DESIGN VISIONS AND NEW MISSIONS:

THE ORIGINS OF HIGH-RISE PUBLIC HOUSING IN THE UNITED STATES

by

Mathew A. Thall

B.A., Columbia University 1971

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF CITY PLANNING of the MASSACHUSETTS INSTITUTE OF TECHNOLOGY

May 1975

Signature of Author

Department of Urban Studies and Planning, May 27, 1975

Certified by

Thesis Supervisor

Accepted by

Chairman, Departmental Committee on Graduate Students
ABSTRACT

Design Visions and New Missions:
The Origins of High-Rise Public Housing
in the United States

by

Mathew A. Thall

Submitted in Partial Fulfillment of the Requirements of the Degree of
Master of City Planning,
Massachusetts Institute of Technology
May 27, 1975

The thesis is an exploration of the reasons that high-rise public housing projects began to proliferate in the United States after 1949, particularly in the early 1950's. The principal focus is on the validity of the standard explanation that the high cost of slum land made this type of project economically necessary. The role and responsibility of various institutional actors are examined. The public housing program is seen as both a self-contained system and a part of a larger housing and redevelopment system. The external political and administrative constraints on the public housing system are detailed. The social, aesthetic and economic aspects of the debate about the suitability of high-rise public housing are presented. Design regulations of the federal Public Housing Administration are discussed with respect to their evolution from 1949 to 1959.
The economy-oriented regulations are seen as an exaggerated reaction to Congressional concerns about public housing costs. The failure of the housing and redevelopment system to make Urban Renewal sites available to the public housing program is analyzed. Public housing project costs are analyzed with respect to the Public Housing Administration's site cost regulations to determine whether there were low-rise alternatives to high-rise projects within the regulations; the conclusion is that there were. The vast majority of high-rise public housing projects were not economically necessary.

The nature of federal-local relations within the public housing system is discussed. PHA is seen as being insufficiently assertive about good design in dealing with local housing authorities. Alternative explanations of why local housing authorities built such projects are offered. The principal alternative hypothesis on the origin of high-rise projects is that the social reform aspect of the public housing program had been displaced by new goals for public housing: to serve as a relocation resource for the Urban Renewal program.

Thesis Supervisor: Robert M. Fogelson
Title: Associate Professor of History and City Planning
TABLE OF CONTENTS

I  Introduction.........................................................5
II  The External Constraints........................................18
III The High-Rise Debate...............................................30
IV  The Federal Response...............................................49
V   Missed Opportunities..............................................65
VI  Local Responsibility...............................................80
VII Alternative Explanations........................................105
Appendix A  Project Data and Categorization.....................124
Appendix B  Administrative Cost Limits...........................127
Notes............................................................................131
Bibliography..............................................................142
I

Introduction

In the development there are 2170 apartments, 1456 of them in 14-story elevator buildings. Constructed on or near a downtown site to replace houses that were once among Detroit's finest residences, they created...in the immediate and wider community considerable curiosity and some suspicion. Who would live in these huge structure--a type of accommodation familiar to New Yorkers but unknown to Detroiters? Where would their children play? What would happen to the schools?

Throughout its 40 year history, the public housing program in the United States has never enjoyed widespread popular acceptance. Public housing design has been particularly unpopular. Most non-residents who have seen public housing projects and a substantial number of residents have been dissatisfied with the physical characteristics of the projects. Over the years the components of the negative stereotype of public housing have shifted. In the 1940's many associated public housing projects with drab, monotonous, barracks-like reservations. But the most enduring stereotype of bad public housing has probably been the high-rise project in which some or all of the buildings affront both human scale and community residential patterns.

Very few high-rise projects were built before 1950. The technology was certainly available and the New York City Housing Authority did build many high-rise structures. In other
major cities only two such projects were constructed under the Federal Low Rent Public Housing program prior to the passage of the Housing Act of 1949. Starting in 1950 and continuing throughout that decade into the 1960's high-rise projects for low income families proliferated. Between 1949 and 1959, 79 projects containing high-rise buildings were approved for federal assistance in the major cities of the United States (excluding New York.) The bulk of this activity occurred at the beginning of the decade. The absolute maximum was reached in 1951 when 18 such projects were approved and the relative maximum was reached in 1953 when 67 percent of projects approved contained all or some high-rise structures. In some sections of the country, the South, for example, such projects never appeared in the

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>All high-rise</td>
<td>0</td>
<td>4</td>
<td>9</td>
<td>10</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Mixed high-rise</td>
<td>(0)</td>
<td>(6)</td>
<td>(19)</td>
<td>(39)</td>
<td>(8)</td>
<td>(15)</td>
<td>(8)</td>
<td>(0)</td>
<td>(13)</td>
<td>(33)</td>
<td></td>
</tr>
<tr>
<td>All mid-rise</td>
<td>2</td>
<td>2</td>
<td>9</td>
<td>5</td>
<td>7</td>
<td>0</td>
<td>5</td>
<td>7</td>
<td>0</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Mixed mid-rise</td>
<td>(3)</td>
<td>(19)</td>
<td>(19)</td>
<td>(58)</td>
<td>(19)</td>
<td>(28)</td>
<td>(0)</td>
<td>(50)</td>
<td>(33)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All low-rise</td>
<td>149</td>
<td>49</td>
<td>28</td>
<td>11</td>
<td>4</td>
<td>0</td>
<td>18</td>
<td>16</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(96)</td>
<td>(75)</td>
<td>(60)</td>
<td>(42)</td>
<td>(33)</td>
<td>(66)</td>
<td>(64)</td>
<td>(100)</td>
<td>(24)</td>
<td>(33)</td>
<td></td>
</tr>
</tbody>
</table>

1950-1959 period. In the Northeast the predominated and in the Mid-west they were quite numerous.

Today it is widely, if not universally, held by housing

* See appendix A
specialists that high-rise buildings are unsuitable for housing families, particularly low-income families with many children. Oscar Newman's study, *Defensible Space*, has provided hard evidence that the incidence of crime is significantly greater in high-rise than in demographically similar low-rise projects. Such projects have been extremely expensive to maintain and operate. Much of the added expense is directly attributable to the normal wear and tear on indoor public spaces, such as halls, stairwells and elevators, used by numerous children as recreation areas. A good deal of it can be laid to vandalism caused by outsiders who find such buildings particularly accessible as well as residents of the buildings. The physical differentiation of the projects from many of the communities they are in, especially when the project is the only high-rise residential building in the city, has been a factor in isolating their residents and as such has exacerbated the social disorder and instability of the projects. Living in a high-rise building is the polar opposite of a housing ideal tenaciously held by most Americans, including low-income ones. Doubly so for the recent migrants from rural areas -- Southern Blacks, Puerto Ricans and Chicanos -- whom public housing has increasingly housed in the last two decades; elevator projects were completely alien to their custom, habit and even second-hand experience. Residence in one likely made the urbanization process even more traumatic for many.

The demolition of the Pruitt-Igoe project in St. Louis in 1973 was perhaps the most dramatic concession by public author-
ities of the failure of this type of housing. Indeed, since the late 1960's the U.S. Dept. of Housing and Urban Development has followed a policy that generally prohibits high-rise buildings in subsidized projects for families. However, almost all that has gone wrong with high-rise public housing was predicted when the trend began. We are not dealing with the unanticipated consequences of a housers' ideal. The luxury of hindsight will not allow us to dismiss high-rise public housing as simply a serious miscalculation; there were warnings of what would happen. While it was not the central issue in the public housing program in the 1950's, the new trend to high-rise housing was controversial. The debate occurred early enough to have reversed the trend. But it did not have that effect. Rather quickly the dissident voices subsided and the phenomenon did become non-controversial.

The public housing program in general has rarely been subjected to a systematic historical analysis. So much more so for the evolution of public housing design; only architectural historians have examined this issue, usually in a cross-national context with a European focus. There has been no effort to explain why high-rise projects, previously limited to one city, took hold and spread throughout the United States after 1949. However, the conventional wisdom among housing officials and housing specialists holds that the trend can be explained simply by economic necessity. The austerity of the Federal public housing program in the 1950's is well known. It is therefore
widely believed (among the relatively small group that have any beliefs on the subject) that within the cost constraints of the public housing program it was either no longer possible, or considerably less economical to build low density and hence low rise projects of the 1930's and 1940's.

A principal objective of this thesis will be to explore the theory that economic factors account for the origin of the high-rise housing trend. The economic constraints will be specified, the factors that brought them about will be investigated and the actual economics of public housing development will be examined in light of the constraints. These constraints were the statutory construction cost limits set by the Housing Act of 1949 and the regulations promulgated by the Public Housing Administration, the Federal agency administering the program.

Any consideration of public housing economics will have to address at least four costs: land acquisition, site improvements, dwelling construction/equipment and total development cost. From the very beginning of the program only construction costs have been limited by Congress. The Housing Act of 1949 liberalized that restriction somewhat by eliminating the previous per unit maximum and retaining only a per room construction cost limit, which was considerably higher that the one in the original United States Housing Act of 1937. The costs so far enumerated concern development costs, upon which Federal subsidy is based. It is also important to understand how operating costs impinged on subsidy. The maximum public housing subsidy, known as an
Annual Contribution, is equivalent to the annual debt-service costs of a project. However the actual subsidy paid is reduced by the amount or residual receipts or net income after operating expenses. Therefore, any reduction in operating expense would increase residual receipts and hence lower the amount of Federal subsidy. To the extent that operating costs of high-rise and low-rise projects differ, that difference should presumably be reflected in any consideration of the most economical building type.

FIGURE 1
Public Housing Costs, Subsidy and Income

A matter somewhat distinct from though closely related to the substantive explanation of the spread of high-rise projects is the role of various institutional actors in the high-rise phenomenon. How much responsibility can be placed on Congress, the Public Housing Administration and its parent Housing and Home Finance Agency and local housing authorities (LHAs)? It is widely held that the sameness of public housing design, the
"project look" of all public housing is the result of rigid, inflexible standards imposed by the Federal government without regard to local differences. High-rise public housing is similarly seen as something imposed on powerless LHAs by a Federal government insensitive to local design practices. As in many intergovernmental relations issues, the buck gets passed up. Defenders of the Federal government claim that whatever rigidity existed in policies was a direct or indirect result of the heavy-handed surveillance of the program by a hostile Congress. Who were these actors and what role did they play?

Congress can be expected to play an important part in public housing policy. The Banking and Currency Committee of each house was responsible for holding hearings and making recommendations on housing legislation. The House and Senate Appropriations Committees also played a major role, since each year PHA had to return to Congress for an appropriation for annual contributions and administrative expenses for the following fiscal year. The House Appropriations Committee, notoriously conservative, was an important force to be reckoned with.

Congress can be seen as one of the major actors external to the housing system. The housing system itself was a complex web of relationships among federal agencies and programs, and within these programs between federal and local officials. The Federal housing bureaucracy was hardly a picture of administrative rationality. In 1947 all of the existing housing programs and agencies were brought together when Congress created the Housing and Home Finance Agency. While the HHFA was ostensibly
created to co-ordinate housing policies and programs, the real purpose was more likely to elevate the prestige and status of Federal housing programs by creating an independent, sub-cabinet level agency. Each of the constituent agencies of HHFA, including the Public Housing Administration, retained its autonomy except in budgetary matters. HHFA submitted the annual budget request to Congress for each agency. Before 1949 the autonomous character of the constituent agencies could not have had much adverse impact on housing policy. There were few policies that required inter-agency co-ordination. The Housing Act of 1949 changed the situation dramatically. Not only were FHA aids going to be needed in the newly authorized Urban Redevelopment program but the amount and location of public housing was also an ingredient in the success of Redevelopment. The Urban Redevelopment Program was also viewed by many as a potential aid for public housing. Constituent agency autonomy could be problematic where co-ordination was necessary.

Nonetheless, the Administrator of HHFA did more than co-ordinate. The Office of the Administrator was responsible for the operation of a number of programs. Until 1954, for example, Urban Redevelopment was carried out within the OA's Division of Slum Clearance and Urban Redevelopment. As the programs administered by the OA grew, new constituent agencies were administratively created. Such was the Urban Renewal Administration, begun in 1954. The URA was not formally autonomous as were the original constituent agencies. Nonetheless, formally autonomous
or not a constituent agency could not very will defy the policy direction of the HHFA Administrator. The Administrator had political levers such as the budget and the power delegated by the President to approve public housing projects for Annual Contributions. He could use these if he felt that co-ordination among HHFA constituents was vital.

Many of the staff of the Public Housing Administration were uncomfortable about if not outright opposed to becoming part of a large umbrella agency. PHA (which went by other names from 1937 to 1947) had been a remarkably stable organization. Many of the original staff had remained with the agency and a strong esprit d'corps was present. They feared that the autonomy of PHA and the smooth working relationships that had developed would be destroyed by HHFA. This stability of personnel remained throughout the 1950's. Some of the top administrators such as First Assistant Commissioner Warren Vinton, Chief Economist, Lawrence Bloomberg and Assistant Commissioner for Field Operations, Abner Silverman, were career civil servant who had been with the public housing program since its beginning. A similar stability existed in most PHA Field Offices. Of course the very top officials -- the Commissioner and his Deputy -- were political appointees and with the change to a Republican administration in 1953 these positions were filled with new people.

At the local level the public housing program was administered by the local housing authority. LHAs were (and still are) formally autonomous local agencies. The original purpose of such and administrative mechanism was to keep local politics
out of the program. Nevertheless, the local governing body appointed all or most of the LHA commissioners and had to approve public housing sites. While the LHA owned the public housing projects, receipt of Federal subsidy was conditioned on compliance with an Annual Contributions Contract between the LHA and PHA and PHA approval of annual operating budgets. PHA also had to approve all planning, design and construction documents for each project and projects had to meet all PHA design standards. The Urban Redevelopment program provided more options for the local administrative mechanism. Cities could run the program directly, local redevelopment agencies similar to LHAs could be established or LHAs could administer Redevelopment along with public housing. In some states the Urban Redevelopment enabling legislation mandated only one of these forms; in others all options were available.

Representing the interest of the LHAs in Washington was the National Association of Housing Officials, founded in 1937. NAHO was the principal public housing lobbyist in Congress. NAHO also had a close working relationship with PHA; few PHA policies were promulgated without consultation with NAHO. With the growth of the Urban Redevelopment program NAHO broadened its base in 1953 when it became the National Association of Housing and Redevelopment Officials. NAH(R)O had an extensive communications network with its local membership. Not only were there regional councils, newsletters and national conventions, but its Journal of Housing provided information and advice and shaped opinions on all aspects of public housing and
and Urban Renewal*.

In a sense the public housing program was nested in a larger housing and redevelopment system. PHA was subject to the pressures that other HHFA constituents could exert through the HHFA Administrator. At the same time, PHA had the potential of exerting counter demands. The Office of the Administrator, however, was likely to be more closely allied with the Urban Renewal Administration, which had been spun off from the Division of Slum Clearance and Urban Redevelopment within OA. While kinship between OA and URA was not a necessary consequence of organizational structure, it was a short term effect of the personalities involved; as long as the OA was headed by the individual who had created the URA there would be some special relationship between these units. At the local level as well, the public housing system was impinged upon by the larger housing and redevelopment system, although there was not often a formal structure through which LHAs could exert counter-pres- sures. Indeed when the LHA was administering the redevelopment program the pressure on public housing would be internalized within the LHA. These relationships at the federal and local levels need not be regarded only in an adversarial light, for wherever the potential for demands and counter-demands existed, the possibility of forging alliances existed as well. Pressures and alliances could be generated vertically as well as laterally. Indeed one of the objective of a vertical alliance might be the exertion of lateral pressure by the upper or lower partner.

* After 1954 Urban Redevelopment was known as Urban Renewal.
The public housing system also operated independently of the larger system. This is not surprising given the considerable autonomy of PHA. The program developed its own rules and regulations which outsiders could review and reverse only with great difficulty. The nature of PHA's relationship with LHAs was in fact more determined by PHA's response to factors exogenous to the housing and redevelopment system than by fellow constituents' demands.

FIGURE 2
The Housing and Redevelopment System

Pressures and alliances
--- The public housing system

To fully understand the origins of high-rise housing it will be necessary to consider the constraints and opportunities facing public housing as part of a larger system and those which were strictly internal to the public housing system.

Assessing and apportioning responsibility will of course shed light on the substantive issues around the spread of high-rise public housing, but it also has some intrinsic value as a
policy-relevant question. While it is unlikely that much high-rise housing will be built for families in this country in the near future, the relationship between the federal and local governments remains an important concern, especially in light of Community Development Revenue Sharing. The popular scenario of a hostile Congress breathing down the neck of a powerful federal bureaucracy itself insensitive to local needs has been applied to many policies beside public housing design. A substantial part of that scenario, as applied to high-rise public housing phenomenon is mythology.
II
The External Constraints

The public housing program has always operated under heavy political constraints. For a long period it struggled against the carefully orchestrated opposition of real estate interests. Moreover, it has been held in disfavor by much of the public, including its potential clientele, low income citizens. A vicious circle has grown out of the numerous constraints on the program: policies originating in response to constraints -- essentially survival tools -- have had effects that further increase public distaste for the program. In the 1950's the constraints were particularly severe.

From the outset of the 1949 program, the housers were aware that they were walking a narrow line between economy and quality. The Housing Act of 1949 mandated that projects were "not to be elaborate or extravagant in design or materials." While this provision had been part of the U.S. Housing Act of 1937, it took on particular significance in the evolution of policy after 1949. The housers realized that construction and operating costs of public housing had to be kept sufficiently reasonable not to jeopardize the program in Congress, but they knew as well that projects designed with only economy in mind would alienate their few allies. Some housers, including NAHO, questioned whether it was possible to achieve a politically acceptable balance between economy and quality and suggested that a reasonable response to an impossible situation was not to build. High quality,
however, had been sacrificed often in the pre-1949 program for non-economic reasons. Amenity, even when provided at little additional cost, was bound to provoke the resentment of local residents ineligible for public housing. Even if such instances did not come to the attention of Congress, they would certainly stymic future public housing construction proposed by the offending local authority. 10

More than public opinion, the virulent opposition of the real estate lobby handicapped the public housing program. The National Association of Real Estate Boards, the National Association of Home Builders and the U.S. Savings and Loan League testified against public housing at every opportunity and publicized exaggerated and false accounts of mismanagement and violation of statutory and administrative requirements. The basis of their opposition was, of course, that public housing competed with private housing. This was vehemently denied by housers who asserted that it was impossible for low income families eligible for public housing to afford even the lowest rents of standard housing in the private market. The inclusion in the Housing Act of 1949 of the long-standing Federal administrative requirement that the LHA demonstrate at least a 20 percent gap between the income needed to pay the lowest rents for standard housing and the proposed income limit for admission to public housing did not soften the real estate lobby's opposition. Neither were the real estate people placated by the aggressive (and highly successful) Federal initiative in removing over-income families beginning in 1947. In addition to the self-serving opposition
to competition from public housing the real estate groups advanced a sincerely held ideological argument: public housing was socialistic and hence un-American. Support of the program by such solid conservatives as Senator Robert Taft made this line less credible but it was still powerful in less "enlightened conservative"quarters.

The diatribes of the real estate lobby were not new but they had to be taken more seriously after 1949. Unlike the Depression period, a massive amount of private building—especially single family homes—followed World War II. The builders' principal market was the lower middle class wage earner moving to the suburbs. Builders were "perfecting" construction methods and design that significantly lowered the cost of new housing, principally by compromising on room sizes and livability. The HHFA's Division of Housing Research, concerned almost exclusively with reducing building costs, was no small aid in this enterprise. If the private housing industry could lower costs to within the range of low income families, a public housing program would not be justified.

By 1954 such a possibility seemed real enough to induce Congress to add an FHA home-insurance program for low income families displaced by Urban Renewal projects. Known as Section 221, it was recommended by the President's Advisory Committee on Housing Policies and Programs, specifically as an alternative to public housing. While the Advisory Committee did not recommend abandoning public housing, Section 221 did represent a major inroad and its existence soon provided an excuse for cutting
back the size of the program. 11

The ideological argument was also likely to be more effective at this time. In the twentieth century the United States has typically fallen into conservative/reactionary "normalcy" following major wars and pre-war reform movements have been disavowed. Such was the case after World War II, reaching its fullest expression in the McCarthy era. Charges that the public housing program was socialist had significant disruptive potential.

Finally, the real estate lobby changed its tactics after 1949 by shifting the battle to the local level. Members of NAREB, NAHB, USSLL and other opposition groups were urged to organize local opposition to specific projects and to get on city planning commissions that would have to approve public housing sites. If public housing could not be stopped in Washington it would be choked off in the cities. 12

The program's struggle for survival in Congress was interminable. The influence of the real estate lobby was evident in the Congressional restraints imposed after 1949. In 1952, the Gwinn amendment was added to the PHA appropriation; it forbade Federal assistance of any project which housed members of organizations on the Attorney General's list of subversives. Aside from reinforcing the image of public housing as a Red Menace, it was feared that LHAs would have serious difficulties marketing public housing bonds with such a restriction -- a somewhat paradoxical package of motives and effects. Congress also added some hurdles to the local obstacle course. The Housing Act of
1949 required public hearings before any land was acquired for public housing projects. The McDonough Amendment to the Independent Offices Appropriations Bill for 1952 allowed a community to rescind approval of public housing projects that had been rejected by voters in a referendum held subsequent to original approval. Such referenda were an increasingly popular weapon of enemies of the program.\textsuperscript{13}

The requested administrative budget of PHA was repeatedly reduced by Congress. Major reductions resulted in the dismissal of hundred of employees and the closing of several field offices in 1953. Congress also attempted each year to reduce the annual appropriation for public housing subsidy (Annual Contributions). This was a rather vain effort since the Annual Contributions were a contractual obligation and invariably PHA returned at the close of the fiscal year for supplemental appropriations to cover the deficiency in obligated Annual Contributions.

However, one way of controlling the funds appropriated for subsidy was to reduce the number of new units that would receive subsidy. In this area the Congressional impact on the public housing program was most devestating. The housers' remarkable accomplishment of getting included in the 1949 Act an authorization for 135,000 new public housing units a year for six years was a hollow victory. Congress began whittling away at that almost immediately. In fiscal year 1952 Congress reduced the authorization to 50,000 units. In fiscal 1953 it was reduced to 35,000 units; in fiscal 1954 the Eisenhower Adminis-
tration requested only 35,000 units and Congress authorized 20,000 with no funds for future planning (in effect ending the program.) There was no authorization for fiscal 1955. Thereafter the authorizations began to increase but they never exceeded 50,000 units in any fiscal year through the remainder of the decade. This skeleton program was the result of compromise between the House which perpetually sought to eliminate the program and the Senate which made a number of attempts to restore it to the 135,000 unit annual authorization of the 1949 Act. Until 1954 these reductions were attached to the PHA appropriation by the House Appropriations Committee and often further reduced on the floor of the House. The Appropriations Committee was not empowered to make such reductions since that was a legislative matter that had no bearing on the current appropriation for subsidy. (Units could not possibly be completed and permanently financed, thus become eligible for Annual Contributions, in the same fiscal year they were placed under construction.) Finally in 1954 the chair ruled out of order the Appropriations Committee's recommendation on unit authorizations for the coming fiscal year.14 Thereafter, public housing authorizations were included in annual housing amendments bills under the jurisdiction of the Banking and Currency Committee of each house.

The argument that kept the public housing program alive in Congress was its essential connection to Urban Renewal. That was a critical factor behind inclusion of Title III, the 810,000 unit public housing authorization, in the Housing Act of 1949. Indeed, public housing occupied most of the Congressional debate
on the 1949 Act. Undoubtedly a large number of legislators supported the new public housing program on its own merits but not enough. The compelling argument was that low income families displaced by Redevelopment projects had to be rehoused in standard housing, of which there was none they could afford on the private market. In subsequent battles to keep the program alive the central argument remained that Redevelopment could not proceed without a sufficient number of public housing units for relocation. HHFA, NAHRO, the U.S. Conference of Mayors, the American Institute of Architects, the American Society of Planning Officials and even private redevelopers involved in the Urban Renewal program advanced this position. The argument reached its logical conclusion in 1954 when a floor amendment to the Housing Act of 1954, a major piece of legislation, was added limiting the public housing allocated to any community to the number of units needed to house displacees of Urban Renewal. While HHFA requested the following year that this restriction be lifted because of administrative difficulties of absolute compliance, it assured Congress that the public housing program would be used principally to re-house displacees of slum clearance operations. Indeed within HHFA serious consideration was given to the idea of administratively retaining the allocation method imposed by Congress in 1954. While Urban Renewal may have kept the public housing program alive, it was not as effective as some of the previous conditions that had been the program's lifeline: Depression and war. After all, Urban Renewal was not a response to a national emergency.
Some legislators who approved of the goals and methods of the Redevelopment program were so opposed to public housing that they voted against the Housing Act of 1949 in the end.

One such Congressman was Albert Cole, a Republican from Kansas. In 1953 Cole became the Administrator of HHFA. Upon entering office he noted that while he had been and still was opposed to public housing, he realized that it was his duty to see that the program was responsibly and efficiently run. In time Cole did come to support a small program realizing that Urban Renewal really required public housing for relocation. However, the White House, lukewarm to public housing from the start of the Eisenhower Administration, totally abandoned it after 1956. Thereafter there were no Administration requests for additional units and Congress took the initiative in keeping the program sputtering along.

The Commissioner of Public Housing under Eisenhower was not similarly ideologically disposed. Charles Slusser, a realtor and insurance agent who had been the mayor of Akron, Ohio for ten years, supported public housing, although never ardently. However, Slusser was obsessed with economy. All unnecessary amenities were to be kept out of public housing. Furthermore, he believed that LHAs would rob the Federal government blind unless they were carefully watched. Cole and Slusser, then, were classic Republicans and their ideology would represent an additional burden for the housers.

The annual Congressional authorization process added another
constraint: time. Until 1956 Congressional authorizations for new public housing ran for one year. The number of units authorized to be placed under Annual Contributions Contract and the number authorized to be placed under construction expired at the end of the fiscal year. Under this arrangement it was impossible to schedule development in an orderly manner since normally two to three years would elapse between initial project planning and occupancy. In one year an LHA had to submit an application for new units, await allocation of the units, select several sites and determine their suitability, await PHA approval of sites, estimate development costs and prepare tentative site, dwelling and construction plans before entering into an Annual Contributions Contract. To begin construction on time all land had to be acquired and site occupants relocated in the one year period. It was extraordinarily difficult for PHA to determine accurately which projects would meet the one year planning and construction-start deadline. Furthermore, the one year authorization made it difficult for PHA to maintain and build up a competent technical staff. More seriously, projects rushed to meet a statutory deadline tended to be poorly thought out. PHA sought and eventually won in 1956 a three year authorization for new Annual Contributions Contracts with no time limit on construction starts.

One of the most serious obstacles facing the public housing program in these years was the difficulty of finding suitable sites and the impossibility in many localities of embarking on
program balanced between slum and vacant sites. Meyerson and Banfield have fully described the battle for vacant sites and the issues around it in Chicago. The Chicago scenario was re-enacted throughout the country. In 1952, the Journal of Housing surveyed twelve cities ranging in population from 247,000 to 3.6 million and found that few were "within striking distance" of selecting sites to accommodate the originally proposed program. Vacant sites were appealing because they were relatively inexpensive. In some cities they were considered absolutely essential at least at the outset of the program; where there was a low vacancy rate and a Redevelopment program underway, it would be virtually impossible to relocate occupants of a slum site. By displacing more families the public housing would not be facilitating the Title I slum clearance program but adding to the community's relocation problem and perhaps foreclosing Urban Renewal.

By and large vacant sites were in outlying areas of the cities and that was the critical factor in their unavailability for public housing. Such areas were undergoing rapid private development of one-to-four family homes as a result of the suburbanization of metropolitan areas. Developers sought and got the most desirable sites and when public housing was permitted in these areas it was left with "problem sites" requiring heavy investment in site improvements. But in relatively few instances was public housing even allowed to develop the leftover sites in outlying neighborhoods.

Property owners adamantly opposed to having public housing
in their neighborhoods. It would degrade the area's property values, social environment and aesthetic character. The principal objection, however, was racial. In this period many LHAs outside the South had adopted open occupancy policies. Any new projects were likely to house non-white residents. Long standing patterns of residential segregation and racial containment would be destroyed by allowing public housing projects into outlying white areas. When public housing was proposed in any such areas the neighborhood property owners association could likely rely on the support of allies in other areas not immediately threatened. Bus loads of opponents from throughout the city would often show up at public hearings on project sites. If the City Council would not protect residential segregation, as it did in Chicago, referenda to end all public housing were often secured by the opposition. Many LHAs simply avoided vacant sites for fear of killing their entire program. Public housing, then, was usually free to operate only on occupied slum sites in the inner city. This not only created relocation problems but also increased land acquisition costs considerably.

All of these constraints -- hostile public opinion, an active opposition lobby, unfriendly Congress, anti-public housing ideology and an obsession with economy among top administrators, timetable and deadlines that militated against good planning and serious site selection obstacles -- were largely external to the public housing system; there was little that housing officials
at any level could do to control or moderate them. Other constraints that were endogenous to the system, e.g. constraints imposed by PHA on LHAs will be fully discussed later. While the exogenous conditions improved slightly throughout the decade, public housing continued to operate in a basically hostile environment. So much so that by 1957 Catherine Bauer, a long time fighter for the program, characterized the situation as "the dreary deadlock in public housing." The program just managed to stay alive from year to year, Bauer observed, but in responding to all of the pressures it had become unrecognizable as the great social reform she and others had fought for twenty years before.29

The critical question that we must answer is whether all of these constraints can adequately explain the spread of high-rise projects in the 1950's. Were the high-rise projects an unavoidable consequence of an impossible political situation or has that situation been used as an excuse for a serious blunder that was within the public housing officials' power to prevent?
III

The High-Rise Debate

"I would prefer the most unimaginative row house to the most innovative high rise."

Elizabeth Wood, Executive Director, Chicago Housing Auth.30

"In point of fact, today's city densities mean that the best way for many a city child to get grass is to live in the sky."

Douglas Haskell, editor of Architectural Forum.31

Despite the precarious position of the public housing program, underscored by the Congressional battle around Title III of the Housing Act of 1949, the housers, or at least their national spokespersons were not gloomy. Taking due notice of their Congressional friends' admonitions to keep the program free from corruption, patronage and inefficiency, they set out enthusiastically to build public housing.32 Since few federally-aided projects had been built after 1945 -- the construction cost limitations in the original legislation made building impossible without local subsidy -- the passage of the 1949 Act was an ideal opportunity to re-appraise the goals of public housing and determine what new directions should be followed.

Such considerations were relevant to the soul-searching over the design of public housing. It was widely acknowledged that much of the previous public housing design had been poor, as housing and as public relations for the program. The monotonous, institutional character of the projects had set them apart as
reservations rather than neighborhoods, housing rather than homes.32

The most serious and detailed criticism of earlier public housing design came from architect Henry C. Whitney who authored a series of articles under the pseudonym "Maxim Duplex" in the Journal of Housing in 1950. For Whitney, the "new issue in public housing" was how to design housing that met the standard of the non-extravagant American home. Whitney believed the existing public housing fell far short of this standard.33 The public housing designed in the 1930's and 1940's undermined rather than strengthened family life. The problem of slums was that they endangered their residents' physical and mental well-being by depriving them of a "true home environment." While public housing represented a significant advance over slum conditions it was still far from a true home environment.

One of the critical deficiencies pointed to by Whitney was the inadequacy of dwelling space. Rooms were too small and few in number for normal family activities. Whitney observed that there was no space in the typical public housing unit where fathers could engage in hobbies that required equipment and workspace. A hobby room was required. More important was the insufficient space indoors for children's play. "A child who lives in a public housing project is unable to center his friendships in the home where they naturally belong."34 Communal facilities were not a satisfactory answer. Family activities belonged in the dwelling unit itself. Even central laundries were unsuitable; they generally provided no place for children
to play under a mother's supervision. Communal and central facilities -- even central heating systems -- should be eliminated as much as feasible.

Moreover family activities took place outside of the dwelling unit. Each unit, therefore, should be provided with private, controlled outdoor space. Such space would have multiple uses: children's play, entertaining, clothes drying. Where private yards were lacking, children tended to roam the project annoying other residents.35

Such changes in design need not represent a great increase in development cost, Whitney observed, for construction standards had been unnecessarily high in the pre-1949 program. The requirement of fireproof and concrete construction of one-to-three-story buildings added little to maintenance savings and was far in excess of what was necessary. To require projects to meet ordinary construction standards, for example wood frame for two-story buildings would permit a tradeoff in favor of more dwelling space. Moreover, Whitney recommended a greater emphasis on tenant maintenance of the premises, already implicit in his other recommendations; this would reduce operating costs.36

The reaction to the Maxim Duplex articles was mixed, as even Whitney observed.37 Some commentators felt that he had no conception of the needs of low income families; play rooms and hobby rooms in the dwelling were not only upper-middle class amenities, but completely unfeasible economically.38 The Director of Development of the Chicago Housing Authority (which would shortly embark on a program of almost exclusive high-rise
construction) observed that the recommendations had an anti-social bent, an undesirable emphasis on the private and the individual as opposed to the shared community. People should be allowed to mow the lawn or live in an apartment and contribute socially in other ways. In fact, Whitney had said nothing about how or if tenants should contribute socially which may have contributed to the housers' consternation about his program.

Thus although Whitney's articles were the most coherent proposal that received wide exposure among housing officials there was no consensus among housers on a design philosophy for public housing. Simultaneous with this debate public housing construction was moving apace. The *Journal of Housing*'s single editorial plea that housers not succumb to the intense pressures to build quickly but rather consider carefully such questions as a sensible design philosophy that would assure lasting quality went unheeded. By July 1950, when the second Maxim Duplex article appeared, eight projects with high-rise structures had been approved in the largest cities of the country.

To many the proliferation of high-rise public housing was a disturbing trend. In 1951 the New Orleans Housing Authority was presented by architects Curtis and Davis with a plan for re-design of a project approved before the War but never built. The proposal was for twelve ten-story towers arranged in four groups of three buildings connected by open-air bridges. The Housing Authority was so taken aback with the scheme that it asked the local chapter of the American Institute of Architects to offer recommendations. The AIA disapproved the scheme and
Authority angrily rejected it in favor of a plan with 28 four-story structures. In Philadelphia, the Housing Authority's program of all-high-rise construction provoked strong staff dissent. The Authority therefore hired anthropologist Anthony F.C. Wallace to study the social consequences of high-rise housing. These events and the general proliferation of such projects pushed the controversy into the open by 1952 when the issue was fully aired in the housers' and architects' professional journals.

Most of the arguments against high-rise housing focussed on its unsuitability for family living. Many of Maxim Duplex's points seemed far more reasonable in this context. Particularly important was the necessity of the private yard, an impossibility in elevator structures. The anti-high-rise housers cited the developmental psychologists who claimed that young children had to be able to play and dig in the ground to establish many motor skills. Moreover, the opportunity could not be restricted to periods when the mother could take the child to a playground and watch him, for that would prevent the development of independence in the child. The yard provided the young child with full opportunity of independent exploration while within the close range of the mother, who could at the same time be employed in household chores. Moreover the yard allowed the parent to be involved occasionally in the child's play, a further advantage for child development and family solidarity. While day nurseries might conceivably provide a satisfactory alternative to the
private yard, few projects had provided them previously and the likelihood that future ones would was infinitesimal.

The other social objection to high-rise projects was that they generally represented higher densities than low rise ones. Many housers and planners were appalled at how the New York City Housing Authority had increased densities in the already congested areas where they had built high-rise projects. It was widely believed by social and neighborhood planners that high density was psychologically and physically debilitating. Nathan Straus, the first Federal administrator of the public housing program, citing British planner Sir Raymond Unwin as his authority, had claimed almost ten years before that it was proven that densities of 12 units per acre or less are most conducive to well being, that anything above 20 units per acre was undesirable and that new developments over 50 units per acre should be legally prohibited. Catherine Bauer pointed out that previous reforms, such as the 1902 New York Tenement House Law, which imposed higher densities resulted in slums a generation later.

Anthony Wallace's study for the Philadelphia Housing Authority, Housing and Social Structure, provided support for the social arguments against high-rise projects. Wallace began with the premise that the social goals of public housing are to improve personal health, family life and community stability. The public housing system could achieve this with six control variables, one of which was physical design. Wallace generated
44 hypotheses on the effect of various policies on social structure. At least twenty dealt with the consequences of design policy. They were based on sociological theory, planning theory and his own insight.

Wallace's recommendations against high-rise housing can be divided into objections to high-density and objection to the actual design deficiencies of such housing. Several objections to high density were offered. For one, it would impair psychological and physical health. Increased density increases the rate of casual stimulation, forcing the human organism to spend excessive energy on social adjustment and adjustment to "monotonous physical stimuli." More germane was the observation that public housing drawing from disadvantaged families is likely to have a relatively high proportion of "disturbed personalities" who can complicate if not prevent the formation of community solidarity; the higher the density the more social havoc such persons were likely to cause. The most serious deficiency of high density housing was its impact on physical design. Wallace hypothesized that at over 20 dwelling-units per acre private yards would be eliminated if essential public areas were provided.

Wallace offered a highly systematic analysis of the social dynamics of the private yard. The yard was a keystone of family solidarity and community organization, an important determinant of the social structure of a public housing project. While he cited the yard's importance for the safe supervision of young
children's spontaneous outdoor play -- essentially a mother-child relationship -- his emphasis was on the yard's support of the father's role in the home and community. Wallace observed that a significant amount of the adult male's time in the typical American home is spent in maintenance, repair and improvement of the premises -- activities that center on the yard. It is one of the rare times when the father is doing something constructive in the presence of his wife and children.

The child who sees his father merely as a perpetually frustrated little man, unrespected by his wife, dependent on employers, landlord, ward heelers and bar tenders for everythin...is not going to find it easy to develop a mature personality.50

Equally important was the fact that the activities that centered on the yard -- lawn mowing, property care and maintenance were the basis of much socializing among male family heads and the way that they formed neighborly, stable associations among themselves.51 Thus the yard was an important determinant of social relationships -- much more than a place "where the harassed city dweller can see greenery." Communal facilities such as parks, clubrooms, shops and recreation rooms were a poor substitute because they isolated the members of the family from each other.

Furthermore, the anti-high-risers pointed out, if all of these second-best facilities were provided in sufficient amount, the construction economies of high-rise public housing cited by some of its advocates would disappear. The anti-high-rise group offered other economic arguments. Maintenance costs would
be considerably higher. Indeed, federal officials had previously favored private yards not for the social support they might provide but for the opportunity of increased tenant maintenance which would substantially reduce operating costs. High rise housing would not only require maintenance of all grounds by LHA employees but also maintenance of common areas inside buildings such as public halls. A very prescient observation was that the maintenance costs associated with children operating "low grade" push button elevators would be enormous.52 These concerns were expressed about new private as well as public high-rise housing:

...what will happen when the buildings become old and decrepit and the area is again obsolete and the cost of operation and repair exceeds a "fair return" and they become vast vertical slums; what then? These wonderful elevators, these glass walls, these complicated heating systems and miles of pipes and dirt swept "sidewalks in the sky," who will maintain them?53

For both Elizabeth Wood and Catherine Bauer the economic and social arguments against high-rise projects converged.

By increasing the amount of common indoor and outdoor space and decreasing the area left to individual families to control, high-rise housing necessarily added layers of management staff and formal leadership. Not only was this expensive but it diminished the opportunities for informal organization and leadership arising from project residents and removed the flexibility and adaptability to individual family needs of row houses.54

The most compelling objection to high-rise housing was that public housing tenants did not care to live in it. Wallace observed this, housing authority officials stated it and the
Federal government had documented it. In a 1945 study of public housing livability, the Federal Public Housing Authority (PHA's predecessor) found that 59 percent of a national sample of public housing tenants preferred to live in a one-story house, 32 percent in a two-story house and only 1 percent in a three- or more story building. The arrangement that would achieve "universal tenant satisfaction" was a home with individual front and back entrances, individual enclosed yard and private entrance walk and porch.55

The high-rise proponents did not seriously take issue with the social arguments against high-rise projects. They came from a different direction. Three distinct positions were held by the pro-high-risers: high-rise housing represented superior urban design, it was more economical to construct than low-rise and it was unavoidable given the necessity or desirability of building projects on slum sites.

By the late 1940's two important streams in 20th Century European architecture were receiving highly visible expression in the United States, largely because some of the principal practitioners had migrated to this country. The first of these was the International Style having its roots in the Bauhaus of Weimar Germany. It was personally represented here by its most famous originators, Walter Gropius and Mies van der Rohe. The International Style had spiritually if not politically revolutionary origins. Upon collapse of Imperial Germany the young architect Gropius had declared that the 20th Century was a
new era and the past could contribute little to the aesthetic and design needs of the modern age. The International Style exalted the machine, its efficiency and the modern rational man who used it. There was nothing originally in the Bauhaus idiom that pointed to high-rise design. Indeed, all of the celebrated workers' housing projects designed in Austria and Germany in the 1920's and 1930's were low-rise. It was principally in the United States where the hard edged concrete and glass Bauhaus-International Style was first merged with the commercial skyscraper and almost simultaneously that solution was applied to residential design. The luxury housing of this style built along Chicago's lakefront in the late 1940's symbolized for many architects the ultimate in housing amenity, far superior to the developer-designed garden apartments multiplying throughout the suburbs.

The other European influence was Le Corbusier, whose reverence for the machine extended to urban design "theory" as well as architecture. The European city was for Le Corbusier an obsolete, inefficient, irrational anachronism, entirely unsuited to the needs of a machine age. While some 19th Century efforts to modernize it were admirable, particularly Baron Hausmann's massive demolitions in Paris to create the grand boulevards, the only solution was total re-design of the city.

The clearest expression of the Corbusean vision was his 1922 plan for a Contemporary City for Three Million. Le Corbusier saw the principal problem of the modern city as the
congestions at the center, choking off the power and creativity which rightfully reside there. A solution must maintain the vital high density and eliminate the inefficient congestion by opening up the center. This would be achieved by building 60-story skyscrapers set in open expanses in the city center. Housing too would be built in 12-story superblocks surrounding open gardens. Le Corbusier declared, "the materials of city planning are sky, space, trees, steel and concrete in this order and in this hierarchy." The symbol of the Corbusian ideal was the tower in the park. Le Corbusier marked the advance of civilization by the emergence of the straight line and geometrical symmetry in city planning. The great contribution of the machine age would be to standardize the parts of the city. Each element, including dwelling units, was to be interchangeable with every other element serving the same function. Le Corbusier stressed that this was no futuristic vision but rather a presently realizable scheme requiring only bold government action. 57

The popularity of Le Corbusier in the United States around 1950 is not surprising. The bold vision of large scale clearance and redevelopment to create an orderly and efficient city center was fully consistent with Title I of the Housing Act of 1949. Somewhat less self-evident was the reason that the leading proponents of the International Style in architecture began to sound more and more like Le Corbusier the urban design visionary. Gropius was the most prominent manifestation of this trend. In the debate over high-rise housing he took an uncon-
ditional stand in favor of it. High-rise building was the "embodiment of the needs of the age." To continue the current pattern of low rise residential development would result in the disintegration of the city. The suburban sprawl that was taking place was already evidence of that dangerous trend. A high density city was simply impossible with row house housing; there would be neither sufficient space and light between dwellings nor room for "organically distributed communal facilities." Aesthetically high-rise development would open up the centers of cities with more light, large green areas (instead of overcrowded ground areas) fresh air, "tranquility" and better views for residents. While the design style was new, all of the promised benefits resonated with long-standing public health goals in housing reform. Public housing had always sought to provide light and fresh air.

The fact that people preferred to live in low-rise housing was not particularly important to the architects promoting its opposite. People could and should be educated to the advantages of high-rise living. The editor of Architectural Forum declared, "It is silly to damn high-rise buildings, private or public on the basis of preference votes by uneducated people... So too a public not used to elevators or play corridors must learn to use them, just as new car owners must be taught to drive, and the teaching must be done by building professionals." The major social objection to high-rise housing, the absence of private yards, could be overcome by design. Open air corridors -- "sidewalks in the air" -- would allow young
children to play close to the dwelling units, within earshot of their mothers. This was even, for some architects, preferable to the private yard which would be miniscule in the high density center city project. Moreover, low-rise high density projects would require more service roads and hence pose a safety problem. Expansive landscaped areas between residential towers would, on the other hand, be a safe, healthy environment for recreation of older children.  

Chicago and St. Louis became the proving ground for this design solution. Some of the most prominent American architects such as Nathaniel Owings, Helmuth and Yamasaki designed this new type of public housing project in those cities. The Captain Oliver Wendall Pruitt project is St. Louis was perhaps the most electrifying example of the new frontier in housing design. Its seventeen story buildings were served by elevators that stopped every three floors, opening onto glass enclosed "gallerias" from which residents would walk up or down one flight to their apartments. Each galleria was to serve twenty families. Children would play in it and a laundry room was included in each. Thus the galleria would serve as a social center for a small group of families.  

It is important to realize that this style did not reflect the spreading influence of the New York City Housing Authority. Indeed an aspect of the Pruitt project that inspired less commentary but probably more attention among some housers was that it had demonstrated significant construction economies over the prevailing type of high-rise project of the New York City


Housing Authority. The skip stop elevators and the elimination of two-thirds of the public corridors made the mid-West rectangular slab considerably cheaper to build than the New York cross- or y-plans.

There were several arguments for high-rise public housing based on construction economies it would effect. Certainly it was clear that once a highly expensive piece of equipment, the elevator, was included, its cost could be borne only by distributing it over more units and building higher. This is undoubtedly why so few mid-rise, 4-to-6 story elevator buildings appeared in the period under study. There were, however, claims that it was less expensive to build high-rise than low rise structures. An Illinois Institute of Technology study of construction cost trends of the New York City Housing Authority found that significant economies of scale could be realized in large scale construction projects. Another claim was that PHA construction standards were so high that low rise construction was not economically superior to high-rise. Furthermore by reducing the number of buildings fewer roofs—always an expensive item—had to be constructed. Similarly it was claimed that with the reduced ground coverage possible in high-rise projects site improvement costs were substantially lower as fewer utility connections and service roads were needed.

The most compelling argument for high-rise public housing was the necessity argument: If public housing was to be built on inner-city slum sites, high-rise housing was unavoidable. It would be impossible to build low-rise projects on slum sites.
The cost of slum land was so high that land cost must be distributed among a larger number of units to make the project economically feasible. The densities at which economic feasibility would be reached required high-rise buildings. It was a position that was not really contested and the debate centered on the desirability of building on slum sites.

This was by no means a new issue in public housing. Most of the early public housing crusaders drew the distinction between housing and slum clearance and were uneasy about connecting the two. Slum clearance would result in the decrease in the total supply of housing. More important, slum properties in the view of public housing leaders like Catherin Bauer and Nathan Straus were excessively, artificially expensive and housing built on it would be too costly to serve the lowest income group. A peculiarity—and in their view injustice—of the American law of eminent domain required that owners of slum property be paid a "fair market" value without reduction for criminally dangerous conditions, as was the British practice.\(^6^5\)

The National Public Housing Conference, the principal public housing lobby in the 1930's resisted every attempt to tie public housing to slum clearance in the original program. It had only limited success. While public housing projects were not required under the U.S. Housing Act of 1937 to be built on slum sites, the "equivalent elimination" requirement was imposed: within five years substandard units equivalent in number to the new units built had to be eliminated in the community.\(^6^6\) Nathan Straus,
as Federal administrator of the program, waged a holy war against the use of slum sites. To build public housing on slum sites would simply be bailing out parasitic owners. His (proposed) strategy was to build huge amounts of public housing on vacant land only, empty the slums of their rent-paying population, which would drive down the "fair market" price and acquire the slum sites when the value had been eroded.67

Nonetheless, a large number of public housing projects were built on slum land in the pre-1949 program. Few of them (except in New York) were high-rise projects. Therefore the denunciation of slum sites by the anti-high-rise housers acquired a new dimension. The claim now was that the price of slum properties had vastly inflated since the war. The severe post-war housing shortage had forced many returning veterans to temporarily find shelter in slum areas, making such properties very profitable and hence extraordinarily expensive. Catherine Bauer was the most persistent and articulate adherent of this view.68

For some involved in the high-rise low-rise affray this was no compelling reason to avoid slum sites. It was absolutely essential that slums be cleared immediately; they were the cancer on the city. Despite the fact that the responsibility for slum clearance had seemingly shifted to the Urban Redevelopment program, many housing authorities felt a continuing responsibility for slum clearance; and they could point to the fact that Congress retained the equivalent elimination requirement in the 1949 Act against the HHFA recommendation to
But even where there was no such ideological commitment, housing authorities often had no choice but slum sites; we have seen that the housers usually lost the battle for vacant sites. Furthermore, inner city sites could be favored quite apart from the desirability of slum clearance; most public housing residents would come from the inner city where there were jobs, social ties and institutions that did not exist on the outskirts. The National Federation of Settlement Houses and Neighborhood Centers, one of the few organizations at this time that was especially sensitive to the needs of low income families, in or out of public housing, took this position. NFSHNC also was strongly opposed to high-rise housing for families. 69

Catherine Bauer suggested that there were low-rise, high density alternatives but conceded that were she in the LHAs' shoes she would reluctantly have to turn to high-rise projects. The necessity argument was used most often by LHAs as justification to the public for high-rise construction. 70

The debate over high-rise projects was short-lived. Perhaps it had some effect; the relative proportion of all-high-rise projects did drop. But the proportion of projects containing some high rise buildings remained high. Virtually nothing appeared in the professional publications after 1952. Indeed by 1954 the Journal of Housing's Technical Section was advising LHAs to have "keep off the grass" signs installed prior to initial
occupancy. So much for the vast green areas for recreation.

The following year the *Journal of Housing* carried a picture of children playing in a galleria of the Pruitt project; it bore the caption: "Row House Conveniences -- 11 Stories Up."
IV
The Federal Response

Neither public opinion nor the Congress will sanction incurring costs for the provision of housing for under-privileged families which go beyond...decency, safety and sanitation without elaborateness or extravagance. The sooner this fact is realized the sooner it will be possible to achieve realistic cost levels which can be satisfactorily defended. To do otherwise is to place the whole low rent housing program in serious jeopardy.

(PHA, Low Rent Housing Manual) 72

The existence of a major controversy over design within the public housing system cannot be detected in PHA policies. Federal public housing policy was far more responsive to the exogenous pressures on the system than to its internal tensions and debates.

In the decade following the passage of the Housing Act of 1949, PHA never addressed the suitability of high-rise housing as a policy question. PHA regulations on design were generally silent on the issue; at most they touched on high-rise housing through required supplementary facilities when it was used. The advisory Low Rent Housing Bulletins, issued by PHA in 1950 and relied on heavily by architects, 73 were similarly taciturn about multi-story buildings although they took a strong position against certain types of low-rise buildings that PHA found objectionable. When the Bulletins were revised in 1956 to
reflect changes in PHA philosophy and policy on project planning and design, the issue was still avoided. There was but one publicly promulgated advisory statement, not part of the Bulletins, on the undesirability of high-rise projects. Yet there is evidence that Federal officials were not enthusiastic about high-rise housing for low-income families.

The single, overriding concern of PHA in this period was economy. Every manifestation of extravagance was to be rooted out. By August 1950, less than a year after the passage of the Title III program, PHA technicians had completed an analysis of the first 100 development programs (i.e. project proposals) submitted to determine the nature and extent of extravagance in design. A circular was issued to LHAs reporting the findings and offering various "recommendations" on more economical site planning, building layout, dwelling unit design and construction systems. Interestingly, the circular emphasized that novel architectural schemes and "odd" ideas were responsible for much of the extravagance and suggested that LHAs should use as their standard decent, safe and sanitary low rent housing being privately developed in the community. Many LHAs found the tone of the circular arbitrary and threatening; indeed, it prefaced rigid policies to come.

A month later PHA issued a booklet, Low Rent Housing: Planning, Design and Construction for Economy, elaborating on the recommendations of the August Circular. The guide was so concerned with immediate economies realizable through development cost savings that it presented a computational demonstration
of the fallacy that higher quality construction would ultimately reduce Federal subsidy. PHA repeatedly emphasized in the guide and elsewhere that economical design need not sacrifice livability of public housing.

The guide was issued for use in a series of "cost clinics" sponsored for LHAs by PHA and NAHO throughout the country. Participation by NAHO and the LHAs in this enterprise was just short of coerced; PHA made it clear that if the advisory material and the training sessions had no appreciable effect on reducing extravagance, the agency would make its recommendations mandatory.

However PHA did not wait to evaluate the results of the training sessions. In October it issued a new set of Minimum Physical Standards for low-rent project design. Most of the specific recommendations of the August Circular and the Planning for Economy guide were now required. For example, LHAs could no longer exceed construction standards permitted in local codes; masonry construction would not be allowed if codes permitted wood frame.

PHA's main concern had not really been reflected in its previous issuances on economy. Its review of the development programs had found few instances of unnecessary amenity. The real source of "extravagance" had been in excessive dwelling room sizes, i.e. living space. The standard of extravagance: exceeding the 1949 minimum room size requirements by more than 5 percent. Therefore the 1949 standards now became maximum
room sizes and the 1942 standards became the minima. The other major manifestation of a hardening of Federal policy was the adoption of minimum density standards as follows:

1 story row houses 12 units per acre
2 story row houses 16 units per acre
2 story apartments 26 units per acre
3 story apartments 35 units per acre
Multi-story apartments 50 unit per acre

The new standards were greeted with protest and denunciation. NAHO pointed out that the maximum room sizes allowed were only 50 percent of what the American Public Health Association had recently promulgated as minimum areas necessary for sound household management and family life. It urged LHAs to consider seriously whether they could live with the standards and, if not, to refuse to build. Walter Blucher, head of the American Society of Planning Officials, said the standards were substandard and predicted that building costs would simply rise to meet the lower standards. The new Standards were also lower than the FPHA livability study had recommended in 1945. Most of the protest was directed to the room size maxima; little was said about the new minimum density standards, which would impinge more on building type. Perhaps this was because the density standards were simply included in the new regulations and not mentioned in the PHA circular to LHAs.

Economy became paramount in the October 1950 regulations.
PHA established two types of standards for design: mandatory and recommended criteria. The fine print stated that all standards had to be followed and that the "recommended" criteria were "required objectives." They simply could not be precisely or quantitatively measured as they concerned matters of judgment depending on particular situations. In fact, under these regulations many projects were approved that did not come close to meeting the "recommended" criteria by any stretch of the imagination. Among the criteria previously required and now recommended were that buildings be oriented to receive optimal amounts of sunlight and prevailing breezes, that sites be chosen with regard to long range city plans that existing zoning protect the residential character of the neighborhood and that the site was properly served by public facilities. Most significant of the now recommended criteria was that building type be consistent with existing or anticipated neighborhood patterns and suited to the "fundamental customs and needs" of tenants for whom the project was being designed.

For a long time Federal policy -- or at least pronouncements -- had emphasized the importance of integrating public housing projects with the neighborhoods they were located in through compatible design. One of the clearest statements of this objective appeared in a 1946 FPHA publication:

A housing project should be a logical and natural part of its surroundings and should not be isolated by reason of its own peculiar characteristics. Hence it should consist of housing types either in harmony with a desirable static neighborhood or compatible with the indicated future character of the neighborhood.
Similar advice appeared in the Low Rent Housing Bulletins. Generally, the requirement that the housing be suited to the customs and needs of tenants would follow from the neighborhood integration requirement; in only rare cases, for example when projects were built in inner city middle income areas where multi-story apartments was the prevailing housing type, would there be an inconsistency. However, the catch was that public housing was not to be integrated with slums and blighted areas lest it be engulfed by those conditions. For projects located near areas soon to be redeveloped under Title I, it could easily be argued that high-rise apartments were the indicated pattern for future development of the neighborhood. However, after 1950 the argument did not have to be made since neighborhood integration was now only "recommended."

PHA was probably determined to issue tighter standards on living space and density regardless of the outcome of the "cost clinics." But the cost clinics did serve a purpose. PHA did not retrench as far as it might have in October 1950. Federal officials made it be known that if the training sessions did not generate more economical project proposals, PHA would adopt administrative limits on the per unit total development cost. (Recall that the statutory limit was a per room ceiling on dwelling construction and equipment only.) In fact no such limits were adopted at this time. No doubt the rapid restoration of amicable relations between NAHO and PHA was attributable to the latter keeping its part of the bargain on cost limits. While
The record is not absolutely clear, there is little evidence that PHA established limits on total development cost before 1956 or 1957. (See Appendix B.)

The early housers' crusade against slum sites for public housing did not carry over to PHA officials running the Title III program. PHA felt that whether or not public housing was built on slum sites was basically a local decision, as long as it was not motivated by the LHAs determination to continue racial containment. As long as the LHA had a publicly declared policy of slum clearance, PHA was prepared to accept slum sites.

The first set of project development regulations for the Title III program was promulgated in December 1949. PHA adopted a limit on site costs, apparently for the first time in the public housing program. The cost of land acquisition plus site improvements (excluding gas and electrical distribution systems) could not exceed 20 percent of total development cost of the project. LHAs had considerable difficulty meeting this requirement where slum sites were involved. Consequently in June 1950 PHA modified the requirement. With the approval of the Commissioner, the land acquisition plus site improvement costs for a slum site could go as high as 25 percent of total development cost, as long as the LHA was pursuing a balanced policy of slum and vacant sites. It was emphatically stated that averaging of costs between two or more projects would not be permitted. One month later the site cost regulations were radically modified both in substance and prerequisite con-
ditions. It is almost certain that the change was made because the premises upon which the June 1950 regulation was based were fundamentally incorrect but that is a matter that will be discussed later.

The major change in the July regulation was that LHAs were now permitted to average site costs among projects. The total site costs for all projects (again excluding gas and electrical distribution systems) approved after March 1949 could not exceed 20 percent of aggregate total development costs of the same projects. This provided LHAs with considerable flexibility in planning a complete and balanced public housing program. An LHA might increase density somewhat in projects planned for inexpensive land, which would allow it to reduce density, and perhaps avoid multi-story housing on expensive sites. Alternatively it could build most of its units on inexpensive vacant sites without increasing density and keep density down on more expensive sites. The regulation still permitted projects on slum sites to be developed at a 25 percent ratio of site costs to total development costs. No longer did an LHA require permission from Washington to go to 25 percent for slum sites; the PHA Field Office Director could grant it. Moreover the LHA now had only to be committed to a slum clearance program, not one balanced between slum and vacant sites, to use the 25 percent ratio. The new regulation was somewhat ambiguous. Did it mean that an LHA could submit a proposal for a slum site in which the ratio exceeded 25 percent as long as the aggregate ratio was not more than 20 percent? Or was 25 percent
percent the maximum for slum sites regardless of the aggregate ratio? Certainly without clarification such an ambiguity would militate against using the averaging provision to the fullest advantage. Such clarification was never made.

The bulk of the high-rise public housing in the cities for which data have been collected was designed under these regulations on dwelling unit space, project density and site cost ratios which remained in effect with few changes until 1955. There were as well some twenty pages of regulations on recreation and community space, management space, electrical, mechanical and structural systems, most of which were mandatory.

By 1955 there was growing dismay and dissatisfaction with the results of the Title III program. Projects were experiencing high vacancy rates and turnover. There were an increasing number of "problem families." Juvenile gangs were rampant in some projects. Many housers associated these failures with large-scale projects -- over 500 units -- which was usually synonymous with high-rise projects. There were, however, a large number of low-rise projects of this size. Furthermore, many Title III projects had been built contiguous to pre-1949 ones, creating vast islands of public housing. At the same time suitable large sites were increasingly difficult to find. Some of the larger housing authorities began experimenting with new public housing solutions. The Philadelphia Housing Authority in particular was in the forefront of experimentation with rehabilitation of existing housing and scattered sites for new
housing. In 1956 FHA adopted as official policy the encouragement of scattered sites and discouragement of "large scale projects."\(^{87}\)

A close reading of the official pronouncement suggests that "large scale" was being used by Federal officials interchangeably with high-rise. Still there was no official policy pronouncement on high-rise buildings. While FHA officials had decided or been convinced that scattered sites could be more economical than large scale projects -- by virtue of using existing community facilities that would not have to be included in the project -- they were uncertain that low-rise was more economical than high-rise. Economy continued to be paramount.\(^{88}\)

HHFA Administrator Cole's testimony to the House Appropriations Committee in 1957 reflects the Federal attitude and approach:

I must say that as Administrator as I view some of the problems in connection with public housing and the others in the agency, and I am sure Mr Slusser, have been thinking of public housing in terms of great institutions which have been built throughout the country and have had some concern that huge multi-story buildings have been set up and then become institutionalized. I have asked Mr. Slusser to examine the possibility of decentralizing some of the public housing and not construct it all in great monolithic elevator type apartments. It seemed to make sense from a cost point of view... I don't know that people object to living in apartment buildings but it is a question of what the policy should be; can we save money by doing it?\(^{89}\)

The policy that emerged in April 1955 was somewhat more liberal on design. A new set of Minimum Physical Standards was issued. Room size requirements were liberalized and made more flexible. The density minima were eliminated; projects now
were to conform local custom and zoning requirements "with due regard to land and site improvement costs." The "arbitrary" site cost ratio was eliminated. The averaging provision and the 25 percent slum site ratio disappeared from the regulations. Yet in this period LHA complaints about over-supervision of project design by PHA became more strident.

More significant was a concurrent tightening of policies on economy, the most notable manifestation of which was the adoption sometime in 1956 or 1957 of an administrative limit of $17,000 per unit on total development cost. In 1958 PHA issued a string of circulars emphasizing again the need for economy. Many of the themes of the early years of the decade were reiterated: more expensive materials did not necessarily result in lower maintenance costs, structural systems were to be the most economical. With respect to the latter, standards became even tighter than in 1950; fewer justifications were allowed for exceeding the authorized structural system (e.g. wood frame for 2-story structures) and the procedures for granting exceptions were made more cumbersome and time consuming.

The policies, then of the late 1950's were essentially schizophrenic, on the one hand allowing more flexibility on design than previously, and on the other choking it off with even more rigidity on economy. For example, in February 1958 a circular on economy in structural systems stated that the possibility of including amenities not previously allowed was under consideration. In December of that year another circular reported that a number of recent submission had included laundry
rooms on the same floor with dwelling units in high-rise buildings; while there was no question that this was more convenient for tenants, "it is also obvious that it represents an extravagant use of space which should be utilized for dwellings or eliminated." The practice was therefore forbidden.92

The changes in policy in 1955, then, had little effect on improving project design and stopping high-rise projects. Congress was by 1958 expressing increasing dissatisfaction with large-scale high-rise projects and was prepared to take major legislative action to forbid them. It was probably in response to this pressure as well as the realization that simply permitting scattered sites had not worked that induced PHA to adopt a new policy in 1959. In reviewing project plans, the standard for acceptability would be the cost and character of the project in relation to the cost and character of new private, standard housing for middle-income families being constructed in the community.93 While the new regulation no doubt represented a step toward improved integration of projects and their community, it was too late to effectively prevent high-rise building. By 1959 much new middle-income housing in major cities was being developed in the residential skyscraper mode. Had such a policy been adopted and enforced ten years earlier it is likely that far fewer high-rise projects would have been built than were.

Federal regulations and policies on public housing design were not a carefully considered response to political realities.
Rather they were a distortion and exaggeration of the very real constraints on the public housing program.

PHA's single-minded pursuit of economy was premised on the unacceptability to Congress of "extravagance" in the program. Congress would tolerate only an economical program. While it is likely that Congress would have been outraged if public housing projects included highly visible amenities that were not being included in new private housing, there is little evidence that even the most conservative legislators in a position to significantly influence the public housing program were particularly concerned or well-informed about the per unit development costs in the program.

Congress was concerned about the cost of the public housing program as a whole; HHFA and PHA officials were repeatedly subjected to detailed questions by the House Appropriations Committee on the yearly increments and long-term cost of Annual Contributions. As long as additional units were built the total appropriation for subsidy would of necessity increase each year. The Committee realized this, as its Report on the 1953 appropriations bill indicates:

> Payments run over a period of 40 years and they are for amounts over which the Congress has no real control, because they are for obligations on which the Government is committed under legislation previously enacted.94

The principal action taken by the House Appropriations Committee to control costs therefore was to reduce the authorization for new units. After several years the Committee began to realize that subsidy costs could be controlled by reducing the operating
costs of public housing. Its 1954 Appropriations Report stated:

The only way to make a savings in this item is for the Public Housing Administration to do its utmost in encouraging economy by local housing authorities and in its review of their budgets compel them to operate economically.95

And again in 1956 it stated:

The Administration is urged to continue to review budgets of local authorities carefully and deny items of unjustified cost, which is the only control the Government has over the amount that will be required for Annual Contributions.96

Indeed PHA did begin to supervise LHA operations and budgets much more closely after 1954, which resulted in rapid deterioration of relations between the federal and local agencies -- a situation which worked against discovering a cooperative strategy to avoid high-rise projects. Given that the one area that Congress stressed in public housing economy was operating costs, PHA had suitable justification for prohibiting high-rise projects, for it was aware of the astonishing fact that projects developed under the Title III program were more expensive to operate than projects ten to fifteen years older developed under the original 1937 program.97

The Appropriations Committee said and asked little about public housing development costs. Only once in the 1950-59 period did a member of the House Committee ask about the per unit cost of public housing as compared to new private housing. PHA supplied figures which showed the per room cost of public housing to be $500 lower than privately developed housing; the cost of land was specifically excluded, but the Committee raised no further questions about land costs.98 Not until 1959 were
specific figures on construction and land costs requested by the Appropriations Committee.

In fact, opposition in Congress to the public housing program was not, by and large, based on its costliness. The housers' belief that PHA economies would simply cheapen the quality of public housing and provide more ammunition for its enemies was borne out. Reducing the cost of public housing would make it no more palatable to its opponents. For example, Republican Homer Capehart of Illinois, chairman of the Senate Banking and Currency Committee, was prepared to support a $1 billion commitment to the proposed Section 221 FHA housing program even if $200 to $300 million were lost on it if it could replace public housing. Interestingly, Capehart found high-rise projects one of the most reprehensible aspects of the public housing program:

We always end up thinking about big public housing projects that is something big and straight up and so forth...In my state, for example, people don't like it. The people do not like to live in them and the people just do not like them because they have plenty of land and they like little individual homes.99

Typical "crippling amendments" to housing legislation did not concern statutory construction costs but rather such measures as the Gwinn and McDonough amendments, attempts to limit public housing to Urban Renewal relocatees only and imposition of the Title I Workable Program requirement on public housing. In fact Congress had been reasonable, though not generous, in setting its statutory construction cost limits. The Housing Act of 1949 raised the basic limit 75 percent over
the one originally authorized in 1937, more than doubled the limit for high-cost areas and gave PHA full authority to determine which cities qualified for high-cost area status. In 1957 Congress raised the statutory limits on its own initiative. 101

Nevertheless it could be argued that the nature of opposition and oversight by Congress, its relative lack of interest in the per unit development cost, was not apparent when the most stringent economy measures were adopted in 1950. PHA, at least in the early years of the decade may have been operating on incorrect assumptions about Congress but not unwarranted ones. Within the limits of economy, however, there were policies that could have provided a viable alternative to high-rise projects.
Missed Opportunities

PHA's unassuming and non-aggressive role in the housing and redevelopment system over-constrained the public housing program further. By assuming a more assertive stance with respect to the Urban Redevelopment program, especially in the early years of the decade when basic Title I policy was being formulated, PHA might have created conditions that would have made high-rise public housing projects unnecessary.

Between 1954 and 1959 the relationship between public housing and Urban Renewal was brought up repeatedly in Congressional hearings. By and large the principal concern of the Democratic members of the House and Senate committees that dealt with these programs was the miniscule number of new public housing units requested by the HHFA each year in relation to the documented need for public housing as a relocation resource. The Eisenhower Administration had cut the annual number of new units from the 135,000 authorized under the 1949 Act to 35,000.

There was an issue that commanded less attention in these debates but was potentially more germane to the quality of public housing produced and possibly pointed to a way out of the vicious circle of slum sites necessitating high-rise construction. If public housing projects were built on Urban Renewal land, the LHAs could benefit from the written down cost of land and could have built at lower densities. But by 1954, of the 186 Urban Redevelopment projects in advanced planning or
execution only 9 included any public housing (only 2 of which included it as the principal re-use of the land.) During the Senate hearings on the Housing Act of 1954, which included a major expansion of the Urban Renewal program (and no Administration requests for or changes in public housing) Senator Douglas called the Urban Renewal Commissioner and HHFA Administrator to task on this matter:

Senator Douglas: All I am saying is, if out of 52 sites which have been cleared, there are only 3 instances in which you have erected public housing to take care of the people displaced from those sites, it is obvious that the new uses which you are now developing for these areas are not to house low income groups but to house those in upper-income groups...and for business purposes. The public housing therefore must be located elsewhere.... certainly when we got the original bill through Congress, it was the intent that a considerable proportion of those displaced were to be rehoused in the areas which were cleared and the debate itself was very clear on that point....

Mr. Cole: I would agree with you heartily sir that much of the discussion with respect to slum clearance was tied with the need for public housing and a great deal of the acceptance of public housing was based upon the need of those people who were displaced by reason of slum clearance and urban redevelopment.

Because of the confusion between the strategic relationship of public housing to Urban Renewal and the specific place of public housing in Urban Renewal projects, Cole managed to wiggle out of Douglas' questions without making any commitment to inclusion of more public housing in the Urban Renewal program. Senator Douglas made it clear that he was not holding the new Administration entirely responsible for the situation; he had been assured by HHFA Administrator Raymond Foley in 1949 that Urban Redevelopment sites would be used for low income housing
and clearly that had not happened.

For a short time in 1950 PHA had operated as if Urban Redevelopment sites were going to be used for public housing. A circular was issued to LHAs emphasizing the importance of co-ordinating the two programs. The HHFA Administrator, the PHA commissioner and the head of the Division of Slum Clearance and Urban Redevelopment issued a joint statement on the same theme. The most concrete manifestation of this expectation within PHA was the June 1950 policy on site costs (which prohibited averaging of costs among projects). The wording of this circular is quite clear on this: "Due to the improbability of land being made available for a low rent housing project from a Slum Clearance and Redevelopment project...in time for such land to be used in the Local Authority's first year program" PHA was prepared for the time being to approve a 25 percent site cost ratio for slum sites. While, the record of deliberations on site cost policy has not been preserved, it seems highly probable that the rapid reversal and liberalization of site cost policy must have been based on the realization that Urban Redevelopment sites would be unavailable in subsequent years as well. By 1951 PHA Commissioner John T. Egan was stating as a matter-of-fact that it had been clear in the Congressional debates on the 1949 Act that Title I would be used principally to supply middle income housing. This was largely true, notwithstanding the later claims of Sen. Douglas. Although the 1949 Act did allow public redevelopment of Title I sites, the great appeal of the Urban Redevelopment
program was that it would be an aid to private enterprise.

Within PHA there was one persistent voice for extending Title I or similar benefits to public housing, even if it were done through PHA's own devices. Chief Economist, Lawrence Bloomberg, pointed out that public housing built on slum sites was performing two functions: providing low-rent housing and clearing slums. There was no reason that the former should bear the full cost of the latter. Bloomberg suggested attributing not more than 10 percent of development cost to land acquisition and establishing a separate account for the excess cost, designated "slum clearance costs." This would, he felt, be a useful way of answering questions from Congress on public housing cost. Nothing came of this recommendation.106 As staff advisor to the Subcommittee on Housing for Low Income Families of the President's Advisory Committee on Housing Policies and Programs, Bloomberg took another approach. He recommended that cities be offered incentives to include public housing in Urban Renewal projects. Under the 1949 Act a city made a double contribution to a public housing project so located: the writedown of land costs and the real estate tax exemption of the public housing project. Bloomberg suggested that the legislation be amended to eliminate the part of the local share of the Urban Renewal project cost associated with public housing on the project.107 Although the Committee offered this recommendation in connection with its recommendation to build public housing at lower densities the provision was not enacted at this time.
If public housing was to be located on Urban Renewal sites it would have taken more than promises and good faith from HHFA Administrator Cole (which were untendered in any event); policy changes in the Urban Renewal program would have been necessary. The required changes had more to do with the amount of writedown in land cost than the double subsidy of public housing on Urban Redevelopment sites. There was, in fact, little that HHFA could have done without statutory changes about the double subsidy. The policies on land cost writedown, however, were formulated by the federal agency; the wording of the statute was open to reasonably broad interpretation on this point. The Housing Act of 1949 required that Urban Redevelopment land be sold to developers at "fair market value." As long as all residential development -- public and private -- was considered part of the same land market, public housing would be at a distinct disadvantage. Private residential developers could pay a considerable amount for such prime central city land as Urban Renewal parcel and simply charge luxury rents. LHAs then, could benefit little by paying "fair market" prices. This was precisely what they were expected to do. The Division of Slum Clearance and Urban Redevelopment and its successor, the Urban Renewal Administration, considered public housing part of the residential land market. Under federal regulations, land disposition price when the purchaser was a public agency was not to be lower than "the most likely alternative private use of the land." Between 1949 and 1959
PHA did absolutely nothing within HHFA to change that policy.

Congress, however, did suggest that the quality of public housing could be improved by re-defining the relationship between public housing and Urban Renewal. This was less a clear realization than a vague notion, never fully grasped or developed into a legislative program. The major concern was poor design quality and the prescribed remedy shifted from year to year.

In 1956 Senator Herbert Lehman introduced a housing bill that included a provision vesting maximum discretion in local housing authorities in project design, housing type and project size. PHA would set only minimum standards on space and type of construction. PHA and HHFA opposed the Lehman provisions, claiming such was already the case and that the language was vague. Although reported out favorably by the Senate Committee, it was not included in the final bill. 109

Whether maximum local discretion in design would have brought about a significant change is questionable. Certainly the language was vague as to the end to be achieved by the Lehman bill (although not as to the PHA-LHA relationship, which was what the federal agencies objected to.) In the deliberations on the Housing Act of 1958, however, the Senate Banking and Currency Committee took an explicit position on what design changes it wanted in the public housing program. A committee print of the bill included an amendment to the statement of policy of the United States Housing Act of 1937:
In the development of public housing it shall be the policy to promote projects planned as parts of appropriate and well protected neighborhoods, to avoid projects so large as to constitute communities of one economic class, to plan projects with the lowest feasible density and of architectural patterns in keeping with sound local practices.\(^{110}\)

Administrator Cole agreed with the objectives of the change but said that with the administratively established per unit cost limits it was not clear how it could be achieved. Congress would have to provide guidance on costs, he said. He suggested that the purpose of the statutory change in policy would better be achieved by a statement in the Committee Report of a specific statutory directive.\(^{111}\)

In fact there was an additional statutory provision that would have made fulfillment of the statement of purpose possible. The Committee print included two amendments to the Urban Renewal program: (1) Localities could apply their tax exemption of LHAs to their local contribution to Urban Renewal projects which included public housing and (2) the disposition price of an Urban Renewal parcel sold to an LHA would be equivalent to what would be charged to a private developer of "lowest rental housing." Cole raised a host of objections to these provisions: they would not be "fair" since public housing would have an "advantage" over private developers and public bodies concerned with non-housing functions; they would amount to a double subsidy of public housing "at the expense of funds earmarked by Congress for Urban Renewal."\(^{112}\) Others, such as the National Housing Conference, countered with Bloomberg's earlier argument that public housing was not built in Urban Renewal projects
because cities were required to make a double contribution and that these provisions would simply remove the financial burden of slum clearance from the public housing program and place it where it belonged — in Urban Renewal.\textsuperscript{113} While the Committee reported out its amendments the Republican minority issued a dissenting Report, using Cole's testimony verbatim. This was one of the only housing bills between 1950 and 1959 that was accompanied by a minority report; presumably the Administration was strongly enough opposed to the provisions to stimulate a minority report.\textsuperscript{114} The bill failed.

The Housing Act of 1959 represented a major defeat for the Public Housing Administration. It was the culmination of years of LHAs' frustration with PHA oversupervision of their operations. The major public housing provision vested maximum local discretion in the operation of public housing projects. (N.B. this did not include development.) Congress seemed to be in a mood to disregard PHA and HHFA objections to the bill. One provision repeated the previous year's attempt to allow local tax exemption of public housing located in Urban Renewal projects to serve as the city's contribution toward Urban Renewal project costs. The other provisions of the failed Housing Act of 1958 -- the statement of policy on public housing design and disposition price of Urban Renewal land developed by LHAs -- were not included in the Housing Act of 1959, which passed.

Nevertheless the Housing Act of 1959 did not change things dramatically. Only 2.3, 1.7 and 1.3 percent of the capital
expenditures in Urban Renewal projects was spent on public housing in 1960, 1961 and 1962 respectively. It may be that without the other provisions in the 1958 bill it was impossible, infeasible or unlikely under the 1959 Act that public housing would be included in Urban Renewal projects. As long as local redevelopment agencies were permitted or required to charge LHA's what speculative developers of luxury housing would pay for land, Urban Renewal sites would be of little value to the public housing program. Moreover, the very premise that incentives were sufficient to give public housing an equitable share of Urban Renewal sites was incorrect.

The changes proposed by the Senate Banking and Currency Committee in 1958 and those enacted in 1959 were within the powers of the federal housing agencies to implement without legislation. Why, then, did they oppose every statutory change that could have ended high-rise public housing and adopt instead administrative policies that perpetuated it?

A principal reason was no doubt ideology. Urban Renewal was regarded by HHFA and even PHA as an aid to private enterprise or a way of increasing local tax bases. While Cole himself had become disturbed about large scale, high-rise projects the problem was not of sufficient seriousness for him to distort what he believed to be the purpose of Title I. Public housing was to serve Urban Renewal, not vice versa.

The organizational fragmentation of HHFA also tended to obstruct the path to an alternative to high-rise construction.
If Urban Renewal was to be used as a way of lowering land costs, cooperation among PHA, the Urban Renewal Administration and the Office of the Administrator of HHFA would have been necessary. But PHA was quite isolated from its fellow agencies in HHFA. It was not particularly anxious to achieve closer co-ordination and maintained its distance from the other agencies -- literally as well as figuratively. PHA was the only agency that did not conform to HHFA regional boundaries for Field Offices. Fearing that closer relations with the OA would sacrifice its autonomy, PHA resisted attempts by URA and OA to co-ordinate activities. In 1956 the OA proposed a "checkpoint" system in which the PHA Field Office Directors would inform the Regional Directors of the OA of all pending public housing actions. PHA responded by proposing instead that Regional OA Directors be notified of accomplished PHA actions. Indeed OA and URA were concerned, now that the Urban Renewal program was gaining momentum, that PHA could take actions that might eliminate public housing critically needed for relocation of Title I displacees.\textsuperscript{117}

Reportedly, the issue of including more public housing in Urban Renewal projects was discussed often among PHA staff\textsuperscript{118} but Bloomberg's 1954 memo on establishing a "slum clearance costs" account is the only evidence that these discussions went on at the very top level of the agency. It appears rather that within PHA the potential uses and benefits of Urban Renewal were not widely appreciated. For example, when a management consultant to the agency recommended that PHA field personnel develop a better understanding of Urban Renewal activities and
a closer liaison with their URA counterparts, the Assistant Commissioner for Development said that this was necessary only when a specific LHA was carrying out both programs. Even the perceptive Bloomberg was unaware of the major obstacle to the use of Urban Redevelopment sites for public housing. Neither his memo on slum clearance accounts nor his recommendations to the Subcommittee on Low Income Housing suggested that the policy on "fair market" land disposition price should be revised.

The differing nature and quality of federal-local relations between the public housing and Urban Renewal program virtually precluded the institutional alliances necessary to bring about increased presence of public housing in the Urban Renewal program. PHA would either have had to forge an alliance with the LHAs to pressure both the federal and local administrators of Urban Renewal or it would have had to work with the Urban Renewal Administration to exert such pressure on local redevelopment agencies. However, throughout the decade of the 1950's relations between PHA and the LHAs steadily worsened until under the Housing Act of 1959 the latter got Congress to intercede and free them from the overbearing administrative supervision by PHA. Inter-governmental cooperation and alliances were not in the vocabulary of the public housing program at this time. On the other hand, the Urban Renewal Administration had developed a reasonably smooth and friendly working relationship with the local redevelopment agencies (which deteriorated in the 1960's). It was therefore not
likely to adopt a stance that would jeopardize that relationship.

If there was little unity within the public housing program neither was there a persistent and clearly articulated attack from the outside on its design policies, particularly the high-rise phenomenon. The quality of public housing was definitely a subordinate issue among its Congressional advocates, who were most concerned about the insufficient number of units being produced. Only twice were statutory provisions specifically concerned with design quality introduced into proposed legislation. There was no consistent, on-going strategy or line of argument on design issues. As for public housing in Urban Renewal projects, the link to lower land costs and hence lower densities was rarely drawn by the legislators. Consequently Cole could say without being challenged that the 1958 amendments to the statement of policy were not implementable without specific statutory provisions on cost. Indeed, the support for more public housing on Urban Renewal sites was based on a desire to keep occupants of renewal sites within familiar neighborhoods rather than to provide an opportunity for reduced density (although the latter would logically follow from the former). The Congressional intent about the place of public housing in the Urban Renewal program was not clear, contrary to the claims of Senator Douglas. The committee reports on the Housing Act of 1949 are silent on the issue, and undoubtedly as many legislators opposed the idea of urban redevelopment by LHAs as supported it. It is likely that Congressional enthusiasm
for Urban Redevelopment as an aid to public housing was associated with a part of the Title I program that never got very much attention: blighted open land. It was widely believed in 1949 that public housing would be developed on the outskirts of cities on vacant sites, which did not happen for reasons already discussed.

Neither was NAHRO able to be an effective advocate for ending the high-rise trend -- if that involved using Urban Renewal. As a spokesman for both housing authorities and redevelopment agencies it could not adopt a position that would pit them against each other. As we have seen, by 1954 the question of suitable design for maximum livability was rarely aired in the *Journal of Housing*. This was rather unfortunate, because it is likely that PHA would have taken a real action to stop high-rise project if NAHRO had taken a strong stand against them. The revision of PHA design standards in 1955 was done with the encouragement, prodding and oversight of NAHRO's Development Committee, which had not existed when the 1950 standards were promulgated. NAHRO hedged in its support of the 1958 amendment setting a statutory formula for disposition prices of Urban Renewal parcels sold to LHAs. NAHRO suggested changing it to allow the redevelopment agency to set the price with the concurrence of the HHFA Administrator. Such a course would have benefitted LHAs little as many redevelopment agencies sought to maximize their income from land re-sale. At most NAHRO supported incentives to local government to include public housing in Urban Renewal projects, such as was included in the
Housing Act of 1959.

However, incentives were unlikely to be sufficient. Direct pressure on local Urban Renewal programs was probably the only way that public housing would have been included in them. Perhaps the carrot enacted in 1959 was not big enough. More likely, a stick was required. The HHFA during the Eisenhower Administration did oppose incentive to include public housing in Urban Renewal projects. In this only was its stance different from the preceding and following Democratic Administrations. They too ignored the stick.

The stick, however, would not be used by either the HHFA Administrator or the URA without at the minimum, a case being made for its use. PHA as "guardian" of the public housing program would have to have made the case. The major failure of PHA was its silence and inaction. By the time the Lehman bill was introduced in 1956 the direction of Urban Renewal was firmly set. By then Urban Renewal unquestionably meant private redevelopment and there was little that PHA could do within the housing and redevelopment system to change that. Perhaps this was the case even in 1954 when Senator Douglas first called HHFA to task on the dearth of public housing activity in the Urban Redevelopment program, although the hearings in which that exchange took place concerned the Housing Act of 1954, a major re-definition of Urban Redevelopment. However, in the early part of the decade the outlines of Urban Redevelopment were not at all clear. There was enough ambiguity in the statute and sufficient precedent in the Congressional
debate to push vigorously for Urban Redevelopment policies that would assist the public housing program. Indeed as of June 1950 PHA believed that slum clearance sites would soon be available to LHAs. PHA did have resources to back up pressures it might have exerted on DSCUR. Public housing itself was regarded as an important ingredient for the success of private redevelopment and PHA could have manipulated admission policies and even the geographic distribution of new units to facilitate or obstruct Urban Redevelopment. (This was the major concern that underlay the OA's proposed "checkpoint" system in 1956.) There is no assurance that PHA would have been able to establish a more favorable position for public housing in the Title I program, but it did not even try. There is simply no record of any dialogue on the issue between the PHA commissioner and the HHFA Administrator.
VI

Local Responsibility

We again wish to point out that the Public Housing Administration is opposed to the use of multi-story elevator buildings for low rent housing projects. It is our firm belief that better living conditions can be provided for large families of the low income group in buildings not exceeding three stories in height and with a project density of 40 to 50 families per acre. Final determination, however, rests with your Authority.

(Letter from PHA to Jersey City Housing Authority, 3 March 1950)\textsuperscript{123}

In the preceding two chapters we have examined how PHA responded or failed to respond to pressures and opportunities outside of the public housing system and how public housing policy was shaped by these pressures. We have seen how the institutions in and about the housing and redevelopment system failed to shape a policy that could have made high-rise projects avoidable. It is now proper that we look within the public housing system itself at the policies that most influenced basic design and the relationship between PHA and the LHAs to see whether there were any alternatives to high-rise projects.

The federal regulations on public housing design are insufficient to explain the appearance of high-rise projects after 1949. The economy measures of PHA were by and large directed at construction cost savings. As such they were either immaterial to building type or would indicate low-rise construc-
tion as economically preferable.

The economy policies that provoked the most vocal criticism -- the 1950 maximum room size limits -- applied to high-rise and low-rise projects. While they definitely compromised the livability of public housing they have nothing to do with building type. Clearly, it is not the case that it was cheaper to construct high-rise projects and those who made the claim never put forth convincing arguments or facts to support it.

The average per unit dwelling construction and equipment cost in the 1949-1959 period was almost $1000 more for high-rise than low-rise construction in the public housing program. ($9550 versus $8565, respectively.) The only construction savings realizable in high-rise projects were in site improvement costs, with an average savings over low-rise construction of about $150 per dwelling unit. It should be emphasized that these figures are based on development costs approved by PHA prior to construction. Therefore, it cannot be argued that PHA consistently miscalculated construction cost and wrongly assumed that high-rise was less expensive to build. The claim that PHA construction standards were so high that low-rise was not feasible is belied by policy as well as actual cost figures. PHA was consistently pushing LHAs to use the most economical construction system, which was a real change from the pre-1949 program, when, as Henry Whitney had observed, construction standards for low-rise buildings were considerably higher.

The one "systematic" comparative study of low-rise and high-rise
construction costs -- the IIT study for the New York City Housing Authority -- pointed only to savings that were realizable through efficient large-scale construction such as standard bidding and construction procedures and even standard designs; such economies could be realized in large-scale low-rise construction as well. 124

The PHA policies, then, that would have an impact on the economic feasibility of low-rise versus high-rise would concern land costs. PHA regulations on density and site cost limits would impinge most directly on the decision on building type and the viability of low-rise construction.

How reasonable were the density limits? Would they have automatically precluded low-rise construction? Recall that the minimum density requirements were associated with building types in a hierarchy that representing ascending construction costs and decreasing preference among prospective tenants. (See above p. 52) Most of the categories represented varieties of low-rise construction and building type. There was no distinction between mid-rise and high-rise, both categorized as multi-story, in the density requirements. There was nothing intrinsic to the density regulations that would have required an LHA to abandon a low-rise design for a high-rise design. Since LHAs were normally given a "reservation" or a specific number of units first and located an appropriate site next, the project density would generally be set before design decisions regarding building type were made. While the minimum density
for the "most dense" type of low-rise buildings -- apartments-- was 35 dwelling units per acre, the regulations per se did not prohibit an LHA from developing a project at an indicated density of 50 units per acre (the minimum density for multi-story buildings) with low-rise buildings. Indeed, the intent of the density regulations would favor such a proposal since it was obviously less expensive to build non-elevator structures.

Not only was it permissible to develop low rise projects at a density of 50 units per acre, it was technically feasible as well. The 1946 FPHA publication, Public Housing Design, stated that low-rise apartments had been developed in the public housing program at that density. At least 13 percent of the pre-1949 projects for which data have been collected were low-rise developments with densities of 45 units per acre or higher. Several projects with all or some 4-to-6-story elevator buildings were developed within this density range as well. In the Title III program there were far fewer high-density, low-rise projects, but there were some (at least 4 in the sample used here), indicating that PHA design regulations did not preclude such development.

The other set of PHA policies critical to resolving the economic "necessity" of high-rise projects concerns site cost ratio limits. The adoption of specific policies on site cost in the Title III program was an change from the previous mode of operation, a change that is understandable but not completely reasonable in its details.

Since the War the price of land for all public housing sites
had in fact risen more slowly than the cost of construction. It would seem then that there was no logical reason for adopting a site cost ratio maximum since land costs in general were relatively lower than in the early program. However, if slum sites were going to be used for public housing, PHA was not acting irresponsibly or misguidedly in attempting to control land costs. As Bauer and others pointed out, the price of slum land had inflated sharply since the War. The land acquisition cost of slum sites in the 1949-1951 period was on the average 2.7 times as great as in the original program. Furthermore, whereas slum sites had been roughly twice as costly as vacant sites in the pre-1949 program, by 1951 they had become six times as expensive as vacant sites.

TABLE 2
Relative Change in Land and Construction Costs for Public Housing (average costs)

<table>
<thead>
<tr>
<th>1938 - 1948</th>
<th>1949 - 1951</th>
<th>% increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land costs per acre -- vacant sites</td>
<td>$19700</td>
<td>$18300</td>
</tr>
<tr>
<td>Land costs per acre -- slum sites</td>
<td>$39800</td>
<td>$108900</td>
</tr>
<tr>
<td>Land costs per acre -- all sites</td>
<td>$29300</td>
<td>$45300</td>
</tr>
<tr>
<td>Ratio of slum to vacant land costs</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Construction costs (per room)</td>
<td>$800</td>
<td>$1630</td>
</tr>
</tbody>
</table>
The site cost limits that PHA initially adopted in 1949 were not reasonable, based on the pre-1949 program. PHA set an absolute limit of 20 percent of total development cost for site costs (exclusive of gas and electric distribution systems.) In the earlier program the average site cost ratio for all projects had been 24.7 percent with a maximum of 42 percent. Even after deducting an estimated 2 percent from the site cost ratio for gas and electrical distribution systems (the cost of which are included in the site cost data used here) the average site ratio for all sites in the pre-1949 program was higher than what PHA set as a maximum in 1949. It would seemingly be impossible to build pre-1949 type of project on slum sites under the 1949 regulation because slum site costs in the early program averaged 27 percent of total development costs -- considerably higher than the 20 percent maximum allowed.

The adoption in June and July 1950 of liberalized regulations should have removed early barriers to low-rise construction on slum sites. The 25 percent allowable site cost ratio for slum sites was within the average site cost ratio of pre-1949 low-rise slum site project (after 2 percent for gas and electric distribution has been deducted from the actual ratio.) The lack of clarity in the July 1950 regulation allowing site cost averaging has been noted in chapter IV; under what conditions a 25 percent ratio was the maximum allowed was unfathomable from the regulations.

Thus PHA site cost limits appear to be the most critical
factor in determining whether cost constraints can adequately explain the proliferation of high-rise projects after 1949. In some respects the regulations seem highly constraining; in others they seem liberal. The effect of the regulations therefore cannot be assessed without reference to specific high-rise projects built in the period.

Some general comments on assumptions of the following analysis are in order: (1) Projects in which the number of units designated for the elderly exceeded 50 percent of the units in high-rise buildings have been eliminated, the assumption being that unit for the elderly would be placed in high-rise buildings and our principal concern is high-rise family projects. (2) Low-rise projects built at a density of 50 units per acre are and were technically feasible. (3) The applicable site cost ratio limits will be increased by 2 percent to include an educated estimate of the average cost of gas and electrical distribution systems, which is included in the site cost data. (4) Projects approved within 2 months of the beginning of a new site cost policy will be analyzed with reference to the previous policy, e.g. a project approved in September 1950 will be considered with respect to the policy that prevailed before the July 1950 policy was adopted. It is assumed that within two months of approval a project would be too far along to be re-designed. (This adds a conservative bias to the analysis since site cost policy became progressively more lenient over time.) Assumptions about specific policies will be stated as the policy is considered.
First some general observations about characteristics of high-rise projects developed in the 1949 -1959 period. Of the 71 high-rise projects designed for family occupancy, 19 were on vacant and 3 were on Urban Renewal sites, conditions which belie the argument that high-rise projects are the necessary consequence of slum sites. Of the 61 projects for which data on project density is available, 31 were developed at densities of 50 units per acre or less, 7 of which had densities below 35 units per acre. It is important to realize that many of these projects were of mixed building types and the density figures represent the overall project density. Undoubtedly densities of the high-rise portions of the projects are higher than 50 units per acre and those of the low-rise parts considerably below the overall project density. The point is that projects could achieve an overall density of 50 units per acre or less by evenly distributing the low-rise buildings and eliminating the high-rise ones. Of course there may have been specific instances where site conditions would preclude such a solution, but they would be quite rare, not the norm.

The most rigid of PHA site cost policies was the one adopted in 1949 and applying to 8 projects approved (under the 2-month carryover assumption) through September 1950. It would appear that the restrictive 22 percent site cost ratio limit did not push LHAs to the wall; they did not take full advantage of the regulation. Seven of these projects (88 percent) were developed with a site cost ratio at least 5 percent below the allowable maximum; four in this category were located on slum sites.
Four of these projects were developed at densities below 51 units per acre and therefore could have been developed as low-rise projects without affecting land cost or site cost ratios. If we adjust the densities of the other projects (for which density figures are available) to 50 units per acre and re-compute the site cost ratio as follows:

\[
\text{Adjusted site cost ratio} = \frac{\text{Site Improvement } \$ + \text{ new land acquisition } \$}{\text{Total development cost} + (\text{new land acq. } \$ - \text{land acq. } \$)}
\]

where

\[
\text{new land acquisition cost} = \frac{\text{Project density} \times \text{land acquisition cost}}{50}
\]

we find that all could have been developed as low-rise projects within the PHA site cost limits. The specific figures on these projects, actual and adjusted, are presented in Table 3.

The largest number of high-rise projects for families in the period under study were developed under the site cost policies promulgated by PHA in July 1950. One assumption will be made in analyzing the effect of the regulation: in computing

*Example: Project developed at 75 units per acre, land cost: $1200 per unit, site improvement cost: $800 per unit, total development cost: $12000 per unit:

Actual site cost ratio = \( \frac{1200 + 800}{12000} = .17 \)

New land acquisition cost = \( \frac{75}{50} \times 1200 = 1800 \)

Adjusted site cost ratio = \( \frac{800 + 1800}{12000 + 600} = .21 \)
### TABLE 3

**Projects Approved through September 1950**

<table>
<thead>
<tr>
<th>City</th>
<th>Approval Date</th>
<th>Total Units</th>
<th>High-rise Units</th>
<th>Mid-rise Units</th>
<th>Low-rise Units</th>
<th>Site Density</th>
<th>Site Cost Ratio -- Actual</th>
<th>Site Cost Ratio -- Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Francisco</td>
<td>July 1950</td>
<td>234</td>
<td>234</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>89</td>
<td>.13</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.18 #</td>
</tr>
<tr>
<td>Detroit</td>
<td>April 1950</td>
<td>1006</td>
<td>672</td>
<td>146</td>
<td>188</td>
<td>Slum</td>
<td>41</td>
<td>.14</td>
</tr>
<tr>
<td></td>
<td>July 1950</td>
<td>1610</td>
<td>896</td>
<td>220</td>
<td>494</td>
<td>Vacant</td>
<td>n.a.</td>
<td></td>
</tr>
<tr>
<td>Newark</td>
<td>Aug.-st 1950</td>
<td>730</td>
<td>n.a.</td>
<td>0</td>
<td>n.a.</td>
<td>Vacant</td>
<td>48</td>
<td>.13</td>
</tr>
<tr>
<td></td>
<td>August 1950</td>
<td>630</td>
<td>567</td>
<td>0</td>
<td>63</td>
<td>Vacant</td>
<td>38</td>
<td>.12</td>
</tr>
<tr>
<td>Jersey City</td>
<td>Sept. 1950</td>
<td>462</td>
<td>462</td>
<td>0</td>
<td>0</td>
<td>Vacant</td>
<td>70</td>
<td>.17</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.18 #</td>
</tr>
<tr>
<td>Boston</td>
<td>Oct. 1949</td>
<td>507</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>Slum</td>
<td>82</td>
<td>.22</td>
</tr>
<tr>
<td>St. Louis</td>
<td>July 1950</td>
<td>703</td>
<td>n.a.</td>
<td>n.a.</td>
<td>0</td>
<td>Slum</td>
<td>39</td>
<td>.12</td>
</tr>
</tbody>
</table>

* High-rise projects unavoidable within PHA regulations

# High-rise avoidable within PHA regulations after reduction of density

* High-rise avoidable with no change in density
the aggregate site cost ratio of a given project and the preceding ones, data on project approved in the same month as the given project are excluded from the computation. It is implausible that PHA officials would have made decisions based on a policy of sequential development for a group of projects being reviewed simultaneously.

A pattern similar to the one of the previous site cost policy emerges. Twenty-seven of the 54 projects in this group were developed at a density of 50 units per acre or less, and were hence avoidable with no impact on site costs. The policy again was not used to its fullest advantage by LHAs as 26 projects had both an aggregate site cost ratio and a project site cost ratio at least 4 percent below the allowed maxima. Determining the effect on site costs of lowering density to 50 units per acre of all projects developed at a higher density is more problematic than before because increasing the land cost and total development cost of a project would affect the aggregate ratio of subsequent projects. Avoiding high-rise projects in the early stage of the program might have made them necessary at a later stage by virtue of the need to bring the aggregate site cost ratio within the 20 percent (22 percent with gas and electrical distribution) limit (N.B. The reader should not be misled by Table 4 which shows the site cost ratios for only the high-rise project. The computation of the aggregate ratio includes all projects developed since 1949, except those approved in the same month as the given project.)
The results of the recomputation of both aggregate and project site cost ratios when land and total development costs of 25 high density projects are adjusted to reflect a 50 unit per acre density demonstrates further that PHA policies did not force LHAs to resort to high-rise building. Fifteen of the projects could be built at 50 units per acre within the PHA regulations. The adjustment of density to 50 units per acre does not in fact affect the feasibility as low-rise of projects developed at densities below 50 units per acre. Two projects developed at 46 and 47 units per acre are seemingly affected by the recomputation as their aggregate site cost ratios exceed the maximum after the recomputation. However, when we examine the actual aggregate and project site cost ratios of these projects we see they exceeded the maximum anyway, which suggests that PHA did not even enforce the policy very rigidly.

The analysis can shed some light on the ambiguity about the 25 percent maximum site cost ratio for slum sites, both as to the meaning of that part of the regulation and its potential impact on design decisions. Six high-density slum site projects would have exceeded the 27 percent site cost ratio limit after adjustment of density to 50 units per acre. However, there were 8 slum site projects developed under the July 1950 regulation in which the actual project site cost ratio was well above 27 percent; in one case it was 32 percent. It appears that as long as the aggregate ratio was within the PHA limits, the 25 percent ratio for slum sites was not enforced.
<table>
<thead>
<tr>
<th>City</th>
<th>Approval Date</th>
<th>Total Units</th>
<th>High-rise Units</th>
<th>Mid-rise Units</th>
<th>Low-rise Units</th>
<th>Site</th>
<th>Density</th>
<th>Actual Project Site Cost Ratio</th>
<th>Actual Aggregate site cost ratio</th>
<th>Adjusted Proj. Aggregate site Cost Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Fran</td>
<td>Oct. 1950</td>
<td>608</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>Slum</td>
<td>153</td>
<td>.27</td>
<td>.23</td>
<td>.49</td>
</tr>
<tr>
<td></td>
<td>Oct. 1950</td>
<td>211</td>
<td>211</td>
<td>0</td>
<td>0</td>
<td>Vacant</td>
<td>89</td>
<td>.22</td>
<td>.19</td>
<td>.32</td>
</tr>
<tr>
<td></td>
<td>Oct. 1950</td>
<td>194</td>
<td>194</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>137</td>
<td>.28</td>
<td>.22</td>
<td>.49</td>
</tr>
<tr>
<td></td>
<td>July 1952</td>
<td>208</td>
<td>n.a.</td>
<td>0</td>
<td>n.a.</td>
<td>Vacant</td>
<td>52</td>
<td>.14</td>
<td>.23</td>
<td>.14</td>
</tr>
<tr>
<td>Milwaukee</td>
<td>June 1955</td>
<td>268</td>
<td>188</td>
<td>0</td>
<td>80</td>
<td>Vacant</td>
<td>31</td>
<td>.18</td>
<td>.17</td>
<td>.17</td>
</tr>
<tr>
<td>Detroit</td>
<td>July 1952</td>
<td>560</td>
<td>560</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>36</td>
<td>.44</td>
<td>.14</td>
<td>.14</td>
</tr>
<tr>
<td>Chicago</td>
<td>May 1951</td>
<td>150</td>
<td>150</td>
<td>0</td>
<td>0</td>
<td>Vacant</td>
<td>75</td>
<td>.08</td>
<td>.08</td>
<td>.10</td>
</tr>
<tr>
<td></td>
<td>May 1951</td>
<td>799</td>
<td>799</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>47</td>
<td>.25</td>
<td>.25</td>
<td>.25</td>
</tr>
<tr>
<td></td>
<td>May 1951</td>
<td>1207</td>
<td>1050</td>
<td>0</td>
<td>158</td>
<td>Slum</td>
<td>36</td>
<td>.15</td>
<td>.15</td>
<td>.15</td>
</tr>
<tr>
<td></td>
<td>May 1951</td>
<td>917</td>
<td>917</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>47</td>
<td>.21</td>
<td>.21</td>
<td>.21</td>
</tr>
<tr>
<td></td>
<td>May 1951</td>
<td>140</td>
<td>140</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>49</td>
<td>.20</td>
<td>.18</td>
<td>.14</td>
</tr>
<tr>
<td></td>
<td>Oct. 1951</td>
<td>644</td>
<td>644</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>49</td>
<td>.14</td>
<td>.17</td>
<td>.14</td>
</tr>
<tr>
<td></td>
<td>Jan. 1952</td>
<td>1914</td>
<td>1914</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>51</td>
<td>.21</td>
<td>.19</td>
<td>.21</td>
</tr>
<tr>
<td></td>
<td>Jan. 1952</td>
<td>851</td>
<td>851</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>57</td>
<td>.24</td>
<td>.19</td>
<td>.25</td>
</tr>
<tr>
<td></td>
<td>Jan. 1952</td>
<td>1640</td>
<td>1640</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>50</td>
<td>.17</td>
<td>.18</td>
<td>.18</td>
</tr>
<tr>
<td></td>
<td>Jan. 1952</td>
<td>149</td>
<td>149</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>59</td>
<td>.18</td>
<td>.18</td>
<td>.19</td>
</tr>
<tr>
<td></td>
<td>Jan. 1952</td>
<td>203</td>
<td>203</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>56</td>
<td>.20</td>
<td>.18</td>
<td>.21</td>
</tr>
<tr>
<td></td>
<td>Jan. 1952</td>
<td>1099</td>
<td>1099</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>55</td>
<td>.26</td>
<td>.20</td>
<td>.27</td>
</tr>
<tr>
<td></td>
<td>May 1955</td>
<td>4412</td>
<td>4412</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>48</td>
<td>.21</td>
<td>.20</td>
<td>.20</td>
</tr>
<tr>
<td></td>
<td>June 1955</td>
<td>448</td>
<td>448</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>57</td>
<td>.22</td>
<td>.20</td>
<td>.24</td>
</tr>
<tr>
<td></td>
<td>June 1955</td>
<td>1558</td>
<td>1176</td>
<td>0</td>
<td>382</td>
<td>Slum</td>
<td>36</td>
<td>.18</td>
<td>.19</td>
<td>.20</td>
</tr>
<tr>
<td>City</td>
<td>Approval Date</td>
<td>Total Units</td>
<td>High-rise units</td>
<td>Mid-rise units</td>
<td>Low-rise units</td>
<td>Site</td>
<td>Density</td>
<td>Actual Project Site Cost Ratio</td>
<td>Actual Agg. gate site cost ratio</td>
<td>Adjusted Proj. Agg. gate Site Cost ratio</td>
</tr>
<tr>
<td>------------</td>
<td>---------------</td>
<td>-------------</td>
<td>----------------</td>
<td>---------------</td>
<td>---------------</td>
<td>-------</td>
<td>---------</td>
<td>--------------------------------</td>
<td>----------------------------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>Chicago</td>
<td>June 1955</td>
<td>740</td>
<td>740</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>45</td>
<td>.25</td>
<td>.20</td>
<td>.20</td>
</tr>
<tr>
<td>Cleveland</td>
<td>Jan. 1953</td>
<td>999</td>
<td>231</td>
<td>252</td>
<td>516</td>
<td>Vacant</td>
<td>39</td>
<td>.28</td>
<td>.22</td>
<td>.22</td>
</tr>
<tr>
<td>Pittsburgh</td>
<td>Nov. 1951</td>
<td>1122</td>
<td>800</td>
<td>0</td>
<td>322</td>
<td>Vacant</td>
<td>20</td>
<td>.18</td>
<td>.18</td>
<td>.18</td>
</tr>
<tr>
<td></td>
<td>Sept. 1951</td>
<td>225</td>
<td>157</td>
<td>0</td>
<td>67</td>
<td>Vacant</td>
<td>45</td>
<td>.21</td>
<td>.18</td>
<td>.18</td>
</tr>
<tr>
<td></td>
<td>Nov. 1951</td>
<td>746</td>
<td>282</td>
<td>0</td>
<td>460</td>
<td>Vacant</td>
<td>27</td>
<td>.19</td>
<td>.18</td>
<td>.18</td>
</tr>
<tr>
<td></td>
<td>March 1952</td>
<td>714</td>
<td>457</td>
<td>0</td>
<td>267</td>
<td>Vacant</td>
<td>32</td>
<td>.17</td>
<td>.18</td>
<td>.18</td>
</tr>
<tr>
<td></td>
<td>Nov. 1952</td>
<td>218</td>
<td>180</td>
<td>0</td>
<td>38</td>
<td>Slum</td>
<td>67</td>
<td>.20</td>
<td>.18</td>
<td>.24</td>
</tr>
<tr>
<td></td>
<td>Nov. 1952</td>
<td>120</td>
<td>120</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>125</td>
<td>.11</td>
<td>.18</td>
<td>.17</td>
</tr>
<tr>
<td></td>
<td>April 1953</td>
<td>300</td>
<td>112</td>
<td>0</td>
<td>188</td>
<td>Urb. Rnwl. n.a.</td>
<td>.15</td>
<td>.17</td>
<td>.18</td>
<td>.18</td>
</tr>
<tr>
<td></td>
<td>April 1953</td>
<td>372</td>
<td>272</td>
<td>0</td>
<td>100</td>
<td>Urb. Rnwl. n.a.</td>
<td>.14</td>
<td>.17</td>
<td>.18</td>
<td>.18</td>
</tr>
<tr>
<td>Baltimore</td>
<td>May 1951</td>
<td>816</td>
<td>654</td>
<td>0</td>
<td>162</td>
<td>Slum</td>
<td>50</td>
<td>.30</td>
<td>.22</td>
<td>.22</td>
</tr>
<tr>
<td></td>
<td>May 1951</td>
<td>487</td>
<td>354</td>
<td>0</td>
<td>133</td>
<td>Slum</td>
<td>49</td>
<td>.32</td>
<td>.20</td>
<td>.20</td>
</tr>
<tr>
<td></td>
<td>Feb. 1953</td>
<td>677</td>
<td>577</td>
<td>0</td>
<td>100</td>
<td>Slum</td>
<td>46</td>
<td>.28</td>
<td>.24</td>
<td>.24</td>
</tr>
<tr>
<td>Washington</td>
<td>March 1953</td>
<td>612</td>
<td>304</td>
<td>236</td>
<td>76</td>
<td>Slum</td>
<td>50</td>
<td>.29</td>
<td>.18</td>
<td>.18</td>
</tr>
<tr>
<td></td>
<td>March 1953</td>
<td>456</td>
<td>320</td>
<td>0</td>
<td>136</td>
<td>Slum</td>
<td>49</td>
<td>.30</td>
<td>.18</td>
<td>.18</td>
</tr>
<tr>
<td>Newark</td>
<td>Oct. 1951</td>
<td>1458</td>
<td>1458</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>77</td>
<td>.18</td>
<td>.16</td>
<td>.24</td>
</tr>
<tr>
<td></td>
<td>Oct. 1952</td>
<td>1556</td>
<td>1556</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>111</td>
<td>.18</td>
<td>.17</td>
<td>.29</td>
</tr>
<tr>
<td></td>
<td>June 1955</td>
<td>1206</td>
<td>1206</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>86</td>
<td>.23</td>
<td>.18</td>
<td>.31</td>
</tr>
<tr>
<td>Jersey</td>
<td>June 1951</td>
<td>664</td>
<td>664</td>
<td>0</td>
<td>0</td>
<td>Vacant</td>
<td>110</td>
<td>.10</td>
<td>.13</td>
<td>.12</td>
</tr>
<tr>
<td>City</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City</td>
<td>Approval Date</td>
<td>Total Units</td>
<td>High-Rise Units</td>
<td>Mid-Rise Units</td>
<td>Low-Rise Units</td>
<td>Site</td>
<td>Density</td>
<td>Project site cost ratio</td>
<td>Aggregate site ratio</td>
<td>City Approval Date</td>
</tr>
<tr>
<td>------------</td>
<td>---------------</td>
<td>-------------</td>
<td>-----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>---------</td>
<td>---------</td>
<td>-------------------------</td>
<td>----------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Boston</td>
<td>Dec. 1950</td>
<td>200</td>
<td>134</td>
<td>0</td>
<td>66</td>
<td>Vacant</td>
<td>61</td>
<td>.20</td>
<td>.13</td>
<td>.14</td>
</tr>
<tr>
<td></td>
<td>Jan. 1951</td>
<td>588</td>
<td>417</td>
<td>0</td>
<td>171</td>
<td>Slum</td>
<td>n.a.</td>
<td>.15</td>
<td>.16</td>
<td>.19</td>
</tr>
<tr>
<td></td>
<td>May 1951</td>
<td>1504</td>
<td>1120</td>
<td>0</td>
<td>384</td>
<td>Vacant</td>
<td>n.a.</td>
<td>.16</td>
<td>.16</td>
<td>.17</td>
</tr>
<tr>
<td></td>
<td>Jan 1952</td>
<td>732</td>
<td>588</td>
<td>0</td>
<td>144</td>
<td>Slum</td>
<td>67</td>
<td>.21</td>
<td>.17</td>
<td>.24</td>
</tr>
<tr>
<td>Buffalo</td>
<td>May 1951</td>
<td>472</td>
<td>372</td>
<td>0</td>
<td>100</td>
<td>Slum</td>
<td>n.a.</td>
<td>.18</td>
<td>.18</td>
<td>.18</td>
</tr>
<tr>
<td>St. Louis</td>
<td>Feb. 1951</td>
<td>1665</td>
<td>1665</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>69</td>
<td>.12</td>
<td>.12</td>
<td>.15</td>
</tr>
<tr>
<td></td>
<td>June 1951</td>
<td>1090</td>
<td>1090</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>62</td>
<td>.16</td>
<td>.13</td>
<td>.18</td>
</tr>
<tr>
<td></td>
<td>Sept. 1951</td>
<td>655</td>
<td>655</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>51</td>
<td>.17</td>
<td>.14</td>
<td>.17</td>
</tr>
<tr>
<td></td>
<td>Feb. 1953</td>
<td>1236</td>
<td>1236</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>49</td>
<td>.21</td>
<td>.16</td>
<td>.17</td>
</tr>
<tr>
<td></td>
<td>June 1955</td>
<td>1162</td>
<td>n.a.</td>
<td>0</td>
<td>n.a.</td>
<td>Slum</td>
<td>40</td>
<td>.24</td>
<td>.17</td>
<td>.18</td>
</tr>
<tr>
<td>Kansas City</td>
<td>June 1955</td>
<td>692</td>
<td>676</td>
<td>0</td>
<td>15</td>
<td>Vacant</td>
<td>37</td>
<td>.21</td>
<td>.18</td>
<td>.18</td>
</tr>
</tbody>
</table>

* High-rise unavoidable within PHA regulations

# High-rise avoidable within PHA regulations after reduction of density

‡ High rise avoidable with no change in density
Thus less than 15 percent of the projects developed under the July 1950 regulation contained high-rise buildings of necessity and could not have been developed as low rise projects. There are indications that PHA did not even enforce the policy strictly; several projects exceeded the aggregate site cost ratio by a significant amount. LHAs failed to exploit the policy to its full advantage by reducing density of proposed projects to the point where low-rise construction was feasible. The policy was framed in permissive terms; an LHA was allowed but not required to average site costs. It was apparently not regarded by the LHAs as an important planning tool, which it definitely could have been if used thoughtfully. When the policy was promulgated the Journal of Housing reported only the increased site cost ratios permitted for slum sites. Not a word was said on the aggregate site cost provision or the implications of averaging sites in an LHA's program. The probable meaning of the ambiguity in the policy was that LHAs could choose between treating projects individually with a more liberal allowance for project site cost ratios for slum sites or averaging site costs with no implicit limit on individual project site costs. That the ambiguity was never clarified by PHA, through a revision of the regulation or a circular to LHAs indicates that the policy rarely, if ever, evoked questions. Whether LHAs chose not to average site costs or were simply unaware of the design implications of averaging, the policy was there to be used and a substantial number of high-
projects could have been avoided under this regulation. After April 1955 there was no limit on site costs. However, at some point PHA adopted (or publicized an existing) administrative maximum on total development cost. This placed an implicit limit on site costs, which were ultimately within the LHAs' power to control through variation of dwelling unit density. Two very conservative assumptions are made below about the administrative limit on total development cost. First, that such a limit may have been adopted as early as 1955. Second, that PHA may have imposed limits for each region as well as a national limit. It is impossible to know what these limits may have been (except for the $17,000 national limit adopted in 1956 or 1957) but we know that they could not have been less than the maximum total development cost actually approved in a given year for each region and for the nation.

In the period after site cost regulations were eliminated one high-rise project was actually developed at a density below 50 units per acre and was consequently avoidable with no increase in costs. If we adjust the remaining high density projects to 50 units per acre, at least one would have been avoidable within the assumed national and regional administrative cost limits and three would have adjusted costs higher than both the national and regional maxima assumed to exist in the year they were approved. While the administrative cost limits was more restrictive than the previous policies (if it was as severe as assumed here) at least two-fifths of the high-rise projects were avoidable under the policy.
## TABLE 5

Projects Approved After June 1955

<table>
<thead>
<tr>
<th>City</th>
<th>Approval Date</th>
<th>Total Units</th>
<th>High-rise Units</th>
<th>Mid-rise Units</th>
<th>Low-rise Units</th>
<th>Site</th>
<th>Density</th>
<th>Adjusted Total Devlpmt. Cost</th>
<th>Maximum TDC not less than</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>National</td>
</tr>
<tr>
<td>Minneapolis</td>
<td>July 1956</td>
<td>192</td>
<td>60</td>
<td>0</td>
<td>132</td>
<td>Urb. Rnw.</td>
<td>21</td>
<td></td>
<td>$17959</td>
</tr>
<tr>
<td>Milwaukee</td>
<td>June 1959</td>
<td>370</td>
<td>200</td>
<td>0</td>
<td>170</td>
<td>Slum</td>
<td>n.a.</td>
<td></td>
<td>$17742</td>
</tr>
<tr>
<td>Chicago</td>
<td>July 1956</td>
<td>479</td>
<td>479</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>n.a.</td>
<td>$17859</td>
<td>¬</td>
</tr>
<tr>
<td></td>
<td>June 1959</td>
<td>137</td>
<td>137</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>92</td>
<td></td>
<td>¬</td>
</tr>
<tr>
<td>Pittsburgh</td>
<td>July 1956</td>
<td>632</td>
<td>n.a.</td>
<td>0</td>
<td>n.a.</td>
<td>Vacant</td>
<td>n.a.</td>
<td></td>
<td>¬</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>July 1956</td>
<td>510</td>
<td>382</td>
<td>0</td>
<td>128</td>
<td>Slum</td>
<td>82</td>
<td>22710</td>
<td>20889</td>
</tr>
<tr>
<td>Baltimore</td>
<td>July 1955</td>
<td>758</td>
<td>658</td>
<td>0</td>
<td>100</td>
<td>Slum</td>
<td>58</td>
<td>15896</td>
<td>16967</td>
</tr>
<tr>
<td>Newark</td>
<td>June 1958</td>
<td>1680</td>
<td>1680</td>
<td>0</td>
<td>0</td>
<td>Slum</td>
<td>103</td>
<td>19203</td>
<td>18693</td>
</tr>
<tr>
<td>Jersey City</td>
<td>July 1956</td>
<td>712</td>
<td>712</td>
<td>0</td>
<td>0</td>
<td>Vacant</td>
<td>n.a.</td>
<td></td>
<td>¬</td>
</tr>
</tbody>
</table>

*High-rise projects unavoidable within HA regulations

# High rise projects avoidable within both regional and national maxima after reduction of density

* High rise avoidable with no change in density
In summary, the analysis shows that the various PHA policies on site cost cannot support the economic-necessity-of-high-rise argument. Seventy-one high-rise family projects were developed between 1949 and 1959, 61 for which we have density information. More than half (31) were avoidable without any increase in land cost or total development cost. Indeed if high-rise projects actually developed at under 50 units per acre were developed as low-rise there would most likely have been a net savings of $500 to $800 per unit by virtue of the lower building construction costs. In addition, about one-third of the projects could have been redesigned as low-rise developments at an adjusted density of 50 units per acre such that the increased site costs would not have made them infeasible under the PHA regulations. Only 10 projects appear to have been unavoidably developed with high-rise buildings; adjustment to 50 units per acre would not have been administratively feasible.

There are two important conclusions from the foregoing analysis. First, responsibility for high-rise projects lay principally with local housing authorities and not the federal government. Second, the economic explanation for high-rise projects is not compelling. High-rise projects were economically necessary in only a few instances. While about a third of the projects would have been more expensive (though feasible nonetheless) after re-design to all low-rise, LHAs had no reason to economize; there was no material benefit to be derived from building a cheaper project since there was no local contribution to development cost. It is possible that PHA's obsession with
economy set the tone for many LHAs which would find the cheapest rather than the best feasible design. But what, then, of the large number of high-rise projects built at or below 50 units per acre which would probably have been less expensive as low-rise? While LHAs' independent pursuit of economy may partly explain the appearance and spread of high-rise projects it is an explanation that goes only a short distance.

It is quite natural to assume that public housing projects so radically different in character and scale from their immediate and often metropolitan setting are the exclusive responsibility of the Federal government, that these projects were thrust on unwilling local housing authorities by the Public Housing Administration. Since the plans for these projects were reviewed and approved by PHA, the ultimate responsibility for the debacle of high-rise design is the federal government's. The nature of that responsibility, however, is very different from what has heretofore been assumed. It was the responsibility for tolerance of or indifference to bad housing solutions; the failure of federal policy was its difidence, not its overbearing insensitivity to local needs.

As we have seen, federal regulations did not "force LHAs to the wall" on high-rise projects. There may have been instances where PHA did require an LHA to adopt a high-rise project when all-low-rise was proposed, but the quote at the beginning of this chapter and an examination of several development programs indicates that LHAs initiated high-rise proposals and PHA
accepted them, sometimes reluctantly.\textsuperscript{127} Even if PHA imposed an unnecessary design solution on an LHA the latter could have fought the federal decision; not only were the regulations on the side of feasible low-rise alternatives but the LHAs had an influential national association representing their interests in Washington and the field.

There may have been many provisions of the PHA Minimum Physical Standards that were arbitrary and unresponsive to local differences. Indeed the regulations may account for the uniformity and sterility of much public housing design. It should be noted, however, that PHA's design and construction regulations were one fifth the length of the FHA Minimum Property Standards, upon which the tremendous growth in suburban housing in the 1950's was based.\textsuperscript{128} Regardless of the flexibility or rigidity of PHA standards with respect to the details of design -- not a concern here -- the regulations were open-ended about building type.

PHA's single-minded pursuit of economy largely accounts for its basic indifference to suitable housing design. The agency would only take a strong public position against particular building types when it was convinced that they resulted in excessive development costs. Management and maintenance costs were not systematically considered in development policy -- a continuing problem in federal housing programs. PHA even tried to discount the concept of long-range operating savings as a justification for higher construction and design standards.
Because high-rise projects seemed to offer significant savings in land cost, the regulations and the advisory material avoided direct comments on their suitability.

Nevertheless, PHA never took the position that high rise projects should be built as an economy measure. In fact, at the height of its austerity program, PHA made its only public statement on the general undesirability of elevator buildings in the low-rent program. The *Planning, Design and Construction for Economy* guide of 1950 said the following:

> Multi story apartments -- The grave and serious problems incident to rearing children in such housing are too well known to warrant any comment, nor are the management difficulties which go with such projects subject to any complete remedy. All of these disadvantages are so great and so thoroughly understood that Local Authorities with the problem would counsel this type of housing only because local conditions enforce it as the only solution for specific neighborhoods.¹²⁹

The comment is all the more precautionary by its appearance in a manual on economy. Indeed several months earlier PHA had danced around the edge of the issue in it *Low Rent Bulletins* by illustrating several site plans and building layouts for high density low rise projects.¹³⁰

PHA's pursuit of economy and its timidity on basic design questions is nicely illustrated in the records of some high level discussions on a proposed high-rise project for the elderly. In 1956 the Executive Director of the San Antonio Housing Authority, Marie Maguire, proposed a high-rise project near the center of the city, which had been approved by the City Council there. The Regional PHA Director, Marshall Amis, had
told Maguire that the Region did not approve this type of project for San Antonio; "Mr Amis was very frank and said it was new and different and San Antonio should stay close to the ground." Maguire appealed directly to Commissioner Slusser, who told her that it did not appear that there was any prohibition against what she proposed. Slusser called Amis and said that he would feel better if Amis could reject the project on cost grounds, that PHA did not have a right to say more when the city had approved it. Amis replied that the project just did not fit with the "custom" of San Antonio but if Washington would clear it he would be more comfortable about approving the project. There are several important points about the incident. First, PHA operated on the premise that it did not have the right to reject projects based on criteria of their likelihood of being integrated into a city -- although this was one of their "required objectives" -- especially when local officials had approved the project. Often however local officials approved public housing projects because they would alleviate housing shortage (or meet a relocation need) and the officials were unaware of or indifferent to the quality of the housing that would be produced. Second, Maguire was a very influential housing official; she would become PHA Commissioner when the Democrats returned to power in 1961. Hence, rejecting on non-objective grounds a project that she was committed to would "get PHA in dutch" in Slusser's words. Finally, PHA field officials, presumably most closely attuned to the local
residential character and design practices could not expect Washington to support them when they raised objections to design that did not appear in the regulations.

The major defect of PHA policy on high-rise projects was that there was none. A "firm belief" against them could be invoked only to discourage them but not to prevent them. This was symptomatic of a much grosser defect of federal policy: the premise that incentives were sufficient to prevent what was commonly accepted as undesirable housing solutions. PHA would not require LHAs to exhaust all possibilities before turning to a high-rise solution. The most promising tool to facilitate alternative to high-rise projects within the limits of overall economy was the site cost averaging regulation. But it was a permissive regulation rather than a mandatory one. PHA apparently did not tell LHAs which submitted high-rise proposals to go back and re-plan the projects so that the aggregate site cost ratio came as close to 20 percent as possible; it was up to the LHAs to make use of the policy. Similarly the policy of encouraging scattered sites and rehabilitation of existing housing produced little change in the program. Only at the end of the decade did PHA's approach begin to change, when LHAs were required, not urged, to meet a non-quantifiable standard based on the character of residential design in the community. It took the federal government quite a while to fully realize that it could not necessarily expect local officials on their own initiative to pursue the social goals that Wallace had enumerated. In the late 1960's the Department of
Housing and Urban Development adopted two significant national policies. All residential Urban Renewal projects would henceforth be required to include subsidized housing and high-rise projects for families would be prohibited, except in very special circumstances. While recent housing policy has had its failures and disasters to be sure, it is doubtful that as much subsidized housing produced under these policies will be denounced as quickly for bad, institutionalized, anti-community design as the public housing built in the 1950's.
VII

Alternative Explanations

To appreciate the usefulness of public housing in Chicago it must be realized that this means of providing housing for low income families has ceased to be its own reason for existence -- it has become an essential tool in the building of the city.137

As [Urban Renewal and Highway] programs prove themselves in new key pilot cities the demand for similar programs will grow...And it is then that the controversy over public housing will end. For people will live in the path of these improvements...They cannot be made to move into other slums and so the inevitable answer will be public housing keyed to relocation. But public housing in that situation will not be a threat to anyone; it will just be part of an overall program of urban renewal which will have private enterprise as its major emphasis.133

(Mayor Richard C. Lee, of New Haven, 1956)

If economic necessity or the desirability of economizing cannot explain the origin of high-rise projects what might be a plausible explanation? This chapter will present several alternative hypotheses. It should be made clear at the outset that these explanations are somewhat speculative since they largely concern decisions made at the local level without respect to federal policy, which was the intended focus of this thesis. Nevertheless, even a consideration of certain national trends can shed some light on local decisions. Furthermore, it can enrich our understanding of the public housing program in the housing and redevelopment system.
Architects, the dominant architectural idiom and the architects' arguments for high-rise projects probably played an important part in the proliferation of high-rise projects. It is difficult to say how influential an LHA's architect was in devising basic elements in a project design proposal such as building type. In some instances, for example the Edward Jeffries project in Detroit, the LHA and FHA decided beforehand that the project would contain high-rise structures and the architect had to design within that framework. On the other hand, in the New Orleans case which provoked so much of the high-rise debate, it appears that the architects were initially given carte blanche and only when they presented their proposal to the housing authority were they taken to task. In how many other instances were architects given free rein and not questioned about a high-rise proposal? Only further research can answer this.

To the extent that architects influenced or made the basic decisions on public housing design, it is not surprising that design reflected the Le Corbusian vision. Such was an almost inevitable consequence of the institutional structure of the architecture profession in the 1950's. This was the idiom of the leading commercial architects in America. There were dissenting voices. Architects such as William Wurster, Henry Churchill, Henry Whitney, Frederick Gurtheim did not share the enthusiasm for Le Corbusier's Radiant City. The professional association, the American Institute of Architects, was somewhat
neutral on the question of whether architects should build "machines for living" or homes. Yet the dissenting voices and the moderating influences did not receive wide exposure throughout the profession. The major publications, received by virtually every architectural firm in the country, disseminated only the thoughts and works of the new visionaries. The dissenters were more likely to write or be quoted in books and journals not widely read by architects.

When Architectural Forum and Progressive Architecture aired the high-rise debate, housers rather than architects presented the case against high-rise. As prominent and respected as Elizabeth Wood and Catherine Bauer were in housing circles, their views would command less credibility among architects than those of an architect. The tone of the debate was likely to cow undecided architects into embracing the high-rise position. This was particularly evident in Architectural Forum’s treatment of the New Orleans case, in which the protagonists were portrayed as a group of young, forward-looking innovators being thwarted by a conservative old guard. The old guard was none other than the local AIA chapter, which recommended against the high-rise design. Architectural Forum would not allow that the AIA recommendation was made on the merits of the case. Rather, it insinuated that the local AIA officers had a vested interest in the old way of designing housing and had been heavily involved in the original pre-War project proposal which had not been implemented.
Had there been a group of specialists in housing project design within the profession a counter-balance to the opinion leaders in architecture might have existed. However, the residential design specialists worked on private commissions of expensive single family homes and could offer no insight on the design of housing developments— even unsubsidized ones. Few FHA or conventionally financed suburban developments of the time were designed by architects (which may account for architects' disdain for and sense of crisis about low-rise spread cities.) Moreover few LHAs had architects on staff. The practice in public housing has always been to contract for architectural services. Since architectural contracts did not have to be bid they were often given as patronage to local "hack" architects. Architects who received a sizable number of patronage contracts were accustomed to designing public institutions like schools and hospitals; the institutional idiom was easily transferred to housing projects. If the practice in the public housing program had been to hire permanent staff architects it is possible that a different set of architectural criteria would eventually have surfaced within that group. Furthermore public housing design specialists would likely have organized professionally and developed some communication medium, perhaps within NAH(B)O and the Journal of Housing. The closest the public housing program came to institutionalization of public housing design within the profession was the appointment by FHA of an Architectural Advisory Committee in 1950. FHA promptly forgot its existence, failed to consult it
before issuing the economy-oriented design standards in October 1950 and never called a meeting of the group thereafter. The members of the Committee resigned en masse in late 1951.136

There is little evidence that LHAs themselves embraced the Corbusean vision. Few annual reports of cities that built high-rise projects depict architectural fantasies about cities of the future. However, it is likely that the embattled public housing program was willing to accept any allies it could find, including the opinion leaders in the architecture profession. Thus, we have the paradoxical situation of the Executive Director of the Chicago Housing Authority presenting the case for low-rise housing in a publication that would shortly afterward praise that Housing Authority for its courage and progressivism in introducing a new, superior type of high-rise public housing project.137

Finally, apart from its philosophical and aesthetic underpinnings, the substantive arguments of the pro-high-rise position may have influenced some LHAs. In the above analysis of the effect of PHA site cost policies the assumption was made that low-rise projects were practical at a density of 50 units per acre, which is factually borne out. However, it is unlikely that private yards could be provided for all or any of the units at that density. The high-rise debate had focussed to some extent on the maximum density at which private yards could be provided and it was widely assumed to be not greater than 35 units per acre. At that density, it was conceded by pro-
low-rise group the yards would be quite small. There were in fact few high-rise projects approved at a density of 35 units or lower in the period under study. The high-rise advocates claimed that if private yards could not be provided, high-rise buildings which provided alternatives like gallerias were preferable, not second best.138

Yet another explanation of the origin of high-rise projects is that the spirit of social reform had disappeared in the public housing program. With no social goals to be reflected in or supported by design, only mechanistic efficiency requirements had to be realized. It is clear that the housers' original zeal had evaporated by 1950. When an article by sociologist John Dean discussing the failure of public housing to bring about social reform was quoted in the Journal of Housing, the response from some housers was self-congratulation rather than denial; public housing had no business in social reform.139 By 1953 several commentators had pointed sadly to the fact that the crusading spirit had died, most apparent in the "business as usual" tone that pervaded NAHO conventions.140

The public housing program had grown out of a public housing "movement" which began at least a decade before the passage of the U.S. Housing Act of 1937. The early housers therefore, regarded the program as a social reform and themselves as social reformers. Such a self definition is not at all surprising. Public housing was but one part of a package of New Deal reforms. It had been vigorously resisted in Congress
but had emerged victorious (and not radically altered) from the legislative affray. There was reason for the housers to be optimistic and somewhat visionary in 1937. It seemed that the country was indeed headed in a new direction. Moreover the private "new towns" of Clarence Stein and Henry Wright--Sunnyside and Radburn--and the Greenbelt towns being built by the Resettlement Administration were existing American models of community-building-as-reform.

In part the disappearance of the reform spirit can be attributed to bureaucratizations of the program, and perhaps the absence of "new blood." Indeed, if the principal concern of housers was now to maintain and expand already large housing bureaucracies high-rise projects would be a good way to achieve such a purpose. As both Bauer and Wood pointed out during the high-rise debate such housing requires more managers, maintenance staff and administrators.

It is also evident that the basic conditions and perceived opportunities for the original reform no longer existed. It was very clear from the outset of the Title III program that public housing was going to house the permanent poor. It it was to be any kind of mobility ladder most of the upper rungs were sawed off; unlike before those families whose incomes rose would not be allowed to remain. While it was certainly the intent of Congress in 1937 that families no longer needing public housing would be required to leave, the future was still open as far as the housers were concerned at the outset of the program. It was possible in the late 1930's to design a public
housing project envisioning economic recovery (already underway) skilled residents obtaining new jobs and remaining in projects, social mobility for other residents by virtue of the improved social and physical environment, in sum, a stable, upwardly mobile community. With incomes generally rising during World War II and with public housing being used to house defense workers that is largely what happened. Such a scenario was no longer realistic in 1949 because of the changed economic situation -- no socially leveling Depression -- and the dogged removal of over-income families, already a firmly set federal policy when the 1949 Act passed.

Thus, it is not surprising that the social "reform" facet of the public housing program disappeared. Within this new context all that public housing could be was a warehouse for the permanent poor or a way station to private housing for the temporary poor. High-rise projects were but one manifestation of the changed purposes. Building two, three or more housing projects adjacent to one another -- as in New York's East Harlem or Chicago's South Side -- was further evidence of the warehouse mentality in the program. The permanent poor deserved no better. This is quite apparent in the tone of the PHA statement on "underprivileged" families and economy quoted at the beginning of chapter IV. The temporary poor were not to get too comfortable in the projects, which should therefore be designed to make them anxious to leave as soon as possible.

In another important respect the public housing program
was stripped of community building goals by the Housing Act of 1949. Originally public housing was regarded as the principal tool of slum clearance. Some housers, as previously noted, did not accept the idea that public housing should replace slums, but even they regarded public housing as the antidote to slum conditions. It was expected that the social disorder of the slums would be eradicated by the housing projects. The so-called naive environmental determinism of the early housers has been greatly exaggerated if not completely invented by later critics. Few of the housing reformers believed that modern housing per se would eliminate the social conditions of slums. Instead that would come from a new community living experience. Certainly the very construction of housing projects rather than isolated modern residential buildings reflected the community building goals of the housers. For a substantial number of these reformers the public housing program represented an opportunity to replace slums with community, not shelter. The shelter of course had to be supportive of family and community life, but it was not an end in itself. The fact that public housing was to replace slums gave it the responsibility to replace slum conditions, social and otherwise.

The Housing Act of 1949 removed the slum clearance function from public housing, and with it some of the implicit social goals may have disappeared as well. At the federal level -- in Congress and within the HHFA -- public housing's major raison d'être was to serve as relocation housing for displacees.
of Title I projects. At one point PHA Commissioner Slusser suggested that new public housing could be used for displacees and vacancies in existing projects could be used for the other eligible applicants on the LHAs' waiting lists. It appears that a similar shift in purposes occurred at the local level as well. In the words of the Chicago Housing Authority, public housing was a "pivot" for the Redevelopment program:

In providing new homes for people displaced by slum clearance...public housing is an indispensable mechanism in freeing slum areas for private redevelopment.

Public housing in general and high-rise projects in particular are closely associated with Urban Redevelopment/Renewal activity. Nearly three-quarters of the public housing projects built in the 1949-59 decade for which data have been collected were built in cities that had active Urban Renewal projects. In these cities 46 percent of the public housing projects included high-rise buildings compared to 9 percent in cities with no Urban Renewal activity. In cities with Urban Renewal activity almost half of the high-rise projects were all-high-rise

<table>
<thead>
<tr>
<th>Type of Project</th>
<th>No Urban Renewal activity at time of project approval—# (percent) of projects</th>
<th>Urban Renewal planned or in execution when project approved</th>
</tr>
</thead>
<tbody>
<tr>
<td>All high-rise</td>
<td>0 (0.0)</td>
<td>32 (19.8)</td>
</tr>
<tr>
<td>Mixed high-rise</td>
<td>5 (8.6)</td>
<td>43 (26.5)</td>
</tr>
<tr>
<td>Mid-rise &amp; Mid-rise/low-rise</td>
<td>2 (3.4)</td>
<td>2 (1.2)</td>
</tr>
<tr>
<td>All low-rise</td>
<td>51 (17.9)</td>
<td>85 (52.5)</td>
</tr>
</tbody>
</table>

(100)
It is possible that Urban Redevelopment activity necessitated some high-rise projects where a low-rise alternative was technically and financially feasible. Cities with no Urban Renewal typically developed projects on larger sites than cities with an Urban Renewal program. This is no doubt due to the fact that public housing was in a sense competing with Urban Renewal for available slum sites. Where large-scale inner city redevelopment areas were allocated to private redevelopment, public housing had less available land. Reduction of density might not be possible if the same number of units were to be built, since additional land would be needed. But as powerless as LHAs may have been over the amount of land at their disposal, they could achieve lower densities on the available sites by building fewer units. Thus, there would have to have been some internal or external pressure on them to

| Table 7
| Average Project Area and Units by Title I Activity |
|---|---|---|
| Site | Acres | Units |
| No Redevelopment activity: | | |
| All sites | 24.03 | 492 |
| Slum Sites | 24.20 | 650 |
| Redevelopment planned or in execution: | | |
| All sites | 15.46 | 488 |
| Slum sites | 16.33 | 635 |
build as many units as possible on a given site. That pressure was most likely the need for relocation housing.

Moreover, as we have seen the low-rise alternative was available without reducing density in more instances than where density reduction would have been necessary. High-rise projects developed at or below 50 units per acre were six times as prevalent in Urban Renewal cities than in cities that did not participate in Title I. When we examine the distribution of these projects in cities with Urban Renewal activity an interesting pattern emerges. In cities where the public

### TABLE 8

<table>
<thead>
<tr>
<th>Project type</th>
<th>Active Urban Redevelopment/Renewal</th>
<th>No Title I</th>
<th>Agency Administering Title I</th>
<th>Total Title I</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Local Redevelop. Auth. City</td>
<td>City</td>
<td>City run PH &amp; UR LHA</td>
<td></td>
</tr>
<tr>
<td>All high-rise</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>(12)</td>
<td>(6)</td>
<td>(50)</td>
<td>(0)</td>
<td>(9)</td>
</tr>
<tr>
<td>Mixed high-rise</td>
<td>11</td>
<td>6</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>(19)</td>
<td>(35)</td>
<td>(50)</td>
<td>(37)</td>
<td>(26)</td>
</tr>
<tr>
<td>Mid-rise, Mid-/low-rise</td>
<td>41</td>
<td>10</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>(69)</td>
<td>(59)</td>
<td>(0)</td>
<td>(63)</td>
<td>(65)</td>
</tr>
<tr>
<td>All low-rise</td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
</tr>
</tbody>
</table>

housing program and the Title I program were separately administered, independent of the local government the incidence of high-rise projects is least -- 31 percent of all public housing built. Where the city ran the Urban Renewal program the pro-
portion of high-rise projects was some 10 percent higher. And where the local housing authority ran the Urban Renewal program the proportion of high-rise projects was midway between these situations.

These differences are not as dramatic as the differences between Urban Renewal and non-Urban Renewal cities but they do suggest an explanation of why the low-rise alternative was not pursued in Urban Renewal cities. In essence, the advent of Urban Redevelopment effected a displacement of the earlier goals of the public housing program; the extent of this displacement may have been a function of the prominence of Title I in the structure of local government. High density low-rise projects were not avoided because they were expensive or technically impossible. There was simply no point for them in the context of the program. The community and social values embodied in low-rise projects were, in effect, frills as far as the purpose of public housing. Public housing was a convenient way of sheltering families that cities would have neglected if they were not a minor obstacle to redevelopment.

When Redevelopment was being administered by an autonomous body separate from the LHA, the LHA may have been more likely to continue to pursue community and social goals. Furthermore, the independence of the two programs and their mutual reliance on the city government for certain concessions could create a healthy tension out of which would emerge negotiation around relocation and Urban Renewal land for public housing. This seems to be what occurred in Philadelphia. On the other
hand, when the City was directly running the Urban Renewal program, the LHA would have little opportunity to pursue an independent course. Moreover, since the city executive and the local governing body appointed the LHA commissioners, the latter were likely to share the goals and outlook of the elected officials and hence eagerly transform the public housing program into a "pivot for redevelopment." Where the LHA was administering the Urban Renewal program, public housing could have gone either way. The LHA would be in a position to provide less expensive land for public housing on Urban Renewal sites without any bargaining or negotiation with other agencies. On the other hand it could build massive public housing projects that would clear the way for equally massive slum clearance programs. The latter course seems to have been followed in Newark. In fact of the 36 public housing projects developed by LHAs administering an active Urban Renewal program, only 3 were on Urban Renewal sites.

The figures in Table 8 are gross statistics on 97 public housing projects in 18 cities. Undoubtedly the dynamics of program and administrative interrelationships were varied and other scenarios could be suggested. It is also likely that within LHA staffs and boards there were different factions around basic purposes of the public housing program. The important point is that the key to explaining high-rise public housing will likely be found in the local political and institutional processes. Detailed case studies to fully describe
local decision making on public housing design and the role of public housing in redevelopment are called for.

The differing federal and local patterns of lateral interaction in the housing and redevelopment system may shed some light on the proliferation of high-rise projects. PHA remained essentially isolated from that system at the federal level. At the local level public housing may have been similarly isolated, but that seems unlikely given the high correlation between high-rise projects and Urban Renewal activity. There was almost certainly some relationship between public housing and redevelopment. Whether public housing at the local level was influenced by the redevelopment system through pressure or through alliance is not clear at this point. In either case, program "co-ordination" below and fragmentation above could contribute to the design debacle. If, for example, LHAs were being subjected to excessive pressure by the local redevelopment program (e.g. competition for slum sites, pressure to build only in areas that would be suitable for relocation) they would need an ally at the federal level -- PHA -- to exert counter demands on the Title I program which could moderate the pressures exerted at the local level. On the other hand if LHAs were eagerly transforming the public housing program into a relocation program to facilitate local urban redevelopment, FHA's isolation from the redevelopment process probably greatly diminished its willingness to intervene in local decisions and re-assert social goals over mechanistic efficiency requirements in housing design.
It should be noted that HHFA statistics on relocation of Urban Renewal displacements to public housing do not correlate highly with the incidence of high-rise projects. In several cities that built high-rise projects predominantly -- Newark and Detroit for example -- over three-quarters of public housing eligibles were relocated in public housing. But in other cities where high-rise projects were the rule the proportion of public housing eligibles actually relocated in public housing was relatively low. There are several possible explanations. First, the available relocation statistics represent only Federal Title I relocation activity; public housing was used to relocate displacees of other local and federal public improvement projects such as the Highway program. Second, it is possible that the public housing was not built with the intention of housing Title I and other displacees; the high association between public housing and Urban Renewal Activity would then be pure coincidence, which is unlikely. Finally, the intention may have been to build relocation housing but because of the kind of housing that was built the intention may not have been realizable; none but the most desperate displacees would accept the new public housing as home.

We are faced with something of a paradox in the history of the redevelopment controversies of the 1950's. It has been well documented by Chester Hartman and others that the Urban Renewal program did a shoddy job with relocation. Large numbers of displacees found their own housing without assistance from redevelopment officials. Many of the officially relocated
were housed in substandard housing. The defect of Federal relocation policy was presumably that not enough low income families were "properly" relocated in public housing. However, it is questionable that the type of public housing that was built in cities with Urban Renewal -- particularly the type of inner city housing projects located on slum sites near Urban Renewal areas can qualify ultimately as "decent, safe and sanitary" housing for relocation.

Indeed, in cities that were most "responsible" about relocation, where all low income families in the relocation workload housed in standard housing within their means -- public housing-- the livability and viability of public housing may have been most seriously affected. All of the social and management problems inherent to high-rise family housing were compounded, even overshadowed, by the fact that families being housed there were so devoid of financial and personal resources that they were unable to find minimally adequate (albeit substandard) housing on their own. Involuntarily filed away in an alien, institutional environment, such families -- many of whom arrived with problems -- initiated a cycle of public housing deterioration that became evident within five years of the beginning of the Title III program.

Whether there was a workable and responsible way to carry out relocation is doubtful. It is generally accepted that large-scale redevelopment imposed so many social costs on displacees that it was irresponsible in its very conception. But
if the public housing that had been built to "free the slums for private redevelopment" had been in keeping with the customs, habits and housing ideals of the families it was to rehouse, relocation would have been a much more humane process. Furthermore it would probably have been a more effective process if public housing offered displaced families the prospect of living in a community rather than a warehouse.

Further research is needed to confirm or refute each of the hypotheses on the origin of high-rise projects presented above. Probably none of these factors alone can fully explain the proliferation of high-rise projects after 1949. Rather a convergence of influences produced the disaster in public housing design. Architects could not have brought it about without the unquestioning acceptance of their design proposals by local housing authorities. Housing officials at the time were less likely to impose design requirements or deliver a design program that supported the type of community processes outlined by Anthony Wallace in Housing and Social Structure. The original intention that public housing would be a permanent home for only the poor and a temporary home for the upwardly mobile had been hammered into ironclad rules. Hence, conditions behind the original community-building-as-reform no longer prevailed. Housers were not prepared to suggest a new basis of reform nor would that have been possible in the political environment of the 1950's. The intention of providing public housing for the "new poor" arose from a practical and immediate need to
house a large number of displaced families rather than from some tepid civic duty or humanitarianism.

Many policy analysts will find it difficult to accept the idea that a major change in the way a social program operates can be brought about by anything as elusive as a loss of commitment or the demise of the social goals upon which the program was founded. Indeed some high-rise projects -- perhaps as many as one-third -- may have resulted from hard political or economic necessity. But the facts show that in the majority of cases necessity cannot explain the trend. Nor can a belief by LHAs in the intrinsic superiority of high-rise housing explain the public housing design debacle of the 1950's. It remains for future researchers to fully detail how and why local housing authorities jettisoned the ideals that would have made high-rise projects unacceptable when they were unnecessary.
Appendix A
Project Data and Categorization

During the early stages of this research it became evident that it would not be possible to analyze policy without reference to project data and that it would be necessary to compare data on projects developed before and after 1949.

Data were sought on projects approved between 1937 and 1960 in major cities. A major city was one with a 1950 population over 250,000. New York City was excluded from the analysis for several reasons. New York's early reliance on high-rise projects was not typical of the rest of the country; in fact, as indicated in the text, New York projects were less the model for the rest of the country than those developed in the mid-West. Moreover costs were so extraordinarily high in New York and the number of public housing projects built was so great that it was felt inclusion of New York would distort the analysis.

A list of projects was compiled from HUD's Consolidated Development Directory (1970). Projects built by the Federal Public Works Administration during the Depression and Lanham War Housing projects were not included because they were not designed by LHAs, were not initially intended for low rent use or were not built under the same regulations as other public housing projects. Since the principal failure of high-rise projects has been in the area of family housing, projects
that were designed primarily or exclusively for the elderly were not included; no data were sought for any project in which more than 60 percent of the units were originally allocated for the elderly.

Project data were obtained from records in HUD's Central Office in Washington. Data on building type were taken from Form PHA 1885 (now HUD 51885) "Project Physical Characteristics." Cost and density information were provided by the Management Information Systems Branch of the Multifamily housing Characteristics Division. The cost data for pre-1949 projects, where available, represent actual development costs. The data on the Title III program represent the last approved development program rather than actual costs. Since there was often a three to five year (or longer) delay between approval of Development Program and start of construction it was felt that a policy analysis should rely on initially approved costs. In a very few cases only the actual development costs were available and they were used.

**Categorization of projects**

Buildings three stories or lower were categorized as low-rise, a commonly accepted definition. PHA regulations required an elevator in any building taller than 3 stories.

The categorization of high-rise was more problematic. It was finally decided that any building above 6 stories would be considered high-rise. Six stories was chosen as the dividing line between mid-rise and high-rise because in most American
cities before 1950 apartments did not exceed that height when apartment buildings existed in any significant number. An important aspect of high-rise public housing was that it tended to stand apart from local residential characteristics because of its scale. Moreover, when a building exceeds six stories, surveillance of the ground becomes difficult, a real problem of child-rearing.

Projects are characterized as all high-rise if all buildings exceeded 6 stories; mixed high-rise if the project included low-rise and/or mid-rise buildings; all mid-rise if all buildings were from 4 to 6 stories; mixed mid-rise if some buildings were low-rise and the remainder mid-rise, and all low-rise.
Appendix B

Administrative Cost Limits

One critical question about federal policy that could not be fully resolved during the research was whether or not PHA adopted administrative limitations on total development cost before 1956. The evidence is contradictory but on balance suggests that this did not happen. The first reference to an administratively set maximum appears in a 1958 Congressional hearing in which Commissioner Slusser stated that costs had been rising steadily since the war until "last year" PHA finally set a $17,000 limit. There are no references to PHA limits in NAH(R)O minutes or the Journal of Housing in the 1950-55 period.

On the other hand, two FHA officials interviewed, Abner Silverman, Assistant Commissioner for Field Operations, and Herman Hillman, Director of the New York Field Office, referred to earlier cost limits. It is difficult to assess these statements as they were recollections of events that occurred 20 to 25 years ago. Other statements made in these interviews confused the timing of events for which there is certain knowledge. Nevertheless, Silverman was quite definite that "in the early 50's" PHA set a $14,000 limit; he claimed that because the Pruitt-Igoe project came in higher than that, deplorable sacrifices on livability had to be made to bring it within the limits. However, examination of maximum total development costs actually approved in the 1951-1956 period shows that in no year was
the national maximum total development cost below $15,000 and the maxima in PHA regions where high-rise construction occurred frequently exceeded $15,000. It appears from the wording of a letter from Silverman that the administrative limitations applied to dwelling construction and equipment cost rather than total development cost. If that were the case it would suggest that high-rise projects more costly in terms of construction than low-rise ones would have to economize even more on dwelling space and amenities to fall within the Dwelling Construction and Equipment limits. Hence aside from the intrinsic livability disadvantages of high-rise housing, fewer amenities would have been provided than in low-rise projects.

Nonetheless, let us assume that FHA did in fact adopt national and/or regional limits on total development cost as early as 1951. (There are explicit statements by FHA Commissioner Egan in late 1950 that at that time no limits, regional or national, were contemplated.) If we continue on the assumption made in chapter VI that such limits could not have been lower than the actual maxima approved, how would our conclusions on the feasibility of low-rise alternative to projects built under the July 1950 regulation be changed?

In chapter VI it was found that fifteen projects would have been feasible if density were reduced to 50 units per acre and site costs, total development costs and site cost ratios were increased. If we now compare the adjusted total development cost after that reduction of density to the assumed national
and regional maxima for the year in which the project was approved we find the following:

--- Twelve projects (80 percent) could have been built as all low-rise within both the nation and regional maxima.

--- One project (6.7 percent) could not have been built as all low-rise within either the regional or national maxima assumed.

--- Two projects (13.4 percent) could have been built as all low-rise within the national maximum assumed but not within the regional maximum.

**TABLE 9**

Feasibility of Low-Rise Alternatives Under Administrative Limits on Total Development Dost

<table>
<thead>
<tr>
<th>City</th>
<th>Approval Date</th>
<th>TDC after adjustment of density</th>
<th>Maximum TDC not less than</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>National</td>
<td>Regional</td>
</tr>
<tr>
<td>Chicago</td>
<td>May 1951</td>
<td>$11,087</td>
<td>$15,436</td>
</tr>
<tr>
<td></td>
<td>January 1952</td>
<td>13,557</td>
<td>16,684</td>
</tr>
<tr>
<td></td>
<td>January 1952</td>
<td>17,028</td>
<td>16,684</td>
</tr>
<tr>
<td></td>
<td>January 1952</td>
<td>11,615</td>
<td>16,684</td>
</tr>
<tr>
<td></td>
<td>January 1952</td>
<td>13,400</td>
<td>16,684</td>
</tr>
<tr>
<td></td>
<td>January 1952</td>
<td>15,685</td>
<td>16,684</td>
</tr>
<tr>
<td></td>
<td>June 1955</td>
<td>15,347</td>
<td>16,987</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>November 1952</td>
<td>15,110</td>
<td>16,684</td>
</tr>
<tr>
<td></td>
<td>November 1952</td>
<td>13,556</td>
<td>16,684</td>
</tr>
<tr>
<td>Newark</td>
<td>October 1951</td>
<td>14,052</td>
<td>15,436</td>
</tr>
<tr>
<td>Jersey City</td>
<td>June 1951</td>
<td>12,375</td>
<td>15,436</td>
</tr>
<tr>
<td>Boston</td>
<td>January 1952</td>
<td>13,480</td>
<td>16,684</td>
</tr>
<tr>
<td>St. Louis</td>
<td>February 1951</td>
<td>12,720</td>
<td>15,436</td>
</tr>
<tr>
<td></td>
<td>June 1951</td>
<td>13,202</td>
<td>15,436</td>
</tr>
<tr>
<td></td>
<td>September 1951</td>
<td>13,134</td>
<td>15,436</td>
</tr>
</tbody>
</table>

(For project details see # projects in TABLE 4)
Thus even if PHA had limits on total development cost as early as 1951, such limits would not have forced many LHAs to build high-rise projects.
Notes

1Journal of Housing (14) 2/57, p. 133.
3For examples of the maintenance and vandalism problems of high-rise projects see Elizabeth Coit, Report on Family Living in High Apartment Buildings, 1965, U.S. Public Housing Administration, Washington, D.C.
4See, for example, Martin Pawley, Architecture versus Housing, 1971 Praeger, New York.
5Interview with Abner Silverman, January 1975; Interview with Herman Hillman, January 1975.
6This allowed local housing authorities to build larger units, more suited to the typically larger low income family. Ironically, when such units were part of high-rise buildings, the problems of many children in such an environment were underscored.
7During the period under consideration here each projects was considered self-sufficient, i.e. income and expenses of different projects were not pooled.
8Interview with Abner Silverman.
10In a review of the pre-1949 design practices of the New York City Housing Authority, the New York Chapter of the American Institute of Architects cited an example of a project located on a riverfront, providing an opportunity to build at negligible cost community rooms or a covered terrace over the river with a magnificent view. Fearing adverse public reaction, the Authority took only "timid advantage"of the fortuitous location of the project (American Institute of Architects, N.Y. Chapter, Committee on Housing, The Significance of the Work of the New York City Housing Authority, 1950, New York, pp. 98-99.)
12Journal of Housing (7) 1/50, p. 8; 3/50 p. 79.
14Journal of Housing (8) 6/51 p. 188; 7/51 p. 221; JOH (9) 5/52,
7/49 p. 214.

16 Journal of Housing (9) 7/52 p. 246; JOH (10) 5/53 p. 155;
JOH (12) 2/55, p. 51;
ASPO Newsletter, vol. 18, # 5, 5/52;

17 Housing Act of 1955. Hearings. Senate pp. 71ff.;

18 Memo from Pollin to Cole, 9/14/55 and Memo from Cole to Slusser 8/24/55, U.S. National Archives, Record Group 207, Box 16, File: Public Housing Administration (1).

19 Journal of Housing (10) p. 77.

20 Memo from H. O. Talle to Norman Mason 7/20/59, U.S. National Archives, Record Group 207, Box 776, File: Office of Program Policy: PHA.

21 Journal of Housing (10) 7/53 p. 221.

22 Interview with Abner Silverman, January 1975.

23 Housing Act of 1955. Hearings. Senate pp. 72, 76;


25 Journal of Housing (9) 2/52 pp. 48 ff.

26 For an interesting study of the general problems of relocation see Journal of Housing (8) 1/52, pp. 21 ff.

27 Journal of Housing (7) 4/50 p. 123.

28 Journal of Housing (14) 2/57 pp 49-53, The article attempts to establish a connection between public housing opposition and American values in the 1950's, following concepts developed by sociologist David Riesman.

29 Catherine Bauer, "The Dreary Deadlock in Public Housing and

30 Architectural Forum (96), 1/52 p. 102.
31 Architectural Forum (96) 1/52, p. 103.
34 Journal of Housing (7) 7/50 p. 238 emphasis added.
35 Journal of Housing (8) 9/51 p. 277.
36 Journal of Housing (7) 7/50, p. 238.

Whitney tallied the reactions to each of his points in a subsequent article, Journal of Housing (8) 9/51 p. 277.

38 Journal of Housing (7) 9/50 pp. 299-300.
40 Journal of Housing (6) 7/49 p. 213.
41 Journal of Housing (8) 8/51, p. 268; Architectural Forum (96) 1/52 p. 103; (93) 12/50 p. 101.


43 Journal of Housing (9) 7/52, p. 224; Architectural Forum (96) 1/52 p. 102.


45 Nathan Straus, The Seven Myths of Housing, 1944, Alfred Knopf, New York, pp. 56, 68.

46 Journal of Housing, (9) 7/52 p. 227.
47 Wallace, Housing and Social Structure, pp. 28-29.

48 Ibid., p. 29.
49 Ibid. p. 29.
50Ibid. p. 41.
51Ibid. pp. 41, 44.
52Journal of Housing, (9) 2/52 p. 46.
54Progressive Architecture (33) 5/52, p. 63; Architectural Forum (96) 1/52 p. 102; Wallace treated management as a distinct "control variable" that influenced social structure. He did not draw a direct connection between design and management requirements but it was implicit in his report of a field observations of a high-rise project.
56Pawley, Architecture versus Housing, p. 27.
58Journal of Housing (9) 2/52, p. 46.
59Architectural Forum (96) 1/52 p. 103.
60Journal of Housing (9) 2/52, pp. 46 ff.
61Architectural Forum (94) 4/51 p. 132. For Chicago examples as well as the enthusiasm with which opinion leader in the design profession greeted this housing see Architectural Forum (92) 1/50, pp. 84-85.
62This could and did become a vicious circle, with livability the victim: as a building got higher, additional elevators had to be included as a precaution against breakdown. To defray the cost more housing units per floor were added, increasing the number of families sharing each public hallway (Amer. Inst. of Architects, The Significance of the Work of the New York City Housing Authority, p. 36)
63Journal of Housing (9) 2/52 p. 47.
64Interview with Herman Hillman, January 1975.
65Catherine Bauer, "'Slum Clearance' or 'Housing'?" in The Nation (137) 12/27/33; Straus, The Seven Myths, p. 60
66Timothy McDonnel, The Wagner Housing Act: A Case Study in
the Legislative Process, 1957, Loyola Univ. Press, Chicago. It is interesting that the statute did not impose a limit on land acquisition costs as it did on construction costs. McDonnel concludes that while the anti-public housing lobby did not originate the construction cost limit they were delighted with it (pp. 321-22.) Similarly the real estate lobby was well served by an absence of a site acquisition cost limit; such a limit would have put slum properties which owners were anxious to unload out of reach of public housing authorities.

67 Straus, The Seven Myths.


72 U.S. Public Housing Administration, Low Rent Housing Manual, §207.1, Supp. 1, 8/18/50

73 PHA Circular "Purpose and Use of Bulletin LR-1 through LR-11" 2/12/56.


75 PHA Circular, 8/18/50; Journal of Housing (7) 9/50 p. 307.

76 PHA, Low Rent Housing: Planning...for Economy, p .

77 PHA Circular, 10/18/50; PHA Low Rent Housing Manual, §207.1, 10/18/50; Journal of Housing (7) 11/50, p.383; Memo from Egan to Foley 8/28/50, U.S. National Archives, Record Group 207, Box 4, File: Public Housing Administration (2).


79 PHA, Low Rent Housing Manual, §207.1, p.1, 10/18/50.
Of course this was often the ultimate reason for selecting such sites, but if the LHA could establish that it had tried and failed to secure vacant sites, the racial containment motive could not be ascribed to the LHA. No doubt PHA avoided a policy requiring or even favoring vacant sites for fear of approaching the powder keg of racial integration. FHA did have a policy of "racial equity": public housing had to be provided for the proportionate number of non-whites in the population. Catherine Bauer, Robert Weaver and others regarded the FHA policy on site selection as racist, for regardless of the motivation for slum sites, the effect was continuation of racial containment and segregation (Journal of Housing, (9) 7/52 pp.240-41.)

It is difficult to say whether in fact FHA was becoming more rigid in design review despite the less restrictive standards in this period FHA was supervision operations of LHAs much more heavy-handedly and unilaterally; dissatisfaction with those
policies may have overspilled to complaints about design review.


99 Journal of Housing (11) 1/54 pp.10-11.


101 PHA's response to the increased limits of the Housing Act of 1957 reflects its schizophrenic policy on economy. Although it had proposed no increased limits, in hearings on the bill PHA recommended that the limits actually be increased by $500 rather than the $250 per room as proposed in the bill (This was not done.) Yet in one of its economy circulars in 1958 it accused LAs of taking undue advantage of the new limits by including frills and amenities in recently submitted project proposals. (PHA Circular "Effecting More Economical Design" 2/6/58.)


104 PHA Circular, 6/29/50.

105 Memo from Egan to Foley, 2/19/51. U.S. National Archives, Record Group 207, Box 4, File: Public Housing Administration(2).

106 Memo from Lawrence Bloomberg to Geo. B. O'Bailey, 2/19/54,
Washington National Records Center, Record Group 196, Accession # 65A-297, Box 4, File: Development Division


111 Ibid. p. 154.

112 Ibid., p. 158.

113 Ibid., p. 544.


116 Interview with Abner Silverman. Silverman said "The cities were looking to Urban Renewal as a way of increasing the tax base. Public housing wouldn't do that. If I were a mayor I would have acted the same way."


118 Interviews with Abner Silverman and Lawrence Bloomberg.

119 Memo from Orville Olmsted to John Currie, Washington National Records Center, Record Group 196, Accession # 65A - 297, Box 9, File: CMP -- Comments...by Staff.


120 Housing Act of 1958. Hearings...Senate p. 703.

121 Nevertheless the Senate Committee Report on the Housing Act of 1958's provision of an incentive for including public housing in Urban Renewal projects stated that most members of Congress in 1944 believed that public housing would be built on Urban Redevelopment sites, where necessary. The reason the
committee gave for removing the double local subsidy for such public housing sites:

Urban Renewal sites are often the most appropriate location for rehousing of displaced families of low income. Such a use can keep the families in the neighborhood to which they are accustomed and which are convenient to their places of employment.

(Housing Act of 1958, Report... Senate Report # 1732, 85th Cong. p. 27.)


124 Journal of Housing (9) 2/52, p. 47.

125 FPHA, Public Housing Design, p. 79.

126 Journal of Housing (7) 8/50 p. 264.

127 Only three development programs were available at the time this research was carried out, one each in Newark, Jersey City and Boston, all submitted before June 1950. Thus the sample is too limited to draw definite conclusions about the pattern of Federal review.


129 FPHA, Planning... for Economy, p. 33.


131 Record of Telephone Conversations Marie Maguire to Slusser, Slusser to Amis, 5/12/56, Washinton National Records Center, Record Group 196, Acc. # 67A-1173, File: Diary of Telephone Conversations 1-6/56.


133 Housing Amendments of 1956. Hearings, Committee on Banking and Currency Senate, 84th Cong. 2d. Sess, p. 412

134 Detroit Housing Commission, Slum Clearance and Public Housing in Detroit, 1950 - 51, p. 12.

135 Architectural Forum (96) 1/52 p. 103.

136 Journal of Housing (7) 3/50; (8) 12/51, p. 431.
137 Architectural Forum (97) 8/52 p. 89. Architectural Forum it should be noted was published by Time, Inc., a publisher of no small influence.

138 It appears that it is in fact technically possible to provide private patios either on the ground or as balconies in a low-rise development with a 50 unit per acre density. The New York State Urban Development Corporation has designed and built prototype high-density, low-rise project in Brooklyn, N.Y. that meets these criteria. See. The Museum of Modern Art, Another Chance for Housing: Low Rise Alternatives, 1973, N.Y. It remains to be seen whether the Marcus Garvey project will be a livable environment. It is not clear that PHA site planning criteria in the 1950's would have permitted such a solution. Moreover, the apparent crowding of the ground would have been so unpalatable to an architect at that time that it is inconceivable that it would have been proposed or accepted— even by most of the low-rise advocates.

139 Journal of Housing (6) 9/49 p. 291; JOH (7) 2/50 p. 66.


141 In other research I have done on tenant selection in the original public housing program in New York City I found that the New York City Housing Authority initially made few efforts to distinguish between the "deserving" and the "unworthy" poor in selecting tenants. This was a sharp contrast to the original Federally-run FWA housing projects. Only in 1940 when Welfare recipient status began to be indicative of something about an applicant did NYCHA adopt a quota on welfare recipients (Mathew Thall "Tenant Selection in the Early Public Housing Program" unpublished paper, 1971.)

142 One of the ironies of federal policy was that vigorous removal of over-income families exacerbated the problem of already rapid turnover and the high-costs associated with it, thereby increasing the amount of federal subsidy. The only social research conducted by PHA in this period was inspired by its concern over the increasing costs of turnover. In the foreward to the study, however, HHFA Administrator Cole stated that despite these costs public housing should remain a way-station into private housing for the upwardly mobile (U.S. Public Housing Administration, Mobility and Motivations, 1958, Washington D.C., Foreward.)

143 Housing Amendments of 1955, Hearings... Senate, p. 74.

144 Chicago Housing Authority, Annual Report 1950, p. 35.


146 Figures on number of displacees, number eligible for public housing and number relocated in public housing from U.S. Housing
and Home Finance Agency, "Relocation from Urban Renewal Projects through December 31, 1957."

Bibliography


"'Slum Clearance' or 'Housing'?", *The Nation* (137), 12/27/33.


-------, Public Housing Design, 1946, Washington, D.C.


-------, Low Rent Housing Bulletin, LR-2, Site Planning, Part II, 1950, Washington, D.C.


-------, Mobility and Motivations, 1958, Washington, D.C.

Wallace, Anthony F.C., Housing and Social Structure, Philadelphia Housing Authority, 1951, Philadelphia.


Periodicals:


ASPO Newsletter, 1949-1953.


--------, Urban Renewal Project Characteristics 1954-60.

Annual Reports 1949 - 1960 (as available) of following housing Authorities: Atlanta, Boston, Cleveland, Chicago, Cincinnati, Detroit, Denver, Baltimore, Buffalo, Minneapolis, Philadelphia, Pittsburgh, New Orleans, St. Louis.
Unpublished materials:

HUD Library, Washington, D.C.:


PHAs Circulars, 1949 - 1960.

U.S. National Archives, Washington, D.C.

Record Group 207, Boxes: 2, 4, 16, 17, 18, 773, 776, 768, 769.

Washington National Records Center, Suitland, Md.

Record Group 196, Accession # 62A-580, Boxes: 9, 11.
Record Group 196, Accession # 64A-550, Boxes: 2, 3, 4.
Record Group 196, Accession # 65A-297, Box 3w: 3, 4, 9.
Record Group 196, Accession # 67A-1173, Box 1.
Record Group 196, Accession # 57A-609, Box 61
Record Group 196, Accession # 64A-390, Box 15.

Bayonne (N.J.) Federal Records Center