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REPORT TO THE CONGRESS



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Housing For The Elderly-- Factors Which Should Be Evaluated Before Deciding On Low- Or High-Rise Construction

Department of Housing and Urban Development

*BY THE COMPTROLLER GENERAL
OF THE UNITED STATES*

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

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

This is our report on housing for the elderly--factors which should be evaluated before deciding on low- or high-rise construction. The report concerns the low-rent public housing program administered by the Department of Housing and Urban Development.

We made our review pursuant to the Budget and Accounting Act, 1921 (31 U. S. C. 53), and the United States Housing Act of 1937, as amended (42 U. S. C. 1401).

We are sending copies of this report to the Director, Office of Management and Budget, and to the Secretary of Housing and Urban Development.

James B. Stacks

Comptroller General
of the United States

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ABBREVIATIONS

GAO	General Accounting Office
HUD	Department of Housing and Urban Development
LHA	local housing authority

D I G E S T

WHY THE REVIEW WAS MADE

Most housing constructed for elderly people under the low-rent public housing program administered by HUD has been high-rise buildings-- three floors or more with an elevator. The Congress has expressed interest in the appropriateness of high-rise buildings for the elderly.

GAO evaluated how decisions are made on the type of housing to be constructed for elderly persons, to determine whether improvements could be made in planning such construction.

FINDINGS AND CONCLUSIONS

Local housing authorities (LHAs) are primarily responsible for developing and administering federally subsidized projects, including planning and developing low-rent public housing.

About 108,500 units, or 49 percent, of new LHA-owned units for which construction was started during fiscal years 1970-73 were for the elderly. These units cost about \$2 billion.

According to HUD, since the early 1960s most housing for elderly people under the program has been high-rise. HUD and LHA officials said this occurred because in their view

--high-rise buildings were usually less expensive to construct, operate, and maintain;

--not enough land near business districts was available for low-rise buildings; and

--elderly people preferred to live in high-rise buildings.

GAO found, however, that costs to construct, operate, and maintain low- and high-rise buildings for the elderly varied and could favor either low- or high-rise construction.

Costs to construct 20,260 low- and high-rise housing units in eastern Pennsylvania and in 9 New England and Midwestern States showed costs for high-rise units exceeded costs for low-rise units in 7 States, including Illinois (except for Chicago), with differences ranging from \$216 a unit in 1 State to \$2,373 in another. However, in one State, construction

costs for low-rise units exceeded costs for high-rise units by \$4,030. GAO could not compare construction costs for two States and Chicago because low-rise buildings for the elderly were not constructed in these areas during the period covered by the review. (See p. 7.)

GAO's 10 comparisons of costs to operate and maintain 2,038 low- and high-rise units in 6 States for a 3-year period showed that

- these costs were less for low-rise buildings than for high-rise buildings in 7 comparisons,
- costs of high-rise buildings were less in 2 comparisons, and
- costs were about the same in 1 comparison.

Cost differences ranged from high-rise unit costs being 82 percent more than low-rise unit costs in one comparison to low-rise unit costs being about 10 percent more than high-rise unit costs in another. (See p. 9.)

GAO inquired into the availability of land for low-rise construction for 53 projects where high-rise buildings had been or were being constructed.

GAO was able to determine that land for low-rise construction was available at locations where nine high-rise buildings had been constructed. (See p. 11.)

Elderly tenants did not appear to have a strong preference for one particular type of building. 1,060, or about 80 percent of the 1,190 elderly tenants who responded to GAO's inquiry, said they preferred the type in which they were living. (See p. 12.)

HUD does not identify factors to consider in determining whether low- or high-rise buildings should be constructed, nor does it require LHAs, in justifying construction of such buildings, to make analyses to determine which building is the most suitable.

Accordingly, the LHAs GAO visited did not make such analyses. LHA officials noted that, in planning projects, HUD basically requires only a demonstration of the need for housing for the elderly and the number of units needed. (See pp. 5 to 7.)

Before applying to HUD for financial assistance, LHAs should make thorough analyses of both low- and high-rise buildings to determine which type is most suitable.

Analyses should include cost of constructing, operating, and maintaining each type of structure and the availability, location, and cost of land.

RECOMMENDATIONS

The Secretary of HUD should require LHAs to make thorough analyses of both low- and high-rise buildings before applying to HUD for financial assistance to construct housing for the elderly.

These analyses would determine which type of building is most suitable and should consider cost of constructing, operating, and maintaining each type of structure and the availability, location, and cost of land.

HUD, as part of its review process, should examine the LHAs' analyses to help insure that the most suitable type of housing is constructed. (See p. 15.)

AGENCY ACTIONS AND UNRESOLVED ISSUES

In commenting on this report (see app. II) HUD said production and operation of units for the elderly was not examined in sufficient depth to warrant support of any firm conclusions.

HUD pointed out that there are factors other than cost, land availability, and consumer preference which must be considered in determining type of construction.

It is for these very reasons that GAO's report reaches no firm conclusions as to which type of construction--low- or high-rise--should be used most frequently. GAO recognizes that other factors may dictate that a certain type building should be constructed even though an alternative type for which suitable land is available may be less costly.

An appropriate decision as to which type building should be constructed in a particular location at a particular time

can only be made after a thorough analysis has been made of all relevant factors.

HUD also said a requirement such as suggested by GAO would be at variance with a major operating objective--to reduce detailed Federal case-by-case involvement and the accompanying administrative requirements which give rise to costly delays.

HUD said these decisions can and should be made by appropriate LHA officials, who not only are aware of pertinent factors but also are in a position to carefully evaluate them in the light of local experience.

Although LHA officials decide which type of construction should be used, a thorough analysis of relevant factors would insure that their decision is the best one. As noted on pages 6 and 7 of this report, GAO visited 10 LHAs which had recently completed high-rise construction or had it in process.

Officials of these LHAs said they had not compared cost of low- versus high-rise buildings because HUD does not require such a comparison. Also, as demonstrated on pages 11 and 12 of this report, LHAs in some cases considered high-rise construction only.

Requiring LHAs to perform analytical comparisons of low- versus high-rise

buildings for each project, and submitting the comparison to HUD for approval, would insure that LHA officials appropriately consider all relevant factors in their decision.

HUD also pointed out that although there are undoubtedly jurisdictions in which GAO's proposal would be helpful in selecting among design options, the imposition of such a procedure on all LHAs would be clearly excessive. For example, such an analysis is not necessary to determine infeasibility of constructing a high-rise building on an Indian reservation or using low-rise construction in New York County.

There are instances where land availability may not be a major factor in determining whether to use low- or

high-rise construction. But as pointed out by HUD, land availability is only one of the numerous factors which should be considered in deciding type of construction.

Until all relevant factors have been thoroughly considered a proper decision cannot be made as to which type construction should be used in a particular location at a particular time.

MATTERS FOR CONSIDERATION
BY THE CONGRESS

The Congress has expressed interest in types of buildings constructed to house the elderly. GAO's observations on factors affecting construction of low- and high-rise buildings for the elderly should be of value to the Congress in future deliberations it may have on this issue.

CHAPTER 1

INTRODUCTION

The United States Housing Act of 1937 (42 U.S.C. 1401 et seq.) provides for a low-rent housing program designed to make decent, safe, and sanitary housing available to low-income families at rents within their financial means. The act authorizes the Department of Housing and Urban Development (HUD) to help local governments establish local housing authorities (LHAs) to develop and/or acquire, own, and operate low-rent public housing projects.

LHAs are primarily responsible for developing and administering federally subsidized public housing projects. LHAs are authorized by the act to acquire public housing by purchasing or leasing existing structures or by constructing new housing.

HUD provides financial assistance to LHAs by making development loans and annual contributions. HUD provides contributions (1) to help LHAs pay the principal and interest on bonds and notes sold to obtain funds for developing housing projects and (2) for operating subsidies to help LHAs achieve and maintain adequate operating and maintenance services and to insure the financial solvency of housing projects. HUD estimates that the annual contributions to LHAs under the public housing program were about \$1.3 billion during fiscal year 1974. LHAs managed about 1.1 million housing units during the year.

Besides providing financial assistance, HUD (1) provides technical assistance to LHAs to help them develop housing projects and (2) reviews the administration of the projects after they have been constructed or acquired to determine whether they are being operated and maintained in conformance with statutory requirements and in a manner which promotes efficiency and economy.

HUD administers the low-rent housing program through its regional and area offices.

HOUSING FOR THE ELDERLY

A large portion of low-rent federally assisted public housing has been built to house the elderly. About 49 percent (108,500) of the new LHA-owned units on which construction was started during

fiscal years 1970-73 were for the elderly. These units cost about \$2 billion. About 24 percent of the approximately 1 million units managed by LHAs as of June 30, 1973, were for the elderly.

According to HUD, since the early 1960s most public housing for elderly people has been high-rise rather than low-rise construction.¹ Of the 20,260 units for the elderly constructed during calendar years 1970-72 in eastern Pennsylvania and in the 9 New England and Midwestern States included in our review, about 87 percent (17,658) were high-rise units.

Housing for the elderly is the one part of the low-rent public housing program under which HUD currently permits the construction of high-rise buildings. In 1968 the Congress prohibited the construction of high-rise buildings for use by low-income families with children.

HUD has also provided financial assistance to house the elderly under the sections 236² and 231³ programs of the Housing Act. We limited our review to the low-rent public housing program because HUD has provided financial assistance for or insured only about 76,000 housing units for the elderly under these programs since the start of these programs in 1968 and 1959, respectively.

On January 5, 1973, HUD suspended the low-rent public housing program, along with other federally assisted housing programs, until a study could be completed to determine whether the programs should be continued, revised, or terminated. After this study was

¹ According to HUD area office officials, a low-rise building is no more than two floors while a high-rise building is three floors or more with an elevator. See app. I for photographs of low- and high-rise buildings constructed in recent years for the elderly under the low-rent public housing program.

² Program under which HUD is authorized to make interest reduction payments on behalf of owners of rental housing projects designated for occupancy by lower income families for the purpose of reducing rentals for such tenants.

³ Program under which HUD is authorized to insure mortgages on structures for housing the elderly.

completed, the President announced in September 1973 that only the low-rent public housing leasing program, under which LHAs lease privately owned accommodations to provide low-income housing, would be resumed.

However, commitments which HUD entered into before January 1973 for the construction of low-rent public housing units are exempt from the suspension. A HUD official informed us that during fiscal year 1975, construction will be started on about 50,000 new LHA-owned housing units of which about 16,700 units, estimated to cost \$425 million, are to house the elderly.

In addition, the Housing and Community Development Act of 1974 (42 U.S.C. 5301), dated August 22, 1974, removed the suspension that had been placed on the construction of low-rent public housing and required the Secretary of HUD starting in fiscal year 1975 to enter into contracts for annual contributions aggregating at least \$150 million to assist in financing the development or acquisition cost of low-income housing projects to be owned by LHAs. A HUD official estimated that of the 37,800 LHA-owned units that HUD has authorized to be processed during fiscal year 1975, about 15,100 will be for the elderly. Practically all of the units authorized are for new construction.

CHAPTER 2

NEED TO EVALUATE VARIOUS FACTORS IN DETERMINING WHETHER TO CONSTRUCT LOW- OR HIGH-RISE BUILDINGS FOR THE ELDERLY

In most cases, high-rise buildings have been constructed to house the elderly under the low-rent housing program. HUD and LHA officials informed us that such construction was approved because (1) high-rise buildings were usually less expensive to construct, operate, and maintain, (2) not enough land near business districts was available for low-rise buildings, and (3) elderly people preferred to live in high-rise buildings.

Our review showed, however, that costs to construct, operate, and maintain low- and high-rise buildings varied from project to project and could favor either low- or high-rise construction. We reviewed the construction costs for 20,260 housing units for the elderly in eastern Pennsylvania and in 9 New England and Midwestern States and found that the costs for high-rise units exceeded the costs for low-rise units in 7 States, including Illinois (except for Chicago), with differences ranging from \$216 a unit in 1 State to \$2,373 in another. However, in one State construction costs for low-rise units exceeded costs for high-rise units by \$4,030. We could not compare construction costs for two States and Chicago because low-rise buildings for the elderly were not constructed in these areas during the period covered by our review.

Our 10 comparisons of costs to operate and maintain 2,038 low- and high-rise units in 6 States for a 3-year period showed that (1) these costs were less for low-rise buildings than for high-rise buildings in 7 comparisons, (2) costs for high-rise buildings were less in 2 comparisons, and (3) costs were about the same in 1 comparison. The cost differences ranged from high-rise unit costs being 82 percent more than low-rise unit costs in one comparison to low-rise unit costs being about 10 percent more than high-rise unit costs in another.

We inquired into the availability of land for low-rise construction for 53 projects for which high-rise buildings had been or were being constructed and learned that land was available for low-rise construction at locations where nine high-rise buildings had been constructed. Also, elderly tenants did not appear to have a strong

preference for either type of building. About 89 percent (1,060) of the 1,190 elderly who responded to our inquiry said they preferred to live in the type of building in which they were then living.

HUD guidelines do not identify factors which should be considered in determining whether low- or high-rise buildings should be constructed, nor does it require LHAs, in justifying the construction of such buildings, to make analyses to determine which type of building is the most suitable. Accordingly, the LHAs we visited did not make such analyses. LHA officials noted that, in planning housing projects, HUD basically requires only a demonstration of a need for housing for the elderly and the number of units needed.

We believe that LHAs, before applying to HUD for financial assistance to construct such housing, should be required to thoroughly analyze both low- and high-rise buildings to determine which type is the most suitable. The analysis should include the cost of constructing, operating, and maintaining each type of structure and the availability, location, and cost of land.

Also, HUD, in evaluating an LHA's application for financial assistance, should examine the LHA's analysis to insure that the most suitable type of housing is to be constructed.

PLANNING HOUSING

HUD instructions for reviewing LHAs' proposed housing projects require that HUD officials (1) inspect the sites, (2) determine whether housing will conform to HUD's minimum property standards, and (3) determine the number of elderly people eligible for low-rent public housing in the community to be served by the project.

HUD's site selection criteria recognizes that elderly people have needs and limitations which require special consideration in selecting sites. The criteria states that (1) sites should be close to retail outlets which can serve tenants' basic needs and close to community services and facilities, (2) public transportation should be available immediately adjacent to the site when such service is generally available in the community, (3) sites should not have steeply sloping surfaces, (4) nearby areas offering suitable recreation activities are highly desirable, and (5) sites should allow elderly people the opportunity to choose between participating in and observing vigorous activities or enjoying the quiet privacy of their homes.

HUD officials visit the community and evaluate the site selected by the LHA to determine whether it will reasonably accommodate the proposed building.

HUD's procedures require that:

- The HUD area office review LHA's estimate of revenues and expenses for the proposed project to determine how the project will affect the LHA's future financial position. The estimate should be based on the actual cost and income generated either from the LHA's other housing project operations or from the operations of a comparable LHA.
- HUD make an ongoing analysis during construction to insure that construction costs do not exceed the cost limits allowed.
- HUD area offices select appropriate utilities, fuels, and methods of purchasing them for LHAs which are providing low-rent public housing.

HUD's procedures for reviewing and approving project applications do not require that an analysis be made to determine whether a low- or high-rise building should be constructed.

HUD officials at the area offices we visited said that, in planning housing for the elderly, they do not make, nor do they require LHAs to make, a comparison of factors affecting the construction of low- and high-rise buildings. These officials said such comparisons were not necessary because LHAs usually propose high-rise buildings, which, in their view, are usually less expensive to construct, operate, and maintain and are preferred by elderly persons. In cases when LHAs propose low-rise buildings, the officials assume that the LHAs have considered both types of construction and have concluded that low-rise is more appropriate for that particular project.

HUD permits LHAs to decide, subject to HUD's approval, where the housing projects will be built, whether the housing will be low- or high-rise, and the number of housing units to be constructed. A HUD official explained that HUD will approve an LHA's decision on the type of building to be constructed unless technical reasons, such as soil conditions, preclude the type of building proposed.

We visited 10 LHAs which had recently completed high-rise construction or had it in process. LHA officials informed us that

they had not compared the cost of low- versus high-rise buildings because HUD does not require such a comparison. They stated that, basically, HUD requires only that LHAs demonstrate a need for housing for the elderly and the number of units needed.

COSTS TO CONSTRUCT, OPERATE,
AND MAINTAIN HOUSING

HUD's prototype cost schedules--construction and equipment cost limitations for new housing units of various sizes and types--show that construction cost limitations for high-rise buildings were about \$1,000 to \$11,000 more a unit than for low-rise buildings. Prototype costs, however, do not include site and site improvement costs.

HUD area office officials said that site, site improvement, and prototype costs, when added together, usually result in high-rise buildings being less costly to construct. However, these officials stated they had made no studies to determine whether the costs to construct high-rise buildings were less than those for low-rise buildings.

We reviewed construction costs for high- and low-rise housing units in nine States and in eastern Pennsylvania and gathered data on operating and maintenance costs for both types of housing units in six States.

Construction costs

In eastern Pennsylvania and the nine States, HUD financially helped LHAs construct 20,260 units in 190 projects for the elderly during calendar years 1970-72. Of the 190 projects, 137 had 17,658 high-rise units (about 87 percent), and 53 projects had 2,602 low-rise units (about 13 percent). HUD approved about \$348 million for the construction of these units.

The average construction cost was \$17,144 for the low-rise units and \$17,187 for the high-rise units. In determining the construction costs for these projects, we included the LHAs' administrative costs and those for (1) acquiring and improving the project sites, (2) designing the buildings, and (3) constructing housing units and nonresidential buildings, such as community activity buildings. See table on page 8 showing our comparison.

Construction Costs Incurred for High- and Low-rise Buildings Completed

in 10 States During Calendar Years 1970-72

States	High-rise buildings				Low-rise buildings				Unit cost advantage	
	Number of Projects	Units	Construction costs	Average unit cost	Number of Projects	Units	Construction costs	Average unit cost	Low-rise	High-rise
Connecticut	14	1,852	\$ 37,540,704	\$20,270	7	363	\$ 6,496,515	\$17,897	\$2,373	-
Illinois:										
Chicago (note a)	6	1,398	19,605,969	14,024	-	-	-	-	-	-
rest of State	34	3,928	60,511,384	15,405	8	259	3,924,203	15,151	254	-
Indiana (note a)	15	1,926	31,631,598	16,423	-	-	-	-	-	-
Maine (note a)	4	441	8,052,842	18,260	-	-	-	-	-	-
Massachusetts	15	2,746	48,974,634	17,835	10	631	11,060,790	17,529	306	-
New Hampshire	4	396	7,536,456	19,031	3	95	2,190,835	23,061	-	\$4,030
Pennsylvania (eastern)	18	2,121	41,199,008	19,424	5	262	4,685,470	17,883	1,541	-
Rhode Island	8	1,175	21,371,306	18,188	4	481	8,175,309	16,996	1,192	-
Vermont	3	290	5,177,877	17,855	1	72	1,229,130	17,071	784	-
Wisconsin	<u>16</u>	<u>1,385</u>	<u>21,902,507</u>	15,814	<u>15</u>	<u>439</u>	<u>6,847,388</u>	15,598	216	-
Total	<u>137</u>	<u>17,658</u>	<u>\$303,504,285</u>	\$17,187	<u>53</u>	<u>2,602</u>	<u>\$44,609,640</u>	\$17,144		

^aLow-rise buildings for the elderly were not constructed in these States or areas during calendar years 1970-72.

As the table shows, costs for high-rise units exceeded those for low-rise units in seven States, including Illinois (except for Chicago), with differences ranging from \$216 a unit in Wisconsin to \$2,373 in Connecticut. But in New Hampshire construction costs for the low-rise units exceeded those for high-rise units by \$4,030. LHA officials attributed the cost differential favoring high-rise construction in New Hampshire to (1) costs for hauling equipment and materials to remote areas and (2) site improvement costs because of the need for extensive blasting.

We recognize that various factors, such as the type of construction materials and the impact of inflation on units completed in 1972 as opposed to those completed in 1970, may affect construction costs. However, the above schedule, which includes costs to construct housing in 190 different projects of various sizes and designs, demonstrates that construction costs vary and may favor either low- or high-rise construction.

Operating and maintenance costs

Our 10 comparisons of the operating and maintenance costs incurred during calendar years 1970-72 for selected low- and high-rise housing projects in 6 States showed that low-rise buildings were usually less costly to operate and maintain than high-rise buildings. However, we found that high-rise buildings were less costly in two comparisons.

We selected projects which (1) housed only elderly persons, (2) were constructed at approximately the same time, (3) contained approximately the same number of units, (4) were located in the same geographical area, and (5) were managed by the same LHA. In cases when construction was not completed at approximately the same time, we selected low-rise buildings which were older than the high-rise buildings. This was done to insure that operating and maintenance cost differentials favoring low-rise buildings would not be caused by the higher costs of operating and maintaining older high-rise buildings. Using this criteria, we compared projects in 6 States which included 2,038 housing units--1,195 high-rise units and 843 low-rise units. A table showing the results of our comparison is on page 10.

As the table shows, the cost to operate and maintain a high-rise unit in Garfield, New Jersey, was 82 percent more than the cost for a low-rise unit. In Cranston, Rhode Island, however, the cost to operate and maintain a unit in one of the two low-rise projects

Comparison of Average Unit Operating and Maintenance Costs
Incurred During the 3-Year Period 1970-72

<u>Location of LHAs</u>	<u>Low-rise buildings</u>			<u>High-rise buildings</u>			<u>Percentage advantage</u>	
	<u>Year construction completed</u>	<u>Number of units</u>	<u>Average unit cost</u>	<u>Year construction completed</u>	<u>Number of units</u>	<u>Average unit cost</u>	<u>Low-rise</u>	<u>High-rise</u>
Bethlehem, Pa. (note a)	1962	50	\$ 662	1968	100	\$ 761	15	-
Brockton, Mass.	1965	100	1,123	1968	100	1,131	1	-
Cranston, R.I. (note b)	1966	71	1,104	1965	79	1,160	5	-
	1968	80	1,281				-	10
Fall River, Mass.	1965	40	1,509	1966	100	1,507	-	-
Garfield, N.J.	1964	70	925	1969	100	1,680	82	-
Knoxville, Tenn. (note c)	1966	270	641	1969	274	862	34	-
				1969	277	758	18	-
Long Branch, N.J.	1961	57	1,157	1963	60	1,400	21	-
Sheboygan, Wis. (note d)	1971	<u>105</u>	522	1971	<u>105</u>	514	-	2
Total		<u>843</u>	\$ 884		<u>1,195</u>	\$ 991	12	

^aUnit costs based on costs incurred during 1970 and 1971. (Costs incurred in 1972 were not available at the time of our comparison.)

^bTwo low-rise buildings were included in analysis.

^cTwo high-rise buildings were included in analysis.

^dUnit costs based on costs incurred during the 27-month period ended June 30, 1973. (These were the only operating and maintenance costs available at the time of our comparison.)

was about 10 percent more than the cost for a high-rise unit. The cost to operate and maintain the 843 low-rise units averaged \$884 a unit, and the 1,195 high-rise units averaged \$991 a unit.

Operating and maintenance costs for this comparison included costs for material, labor, security service, utilities, elevators, and insurance.

AVAILABILITY OF LAND

HUD and LHA officials informed us that one of the major obstacles in constructing low-rise buildings for the elderly was the lack of adequate space near business districts. LHA officials said that elderly tenants generally do not have access to transportation; therefore, they should be located within walking distance of shopping facilities and medical services. According to LHA officials, project sites that meet this criteria are usually too small for low-rise construction and, as a result, construction must be high-rise.

However, we inquired into the availability of land for low-rise construction for 53 projects where high-rise buildings had been or were being constructed. We were able to identify nine high-rise projects where land was available near the project sites which could have been used to construct low-rise buildings.

For example:

- In Swatara, Pennsylvania, the Dauphin County Housing Authority constructed, with HUD's approval, a 100-unit high-rise building in 1971 at a cost of about \$2,015,000. Officials of Dauphin County offered the housing authority a 6-acre site for this project. The housing authority used only 3 acres. The executive director of the housing authority told us that the 6-acre tract would have been large enough to construct a 100-unit low-rise project. He said that he did not consider, nor did HUD suggest, building low-rise housing. The high-rise project cost about \$20,150 a unit, or about \$2,265 more per unit than the average cost to construct low-rise housing in eastern Pennsylvania during 1970-72.
- In Carbondale, Pennsylvania, Carbondale's housing authority constructed, with HUD's approval, a 71-unit high-rise building in 1971 at a cost of about \$1,496,000. The project was built on a half-acre site. HUD records showed that adjoining the half-acre site were 3-1/2 more acres which could have been

used for low-rise construction. Housing authority officials said that they did not consider, nor did HUD suggest, low-rise construction. This project cost about \$21,070 a unit to construct, or about \$3,185 more per unit than the average cost to construct low-rise housing units in eastern Pennsylvania during 1970-72.

We discussed the availability of land for the Swatara and Carbondale housing projects with a HUD area office official who said that the LHAs had wanted to construct high-rise buildings. According to the official, if the LHAs had proposed low-rise buildings which met HUD's criteria, HUD would have approved the buildings.

TYPE OF CONSTRUCTION PREFERRED-- TENANTS' VIEWS

HUD and LHA officials said elderly people usually prefer high-rise buildings to low-rise buildings. A HUD official expressed the opinion that most elderly tenants' needs are better served by high-rise buildings, especially in the cold climate areas of the United States. Elderly people living in a high-rise building usually do not have to leave the building to get to the community activities area, he added.

Elderly tenants questioned, however, did not appear to have a strong preference for either type of building. Rather, most people we questioned said they preferred to live in the type of building in which they were currently living. We distributed questionnaires to 2,500 elderly tenants in 12 projects in 8 States to obtain their views on the type of buildings they preferred. About 55 percent (1,387 tenants) responded--844 tenants were living in high-rise buildings and 543 were living in low-rise buildings. Of those who responded, 1,190 expressed views as to the type of housing they preferred.

About 89 percent (1,060) of the 1,190 tenants said they preferred the type of housing in which they were living at that time. Of the tenants living in low-rise buildings, 94 percent (431) said they preferred low-rise; about 86 percent (629) of the tenants living in high-rise buildings said they preferred high-rise.

About 77 percent (559) of the tenants who responded to our questionnaire and who expressed a preference as to the location of the community activities area said they did not object to walking outside the resident buildings to participate in community activities held in other buildings.

CONCLUSIONS

The costs of constructing, operating, and maintaining housing for the elderly varies and may favor either low- or high-rise construction. HUD, however, does not require LHAs to analyze the factors which should be considered in determining whether to construct low- or high-rise buildings.

AGENCY COMMENTS AND OUR EVALUATION

HUD stated that our report did not examine the production and operation of units for the elderly in sufficient depth to warrant the support of any firm conclusions. HUD said that while the data contained in the report were presented objectively, the primary implication was that a HUD/LHA predilection for high-rise construction for the elderly was unjustified; that is, the reasons, based on consideration of cost, land availability, and consumer preference factors, given by HUD and LHA officials for favoring high-rise construction are not supported by the available empirical evidence. HUD pointed out that other factors, such as accessibility to public transportation, preference for an elevator-type structure to a walkup for the elderly, and security must be considered in determining the type of construction to be used.

Because of these very reasons, our report reaches no firm conclusions as to which type of construction--low- or high-rise--should be used most frequently. We pointed out that costs to construct, operate, and maintain housing units for the elderly; land availability; and tenant preference are not the sole factors to be considered in determining whether a low- or high-rise building should be constructed. We recognize that other factors may dictate that a certain type building should be constructed even though an alternative type building for which suitable land is available may be less costly.

An appropriate decision as to which type building should be constructed in a particular location at a particular time can only be made after thoroughly analyzing all relevant factors. Consequently, we proposed to HUD that (1) LHAs be required to thoroughly analyze both low- and high-rise buildings before applying to HUD for financial assistance for constructing housing for the elderly and (2) it examine the LHAs' analyses to help insure that the most suitable type of housing is constructed.

Commenting on our proposal, HUD stated that requiring LHAs to perform analytical comparisons of low- versus high-rise construction for each project and submitting this justification to HUD for approval would be at variance with a major operating objective--reducing the degree of detailed Federal case-by-case involvement and the accompanying administrative requirements which give rise to costly delays. Generally, HUD prefers to leave design considerations to the LHAs because of the emphasis on local autonomy in the enabling legislation, and it does not feel it should substitute its views for those of officials who are much more familiar with local conditions, practices, and preferences. HUD stated that these decisions can and should be made by appropriate LHA officials who not only are aware of more of the pertinent factors, but who are also in a position to carefully evaluate them in the light of local experience.

Although LHA officials decide which type of construction should be used, a thorough analysis of all relevant factors would insure that their decision is the best one. As noted on pages 6 and 7 of this report, we visited 10 LHAs which had recently completed or were working on high-rise construction. Officials of these LHAs told us that they had not compared the cost of low- versus high-rise buildings because HUD does not require such a comparison. Also, as demonstrated on pages 11 and 12 of this report, LHAs in some cases considered high-rise construction only.

We believe that requiring LHAs to perform analytical comparisons of low- versus high-rise buildings for each project, and submitting the comparison to HUD for approval, would insure that LHA officials appropriately consider all relevant factors in arriving at their decision.

HUD pointed out that although there are undoubtedly jurisdictions in which the recommended formal analysis would be helpful in selecting from design options, the imposition of the subject procedure on all LHAs would be clearly excessive because such an analysis is not necessary to determine the infeasibility of constructing a high-rise building on an Indian reservation or using low-rise construction in New York County. Although we recognize that there are instances where land availability may not be a major factor in determining whether to use low- or high-rise construction, as HUD pointed out in its comments, land availability is only one of numerous factors which should be considered in deciding which type of construction to

use. Until all relevant factors have been thoroughly considered, a proper decision cannot be made as to which type construction should be used in a particular location at a particular time.

With regard to land availability, HUD also stated that our report tends to confirm the HUD/LHA observation that the availability of suitable sites often requires the selection of high-rise construction because (1) land was available for low-rise rather than high-rise construction in only 9 of 53 cases and (2) had GAO concentrated on larger and more densely populated major metropolitan areas rather than smaller communities of low population densities, the ratio of high-rise projects which had sufficient land available for low-rise construction would have been substantially smaller, if not infinitesimal.

In this regard it should be noted that the nine high-rise projects for which we were able to determine that land was available near the project site which could have been used to construct low-rise buildings represents about 17 percent of the 53 projects we inquired into. Also, not all of the 53 projects were located in small communities of low population density; 10 were located in Boston, Massachusetts, and Hartford, Connecticut.

RECOMMENDATIONS

We recommend that the Secretary of HUD require LHAs to thoroughly analyze both low- and high-rise buildings before applying to HUD for financial assistance for constructing housing for the elderly. This analysis would determine which type is the most suitable and should consider the cost of constructing, operating, and maintaining each type of structure and the availability, location, and cost of land. We recommend also that HUD, as part of its review process, examine the LHAs' analyses to help insure that the most suitable type of housing is constructed.

CHAPTER 3

SCOPE OF REVIEW

We reviewed certain planning policies, procedures, and practices pertaining to the construction and operation of selected housing projects for the elderly in various sections of the United States. We included in our review those States which had received, at the time we started our review, most of the housing projects provided by HUD for the elderly and those States wherein the same LHA managed both low- and high-rise units.

Our review included an analysis of costs to construct 17,658 high-rise and 2,602 low-rise housing units for elderly people completed during calendar years 1970-72 in Connecticut, Illinois, Indiana, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, Wisconsin, and eastern Pennsylvania. Also, we gathered data on costs to operate and maintain 1,195 high-rise and 843 low-rise housing units for elderly people during 1970-72 in eastern Pennsylvania, Massachusetts, Wisconsin, Rhode Island, New Jersey, and Tennessee. In addition, we distributed 2,500 questionnaires to elderly tenants in projects in Connecticut, Massachusetts, Rhode Island, Indiana, Illinois, Wisconsin, eastern Pennsylvania, and Tennessee to obtain their views on the type of building in which they preferred to live.

We made our review at LHAs in the States included in our review, at the HUD regional offices having jurisdiction over these LHAs, at applicable HUD area offices, and at HUD headquarters in Washington, D. C. We examined pertinent legislation and HUD policies and procedures. We also interviewed LHA and HUD officials. The LHAs involved in our review are listed in appendix III.

PHOTOGRAPHS OF LOW- AND HIGH-RISE BUILDINGS
FOR THE ELDERLY IN KNOXVILLE, TENNESSEE



A 270-unit low-rise building constructed in 1967.



A 277-unit high-rise building constructed in 1969.



THE SECRETARY OF HOUSING AND URBAN DEVELOPMENT

WASHINGTON, D. C. 20410

September 25, 1974

Mr. Henry Eschwege
Director
Resources and Economic Development Division
United States General Accounting Office
Washington, D.C. 20548

Dear Mr. Eschwege:

This is in response to your letter of June 25, 1974, enclosing for our review and comment a copy of your proposed report to the Congress on factors which should be evaluated before deciding whether low- or high-rise construction should be utilized in producing housing for the elderly.

As regards the general content of the draft report, we feel that the coverage should have been both more extensive and more intensive.

GAO note: Material has been deleted because of changes to final report.

Even limiting the discussion to the Low-Rent Public Housing Program, we feel that this study did not examine the production and operation of units for the elderly in sufficient depth to warrant the support of any firm conclusions. Statistics on project costs exhibit limited geographic coverage, since no States west of the Mississippi were included; no attempt was made to analyze the causes of cost differentials, or determine whether there are economies or diseconomies of scale involved with either type of construction; and the principal relevant factors -- construction, operation and maintenance costs, and the availability, location, and cost of land -- are merely enumerated rather than discussed in detail. Also, no effort has been made to differentiate among the various projects with respect

to such matters as amounts and types of related facilities, suitability of specific designs for various categories of sites, safety considerations, and degree of potential tenant involvement with other project residents and with the community at large.

While the limited data contained in the report are presented objectively, the primary implication of the study is that a HUD/LHA predilection for high-rise construction for the elderly is unjustified, i.e., that the reasons, based on consideration of cost, land availability, and consumer preference factors, given by HUD and LHA officials for favoring high-rise construction are not supported by the available empirical evidence. For example, the report states that cost data show variations among projects and may favor either type of construction; it does not point out, however, that the total variation for all States is relatively small and could change if the sample size were larger and of wider geographic coverage.

Similarly, the report found that the elderly preferred to live in the kind of housing in which they were already living, rather than that they preferred to reside in high-rise buildings. However, it is difficult to draw conclusions from the data without knowing the extent and type of questioning, particularly since it appears that no control group was used.

The results of the study with regard to the crucial factor of land availability would tend to confirm the HUD/LHA observation that the situation relative to the availability of suitable sites often requires the selection of high-rise rather than low-rise construction. The report, however, does not reach this conclusion, despite the finding that in only 9 of 53 cases was land available for low-rise rather than high-rise construction. It is of particular significance to note that this relative lack of available land for low-rise construction was found to exist by a survey which was, based on the types of LHAs included, primarily concerned with smaller communities of lower population densities. It is certainly reasonable to assume that, had the study concentrated on larger and more densely populated major metropolitan areas, the ratio of the number of high-rise projects which had sufficient land available for low-rise construction to the total number of high-rise projects constructed would have been substantially smaller, if not infinitesimal.

There are undoubtedly certain jurisdictions in which the recommended formal analyses would be helpful in selecting among design options, but to impose the subject procedure on all LHAs would be clearly excessive; such analytical results are not required in order to determine the infeasibility of erecting a 20-story high-rise on a Navajo reservation or a group of 2-story garden apartments in New York County.

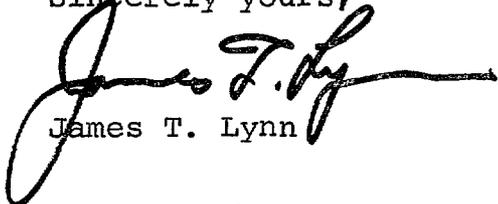
Regardless of the specific items cited by HUD and LHA officials or discussed by GAO in the subject report, a large number of factors -- in addition to construction cost, land availability, and tenant preference -- must be and are considered prior to making a determination as to the type of construction to be utilized. For example, units for the use of the elderly should be as close as possible to public transportation as well as to the sources of those goods and services most frequently required by elderly persons of limited income. Also, an elevator-type structure is preferable to a walk-up building for obvious reasons, even if the cost of the former is marginally higher. Moreover, in larger metropolitan areas in particular, security is of crucial concern. In this regard, due partly to limited accessibility and partly to the effective surveillance performed by tenants at the limited points of entry, high-rise construction has been cited as demonstrably superior to its low-rise alternative.

GAO note: Material has been deleted because of changes to final report.

In making an overall assessment of the degree of applicability of the GAO recommendations, we note that the report did not designate one type of construction as preferable to the other; rather, it indicated that, since the data obtained did not establish an unassailable case for the utilization of high-rise construction for elderly projects, the LHAs should perform an analytical comparison of low- v. high-rise design for each project and submit this justification to HUD for approval. Implementation of a requirement of this type would be markedly at variance with a major objective of our current program operations: to reduce the degree of detailed Federal case-by-case involvement and the accompanying administratively burdensome requirements which give rise to the costly delays of which so many of our program participants and the general public rightfully complain. Generally, we would prefer to leave design considerations, provided certain minimum standards have been met, to the LHAs, partly because of the emphasis on local autonomy in the basic enabling legislation and partly because we do not believe we should substitute our views for those of officials substantially more familiar with local conditions, practices, and preferences than we are. Flexibility would be lessened if this proposal were adopted, since the criteria under which the LHAs would perform the analyses and HUD would evaluate them would have to be developed and applied on a uniform nationwide basis.

In summary, we feel that these decisions can and should be made by the appropriate LHA officials, who not only are aware of more of the pertinent factors but also are in a position to carefully evaluate them in the light of local experience.

Sincerely yours,



James T. Lynn

LHAS INVOLVED IN
THE REVIEW

ILLINOIS

Henry County Housing Authority
Moline Housing Authority
Rock Island County Housing Authority

INDIANA

Evansville Housing Authority

MASSACHUSETTS

Brockton Housing Authority
Fall River Housing Authority
Shrewsbury Housing Authority

NEW HAMPSHIRE

Berlin Housing Authority
Lebanon Housing Authority

NEW JERSEY

Garfield Housing Authority
Long Branch Housing Authority

PENNSYLVANIA

Bethlehem Housing Authority	Schuylkill County Housing Authority
Carbondale Housing Authority	Scranton Housing Authority
Dauphin County Housing Authority	Tioga County Housing Authority
Montgomery County Housing Authority	

RHODE ISLAND

Cranston Housing Authority

TENNESSEE

Knoxville Community Development Corporation

WISCONSIN

Green Bay Housing Authority
Sheboygan Housing Authority

PRINCIPAL OFFICIALS OF THE
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
RESPONSIBLE FOR ADMINISTERING
ACTIVITIES DISCUSSED IN THIS REPORT

	<u>Tenure of office</u>	
	<u>From</u>	<u>To</u>
SECRETARY OF HOUSING AND URBAN DEVELOPMENT:		
George W. Romney	Jan. 1969	Feb. 1973
James T. Lynn	Feb. 1973	Present
ASSISTANT SECRETARY FOR HOUSING PRODUCTION AND MORTGAGE CREDIT-FEDERAL HOUSING ADMINISTRATION COMMISSIONER:		
Eugene A. Gulledge	Oct. 1969	Jan. 1973
Woodward Kingman (acting)	Jan. 1973	July 1973
Sheldon B. Lubar	July 1973	Nov. 1974
David M. De Wilde (acting)	Nov. 1974	Present
ASSISTANT SECRETARY FOR HOUSING MANAGEMENT:		
Lawrence M. Cox	Mar. 1969	July 1970
Norman V. Watson	July 1970	Jan. 1973
Abner D. Silverman (acting)	Jan. 1973	Mar. 1973
H. R. Crawford	Apr. 1973	Present

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