number living in inadequate housing stayed relatively constant. Consequently, the proportion of all households living in inadequate housing actually decreased during this period. We used HUD's definition of inadequacy to judge the condition of a housing unit. HUD considers a unit inadequate if it is deficient in one of six areas; for example, a unit lacking electricity or kitchen facilities is inadequate. If a unit was not deficient in any of the six areas, we classified the unit as adequate (see app. I).

In 1975 about 1.4 million low-income households, or 72 percent of the entire low-income population, lived in adequate housing. By 1983 this number had increased to about 2.1 million, representing 81 percent of this income group. About 523,000 low-income households lived in inadequate housing in 1975 and by 1983, this number declined slightly to about 518,000. Overall, the percentage of low-income households living in inadequate housing decreased—from 28 percent to 19 percent.

Section 515 Program Primarily Benefits Very Low-Income Households

The majority of households assisted under the section 515 program have very low incomes (averaging under $8,200) and are headed by unmarried females. In addition, over 40 percent are headed by elderly persons.

Tenant Incomes

The Housing Act of 1949, as amended, provides that rural households with low and moderate incomes are eligible for section 515 housing. Our analysis of section 515 household income data showed that about 93 percent of the households assisted had very low or low incomes. The remainder, about 7 percent, had moderate incomes. The average income for all section 515 tenants was $8,179 as of April 1986.

About 68 percent of the section 515 households had very low incomes, averaging $6,006, and about 25 percent had low incomes, averaging $11,657. The average income of the moderate-income households was $16,907. Table 2.2 summarizes the incomes of section 515 tenants as of April 1986.

Table 2.2: Incomes of Section 515 Households as of April 30, 1986

Income status of household	Occupied units reported	Percentage of units occupied	Average income of households
Very low income	183,253	68	$6,006
Low income	66,592	25	11,657
Moderate income	19,068	7	16,907
Total	**268,913**	**100**	
Average income, all households			**$8,179**

Source: GAO analysis of tenant income data reported by FmHA's MISTR System.

Tenant Characteristics

About 85 percent of the FmHA tenants were white, 11 percent were black, 3 percent were Hispanic, and 1 percent were Asian or Indian. About 72 percent of the heads of households were unmarried, 24 percent were married, and 4 percent were separated. In addition, about 64 percent of the households were headed by women. About 44 percent were headed by an elderly person and 5 percent were headed by a handicapped person. Figure 2.3 shows the demographic characteristics of these tenants.

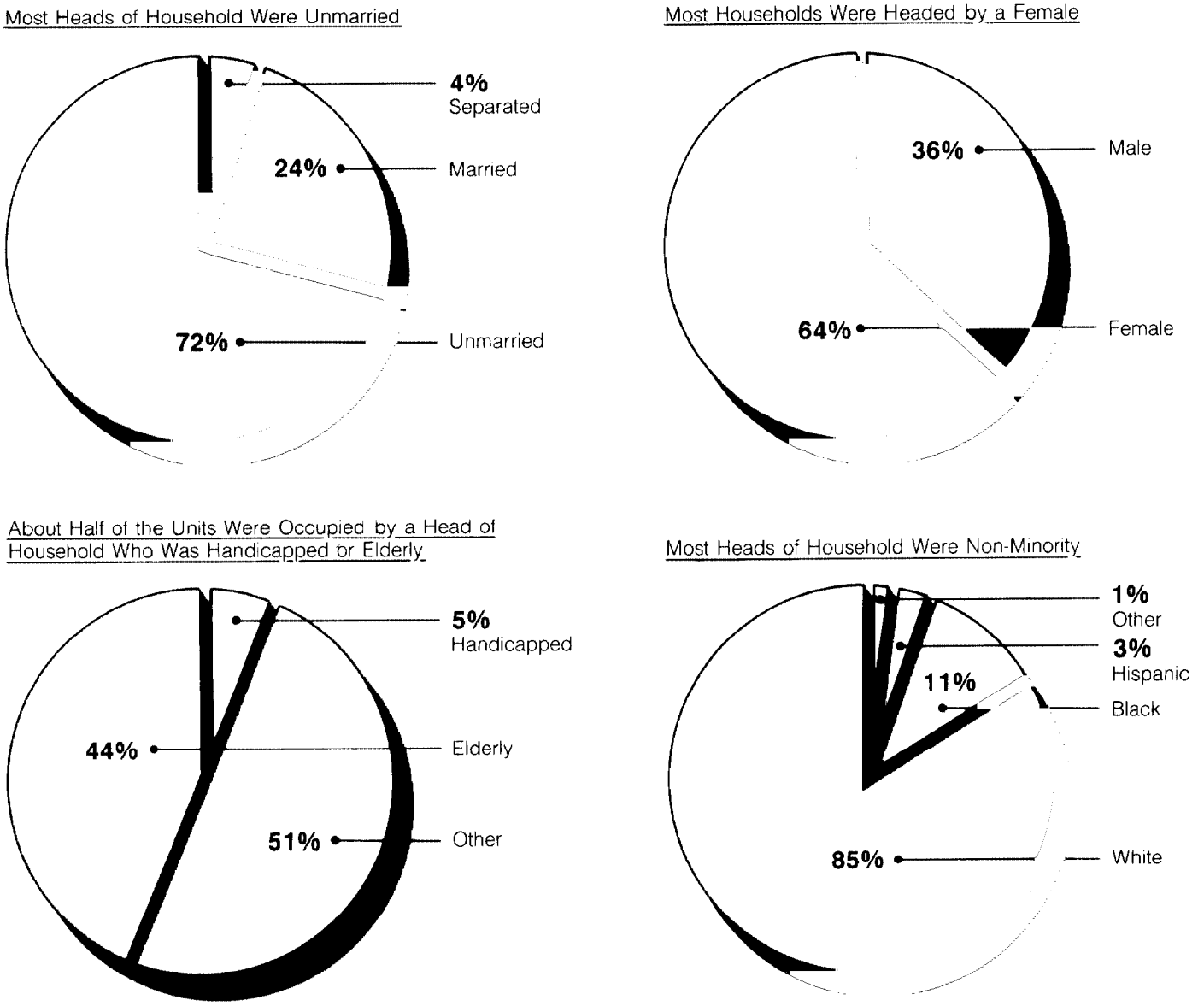
FmHA Has Had Some Success in Reaching Target Population

The Rural Housing Amendments of 1983 directed FmHA to give priority to persons and families who have the greatest housing assistance needs because they have low incomes and reside in inadequate dwellings. FmHA, through its section 515 program, has been fairly successful in helping low-income households reduce their rent burdens and, to a lesser degree, in providing housing for those living in substandard housing. Almost half of the households moving into section 515 projects subsequently paid a smaller percentage of their income on rent. In addition, 13 percent of program beneficiaries had previously been living in substandard housing.

Program Reduced Rent Burden for Half of the Households

The section 515 program enabled many households to reduce their rent burden. We obtained and analyzed rent data from project managers for about 1,100 households living in 63 section 515 projects in the 6 states we visited. About 49 percent paid less for their section 515 housing (rent plus utilities) than they paid for their previous housing; however, some still incurred an excessive rent burden. We used the HUD and FmHA criterion of 30 percent or less of household income as a reasonable rent burden. We found that 39 percent of the 1,100 tenants were paying over 30 percent of their income for housing before they moved into section 515

Figure 2.3: Demographic Characteristics of Section 515 Households



Source: GAO analysis of tenant data reported by the FmHA MISTR System, Apr. 1986.

housing, whereas after moving, only 26 percent were paying over 30 percent. Thus, the section 515 program reduced the excessive rent burden for about 13 percent of the tenants.

While some section 515 households experienced rent reductions, our analysis also showed that 51 percent of these households paid the same portion, or a higher portion, of their income for section 515 housing than for their previous housing. FmHA representatives and project managers thought that this was because either some tenants previously lived with family members and paid no rent, some obtained better housing, or others moved from housing that they owned—particularly the elderly. Our analysis confirmed these perceptions. For example, 209, or 19 percent, of the 1,100 households we surveyed paid no rent before moving into section 515 housing, including 140 who had lived with parents, children, or other family members.

Project managers told us they did not give preference to households with excessive rent burdens, nor did FmHA regulations require them to do so. Project managers said that they had followed FmHA regulations and rented apartments on a first-come-first-served basis to eligible applicants. FmHA implemented revised regulations on October 1, 1986, covering selection of section 515 tenants. These regulations require that eligible applicants be selected on a first-come-first-served basis in the following priority: (1) very low income, (2) low income, and (3) moderate income. Since very low-income applicants tend to have higher rent burdens, the regulatory change may also result in a greater portion of households with higher rent burdens being assisted in the future.

Some FmHA Households Moved From Substandard Housing

Generally, neither FmHA district offices nor project managers maintain records on tenants who moved from substandard housing. At our request, however, project managers obtained this information from the 1,100 households previously discussed. These data showed that only 151 of the 1,100 households, or about 13 percent, moved from substandard housing. Households coming from substandard housing ranged from 4 percent in Missouri to 26 percent in Georgia.

FmHA's formula for allocating section 515 funds to state and district offices is designed to help ensure that funds are targeted to areas where substandard housing is most prevalent. In addition, FmHA regulations direct state and district offices to give preference in selecting and processing applications for loans for construction of projects to projects that will be located in areas or communities having a higher percentage of substandard housing. However, the regulations do not require project managers to give preference to applicants living in substandard housing when selecting tenants. Rather, project managers rent the apartments on a first-come-first-served basis to eligible applicants.

We discussed with FmHA headquarters officials whether FmHA had considered giving preference to applicants living in substandard housing. However, the chief of FmHA's Rural Rental Housing Office said that FmHA had no plans to do so because it had been unable to devise a feasible means of implementing or enforcing this provision. He said that FmHA was concerned about whether project managers could effectively determine whether applicants occupied substandard housing and whether FmHA could effectively monitor project managers' performance. He said that to implement and enforce this provision, FmHA would need more staff.

Potential Effect of HUD's Income Eligibility Rules on the Section 515 Program

The Rural Housing Amendments of 1983 also directed FmHA to use HUD's definition of income levels for very low- and low-income households under the United States Housing Act of 1937, as amended, in determining tenant eligibility for housing assistance under the section 515 program.[3] In October 1986 FmHA made certain changes that closely align its eligibility definition with HUD's; however, one difference remains. FmHA still adjusts household income when determining program eligibility, which, to a limited extent, enables higher income households to qualify for section 515 housing. If FmHA were to use total household income as HUD does, it would lower the income eligibility ceiling for all three income groups—very low, low, and moderate income.

Past and Present Differences in FmHA and HUD Methods of Determining Program Eligibility

Both FmHA regulations for the section 515 program and HUD regulations for the low-income housing assistance or section 8 program (of the United States Housing Act of 1937, as amended) define low income as 80 percent of an area's median income and very low income as 50 percent of an area's median income. However, FmHA's past regulations did not require that a household's income be adjusted for family size when determining program eligibility. On the other hand, HUD has always determined median income on the basis of families of four and then adjusted these incomes up or down for larger and smaller families. The section 515 program, as discussed in chapter 1, also permits participation by moderate-income households—those whose incomes are not more than $5,500 above the low-income limit—whereas HUD's section 8 program does not.

The family size adjustments HUD makes tend to lower the qualifying income level for smaller households (one to three people) and increase

[3]42 U.S.C. Secs. 1437 et seq. (1987 Supp.)

the qualifying income level for larger households (more than four people). FmHA's new regulations, effective October 1, 1986, adopt HUD's family size adjustments and, as one would expect, have the same effect. For instance, a small family whose income had previously been at the high end of the very low-income category would now be classified as low income, and a small family whose income had been at the high end of the low-income group would now be categorized as moderate income. These families would all still be eligible for section 515 assistance, but those who were recategorized into a higher income group would be given a lower priority for assistance. A small portion of families—small families with incomes previously at the high end of the moderate-income group—also would likely fall out of the program as a result of FmHA's changes. However, as only 7 percent of section 515 households have moderate incomes and only some of these households are small, it follows that relatively few will become ineligible for the program as a result of FmHA's adopting HUD's family size adjustments.

In addition, before October 1986, FmHA and HUD calculated adjusted household income differently and, although both used it to determine household rent contributions, FmHA also used it to determine household eligibility for the section 515 program. To determine adjusted household income, FmHA deducted 5 percent of total household income and $300 per child under 18 years old. HUD did not, nor does it now, make this 5-percent deduction, but it does deduct $480 for each household member under 18 years old and each member who is 18 years or older and is disabled, handicapped, or a full-time student. HUD continues to make a $400 adjustment for a household headed by an elderly person plus adjustments for certain medical and child care expenses. It was not until October 1986 that FmHA made similar adjustments. A household's composition will determine the effect FmHA's new regulations will have on a household's rent contribution and program eligibility.

According to an FmHA official, the agency is aware that HUD uses total household income to determine program eligibility while FmHA continues to use adjusted gross income. However, he said that he believes this difference is not significant since both programs assist households with similar incomes. While in practice both programs may be assisting households with similar incomes, FmHA's use of adjusted gross income provides the opportunity for households with higher incomes to qualify for section 515 assistance.

Opportunities for Reducing Housing Costs

In recent years the Congress has become concerned over the rising cost of housing and how housing costs could be reduced to minimize subsidies and make housing more affordable to low-income households. In response to these concerns, FmHA met in December 1985 with developers and others from the government and private sector having an interest in rural housing to discuss ways FmHA could contain or reduce costs. Subsequently, in January 1986 FmHA provided guidelines to its field offices for reducing housing construction costs in its section 515 program. The guidelines proposed a number of measures for reducing the costs of land, site improvements, buildings, and extra features.

Reactions among section 515 housing developers and FmHA field office personnel have been mixed regarding the proposed cost-reduction measures. Of developers who completed projects in 1985 and responded to our questionnaire, 69 percent said their costs could have been reduced by implementing at least one or more of the proposed cost-reduction measures. In fact, some of them have already adopted selected measures to reduce costs. However, others oppose the measures because of concerns that they would jeopardize the marketability or community acceptance of the housing projects or would increase project maintenance or utility costs.

The cost-reduction measures discussed in this chapter include many of those suggested by FmHA in its January 1986 guidelines. Those that seem most promising and are most widely accepted include

- reducing the size of dwelling units;
- using less costly building styles and materials;
- reducing architectural fees and construction costs through reuse of building designs;
- maximizing land use through increased housing density;
- eliminating extra features such as sliding glass doors, balconies, and patios; and
- limiting site improvements by eliminating some community rooms, reducing parking spaces and project entrances, and conserving on curbing, paving, and landscaping.

Responses to our questionnaire from developers, who completed 320 section 515 housing projects in 1985 at a cost of about $243 million, showed that these measures could have reduced the costs of some projects. Developers of 220 of these projects estimated that about $7.9 million could have been trimmed from their development costs by implementing all of the measures each considered feasible. This could have

reduced federal subsidy costs by more than $7 million, or provided about 258 additional units. Moreover, considering that FmHA has approved an average of 1,300 projects per year over the last 5 years, our estimated $7.9-million savings would be far greater if the cost-reduction measures proposed by individual developers were more widely adopted by others.

Size and Cost of Section 515 Units

We analyzed the costs of about 1,300 FmHA-financed housing projects, consisting of about 35,000 units that were completed in 1984 and 1985, as shown by the FmHA MISTR System. As shown in table 3.1, the average cost of these units was about $30,600 and ranged from a low of $29,545 in places with a population of 2,500 or less to a high of $31,739 in areas with a population of 10,000 to 20,000—a difference of 7 percent. Projects in places with larger populations generally had more units and were more costly than those in areas with smaller populations. Overall, projects averaged 26 units each and ranged from 21 units in areas of 2,500 people or under to 33 units in areas of 10,000 to 20,000 people.

Average housing costs among states reflected a much greater range, which can be explained by differences in land costs, project features, and state preferences for building styles and construction methods. Nationwide, costs averaged from about $23,186 in Missouri to a high of $55,911 in Alaska. (See app. I for a complete listing.)

FmHA considers its projects "modest" housing. Most units contain either one or two bedrooms and are limited in size by FmHA regulations depending upon the number of bedrooms. For example, one-bedroom units can contain up to 700 square feet of living area; two-bedroom units, up to 850 square feet; and three-bedroom units, 1,020 square feet. The average size of all units was 728 square feet of living area, and average unit size, by population, ranged from 715 square feet in areas with populations of 2,500 or less to 747 square feet in areas with populations of 5,501 to 10,000, a difference of 4 percent. The average size of units, by state, ranged from 576 square feet in Nebraska to 833 square feet in Delaware. Typical features included a kitchen, small dining area, bathroom, bedroom(s), and several storage closets. FmHA does not allow a number of amenities, such as swimming pools, covered parking, and fireplaces, which may be customary at many commercially built and financed projects.

Table 3.1: Average Cost and Size of Projects and Units, 1984-85

Population of city	Average cost per unit	Average unit size (square feet)	Average units per project	Average project cost
2,500 or less	$29,545	715	21	$639,503
2,501 to 5,500	31,343	737	29	898,764
5,501 to 10,000	31,651	747	32	1,029,221
10,001 to 20,000	31,739	735	33	1,056,402
Average	**$30,600**	**728**	**26**	**$820,717**

Source: GAO analysis of projects completed in 1984 and 1985, FmHA MISTR System data.

Table 3.2: Average Housing Costs and Size of Units in States Visited, 1984-85

State	Average cost per unit	Average unit size (square feet)	Average cost per square foot
Missouri	$23,186	679	$34.13
Alabama	25,720	782	32.91
Texas	27,387	765	35.80
Michigan	30,143	701	42.99
Georgia	27,144	828	32.78
Arkansas	31,177	679	45.94

Source: GAO analysis of projects completed in 1984 and 1985, FmHA MISTR System data.

FmHA Emphasis on Cost Reduction

In December 1985 FmHA headquarters staff met with certain field office staff, developers, representatives of rural housing interest groups, and others from the private sector to discuss ways to further contain or reduce costs in the section 515 program in light of rising housing costs and possible budget cuts. During the meeting, participants discussed various alternatives for reducing costs in such areas as building construction, land, and site improvements.

As a result of this meeting, FmHA headquarters issued guidelines in January 1986 to state and district offices containing cost-saving measures to be considered when developing section 515 projects. The guidelines included the following measures:

- Reduce construction costs by building smaller apartment units; limiting management, maintenance, and community rooms; encouraging project designs that use standardized building materials; and avoiding elaborate designs.

- Decrease site costs by increasing units per acre; using sites requiring minimum development and landscaping; and encouraging sites where water, sewer, and streets are already available.
- Eliminate excessive site paving, decks, balconies, patios, sliding glass doors, expensive cabinets, elaborate mailbox enclosures, ceramic tile, and costly siding.

In addition, FmHA headquarters requested that its state offices comment on the feasibility of other cost-reduction proposals, e.g., increasing reuse of building designs; eliminating more expensive building styles, such as townhouses; and reducing entrances and parking at projects.

Headquarters emphasized in its field guidance that rural rental housing projects "must be economical in construction and not of elaborate design or materials." Concerning quality, the guidance stated that

"Cost reduction is not to be interpreted as accepting 'poor design' or 'cheap construction.' Projects must continue to provide the features and amenities necessary for the lifestyles of the tenants and the interest of the Government."

Possible Cost-Reduction Measures

FmHA is in the process of revising its regulations to incorporate the cost-reduction measures it proposed in January 1986. To identify developers' views on these and other cost-reduction measures, we analyzed responses to questionnaires from developers who completed 320 FmHA projects in 1985 containing a total of 7,883 units. These projects cost about $243 million and represented approximately 30 percent of all projects completed in 1985.

Of the 320 developers responding to our questionnaire, 220 said that at least one of the cost-reduction measures FmHA identified could have been implemented at their projects. The degree to which each measure could have been applied varied from project to project because of differences in projects and developers' opinions on the applicability of individual measures. Our questionnaire asked developers to exclude any cost-reduction measures that could jeopardize project marketability or community acceptance or increase operating, maintenance, or utility costs, thus enhancing the reasonableness of each measure identified.

Table 3.3 summarizes the cost reductions that developers said could have been realized had appropriate measures been implemented at their projects. It shows that overall, construction costs could have been reduced about $7.9 million. Given an average per-unit cost of $30,600,

this could provide about 258 additional units. Moreover, we estimate that federal subsidy savings, related to these construction cost reductions, would be over $7 million.

Table 3.3: Cost-Reduction Measures Developers Believed Practical and Their Estimates of Cost Savings

Developers in percent

Cost-reduction measure[a]	Developers agreeing with measure	Developers making cost-savings estimates	Estimated cost savings
1. Reduce size of units	17	15	$944,000
2. Use less expensive			
building styles	12	11	904,000
materials	11	9	438,000
3. Reuse designs to			
reduce architect fees	41	35	894,000
reduce other costs	31	24	552,000
4. Increase apartment units per acre	33	28	2,054,000
5. Eliminate extra features			
balconies/patios	13	9	197,000
sliding glass doors	9	7	75,000
6. Eliminate community rooms	13	10	467,000
7. Reduce parking	13	11	197,000
8. Conserve on			
entrances	21	17	432,000
paving and curbing	20	18	488,000
9. Reduce landscaping	17	15	233,000
Total			**$7,875,000**

[a]Of the 320 developers responding to our questionnaire, 220 indicated at least one or more of the cost reduction measures could have been taken at their projects.

Source: GAO analysis of 320 questionnaires sent to developers who completed projects in 1985, and analysis of FmHA subsidy costs.

Although the results of our questionnaire cannot be projected to FmHA's entire 1985 housing program, we believe the potential exists to save considerably more than $7.9 million through broader application of these measures. Accordingly, we believe each measure should be carefully evaluated on a project-by-project basis to maximize savings.

Reduce the Size of Units

FmHA could reduce costs by building smaller apartment units. Although most FmHA field officials we interviewed and developers who responded to our questionnaire are opposed to smaller units largely because of perceived difficulty in marketability, some developers who responded to our questionnaire said they could have reduced the size of projects they completed in 1985. We also estimated that about 55 percent of section

515 units completed between January and October 1985 were larger than the new reduced size limits FmHA has proposed for its units.

Of the 320 developers responding to our questionnaire, 17 percent said their units could have been reduced in size. Fifteen percent estimated that their costs would have been reduced an average of $700 per unit (2 percent did not provide estimates). On the basis of their estimates, total costs could have been reduced about $944,000 at their projects.

The director of FmHA's Multifamily Housing Processing Division stated that he believes reductions in size can be achieved without jeopardizing marketability and quality. In fact, FmHA has proposed to reduce its current living area size limits by up to 24 percent on some units. Table 3.4 compares FmHA's current and proposed living area limits.

Table 3.4: FmHA's Current and Proposed Living Area Limits for Section 515 Units

Figures in square feet

Type of unit	Current limits	Proposed limits	Proposed reduction	Percentage reduced
0 bedroom[a]	525	400	125	24
1 bedroom	700	650	50	7
2 bedroom	850	800	50	6
3 bedroom	1,020	950	70	7
4 bedroom	1,200	1,100	100	8

[a]Efficiency units.

Source: FmHA headquarters.

To determine the impact that these proposed, smaller size limits could have had on units built in 1985, we analyzed 747 projects containing about 19,000 units that were completed between January and October 1985, including 320 projects surveyed in our questionnaire. Table 3.5 shows that 55 percent of these units would have exceeded FmHA's proposed new limits by an average of 53 square feet.

Table 3.5: Size of Units Completed Between January and October 1985 Compared With FmHA's Proposed Living Area Limits

Figures in square feet

Type of unit	Proposed FmHA size limits	Percentage of FmHA units larger than proposed limits	Average size of units larger than proposed limits	Average amount by which units exceeded proposed limits
0 bedroom[a]	400	78	487	87
1 bedroom	650	40	691	41
2 bedroom	800	67	858	58
3 bedroom	950	69	1,035	85
4 bedroom	1,100	100	1,130	30
Average		**55**		**53**

[a]Efficiency units.

Source: GAO analysis of FmHA housing units completed between January and October 1985 as shown by FmHA MISTR System data.

To estimate the potential savings that could have been realized had units been constructed to FmHA's proposed specifications, we asked the FmHA state and district officials we visited to estimate possible cost reductions if apartment size was reduced. On the basis of their estimates, costs could be reduced by about $12 to $15 per square foot, or about $640 to $800 per unit. Their estimates were comparable to the cost reductions cited by developers who responded to our questionnaire. We multiplied these estimates by the units completed in 1985 that exceeded FmHA's proposed limits and found that about $6.6 million to $8.3 million in potential cost reductions would have resulted from using FmHA's proposed smaller size standards.

Use Less Expensive Building Styles and Materials

FmHA could reduce housing costs by using less expensive apartment styles and building materials. FmHA procedures do not prohibit the use of any specific apartment style and building material as long as the apartment unit meets or exceeds minimum property standards. However, some FmHA field offices require developers to use more expensive apartment styles and building materials. Developers responding to our questionnaire estimated that using less expensive styles and less expensive material could have reduced costs of some units completed in 1985.

Building Styles

Developers and FmHA officials suggested that costs could be reduced by eliminating the townhouse design and using the garden apartment design instead. Of the six states we visited, the townhouse design was

used only in Georgia. A Georgia rural housing official said using the townhouse design was an effort by builders, borrowers, and FmHA to keep projects from resembling "government housing" and to increase community and tenant acceptance of them. Townhouse designs have two floors and are generally more expensive than one-level, garden-style units because of added plumbing features and stairway requirements. (See figs. 3.1 and 3.2.) He estimated that replacing the townhouse design with the less expensive garden apartment design generally used in the other states could reduce costs by about $1,700 per unit.

About 12 percent of the developers responding to our questionnaire said that using less expensive building styles could have reduced costs. Those who provided cost estimates (11 percent) estimated that building less expensive styles could have reduced costs an average of $1,126 per unit. On the basis of their estimates, total costs could have been reduced by about $904,000 at their projects.

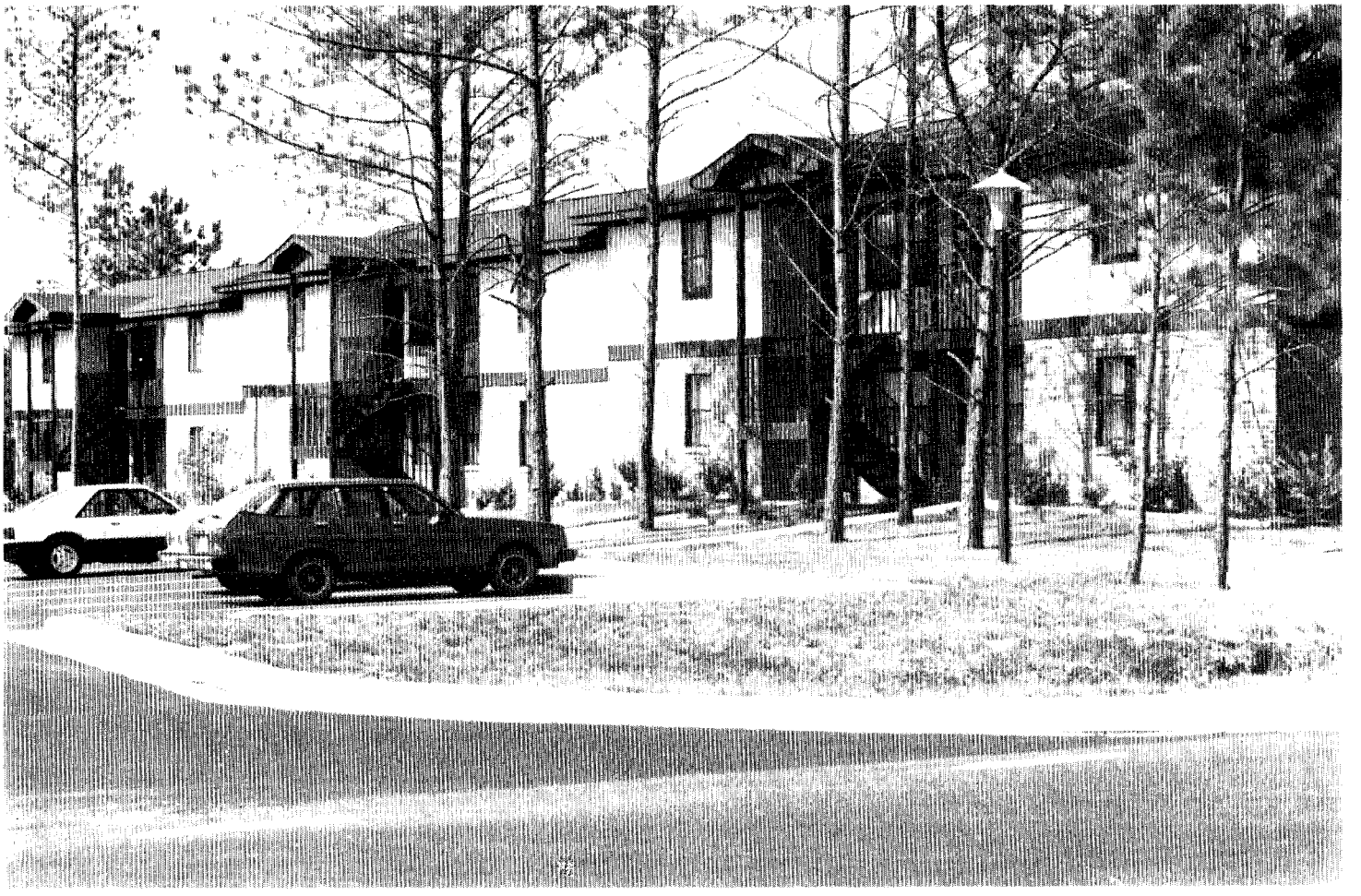
Building Materials

Developers also told us that some FmHA offices require them to use materials that unnecessarily increased costs. For example, two developers who built projects in Michigan and other states said some FmHA state offices permit cabinets made of less expensive particle board, some require more expensive combination wood and particle board, and others require the most expensive material, all wood. To illustrate the substantial difference in cabinet costs, one developer said the costs of his particle board cabinets in a 24-unit project in Michigan were $15,000 compared with $24,000 for an identical project he built in Ohio using wood. He also told us he had used less expensive particle board cabinets in commercial luxury apartments for years and had never had any trouble with them.

Several developers recommended that FmHA tighten its standards so that wide ranges in quality are reduced and costs are better controlled. For example, a Georgia developer told us FmHA requires birch interior doors in some locations instead of less expensive basic lauan doors. He said birch doors are only used in "better" homes, and

> "that in the future when an owner has a damaged door or needs a replacement, he is going to be out of luck, because small town supply companies cannot afford to stock them."

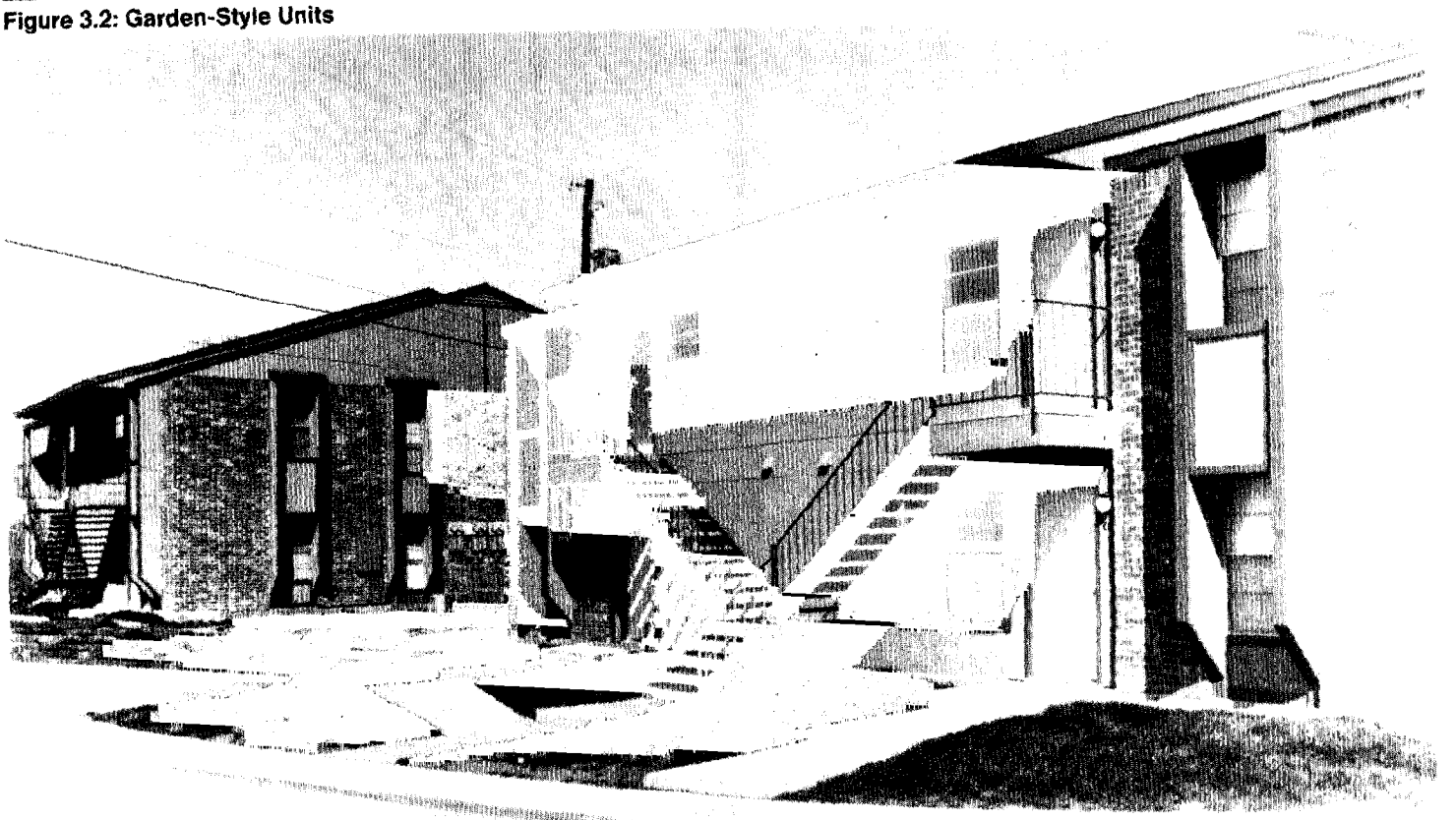
Figure 3.1: Townhouses



These section 515 townhouse units are usually more expensive because of additional requirements for plumbing and stairways.

Costs of items such as doors, cabinets, and appliances varied significantly at a number of projects we visited. For example, at three 12-unit projects in Alabama and Georgia, the cost of doors ranged from $563 to $886 per unit, cabinets from $594 to $1,005, and appliances from $723 to $953. Several developers recommended that FmHA tighten its standards to reduce wide ranges in quality and costs.

Figure 3.2: Garden-Style Units



These section 515 garden-style units are often less expensive to build than townhouse units.

The director of FmHA's Multifamily Housing Processing Division informed us that state offices sometimes differ in their views of construction quality and that personal preferences of state office architects or engineers who review proposed plans could contribute to cost variances. Data obtained through our questionnaire showed, however, that about 11 percent of the developers believed they could have reduced costs by using less expensive building materials. Nine percent estimated that they could have realized an average savings of $617 per unit at their projects (2 percent offered no estimates). On this basis, we calculated that about $438,000 could have been saved had less expensive materials been used at their projects.

Reuse Building Design Plans

FmHA also could reduce design fees and construction costs by reusing project building plans. According to FmHA officials and developers, FmHA procedures neither preclude nor encourage repetitive use of designs; rather FmHA generally allows each developer to design his own project. However, using the same basic design plan for more than one project could reduce design fees and construction costs.

About 41 percent of the developers who responded to our questionnaire said reuse of design plans could have reduced architect fees at their projects. Those providing savings estimates (35 percent) estimated that they could have saved an average of $385 per unit in fees. On the basis of this estimate, we calculated that reusing design plans could have reduced costs about $894,000 at their projects. In addition to architect fee reductions, 31 percent of the developers responding to our questionnaire stated that reusing plans could also reduce other construction costs. About 24 percent of the developers (7 percent made no estimates) estimated that reusing plans could have reduced costs about $372 per unit. We calculated that about $552,000 could have been saved at their projects on this basis had they used existing plans.

Of the states we visited, Missouri, Michigan, and Georgia encouraged reuse of designs to some extent; Alabama, Arkansas, and Texas generally did not use or rarely used repetitive designs. FmHA state officials in Alabama, for example, preclude using the same design more than three times in the state because of concern that the projects will take on the character of "government housing." However, two developers we talked with in Alabama about reusing plans disagreed with this restriction. One developer explained that under this policy, if developers used the same design for three projects in the northern part of the state, they would be precluded from using this design in the southern part of the state. Both developers questioned the logic of this policy because projects could be hundreds of miles apart, thus minimizing the likelihood of anyone associating the projects with each other.

FmHA state officials in Arkansas said repeated use of the same design would rarely be appropriate because of differences in each site and town. They told us that each project should be designed to take advantage of each site's natural features and should not take on the characteristics of low-rent housing that most neighborhoods and towns oppose. An official in the FmHA state office in Texas told us that reusing plans would reduce costs. However, he said that a sliding scale system to compute acceptable fees on projects in which plans are reused would have to be developed.

In contrast to Alabama, Arkansas, and Texas, repetitive designs are used extensively in Missouri. Developers in Missouri use four basic one-bedroom floor plans, which they adapt to individual project sites. As a result, FmHA state officials estimate that architectural fees were cut by 30 percent on some projects. We estimated that this was equivalent to a savings of $350 per unit.

Responses to our questionnaire and interviews with FmHA officials and developers in six states revealed that costs could also have been reduced in other states by reusing plans. One developer made the following comment in his questionnaire response:

"Six to ten sets of uniform plans could be utilized for a state the size of Texas. Only a site plan would need to be drafted, thus eliminating substantial architectural cost and FmHA engineering review."

Another developer said that plans could be standardized for projects containing 8 to 24 units without affecting the quality of the project. A third indicated that he had reused plans in the private sector and saved $1,500 per unit. He noted that FmHA had paid the maximum architectural fees on several projects he built even though the plans had been reused by several architects.

Some FmHA officials in the six states we visited said that reuse of plans would reduce architectural fees by as much as 50 percent in some cases. At most of the locations where plans were not reused, these fees were as much as 6 percent of total project costs. FmHA headquarters officials also said that field offices could reuse plans more frequently.

Reusing plans also could reduce construction costs by reducing construction time and building materials as developers become more familiar with the plan. Missouri FmHA officials informed us that reusing plans has been one important factor in holding construction costs down to an average of about $23,000 per unit, or 26 percent below the nationwide average of about $31,000. Since about 90 percent of all one-bedroom units in Missouri are built with reused plans, state officials said that builders are more efficient because of their familiarity with specific plans. They said that uncertainty costs money, and reusing designs reduces uncertainties. For instance, plumbing and electrical specifications are essentially the same for each Missouri floor plan, thereby minimizing the need for changes.

A Michigan developer who reused designs said that his familiarity with a plan allows his crew to frame a 16-unit project in 10 days and have no more than "a wheelbarrow of scrap" left. He estimated that reusing designs could reduce construction costs by about $2 to $3 per square foot. A $3-per square foot reduction for the average size Michigan unit completed in 1985 would total about $2,000.

Increase Unit Density

FmHA could have reduced unit costs at certain projects in 1985 by increasing the density, or number of units constructed per acre. Approximately 33 percent of the developers responding to our questionnaire indicated density could have been increased. At 44 projects we visited, density averaged 8.67 units per acre; however, developers at some of these projects said density could have been increased to as many as 20 units per acre without adversely affecting their projects.

FmHA headquarters has not established a target for the number of units to be constructed per acre. Rather, this decision has been left to the discretion of the FmHA state offices in recognition that individual circumstances (e.g., land costs and rezoning ordinances) should dictate what is appropriate in particular situations. FmHA's January 1986 guidelines suggested, however, that state offices consider increasing unit density.

About 28 percent of the developers responding to our questionnaire said that costs could have been reduced an average of $731 per unit by increasing unit density. (The remaining 5 percent who indicated increased density was possible did not provide estimates.) For example, a builder in Texas stated that FmHA should mandate at least 20 units per acre unless otherwise required by local ordinance.

Another Texas builder commented that substantial savings could be achieved if more units were built on project sites, particularly where land costs are higher. On the basis of cost data that developers provided for their projects in response to our questionnaire, we estimate that costs could have been reduced by about $2.1 million at those projects.

One option for increasing density is to increase the number of two-story buildings in family projects. For example, in two states we visited, two family projects of 40 and 48 units each contained one-story buildings and had densities of only 7.3 and 8.3 units per acre, respectively. An Alabama developer who constructed the 48-unit project said he could have saved $833 per unit if he had built a two-story project and increased density from 7.3 to 15 units per acre. He said this savings

would have resulted from reduced construction costs of $433 per unit and reduced land costs of $400 per unit. FmHA headquarters officials also said construction of two-story instead of one-story buildings could reduce costs, but emphasized that two-story buildings are not as desirable in projects designated for the elderly, who sometimes have difficulty in climbing stairways to second-level units.

Our field visits also confirmed that in areas where land costs are high, increased density was particularly effective in reducing costs. For example, land costs for 10 of the 44 projects we visited exceeded $15,000 per acre and ranged from $625 to $2,500 per unit. Density averaged 12 units per acre and ranged from a low of 7.4 units per acre at a 32-unit project to a high of 30 units per acre at a 48-unit project. One project we visited in a high-cost area contained 40 units and was built on 4.3 acres, which resulted in a density of 9.4 units per acre. The developer at this project told us that land costs totaled $85,000 but could have been reduced by about $37,000 if density had been increased to 20 units per acre because land requirements would have been reduced to 2.4 acres. He said he did not propose building 20 units per acre because FmHA encourages projects of 10 to 14 units per acre. He favored increasing density on most FmHA projects.

Eliminate Certain Features

FmHA's January 1986 guidelines stated that field offices should consider reducing the use of features such as balconies, patios, and sliding glass doors as a cost-reduction measure. Developers responding to our questionnaire said that eliminating these features could reduce costs. We also identified other features that could reduce costs if eliminated, such as bay windows, roof gutters, downspouts, and half-bathrooms.

We found at least 1 of the above features in 75 percent of the 44 projects we visited. For example, all 6 of the projects we visited in Michigan and 4 of the 10 projects in Alabama had sliding glass doors and patios. Two projects in Texas had bay windows that added about $300 per unit to the cost of each project. Two-level townhouse units in Georgia contained half-bathrooms that added about $700 per unit. In Michigan, roof gutters and downspouts were installed at four projects, which, according to one developer, increased costs about $30 per unit. This developer said he has recommended to the state office that such a drainage system be excluded on his projects to reduce construction costs. Another developer said that eliminating this feature could also reduce maintenance costs and problems. Table 3.6 summarizes data we obtained on selected features at 44 projects in the 6 states we visited.

Table 3.6: States Approving Selected Features and Projects That Had These Features

Feature	States approving feature	Projects with feature
Balconies/patios	5	17
Sliding glass doors	2	10
Half-bathrooms	2	8
Gutters and roof downspouts	2	5
Bay windows	1	2

Source: GAO visits to 44 projects in 6 states.

About 13 percent of the developers who responded to our questionnaire said that eliminating balconies or patios could have reduced costs at their projects. The 9 percent who provided cost-reduction estimates projected that they could have saved an average of $365 per unit. On this basis, we estimated that they could have reduced costs by about $197,000 at their projects. Further, about 9 percent of the developers said that eliminating sliding glass doors could reduce costs. Those providing cost-reduction estimates (7 percent) estimated that they could have saved about $178 per unit. On this basis, we estimated that about $75,000 could have been saved at their projects. We were unable to estimate the potential cost reduction associated with eliminating bay windows, half-bathrooms, and gutters and downspouts because we did not request this data in our questionnaire.

Figure 3.3 illustrates the use of several extra features on a 32-unit project in Michigan.

Limit Site Improvements

FmHA could have reduced housing costs by eliminating community rooms in some family projects, reducing parking areas and project entrances, conserving on paving and curbing, and limiting landscaping at certain projects.

Community Rooms

One measure that FmHA headquarters proposed to reduce costs was reducing the size of community rooms. Developers and FmHA field staff also told us that community rooms could even be eliminated from selected projects. In support of this, we found that tenants were not using the community rooms in some projects.

Figure 3.3: Apartments With Extra Features

These apartments had sliding glass doors, balconies, and gutters and downspouts.

About 13 percent of the developers who responded to our questionnaire indicated that project costs could have been reduced by eliminating community rooms. About 10 percent of the developers estimated that costs could have been reduced by an average of $631 per unit at their projects (3 percent did not provide estimates). Accordingly, we estimate that costs could have been reduced about $467,000 at their projects, most of which were serving families.

FmHA regulations authorize construction of community rooms but do not provide specific guidance on when community rooms should be included in projects. At the six states we visited, we found variations in guidance for authorizing community rooms and in the actual use of community rooms. For example, the state of Alabama authorized community rooms for both family and elderly projects, whereas the other five states only allowed community rooms for projects serving the elderly.

FmHA officials and developers told us that community rooms could be eliminated for projects that predominately serve families. However, they saw a greater need for community rooms in projects for the elderly. During our visits to projects for families and for the elderly, we found that the community rooms at projects for the elderly appeared to be used more than those at the family projects. For instance, 9 of 44 projects we visited (which included 4 for families and 5 for the elderly) had community rooms. The community rooms at the five projects for the elderly were furnished and usually had activities for the tenants. In contrast, two of the four community rooms in the family projects had not been furnished or used by tenants, according to project managers.

Figure 3.4 shows a combination community room, office, and storage facility that was built for a 12-unit family project in Alabama. Although the project had been operating for about 6 months at the time of our visit, the community room had not been furnished. Eliminating the room could have reduced costs by about $700 per apartment unit.

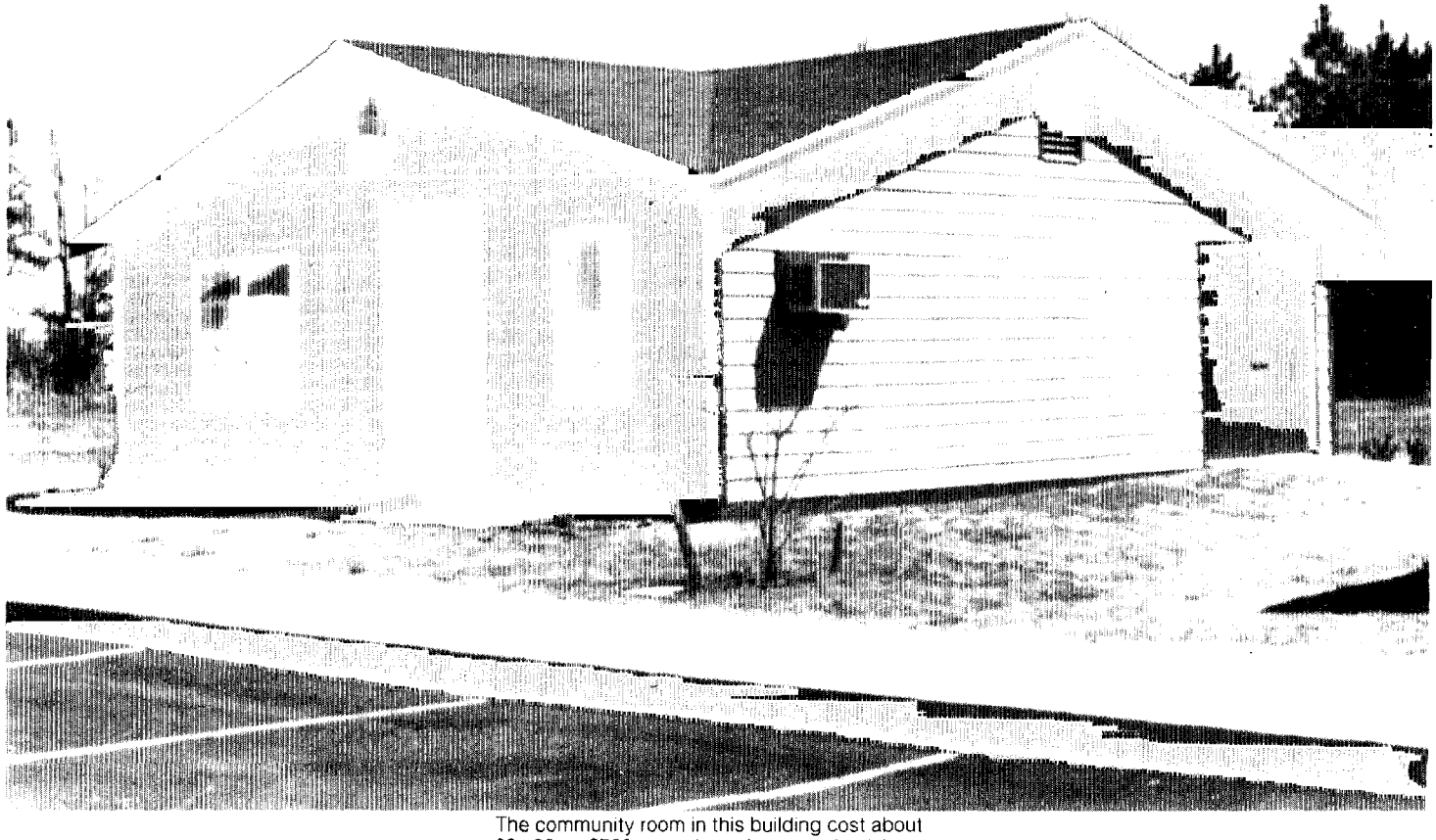
Parking

Developers responding to our questionnaire indicated that costs could also be cut by reducing project parking space. About 48 percent of the projects we visited exceeded the FmHA headquarters standard for parking spaces.

FmHA headquarters recommends that developers include 1.5 parking spaces for each apartment unit at their projects. For instance, for a project containing 24 units, approximately 36 parking spaces should be adequate for the site. Exceptions to this standard can occur, however, if local community ordinances require more space per unit than recommended by FmHA. In January 1986, in conjunction with its cost-reduction guidance, FmHA headquarters requested that field offices comment on the feasibility of reducing parking to 1.25 spaces per unit for family projects and 1 space per unit for elderly projects.

About 13 percent of the developers responding to our questionnaire said that eliminating some parking could have reduced costs in their 1985 projects. Approximately 11 percent estimated average cost reductions of $228 per apartment unit (2 percent provided no estimates), and on this basis, we estimate that about $197,000 could have been saved at their projects.

Figure 3.4: Building Containing Community Room for 12-Unit Project



The community room in this building cost about $8,400, or $700 per unit, and was not furnished.

Of the 44 projects we visited, 21 (48 percent) exceeded FmHA's suggested standard of 1.5 parking spaces per unit. Local ordinances did not require the additional spaces at 14 of the projects. Table 3.7 shows the number of projects that exceeded FmHA standards in each state. Overall, the 44 projects had an average of 1.7 parking spaces per unit, or about 13 percent over the suggested limit of 1.5.

Table 3.7: Projects That Exceeded FmHA Parking Space Standards

State	Projects visited	Projects exceeding 1.5 spaces per unit
Alabama	10	4
Arkansas	7	4
Georgia	7	7
Michigan	6	4
Missouri	7	2
Texas	7	0
Total	**44**	**21**

Source: GAO visits to FmHA projects and discussions with FmHA officials.

FmHA officials and developers in several of the states we visited commented that parking spaces could be reduced. In fact, the FmHA state office in Missouri has implemented a policy to limit parking to .625 spaces at units for the elderly on the basis of a 1982 study of parking utilization at projects in operation throughout the state. Several developers in Michigan also stated that parking they provided was sometimes excessive. For example, a 32-unit project for the elderly in Michigan had two parking spaces per unit. If only one space per unit had been built, costs could have been reduced approximately $190 per unit, or about $6,000 for the project. According to the project manager, tenants seldom used both of their parking slots simultaneously. The project in figure 3.6 has parking spaces that he said the tenants seldom used.

Project Entrances, Paving, and Curbing

Use of site improvements, such as additional entrances and paving or curbing, can also add to project development costs. Our questionnaire results showed that more conservative use of these site improvements could reduce costs up to about $600 per unit at certain projects. The developers at the 44 projects we visited told us that these improvements could have been reduced or avoided.

FmHA instructions provide that projects with more than 20 units shall have two entrances unless an exemption is granted by the FmHA state director. The requirement for two entrances is to reduce traffic concentration and provide emergency vehicle access should one be closed for any reason. As a cost-reduction measure, FmHA headquarters has asked state offices to comment on the feasibility of limiting projects to one entrance unless more are required by local ordinances.

About 21 percent of the developers responding to our questionnaire said that costs could have been reduced by limiting entrances to the minimum required by local ordinances. Approximately 17 percent of the developers estimated that an average of $286 per unit could have been saved, and on the basis of this estimate, we calculated that about $432,000 could have been saved at their projects. (The other 4 percent did not provide savings estimates.)

State guidelines for the six states we visited were inconsistent on requirements for second entrances at projects. For instance, Alabama required a second entrance if a project contained 20 or more units; Georgia and Texas required it if there were 24 or more units. Michigan projects usually were required to have a second entrance if there were 48 or more units. The other two states we visited had no specific criteria for second entrances.

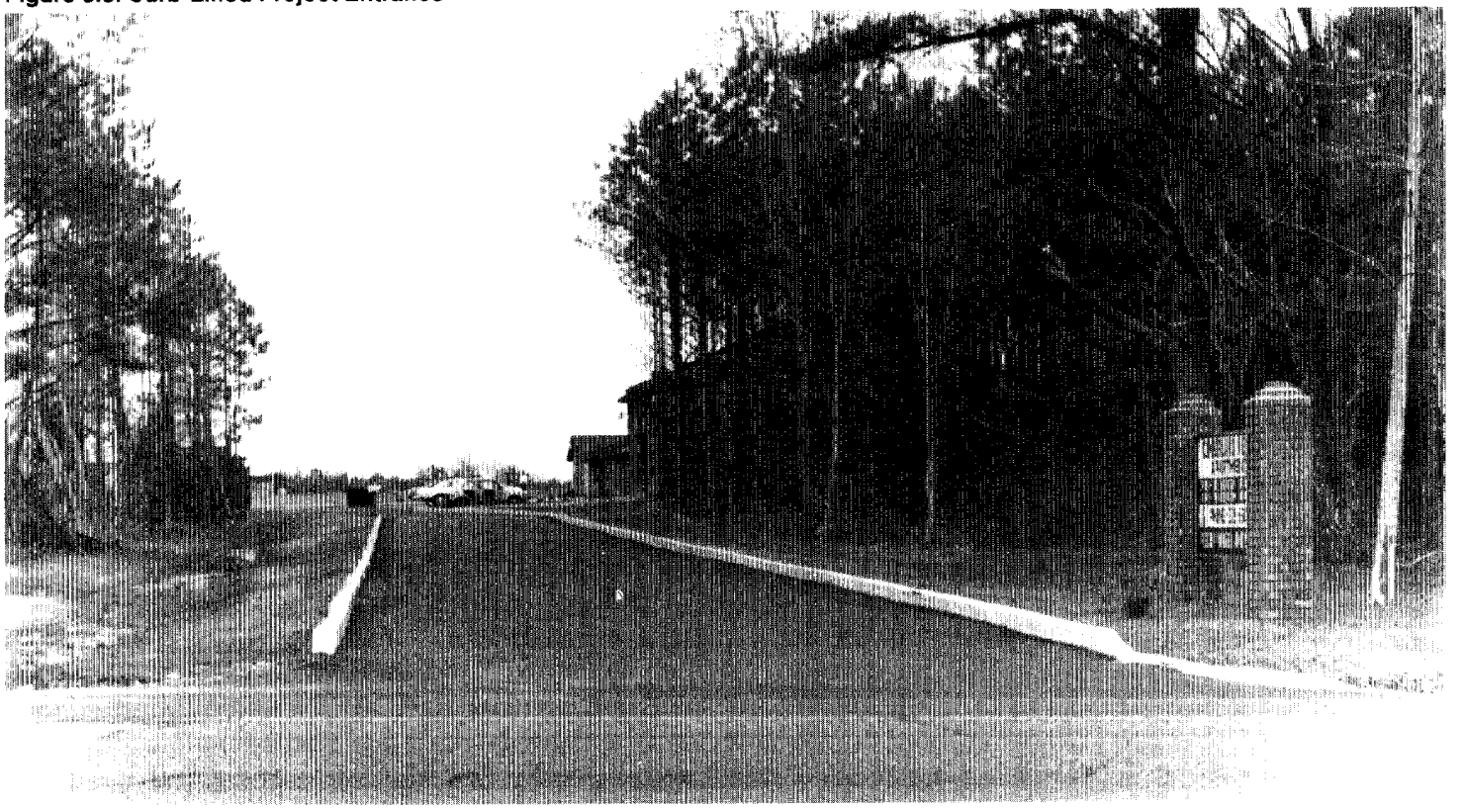
Of 16 developers we interviewed in the 6 states, 13 commented that second project entrances could be eliminated without jeopardizing projects. Several told us that some sites may need multiple entrances, but in general they said one entrance could usually provide adequate access. Several developers said that some building sites are eliminated from consideration in the program because FmHA requires two entrances when, because of site restrictions, it is not possible to accommodate more than one. A developer in Texas said he could have constructed a cul-de-sac at his 40-unit project and eliminated the second entrance at a savings of about $25,000, or $625 per unit. Another developer responding to our questionnaire stated that

"some states are requiring two separate entrances for an apartment project. This is not always feasible and is quite costly. I had a project . . . where the [FmHA] architect required a four-lane, paved entrance of around 500 or 600 feet, with medians, curb and gutter. This four-lane entrance entered into a two-lane road, and cost me approximately $100,000, or more than double what it should have cost . . ."

FmHA headquarters has also suggested that state offices conserve on project paving requirements. Our questionnaire results showed that about 20 percent of the developers could have reduced paving and curbing costs at their projects. About 18 percent estimated that they could have reduced costs an average of $321 per unit (2 percent gave no estimates), and on this basis, we estimated that about $488,000 could have been saved at their projects.

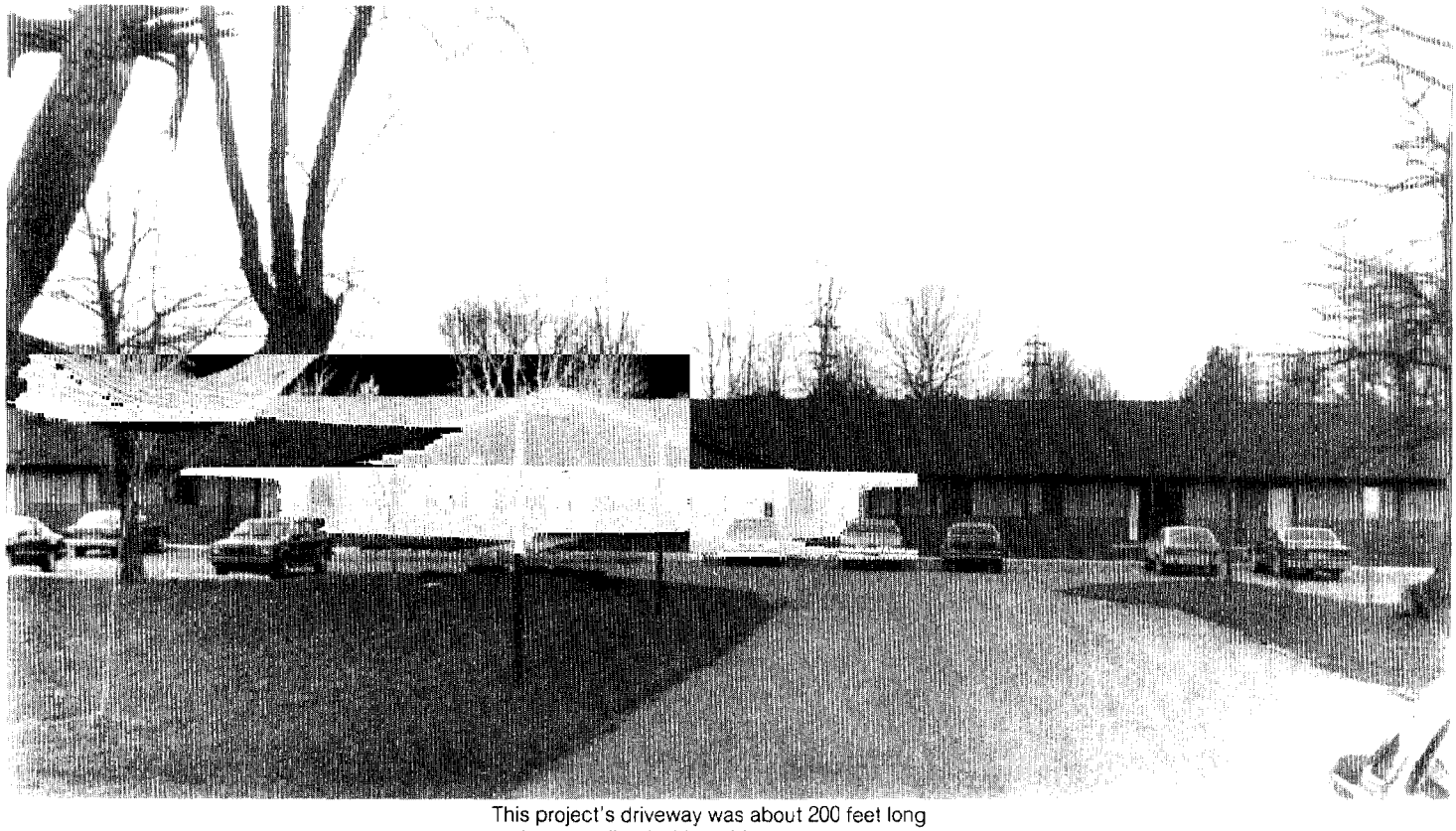
All 44 projects we visited had some form of paving, such as concrete or asphalt surfaces, in parking and driveway areas. These surfaces frequently were lined with curbing. We visited several sites where developers said curbing could have been reduced. For example, a 12-unit project in Alabama had a curb-lined, paved entrance that was 300 feet long and ran through a wooded area into the project. The use of curbing added about $2,100 to the cost of the project, or about $175 per unit. (See fig. 3.5.) In comparison, a project in Michigan with a 195-foot entrance and another in Arkansas with a 500-foot entrance, did not have curbs. (See fig. 3.6.)

Figure 3.5: Curb-Lined Project Entrance



According to the builder, this curbing added about $2,100 to the cost of this 300-foot entrance.

Figure 3.6: Project Entrance Not Lined With Curbing



This project's driveway was about 200 feet long and was not lined with curbing.

Landscaping

Project developers responding to our questionnaire said that landscaping costs could have been reduced at some projects. In addition, a number of developers in the six states we visited indicated that landscaping costs could have been reduced.

Although FmHA officials and developers we interviewed emphasized the need for adequate landscaping to increase a project's rentability and eye appeal, FmHA headquarters' cost-reduction guidelines suggested that excessive landscaping be reduced. About 17 percent of the developers responding to our questionnaire indicated that landscaping could have been reduced. Those providing cost estimates (15 percent) indicated that an average of $232 per unit could have been saved. On this basis, we calculated that they could have reduced costs by about $233,000 at their projects.

At the projects we visited, landscaping costs varied significantly from $93 to $1,368 per unit. State officials told us that each project is evaluated in terms of its own characteristics and landscaping needs. However, only two of the six states had established cost guidance on landscaping. Five of 16 developers we interviewed in the six states said landscaping could have been reduced. For example, one developer told us his costs were increased by $275 per unit because FmHA required numerous shrubs around the perimeter of his project. In his opinion, the added expense was unnecessary.

Mixed Views on Cost-Reduction Measures

FmHA field officials and project developers had mixed opinions concerning the potential effects cost-reduction measures could have on the section 515 program. While some expressed no concerns, others believed that these measures could adversely affect project marketability and long-term maintenance and operating costs. Some also pointed out that zoning or local ordinances may prevent implementation of certain measures. However, in asking developers to estimate the impact of cost-reduction measures previously discussed in this chapter, we asked that they include only those costs that could be reduced without (1) jeopardizing the marketability or community acceptance of the project or (2) increasing operating, maintenance, or utility costs.

Marketability

Some FmHA officials and developers said that smaller units or units with fewer site improvements or features would be difficult to rent. They believed that marketable units are essential to avoid high vacancy rates at their projects.

The director of FmHA's Multifamily Housing Processing Division, however, rejected the view that such units would be difficult to rent. He told us that the marketability argument has been overstated and that FmHA should not be financing apartments in areas where marketability is a problem.

Some projects we visited did not have certain extra features and improvements, but we observed few vacancies at these locations. Section 515 housing chiefs in several states said there was no unusual difficulty in leasing units without extra features. Further, several project managers and FmHA officials explained that section 515 projects are often a low-income household's only alternative for leased housing. In

addition, some developers believed that the primary selling point of section 515 housing is the lower rent and not necessarily whether the units have extra features.

Maintenance and Operation

Some developers and FmHA officials said that maintenance and operating costs could increase in some instances if the quality of housing was diminished by cost-reduction measures. For example, several developers told us that reducing landscaping costs could result in soil erosion, which could increase maintenance costs. However, according to the director of FmHA's Multifamily Housing Processing Division, FmHA's proposed cost-reduction measures would not eliminate the requirement for states to comply with the program's minimum construction standards, which are used nationwide as a guide to ensuring consistent quality housing. He emphasized that the proposed cost-reduction measures would not sacrifice FmHA's adherence to these quality standards or diminish the goal of providing modest housing.

FmHA headquarters recommended that state offices reduce high maintenance cost features at projects such as patios, balconies, and sliding glass doors in order to reduce operating costs. Several developers and FmHA officials told us that sliding glass doors also contribute to higher utility costs for tenants. They also told us that another way to reduce operating costs would be to increase the number of units per acre, which would reduce landscaping, utility installation, and long-term ground maintenance costs.

Local Zoning and Ordinances

Zoning laws or local ordinances could preclude adopting some cost-reduction measures. For instance, several developers commented that they provided extra parking spaces and/or added entrances to projects to comply with local ordinances. Similarly, several other developers cited local restrictions on the number of units that could be built per acre. Although most developers did not mention local ordinances as inhibiting project cost reduction, government restrictions are generally recognized throughout the housing industry as increasing construction costs.

FmHA district office officials we spoke with said they were aware of the additional costs that can result from local ordinances and that they often attempt to minimize them by negotiating with community officials. They added that in most instances, community officials have been willing to waive restrictions for government housing.

Cost-Reduction Measures Would Make Housing Somewhat More Affordable

Reducing project development costs could also result in somewhat lower rents charged to tenants. As discussed in chapter 2, about 26 percent of FmHA tenants were paying over 30 percent of their income toward rent at projects occupied in 1985. Since rents are based on project cost, reducing costs could make housing more affordable to lower income households.

Table 3.8 demonstrates the effects of reduced housing costs on a household with an adjusted income of $8,000, about the average income of residents occupying FmHA projects in 1985. As shown, a project developed for $31,000 per unit, the approximate cost of an FmHA unit in 1985, results in a monthly rent of $219 per unit. This rental charge absorbs 33 percent of the household's income. However if cost-reduction measures are adopted for new projects, rents for the projects also could be reduced. For example, if the average unit cost of $31,000 could be reduced by 5 percent to $29,450, monthly rent could be reduced to $214, or 32 percent of the tenant's income. In addition, if costs could be further reduced by 10 percent to $27,900, rent would decline to $208 per month, or 31 percent of tenant income; if they were reduced by 15 percent to $26,350, rent would be $203 per month, or 30 percent of tenant income (see table 3.8).

Table 3.8: Effects of Reduced Housing Costs on a Household With an $8,000 Annual Income

Percentage of cost reduction	Unit cost	Monthly household income	Monthly rent	Percentage of income for rent
0	$31,000	$667	$219	33
5	29,450	667	214	32
10	27,900	667	208	31
15	26,350	667	203	30

Source: GAO analysis of data provided by FmHA.

Conclusions

FmHA, with the assistance of developers, has identified a number of potentially effective cost-reduction measures. Some developers and FmHA field staff endorse specific measures while others resist or reject them because they believe some of the measures would decrease marketability, increase operations and maintenance costs, or be precluded by local ordinances. We recognize that all of FmHA's recommended cost-reduction measures cannot be applied universally. However, some of the measures have been successfully implemented by developers and FmHA

field offices in varying locations. This indicates that if additional developers applied the measures more broadly, they could realize more significant savings.

We believe that FmHA, through its state and district offices, should require developers to implement cost-saving measures that could be taken without sacrificing (1) marketability and (2) FmHA's goal of providing modest housing that meets FmHA's construction standards. FmHA is developing new regulations to formally implement the cost-reduction measures proposed in its January 1986 guidelines. These regulations, if implemented, could reduce section 515 construction costs, provided that (1) FmHA state and district offices closely review developer proposals for new projects to ensure that these projects include all appropriate cost-reduction measures and (2) developers implement the measures that are appropriate for their projects. By reducing construction costs, government subsidies would also be reduced and housing would be slightly more affordable.

Recommendation to the Secretary of Agriculture

We recommend that the Secretary of Agriculture direct the Administrator, FmHA, to finalize and implement regulations for reducing section 515 project costs. These regulations should include

- reducing housing size;
- using less costly apartment styles and building materials;
- eliminating extra features, such as sliding doors, balconies, patios, community rooms, unnecessary paving, and excessive landscaping;
- reusing building designs; and
- increasing density.

If FmHA is unable to reduce housing costs to make housing more affordable for lower income households and reduce program costs in ways intended by the Rural Housing Amendments of 1983, it should so advise the Congress.

Agency Comments

In its comments on our draft report, the Department of Agriculture said that FmHA published proposed regulatory revisions that address cost-saving elements in the Federal Register on March 12, 1987, with the comment period ending on May 12, 1987. FmHA anticipates that the revision will be published for final rule-making by September 1, 1987, and will be effective October 1, 1987. (See app. VI.)

Our review of FmHA's proposed revisions showed that they included several cost-saving measures that we recommended and addressed others in more general terms. FmHA included specific provisions that reduce housing size and increase density, and general provisions that discourage using elaborate designs, excessive landscaping, and other amenities.

We later met with FmHA officials to discuss why provisions regarding the elimination of certain amenities are written in general, rather than specific, terms. They explained that they agree with the intent of our recommendation but, because conditions vary at individual projects throughout the country, they believe it is desirable to give field offices flexibility in making decisions regarding specific project features.

Although we continue to believe there is merit in specifying, within the regulation, amenities that should not be included in section 515 projects without proper justification, we acknowledge that there may be instances in which giving FmHA's field offices flexibility may be desirable. However, we also believe that in such situations, it is incumbent upon FmHA to ensure, through its oversight of field offices, that this flexibility does not preclude them from seeking opportunities to reduce costs where appropriate.

Costs and Benefits of Three Rural Rental Housing Assistance Programs

In addition to identifying opportunities for reducing housing costs under the FmHA section 515 program, we were asked to compare the cost per household served under this program with FmHA's section 502 homeownership program. We were also asked to assess the extent to which housing vouchers could be used to replace the section 515 rental program to assist low-income renters living in adequate but unaffordable housing. This chapter discusses our analysis, which is based on program data and regulations applicable to the FmHA sections 502 and 515 programs and housing vouchers. Our examples estimate the federal cost associated with assisting households through the section 502, section 515, and housing voucher programs. For the purpose of this chapter, we use incomes of $8,000, $11,000, and $14,000 to represent very low- , low- , and moderate-income households, respectively.

In summary, we observed that even though the three rural subsidy programs generally serve very low- and low-income households, they differ in their long-term (20-year) subsidy costs and the level of benefits they provide to assisted households. Our analysis of the subsidy costs showed that the section 515 program is generally the least expensive way to assist very low-income households. However, as the initial incomes of assisted households rise, housing vouchers generally become the least expensive alternative. We also observed that section 502 costs at different initial household income levels tend to approximate section 515 subsidy costs, although they are generally somewhat higher.

In addition to the initial incomes of assisted households, our cost comparisons were influenced by regulations specific to each program and by certain external variables, particularly interest rates and inflation. Moreover, we noted that federal decisionmakers need to consider other external variables, such as the affordability and availability of the housing to the targeted households and the implications of recently passed tax legislation, in shaping future rural housing assistance policy.

We also observed a number of trends pertaining to the three housing options, which, when considered collectively, should be useful to the Congress in selecting and funding a proper mix of future rural housing assistance. Specifically, we noted that

- the subsidy costs of all three options fell dramatically as the initial incomes of assisted households increased.
- the subsidy cost of vouchers, which are tenant-based, increased as inflation rose and decreased as interest rates rose.

- the subsidy costs of section 515 and section 502, which are production-based, decreased as inflation rose and increased as interest rates rose.
- the relationship between the section 515, section 502, and voucher subsidy costs remained unchanged when the real interest rate (i.e., the difference between the prevailing interest rate and the inflation rate) was held constant.

Finally, we expanded our analysis to examine opportunities for reducing the cost of the three housing options. In doing so, we found that certain measures—such as size limitations in constructing dwelling units or limitations on the frequency of program rent increases—can be selectively implemented for the options, which, to varying degrees, can reduce their overall long-term costs.

Program Alternatives and Benefits

The section 515 rural rental program, the section 502 rural homeownership program, and housing vouchers have a similar objective, generally that of assisting low-income households to obtain decent, safe, and sanitary housing that they could not otherwise afford. These program alternatives are directed at making up the difference between costs of housing on the private market and the amount the owner/tenant is able to pay. This section discusses the similarities and differences of each subsidy mechanism and shows the level of benefits that each alternative provides to low-income households.

Table 4.1 highlights key benefits of each option and presents a comparison of their long-term costs. An explanation of our cost analysis for the three options is contained in the following section.

Table 4.1: Benefits and Costs of Providing Rural Housing Assistance Under Three Housing Programs

Benefits/Costs	Housing voucher program	Section 502 homeownership program	Section 515 multifamily rental program
Benefits to rural households			
Value of housing provided	Cost of unit varies depending on age and condition; unit is generally older, existing housing.	New unit, averaging $41,135 nationwide.	New unit, averaging $30,600 nationwide.
Average size of unit	Size of unit varies depending on housing that tenants select.	National average size equals 1,100 square feet living area; 1,500 square feet total area.	National average living area equals 730 square feet.
Households assisted	Generally very low- and low-income households.	Generally very low- and low-income households; national average is $11,800.	Generally very low- and low-income households; national average is $8,200.
Reduction of housing costs	Households pay 30 percent of income for housing, provided that the monthly rent does not exceed an administratively determined standard. If the unit rent exceeds the standard, the household must pay for any rent charges above the standard.	Generally, mortgage principal, interest, taxes, and insurance are limited to 20 percent of income; however, very low-income households may be required to spend more to meet minimum mortgage payments.	Rents are generally limited to 30 percent of income; however, because of other requirements, very low-income households may spend a higher percentage of income to meet a minimum monthly rent payment.
Long-term subsidy costs	Generally the least expensive option to assist households with incomes greater than $11,500.	Generally less expensive than vouchers to assist very low-income households, but slightly more expensive than section 515.	Generally the least expensive option to assist very low-income households.

Section 515 Rural Rental Housing Loans

As discussed in chapter 1, the section 515 rental program provides loans to finance the construction of new multifamily rental housing projects and the purchase and rehabilitation of substandard existing projects. Housing units financed under this program are occupied by very low-, low-, and moderate-income households, and households headed by an elderly or handicapped person. However, the Rural Housing Amendments of 1983 gave priority to housing very low-income households.

Most section 515 loans carry a term of 50 years and provide a subsidy to the borrower in the form of an interest credit. The mortgages are written at a note rate—the current market rate for outstanding long-term Treasury securities—which now is about 8 percent. The developer (borrower) then signs an interest credit agreement with FmHA that reduces the mortgage's effective interest rate to generally one percent.

FmHA allows the owner of a project to set rents at a level whereby the owner makes principal and interest payments to FmHA

at the 1-percent level, plus amounts necessary to pay operating and maintenance expenses, operating reserves, and provide the developer with a fixed return on investment. This rent level is referred to as a minimum or "basic rent." Basic rent levels are adjusted according to an annual budget, which the project owner must submit to FmHA for approval.

Under the section 515 program, tenants' rent payments generally may not exceed 30 percent of their monthly incomes adjusted for family size, or the basic rent, whichever is higher.[1] If tenant incomes rise over time to the level at which 30 percent of their incomes exceed the basic rent, the difference between the tenant rent contribution and the basic rent is referred to as an "overage" payment. Section 515 program regulations require the project owners to remit any overage payments to FmHA. The payments are treated as additional interest income rather than as reduction of principal on the note. Any overage FmHA collects effectively reduces its interest credit subsidy costs.

A maximum rent for each section 515 project unit is also determined. This upper limit, referred to as the market rent, is computed similarly to the basic rent except that the principal and interest payments are figured on the basis of FmHA's note rate (i.e., the unsubsidized borrowing cost). A tenant whose income is high enough to qualify for the market rent payment in effect receives no federal subsidy.

As discussed earlier, section 515 projects generally serve low- and very low-income families (average household income less than $8,200 in 1985) and provide new rental units to the assisted households. The average unit cost of section 515 projects built in 1984 and 1985 was about $30,600 and provided living space averaging about 730 square feet. Our analysis of over 1,100 section 515 projects completed in 1985 showed that tenants' basic rents plus utility allowances averaged about $280 per month, or $3,360 annually. This suggests that some of the rural households living in newly constructed units may be paying a high percentage of their incomes toward rent—about 40 percent of income, on average, assuming they receive no other form of rental assistance. In fact, as stated in chapter 2, when we compared tenant incomes with rent payments, we found that about 26 percent of the tenants were paying over 30 percent of their incomes on rent.

[1]A program regulation governing this provision became effective October 1, 1986, and implements 1983 legislative provisions permitting FmHA to raise tenant rent contributions from 25 to 30 percent of income. As discussed in this chapter and appendix IV, we used the 30-percent figure in our analysis of section 515 program costs.

Section 502 Homeownership Program

The section 502 homeownership program provides qualified households with loans to build, buy, or repair single family homes. These loans are made available to families living in rural areas who meet certain income and asset limitations and are unable to otherwise obtain mortgage credit at terms they can reasonably afford. In recent years, congressional emphasis has shifted the program from assisting a broad range of household incomes to a specific focus on lower income households. In addition to meeting FmHA's eligibility requirements, applicants must demonstrate that they are financially capable of repaying the loans.

The subsidy used for section 502 is similar to that used for section 515, but with some differences. All section 502 loans are written at an interest rate equal to about the long-term federal cost of borrowing at the time of the loan, referred to as the note rate. Most borrowers receive an interest credit subsidy that reduces the borrower's effective interest rate to as low as 1 percent. However, the initial amount of the interest credit depends on the borrower's income at the time he/she receives the loan.

The section 502 homeowner must pay at least 20 percent of his/her income for mortgage principal, interest, taxes, and property insurance (PITI), or the same costs based on the maximum subsidized mortgage (1 percent)—whichever is higher. The difference between the borrower's mortgage payment at the effective interest rate and the payment that would be due at the note rate is the amount of interest credit. For example, a prospective section 502 homeowner with a $10,000 annual income who borrows $35,000 at a 10-percent FmHA note rate would be required to pay at least $2,000 for PITI annually even though this payment at the note rate would be about $4,800 annually. The $2,800 difference between the two payments would be the amount of the federal interest credit subsidy. In effect, the homeowner's principal and interest payment would be subsidized down to an interest rate near 1 percent.

FmHA annually recalculates the housing payment of a borrower receiving interest credit by using the borrower's current income. As the borrower's income increases, the effective interest rate the borrower pays increases and the amount of the subsidy decreases. The borrower continues to pay at least 20 percent of his/her income until the borrower's effective interest rate equals FmHA's note rate and the subsidy ends. After that time, the borrower's principal and interest payments may remain the same, but the percentage of income the borrower pays for housing will decrease as income increases.

The maximum term for repayment of a section 502 loan has been 33 years. The Rural Housing Amendments of 1983 authorized FmHA to extend the mortgage period by 5 years to 38 years for some very low-income households; however, when we completed our audit work, FmHA had not yet finalized its regulations on this matter.

The section 502 program generally serves a higher income group than the section 515 program and provides larger, detached housing to program beneficiaries. In 1985 the national average income of section 502 homeowners was about $11,800, according to an FmHA estimate. This is about 44 percent higher than the national average income of section 515 recipients, which is $8,200. Moreover, we previously reported that the average price of a newly constructed section 502 home was about $41,100 in fiscal year 1984 and the average size was about 1,100 square feet in living area and about 1,500 square feet in total area.[2]

Housing Vouchers

The housing voucher, or housing allowance, is one of the two major federal approaches used over the past 50 years to provide low-income rental housing assistance. Unlike the other major approach—new construction through housing production programs such as sections 502 and 515—vouchers provide cash subsidies to households to help them acquire adequate existing rental housing.

Only a few federal housing assistance programs have used the voucher/allowance concept. The section 8 existing housing program (established pursuant to the Housing and Community Development Act of 1974), currently the largest low-income housing assistance program, has been the foremost user of this concept. In the early 1970s, HUD conducted a voucher experiment—the Experimental Housing Allowance Program. In recent years, congressional concern over the rapidly escalating cost of federal housing construction programs led to the creation of a new demonstration program under the Housing and Urban-Rural Recovery Act of 1983, referred to as the section 8 voucher program.

Housing vouchers and allowances work by providing a cash subsidy in the form of a periodic payment to either the tenant or the landlord so that the tenant can afford decent, safe, and sanitary housing. The subsidy fills the gap between what has been established as a reasonable

[2]Rural Housing: Opportunities to Reduce Costs and Better Target Assistance (GAO/RCED-86-33, Feb. 18, 1986).

housing payment burden for the tenant (usually expressed as some percentage of the tenant's income adjusted for family size, such as 30 percent) and a predetermined payment standard for rents within a given locale.

All voucher/allowance programs require that the tenant locate a unit on the private market that satisfies the program's minimum housing quality standards. Generally, the unit must fall within the market rent limits for a given locale. This is referred to as the housing payment standard. Differences exist, however, among programs as to the amount and determination of the family contribution, the housing payment standard, and other administrative aspects. Our report on housing allowances details these differences.[3]

Beneficiaries of voucher and allowance programs vary depending on the specific program eligibility requirements. The section 8 existing program generally limits initial eligibility to families whose incomes, adjusted for family size, are equal to or less than 80 percent of the median area family income. However, amendments in 1981 targeted assistance to very low-income households, defined as those having incomes at or below 50 percent of the area median. The new section 8 voucher program also generally limits tenant eligibility to households whose incomes are at or below 50 percent of the area median. The program gives preference in tenant selection to households who, at the time they apply for assistance, occupy substandard housing, are involuntarily displaced, or are paying greater than 50 percent of their incomes for rent.

Cost of Housing Assistance Under the Three Program Options

Considerable differences in costs exist among the three subsidy options, with the most substantial differences occurring between the new construction programs (sections 502 and 515) and tenant-based housing vouchers. The extent of these differences depends greatly on the initial income levels of the assisted households and to a lesser extent on prevailing inflation and interest rates.

Although cost differences may make one program appear more attractive than its counterparts, other factors are equally important in deciding future directions for rural housing assistance. Specifically, the success of using vouchers depends on the availability of an adequate supply of decent and affordable rental housing on the private market

[3]Housing Allowances: An Assessment of Program Participants and Effects (GAO/PEMD-86-3, Feb. 10, 1986).

within a given locale. Although it is outside the scope of our review, the availability of this housing will differ from area to area across the nation. Similarly, the success of using production-based subsidies over tenant-based subsidies strongly depends on the ability of low-income households to afford minimum program rents or housing payments. Although section 515 is serving very low-income households, more than one in four pay in excess of 30 percent of their incomes in rent. In contrast, section 502 serves a comparatively higher income group and, according to a 1985 Congressional Research Service study,[4] is a less viable alternative than section 515 for serving very low-income households.

The following discusses the methodology we used to make our analysis, the cost comparisons we observed for each program, and the sensitivity of the programs to the economic variables we examined. Collectively, this information provides general insights on the programs' comparative costs, which we believe can be useful to the Congress in selecting a future mix of rural housing assistance. While cost considerations are important in making future rural housing assistance decisions, other factors, including the level of benefits each program provides relative to its cost and the availability and affordability of the housing to the targeted population also need to be considered.

General Assumptions Used in Our Analysis

To compare the cost per household assisted under the three housing subsidy programs, we developed various case examples. Our examples assume that the federal government will provide a low-income household with housing assistance subsidies over a 20-year period. Appendix IV provides a detailed explanation of the methodology we used to estimate the 20-year federal cost of the three options.

We structured our analysis to demonstrate how changes in inflation, interest rates, and household income affect federal costs. We based our analysis on inflation and interest rates during 1985 and the first half of 1986. The figures over that period suggest a range of about 8 to 10 percent for interest rates and about 4 to 6 percent for inflation. We also performed sensitivity analyses at slightly higher interest and inflation rates (12 percent and 8 percent, respectively) to determine potential trends. Historically, the real interest rate has averaged between 3 to 4 percent over the long term. We assumed a 4-percent real interest rate, which is consistent with the prevailing rate in 1985 and 1986, to estimate and compare the costs for the three program alternatives.

[4]Housing in Rural Areas, Congressional Research Service, No. 85-61S (Mar. 12, 1985).

Another key external factor is the tax treatment of real estate in the Internal Revenue Code. Our cost comparison takes into account the tax incentives as of September 30, 1986, affecting real estate investment as it relates to low-income rental housing. These are incorporated within our estimate of section 515 program costs because tax incentives to investors are an integral part of the federal costs associated with this program. Following the completion of our analysis, the Congress passed new tax legislation that changes the tax incentives available to real estate investors. We do not take into account the impact of these changes because we believe it is too early to determine how the new law will affect the structuring of real estate investments. We do, however, present some observations on the potential impact of the new law at the end of this chapter.

Table 4.2 summarizes the baseline assumptions we used to develop our cost estimates of the three rental housing options. It also shows the key variables we changed in our analyses in the context of low, medium, and high interest rates and inflation, and at very low to moderate household income levels. At the time we completed our analysis, federal borrowing costs were about 8 percent and inflation was about 4 percent.

Table 4.2: General Assumptions Used in Our Analysis

Variable	Section 502 homeownership program	Section 515 rental program	Section 8 voucher program
Dwelling cost for housing recipients	Homeowner's PITI is generally equal to 20 percent of family income with minimum and maximum limits on mortgage interest expense. Family income levels are reassessed annually.	Tenant rental cost is equal to the greater of 30 percent of family income or the basic rent computed by FmHA. Family incomes are reassessed annually.	Tenant rental cost equal to 30 percent of family income. Family incomes are reassessed annually.
Development cost of new unit	$41,135	$30,600	Not applicable—uses existing housing unit.
Starting income levels of assisted households	$ 8,000 (very low) $11,500 (low) $14,000 (moderate)	$ 8,000 (very low) $11,500 (low) $14,000 (moderate)	$ 8,000 (very low) $11,500 (low) $14,000 (moderate)
Inflation rates used for income, expenses, taxes, insurance, and in estimating property appreciation	4 percent (low) 6 percent (medium) 8 percent (high)	4 percent (low) 6 percent (medium) 8 percent (high)	4 percent (low) 6 percent (medium) 8 percent (high)
Federal cost of borrowing (interest and discount rate)	8 percent (low) 10 percent (medium) 12 percent (high)	8 percent (low) 10 percent (medium) 12 percent (high)	8 percent (low) 10 percent (medium) 12 percent (high)

Cost Variations Among Program Options

The cost of the three subsidy options varied considerably because of differences in the nature of the subsidies provided under each program and the assumptions we used for analysis, including different combinations of the key variables (i.e., interest rates, inflation rates, and initial household income). Our cost estimates are discounted to a present value over the 20-year period of analysis. The estimates also include any annual savings that the federal government realizes over the 20-year period, such as reductions to federal subsidy costs through rent overage payments made by households assisted under the section 515 program.

As we changed household incomes, interest rates, and inflation in our analysis, we noted some general patterns. For example, the subsidy costs of all three programs fell sharply as initial household income levels rose. However, it is important to note from a policy perspective that the new construction programs (sections 515 and 502) were less expensive than vouchers in assisting very low-income households, about the same for low-income households, and more expensive for moderate-income households.

Table 4.3 summarizes our cost estimates for the three program options under the different economic scenarios we analyzed. It also highlights the concurrent movement of inflation and interest rates.

Table 4.3: Estimated Federal Costs of Assisting Rural Households Over 20 Years

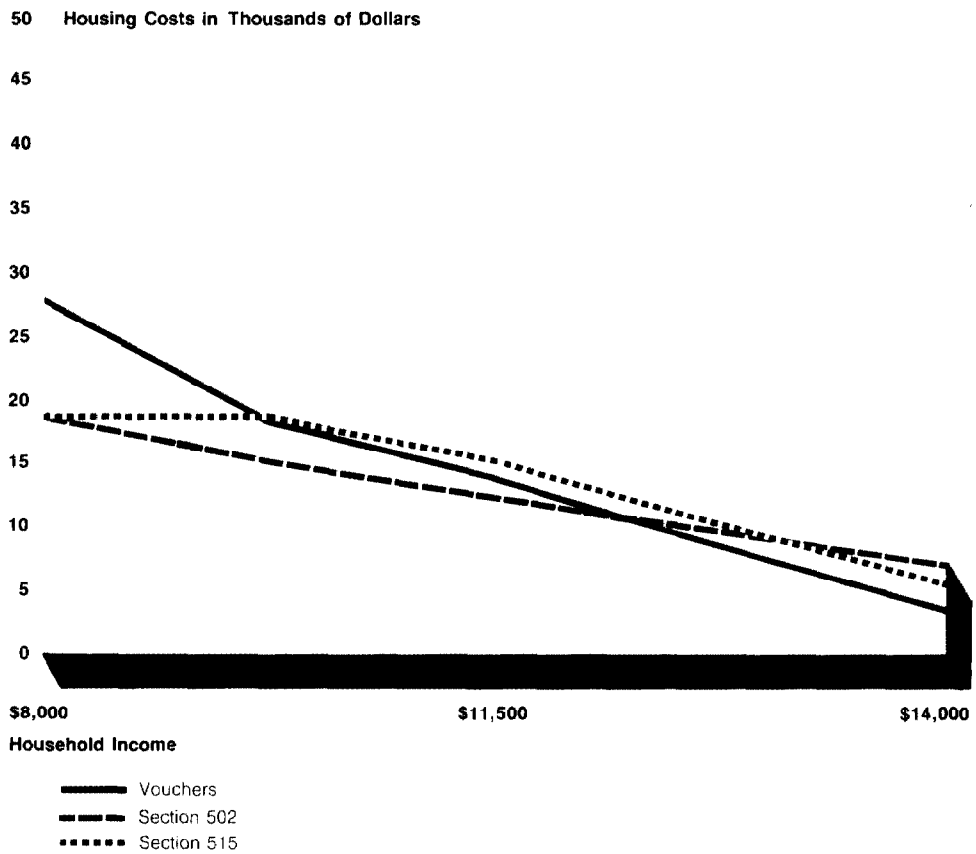
Selected federal discount/ borrowing rate and household income	Low inflation scenario (4 percent)			Medium inflation scenario (6 percent)			High inflation scenario (8 percent)		
	Voucher	Sec. 515	Sec. 502	Voucher	Sec. 515	Sec. 502	Voucher	Sec. 515	Sec. 502
Low (8 percent) federal borrowing costs:									
$ 8,000	**$29,015**	**$18,796**	**$18,814**	$34,158	$15,795	$14,745			
$11,500	**13,992**	**15,430**	**12,336**	16,473	11,814	8,113			
$14,000	**3,262**	**5,533**	**7,024**	3,840	1,150	4,458			
Medium (10 percent) federal borrowing costs:									
$8,000	25,071	22,464	24,015	**29,183**	**20,203**	**21,041**	$34,263	$17,308	$17,016
$11,500	12,090	19,606	18,912	**14,074**	**16,863**	**15,205**	16,523	13,180	12,889
$14,000	2,819	11,169	13,442	**3,281**	**7,192**	**10,227**	3,852	2,842	7,769
High (12 percent) federal borrowing costs:									
$8,000				25,270	23,265	26,039	**29,347**	**21,077**	**23,039**
$11,500				12,186	20,424	20,691	**14,152**	**17,610**	**18,158**
$14,000				2,841	12,088	15,493	**3,299**	**8,270**	**12,782**

Note: Costs shown in this table are discounted to a present value using the federal borrowing rates listed above as discount rates. Costs in the boldface type represent the most probable economic scenarios and also show concurrent movements of inflation and interest rates. Two economic scenarios—high inflation/low borrowing costs and low inflation/high borrowing costs—are impractical over the 20-year period given past experience with the nation's economy, and therefore were excluded from our analysis. Although it is unlikely that the low inflation/medium borrowing costs and medium inflation/high borrowing costs scenarios would persist over the 20-year period, we included them to show trends in the data.

Sensitivity of Housing Options to Changes in Household Incomes

Table 4.3 shows that as assisted household incomes increased, federal subsidy costs decreased under each of the three programs. However, the reduction in costs due to increasing incomes was more pronounced for the housing voucher program than for the two new construction programs assuming an 8-percent interest rate and a 4-percent inflation rate (see fig. 4.1). Housing voucher costs fell by more than half—from $29,015 to $13,992—as initial household income increased from $8,000 to $11,500. They were reduced another 75 percent to $3,262 at the $14,000 initial income level.

Figure 4.1: Effect of Varying Initial Incomes on the Cost of Three Housing Options



Note: Assumes an 8-percent interest rate and a 4-percent inflation rate. At higher inflation and interest rates, section 515 costs generally would be lower than section 502 and voucher costs when assisting very low-income households.
Source: Data graphed from table 4.3.

Figure 4.1 also shows that the section 502 and 515 programs followed a similar, but more gradual, downward trend. At the very low-income level, federal subsidies associated with the section 502 and section 515 programs were substantially less than for vouchers. However, as the initial household income rose, the relative cost advantages decreased because of the steeper decline in voucher costs, and eventually, voucher subsidy costs were lower.

Figure 4.1 raises two questions key to understanding changes in the costs of the three subsidy options. First, why did the subsidy costs

under each option decline as initial household income rose? Second, why was the decline steepest for housing vouchers?

The answer to the first question is relatively straightforward. The subsidy cost for each housing option depends on the income contribution of the assisted household. Consequently, as an assisted household's income rises, it pays a greater contribution toward either the fixed rental payment standard of vouchers or the fixed-rate mortgage costs of section 502 and 515. This reduces the annual federal subsidy requirements and consequently, the total federal subsidy costs.[5]

The answer to the second question is more complex. Voucher costs are a function of the difference between the 30 percent of a household's income and the rent payment standard for a particular area. Accordingly, any increase in a household's initial income results in a partial reduction in the federal subsidy. This means that as a household's income rises, 30 percent of the increase would be applied to reducing federal subsidy costs. Thus, a constant relationship generally exists between the increase in initial household income and the reduction of federal subsidy costs.

The new construction programs are affected differently by increases in initial household income, which results in a more gradual decline in the federal subsidies. The slope of the section 515 program in figure 4.1 illustrates that the federal subsidy remains constant as initial household income increases from $8,000 to about $10,700. No reduction in the federal subsidy occurs between $8,000 and $10,700 because very low-income households are paying, on average, more than 30 percent of their incomes for rent. For example, a household with an $8,000 income would spend about 42 percent of its income to pay the basic rent. As initial household income increases from $8,000 to $10,700, the household's relative rent contribution decreases from 42 percent to 30 percent. Section 515 program regulations provide that once the household's rent contribution reaches 30 percent, further increases in household income are applied to reduce federal subsidy costs in the form of overage payments. Once these overage payments begin, the reduction in federal subsidy costs is similar to that in the voucher program. (Note: In fig. 4.1 the slopes of the voucher and section 515 lines become nearly parallel once they reach $10,700.)

[5]In the case of the section 515 program, the level of household income determines whether rents collected in excess of the basic rent (overage) must be remitted to the federal government. Overage payments for higher income tenants offset part of the federal mortgage interest credit subsidy.

As under the section 515 program, very low-income households under the section 502 program pay a higher percentage of their income for housing costs (about 26 percent at an $8,000 initial income) than the minimum required by program regulations. However, as we inflate initial income over the 20-year period of our analysis, the household's income contribution toward PITI falls to 20 percent and a part of the increase in income goes toward reducing the federal subsidy cost.

Impact of Interest and Inflation Rate Changes on Federal Subsidy Costs

This section expands our prior analysis by altering the inflation and interest rates in addition to the initial level of household income. By making additional changes, we were able to determine whether our prior results would be substantiated under different economic conditions. Since the economy is dynamic and subject to fluctuations in interest and inflation rates, this provides a more meaningful comparison of program subsidy costs. Figure 4.2 shows the results of our additional analysis. Although costs for the new construction programs increased slightly with rises in interest rates and inflation, voucher costs remained relatively constant. However, our earlier observation that vouchers are relatively more expensive for very low-income households and less expensive for moderate-income households remains unaffected by increases in interest rates and inflation.

Figure 4.2: Effect of Changing Interest and Inflation Rates on the 20-Year Cost of Rural Housing Assistance

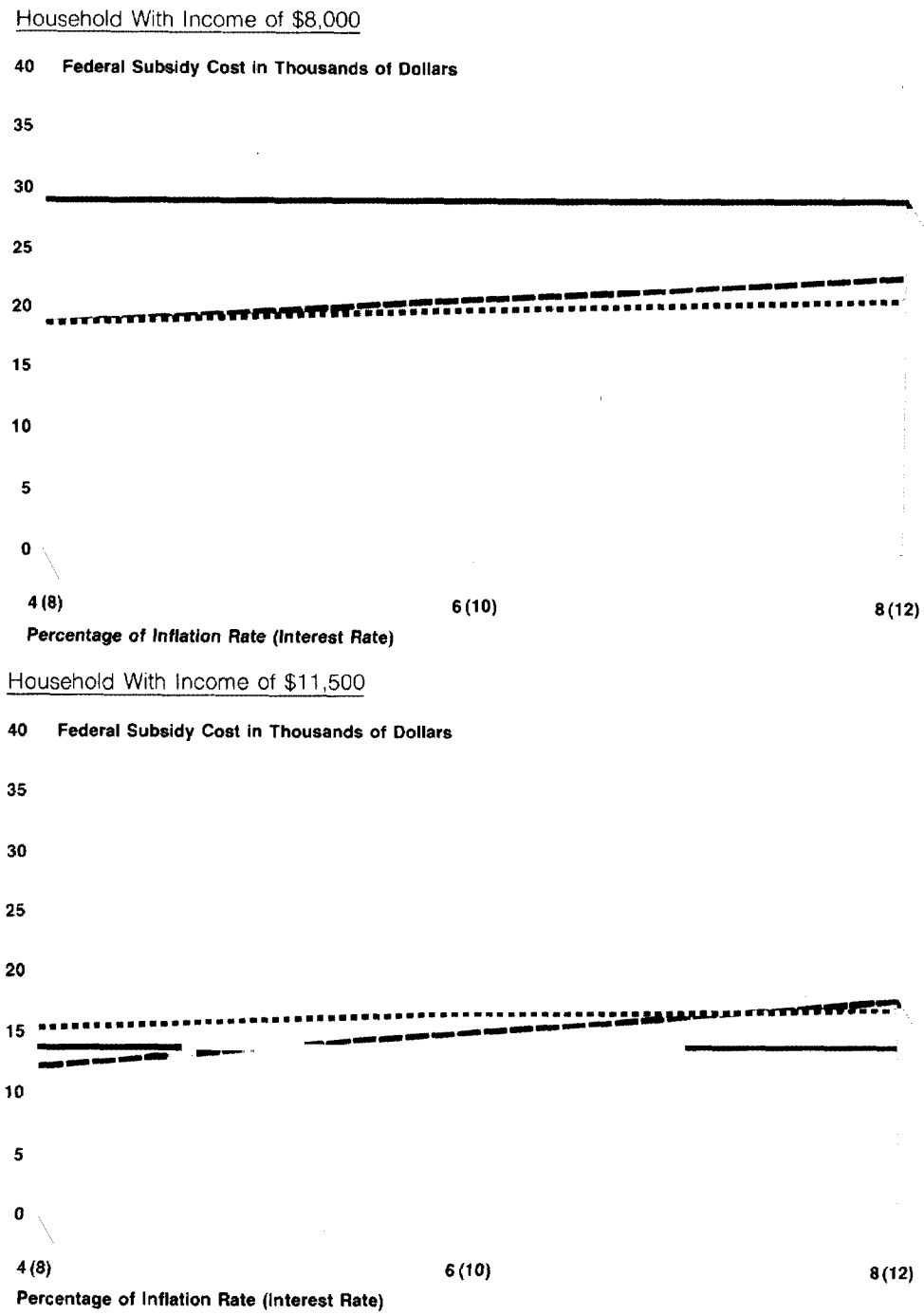
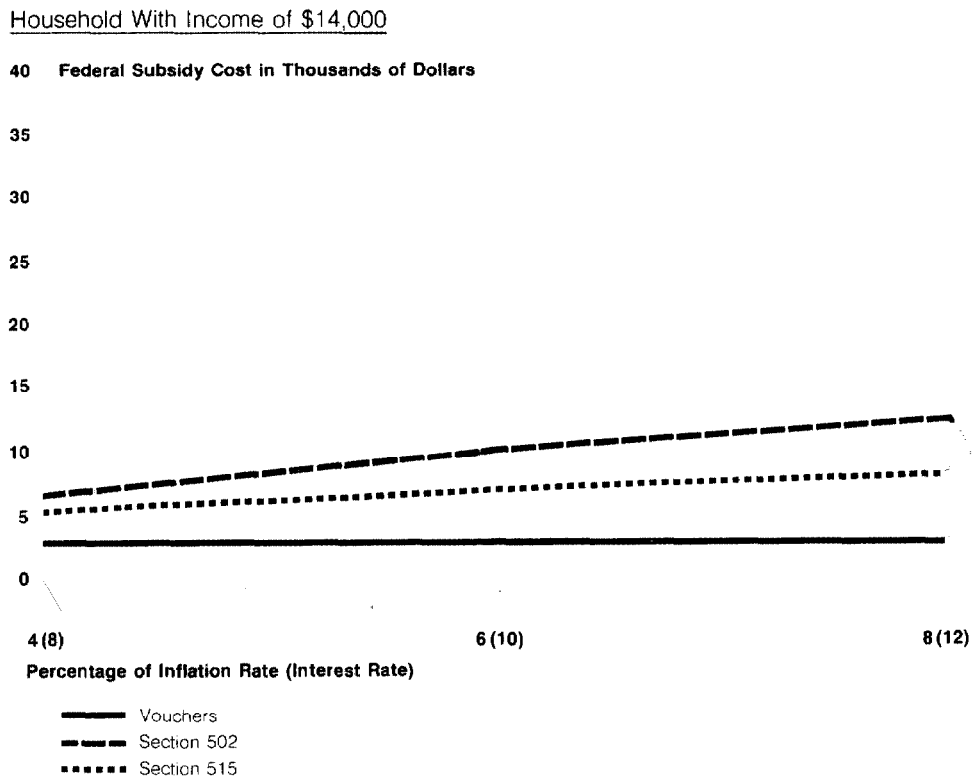


Figure 4.2, Continued



Source: Data graphed from table 4.3.

As noted earlier, interest and inflation rates move in the same direction (i.e., upward movements in inflation are accompanied by upward movements in interest rates). Although these two factors move in tandem, they have opposite effects on program costs. The following explains the impact of similar movements in inflation and interest rates on each of the subsidy options.

Housing Vouchers

Figure 4.2 raises the important question: Why are voucher costs relatively constant at the three initial income levels despite upward shifts in interest and inflation rates? The assumptions we used in our analysis help answer this question. We increased household annual rent payments and initial income by the same inflation rate. As a result, the annual federal subsidy increased by the inflation rate. For example, if the annual rent was $2,400 and the household's annual rent contribution was $600, then the annual federal subsidy would be the difference, or

about $1,800. The following year, an inflation rate of 4 percent would result in an annual rent of $2,496. This rent would be comprised of a tenant contribution of $624 and a federal subsidy of $1,872. This pattern continues over the full 20-year period and would result in higher costs for housing vouchers as inflation increases if inflation were the only factor to be considered. However, because interest rates rise as inflation rises, these costs are offset through the application of a higher discount rate. The offsetting effect of inflation and interest rates results in a flat, or constant, slope for housing voucher costs.

New Construction Programs

As previously stated, the section 502 and 515 programs react differently than housing vouchers to changes in interest and inflation rates.

The section 502 program limits the federal subsidy by the market interest rate of the fixed-payment mortgage and the household income contribution. As household income rises because of inflation, the household pays a greater portion of the mortgage interest costs, thereby reducing the federal subsidy. The same thing happens under the section 515 program since it also involves a fixed-rate mortgage with a subsidized interest rate of 1 percent over the life of the loan. As inflation causes household income to rise to a level where the rental payment exceeds the basic rent, an overage occurs, which reduces the federal subsidy cost.

We also considered tax incentives when calculating the federal subsidy cost for the section 515 program because a portion of a typical section 515 project owner's return on investment depends on the return realized from certain tax incentives—accelerated depreciation, deductions for the construction period financing costs, and capital gains tax treatment on the sale of the property. Traditionally, the accelerated depreciation and construction period financing cost deduction have enabled property investors to write off large deductions against project income during the early years of operation, thereby reducing their income tax.

In general, after about 8 to 10 years, the bulk of a section 515 project's depreciation benefits will be exhausted and the owner will begin to pay taxes from operations. An increase in inflation shortens the time period in which the owner receives tax benefits, resulting in the federal government collecting increased taxes. This reduces the long-term federal subsidy cost. The inflation rate also affects the gain the owner must report on the sale of property in year 20, which, at higher inflation, would be taxed at a higher amount.

Section 502 and 515 program costs increase when interest rates increase because the difference between the market interest rate and the subsidized interest rate (as low as 1 percent) is the principal factor governing the amount of federal subsidy to the assisted household. For example, if the market interest rate is set at 10 percent, the federal government must subsidize the difference between this rate and the 1-percent rate. If the market rate rises to 12 percent, the spread between the market rate and the 1-percent rate increases accordingly. The upward trend in federal subsidy costs caused by rising interest rates more than cancels the cost reductions brought about by increases in inflation. Thus, as inflation and interest rates rise together, the result is a slightly upward movement in federal subsidy costs (see fig. 4.2).

Potential Impact of Cost Reductions on Three Rural Housing Options

We also analyzed the potential impact of certain cost-reduction methods on the three program options. We focused primarily on potential economies for section 515 (identified in ch. 3), the cost-reduction measures in our February 1986 report on section 502 (GAO/RCED-86-33), and policy options that have been used to reduce the cost of the voucher program.

Reducing the Costs of Building New Units

Our cost estimates of the section 502 and section 515 programs are heavily dependent on the cost to construct a new unit. We used an average unit development cost of $41,135 as our baseline cost for a new section 502 unit, which is what we used in our February 1986 report. Our report stated, however, that FmHA may be able to implement certain measures to reduce development costs of the units to make them more affordable to lower income families. These measures include limiting the amount of living area and nonliving area in FmHA units and relating household sizes and occupancy levels to the number of bedrooms in houses. We estimated that if all the measures we identified were implemented, unit development cost could be reduced by 15 percent.

We applied the potential 15-percent cost reduction to our section 502 average unit development cost estimate to determine the impact of the cost-reduction measures. This lowered the development cost to $34,965. We applied the reduction to the assumptions we used in providing housing assistance to a family with an $8,000 income under our scenario involving an 8-percent interest rate and a 4-percent inflation rate. We observed that under these conditions, the federal cost fell by about 26 percent to about $14,000. However, the reduction would vary if a different combination of inflation and interest rates was substituted. In any

case, the lower development costs generally result in a lower mortgage, which in turn lowers the federal subsidy.

We analyzed the section 515 program using potential cost reductions identified in chapter 3 of this report. If collectively implemented, we estimate that these cost-saving measures could reduce the development cost of a section 515 unit by about 5 percent. The reduction would result in a lower federal subsidy since the mortgage on the property would be reduced.

We applied the 5-percent reduction to the $30,600 average section 515 development cost (excepting land cost), which gave us a new development cost of $29,145. We used the revised cost figure to estimate the federal costs under the same scenario we used for section 502 (8-percent interest rate, 4-percent inflation rate, and initial household income of $8,000). We found that the 20-year subsidy cost for a household in a section 515 unit fell approximately 5 percent to about $18,000 because of the potential economies. The federal cost reduction is due to the lower interest rate subsidy cost of the loan and the fact that the available tax incentives on the transaction, particularly accelerated depreciation and construction period interest and taxes, would also be reduced because of the lower development cost. Again, these results would change if we used different combinations of interest or inflation rates in the analysis.

Lowering the Costs of a Voucher Program

Housing voucher costs could be reduced by altering the payment standard or limiting the frequency of rent increases over the contract term. Our example of vouchers is based on a household in an area where private market rents are about the median (i.e., the 50th percentile value) for rental housing in rural areas. However, in its voucher demonstration, HUD sets the rental payment standard lower—at the 45th percentile for a given local market.[6] Our use of the median figure for the payment standard probably results in a slightly higher estimate of voucher costs than if a rural voucher program was implemented with a rental payment standard similar to HUD's.

Voucher costs can also be controlled by limiting rent increases that are normally made through contract adjustments with the owners. Instead of allowing annual adjustments on rents the owners can charge, a

[6]Our report, Rental Housing: HUD's Methods of Determining Fair Market Rents (GAO/RCED-86-209, Aug. 22, 1986), explains in more detail HUD's process of setting fair market rents for the section 8 existing program. This is essentially the same process HUD uses to set the rental payment standard under the section 8 voucher demonstration.

voucher program can be designed that will limit the number of adjustments over the contract term of the voucher. For example, HUD's voucher demonstration program allows only two rent adjustments over a 5-year contract term.

To estimate the long-term costs of limiting voucher rent adjustments to very low-income households, we assumed that contract rent adjustments would be made twice every 5 years, as they are under HUD's voucher demonstration program. Therefore, the period of assistance would continue over four succeeding 5-year periods, resulting in a total of eight rent adjustments for inflation over 20 years. We arbitrarily assumed that the rent adjustments would be made at the beginning of year 2 and year 5 and that the amount of the rent adjustment would be sufficient to cover inflation at an annual rate of 4 percent. We found that by factoring for inflation in this way and assuming an 8-percent discount rate, voucher costs dropped with the limited rent adjustments to about $27,000—approximately 6 percent less than if annual rent adjustments were made.

Even though we limited rent adjustments in our voucher example and voucher subsidy costs were thereby reduced, vouchers were still more expensive for serving very low-income families ($8,000) than the section 515 and section 502 programs. The relative costs of the programs would change, to some extent, if we increased inflation and interest rates.

Care must be exercised, however, in considering whether the above cost-reduction options should be applied to a voucher program. Setting a payment standard too low at the outset may seriously inhibit a low-income household's ability to find quality housing on the private market or could result in overly burdensome rents. Likewise, limiting the number of contract rent adjustments could prove a disincentive to many landlords from participating in the program. Because of the limited scope of our work, however, we did not evaluate the merits or shortcomings of these cost-reduction measures as they were applied to the current voucher demonstration.

New Tax Law Will Likely Reduce Section 515 Subsidy Costs

Following the completion of our audit work, the Congress passed a sweeping new tax law (Public Law 99-514, Oct. 22, 1986) that virtually affects all forms of capital investments, including low-income rental housing. In the past, investor participation in the section 515 program has been strongly influenced by the financial returns they received from tax incentives. Preliminary indications are that the federal subsidy cost

of section 515 will be lowered because of tax incentive reductions. Accordingly, our estimate of the total federal subsidy cost of constructing section 515 projects under prior tax law is somewhat higher.

The commonly used method of financing low-income multifamily rental projects is through real estate syndications. Under the syndications, funds to build the projects are raised by marketing the project to "passive" investors through limited partnerships. The passive investors themselves are partners, but they assume a small role in the management and operation of the project. Further, their liability on the investment is generally limited to the amount of cash they invest in the project. Nevertheless, the investors are able to claim substantial deductions from real estate tax incentives on the property. These deductions, which generally enable the investors to reduce the amount of income taxes they pay annually, are referred to as tax shelters.[7]

The new tax law, however, reduces many of the tax incentives that are available to passive investors. Appendix V highlights real estate tax incentives available to the investors and summarizes key changes in the tax law that affect them. The appendix also describes the new tax credit available for constructing or rehabilitating low-income rental housing.

We did not factor the new tax law changes into our section 515 cost analysis because we were unsure of how future section 515 syndications will be structured under the new law. However, since the new law limits numerous tax incentives previously available to low-income housing investors, it should reduce the federal subsidy cost of the section 515 program. The extent of this reduction is unclear since the building of new units is contingent on whether the transactions can be restructured to make them attractive to investors compared with other investment opportunities. It is also unclear whether the new tax credit discussed in appendix IV for low-income housing will encourage new private investment into section 515 projects or whether additional subsidies will be necessary to encourage new investment. Answers to these questions should emerge as investors gain experience with the new tax law.

Conclusions

Differences exist in the costs of providing rental housing assistance under section 502, section 515, and voucher options. These are due in

[7]Our previous reports, Federal Rental Housing Production Incentives: Effect on Rents and Investor Returns (GAO/RCED-85-114, May 10, 1985) and How to House More People at Lower Costs Under the Section 8 New Construction Program (GAO/CED-81-54, Mar. 6, 1981), explain the private investment process for multifamily rental housing, including how real estate limited partnerships work.

part to the differences we identified in the implementation of each program and the assumptions we used, both fixed and variable, for comparing the cost per person served under the three housing options. Although our analysis shows that under changing scenarios related to inflation, interest rates, and tenant incomes, one of the three approaches cost less than the others, we do not suggest that the least costly approach is necessarily the optimal one for the federal government to adopt. More importantly, our analysis shows general trends pertaining to the three options, which we believe will be useful to policymakers in deciding an appropriate mix of rural rental housing delivery. For instance, policymakers may find it more advantageous to give a greater priority to the section 515 program if the targeted population is primarily very low-income households, and to vouchers as the income of the targeted population rises.

Due consideration also must be given to the level of benefits each program option provides to the assisted households, as well as to the implications of implementing an approach nationwide. For example, the section 502 homeownership program confers the highest benefit levels to assisted households in the form of a new, detached residential unit. However, many low-income or very low-income families, because of their financial circumstances, may not be able to afford to make the mortgage payments even when FmHA provides maximum interest credit subsidies. In this case, the families would be poor credit risks because of the higher probability that they would default on the mortgage, which would cause the federal government to incur additional expenses in foreclosing and disposing of the property. In another example, a voucher program may not be adequate to meet the needs of lower income families in areas that seriously lack decent, safe, sanitary, and affordable rental units.

We have not addressed the major implications of the new tax legislation on section 515 rental investment in rural areas. We believe that it is too early to be certain whether the changes will impede or encourage new private investment or whether homeownership will become a more viable option for low-income families. However, the low-income investments for rental properties will probably have to be restructured to attract investors. As new general tax provisions affecting real estate are implemented in early 1987, the Congress should have a better perspective on the rural investment opportunities and future directions for the section 515 program.

Other Housing Assistance Programs Available to Rural Households

This chapter discusses state housing assistance programs for low-income households and the extent to which they are targeted to rural areas. The chapter also discusses the status of FmHA's implementation of the Housing Preservation Grant Program. We were asked to provide general information on these programs as a way of putting the section 515 program in perspective regarding the provision of housing assistance to low-income rural households.

In summary, only a few states have multimillion dollar housing programs for low-income households; however, they generally provide this assistance statewide rather than just to rural areas. We identified only five states that have housing programs specifically for low-income households in rural areas.

The Housing Preservation Grant Program, a federal program authorized in 1983, provides for the rehabilitation of single family and multifamily low-income housing in rural areas. However, it is not now fully operational. FmHA began operating the single family aspect of the program in the summer of 1986 and does not expect to implement the multifamily portion until fiscal year 1988.

Statewide Housing Assistance

Our discussions with FmHA officials, developers, and rural housing interest group representatives, as well as our review of two housing reports, show that state housing assistance to low-income households generally is not targeted to rural areas but instead is provided on a statewide basis. This assistance generally subsidizes either (1) the cost of construction or rehabilitation of multifamily rental units or (2) the financing of single family housing.

Assistance for Multifamily Housing

Our review of a 1986 compendium on state housing initiatives prepared by the Council of State Community Affairs Agencies showed that three states—California, Connecticut, and Massachusetts—have made commitments over past years that approach or exceed $100 million for the construction or rehabilitation of rental housing for low-income households.[1] Other states, including Colorado, Delaware, Maryland, and New

[1]State Housing Initiatives: A Compendium, Council of State Community Affairs Agencies (June 1986) The Council of State Community Affairs Agencies is a membership association of state executive agencies dedicated to addressing the common interests and goals of the states regarding community and economic development, housing, and assistance to local government. Information in this compendium was obtained through a council survey of its members and other state agencies. Eight states did not respond.

York, have made more modest financial commitments for the construction or rehabilitation of rental housing. Housing assistance provided through mortgage revenue and industrial bonds was generally excluded from the compendium partly because these mechanisms are viewed as federally financed. Table 5.1 briefly describes the major programs operated by those states that provide the greatest assistance.

Table 5.1: Largest Statewide Assistance Programs for Multifamily Housing

State	Program description
California	Rental Housing Construction Program: Designed to stimulate the production of new low-income rental housing. This program, which had appropriations of $82 million in 1980, has assisted in developing more than 3,100 units of which over 1,750 are available to low-income households.
	Deferred Payment Rehabilitation Loan Program: Initiated in 1979 and has provided over $10 million in a revolving trust fund for low-interest, deferred payment financing for the rehabilitation and preservation of affordable housing for low-income households. Over 2,300 units have been rehabilitated in about 80 California communities.
Connecticut	Moderate Rental Housing Program: Initiated in 1949 to provide low-interest loans and grants to for-profit developers, nonprofit organizations, or local housing authorities for the construction and/or rehabilitation of rental housing for low- and moderate-income households. Total legislative authority through June 1985 is $180.5 million, and the program has resulted in the construction of over 6,900 units.
Massachusetts	Chapter 705 Family Housing Program: Initiated in 1966 to develop housing for low-income families through local housing authorities. Over $120 million has been obligated since inception with over 1,500 units currently occupied and another 1,300 units planned.
	Chapter 689 Housing for People with Special Needs Program: Initiated in 1976 to provide adaptive housing for low-income individuals so they can live as independently as possible. A total of $40 million has been authorized, which will provide housing for over 1,500 individuals.

Source: Council of State Community Affairs Agencies, June 1986.

Assistance for Single Family Housing

According to the compendium of state housing initiatives, 12 states operate programs to help low-income households purchase housing. Again, this assistance seems to be provided statewide rather than targeted to either urban or rural areas. The states of Maryland and New York appear to be among the more active regarding assistance provided and results achieved (see table 5.2). Other states that provide single family housing assistance are Alaska, California, Connecticut, Delaware, Indiana, Iowa, Massachusetts, Pennsylvania, Tennessee, and West Virginia.

Table 5.2: Major Statewide Assistance Programs for Single Family Housing

State	Program description
Maryland	Maryland Home Financing Program: Initiated in 1973 to provide financing to first-time homebuyers with income eligibility limited to $15,000 for a one-person household and $18,000 for family households. Since inception, the program has provided over 2,700 mortgage loans totaling more than $73.5 million.
New York	Affordable Homeownership Development Program: Started in 1985 to provide homeownership for low- and moderate-income individuals and families who are unable to afford homes in the private market. Funds are provided to municipalities or nonprofit corporations who, in turn, provide these funds directly to the homeowner or mortgagor in the form of grants or loans or indirectly by reducing construction costs. A total of $25 million has been appropriated to assist over 3,800 households.

Source:Council of State Community Affairs Agencies, June 1986.

Housing Assistance Targeted to Rural Households

Because we were unable to find one comprehensive source of data on state rural housing assistance programs, we sought information from a variety of knowledgeable sources. Our contacts with FmHA officials, developers, and rural housing interest group representatives disclosed that state housing assistance specifically targeted to low-income rural households is limited. FmHA representatives in the six states we visited said that no state-funded rental assistance programs for rural housing existed in areas where section 515 projects were located. Moreover, 84 percent of the developers returning questionnaires said that no state housing assistance funds were available for rural low-income households in areas where they built section 515 projects, and 8 percent said they did not know whether such assistance was available. The remaining 8 percent, located in 10 states, thought assistance was available, but our follow-up discussions with these developers indicated that only 2 of the 10 states—California and New York—have state rural housing assistance programs.

Representatives from the Housing Assistance Council, the National Rural Housing Coalition, and the Council for Rural Housing and Development said that the only state rental assistance programs for rural households they knew of were those described in a March 1985 Housing Assistance Council report.[2] According to this report, only four states—California, Hawaii, Massachusetts, and New York—have programs to help defray rental costs for low-income rural households. The report states that about $25.3 million in state funds was provided for rental

[2]State Rental Assistance: An Alternative, Housing Assistance Council (March 1985). The Housing Assistance Council is a nonprofit corporation that supports the development of rural low-and moderate-income housing nationwide.

assistance in these states. Most of this assistance went to tenants in section 515 projects. In addition to rental assistance programs, the compendium of state housing initiatives reported that the state of Florida provides loans and grants to sponsors to acquire and develop land in preparation for building low-income rural housing.

Table 5.3: State Rental Housing Assistance Targeted to Rural Areas

Dollars in millions

State	Assistance provided	Amount
California	Monthly rental assistance to tenants in 597 units of section 515 housing	$8.2
Hawaii	Monthly rental assistance to tenants in 72 units in one non-FmHA housing project	2.0
Massachusetts	Monthly rental assistance to tenants in 17 units of section 515 housing	0.2
New York	Monthly rental assistance through vouchers to tenants in 1,450 units of section 515 housing	14.9
Total		**$25.3**

Source: Housing Assistance Council, March 1985.

Our review of the state housing initiatives compendium indicated that, besides operating rental assistance programs, California and New York have other housing programs targeted to low-income rural households. For example, in 1978 California initiated a "Farmworkers Housing Grant Program," which is funded at about $2.5 million a year. According to the compendium, this program has resulted in the construction or rehabilitation of over 2,000 housing units for farm workers.

New York operates a "Rural Area Revitalization Program" that began in 1983 and has provided about $4 million through 1986. According to its director, the program has complemented a variety of other federal or state housing assistance. For example, it has provided funding to rehabilitate older buildings for rental housing. The program also has paid for some of the costs of building a community center in a section 515 project serving the elderly.

Florida—the fifth state that we identified as having a housing assistance initiative specifically targeted to low-income rural households—differs from the other states in that it does not provide rental assistance. Rather, Florida established a "Farmworkers Housing Assistance Trust Fund" in 1979 that provides loans and grants to eligible sponsors to acquire and develop lands in preparation for the construction of housing for low-income rural households or farmworkers. According to the state

housing initiatives compendium, over 900 units have been built on sites acquired and developed under this program.

Status of the Housing Preservation Grant Program

In addition to the section 515 program, the Housing Preservation Grant Program also assists low-income rural households. This program, which is administered by FmHA and was authorized by the Housing and Urban-Rural Recovery Act of 1983, consists of two basic parts: (1) a single family homeowner repair and rehabilitation program and (2) a multifamily rehabilitation program. Both parts of the program are intended to make housing more affordable to low-income households in rural areas.

Final regulations implementing the single family part of the program were published in the Federal Register on May 13, 1986, and FmHA made its first allocations under the program later that month. FmHA intends to implement the multifamily rehabilitation portion of the program using fiscal year 1988 funds.

Program Operation and Funding

The Housing Preservation Grant Program provides grants to nonprofit and public entities (generally state and local governments) who are responsible for establishing and operating rehabilitation and repair programs. The grants are designed to reduce repair costs to homeowners or rental unit owners, thereby making the units affordable to low-income households. Cost reductions may be achieved by a variety of financial assistance mechanisms, including deferred payment loans; interest reductions on private lending; low interest direct loans; or direct grants based on the recipient's need, the cost of the repair and rehabilitation, and the recipient's repayment ability.

Although FmHA budget data show that $20 million was available for this program in fiscal year 1985, funds were not spent because regulations implementing the program were not finalized. The $20 million was reappropriated in fiscal year 1986 but adjusted down to $19.1 million to comply with the deficit reduction provision of the Balanced Budget and Emergency Deficit Control Act of 1985. According to FmHA officials, this level of funding provided resources for 128 grantees nationwide. Through a continuing resolution, another $19.1 million was provided for the program in 1987. States were notified on November 4, 1986, of their allocation of fiscal year 1987 funds, which were at the same level as they were in the previous fiscal year. At the conclusion of our audit work, individual grantees had not yet been selected for fiscal year 1987 funds.

Delays in Implementing the Multifamily Portion of the Program

Under the multifamily repair and rehabilitation portion of the Housing Preservation Grant Program, a grantee may provide loans or grants to owners of multifamily rental properties up to a maximum of 75 percent of the cost to repair the property. The property owner must agree, among other things, (1) to pass on to the tenants any reduction in debt service payments resulting from the assistance and (2) to keep the repaired units available for occupancy by low-income households for a minimum of 5 years.

FmHA officials have not yet issued proposed rules amending the Housing Preservation Grant Program to include the multifamily repair portion. According to these officials, three reasons exist for not yet implementing this part of the program:

1. FmHA initially concentrated on implementing the single family portion of the program in order to gain experience before turning its attention to the program's more complex multifamily section.

2. Because FmHA is concerned that rehabilitation of properties could result in higher rents, which may not be affordable to low-income households, drafting program regulations is taking additional time. In writing the regulations, FmHA is considering making the grantee responsible for obtaining whatever rental assistance might be necessary to ensure that the project continues to serve low-income households as required by law.

3. At the conclusion of our audit work, FmHA was in the process of developing a legal mechanism for protecting the government interest. This is necessary because the law requires the owner of a rental property receiving program assistance to provide adequate security to the Secretary of Agriculture to repay the assistance in the event of a breach in the program assistance agreement.

Conclusions

After reviewing information from a variety of sources, we concluded that most states do not have housing assistance programs for low-income households. Moreover, of those states that do, we could identify only five that target their assistance specifically to rural areas. Four of the five provide rental assistance and the fifth provides land acquisition and development assistance.

HUD's Basis for Determining Whether a Unit Is Physically Inadequate

Type of deficiency	Description
Plumbing	Lacks or shares some or all plumbing facilities. (To be judged adequate, the unit must have hot and cold piped water, a flush toilet, and a bathtub or shower—all inside the structure and for the exclusive use of the unit.)
	Lacks adequate provision for sewage disposal. (To be judged adequate, the unit must be connected to a public sewer, septic tank, cesspool, or chemical toilet.)
	Flush toilet has been broken for 6 consecutive hours or longer, three or more times during last 90 days.
Kitchen	Lacks or shares some or all kitchen facilities. (To be judged adequate, the unit must have an installed sink with piped water, a range or cookstove, and a mechanical refrigerator—all inside the unit and for exclusive use of the unit.)
Physical structure	Has three or more structural problems: leaking roof, open cracks or holes in interior walls or ceiling, holes in interior floors, peeling paint or broken plaster over 1 square foot in an interior wall or ceiling, evidence of rats or mice in the last 90 days, leaks in basement.
Common areas	Has 3 common-area problems: no light fixtures (or no working light fixture) in common hallway; loose, broken, or missing steps on common stairways; loose or missing stair railings.
Heating	Heated primarily by room heaters without flues or vents, which burn gas, oil, or kerosene.
	Heating equipment has broken down for 6 consecutive hours or longer, three or more times during the past winter.
Electrical	Lacks electricity.
	Has three electrical problems: one or more rooms without a working wall outlet, fuses blown or circuit breakers tripped three or more times during the last 90 days, exposed wiring in the unit.

Average Cost and Size of FmHA Units Completed in 1984 and 1985, by State

Living area in square feet

State	Price	Living area
Alabama	$25,720	782
Alaska	55,911	708
Arizona	37,840	748
Arkansas	31,177	679
California	38,412	742
Colorado	34,993	747
Connecticut	41,195	688
Delaware	38,353	833
Florida	29,708	760
Georgia	27,144	828
Hawaii	49,810	730
Idaho	31,906	727
Illinois	33,394	694
Indiana	28,860	666
Iowa	24,265	637
Kansas	27,500	664
Kentucky	33,559	725
Louisiana	32,159	816
Maine	46,389	745
Maryland	37,971	707
Massachusetts	42,261	625
Michigan	30,143	701
Minnesota	27,113	670
Mississippi	28,116	810
Missouri	23,186	679
Montana	33,464	703
Nebraska	29,161	576
Nevada	36,796	750
New Hampshire	40,469	788
New Jersey	41,125	771
New Mexico	33,395	741
New York	34,395	704
North Carolina	31,201	785
North Dakota	30,871	596
Ohio	30,426	680
Oklahoma	28,385	751
Oregon	28,862	709
Pennsylvania[a]		
Rhode Island	36,248	587

(continued)

State	Price	Living area
South Carolina	$29,744	822
South Dakota	27,824	644
Tennessee	30,278	745
Texas	27,387	765
Utah	36,896	787
Vermont	40,673	719
Virginia	32,427	731
Washington	34,007	691
West Virginia	32,951	704
Wisconsin	31,934	702
Wyoming	39,429	686
Puerto Rico[a]		
Western Pacific territories[a]		
National average	**$30,600**	**728**

[a]No projects shown on MISTR System.

Source: GAO analyses of data reported by the FmHA MISTR System, April 1986.

Average Cost and Size of FmHA Units, by State (Developers' Responses to Questionnaires)

Living area in square feet

State	Price	Living area	Number of projects
Alabama	$26,082	773	23
Alaska[a]			
Arizona	39,268	824	1
Arkansas	30,463	678	10
California	37,107	737	12
Colorado[a]			
Connecticut	39,482	664	3
Delaware	35,249	805	2
Florida	30,402	772	14
Georgia	30,893	890	1
Hawaii[a]			
Idaho	31,937	723	4
Illinois	32,877	692	23
Indiana	29,721	627	1
Iowa	24,592	637	8
Kansas	26,955	619	7
Kentucky	32,894	685	1
Louisiana	32,727	840	12
Maine	45,429	725	9
Maryland[a]			
Massachusetts[a]			
Michigan	31,125	723	17
Minnesota	28,839	655	5
Mississippi	26,331	711	9
Missouri	22,741	663	33
Montana[a]			
Nebraska	28,198	626	4
Nevada	42,400	820	1
New Hampshire[a]			
New Jersey[a]			
New Mexico	33,158	699	1
New York	31,946	621	10
North Carolina	30,920	778	4
North Dakota[a]			
Ohio	29,333	664	2
Oklahoma	26,845	761	11
Oregon	27,794	636	3
Pennsylvania	32,107	742	1

(continued)

State	Price	Living area	Number of projects
Rhode Island	$40,000	576	1
South Carolina	29,316	781	10
South Dakota	27,240	720	4
Tennessee	30,193	755	12
Texas	28,048	751	13
Utah	36,793	752	3
Vermont	40,886	742	1
Virginia[a]			
Washington	35,968	709	8
West Virginia	33,723	676	8
Wisconsin	32,250	713	26
Wyoming	42,840	611	1
Puerto Rico[a]			
Western Pacific territories[a]			
Questionnaire average	**$30,351**	**717**	**319**

[a]No questionnaire received on any project.

[b]One of the 320 developers who responded to our questionnaire did not provide sufficient data for this analysis.

Source: GAO analyses of questionnaires received from FmHA section 515 developers.

Methodology Used to Estimate Federal Costs of Three Rural Housing Subsidy Options

We developed a financial model to estimate and compare the long-term cost per assisted household of the FmHA section 515 rental program and the section 502 homeownership program. In addition, we used the model to compare the costs of the two FmHA programs with the long-term costs of assisting rural households through housing vouchers.

The model takes into account differences in the three programs' subsidy mechanisms as well as changes in certain conditions that normally affect the cost of providing housing assistance under each option. These conditions include the federal government's borrowing cost, inflation, and differences in the levels of initial income for assisted households. The model is used to estimate changes in the federal cost of assisting low-income households under each program (1) given certain fixed costs as a starting point (e.g., the cost of building a new housing unit under the two FmHA programs) and (2) using different combinations of the above economic conditions.

Our results estimate the relative order of magnitude of the costs of the three programs over a 20-year period and illustrate trends in program costs given changes in certain economic conditions.

Explanation of the Modeling Technique Used in Our Study

The model we use to analyze the three subsidy methods—section 515 rural rental housing, section 502 rural homeownership, and housing vouchers—is based on a concept called "life cycle costing." This is a method of comparing the cost of alternatives that are expected to accomplish similar objectives over a specified service life. Life cycle costing requires that estimates be made of future program costs and the timing of these costs. Since certain costs intrinsic to each program will occur at different times and in different magnitudes, it is necessary to normalize costs by converting them to a present value. The conversion allows a stream of cost expenditures to be compared by accounting for the true value of money over time.

Determination of Benefit Period

The initial step of our analysis was to determine for each subsidy program, how long the period of costs would be or, in other words, the period of time for which the government would provide benefits to households. For our analysis, we assumed that the stream of benefits for each of the three programs would be 20 years.

We selected a 20-year benefit period for several reasons. First, almost half the units built under the section 515 program are subject to certain

restrictions that prohibit loan prepayment for 15 to 20 years. Second, these owners would have a strong economic incentive to sell the properties or convert them to another use after the restriction period because the tax incentives available on the property (principally accelerated depreciation), which substantially affect investors' profits, would be completely exhausted after year 15.[1] Further, certain tax penalties related to early sale of low-income housing (recapture of accelerated depreciation) would no longer apply because of phase-out rules. Third, using a benefit period longer than 20 years, such as the 33-year term for a section 502 loan, may not be appropriate because owners are required to refinance their section 502 loans when other private credit becomes available to them. In fact, a Congressional Budget Office study has estimated that almost 70 percent of these loans made in 1983 would be closed in 20 years principally through borrower prepayment.[2]

Development of Baseline Assumptions

Our second step was to develop a set of baseline assumptions for analyzing and comparing the cost of the three housing programs. The assumptions we used in estimating the programs' costs are described later in this appendix. We developed our program examples using various sources, including FmHA program data, which we analyzed; previous housing studies prepared by GAO and other groups; and national housing statistics compiled by the Bureau of Labor Statistics and HUD. The section 515 and 502 program examples include the cost to build new housing units. The voucher example includes the development of a rental payment standard, or rent ceiling, on which household rental assistance payments are calculated.

Impact of Key Variables on Subsidy Costs of the Three Options

The final step in our analysis was to demonstrate how certain key variables would affect the federal costs of providing housing assistance for each option. Our analysis shows how certain provisions peculiar to each program affect the federal cost of providing housing assistance to rural families. We do not, however, take into account differences in administrative costs of each program.

We analyzed three external factors that affect the federal cost of providing rural housing assistance. We varied one factor while holding the others constant to demonstrate their impact on the cost of providing

[1]Our analysis was based on the tax law as of September 1986.

[2]Rural Housing Programs: Long-Term Costs and Their Treatment in the Federal Budget, Congressional Budget Office (June 1982) p. 42.

rural housing subsidies. The first factor was the borrowing cost (interest rates) the federal government must pay to finance housing subsidies. The second factor was the prevailing inflation rate of the economy at a given time. The third factor was the entry level incomes of the assisted households.

We based our analysis on three inflation and interest rates to demonstrate potential cost trends. We used inflation rates of 4, 6, and 8 percent and interest rates of 8, 10, and 12 percent. At the time we completed the analysis, the annual inflation rate was about 4 percent and the interest rate about 8 percent. Similarly, we varied the initial household income to represent three income groups—$8,000 (very low-income households), $11,500 (low-income), and $14,000 (moderate-income). The very low-income figure approximates the average income levels of all section 515 housing recipients as of April 1986, the low-income figure approximates the median income of all section 502 recipients in fiscal year 1984, and the moderate-income figure is added to demonstrate potential cost trends.

Income Tax and Other Investment Considerations in Designing Our Model

The extent to which tax incentives are available greatly affects the federal subsidy cost associated with a section 515 project and, similarly, plays an important role in inducing an investor to participate in the program. These tax incentives include accelerated depreciation, deductions for construction and financing costs, and capital gains tax treatment of the sale of real property. Generally, the accelerated depreciation deduction and deductions for construction and financing costs enable investors to write off large deductions against project income during the early years of operation and, as a result, to pay less tax.

In our section 515 example, we factored in the effect of tax incentives, as of September 1986, on a project's operation and sale. These incentives result in tax revenues that are foregone by the federal government and hence can be viewed as tax expenditures or costs to the federal government. The inflation rates we used in our analysis affected the section 515 property's income from operations, sale price in year 20, and the amount of gain its owner was required to report for tax purposes. We assumed that the owner of the property was in the highest (50-percent) marginal tax bracket, which means that the owner pays 50 cents tax on every dollar reported as net income. Had we used a lower marginal tax bracket for the owner, our estimate of the 20-year cost of the section 515 federal subsidy would have been reduced.

For the section 502 program and housing vouchers, we assumed that federal expenditures related to tax incentives were not a major factor in estimating their 20-year subsidy costs. Some section 502 homeowners may be able to deduct a portion of their mortgage interest expense when itemizing deductions on their annual tax returns. However, the value of this deduction may be minimal to lower income homeowners because (1) FmHA generally subsidizes homeowners' mortgage interest rates (down tc as low as 1 percent) and (2) most homeowners at the initial income levels we use in our analysis would fall into very low marginal tax brackets (about 16 percent or less) on the basis of the tax law as of September 1986. For vouchers, we considered any tax deductions related to the property as included in the federal rental assistance, as these would have probably occurred anyway in the absence of the vouchers.

We used average data in developing our cost estimates, and thus our model is not necessarily representative of actual section 502 and section 515 housing units. Moreover, we did not estimate the impact of changing economic conditions on investors' (or homeowners') willingness to participate in the three programs. This is especially noteworthy for the section 515 example because investors' participation usually depends on a combination of several key factors related to the investment, including the cost of building the unit, the amount of equity invested, and the rent charges, which are set by both private market and federal regulatory constraints. Since actual section 515 projects vary widely in the structuring of the transactions to make them economically viable, it would be difficult, if not impossible, to develop a single set of criteria to account for changing economic conditions.

In addition, we did not examine the likelihood that investors or owners participating in the three programs will move into, or out of, investment opportunities in sectors of the economy other than real estate. Accordingly, we did not make assumptions about how funds invested in a section 515 project would have been invested if the project was not built.

Assumptions Used in Developing Examples for Rural Housing Options

In analyzing the costs of providing different types of rural housing assistance, we made a number of assumptions regarding project development and operations. The following pages set forth the assumptions we made in developing examples under the section 515, section 502, and voucher programs.

Section 515 Rural Rental Housing Program

In developing our example for a section 515 rural rental housing unit, we made assumptions about developing and financing costs as well as a number of operating assumptions (see table IV.I).

Table IV.I: Cost and Financing Assumptions

Development costs:[a]	
Land cost	$1,500
Construction period interest and taxes	1,300
Syndication fees	1,100
Depreciable assets	26,700
Total	**$30,600**
Financing costs:	
Mortgage (95 percent of development costs)	$29,070
Equity investment (5 percent of costs)	1,530
Total	**$30,600**

[a]We derived our estimate of unit development costs from a sample of 545 projects in FmHA's data base for fiscal year 1985.

Operating Assumptions

Annual project income—We derived the initial basic monthly unit rent from a sample of over 1,100 FmHA projects built in 1985. We determined that the basic monthly rent plus utilities (on a composite of all bedroom types) would be $280, or $3,360 annually. We then reduced the unit's income to account for a 5-percent vacancy rate. We assumed that subsequent years' rents would increase according to the general inflation rate we used in our analysis.

Operating expenses—We estimated that the first year's operating expenses are about 60 percent of annual rents to reflect lower project revenue until the project is rented at full occupancy. We assumed that subsequent years' operating expenses are 45 percent of annual rents.

Debt service—We based mortgage principal and interest on a FmHA loan of $29,070, which is amortized over 50 years at a 1-percent interest rate.

Depreciation allowance—We computed depreciation on the property's depreciable assets under the Accelerated Cost Recovery System provisions for low-income housing investments (the tax law in effect as of September 1986). The low-income asset write-off period is 15 years, thus the property would be fully depreciated prior to its sale in year 20.

Replacement reserve—We computed the replacement reserve as 1 percent of the total loan value, or $291 per unit, per year. The owner makes payments to the reserve for the first 10 years of the 20-year period.

Allowable cash distributions—In our example, cash distributions from operations are limited by FmHA regulation to 8 percent per year of the initial equity invested in the project.

Syndication fee—The syndication fee, in accordance with federal tax regulations, is neither depreciated nor treated as an expense. Rather, it is capitalized into the project's value to determine loss or gain upon sale of the property.

Return from sale of the property—We assumed that the property would be held for 20 years and then sold. We based the sale price on the applicable rate of inflation used in our analysis minus an adjustment for economic depreciation (1.4 percent per year) on the property. For the latter, we assumed a 70-year useful economic life. In accordance with tax rules as of September 1986, the gain from the sale of the property in year 20 is reported as a capital gain. The effective capital gain tax rate at the time of sale was 20 percent and is computed by multiplying the investor's marginal tax rate (50 percent) by the percentage of capital gain that is not excluded for tax purposes (40 percent).

Tenant Rent Contribution

We assumed that tenants pay rents based on the higher of (1) the basic rent or (2) 30 percent of their income. Any amount collected in excess of the basic rent is remitted annually to FmHA as overage payments up to the market rate rent of the unit.

Section 502 Homeownership Program

In estimating the cost of a home under the section 502 homeownership program, we made assumptions about the homeowner's development and dwelling costs, the sale of the property, and FmHA's ability to recapture a portion of the property's profit upon its sale.

Home Price

We based the $41,135 home price used in our analysis on average home price data obtained from FmHA and reported in our February 1986 report on section 502 (GAO/RCED-86-33). We assumed that a 100-percent mortgage loan would be provided to the homeowner over a 33-year term.

Homeowner's Dwelling Cost

We determined the homeowner's dwelling cost in accordance with FmHA section 502 rules. In general, the minimum costs are based on the higher of (1) the principal and interest payments (subsidized to a 1-percent debt service), taxes, and property insurance (PITI) or (2) the same costs, based on 20 percent of income. Maximum housing costs are based on principal and interest at the FmHA note rate, plus taxes and insurance. The homeowner's actual payment, however, depends on his/her income upon entering the program and income increases over the 20-year period.

We based our estimates of property taxes and insurance on a study by the Congressional Research Service.[3] We inflated the study's figures annually using the inflation rates in our analysis.

Appreciation and Sale of the Property

We assumed that the property would be held for 20 years and then sold. We based the sales price in year 20 on the applicable inflation rate used in our analysis minus an adjustment for economic depreciation on the property. For the latter, we assumed a 70-year useful economic life. We did not take into account the tax consequences associated with the owner's sale of the property.

Recapture of Federal Subsidy Upon Sale

Our analysis assumes that a portion of the gain upon sale of the property in year 20 is recaptured by FmHA to offset part or all of the total subsidy costs. The exact percentage of recapture is determined in accordance with FmHA rules under 7 CFR 1951, Subpart I, Exhibit A. The amount recaptured also depends on the interest and inflation rates used in our analysis.

Housing Vouchers

In estimating the cost of a housing voucher, we made the following assumptions regarding the tenant's dwelling cost and the rental payment standard.

Tenant Dwelling Costs

Under HUD's section 8 voucher demonstration program, assisted households are required to pay at least 30 percent of their income for rent.

[3]Housing in Rural Areas, Congressional Research Service, No. 85-615 (Mar. 12, 1985) p. 23.

Rental Payment Standard

Using national market data, we based our rental payment standard on the median rent (the 50th percentile value) for all adequate rental housing except public housing in census-defined rural areas of the nation. Using the 1983 Annual Housing Survey data, we calculated a median rent of $345 per month for a two-bedroom unit. We inflated the rent to $369 in 1985 constant dollars using the Consumer Price Index for wage earners and clerical workers. For each year, we inflated the resulting rent levels and tenant incomes by the applicable inflation rates used in our analysis. The difference between this rent and the tenant's dwelling cost equals the federal subsidy cost.

Under HUD's housing voucher demonstration program, the federal subsidy equals the fair market rent set for a dwelling unit with a specific number of bedrooms in the resident's local market area, minus the tenant's rental payment. HUD sets fair market rents at the 45th percentile of rent levels in each market area by number of bedrooms (after excluding certain rental units classified as public housing or as "inadequate" by HUD's standards). Assistance is provided for a 5-year period.

Reducing Costs of the Three Housing Options

We performed a separate analysis to determine the potential impact of reducing the costs of the three subsidy options. We used a general interest or discount rate of 8 percent per year and an inflation rate of 4 percent. We also limited the analysis to the costs of assisting households with initial incomes of $8,000 since this produced the most costly scenario for the three program options. We then reduced costs for each program as described below.

Section 515

We reduced the development cost of our baseline unit (except for land costs) by 5 percent and reduced the syndication costs of the unit and project rents by the same percentage.

Section 502

We reduced the price of the house we used in our baseline case by 15 percent in accordance with cost-saving measures identified in our report on the section 502 program.[4]

Housing Vouchers

To reduce voucher costs, we assumed that contract rent adjustments would be made twice every 5 years as they are under HUD's voucher

[4]GAO/RCED-86-33, Feb. 18, 1986.

demonstration program, rather than on an annual basis. In addition, we assumed the period for voucher assistance would continue over four successive 5-year periods, resulting in eight rent adjustments over 20 years. We assumed that these rent adjustments would be made in year 2 and year 5 for each 5-year period and that the adjustment would be sufficient to cover inflation annualized at a rate of 4 percent.

Changes in the New Tax Law That Affect Multifamily Real Estate Investments

Following the completion of our audit work, the Congress passed a sweeping new tax law (Public Law 99-514) on October 22, 1986, which affects virtually all forms of capital investments, including low-income rental housing investments. Since the majority of section 515 rental properties involve for-profit sponsors who must pay income tax, certain provisions of the new tax law changes the tax incentives that have been available to these investors under the prior tax law.

Under a commonly used method of financing low-income multifamily rental projects known as real estate syndication, many section 515 rental projects are marketed to investors through a limited partnership form of ownership. These investors assume only a small role in the day-to-day management and operation of the property and their liability is generally limited to the amount they invest. Nevertheless, they are able to claim substantial real estate tax deductions on the property. These deductions generally enable the investors to reduce their annual taxable incomes.[1] These investments are generally referred to as tax shelters.

The new tax law, however, places many restrictions on the tax benefits available to investors in tax shelters. This section highlights major real estate tax incentives available to these investors and summarizes key changes in the tax law affecting them. It also describes a new tax credit available for constructing or rehabilitating low-income rental housing.

Depreciation Periods

Under the previous tax law, owners were permitted to depreciate real properties at much faster rates than under the conventional "straight line" method in which the property is depreciated by equal increments each year over its useful life. This method is known as accelerated depreciation. The accelerated depreciation provision enabled owners to recover larger increments of their investment over shorter periods of time and pay less taxes in the early years of their investment holding period. The new law does not permit accelerated depreciation for investments in low-income housing.

The new tax law specifies a new period of time, known as a tax useful life, under which an investor must depreciate such property. While the previous tax law allowed investors to write off low-income housing

[1]Our previous reports, GAO/RCED-85-114, May 10, 1985, and GAO/CED-81-54, March 6, 1981, explain the private investment process for multifamily rental housing, including how real estate limited partnerships work.

investments in as short as 15 years, the new law raises the minimum write-off period to 27.5 years.

Elimination of Special Treatment for Construction Period Interest and Taxes

Under prior tax law, investors in low-income rental housing were allowed to write off financing costs and certain other charges, such as taxes, that were incurred during the period a rental project was being constructed. This created a substantial advantage for these investors since costs associated with other forms of real estate investment were written off over a 10-year period. The new law, however, eliminates what is known as the "expensing" of construction period interest and taxes and requires that they be capitalized (added to the cost of the property) and depreciated for tax purposes.

Limitation on Losses That Can Be Deducted for Tax Shelter Purposes

Under the prior law, losses associated with the operation of real property that exceeded income could generally be used to offset income from other sources, thus sheltering the other income from taxation. The new law, however, limits an investor's opportunity to use losses and tax credits from passive investment activities, such as real estate limited partnerships, to offset other sources of income in reducing tax payments. The new law contains numerous provisions that categorize income and losses according to their source and generally limit the amount of passive losses/credits that investors can take against their income. It also imposes limits, according to the taxpayer's income, on the application of passive losses/credits.

Establishment of a New Low-Income Housing Tax Credit

Tax incentives that were available for low-income rental housing under the previous law have been replaced with a new tax credit for investors. The credit is subject to numerous rules and restrictions designed to target assistance to low-income families. Generally, the credit can be taken over a 10-year period on costs related to acquisition or capital improvement of a building. The specific amount of credit to be taken—usually either 4 percent or 9 percent of acquisition or improvement costs—depends on, among other things, (1) the year the project is placed into service, (2) whether the credit is to be taken on the acquisition costs or improvements, and (3) whether the owner receives other federal subsidies. Owners of section 515 rural rental properties who receive interest credits on their loans generally would receive a 4-percent tax credit for a 10-year period. The credit, however, may be subject to passive loss and tax credit restrictions discussed earlier.

Higher Capital Gains Tax Rates

Under prior tax law, the maximum capital gains tax was limited to a 20-percent effective rate for individuals in the maximum (50-percent) tax bracket. However, under the new law, the capital gains tax rate is increased to a maximum of 28 percent for high-income investors.

Lower Maximum Marginal Tax Brackets

Under the new tax law, maximum marginal tax rates for high-income investors are reduced from 50 percent under the previous law to 33 percent by 1988. This makes incentives for tax shelters considerably less valuable to investors than they were under the prior law. This change may encourage investors to seek investments with returns derived from profit-oriented investments rather than from investments that are intended primarily to reduce taxes.

Comments From the Department of Agriculture

DEPARTMENT OF AGRICULTURE
OFFICE OF THE SECRETARY
WASHINGTON, D. C. 20250

APR 2 3 1987

Mr. J. Dexter Peach
Assistant Comptroller General
Resources, Community, and
Economic Development Division
General Accounting Office
Washington, D.C. 20548

Dear Mr. Peach:

A review has been made on the proposed GAO report dated March 1987, entitled "Rural Rental Housing: Cost Information on FmHA's Section 515 Program and Other Rural Housing Options". Our response to your recommendation is as follows:

GAO Recommendation:

GAO recommends that the Administrator, Farmers Home Administration, finalize and implement regulations for reducing section 515 project development costs. These regulations should include such cost-saving elements as reducing housing size, increasing unit density, and eliminating certain features.

Farmers Home Administration Response:

Revisions to Farmers Home Administration, Instruction 1944-E addressing cost-saving elements, have been initiated. These proposed revisions were published in the Federal Register, Vol. 52 No. 48, pages 7584 through 7618 for prior rule making on March 12, 1987, with the comment period ending on May 12, 1987.

It is anticipated that this regulation revision will be published for final rule making by September 1, 1987, with an October 1, 1987, effective date.

Sincerely,

Kathleen W. Lawrence

KATHLEEN W. LAWRENCE
Acting Under Secretary
for Small Community
and Rural Development

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