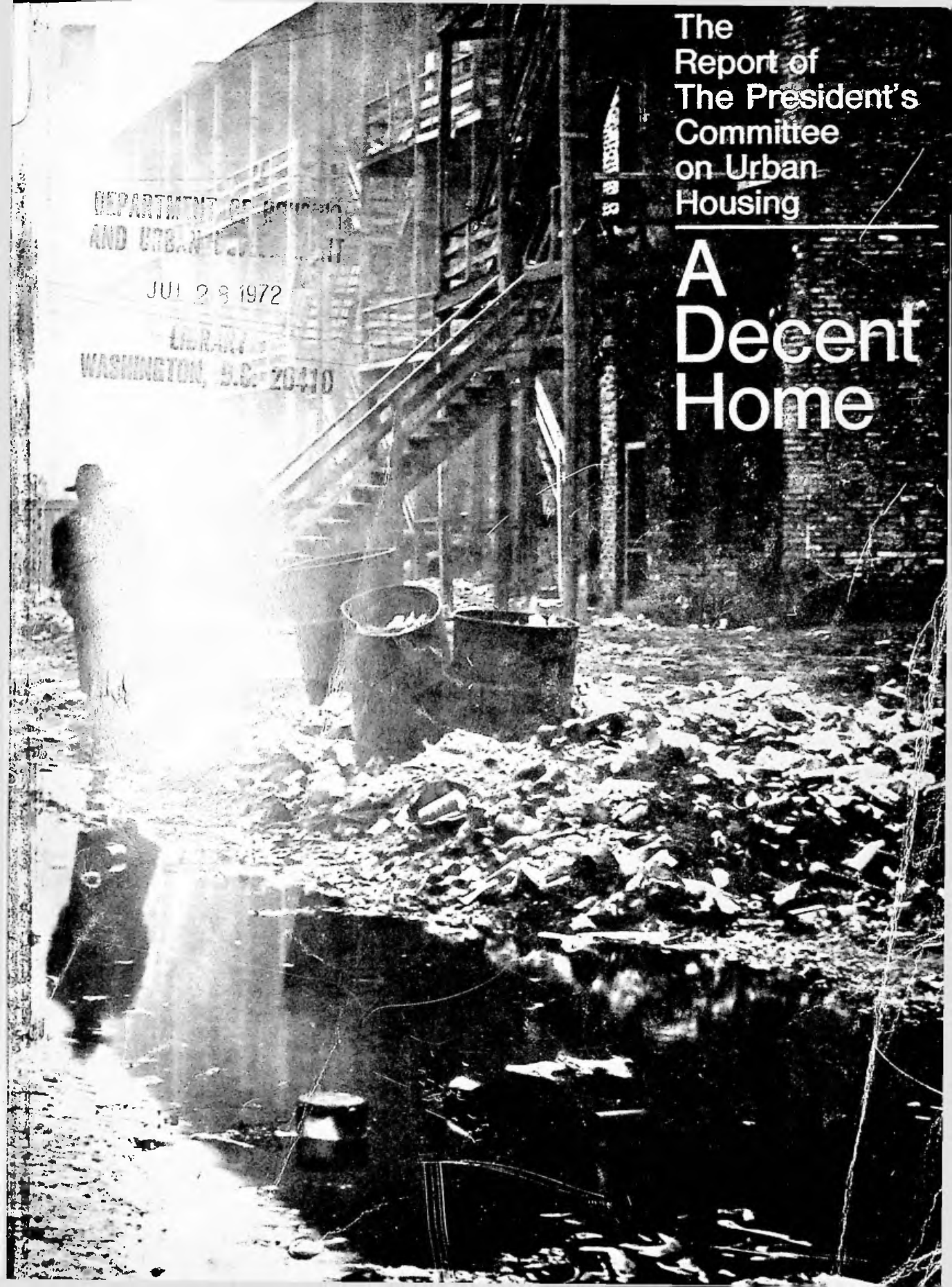

The Report of The President's Committee on Urban Housing

A Decent Home

THE PRESIDENT'S COMMITTEE ON URBAN HOUSING
1016 16TH STREET, N.W.
WASHINGTON, D. C. 20036

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December 11, 1968

The President
The White House
Washington, D.C.

Dear Mr. President:

The Committee on Urban Housing submits herewith its final report.

In a sense we have reported already, for in the months since you gave us this responsibility in June 1967, we have submitted a number of recommendations to the White House and to the appropriate departments. It was our privilege to participate in the development of your proposed omnibus housing bill this year. Whatever contribution we have been able to make to the Housing and Urban Development Act of 1968 and to the practice of governmental agencies should stand alongside this report as our response to the charge you gave us when you formed this committee.

In this report we include our analysis of the problems along with some further attempts to answer the difficult and important questions that you asked us to explore: How can private enterprise build housing for the urban poor? How can we the nation build and rebuild the city slum?

This report represents the consensus of the diverse group of citizens to whom you gave this responsibility. We include no minority report nor any specific statement of divergent views on the many controversial subjects that we discussed. Although there were differences of viewpoint on the Committee, we were able to arrive at remarkably broad areas of agreement as represented in this report. While the Committee as a whole has approved and endorsed this report, we must add that no single member necessarily agrees precisely with every specific statement or the exact wording of each recommendation. Together the recommendations herein represent our best judgment, after more than a year of meetings, consultations, and special studies. We have commissioned a number of technical studies to aid us in exploring this subject, and these are included in a separate volume.

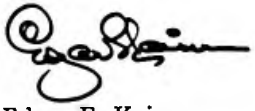
We have discovered that there is no simple answer to these questions. It has been necessary for us to examine the entire complicated process of building American housing in order to find the many particular ways in which costs can be reduced, production increased, and decent housing built for citizens with low incomes. We

have learned that no single new development in technology or in social and economic organization will solve at a stroke this pressing problem. We have learned, also, that although the responsibility of the Federal government is great, Federal action alone cannot build the needed housing. Instead, there must be creative new action by many institutions and agencies, by government at the state and local level as well as in Washington, and especially by private enterprise. We have proposed many specific improvements in Federal housing programs which are intended to encourage greater business participation in the field of low income housing. We have also proposed a specific new instrument—the National Housing Partnership—to provide another route for business entry into the production of housing. We are pleased that this Partnership has now become a reality.

We have been helped greatly throughout our work by Robert C. Weaver, Secretary of Housing and Urban Development, and by many members of his Department and other parts of your Administration. We are grateful for this assistance.

We respectfully now submit our report in the hopes that it may be of assistance to you, to other officials of government, to the American business community, and to the nation in meeting a problem which you identified as "the nation's most urgent domestic task."

Respectfully submitted,



Edgar F. Kaiser

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Introduction and Summary

At the Committee's first meeting on June 2, 1967, the President summarized our charge in these words:

"This Committee's assignment, in short, is to find a way to harness the productive power of America—which has proved it can master space and create unmatched abundance in the market place—to the most pressing unfulfilled need of our society. That need is to provide the basic necessities of a decent home and healthy surroundings for every American family now imprisoned in the squalor of the slums."

In the past 16 months, we have examined all existing Federal housing subsidy programs and every aspect of housing production which we considered relevant to our work. As mentioned in our Chairman's covering letter to the President, we previously submitted a number of recommendations to the White House and to appropriate Departments in the Executive branch. Those earlier recommendations, together with our later suggestions for shaping the Housing and Urban Development Act of 1968 and the contents of this final report, were aimed at two basic goals:

- Rapidly accelerating and increasing the production and rehabilitation of decent housing for the poor.
- Attracting the fullest private participation in developing, sponsoring and managing Federally subsidized housing.

This group of 18 individuals, representing different viewpoints and perspectives, reached early concurrence as a Committee on these principal points underlying our work:

- The need is urgent for speeding up and expanding the Federal programs for housing the urban poor.
- Private enterprise can best provide the muscle, the talent and the major effort—when there are opportunities to earn reasonable profits and to function at maximum efficiency.
- Federal housing assistance is essential for millions of families unable to afford the market price of standard housing.
- Eradication of urban blight, in itself, will not eliminate city slums.

Blocks of overcrowded houses and dilapidated tenements are only the readily seen manifestations of an amalgam of slum-producing problems. Many of them reach deep into the nation's social, political and economic structures.

Within society generally, there remain problems of discrimination—problems of social injustices which cannot be corrected by the

necessary legislative action alone, but which require enforcement of civil rights laws and—equally important—constructive and affirmative actions by society itself.

Within urban slums, there are the knotty sociological relations between rundown housing, human behavior, environmental conditions of total neighborhoods, and the disadvantaged life of the poor. Among slum dwellers are the collected and compounded needs for remedial health care and education, skills training for the unemployable, and the interjection of new hope to raise individual motivations for seeking self betterment.

At governmental levels, there are the problems of worsening financial straits for many of the nation's cities and of competing demands and priorities on local and Federal public expenditures.

Better housing alone will not uplift the poor. The Committee emphasizes that stepped up efforts in urban housing must be supported by concentrated and accelerated public and private actions for equipping and enabling the poor to help themselves enter the mainstream of American life.

Furthermore, the most successful programs for bettering housing conditions and economic opportunities cannot, in themselves, produce better environments. Good neighbors are vital for preserving good neighborhoods. Good neighbors are property protective citizens to the fullest extent of their individual capabilities. Antisocial behavior, whether within or outside the slums, impedes and prolongs the effort to rebuild America's cities.

As the President said in his message on "The Crisis of the Cities":

"The challenge of changing the face of the city and the men who live there summons us all, the President and the Congress, Governors and Mayors. The challenge reaches as well into every corporate board room, university, and union headquarters in America. It extends to church and community groups, and to the family itself."

It was not this Committee's assignment to seek solutions to all the interwoven problems of what the President called "the squalor of the slums." In view of our specific charge and the work of other National and Presidential commissions, we believed it appropriate for us to consider such problems only insofar as they bear on the provision of housing and specifically, housing for low- and moderate-income families.

Concentrating entirely on housing problems as such, we found no new, simple, and yet practical approach to the challenges of providing decent dwelling places for all the nation's families. The process that delivers housing to the self-supporting consumer and the economic conditions that separate poor families from the market cost of decent housing are more complex than many of us anticipated when embarking on our assignment. Our numerous recommendations in the areas of Federal housing subsidy programs, finance, land, construction manpower, and research and technology in housing are all aimed at reducing these complexities with respect to attainment of the nation's 10-year housing goal, and at attracting maximum private participation in development of housing for low- and moderate-income families.

In some areas of concentration, we found reliable information and data difficult to obtain or conspicuously lacking. As aids in our deliberations, we sought and received opinions and reactions from knowledgeable public and private participants in the housing field. We also commissioned consultants to restudy or probe afresh all major factors in the housing production and delivery processes for both the non-subsidized and subsidized markets: financing and mortgage credit, land availability, efficiency in American housing construction, patterns and practices in the utilization of the homebuilding work force, manpower requirements in the construction trades, and the comparative effectiveness and gaps in Federal housing assistance programs. Other studies, performed for and made available to this Committee, compiled and forecast demographic profiles of the nation's households, so as to project the size of America's challenge in adequately housing the total population and allocating the necessary public and private resources. All studies undertaken for this Committee are published under separate cover in the volumes of Technical Studies.

Based on these consultants' studies and their own independent analyses of factors pertinent to this Committee's assignment, the professional staff produced a series of working papers which in their own judgment reflected the Committee's general thinking and its scope and purpose. This staff effort was indispensable to us in grasping the dimension and nature of U.S. housing problems and in formulating our proposed solutions. The staff's supportive work often probed deeper into some aspects of the housing field than is reflected in the Committee's recommendations. The staff papers are presented in this volume as an appendix to the Committee's report.

In the literature on public housing policies, private housing production, and American housing needs, this Committee viewed our staff's contribu-

tion in the Appendix of this report as a previously unavailable and badly needed reference source. We commend the staff's published work as a guide to any concerned reader seeking fuller understanding of the workings of Federal housing programs: the processes by which dwellings are made available to American consumers, and the sociological, economic and institutional problems that impede these programs and processes from functioning at peak capabilities.

We are indebted to Secretary Weaver and the Department of Housing and Urban Development, and to many consultants and advisors who gave voluntarily and generously of their time and their knowledge. Only with their support could we respond to the President's charge, confident that in our judgment, no practical and identifiable potential solution to the problems posed to this Committee had gone unconsidered during our deliberations.

Major Conclusions

In this report, the Committee has recommended a 10-year goal of 26 million more new and rehabilitated housing units, including at least six million for lower-income families. Attainment of this goal should eliminate the blight of substandard housing from the face of the nation's cities and should provide every American family with an affordable, decent home.

We concluded that new and foreseeable technological breakthroughs in housing production will not by themselves bring decent shelter within economic reach of the millions of house-poor families in the predictable future. To bridge the gap between the marketplace costs for standard housing and the price that lower-income families can afford to pay, appropriations of Federal subsidies are essential and must be substantially increased.

The Housing and Urban Development Act of 1968 sets a goal of 26 million dwellings including six million subsidized units to be built or rehabilitated in the next decade. The Department of Housing and Urban Development has formulated a timetable for attaining the goal of six million subsidized units, which the Committee believes is feasible.

The Committee found that attempts to estimate the total national costs for six million subsidized dwellings and the necessary infrastructures were frustrated by an overwhelming mixture of unpredictable variables. Such estimates were made meaningless by inability to forecast the companion needs for schools, streets, community facilities, public works projects, and governmental and voluntary social services, together with unpredictable interest rates, costs for land and construction, and levels of productivity.

The Committee was able, however, to examine HUD's projections of the Federal subsidy costs for building six million more subsidized dwellings in 10 years, and to compare these projections with our own. Additionally, we assessed the economy's capacity to allocate the necessary resources and were convinced that this goal is attainable in a balanced economy without causing untoward strains. Furthermore, we strongly believe that the goal is necessary and justified for these reasons:

- Decent housing is essential in helping lower-income families help themselves achieve self fulfillment in a free and democratic society.
- Public expenditures for decent housing for the nation's poor, like public expenditures for education and job training, are not so much expenditures as they are essential investments in the future of American society.

The housing needs of the poor, however, cannot be separated from the housing needs for our growing population as a whole. Along with the housing problems of millions of lower-income families, the nation faces a shortage of total housing in the decade ahead. Solutions to the two problems are interdependent and inseparable, both economically and politically.

We believe the American economy can attain the total goal of 26 million additional housing units by 1978. The nation possesses the total resources for its attainment, depending on a determined national commitment to maintain the proper mix of many economic factors. Among the most important factors, in addition to Congressional appropriations of the necessary long-term level of housing subsidies, are responsible fiscal and monetary policies. Without the proper mixture of these two key forces, the realization of a goal of 26 million housing units is doubtful. We recognize that a program of this magnitude could involve difficult choices among alternative applications of resources. In the absence of ideal economic conditions, it could and probably would become necessary to divert resources—labor, material and money—from other activities held at a high priority by many people. Ample mortgage money alone will not create more housing. It is an essential ingredient, but sufficient supplies of manpower, materials and management talent are also keys to the realization of the goal.

A re-making of national priorities, with housing priority upgraded, could become necessary. If any new or major claims were made on our national resources, such re-ranking of priorities would be unavoidable.

The Committee examined the complex subject of mortgage financing. In order to build and rehabilitate millions of dwellings with Federal subsidies and guarantees for low- to middle-income occupants, it is imperative that there be an adequate flow of mortgage funds into this segment of the housing market and that such loans be attractive to a broad group of potential investors. With advice from consultants, staff, and a panel of knowledgeable mortgage specialists, we formulated recommendations aimed at making mortgages on low-income housing more competitive with the conventional components of the housing market.

Among our recommendations are:

- All Federally subsidized and Federally insured or guaranteed housing, except public housing, should be financed by bonds insured and guaranteed by the U.S. Government.
- State usury and foreclosure laws applicable to Federally insured or guaranteed mortgages should be preempted by the Federal Government.
- Permanent statutory ceilings on maximum interest rates for FHA and VA mortgages should be removed.

The new Housing Act of 1968 offers the Federal subsidy tools necessary for housing the nation's lower-income families. Private enterprise has demonstrated it can build subsidized housing with speed, efficiency and economies. It must participate fully, along with non-profit sponsors and eligible public agencies, in the development of such housing.

The Committee has reviewed all existing Federal housing programs and has recommended ways to attract more private participation. Among these recommendations are steps to make subsidized housing potentially profitable enough to attract new private participation, including the newly created National Housing Partnership, and others aimed at permitting private developers to respond more freely and efficiently to the needs of the subsidized housing market.

Availability of suitable land for subsidized housing already is a major problem. We have offered a series of recommendations for overcoming some major impediments to land availability. To overcome local impediments to development of subsidized housing, the Federal Government, subject to the Governor's veto, should be empowered to preempt local zoning ordinances which exclude the development of subsidized housing. Additionally, the Federal Government should make Federal land available at realistic costs, and should be empowered to acquire land for lease back to developers of such housing.

Assuming a continuation of current trends, the total building program recommended by this Committee would call for at least a million more man-years in the construction and home-building industry by 1975. Already, current local shortages of skilled craftsmen have reached severe levels. The Committee has made recommendations aimed at making job opportunities in construction and home-building more attractive and recruiting and training new entrants into the building trades, particularly unemployed minorities who offer a vast but only partially tapped pool of potential recruits.

Building materials generally account for a larger percentage of housing costs than wages for construction workers. The recommended goal of 26 million more dwellings should not be defeated by a critical shortage of building materials, although there may be some temporary strains and upward pressures on building materials' prices.

The Committee is aware that shortages and higher prices of building materials could be minimized by substitutions among materials and by more off-site fabrication. Such steps, which could also produce cost savings, could encounter barriers in restrictive local building codes, labor practices, and work rules. Conditions of widely fluctuating and highly seasonal employment are characteristic of the homebuilding and construction industries. Improved conditions bringing better job security and more full-time, year-round employment should lessen labor's fears which may form the basis for those restrictive work practices which actually do exist.

The Committee has made a number of recommendations aimed at leveling out the seasonal characteristics of employment in homebuilding and construction. We did not conduct any thorough examination of local building codes, inasmuch as the National Commission on Urban Problems was exploring that issue in depth.

New levels of effort in research and development in the housing industry are essential to achieve attainable cost reductions during the next 10 years. Partly because of its localized and fractionated characteristics, homebuilding has never had the systematic research and concentrated efforts to develop new technologies which characterize most other modern American industries.

We recommend a program for substantially increased Government support to research in the housing field. Our two major recommendations in the area of research and implementation of new technology call for limited Federal preemption of local building codes for subsidized housing, and creation of a national testing institute for building products and systems.

To help put an end to discrimination in the housing market, we recommend strong enforcement of Federal and local open occupancy laws, and effective means for eliminating subtle or unintentional Federal and local impediments to construction of subsidized housing wherever economically feasible.

Two additional challenges within the scope of the recommended housing goals during the next 10 years will be devising ways to replace or rehabilitate nearly nine million dwellings expected to deteriorate into substandard condition and to make better use of existing standard housing for sheltering the nation's lower-income families.

Determining the feasibility of a large scale rehabilitation industry was one of our specific assignments from the President. The Committee reached two major conclusions regarding rehabilitation.

First, we foresee the necessity for a large volume of rehabilitation, contingent on (1) sufficient Federal subsidies to make rehabilitated housing available to the poor, and (2) the support of public policies aimed at encouraging the upgrading of rundown urban neighborhoods. The Committee has made a number of recommendations for facilitating and encouraging rehabilitation of substandard housing for lower-income families.

Secondly, we do not foresee any substantial change in the individualized and necessarily labor intensive characteristics of the rehabilitation industry, itself. In our judgment, rehabilitation, although a useful tool, will not lend itself to the massive economies of scale or to the level of industrialization visualized by some observers.

At any current point in time, about 97 to 98 percent of the nation's housing consists of "used" dwellings. In examining the allowable uses of Federal housing subsidies, the Committee found that very few are applicable to existing dwellings unless a substantial amount of rehabilitation is involved. The Committee concluded that subsidies must make greater and more efficient use of existing housing stock and has made a number of recommendations for modifications and additions to Federal housing subsidy programs to accomplish that objective.

Final Conclusion

The solution to the nation's urban housing problems in providing a decent home for every American family calls for major efforts by the Federal Government, private enterprise, organized labor and state and local governments in creative and affirmative partnerships.

The Committee believes that our nation possesses not only the financial and total resources but also the determination and ingenuity to respond to its housing challenges once the problems are fully understood and the national commitment is clearly made.

The alternative approach to solving the nation's housing problems is clear but, in this Committee's judgment, it is also clearly drastic and as yet unnecessary. Unquestionably, a direct Federal program of land acquisition, public construction, and public ownership and management of subsidized housing would produce the millions of dwellings needed by low-income families within any determined timespan. Such a program, however, would necessitate massive Federal preemption of local private and public perogatives and decision-making powers.

We believe that the existing approach—reliance on existing subsidy programs and fuller private participation in the development and management of subsidized housing—is sufficient to meet the challenges. If it fails, we would then foresee the necessity for massive Federal intervention with the Federal Government becoming the nation's houser of last resort.

Committee Report: The Shape of the Nation's Housing Problems

Nineteen years ago the 81st Congress passed the National Housing Act of 1949, calling for "the realization as soon as feasible of the goal of a decent home and a suitable living environment for every American family." In August of this year, the 90th Congress in its Housing and Urban Development Act of 1968 reaffirmed this historic national housing goal but found it "has not been fully realized for many of the nation's lower income families".

A study of this Committee[1] estimated the current number of "lower-income families" for whom a "decent home" is still unaffordable (the "noneffective demand" in the U.S. housing market):

- About 7.8 million American families—one in every eight—cannot now afford to pay the market price for standard housing that would cost no more than 20 percent of their total incomes. (The average ratio of housing costs to gross income for the total population is 15 percent.)
- About half of these 7.8 million families are surviving on less than $3,000 a year—the Federal poverty level.

The study projected the size of this gap 10 years from now, assuming no marked changes in current economic trends, national policies and priorities among Federal programs. The projection showed that the prevalence of poverty can be expected to decline only slightly:

- In 1978, about 7.5 million families—1 in every 10—would still be unable to afford standard housing.

Urban and Rural Housing Problems

These estimated and projected housing needs among "lower-income families" encompass the entire nation, urban and rural. According to TEMPO's study:

- About 56 percent (4.37 million) of today's 7.8 million house-poor families live in urban areas with 50,000 or more population (Standard Metropolitan Statistical Areas).
- By 1978, in comparison, about 60 percent (4.5 million) of all families expected to require housing assistance will be urban dwellers. The numbers of urban poor will remain almost constant while the numbers of rural poor will decline.

Although the charge to this Committee was to concentrate on urban housing problems, it is not

[1] "United States Housing Needs; 1968–1978" by TEMPO, General Electric's Center for Advanced Studies.

this report's intention to minimize those problems in rural America. Both are tightly interrelated. Sharecroppers' shacks and Appalachia's shanties are shaping environments for many poor migrants to the cities.

Characteristics of House-Poor Families

Taking the 1960 U.S. Census and other available data as sources, TEMPO's study group projected the demographic characteristics of 1978's families lacking sufficient income to afford standard housing:

- About 70 percent will be white.
- About one in four nonwhite families will need housing assistance, compared to 1 in 12 white families.
- About half the nonwhite families will be living in the nation's central cities.
- According to 1960 census statistics, nonwhites—regardless of income—must earn one-third more than whites in order to afford standard housing (based on allocation of 20 percent of earnings for mortgage payments or rent).

After projecting the characteristics of age and family size, TEMPO estimated these conclusions:

- Among the urban white families too poor to afford decent housing in 1978, about half will be elderly (head of the household 65-years-old or more).
- Among nonwhite urban families needing housing assistance, only 27 percent will be elderly.
- Among needy urban white families, about 70 percent will be small households of one or two persons.
- Among nonwhite families, only 43 percent will consist of one or two persons.

Housing Conditions in the United States

What happens to the millions of families too poor to afford decent housing? Part of the answer is apparent in Harlem, Cleveland's Hough District, Chicago's Lawndale, other central cities' slums and the shanties of rural poverty areas.

TEMPO's estimates of the characteristics and conditions of the nation's total housing inventory suggest a fuller picture. There are about 66 million housing units and 60 million households.

Although there appear to be more than enough rooftops:

- An estimated 6.7 million occupied units are substandard dwellings—4 million lacking indoor plumbing and 2.7 million in dilapidated condition.
- 6.1 million units (both standard and substandard) are overcrowded with more than one person per room.
- Among the six million vacant units, only about two million are in standard condition and available for occupancy—the nation's lowest available vacancy rate since 1958.

These estimates suggest a growing shortage of decent housing, not only for lower-income families but for the entire population, TEMPO's projections bear out this assumption. In order to provide enough standard housing for the entire population by 1978, TEMPO estimates the American economy will need to:

- Build 13.4 million units for new, young families forming during the decade ahead.
- Replace or rehabilitate 8.7 million units that will deteriorate into substandard conditions.
- Replace three million standard units that will be either accidentally destroyed or purposefully demolished for non-residential land reuses.
- Build 1.6 million units to allow for enough vacancies for our increasingly mobile population.

Based on these and other available projections of the nation's housing needs, this Committee reached a fundamental conclusion: there are two distinct and definable but inseparably interdependent housing problems:

- There is an immediate and critical social need for millions of decent dwellings to shelter the nation's lower-income families.
- Overlying this need is one raising an unprecedented and challenging production problem. The nation is heading toward a serious shortage of housing for the total population, unless production is sharply increased.

These two problems—housing needs of the poor and total national housing needs—are parts of the same equation. They must be tackled together. So long as there is a severe shortage of housing among all income levels, the goal of meeting the housing needs of the poor will not only be more difficult but in this Committee's judgment, it is also unlikely that it will be politically, socially and economically attainable.

We recommended that the nation commit itself to a goal of producing at least 26 million new and rehabilitated housing units by 1978, including six to eight million Federally subsidized dwellings for families in need of housing assistance.

The remainder of this report addresses itself to attainment of this 10-year total goal. The goal is nearly a 40 percent increase in the current housing stock, better than 10 percent more than the total housing production for the 20 years from 1940 to 1960, and 70 percent more than the total produc-

tion for the decade of the 1950's. It will require an average of 2.6 million units annually, compared to the nation's current rate of 1.5 million new housing starts per year.

As a principal requisite for attaining the above goal, we recommend that the Congress over the next decade appropriate the public funds necessary for at least six million Federally subsidized housing units.

The new Housing and Urban Development Act of 1968 set a national goal of six million more subsidized units over the next 10 years. During the entire 30-year history of Federal housing subsidies, only 800,000 subsidized units have been built. Recent annual production rates were only around 50,000.

Costs for Adequately Housing the Nation's Lower-Income Families

In the past fiscal year, it cost the Federal Government $303.7 million to subsidize the 800,000 existing housing units for low- to moderate-income families. The Department of Housing and Urban Development estimates that its annual budget for housing subsidy costs must increase to a peak of $2.8 billion in order to add six million units to the existing stock of subsidized housing. This peak level of annual expenditure would occur in 1978, after which the level of appropriations would start declining steadily for more than 30 years beyond 1978, until total development costs for all of these six million additional units were fully amortized.

In analyzing the peak budgetary impact of six million more subsidized dwellings, the Committee took an arbitrarily conservative viewpoint and added a 20 percent contingency factor to HUD's own estimates. By our estimates, the annual cash subsidy requirements for six millions units in 1978, the year of peak costs when all units would be completed or near ready for occupancy, would be $3.4 billion. For eight million units in that same peak year, the required appropriations would approach $4.5 billion.

Comparing this multi-billion dollar demand with other recent Federal expenditures may help place the budgetary impact in perspective. From fiscal 1962 through 1967, $356.3 billion was spent for national defense, $33.2 billion for stabilizing farm prices and income, $24.2 billion for space exploration, and $22.2 billion for Federal highway construction. In contrast, $8.1 billion was budgeted for *all* programs under Housing and Urban Renewal, and only $1.25 billion for Federal housing subsidies.

In such a comparison, the Committee must point out that any commitment for housing subsidies generally requires a continuing annual appropriation (for up to 40 years in the case of projects financed under interest rate subsidy programs). By contrast, expenditures for national defense, space programs, highways and agriculture are subject to annual Congressional reaffirmation and appropriation.

The national price for neglecting the housing needs of the poor is equally impossible to estimate accurately. Slums impose economic costs and sociological drains that sap national welfare and unity. Social injustices and inequities carry their moral costs which may far exceed the material costs of subsidy programs.

Considering all the factors, the Committee believes our nation can and must afford the price for building at least the six million subsidized housing units called for by the President and established by the 1968 Housing Act as a national goal.

We further believe, as discussed later, that the U.S. economy possesses the resources for accomplishing the total 26 million unit goal. A national commitment to its attainment is required. Other requisites include responsible fiscal and monetary policies to keep the total economy balanced on a steady growth course between inflation and recession.

The U.S. Housing Market and Public Policies

Americans spend about $50 billion a year to buy, rent, and maintain our dwellings, and about another $50 billion on utilities, furniture, and other housing expenses. Residential land and structures represent about a third of our total national wealth. More than a quarter of new annual capital investment goes into all the elements that constitute the broadly defined housing industry.

Yet more than 12 percent of American families cannot afford decent housing and at least 10 percent of the nation's existing shelters are in substandard condition. This gap may imply some gross inefficiency in the American housing market. To the contrary, the Committee has found that such is not the case.

When consumers create an effective demand, the U.S. homebuilding industry and housing market have proven their capabilities for producing a quality product and delivering it at reasonable prices. The staff's comparative analyses of U.S. and foreign housing shows that the prevailing standards of American housing generally equal or surpass housing standards in other nations. Moreover, U.S. consumer price indexes point up that housing and

all other items, excepting sharply rising medical care costs, rose roughly in line from 1950 to 1960, after which time all other consumer prices began climbing at a faster rate than housing costs.

Contrary to widespread belief, homebuilding is not a technically stagnant industry, resistant to new ideas. Studies for this Committee by consultants and staff concur in characterizing homebuilding and construction not as a highly organized national industry, but as a fractionated and highly localized one, subject to constraints and vagaries of local markets, widely varying local building codes and zoning ordinances and local labor practices.

The largest single on-site homebuilder produces less than 1 percent of the nation's annual new housing starts. The 50 largest producers of all types of housing (single and multi-family, site erected or factory built including mobile homes) together account for less than 15% of the nation's annual housing production.

A chart prepared by the staff dissects the housing delivery process into four distinct phases: preparation, production, distribution and service. Each phase requires inputs from 6 to 14 different sources, from architects to zoning officials, and each operates within the constraints set up by 5 to 11 separate and different sources for impediments and restrictions. In total, there are 23 major public and private direct participants in the housing production process (some involved in more than one phase) and 17 major public and private sources for laws, rules and practices that restrict and influence the process practically every step of the way.

The Committee concluded that within these sets of existing characteristics and constraints, housing producers operate with greater efficiency and response to innovations than commonly thought. The builder, however, can directly influence only a relatively small portion of housing costs.

The following tables taken from a consultant's report (McGraw-Hill Information Systems' Technical Report) show the cost components in building and occupying housing, and demonstrate that the real costs for housing are spread among more ingredients than the cost for constructing the dwelling itself.

Rough Breakdown of Initial Development and Construction Costs

	Conventional single-family unit (percent)	Elevator apartment unit (percent)
Developed land	25	13
Materials	36	38
On-site labor	19	22
Overhead and profit	14	15
Miscellaneous	6	*12
	100	100

*The cost of hiring an architect is one principal reason for this higher figure.

Rough Breakdown of Monthly Occupancy Cost of Three Kinds of Housing

	Conventional single-family home (percent)	Mobile home (percent)	Elevator unit (percent)
Debt retirement (mortgage payment)	53	55	42
Site rent	.....	28	.....
Taxes	26	4	14
Utilities	16	11	9
Maintenance and repair	5	2	6
Admin. and similar costs	.....	.....	13
Vacancies, bad debts, and profit	.....	.....	16
Total	100	100	100

Later in this report, recommendations are made calling for broad reaching, new levels of public investment and private activities in research and development efforts aimed at reducing the costs all along the way in the complicated process that delivers housing to American consumers. The National Commission on Urban Problems is studying the complex impacts of building and housing codes, zoning regulations and state and local taxes on housing costs. This Committee, therefore, did not explore these areas in depth but we do note their critical effect on the costs for housing construction, rehabilitation and occupancy.

After analyzing the work of our consultants and staff, the Committee reached these major conclusions regarding the cost of housing:

- Even with implementation of effective policies to squeeze out every practically attainable cost reduction, we can realistically expect a reduction in monthly housing costs of only about 10 percent in the foreseeable years ahead.
- Although a 10 percent reduction in consumer's housing costs would save billions of dollars in resources annually, it would *not* be enough to bring new standard housing within economic reach of lower-income families.
- Private enterprise, alone, cannot solve the nation's problems of housing the poor.
- Federal housing assistance remains essential for lower-income families.

Public Policies in Housing

Among the world community of nations, the United States has been a latecomer in providing adequate levels of housing subsidies for its disadvantaged poor. The first Federal housing assistance program (Public Housing) was enacted in 1938. Since that time, some 35 different Federal housing programs have been developed to serve these three broad income groups:

- Families below the Federal poverty line (low-income)
- Families above the poverty line but who would otherwise have to pay more than 20 to 25 percent of their gross incomes for standard housing (moderate-income)
- Families able to pay the economic costs for standard housing under a Federal mortgage insurance or guaranty program, such as FHA or VA (middle-income).

Families in the first two groupings comprise those whose total housing needs could be met by national implementation of our recommended goal of six to eight million subsidized dwellings by 1978. Families in the third grouping are among the self-supporting housing occupants whose total projected housing needs call for 18 to 20 million new and rehabilitated units during the same timespan.

A staff paper on "Federal Housing Programs" discusses in detail the evolution of Federal housing programs and their relative successes and shortcomings.

Among the inadequacies of these programs in this Committee's opinion are:

- A slippage in program direction and Congressional funding, up and away from serving families in the most dire need of assistance.
- A woefully inadequate scale of all Government housing subsidy programs.
- Statutory restrictions and administrative practices which have raised unnecessary red tape barriers to private developers and sponsors and have limited their latitude for innovation and decision-making in project design, location and economic mix of tenants.

Underlying the structures of all Federal housing assistance programs are four basic questions of public policy:

- How much housing subsidy should a family receive?
- What percentage of their earnings should lower-income families be required to spend for standard housing?
- What should be the standards in design and amenities for Federally assisted housing?
- Where should subsidized housing be located?

On the question of housing subsidies (a detailed analysis of existing subsidy limitations in all programs is contained in the staff paper on "Federal Housing Programs") the Committee concluded:

- Existing programs offer too little help to the neediest families, particularly families earning less than $2,500 a year who too frequently are beyond reach of Public Housing or Rent Supplement assistance (the deepest-reaching subsidy programs).
- In attempts to give priority to lowest-income families, the Congress has often unintentionally undermined these programs' workability. The tendency has been to set family income eligibility limits at unrealistically low levels in relation to inadequate subsidies. The result is that required rentals are often beyond economic reach of the poorest families.

The Committee recommends that subsidy limitations generally be expanded so that programs are capable of serving the poorest families in need of housing assistance.

On the second question regarding allocation of income for housing, all existing Federal programs generally apply income eligibility formulas based on arbitrarily flat percentages of family income. All programs generally require a family to spend either 20 or 25 percent of their income for monthly housing costs. Some permit deductions for children.

White families earning $4,000 to $5,000 a year are spending an average of 20 percent of their income for housing, according to TEMPO's study. This figure of 20 percent was the determinant that TEMPO employed in projecting there will be 7.8 million families unable to afford standard housing by 1978. In many European countries, the percentage of income paid for rent by families in subsidized housing is considerably less than here in the United States.

Housing costs vary from city to city or region to region. Living expenses differ by family size, age and general health of its members. The Committee concluded that no flat percentage of lower-income families' income to be allocated for housing costs can possibly be equitable.

In order to develop better and more equitable formulas for Federal housing subsidies:

- *The Committee recommends that the Department of Health, Education and Welfare and the Department of Housing and Urban Development should undertake a joint study on patterns of family expenses, to determine the percentage of income the poor should be expected to allocate for housing. The study should determine how housing expenses are affected by such variables as age and size of families and the household's location in metropolitan or rural areas.*

On the subject of quality and location of subsidized housing, the Committee shares Secretary Weaver's publicly expressed concern that such housing should not be "storage bins for the poor."

Certainly all housing built with Federal subsidies should conform to minimum health and safety standards, should be positive additions to the immediate environments and should avoid the dangers of early economic obsolescence and tenant stigmatization. As the staff study on "Federal Housing Programs" indicates, limitations on design and amenities in existing Federal housing programs not only vary from program to program but also are not always compatible with the latter two recommended criteria for avoidance of early obsolescence and tenant stigmatization. These limitations may often be partly responsible for generating local resistance to subsidized housing projects.

The Committee recommends that the quality of all housing developed with Federal subsidies should be equal to but should not exceed the quality of new, modest-cost unsubsidized housing constructed in the same locality during the same time period. We further recommend that within such developmental cost limitations, private builders and sponsors should have freedom to choose to furnish certain amenities at the sacrifice of others.

The location of one's place of residence determines the accessibility and quality of many everyday advantages taken for granted by the mainstream of American society. Among these commonplace advantages are public educational facilities for a family's children, adequate police and fire protection, and a decent surrounding environment, to name a few. In any case, a family should have the choice of living as close as economically possible to the breadwinner's place of employment.

It makes little sense for Federally subsidized housing to be concentrated in and around central cities' slums where social and environmental disadvantages can negate the uplifting qualities of decent housing. On the question of where subsidized housing should be located, the Committee submits the following recommended objectives:

- *Subsidized housing should be built wherever locally feasible under the economics of land and development costs and maximum allowable subsidy programs.*
- *Any artificial or discriminatory restrictions imposed by Federal housing programs and local codes and ordinances on the location of subsidized housing should be removed or overcome.*

Shaping Housing Programs for Better Serving the Needs

With passage of the Housing and Urban Development Act of 1968, the Federal Government possesses a variety of housing subsidy programs. There are two major programs for low-income families—Public Housing and Rent Supplements—and two for families with somewhat higher incomes but who still require housing assistance—the Section 235 Homeownership program and Section 236 (meant to replace 221(d)(3) Below Market Interest Rate and 202). Some program gaps still exist. For example, there is no major program which would enable low-income families to purchase their own single-family homes; neither are there any programs which, in and of themselves, can serve the needs of the poorest of the poor who are often too poor even for public housing.

Although a single form of housing subsidy technique applicable for all income groups and for both rental and owner-occupied housing could probably be developed, the Committee concluded that continued reliance on a variety of programs is preferable, at least until production levels of subsidized housing have substantially increased and there is a record of working experience with the newer programs to determine their effectiveness.

The Committee is aware of past criticisms of the Department of Housing and Urban Development and its agencies responsible for administration of housing subsidy programs. Many of these criticisms were valid; others should have been properly redirected at legislative requirements and Congressional pressures imposed on the Department.

The Housing and Urban Development Act of 1968 frees HUD from many past constraints. During the past year, the three-year-old Department has demonstrated that many past valid criticisms are no longer just, although there is still room for further improvement. After thorough consideration:

- *The Committee recommends that all subsidized housing programs remain under HUD's administration but that they be consolidated under one Assistant Secretary* (rather than two as is presently the case) *for maximum efficiency and coordination in their administration.*

For better serving the needs of both the families requiring housing assistance and, indirectly, the taxpaying public, the Committee has identified the following additional shortcomings in these programs and recommends these changes or new directions:

Experience under various housing programs indicates that lower-income families are prone to place such high priority on decent housing that they are willing to move into subsidized housing in neighborhoods lacking adequate community facilities, shopping centers, job opportunities and neighborhood conveniences. To help in correcting any such deficiencies in neighborhoods surrounding concentrations of subsidized housing:

- *The Committee recommends that HUD provide financing for needed commercial or job-producing facilities in the vicinity of subsidized housing developments.* In the cases of interest-rate subsidy programs, such financing should be included in the total mortgage. Occupants of commercial and employment-generating space would be required to pay the prevailing market rate for rental of such space.

Studies indicate that subsidized housing developments are generally more successful if families in surrounding areas are involved to the maximum degree possible in project development and planning. It is only human nature that participants in any sort of venture are likely to develop a feeling of having a stake and pride in its success. The Model Cities and Urban Renewal programs recognize the advantages of citizen participation in planning and employment opportunities generated by Federal housing programs. The construction and rehabili-

tation of six to eight million more subsidized dwellings would open many more opportunities, both economic and social, for the nation's lower-income families.

To encourage citizen participation in all housing assistance programs to the maximum degree feasible:

- *The Committee recommends that HUD should encourage sponsors and owners of projects to consult area residents during the planning process.*
- *The Committee further recommends that a $10 million fund be established under HUD's administration to underwrite promising public and private programs for training resident real estate managers, developing tenant management councils, creating resident maintenance contractors, and for similar socioeconomic ventures.* Experiences of such efforts should be documented and evaluated.
- *Additionally, the Committee recommends that housing programs should emphasize the entrepreneurial and employment opportunities inherent in them for minority group contractors, subcontractors and construction employees.*

As cited earlier, assistance under all Federal housing programs is tied to specific dwelling units or projects, not to specific needy families. If the recipient family vacates their subsidized dwelling for whatever reason, they lose their housing subsidy.

Again, as stated earlier, the Committee believes that project subsidies offer the best tool for directly and rapidly increasing the volume of housing construction and rehabilitation for needy lower-income families. Along with this belief, we recommended against imminent replacement of project subsidy programs with new and simplified forms of subsidy.

In the staff's supportive papers, a persuasive argument is presented for a housing allowance subsidy technique. The staff suggests that such allowances could be made available directly to needy families according to their individual needs and would be earmarked for expenditures on standard housing only. The most compelling arguments supporting this technique, in our judgment, are:

- A housing allowance would allow a recipient family greater freedom of choice in location and type of housing.
- Such a system would enable the free market in housing to operate in the traditional manner of supply and demand, with greater use of existing standard dwellings for housing lower-income families.
- Freed from most Federal administrative restrictions, homebuilders could respond to a new and effective demand market for standard housing units.

Apart from many socioeconomic implications beyond this Committee's capability to assess or evaluate, one principal shortcoming of a broad-scale housing allowance program is its likelihood to inflate the housing economy by interjecting too much new purchasing power too quickly. After weighing its pros and cons:

- *The Committee recommends that a housing allowance program be introduced on an experimental basis, subject to full and careful analysis of its results.*

Federal programs, particularly urban renewal through slum clearance or substantial rehabilitation, often result in dislocations or disruptions in the lives of area residents, generally lower-income families. Past inequities in compensating displaced property owners and assisting displaced tenants and small businessmen in relocating are now partially overcome by new Federal laws.

To assure fair compensation and assistance to all persons displaced or disrupted by Federal urban renewal or housing programs:

- *The Committee recommends the enactment and implementation of whatever additional Federal compensatory programs may be necessary, together with affirmative action by local public agencies to assure that such persons receive all the benefits available to them.*

The Federal Government can help to assure a better flow of information to eligible families regarding the availability of Federal housing assistance and program qualifications for recipients. In 1967, HUD introduced a Home Counseling Service in 15 of its 76 FHA local insuring offices to advise prospective homeowners on mortgage procedures and housing opportunities under FHA programs.

- *The Committee recommends further strengthening and expansion of such educational and counseling programs for housing consumers.* Specifically, the number of such offices should be increased and should be located among lower-income neighborhoods, and the programs should be expanded to include counseling in general financing and home maintenance.

Generally the Committee has found that most communities have yet to assess adequately their local housing needs or to develop affirmative action programs aimed at assuring that local needs will be met. Often, Federal housing programs are locally

implemented by separate and uncoordinated local public agencies, with no single public official responsible for coordinating or overseeing the community's total housing efforts.

- *The Committee recommends that the Federal Government should provide funding to local governments for financing the preparation of plans aimed at meeting local housing needs.* Regulations governing existing Federal programs could be modified so that Federal funds for local planning could be provided under existing authority.

Local housing authorities in some communities may lack the technical staff to plan and supervise the development of Public Housing projects. This lack of local expertise can seriously delay and impede local implementation of the Public Housing program.

- *The Committee recommends that HUD be granted the necessary authority to take full responsibility for preparation of plans and supervision of bidding and construction of public housing projects, or negotiating a turnkey proposal when requested by a local housing authority to do so.*

Involving the Private Sector in Subsidized Housing Programs

The principal charge to this Committee was to find the necessary incentives and mechanisms for attracting more private participation in the development of subsidized housing. The national goal of six million additional subsidized dwellings over the next 10 years represents nearly an eightfold increase in the subsidized stock developed over the past 30 years. We are convinced that attaining such a goal depends on full participation by the profit-oriented private sector, as well as by nonprofit and local public institutions.

The nation's homebuilding industry, except during the economic constraints of wartime and other adverse conditions, has demonstrated its capability to meet the market's demands for housing. The private sector has not yet developed much housing for the poor because until recent years the subsidies required to make such efforts feasible and reasonably profitable have been lacking in scale and attractiveness. Expansion of opportunities for private enterprise to enter the field—such as the relatively new Turnkey programs in Public Housing—has demonstrated that profit-motivated entrepreneurs can build and manage subsidized housing more efficiently and at less cost than public bodies.

In considering the means for attracting more private participation in the nation's efforts to provide every lower-income family with a decent home, the Committee concentrated on forming recommendations to meet these two objectives:

- Attracting more existing homebuilders and developers into sponsoring, building and rehabilitating subsidized housing.
- Developing new instruments or institutions capable of attracting new sources for entrepreneurial talent and capital.

The Committee found that most businesses not already directly active in housing development and even many homebuilders, themselves, were unfamiliar with the opportunities for participation in Federal housing programs. They were directing all their talents and resources to fields more familiar to them and, in their judgments, less complex and risky. To help fill a need for better understanding and identification of opportunities for reasonable profits in these programs, we asked our staff to prepare a comprehensive review of the opportunities for private enterprise to participate in Government housing programs. We commend Section Three of the staff's papers as a guide to any potential private participant in this field.

We have examined those Federal programs currently available and have assessed their profitability, their requirements of participants and their workability, from the participants' viewpoints. We have consulted with participants in all of these programs and have considered their successes and difficulties.

The Committee has found a number of important and imaginative Federal programs designed to encourage participation by private enterprise. In many cases we found specific shortcomings in the details of such programs, and we have recommended means to remedy these problems. In the administration of subsidized housing programs, we found areas requiring changes in practice and pointed out these difficulties to the White House and to appropriate Federal agencies.

During our opportunity to help shape the Housing and Urban Development Act of 1968, we recommended the creation of a new private instrument to stimulate the participation of private enterprise in the massive housing task that lies ahead in the National Housing Partnership, now being brought into existence pursuant to Title IX of the new Housing Act.

Public Housing Programs

The Committee examined the "turnkey" public housing program under which a private developer

sells the site and completed building to a local housing authority, as compared with the conventional process including public acquisition of a site followed by public design and public bidding of construction and was favorably impressed by initial reports of its success. While the Committee realized that a comprehensive appraisal of this new program may take several years, we believe that the desirability of the turnkey approach has been demonstrated from the standpoints of private developers, public housing tenants, and the American taxpayers at large. The Committee was particularly interested in the flexibility afforded under the turnkey program in allowing, for example, the sale or lease of individual units in a large project.

The Committee recommends that HUD urge and encourage local housing authorities to solicit turnkey proposals from private developers before undertaking the construction of public housing in the conventional public works manner (which limits the private participant to a contractor's role).

The Committee examined the programs for leasing all or portions of privately developed residential properties for public housing (sections 10(c) and 23 of the United States Housing Act). We believe these programs provide an effective means for involving the private sector in low-income housing programs, and most importantly, in producing housing quickly for low-income families. Certain existing restrictions, however, unnecessarily impede the workability of these programs which could otherwise offer substantial opportunities for the private sector to develop public housing.

The section 23 program precludes lease terms in excess of five years. As a result of these short terms for leasing, private developers often find difficulties in securing financing of new units which would increase the stock of housing for low-income families. In both programs, Congress has limited the use of Federal subsidies to existing structures. In order to encourage more private participation in these programs and to enable developers to plan and finance such projects without unnecessary additional risk:

- *The Committee recommends that these barriers be removed.* Specifically, HUD should permit lease renewal options between the developer and the local housing authority to extend for whatever time period would facilitate project financing. Secondly, the Congress should remove the restrictions that limit both programs to use of existing structures.

Rent Supplement Program

The Rent Supplement program, enacted in 1965, requires tenant families to pay 25 percent of their income toward rent with the Federal Government paying the difference between economic rent levels and the tenant's payments directly to the landlord. In essence, this program tries to shift responsibility for building and operating lower-rent housing projects from the local housing authorities to private, profit-motivated and nonprofit groups.

Among the Congressionally imposed regulations which hamper the Rent Supplement program's effectiveness are establishment of specific dollar limits on maximum fair market rentals and on construction costs. These low maximum rentals and construction costs make the program generally unworkable for new construction in major central cities outside the South and Southwest. Even where construction is feasible, builders often are hesitant to use this program tool. They are concerned that its limitations on construction costs will handicap them in developing a project that will be marketable to non-subsidized tenants able to afford the market rate rents.

- *The Committee recommends that the maximum monthly rent levels and unrealistic construction limits on the Rent Supplement Program should be removed.*

Moderate-Income Housing Programs

The Committee examined the FHA homeownership program, the new section 235 of the National Housing Act and the major rental programs, sections 221(d)(3) Below Market Interest Rate and 236. While it is too early to evaluate the section 235 program, there has been substantial experience in project development and operation under section 221(d)(3), and the Committee focused on this program as a measure of private involvement in moderate-income housing.

The Committee made a detailed analysis of the profitability of the section 221(d)(3) BMIR Program, as it may be employed by a limited distribution, profit-seeking mortgagor. While the Committee favors the limited distribution mechanism:

- *We recommend that the current permissible cash flow to the limited distribution mortgagor (sponsor) be increased from 6% to a more realistic rate, for example, 8 percent, reflecting the return currently available to investors in alternative and less risky businesses or instruments.*

As source material for the above recommendation,

the staff developed a pro forma annual operating statement (after construction and start-up) for an illustrative project (see Table 3–3 in Section Three). If the permissible cash return were increased to 8 percent, the annual cash income in the staff's illustrative case would increase from $24,500 to a new figure of $32,600. An increase to 8 percent would raise the project's rentals an average of $2.50 per month. The Committee believed that this slight rise in rents would be justified by the need to bring about realistic profit potentials that would attract the necessary scale of private participation under these programs.

The Committee concluded that investors in 221 (d) (3) BMIR projects can obtain an overall yield, including tax savings to those in the 50 percent tax bracket, approximating that required by many industrial corporations—better than 15 percent per year. However, the return decreases markedly with time, as the substantial initial tax savings from accelerated depreciation starts to decline. Moreover, the Committee recognizes that existing tax law would substantially reduce overall yields if a project were sold in the early years at a price sufficiently low to avoid a rent increase.

Private developers of unsubsidized housing often avoid this dilemma by sale at a price sufficient to allow the retirement of their mortgage, payment of their taxes, and recovery of their equity. Such a sales price normally assumes substantial appreciation in the property's value and is reflected in higher rents. The objective of maintaining low rent schedules precludes sale at an increased price that would cause the subsequent owners to increase rents. But the need to allow a reasonable profit on these projects requires a mechanism giving the builder-sponsor a reasonable chance to liquidate his interest in the early years at a price sufficient to recover his equity after retirement of the mortgage and payment of taxes.

One means of accomplishing this objective, recommended by the Committee, is contained in the Housing and Urban Development Act of 1968. This provision would allow a limited distribution sponsor to sell to a tenant cooperative or nonprofit group at a price reflecting the objectives discussed above, at a price which would permit the seller to recover his equity. With 100 percent mortgage financing (rather than the 90 percent financing to limited distribution entities), a cooperative or nonprofit group can meet the sales price set without increasing rents, if the remaining mortgage term is extended.

- *The Committee recommends that the Secretary take immediate action to implement the approach discussed above, as contained in the 1968 Housing Act.*

It may be that experience will show that the most broadly effective solution to the above problem will require another approach. If so, the Committee makes two recommendations in this area:

- *First, the Committee recommends that a 3 percent tax credit be extended to limited distribution mortgagors (sponsors) on the completion of a low- or moderate-income housing project.* This tax credit would be identical to that now available for companies placing into service public utility equipment and machinery. It would be less than the 7 percent investment tax credit available for the construction of buildings. The 3 percent tax credit, even with the existing tax treatment on sale, would appear to provide for a realistic level of profitability without the necessity for a rent increase or an extension of mortgage term upon sale.
- As a second alternative approach, *the Committee recommends the use of a tax forgiveness if the project is sold to a tenant's cooperative or nonprofit group.*

All the above proposed approaches would have the advantage of encouraging developers to form tenants' associations and to assist them in gaining the experience and skill needed to manage and own their own housing. Early sale to such a group would achieve many of the desirable social objectives of homeownership by lower-income families, while allowing the builder-sponsor to free his capital and management skill for construction of other needed subsidized housing.

National Housing Partnerships

The Committee received indications from surveys conducted for us that a lack of technical knowledge and a reluctance to own Federally subsidized housing projects for the poor are major reasons why big business has been slow to enter this segment of the housing market. The Committee was concerned, moreover, by the fact that no current participants in this market are large enough to serve as laboratories for new and existing programs and to measure definitively the possible economies of scale.

For these reasons:

- *The Committee recommended to the President the creation of a new private instrument—the National Housing Partnerships—to permit firms not now engaged in the subsidized housing field to come into it on a sound business basis.*

This recommendation was enacted into law as Title IX of the Housing and Urban Development Act of 1968.

The partnership form was chosen to permit the passing through of book losses (resulting from depreciation and other deductions) to individual investors. The President has appointed the Incorporators of a corporate General Partner. At this writing, the Incorporators were establishing the General Partner and providing the framework for the Partnership, itself. They will raise capital from American business and financial institutions by the sale of shares in the Corporation and interests in the Partnership.

The Partnership will have the special purpose of engaging in activities related to providing housing for low- and moderate-income families, relying primarily on the Federal housing subsidy programs. Local builder and investor participation is contemplated in all developments. The law assures that the Partnership will include local investors by limiting nonlocal investment to 25 percent of the equity of any specific project, except where additional funds cannot be raised from local sources.

Although neither the General Partner nor the Partnership have been given any special powers or privileges, it was deemed advisable to establish both of these entities by Act of Congress for the following reasons:

(1) The existence of the legislation serves as a national invitation to industry to participate—to join in developing subsidized housing on a profit-making basis;

(2) The legislative history secures the applicability of the pass-through of tax savings to individual partners; and

(3) Provisions of the Act specifically settle questions of local law which might be thought unresolved, such as the power of the Corporation to operate as the General Partner of the Partnership.

Besides helping to produce housing for low- and moderate-income families, the National Housing Partnership was conceived of as a laboratory for developing practical solutions to economic problems of reducing construction costs and production time, and sociological problems of improving landlord-tenant relationships and promoting and assuring successful homeownership by low- and moderate-income families. When it finds shortcomings in Federal or local government programs, it will be well-situated to speak with an effective voice for change.

No single private organization develops and only a few operate any large volume of Federally sub-

sidized housing. Accordingly, no single producer has either the opportunity or the incentive to develop solutions to problems inherent in production of such housing. Those with the management incentive often lack the necessary capital. Because reduced costs, faster construction and good landlord-tenant relationships all help to increase profit potential, the Committee is confident that the profit-motivated Partnership will be stimulated to develop creative and effective solutions. Furthermore, given a sufficient volume of units, the Partnership can support and stimulate meaningful research efforts both within and outside its own organization. Finally, by devices such as incentives for sale to nonprofit or cooperative tenant groups, the Partnership will be motivated to seek citizen participation in its projects, a desirable socioeconomic objective.

We believe that the National Housing Partnerships will provide an attractive opportunity for American industry to become involved in developing subsidized housing on a substantial scale. The Partnerships will offer a well-financed source of management and technical expertise not now available, a means for diversification that is essential in a traditionally risky industry, and a vehicle for making available to industrial and other investors the cash return and tax savings already existing for private developers of unsubsidized housing.

Administration of Programs

The Committee examined a variety of issues related to administration of Federal housing programs. In general, we focused on measures designed to speed up the processing of individual projects and to minimize the red tape for sponsors and builders.

We were encouraged by dramatic progress in administration of FHA programs under the recently introduced Accelerated Multi-Family Processing (AMP) Program. Because prompt processing is essential in meeting the needs of families requiring housing assistance and in attracting and retaining private participation in these programs, the Committee asked a panel of mortgage experts to review these new AMP procedures. With cooperation from FHA officials, the review panel reported to this Committee:

The Panel unanimously agreed that the concepts underlined in the AMP proposal represent a very significant improvement in the FHA processing of multi-family projects. Panel members who have already had experience with AMP processing have been most favorably impressed. The Panel members hope that AMP processing will be examined periodically for performance and that FHA will continue to work together with external observers in discussing problems and seeking still further improvements.

From all reports heard, the Committee concluded that processing delays in FHA are no longer as serious as before. Average project processing time has been reduced from 32 months before AMP to 19 months for those processed under AMP. Further improvement should be attainable.

- *The Committee recommends continuation of FHA expediting teams being dispatched to local offices, and recommends continued emphasis on training local personnel to speed application processing.*

Improvement in development time for Public Housing projects, however, has not been nearly as impressive. According to a Housing Assistance Administration Task Force, the median time from start to finish among 745 projects surveyed during 1962–64 was about 44 months. Delays often occur at the local level, not within HUD, alone. The new Turnkey procedures (discussed at length in staff papers) have dramatically reduced processing times. Furthermore, HAA, itself, has recently instituted some administrative changes which should speed project processing measurably. There is still room for further improvement.

- *The Committee recommends that a review team similar to that suggested for FHA programs be formed to review and expedite all public housing projects pending in the local offices.*
- Equally important, *we recommend that if a project has been pending for more than two years, and if development is not imminent, the reservation of funds should be rescinded from the locality and reallocated to communities able to put the funds to work.*
- Finally, *we recommend that the fund reservation system should be reviewed and revised to assure that communities promptly use funds allocated to them.*

The Committee believes there are a number of ways in which subsidized housing programs could be administered with additional sensitivities in the areas of mortgage forebearance and possible default and their consequences to the developer within the administrative framework of HUD.

- *The Committee recommends that a mortgagor in difficulty should have the option, when there is no evidence of mismanagement, of tendering the project to FHA for the unamortized value of the*

mortgage, without recovery of operating losses or equity, but without losing his privilege of participating in other FHA projects.

- *The Committee also recommends consideration of a Federal insurance or reinsurance program, funded by premiums allowed as an operating expense and available to cover certain project losses resulting from high vacancy rates or high management costs, again in the absence of evidence of mismanagement.*

As an additional incentive to the private sector:

- *The Committee recommends creation of a "seed money" fund for limited distribution sponsors* (similar to that provided for nonprofits by Section 106 of the Housing and Urban Development Act of 1968).
- *The Committee further recommends that the Internal Revenue Service should recognize administratively a shorter useful life for depreciation for Federally subsidized housing developments.* It is the Committee's view that the 40-year period now recognized for all newly constructed multi-family housing fails to take into account the likelihood that subsidized housing may depreciate more rapidly than housing developed for occupants with higher incomes.

The Committee believes that existing and recommended programs can generate substantial involvement by the private sector in construction of subsidized housing. But the Committee recognizes, as discussed elsewhere, that a "decent home and suitable living environment for every American family" can only be provided—today and in the foreseeable future—with massive appropriations of Federal subsidies.

We believe that private enterprise can play a major role in accomplishing the job. We believe that private enterprise can develop improved technology, and reduce the cost of building and maintaining subsidized housing. But the housing goals of the next decade will not be met without a substantial, sustained and reasonably predictable commitment of public funds.

Using the Housing Inventory

In recent years, new residential construction has increased the nation's housing stock by only between 2 to 3 percent annually. At any current point in time, therefore, about 97 to 98 percent of the nation's housing inventory consists of "used" dwellings.

Attaining the national goal of 26 million new and rehabilitated housing units in the decade ahead depends on the maximum efficient use of existing homes and apartments. Underlying the functioning of the housing market is a little understood process called "filtering." This is the process under which housing declines in quality and price as it ages and "filters" down through income levels over a period of years. Extreme illustrations of this process are the once great Victorian era mansions in many central cities which are now slum dwellings for the urban poor.

Traditionally, the "filtering" process is not a positive force on housing conditions for all the nation's families. There are factors other than poverty responsible for this negative influence. One of the most disturbing of these factors, in this Committee's judgment, has been racial discrimination in the sale and rental of housing. As the TEMPO survey documented, nonwhite families must earn one-third more income than white families in order to afford standard housing which costs 20 per cent of their gross earnings.

- *The Committee recommends vigorous enforcement of Federal, State and local laws against discrimination in housing, enabling the housing market to operate with economic freedom from the artificial barriers of prejudice.*

In examining the allowable uses of Federal housing subsidies, we found that very few are applicable to existing dwellings in the absence of rehabilitation. The Committee has concluded that subsidies should make greater use of current housing inventories and not be tied too thoroughly to new construction.

A portion of the appropriations for the new Section 235 Homeownership program are earmarked for enabling selected deserving families in the purchase of existing single-family homes. Eligible families must be displaced by Government action, contain five or more children, or be occupants of public housing. This program is scheduled for curtailment after several years.

- *The Committee recommends that 10 percent of the appropriations under the Section 235 program be designated indefinitely for use with existing standard housing and that this segment of the program not be curtailed as planned.*
- *We further recommend that these same categories of families be eligible for tenancy in existing rental buildings converted into subsidized units by broader use of Rent Supplement and 236 Programs with such dwellings.*

Rehabilitation

Studies for this Committee estimated the number of existing substandard dwellings between 6.7

million (TEMPO's report) to as high as 12 million. This wide range of estimates again prompts the Committee to point to the need for better and more frequent compilation of data concerning all aspects of American housing and its production process.

One of the challenges in meeting recommended housing goals during the next 10 years will be devising ways to replace or rehabilitate all substandard housing, urban and rural. A recent survey (by the F. W. Dodge Company) estimated the nation's current rehabilitation market at around $12 billion a year, with the largest volume of work done by small firms that tend to specialize in such jobs.

Among our assignments from the President was one to determine the feasibility of a large-scale rehabilitation industry. After reviewing thorough studies by consultants and staff, the Committee concluded that a large volume of rehabilitation is possible with sufficient Federal subsidies and the support of public policies aimed at encouraging the upgrading of rundown urban neighborhoods. On the other hand, we cannot see any substantial change in the character of the rehabilitation industry, itself. We foresee it remaining a highly fractionated activity involving large numbers of small contractors doing labor intensive work. Techniques can be improved; research and development in the building materials industry can produce better and cheaper products for the rehabilitation market; labor savings may be possible by training rehabilitation specialists and relaxing jurisdictional limits on the scope of work among individual crafts; better management techniques could lead to more efficiency. But in the long run, rehabilitation, in our judgment, will not lend itself to the massive economies of scale or the level of industrialization which some observers visualize.

The Federal Government has developed a number of loan and grant programs to help finance rehabilitation. Loans with low down payments and long terms have helped middle-income families to rehabilitate existing substandard units. In recent months, FHA has issued a new multi-family manual permitting its appraisers to recognize neighborhood trends when calculating a property's value after rehabilitation. This new flexible approach allows higher appraisals in neighborhoods where public and private improvements point to stabilized or increased property values.

- *The Committee recommends that this same technique be applied to FHA's small-homes mortgage programs.*
- As an alternate to altering appraisal techniques, *the Committee recommends that the Secretary of HUD be authorized to make home loans exceeding a property's market value by $2,500 when adequate rehabilitation requires such financing, when the applicant can economically support such higher mortgage payments, and when there is evidence of concerted community action to upgrade the property's surrounding neighborhood.*

The choice between rehabilitation of substandard structures and their demolition and new construction is a difficult one, involving both sociological and economic factors. Recent surveys by FHA of rehabilitation projects in 10 major cities indicated a median cost of about $12,000 per unit. This figure is less costly than new construction, yet costly enough to require Federal subsidies in rehabilitating substandard housing for occupancy by lower-income families.

All major Federal subsidy programs can be used for rehabilitation as well as new construction. By the staff's computations, the new Section 235 and 236 programs can reduce monthly occupancy costs on a rehabilitated unit valued at $12,000 by nearly $50. These new and deeper-reaching subsidies should help to accelerate rehabilitation of economically salvageable substandard dwellings for lower-income families.

In addition to the special rehabilitation subsidy programs for grants (Section 115) and low-interest loans (Section 312), a further subsidy can be provided through urban renewal "write downs" on the local urban renewal agency's resale of properties to owners who commit to rehabilitation. The difference between acquisition cost and resale price is charged against the local agency's budget as a project expenditure. HUD has limited this technique to experimental cases.

- *The Committee recommends that HUD adopt this approach to rehabilitation in urban renewal projects as standard procedure.*

Because of a gap in existing programs, rehabilitable rental properties of two to four units are too large to qualify for the Section 236 program except as condominiums and are too small to qualify for any other subsidy programs.

- *The Committee recommends that all programs be adjusted to enable all rental projects to qualify for subsidized rehabilitation, regardless of the number of units.*

Under both its subsidy and mortgage insurance programs, HUD established the standards to be met

by rehabilitated properties. Lower standards could shorten some rehabilitated properties' useful lives and thus could shorten their mortgage terms and increase their monthly occupancy costs. On the other hand, lower standards could reduce occupancy costs after rehabilitation without adversely affecting the unit's extended useful life.

- *The Committee recommends that HUD adopt more flexibility in its rehabilitation standards.*

Subsidy programs for rehabilitation must be easily usable. Impediments now exist. All multi-family subsidy projects, regardless of size, must meet HUD's cost certification requirements. This requirement is workable in large contract situations but can impede small rehabilitation projects and new construction on small land parcels in central cities.

- *The Committee recommends that the Secretary of HUD be given discretion to eliminate cost certification for small projects.*

The Federal Government has also recently begun programs to assist local efforts of code enforcement in deteriorated neighborhoods.

The Federal Government since 1965 has been authorized to pay up to three-fourths of a local government's net costs for a concentrated code enforcement program in a specific area. Rehabilitation grants and low interest loans offer further help to eligible property owners who choose to rehabilitate. Other Federal contributions to local communities are authorized to help pay for public works improvements in code enforcement areas.

This combination of programs, together with project subsidies to make rehabilitated dwellings available for lower-income families, offers an effective vehicle for slum rehabilitation.

Code enforcement efforts can and should be strengthened. One weakening element is that presently, Federal income tax depreciation deductions can be taken on properties irrespective of their physical condition.

- *The Committee recommends that a taxpayer be denied income tax deductions for depreciation on his property in any year during which he or his agent was convicted of a housing code violation on that property.* We emphasize however, that enactment of this recommendation is unrealistic without the availability of adequate housing subsidies that permit rehabilitation without markedly increasing occupancy costs.

The Committee was aware that local property tax policies can also be important influences on upkeep and rehabilitation of deteriorating neighborhoods.

Studies of local property tax policies and recommendations for their reforms are beyond the scope of this Committee's assignment. We do urge that thorough examination of such policies and steps for their reform, if necessary, are important ingredients in a national commitment for improving urban housing conditions.

The Resources and Financing To Achieve Our Housing Goal

Measured in terms of housing starts, the goal of 26 million new and rehabilitated units in the decade ahead calls for a level of construction nearly double the annual average of 1.4 million units during the 10-year period immediately past. In terms of capital for housing, the requirements for 26 million units will be more than double the dollar volume that went into housing during the past 10 years.

A study by the Department of Housing and Urban Development (see Section Six, "Allocating the Resources and Providing the Financing") estimates that attainment of the nation's 10-year housing goal will require an average annual allocation of less than 5 percent of the projected Gross National Product to housing construction. HUD's projected requirements compare with an actual average annual allocation of 4.3 per cent of Gross National Product to housing construction for the years 1950 through 1967.

HUD's projections were based on relatively ideal economic conditions such as a 5.5 per cent annual growth rate for the Gross National Product, a 1.5 per cent annual price increase, a 4 per cent national unemployment rate, and continuation of the current pattern of consumer savings. An economic study for the Committee (see Carter Golembe's study in the consultants' studies published with this Report) indicates that a program for construction and rehabilitation of 26 million dwelling units would be seriously jeopardized in an inflationary economy.

The Nation's money managers are fully familiar with the utilization of monetary and fiscal policies to stimulate a laggard economy or to decelerate an economy expanding too rapidly. Historically, however, pressures from all sides tend to emphasize an expansionary trend and to delay policy decisions that bring about necessary deflationary action. This bias, with its resultant destabilization of the economy, is one of the major barriers to an adequate and consistent increase in housing construction.

In inflationary periods, when interest rates are high and when necessary monetary restraints make money scarce, it is extremely difficult for housing to compete for funds. Those funds which do flow into housing are obtained at interest rates which may not be significant to other industrial activities but which are extremely burdensome on total housing costs. As an example, only a 1 per cent increase in the interest rate on a 40-year mortgage for a $15,000 home would increase the owner's monthly costs by more than $10. This 1 per cent increase in the interest rate has an effect on monthly ownership costs comparable to a 13 per cent increase in total development and construction costs.

The Committee concluded that adequate capital would be available for attainment of the 26 million unit housing goal *providing*:

- The economy proceeds at a relatively stable, sustainable growth rate.
- The Administration and Congress declare and the American public supports the necessary priority for Federally subsidized housing programs.
- A new form of obligation is developed to attract investment funds into housing from sources other than those traditionally investing in mortgage loans.

In 1950, nearly two million housing units were constructed. But at that time, the economy was just recovering from the relatively depressed postwar years. As the economy improved and resources were claimed by competing demands, housing starts receded and followed an irregular pattern touching a low of 1,141,500 units in 1960. This widely swinging pattern of housing starts can be avoided only if the economy achieves a stable rate of overall growth and if a steadily augmented flow of resources is channeled into housing.

- The Committee emphasizes the importance of a stable, sustainable rate of National economic growth over the next three decades in order to achieve the goal of 26 million more housing units.

Merely indicating or declaring the importance and urgency of a national commitment to housing is not sufficient. Public action to support such a commitment is required. Recent trends in domestic politics, however, suggest it will take increased courage by Congress and the Administration to confirm a high priority for low-income housing and to appropriate the necessary level of funding for the 1968 Housing Act's 10-year goal of six million subsidized units. But without such affirmative action, any declaration of housing goals becomes only a hollow statement which raises false hopes and leaves empty, unfulfilled expectations among the nation's millions of lower-income families.

- The Committee emphasizes the necessity for both a continuing Congressional commitment of priority for Federally subsidized housing and continuing Congressional action to appropriate the necessary level of funding and to provide the necessary guarantees.

A goal of 26 million units including at least six million with Federal subsidies will require new levels of investment in both subsidized and nonsubsidized housing. Attainment of the total goal requires an economic investment climate in which these two distinct but inseparable housing markets do not compete totally for the same sources of funds. The Nation cannot rely totally on the savings and loan associations, insurance companies, commercial banks, and other mortgage lenders to supply all the funds for both housing efforts. New mortgage funds must be attracted from new sources such as endowment and pension funds and individual investors.

Tapping new sources of credit for housing requires two things: first, a Government guaranty; second, a marketable obligation. The Committee determined that the best method of financing subsidized housing is to permit the Government National Mortgage Association to buy unlimited quantities of Federally insured or guaranteed mortgages issued under the sections 202, 221(d)(3), 235, and 236 programs, to issue its own marketable financial in-

strument secured by pools of such mortgages and guaranteed by the Federal Government, and to sell these negotiable instruments to the public for cash. Proceeds from the sale of such a market instrument would be used to purchase mortgages.

The disadvantage is a technical and not a substantive one: the impact on the Federal budget under present accounting procedures. If GNMA were to borrow $1 million to purchase a $1 million loan on a housing project, the loan is treated the same as a $1 million expenditure for office supplies. But the housing project is producing income and carries the value of real property; office supplies do not. The housing project's cost to the Government in any given year is not the entire $1 million loan but rather, a much smaller sum: the difference between the Government's borrowing rate and the GNMA loan rate.

The treatment of such Governmental borrowings is controversial. There was even a division of opinion among the President's Commission on Budget Concepts (the Kennedy Commission). A majority on that Commission recommended the current practice instituted in this fiscal year. But from the viewpoint of housing needs, the contrary position is preferable—namely, that Governmental borrowings to purchase self-liquidating securities which it services, such as special assistance mortgages, be excluded from the annual budget total. A thorough discussion of these two viewpoints and their ramifications is contained in Section VI of the staff studies.

- *The Committee recommends that GNMA be authorized to purchase unlimited quantities of Federally guaranteed mortgage loans issued under Sections 202, 221(d)(3) BMIR, 235 and 236 and to finance these purchases by issuing its own marketable debentures secured by a pool of such mortgages, with the debentures guaranteed by the Federal Government.*

To tap wider financing markets for non-subsidized housing:

- *The Committee recommends that GNMA implement its authority granted by the 1968 Housing Act to guarantee bonds issued by FNMA and secured by FHA guaranteed mortgages.*

The national mortgage market has been plagued for many years by an improperly functioning secondary market. Bonds are easily traded, but mortgages are not. Many investors prefer the higher yielding mortgage to the bond, but many are reluctant to make such investments because of the mortgage's lack of liquidity. In recent years, considerable progress has been made in the secondary mortgage market.

- *The Committee recommends recognition of the existence of a secondary mortgage market and urges that FNMA continue to expand its operation in this area.*

The 50 states of the Union have 50 different laws covering usury and foreclosure. Investors, particularly those purchasing guaranteed or insured mortgages, look favorably upon investments in those states where there is no usury problem, or where there is a quick foreclosure law. Many states with comparatively unattractive usury and foreclosure laws are thus deprived of adequate mortgage funds. We recognize the historical right of states to regulate these matters. But with the pressing overall National need for housing in the years to come, and with the need to assure a more even flow of mortgage credit into the various states, action to preempt such laws in favor of a uniform statute is clearly indicated.

- *The Committee recommends preemption by Federal statute of State usury and foreclosure laws as they apply to Federally insured or guaranteed housing mortgages.*

For many years Congress has refused to face the facts of the money market; namely, investors will seek the highest yield in conformance with their investment policies. This has resulted in the very much misunderstood and sometimes abused use of the discount. The investor still obtains the yield he seeks, but Congress seems to placate itself by refusing to remove statutory interest rate ceilings. In order to correct this situation:

- *The Committee recommends elimination of permanent statutory ceilings on maximum interest rates on FHA and VA mortgages.*

Land Requirements To Achieve Our Recommended Housing Goal

The Committee's consultants and staff estimated that six million additional subsidized housing units will require at least a million net acres of land. Assuming that most of these units will be located on urban fringes, ancillary non-residential developments may require up to another million acres. Development of 20 million unsubsidized units and their supporting facilities could consume up to another six million acres.

Total land requirements for 26 million more standard housing units may thus reach the neigh-

borhood of more than eight million acres, or 800,000 acres a year. This is more than 60 percent higher than the current annual rate of land consumption.

A study for this Committee (by McGraw-Hill Information Systems) showed that the price of raw land represents the "fastest-rising element" among all major housing costs. From 1950 to 1967, for example, the average lot price for a new FHA-insured single-family home more than tripled from $1,035 (or 12 percent of the home's total price) to $3,766 (or 20 percent of the home's total price). In major metropolitan areas (according to the McGraw-Hill report), the price for raw land roughly doubled from 1950 to 1965. Meanwhile, in areas of particularly rapid growth, like Staten Island, N.Y., or Montgomery County, Md., land costs shot up fivefold in the same 15-year period.

Committee consultants point out that zoning and building regulations have increased total development costs even more than rising land costs (see Davidoff-Gold study in Appendix). It is clear that the availability of enough land for development of moderate-cost housing could become one of the major obstacles to overcome in achieving the 10-year goal of 26 million additional housing units.

In a special report to this Committee, the Council of Housing Producers stated that "the greatest economies in housing can be made through increased efficiency in the utilization of land."

Land costs and availability are greatly influenced by public policies on zoning, subdivision regulations and property tax assessments of undeveloped land. Such issues were beyond the scope of this Committee's work but were receiving intensive study by the National Commission on Urban Problems (the Douglas Commission) during our deliberations.

This Committee did, however, review convincing presentations from consultants, staff and other knowledgeable sources to the effect that local zoning codes can be and often are impediments to availability of land as sites for subsidized housing. Shortages of land in central cities and the socio-economic desirability of avoiding high concentrations of racial, ethnic and income groups led the Committee to believe that subsidized housing should be developable wherever economically feasible in urban centers and surrounding areas.

New Federal Programs and Powers

To help in achieving that objective and in making enough land available for at least six million additional subsidized dwellings:

• *The Committee recommends that, subject to the Governor's veto, the Secretary of HUD be granted limited powers to preempt local zoning codes and any exclusionary state codes or local ordinances from application to Federally subsidized housing projects.*

The Secretary's preemptive power would be issued only after a public hearing resulted in a finding that preemption was necessary to accomplish the Federal Government's goals, and that the subject zoning ordinances had an unconstitutional discriminatory effect. The Secretary's preemption order could be subject to veto by the Governor of the state concerned.

In making the above recommendation, the Committee recognizes the rights of residents of any political jurisdiction to establish zoning standards designed to assure orderly community development. Also, as a general proposition, we were extremely hesitant to recommend reduction of local powers. We were convinced, however, that widespread abuses of zoning techniques and their inherent defects as a land-use control make it necessary for local perrogatives to yield to the greater common good.

Despite the existing urban renewal process, many local governments still find difficulties in acquiring sufficient land for developing subsidized housing to meet local needs. The urban renewal process requires a local plan for redevelopment of a large area; consequently, its application for acquiring relatively small sites for subsidized housing has proved too slow. Some cities presently own large numbers of abandoned or tax delinquent land parcels in slum areas but encounter financial or other difficulties in acquiring the remaining parcels necessary for assembling large areas of contiguous sites.

• *The Committee recommends legislation to help local renewal authorities or other appropriate local agencies in their acquisition of land (by purchase or lease) for subsequent resale or lease as sites for subsidized housing.* Such Federal assistance could be 100 percent reimbursement to the locality of its costs for acquisition, relocation and demolition, less the property's resale price.

The above recommendation differs from the new Neighborhood Development Program in the 1968 Housing Act, in that acquisition would not be limited exclusively to slum areas and Federal support would be more liberal than now generally available under the urban renewal formula.

Large parcels of land generally offer more advantages than smaller ones for new housing con-

struction. With large parcels developers can be more creative and flexible in their site planning, have better opportunities to achieve economies of scale in construction, and are likely to find it more economically feasible to include community facilities like parks and recreation facilities.

To assist in the aggregation of large land parcels as sites (in whole or in part) for subsidized housing:

- *The Committee recommends that HUD be authorized to acquire land directly, by purchase or condemnation, for lease back to private or public developers who would be required to build subsidized housing and related community facilities on the leased sites.* HUD should be able to execute long-term leases up to 50 years at nominal land rentals equivalent to no more than 1 percent of its land acquisition costs.

The program recommended above could become a vehicle for aggregating large land parcels otherwise unacquirable. Under the new Section 236 program, the Government already is authorized to pay all but 1 percent of the interest charges on a private, 40-year mortgage covering 90 percent of a project's development costs, including land, for a limited distribution mortgagor and 100 percent for a nonprofit mortgagor. The leasing approach, rather than outright resale by the Federal Government, keeps large parcels together for later redevelopment. Furthermore, because improvements would become Federal property on termination of the land lease, the Government would have an opportunity to recover some of its initial investment.

As practical limitations to the above recommendation, the Committee further recommends that any Federal acquisition of land for subsidized housing be subject to the following prerequisites:

Supporting Research and Implementing New Technology

As discussed earlier, American consumers spend about $100 billion a year on housing and household furnishings and operations. New residential construction is estimated at a current level of about $25 billion a year. Even marginal cost reductions would save the National economy substantial sums of money—not enough to eliminate the necessity of Federal housing subsidies for low and moderate income families, but certainly enough to reduce the levels of subsidy somewhat and to accelerate the rate of progress toward the National goal of adequately housing the total population.

Stepped up activities in housing research and development are critical in attaining the National goal of 26 million more dwellings over the next decade. The Committee found it difficult to define with meaningful precision what constitutes "research" and what constitutes "technological development" in an industry as complex and varied as the housing industry. We somewhat arbitrarily included activities that range from the development of new materials and products to the systematic procedures by means of which houses are designed, built, manufactured or assembled, equipped, maintained, rehabilitated and managed. Though it responds to a basic human need the housing industry finds that its technological progress is subject to powerful economic, social and financial constraints at both National and local levels.

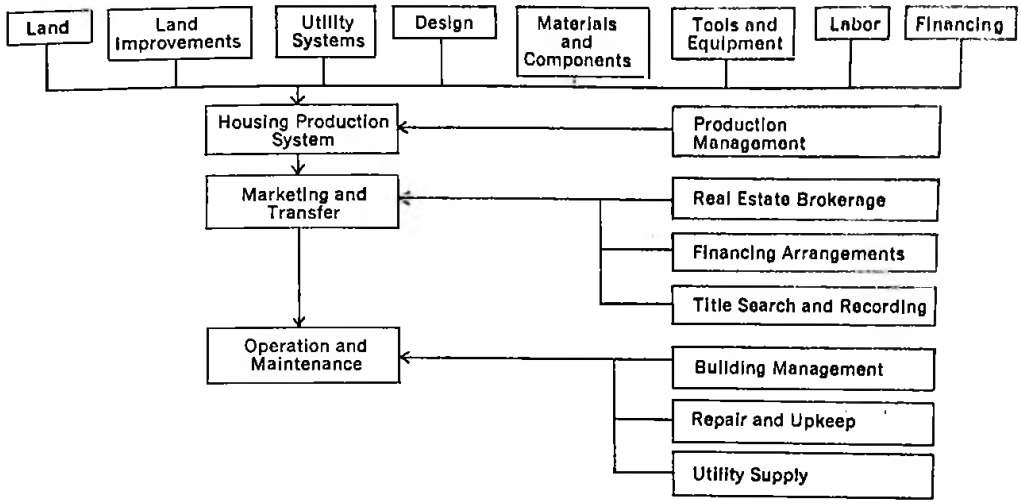
By our definition, research generated new concepts and capabilities; development activity translates newfound knowledge into usable and often cost-cutting products and processes. People are more familiar with development activities that relate to "hardware" aspects of the industry up to and including the testing of prototypes and models. However, innovations in housing "software"—new methods for home financing, land ownership, building management or scheduling and supervision of construction projects may also be subsumed under development activities capable of producing comparable social benefits.

Although the level of privately funded R & D in housing is not known and cannot be estimated with sufficient accuracy, almost everyone judges it to be grossly inadequate. The localized characteristics of the homebuilding industry and the many and varying external regulations and other constraints affecting it, together with the average scale of housing construction and the absence of a broad and predictable market, have inhibited the level of such activity in comparison with other segments of American industry.

Although the housing industry cannot be categorized as a high-technology industry, neither is it technologically stagnant. A study for this Committee concluded that contrary to widely held misconceptions, innovations in the construction industry since World War II have been increasing labor productivity at an estimated annual rate of about 2 percent.

The following chart taken from our staff's papers shows the major fields in housing in which cost savings should be attainable. Intensified research and development activities and expenditures, both public and private, are essential in such cost-trimming efforts.

Figure I. Opportunities for Progress Through Housing R & D



The Role of the Federal Government

After examining the Federal Government's support to housing research and development, the Committee concluded that the levels of current funding are conspicuously inadequate. In 1966, for example, the research and development budget for the Department of Housing and Urban Development was less than one percent of the total Federal research expenditures under the Department of Agriculture. The past two years have brought improvement but in 1968, HUD's research and development budget for housing was only $7 million, compared with comparable budgets of $294 million for the Department of Transportation, $7796 million for the Department of Defense, $281 million for the Department of Agriculture, $1331 million for Health Education, and Welfare and $4625 million for the National Aeronautics and Space Administration.

Ideally, Federal support for housing research and development should be related to a ratio between private and public expenditures in this field. But in view of the fact that the dollar volume of private R & D activity is scattered among such industries as building materials manufacturing, utilities, equipment manufacturers and others, we could only arrive at a flat dollar figure for recommended Federal support.

- *The Committee recommends that the annual Congressional appropriations for Federal funding of housing research and development activities should be increased, over the next three years, to a total of $100 million.*

In appropriating the funds, the Congress should give the distributing agencies full freedom in selecting subject areas for activities. HUD's current practice is to rely primarily on private organizations to conduct Federally funded R & D projects. The Committee endorses this channeling of fund through private contractors and universities where appropriate, and urges continuation of this practice.

Further, we proposed that Federal funds be employed in three basic ways. In selecting specific fields for exploration and investigation, priority should be given to funding studies in problem areas lacking adequate privately financed efforts. Equally important are activities aimed at studying, identifying and removing the existing constraints to implementation of technological advances. Finally, funds should be made available to support the creation of new institutions identified to be among the requirements of a high-technology housing industry.

As the housing industry accelerates its progress toward a high-technology industry, the Committee hopes that more and more research and development will become privately financed in response to new market opportunities. Meanwhile, however, the Federal Government can and must fill the identifiable gaps.

Federal funding of research and development contracts raises the issue of allowability of patents on inventions produced by such efforts. Although it is contrary to the public interest to allow private contractors to reap windfalls from publicly financed activities, contractors understandably require incentives to engage in such work. The Committee be-

lieves that the patent issue can be resolved under the "Guidelines on Government Patent Policy" published in the *Federal Register,* Oct. 12, 1963. These guidelines state, in effect, the principal rights to inventions should accrue to the Government when circumstances favor full public access to resulting innovations but, on the other hand, that private patents should be permitted when they would increase the likelihood of the invention's application.

The Committee concluded that publicly supported R & D is unlikely to be too fruitful or well coordinated if the distributing agency merely reacts and responds to unsolicited proposals. Such proposals constitute only one aspect of a healthy R & D policy. We believe that the agencies and HUD in particular bear a responsibility for generating and maintaining an up-to-date agenda for R & D requirements together with a priority ordering of such needs. Only if the agencies are able to identify potentially fruitful R & D projects can they for instance seek competitive bids from private qualified contractors, or groups of organizations having the requisite complementary technical capabilities. We believe that the agency, itself, should determine R & D gaps, outline projects likely to be fruitful, and seek competitive bids from qualified private contractors. We endorse HUD's basic shift in these directions since its creation of the Office of Urban Technology and Research.

In addition to being the principal conductors of publicly funded R & D, the private sector should also be called upon to advise Federal agencies in formation of research programs.

The Committee recommends that Federal agencies distributing housing R & D grants be assisted by a permanent advisory structure of knowledgeable authorities in housing and related fields.

New Technology and Building Codes

Based on consultants' studies, the staff's explorations and opinions heard from knowledgeable sources, the Committee concluded that lack of uniformity in local building codes and standards has seriously inhibited technological change and mass marketing in the housing industry. Any penetrating study of this issue would have been beyond the scope of this Committee's assignment. In the judgment of out staff and consultants, the Federal Government appears to have the power to promulgate a uniform National building code under the commerce clause of the U.S. Constitution. This Committee, however, has little enthusiasm for adoption of uniform National codes.

In contrast to the general Federal preemption of State and local initiatives in the field of housing development. We prefer the development of standards and the testing of materials. We concluded that the Federal Government should provide technical assistance while code reexaminations and revisions if proved necessary should be initiated at State and local levels and by model code groups. We hope these groups will continue asserting their responsibility so that total Federal preemption of their functions will remain unnecessary.

Given the pressing needs the impediments of local codes on development of Federally subsidized housing, however, led this Committee to a different conclusion than that stated above. In the Committee's view, the Congress could find constitutionally that the irrational myriad of State and local building and mechanical codes is frustrating the attainment of the 10-year National goal of six million Federally subsidized dwellings.

The Committee recommends that the Congress authorize the Secretary of Housing and Urban Development to preempt the application of State and local building and mechanical codes to any specific Federally subsidized projects, subject to the Governor's veto.

The Secretary's powers should be contingent on a public hearing and a finding that limited pre-

emption is necessary to achieve the goals of the Federal housing program, and should be subject to the Governor's veto. HUD, itself, would apply standards for construction that would assure reasonable standards of health, safety and durability for the subsidized project. The preemption order would then apply to all future Federally subsidized projects in the jurisdiction involved—but would be inapplicable to other kinds of structures. The jurisdiction involved should be entitled to request a second public hearing and if it could show that changed conditions no longer justified preemption, the Secretary's preemptive order would be removed.

Developing Standards and Testing New Products and Systems

The Committee has concluded that a strong National institution is required to exercise leadership in developing standards and coordinating the testing of new housing products and building systems. In our judgment, none of the existing institutions concerned with these matters possesses sufficient authority to fulfill this badly needed role.

The Committee recommends the creation of a Building Standards and Testing Institute.

Such an Institute might appropriately undertake at least the following four principal functions:

1. It could promote voluntary industry-wide coordination of the dimensions of building products and subsystems.
2. It could develop standards for measuring the quality of building products and construction systems.
3. It could draft uniform standards for all Federally financed and Federally subsidized construction, residential and nonresidential.
4. It could coordinate the testing of building products and subsystems and be authorized by Congress as the ultimate arbiter of testing decisions.

The Committee was not prepared to specify in detail the structure of this recommended Institute or its relation to related existing organizations. Inasmuch as it would require binding Congressional or governmental authority for fulfilling some of its functions, it should be a quasi-public institution. Like Federal agencies with funds for research and development, it should subcontract as much of its work as possible to private laboratories, universities and other knowledgeable entities with existing capabilities. Financing of its activities would require Congressional funding, although manufacturers of new products and subsystems would be required to pay fees for the testing of their submissions. The Committee concluded that the establishment of such a central authority for testing functions would bring uniformity and efficiencies of scale without abridging the rights of local and State governments to formulate their own building and mechanical codes.

An Association for Urban Technology

The Committee found that few highly skilled and trained technical personnel are actively involved in the housing industry, in comparison with other sectors of industry. Housing, by comparison, does not appear to be attracting its share of the technological talent. Those qualified technicians who do exist are frequently isolated from one another and unable to make their influences felt because of a lack of strong institutions for communications and exchanges of viewpoints.

The Committee recommends the formation of an association for urban technology that would concentrate primarily on housing problems.

During our study of housing research and technology, we identified the following functions which such an association could fulfill: It could publish technical journals on various aspects of housing; serve as a professional association for urban technologists; oversee administration of training and fellowship programs in urban technology; assemble an information bank on housing research and development; help in the transfer of knowledge from R & D groups to firms interested in housing problems; and maintain systematic contacts with foreign counterparts concerned with housing research.

The Committee envisioned this proposed association operating on a large scale with a multimillion dollar budget. Funding could be provided by initial sponsors from the private sector, by seed money from HUD's R & D funds, and from fees charged to those who receive its various services. Responsibility for facilitating its establishment could be contracted to the Urban Institute.

1. Acquisition could not proceed unless the Secretary of HUD found there was a need for subsidized housing in that specific locality and that such need would not otherwise be met.
2. Prior to acquisition, the Secretary would be required to give notice and afford an opportunity for local public hearings.

The Committee realizes it can be argued that Federal acquisition of land preempts such sites from application of State and local zoning, building and property tax laws, even when the land has been leased back to private parties. This issue would

need legislative clarification. The Committee recommends their resolution as follows:

1. *Building Codes*—HUD should be authorized to preempt State or local codes if the Secretary, after review of the plans and appropriate inspection, determines that the structures to be built on Government-acquired land and meet reasonable standards of safety and durability.
2. *Zoning*—Structures built on Government-acquired land would be exempt from local zoning and other land-use regulations providing the Secretary found the proposed use is nondiscriminatory.
3. *Governor's Veto*—The Secretary's preemption of local building codes and zoning ordinances could be made subject to veto by the Governor of the State in which the municipality is located.
4. *Property Taxes*—Legislation creating and regulating any such Federal land acquisition program should require payment of local real estate taxes on projects built on Federally acquired land. Federal payment of these taxes would further reduce the rentals in subsidized projects.

Modifications to Federal Programs

As a matter of policy, the Committee believes that sponsors and developers of subsidized housing should be free to build anywhere they anticipate a demand for such units.

The Federal Workable Program requirement limits location of Public Housing, 221(d)(3) BMIR, and (to a lesser extent) Rent Supplement projects to communities whose local governments have undertaken certain comprehensive community planning measures and have affirmatively sought HUD's certification of their progress in community planning. We have concluded that regardless of the

Workable Program's positive intent, its practical result has been to severely restrict the number of sites available for Federally subsidized housing. Communities opposed to subsidized housing within their boundaries can effectively block private developers by failing to conform to the Workable Program requirement.

- *The Committee recommends that the Workable Program requirement be eliminated from all Federally subsidized housing programs.*

Today, the Federal Government owns about 34 percent of all U.S. land. Last year, the President initiated an Excess Land program to accelerate the sale of surplus Federal land in urban areas. Existing Federal law permits sale of such excess land at a reduced price for parks, hospitals, or schools—but not for housing. To help make more land available for subsidized housing at reduced costs:

- *The Committee recommends that the Federal excess land laws be amended to conform to Section 107 of the Housing Act of 1949.* (This Section states that if land reuse is restricted to development of low- and moderate-income housing and ancillary facilities, then the land's sales price should be calculated to reflect such restrictions.)

Urban Renewal will be a major source for subsidized housing sites. The urban renewal process is described at length in the staff's work on "Federal Housing Programs" and "Making Land Available."

- *The Committee recommends that regulations governing the Urban Renewal program be regularly reassessed to assure that subsidized housing projects can be built in Urban Renewal areas at reasonable rents.*

Adequate Manpower To Build and Rehabilitate 26 Million Dwellings

In the field of manpower, the Committee has developed a series of recommendations after exploring the answers to two basic questions:

Will there be enough workmen and skills to build an rehabilitate 26 million dwellings during the next 10 years?

How do manpower, skilled labor, and craft unions affect the costs of housing?

In order to answer these questions, consultants and staff made detailed studies of manpower in the homebuilding and construction industry.

A picture of the manpower situation in homebuilding is fuzzy, at best. There is little reliable data separating homebuilding from total construction. Indications are that a significant percentage of craftsmen and laborers move between the two, wherever and whenever work is to be found. In a study for the Committee, John T. Dunlop and D. Quinn Mills found that in homebuilding and construction together, 1.8 men are required to fill every average yearly job, a higher ratio than in any other industry.

Although hourly wages in homebuilding and construction are higher than those for the same types of skilled craftsmen in industry generally, yearly incomes are markedly lower. Work is seasonal, scarce in some months but plentiful in others. A full work year in construction is considered to be about 1,800 hours. Many construction workmen, however, work only between 1,100 to 1,400 hours a year. Attempts to recruit and train large numbers of new workmen for homebuilding and construction will depend in part on a change in the seasonal aspect of construction employment.

Estimating the size of the Nation's work force in homebuilding and construction is exceedingly difficult. The figures depend on one's definition of construction workers. There are no reliable National statistics covering construction workmen specifically employed in homebuilding occupations.

There is considerable disagreement on whether labor in homebuilding and construction is in short or sufficient supply. It can be said that while the total National pool of skilled craftsmen may be ample, there are local labor shortages in homebuilding and construction ranging from mild to very severe. Because the needs for manpower are changing with the progress of every construction project, management is almost constantly preoccupied and concerned with recruitment of skilled craftsmen.

Our consultants (Dunlop and Mills) estimated that a goal of 26 million new or rehabilitated dwellings in the decade ahead, together with predictable growth in non-residential construction, will require an additional 1,000,000 man-years in construction and homebuilding by 1975. Continuation of conditions requiring 1.8 men for each man-year of work are intolerable and would severely hamper attainment of our recommended housing goals, both in terms of scale and of cost to the Nation. The additional 1,000,000 man-years must be made available both through training and recruitment of new workmen and through increased efficiency aimed at reducing the ratio of workmen per job.

The construction and homebuilding industry has already done moderately well in increasing labor productivity. Since 1948, our consultant (Christopher Sims) estimates that productivity in con-

struction has increased at an average of about 2.3 percent annually, compared to the Council of Economic Advisors' estimate of 3.2 percent in manufacturing generally during recent years. In fairness to the construction and homebuilding industries, increased productivity is hampered by many adverse conditions beyond their own direct control. Nevertheless, productivity improvements are attainable by the joint efforts of business, labor, and Government actions at all levels.

Increasing the Size of the Work Force

The requirements in man-years of work under a program for 26 million additional standard dwellings will increase gradually as programs to implement that goal are enacted and accelerated. Additional increases in manpower will be required every year to offset deaths and retirements among the existing pool of construction and homebuilding labor. Isolated studies over the past few years suggest that the average age of construction workmen Nationally is surprisingly high for an industry characterized by hazardous and strenuous work.

Fortunately, the total National work force has been increasing sharply in recent years and is expected to grow at a rate of about 1.5 million a year between now and 1975. Construction, however, will have to compete with all other sectors of the economy for demands on skilled labor.

The relatively high concentrations of unemployment among teenagers, Negroes, and other minority groups provide a readily available but only partially tapped source for more skilled labor. In the first half of this year, 3.6 percent of the civilian labor force was unemployed. Among non-whites in the labor force, 6.8 per cent were unemployed. Among teenagers, 12.5 percent were unemployed and among non-white teenagers, the figure was 24.7 per cent. A Department of Labor report on "Jobless Trends in 20 Large Metropolitan Areas" in 1967 indicated that among 550,000 unemployed in the central cities studied, 40 percent were non-whites.

Any full examination of equal employment opportunity in the housing field must inquire into every industry and activity connected with it. It is doubtful whether the record of minority employment in those other related industries is any better than that of the skilled trades in construction.

Racial discrimination in construction, as in society generally, results from the biases of hundreds of communities and groups and the subtleties of many informal practices; therefore, it is difficult to eliminate. Earlier this year, the Building Trades Department of the AFL–CIO issued a statement calling for local implementation of policies to guarantee pre-apprenticeship training opportunities for ghetto residents on Federal housing programs. The Committee endorses this policy statement and urges its implementation.

The Federal Government has introduced the concept of "affirmative action" to assure equal employment opportunities on Federal construction projects. Its concept proposed to judge civil rights compliance on the basis of actual results, rather than abstract acquiescence to law.

The direction for Federal enforcement of this concept has been coming from two sources—Executive Order 11246 and Title VII of the Civil Rights Act of 1964—and has been divided among three agencies—the Equal Employment Opportunities Commission, the Justice Department's Civil Rights Division and the Offices of Federal Contract Compliance established in each Federal agency or department.

This triparte administration has brought uneven enforcement and the occasional usage of arbitrary quotas that accomplish only questionable, short term results in facing overall problems.

- *The Committee recommends that Federal agencies should develop a uniform set of performance standards for judging the construction industry's (labor and management) accomplishments in the area of equal employment opportunities.*

As standards for implementation of the above recommendation, the Committee generally supports those suggested by the staff in its paper, "Assuring Adequate Manpower" (see Section Nine).

Currently the Justice Department carries responsibility for initiating investigations into alleged discriminatory practices in non-Federal contract employment, including the construction and all other industries. Because the Equal Employment Opportunities Commission was established to develop expertise in helping to create equal employment opportunities:

- *The Committee recommends that the EEOC should be given authority to exercise cease-and-desist powers when and where patterns of job discrimination are detected.*

In making the above recommendations, the Committee emphasizes that leadership in providing equal job opportunities, whether in construction and homebuilding or elsewhere, must come from within the industry, itself. The construction industry has been attacked, often justifiably, for its discriminatory labor and hiring practices. In reviewing the

problems of creating truly equal employment opportunity, the Committee found a new spirit emerging and making itself felt within the industry, partly in response to new recognition by labor and management of their social obligations and responsibilities and partly to comply with new Federal laws.

To help prepare young people generally and minority groups, particularly, for employment in construction, new training programs and larger funding of such programs will be required.

The Federal Government spends about $260 million annually on vocational education, with about seven million persons currently enrolled in such courses. Most vocational students are not studying much that is relevant to housing construction or the building trades. Even for the courses in these fields, there is much room for questioning the quality of the curriculum.

- *The Committee recommends that the amount of Federal funds for vocational education in the construction trades be increased and that such increases in funding be accompanied by appropriate curriculum reforms.*

Federal manpower training programs in construction skills have generally tried to substitute relevant work experience for basic skills that should have been learned or acquired in traditional education programs. Precise figures and statistics on Federal training programs are difficult to obtain. Statistics from 1966 indicate that only about 2 percent of all enrollees in institutional training programs and around 5 percent of all enrollees in on-the-job training programs were being trained in construction-related careers.

- *The Committee recommends that higher priority be given to training in construction-related occupations in Federal programs, and that all such Federal training efforts in construction should strongly emphasize on-the-job training.*

There are numerous examples of successful models for pre-apprenticeship training programs. These local programs have been coordinated by local affiliates of the Urban League, by the Workers' Defense League in New York, by joint apprenticeship committees, by local Building Trades Councils, and other voluntary agencies. Currently, only a little more than $11 million a year is spent on such programs.

- *The Committee recommends that Federal funding of pre-apprenticeship training programs be increased to somewhere between $75 to $100 million for each of the next three fiscal years.*

With the interplay of all the participating forces involved, Federally funded manpower training programs are relatively complicated to initiate, direct and coordinate at local levels. Training efforts in construction skills clearly must be coordinated with local housing needs. To establish better local coordination of these training efforts:

- *The Committee recommends that a local advisory committee be established in each community to coordinate all local training activities.* Such committees should include labor and management representatives, as well as representatives from Public agencies, civil rights groups, and appropriate voluntary community agencies. Specific construction skills training programs should be tied in closely with Model Cities programs where they exist, and should be run directly under appropriate joint labor-management auspices.

The Davis-Bacon Act provides that all laborers and mechanics on certain Federally assisted construction projects should be paid wages no less than the prevailing rates on similar local construction projects, as determined by the Secretary of Labor. Excepting the new Section 235 program, it is applicable to all Federally subsidized housing programs. Our previous recommendations call for on-the-job training on Federal housing and rehabilitation construction. The trainee's job classification is a new one not generally provided for under the Davis-Bacon wage rate schedule. To implement such training programs:

- *The Committee recommends that the trainee classification be recognized in the Davis-Bacon Act as part of approved training programs for preparing workmen to enter regular employment in the building trades.*

To protect against possible hiring of laborers and other workmen at trainee's rates, recognition of a trainee's classification should be dependent on the existence of training programs approved by the Department of Labor. There should also be assurances that trainees will have continual employment opportunities and other protections normally included in training programs negotiated between labor and management.

Better Utilization of Homebuilding Manpower

Studies by consultants and discussions with experienced builders and labor movement officials suggest that seasonal fluctuations in construction activity waste more man hours than any other problem in the industry. Much more costruction activity could be scheduled for winter months. One impediment to wintertime building is prohibitions in local

building codes. Many local codes were written before new technological developments came along that enable more wintertime construction activity.

- *The Committee recommends that local communities should examine their respective building codes and revise them to allow for the most efficient seasonal employment of men, materials, and capital investment in construction.*

Other impediments to wintertime building can be found in local labor agreements.

- *The Committee recommends that management and labor should jointly reexamine local agreements for purposes of revising work rules that may inhibit wintertime building.*

A third cause of pronounced seasonality in construction activities is Federal contracting. The Federal Government, which accounts for about a third of all construction, makes about three-fourths of its contract awards in the summer months. To some extent, seasonality of Federal construction is a by-product of the appropriations cycle. An outstanding Executive Order requires wintertime construction for all work that can be done during winter months. Yet in recent years, Federal contract awards have been more seasonal in nature. To help reduce seasonality of Federal construction:

- *The Committee recommends establishment of a Federal office within the Department of Commerce to coordinate a Federal wintertime building program.*

Encouraging more private construction activities during winter months is a more difficult task. Existing studies detail many techniques used successfully in European countries and Canada for stepping up wintertime construction. These foreign techniques range from strong governmental encouragement to various forms of government subsidy on private construction projects.

- *The Committee recommends that the Federal Government explore with construction management and labor the feasibility of some form of subsidy to encourage wintertime building.*

Reducing the Labor Costs in Housing

Popular opinion is that rigid and restrictive labor practices and union work rules are impediments to cost savings through improved efficiency. Some of this opinion undoubtedly is justified. Our consultants' studies, however, show that all on-site labor costs in housing construction are so small a percentage of monthly occupancy costs that for a typical dwelling unit, a 20 percent reduction in labor costs would achieve only a $2 reduction in monthly rents. One group of consultants to this Committee (Burns and Mittelbach) restudied the entire subject of restrictive work rules and labor practices and concluded that on the whole, there are fewer indefensibly restrictive work practices than generally alleged. They speculate, however, that anticipation of labor resistance to new techniques and technology often forestalls research and development efforts aimed at further cost reductions in construction.

Conditions of better job security and more full-time employment in the construction and homebuilding industry should lessen labor's fears which may form the basis for those restrictive work practices that do exist.

- *The Committee recommends that the skilled crafts unions should be encouraged to be more flexible in work rules permitting introduction of new technologies,* particularly as the work year in the homebuilding industry rounds off for more stable employment, as it must to achieve a goal of 26 million more units.
- *The Committee further recommends that construction management should continue concentrating more heavily on improvement of management efficiency aimed at cost reductions.*

Availability of Building Materials

The committee directed its staff and certain consultants to consider whether the building materials industry would have the capability of responding to the demands of a goal of 26 million more housing units by 1978.

This industry, like the homebuilding industry, itself, is characterized by much fractionization. Concentration of production of most building materials is less pronounced than in most American manufacturing.

Competition among building materials—wood siding with aluminum and steel with concrete, for example—helps keep producers responsive to the need for continuing research and development and helps to control the costs for residential construction and rehabilitation. Although lumber prices have increased in recent months the prices of building materials, as a collective group, have not risen any faster than prices in the economy, generally.

Building materials manufacturers comprise one of the major sources for technological change in the housing industry. Changes generating from within the building materials industry have been occurring at a moderately steady pace.

The Committee's recommendations for stepped

up efforts in research leading, among other benefits, to new product development are contained in the previous section of this Report.

We concluded that the U.S. building materials industry has the potential capacity to provide enough production for a goal of 26 million more dwellings by 1978. Too sharp an immediate jump in housing production would bring upward pressures to bear on building materials' prices. On the other hand, a steadily and predictably growing market for their products will stimulate building materials producers to build up their production capacity. Although there are bound to be strains resulting in price increases for some materials, the industry should be able to meet the increased demand of a program for 26 million additional homes.

The Committee had no specific recommendations with respect to manufacturing and marketing of building materials.

Prospects for Cost Reduction in Residential Construction

There are two approaches to reducing the construction costs of housing. One is to reduce the minimum housing standards by increasing densities, cutting down on room sizes and paring the quality features and amenities within the dwelling units, themselves. The second and more difficult course is to pare down costs or hold down expected cost increases through technological advances while keeping quality constant.

Most frequently, existing low-cost housing units reflect the former approach—cutting down the standards. Earlier in this report, the Committee has recommended that standards for subsidized housing should be equal to but not exceed the quality for new residential construction for the local lower-income market above the need for subsidy. We recognize, however, that standards should be regularly examined with respect to costs and the incomes of the occupants for whom the housing is built.

The second approach for cost reductions—technological advances—is by far preferable in our judgment. Opportunities for reducing the occupancy costs for housing are lying every step along the way in the production process. Our consultants' and staff's investigations led us to suggest that implementation of policies such as those recommended in this report could reduce the relative cost of new construction by at least 10 percent within the foreseeable years ahead.

It was clear to us that new technology will be no panacea for bringing the costs of housing down to where Federal subsidies would no longer be required for lower-income families. Neither could we identify any instant technological solutions to the Nation's housing problems.

Some observers have visualized huge factories mass producing hundreds of thousands of housing units by highly industrialized systems. Industrialized systems for residential construction have been most successful in countries where there is a monolithic purchaser of housing—particularly the central government as is the case in the U.S.S.R. and other Eastern European countries—and where there is little latitude for consumer choice of housing or local public decisions affecting the housing market.

Most Soviet housing, for example, is mass produced. Most of it would not only be unmarketable in our free society but also would be unacceptable as austere, high density concentrations of lower-income families in our market for Federally subsidized dwellings.

The Committee hopes that experiments with industrialized systems for dwellings in the full range from single-family to high-rise, multi-family will continue in this Nation and will be conducted with careful analyses of all the cost factors, in order to gain full benefit of insight into their feasibility. We only caution that such systems do not offer a broad and universal cure for housing ills in a free society.

The Roles of State and Local Governments

As mentioned earlier, the National Commission on Urban Problems has been investigating the impediments to urban housing solutions raised by Stat and local public institutions and laws. This Com mittee, therefore, did not delve deeply into this general area of concern.

Some recommendations in this Report were aimed at enabling and assisting local agencies in working with Federal programs and private participants to meet local housing needs.

The Committee had our staff make a survey on State participation in housing and urban development efforts. We were surprised by the relatively low level of State activity in this field. Only 16 States, for example, have created departments with specific interests in urban problems. All States are eligible to participate in the Public Housing program but only one or two are actively and directly engaged in it. State governments could enact legislation to supplement Federal housing subsidies. Only a few have taken such actions. Suggestions for specific State programs were beyond our defini-

- How many American families are too poor to afford the market rate price for adequate housing? Are their numbers increasing or declining?
- How many existing homes are unfit for occupancy by the Nation's standard of living?
- How many homes must be built to meet the growing needs of the total population?

I. Assessment of the Need

When this Committee received its charge from the President in June 1967, reliable statistics for answering such questions were so difficult to obtain that TEMPO, General Electric's Center for Advanced Studies, was commissioned to make an in-depth computerized study of current and future U.S. housing construction and subsidy requirements. In addition the Committee reviewed an independent study by Robert Gladstone and Associates prepared for a Committee member. (Both studies appear in the volume of technical papers published along with this report.)

Part One

Housing Needs

A. 26 Million New or Rehabilitated Housing Units

TEMPO began by analyzing National population trends reflected in the 1950 and 1960 U.S. Censuses and then projected to 1978 the Nation's urban and rural population growth, new household formation, and racial characteristics. The basic trends can be seen in Table 1–1. With these projections determined, TEMPO next analyzed the fate of today's 66 million housing units over the next decade: how many will be lost by demolition, destruction and merger? How many will deteriorate? How many must be demolished or rehabilitated if all substandard housing is to be eliminated by 1978?

By coupling the population trends (Table 1–1) with the projected fate of existing housing, TEMPO produced estimates of total gross construction needs, both to accommodate the growing population and for replacement or rehabilitation of all substandard units.

TEMPO's findings on construction needs can be found in Table 1–2.

TEMPO found our Nation must build and rehabilitate 26 million houses and apartments in the next decade to provide for all the new

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TABLE 1–1. Population and Household Characteristics of the United States and Percentages of Selected Population Classes—1950, 1960, 1966, 1968, 1978

	1950	1960	1966	1968	1978
Population (millions):					
Total	151.3	178.5	194.1	201.8	235.2
White	135.1	158.1	170.8	177.3	204.3
Nonwhite	16.2	20.4	23.3	24.5	30.9
Central City:					
White	45.5	47.5	46.6	46.1	44.9
Nonwhite	6.3	10.3	12.8	13.5	18.8
Households (millions):					
Total	42.9	53.0	58.9	60.9	74.3
White	39.0	47.9	53.0	54.8	66.3
Nonwhite	3.9	5.1	5.9	6.1	8.0
Percentages of U.S. population:					
Inside SMSA:					
White [1]	59	62	64	64	65
Nonwhite [2]	56	64	68	70	77
Central City:					
White [1]	34	30	27	26	22
Nonwhite [2]	43	51	55	55	61
Nonwhite as per cent of total Central City	12	18	22	23	30

[1] Relative to the total United States white population.
[2] Relative to the total United States nonwhite population.

Source: GE TEMPO, *United States Housing Needs 1968–1978.*

TABLE 1–2. U.S. Housing Construction Needs—1968 to 1978 (Millions of Units)

Construction of new standard units:	
Units for new households	13.4
Replacement of net removals of standard units	3.0
Allowance for vacancies	1.6
Subtotal	18.0
Replacement or rehabilitation of substandard units:	
Units becoming substandard during 1968–78	2.0
Replacement of net removals	2.0
Other substandard units in the inventory in 1966	4.7
Subtotal	8.7
Total Construction Needs	26.7

Source: GE TEMPO, *United States Housing Needs: 1968–1978.*

households forming, to allow enough vacancies for our increasingly mobile population, to replace houses destroyed or demolished, and to eliminate all substandard housing. Gladstone, using a different approach emphasizing market analysis, estimates 10-year construction needs at a comparable level. The total figure of 26 million presents two major challenges to the Nation:

- Greatly expanded production for families who can afford adequate housing without government assistance.
- Measures to relieve the severe shortage of adequate housing for the poor.

The latter, a more immediate social problem and the primary subject of the Committee's work, is set in the context of the former. The housing market and the housing industry are all of a piece with each of the several parts affecting the others. Finding and producing housing for the urban poor is made more difficult if more resources must also be devoted to provide added housing for the total population. If the housing needs of middle-income citizens are not met, then it will be impossible to meet the housing needs of the great mass of the poor.

To meet this projected total need for the coming decade there must be a vast increase of the Nation's housing production. The average of 2.6 million new and rehabilitated units required for each of the 10 years, in order to meet this objective, compares with the current annual rate of 1.5 million new housing units per year. Recently the Nation has produced only about 50,000 subsidized units a year—in 10 years at that rate, only half a million. Production of both subsidized and unsubsidized housing must clearly be expanded to rid the cities of substandard housing by 1978.

B. Six to Eight Million Units for the Poor

Over the next 10 years, assuming that current economic trends and National policies continue without marked change, the number of American households unable to afford decent housing will remain almost constant. (We will explain later what is meant by "unable to afford.") TEMPO, besides calculating the housing construction levels required to eliminate substandard housing in the next decade, also carried out the complementary task of projecting the number of families who are, and will be, unable to afford adequate housing without government assistance. Its estimates on these "non-effective demand households" are shown in Table 1–3. The number of house-poor families will decline only slightly in the coming decade, if help is not forthcoming. One family in eight is now house-poor, and only slow improvement is in sight. Massive government assistance is essential not only to enable these families to afford adequate quarters, but also to make the production target of 26 million

units feasible as an economic matter. We estimate that six to eight million families must be receiving housing assistance by 1978, if all Americans are to be living in decent housing by that time.

1. When does a family need a subsidy?

To speak of millions of families who "cannot afford decent housing" implies a standard of what is reasonable or fair for a family to pay for shelter.

TEMPO found that (1) the average relation of housing expenditures to income for the U.S. total population is about 15 percent but (2) that white families earning between $4,000 to $5,000 a year spend an average of 20 percent of their income for housing. It employed this 20 percent figure to reach its estimate and projection of families unable to afford standard housing without some form of subsidy. Gladstone, on the other hand, applied the Federal rent supplement program's criterion, under which a family must allocate 25 percent of their gross monthly income for shelter costs. In many European countries, the percentage of income paid by families in subsidized housing is considerably smaller than either figure.

Determination of a proper proportion of a family's income for housing requires some difficult value

TABLE 1-3. United States Noneffective Demand Households (In Millions)

Year	White households			Nonwhite households			Total households
	Inside SMSA	Outside SMSA	Total	Inside SMSA	Outside SMSA	Total	
1960	3.6	2.5	6.1	1.0	1.2	2.2	8.3
1968	3.4	2.2	5.6	1.0	1.2	2.2	7.8
1978	3.4	1.9	5.3	1.1	1.1	2.2	7.5

Source: GE TEMPO, *United States Housing Needs: 1968–1978.*

judgments. Should the poor pay a higher or lower percentage of their meager income than others pay for housing? Should a poor family with five or six children pay proportionately more or less than a poor elderly couple or a pensioner living alone?

The staff concluded that no flat percentage can be fully equitable for all. Costs for housing and total costs for living vary widely from city to city or State to State. Central cities, suburbs and rural communities show different levels of housing costs. Negroes, as TEMPO found, are economically penalized in the housing market because their skin is black; Spanish speaking families and other minorities also encounter discrimination in housing that shrinks the value of their dollars.

If there must be a flat percentage for all families in all regions of the 20 per cent figure used by TEMPO to estimate "non-effective demand," seems reasonable. In Part 2, this issue is discussed in relation to Federal programs. We propose a thorough examination of the issue to determine how much families of differing sizes and in differing locations should reasonably be expected to pay for housing.

2. A look at these nearly 8 million needy families

One may divide the families requiring housing subsidies into two broad income groups:

- Those below the Federal government's poverty line (called "low income" for purposes of Federal housing programs), and
- Those above the poverty line but who would still have to pay more than 20 to 25 percent of their income for decent housing in the absence of a subsidy (called "moderate income" for purposes of Federal housing programs).

a. Economic characteristics.—Among low-and moderate-income families requiring a subsidy, the greatest need, perhaps not surprisingly, is that of the poorest of the poor. What is surprising is that their needs have not received priority.

Table 1–4 presents TEMPO's projection of the income distribution of households in metropolitan areas in 1978. The table suggests that while the percentage of urban families earning less than $4,000 a year will decline from 31 percent in 1960 to 22 percent in 1978, their absolute numbers will *increase* slightly. Even in 1978, almost half of the urban families with incomes under $4,000 will be earning less than $2,000.

b. *Racial characteristics.* About 70 per cent of the six to eight million families unable to afford housing will be white, and about 30 percent will be nonwhite. The nationwide proportionate need among nonwhites will be almost three times more acute than among the white majority. In 1978, one in every four nonwhite families will need housing assistance, compared to only one in every 12 white families. Also in 1978, as Table 1–5 shows, 18 percent of all *urban* nonwhite families will require some form of housing subsidy, compared to only about 8 percent of all urban white families.

TABLE 1-4. Income Distribution of Households Inside All SMSAs, 1960 and 1978

Annual income ($1,000)	1960 Households in—		1978 Households in—	
	Thousands	Percent	Thousands	Percent
Less than 2.0	5,014	14.7	5,246	10.5
2.0 to 2.9	2,541	7.5	2,960	5.9
3.0 to 3.9	2,932	8.6	2,824	5.6
4.0 to 4.9	3,482	10.2	3,072	6.1
5.0 to 5.9	4,015	11.8	3,285	6.6
6.0 to 6.9	3,557	10.5	3,640	7.1
7.0 to 9.9	6,930	20.4	8,685	17.3
10.0 or more	5,538	16.3	20,434	40.7
Total	34,009	100.0	50,145	100.0

Source: Derived from GE TEMPO, *United States Housing Needs: 1968–78.*

TABLE 1-5. Distribution of Noneffective Demand Households by White and Nonwhite Head, Inside All SMSAs—1960, 1968, 1978

Year	White head		Nonwhite head	
	Thousands	Percent[1]	Thousands	Percent[2]
1960	3,612	11.8	1,017	29.2
1968	3,374	9.6	989	23.4
1978	3,380	7.7	1,132	18.3

[1] Relative to all white families in SMSAs.
[2] Relative to all nonwhite families in SMSAs.

Source: GE TEMPO, *United States Housing Needs: 1968–78.*

The nonwhite family must pay an economic penalty because of racial discrimination. "Nonwhites," TEMPO concluded after amassing data on National housing cost patterns, "must earn approximately one-third more annual income than whites, irrespective of household size, to assure [themselves of] standard housing."

As evidence of the economic penalty of discrimination in rental housing, TEMPO offered this finding: in 1960, an urban white family with three children had to earn $4,100 annually to afford standard housing, based on allocating 20 percent of their gross income for shelter costs. In contrast, a nonwhite family of the same size had to earn $5,500 to afford the same standard of rental housing.

TABLE 1–6. Minimum Annual Incomes Required To Assure Standard Housing for White and Nonwhite Households, by Household Size—1960 (Based on Expenditure of 20 Per cent of Income for Housing)

Residence and race	Minimum income by household size (1960 dollars)				Percent of households below minimum incomes unable to find standard housing
	1–2	3–4	5	6+	
Inside SMSA:					
White.....	2,700	3,400	4,100	4,600	55.8
Nonwhite..	3,800	4,700	5,500	6,200	43.8
Outside SMSA:					
White.....	3,900	4,800	5,600	5,900	26.0
Nonwhite..	5,300	5,800	6,300	6,500	74.5

Source: GE TEMPO, *United States Housing Needs: 1968–1978.*

c. Geographic characteristics. The six to eight million families in need of housing assistance live in rural America as well as in what the President called "the corroded core of the American city."

According to TEMPO, only about 56 percent of today's house-poor families live in metropolitan areas with populations of 50,000 or more (Standard Metropolitan Statistical Areas). TEMPO's projections indicate that subsidy requirements in these area will increase to 60 percent of total requirements by 1978, however, because the numbers of needy urban dwellers will remain relatively constant while the numbers of their rural counterparts will decline. (Refer to Table 1–3.) About one-eighth of the house-poor families in 1978 will be nonwhite households living in the central cities.

This report emphasizes urban housing needs. It is not our intention, however, to minimize or ignore the sizable housing problems of rural America for both needs are tightly related. A recurring factor in the life of urban slums has been a steady trek of rural poor—black and white—from the countryside to the nation's big industrial cities.

d. The elderly. One of the largest and neediest groups among the poor are the elderly—couples, widowers, bachelors, widows living on social security, meager savings, a pension, or welfare. TEMPO projects that nearly half of the 3.4 million white urban households needing housing assistance in 1978 will be headed by a person aged 65 or older. These older Americans make up a much larger part of the American poor than in the impression sometimes given by the current literature on poverty. In 1960, 77 percent of all persons over 65 who lived alone had incomes of less than $2,000—making them one of the largest of all the subgroups of the poor.

C. A Look at the Nation's Housing Stock

What happens to these families unable to afford adequate housing? Most of them live in dilapidated tenements and shacks. Many live with relations or friends, crowding into their already unsatisfactory quarters.

1. Substandard houses

There are two ways to measure U.S. housing needs. One is to look at the family pocketbook, comparing the income of the families to the cost of housing. TEMPO's projections just discussed were of this kind—based upon what it calls "noneffective demand." The second method, is to look at the condition of the houses themselves.

How many "substandard" housing units are there in the United States? The answer depends on the criteria used. TEMPO and Gladstone used different approaches. TEMPO called "substandard" only those units which the Census takers had found to be "dilapidated" or lacking adequate plumbing facilities. By this test there were some nine million occupied substandard housing units in the United States in 1960. Gladstone added "deteriorated" units in its totals, and therefore found some 15 million substandard units in 1960 equal to one-quarter of the entire housing inventory. By either test, a dwelling was considerably more likely to be substandard if it were located outside a metropolitan area, or in the South. Both studies relied on the 1960 Census, not only seriously out of date but also subject to real question, as both the TEMPO and Gladstone studies remark. The amount of dilapidation indicated in the Census evaluation may be understated by as much as one-third.

The production target of 26 million units over the next decade is based on TEMPO's definition. Consequently production at that rate will be sufficient to replace or rehabilitate all dilapidated structures and those with inadequate plumbing. It is not sufficient to allow elimination of all deteriorated units.

Our private economy, assisted by government action, has made major strides in improving the housing stock over the last few decades. Table 1–7, based on the TEMPO definition of "substandard," indicates how rapid this progress has been. The number of occupied substandard units has been reduced by over half since 1950. Since 1960, much of the improvement is attributable to the installation of

plumbing outside metropolitan areas. By TEMPO's estimates there are still about *6.7 million units of substandard housing in the United States today.* More units are deteriorating, others are being upgraded. But without a major National effort, there is little prospect for any substantial net gains in the condition of substandard metropolitan area housing in the decade ahead.

TABLE 1–7. Occupied Substandard Housing Units—1950 to 1978 (Thousands of Units)

Category	1950	1960	1966 [1]	1978 [1]
Total units	15,256	9,007	6,727	4,300
By location:				
Inside SMSA	5,426	2,761	2,088	2,150
Outside SMSA	9,830	6,246	4,639	2,150
Percent inside SMSA	35	31	30	50
By condition:				
DILAP [2]	3,708	3,083	2,663	1,900
NDIP [3]	11,548	5,924	4,064	2,400

[1] TEMPO projections.
[2] DILAP means "dilapidated with adequate plumbing."
[3] NDIP means "not dilapidated with inadequate plumbing."
Source: GE TEMPO, *United States Housing Needs: 1968–78.*

TEMPO projected the results of all the changes that may now be expected, in substandard housing in the next 10 years: their figures indicate that *the Nation will need to replace or rehabilitate 8.7 million units*—substandard now; or units that will become substandard—if there is to be no substandard housing in 1978. (See Table 1–2.)

What kinds of families live in substandard housing? The majority are poor, and they are disportionately nonwhite and nonurban. Table 1–8 indicates what fractions of specific population groups were living in substandard housing in 1960. The inhabitants of substandard housing are not wholly identical to the house-poor families TEMPO calls "noneffective demand". The above table indicates that 7 percent of nonwhite metropolitan area families earning over $10,000 lived in substandard housing in 1960, none of them house-poor by an income test. Nevertheless the table shows a strong correlation between poverty and occupancy of substandard housing.

TABLE 1–8. Percentage of White and Nonwhite Households in Specific Income Groups Occupying Substandard Housing, Inside and Outside SMSAs—1960

Household characteristics (dollars in thousands)	Inside SMSAs		Outside SMSAs	
	White (per cent)	Nonwhite (per cent)	White (per cent)	Nonwhite (per cent)
Annual income: [1]				
Under 2.0	21	45	45	87
2.0 to 2.9	15	35	33	77
3.0 to 3.9	12	28	25	65
4.0 to 4.9	9	21	18	56
5.0 to 5.9	6	16	13	49
6.0 to 6.9	4	14	10	43
7.0 to 9.9	2	9	7	36
Over 10.0	1	7	4	31
All incomes	7	28	23	77

[1] Income is for the calendar year 1959, and is limited to that received by the primary family or primary individual.
Source: GE TEMPO, *United States Housing Needs: 1968–78.*

2. *Crowding and Doubling*

The adequacy of the housing stock cannot be judged solely by its physical condition. Are there enough rooms in the United States to hold the population without crowding? The Bureau of the Census assumes that more than one person per room represents an overcrowded condition. By this test, there were about four million households in 1960 living in crowded conditions in *standard* units. Looking at the population as a whole: *three out of ten nonwhite households were crowded in 1960, and one out of ten white households.* 58 percent of the crowded households were in metropolitan areas.

Full freedom of housing choice includes the opportunity for each family to occupy its own dwelling. Although there has been improvement in this

regard, still in 1960 about 1 of every 50 American families were "doubled"—that is, they shared their home with another family.

The production target of 26 million new and rehabilitated housing units in the next decade is calculated to permit elimination of all substandard housing; it will not necessarily eliminate all crowding and doubling.

D. Housing and Slums

A slum or a ghetto is not the result of substandard or overcrowded housing alone; it is the result of a host of cumulative influences in the social environment—and not in the slums alone but throughout the society. Social disorganization is collected and then compounded in particular sections of cities; bad housing is just one feature of these slums.

President Johnson, in his address at Howard University in June 1965, observed that ". . . ability is not just the product of birth. Ability is stretched or stunted by the family you live with, and the neighborhood you live in, by the school you go to and the poverty or richness of your surroundings. It is the product of a hundred unseen forces playing upon the infant, the child, and the man."

The President was describing the particular restrictions on equal opportunity for American Negroes, but every word of this paragraph applies to other citizens, whether members of racial minorities or not. Outside the family no single determinant of the "hundred unseen forces," of the "poverty or richness" of a person's surroundings, is more decisive than the location of his home.

The place a man lives is more than just another commodity, service, or possession; it is a symbol of his status, an extension of his personality, a part of his identity, a determinant of many of the benefits—and disadvantages—of society that will come to him and his family: schooling, police protection, municipal services, neighborhood environment, access (or lack of access) to a hundred possibilities of life and culture.

Life in the slums contradicts the classic picture of Amercian democracy, a picture which includes equal treatment, free choice, an opportunity for a better life, full participation in the benefits of the society. It is more and more apparent that life in contemporary American city slums does not accord with those promises.

Segments of the urban poor today know and feel their relative deprivation, in housing or in other regards, to an unprecendented degree. The overwhelming contrast of their own living condition with that of the wealthy majority is brought home every day by modern means of communication. As the Kerner Commission said, "Through television—the universal appliance of the ghetto— . . . this difference has been endlessly flaunted before the eyes of the Negro poor and the jobless ghetto youth.

There is a complex relation among the quality of housing, the behavior of people the condition of a neighborhood, and the life of the poor. These relationships are by no means simple. Better housing, alone, will not overcome all the ills of today's poverty, but better housing is one essential part of the effort to do so.

II. Private Enterprise and U.S. Housing

The "squalor" of slum housing is not the result of any essential defect in America's "productive power." That producive power (private enterprise, sometimes joined with collaborative public policy) has shown not only that it can "master space and provide unmatched abundance in the marketplace" but also that it can produce housing.

America's existing stock of housing—more than 66 million units—is a marvel of production. After the long years of the Great Depression and World War II, American industry, in the late forties, very rapidly and effectively produced housing to meet the

pent-up demand. When there is effective demand for it, the American housing industry can build housing with efficiency, high standards, and consumer satisfaction.

U.S. and Foreign Housing Compared

Despite the grim statistics of the TEMPO report, the United States is a world leader in the quality and relative quantity of housing. Table 1–9 indicates the percentage of dwellings in various countries with certain internal amenities most Americans take for granted:

TABLE 1–9. Percentage of Dwellings in Selected Countries Having Certain Interior Facilities

Country (percent)	Year (per cent)	Electricity (percent)	Inside running water (percent)	Bathroom (percent)
United States	1960	99.8	92.9	88.1
Canada	1959	96.8	86.9	76.5
Denmark	1960	93.4	88.2	39.4
France	1962	97.5	77.5	28.0
Germany (West)	1961	99.4	96.7	49.1
Great Britain	1961	.....	.....	78.3
Greece	1961	53.1	28.6	10.4
Italy	1961	94.9	61.3	28.7
Sweden	1960	.....	90.2	61.0
Switzerland	1960	100.0	98.8	69.1

Source: Organization for Economic Cooperation and Development.

The United States leads the world—as perhaps most of the world would expect—in bathroom facilities. 88 percent of American dwellings have bathrooms, compared to less than 30 percent in France and Italy. Electricity and running water are now practically universal in most developed countries, and in some—like Switzerland—are even more common than in the United States.

The United States is also a leader in the quantity of housing. In 1960, the U.S. ranked fifth in number of dwellings per inhabitant, and at 1.48, first in number of rooms per inhabitant.

The United States is also a leader in the usable floor space in dwellings now being constructed. New dwellings in the United States (as well as the Netherlands and Denmark) contain an average of about 1,300 square feet. This compares to roughly 800 square feet in Sweden and West Germany, and 500 square feet in the U.S.S.R.

On the basis of these statistics it is fair to conclude that the U.S. population, at least on the average, enjoys a combination of amenities and space per capita unequaled by any other country.

The United States compares less favorably in other respects. The United States in recent years has invested a lower percentage of gross national product into housing than other developed nations like France, the Netherlands, Sweden, and West Germany. (See Table 1–10.) Many of these countries have by political decision specifically committed themselves to vast improvement of their housing stock. The United States, as shall be explained at length later in this report, also gives comparatively little support to research and development related to housing. And, most important of all, the favorable statistics on U.S. housing are averages and overall figures; the material presented at the beginning of the chapter shows that much of America is still ill-housed.

American private enterprise has built an impressive, world-leading housing inventory, and can build housing efficiently and at the highest standards, when there is effective demand for it. But American private enterprise alone cannot build housing for the poorest Americans. The rents of older houses and apartments in decent condition

TABLE 1–10. Comparative Financial Commitment to the Housing Sector, Selected Industrialized Countries

Country	Year	Gross fixed capital formation invested in housing as a percentage of gross national product (percent)	Gross fixed capital formation invested in housing as a percentage of gross fixed capital formation invested in construction (percent)	Fixed capital formation in housing as a percentage of gross fixed capital formation (percent)
United States	1965	4.4	41.3	25.1
United Kingdom	1965	3.7	39.3	20.7
West Germany	1964	5.8	42.0	22.1
Sweden	1965	5.9	36.9	24.6
Netherlands	1964	4.7	34.5	18.6
France [1]	1964	6.1	50.6	29.2

[1] 1964 was an unusually high year for housing investment in France.

Source: Office of International Housing, HUD.

are regularly beyond what this low-income segment of Americans can—or should—pay.

A later section examines the elements of the cost of a house or an apartment. Here we should observe that there are more of those elements, in a more complex structure of cost, than a superficial view would see. There is much more to it than simply the cost of labor and materials in constructing a building, which is complicated enough; there are also the costs of land, interest on a mortgage, legal fees, maintenance, and a dozen other services and requirements. All these factors are provided through the profit system of a highly productive economy.

As subsequent parts will elaborate, production bottlenecks can be eliminated and intensified efforts in research and development are clearly in order. But the primary problem is not some gross inefficiency in homebuilding or some exorbitant cost elements in production of housing. The root of the problem in housing America's poor is the gap between the price that private enterprise must receive and the price the poor can afford. In short, the basic source of the problem is not poor housing or a faulty production system. It is poverty, itself.

American private enterprise, working at its peak efficiency, cannot and will not succeed in building shelter for those left behind by our economic system, so long as private enterprise is working alone. The economic gap separating millions of deprived families from adequate housing can only be bridged by government subsidies. Such subsidies create an effective and real market demand to which private enterprise has proved it will respond with volume production, providing there is opportunity for earning a reasonable profit.

III. Decent Housing for All

A. Commitment To Provide Needed Subsidies

In 30 years of Federal housing subsidies, only 800,000 subsidized units have been built. Recent production is at the rate of only about 50,000 a year.

The new Housing and Urban Development Act of 1968 sets a national goal of 6,000,000 subsidized units for the next 10 years.

Generalized expressions of the nation's good intentions, addressed to no particular responsible agency and including no specific goals, for specific dates, have a way of being overlooked, forgotten, unfulfilled—as the history of the "Declaration of National Housing Policy" demonstrates.

B. Public Assistance and Private Initiative

The goal of decent housing for all Americans means that those who cannot afford decent housing on their own in the private market must receive some form of public assistance—a subsidy. The American people and government have been slow to admit that a segment of our population requires subsidies in order to obtain adequate housing and hence all government subsidy programs have been inadequate in scale.

At the same time, to meet the goal of the Housing Act, there must be a larger reliance on private enterprise to build the houses. Private enterprise has generally built subsidized housing, but, until very recently, it was forced through much red tape and had only limited scope for innovation or decision-making. Building decent, subsidized homes for the poor is not distinctly different from building housing for the vast majority who can afford to pay for its costs. Private enterprise can be relied upon to do both well. The Turnkey programs, about which more will be said, show that when private industry is given more scope, it can produce quickly and efficiently.

C. Free Choices and a Variety of Real Choices

Recipients of housing assistance should be given adequate choice of where they would like to live, in what kind of housing, and whether they would like to rent or own their dwellings.

Past housing programs have allowed very little choice on the part of recipients, except the choice of continuing to live in deteriorating slum housir Public housing, for example, has offered only rer units, usually located within or on the fringes of slums. Artificial restrictions which restrict the lc

tion of subsidized housing should be eliminated so that recipients of assistance would have the widest possible choice of where to live. Removal of restrictions will allow people to locate near places of employment. Merely enforcing the Federal open housing provisions of the Civil Rights Act of 1968, though important, will not be enough to assure freedom of location. It serves very little purpose to tell a poor person he can move into a $50,000 house wherever it may be located; we must allow for an adequate supply of housing for low- and moderate-income families in all parts of our metropolitan areas.

Since a slum is defined not only by dilapidation but also by exclusion and negation, one must pay attention to location and to mixtures of groups and income levels. Subsidized low-income housing should not be concentrated in the present slums but scattered throughout the metropolitan areas. Such housing should not be built in great aggregates but in smaller collections of units. The excessive concentration of people of one narrow income level or age or race in one area should be avoided.

D. "A Suitable Living Environment"

Housing is not only a matter of a roof and walls but of a neighborhood and a society. People need not just a housing unit, but a neighborhood—a unit in a social setting.

And a national housing policy must look at the relation of housing to the web of living. Although investigation of all the social and physical elements of a suitable living environment is well beyond the scope of this assignment, better community facilities and services are necessary if a housing program is to succeed.

IV. The Cost of the Proposed Program

In response to the President's housing goal of six million units, the Department of Housing and Urban Development has developed the production table which appears below:

TABLE 1–11. Past and Projected Housing Starts and Publicly Assisted Rehabilitation, by Fiscal Year

[In thousands]

Fiscal year	Total housing starts [1]	Private unassisted new housing starts and rehabilitation			Publicly assisted housing starts	Total housing starts and publicly assisted rehabilitation	Publicly assisted new housing starts and rehabilitation			
		Total [1]	Starts	Rehabilitation			Total publicly assisted starts and rehabilitation	Public rental housing	Private rental housing	Private home ownership
1959	1,469	1,418	(2)	(2)	51	1,469	51	51	.....	.....
1960	1,420	1,386	(2)	(2)	34	1,420	34	34	.....	.....
1961	1,286	1,233	(2)	(2)	53	1,286	53	53	.....	.....
1962	1,445	1,402	(2)	(2)	43	1,446	44	42	2	.....
1963	1,563	1,526	(2)	(2)	37	1,564	38	31	7	.....
1964	1,638	1,591	(2)	(2)	47	1,638	47	32	15	.....
1965	1,527	1,469	(2)	(2)	58	1,528	59	40	19	.....
1966	1,433	1,384	(2)	(2)	49	1,435	51	32	18	1
1967	1,112	1,661	(2)	(2)	51	1,117	56	30	23	3
1968	1,520	1,407	(2)	(2)	113	1,535	128	67	53	8
Total	14,413	13,877	(2)	(2)	536	14,438	561	412	137	12
1969	1,700	1,450	1,400	50	250	1,750	300	75	125	100
1970	2,000	1,700	1,650	50	300	2,100	400	130	140	130
1971	2,100	1,750	1,650	100	350	2,250	500	190	160	150
1972	2,300	1,950	1,800	150	350	2,500	550	200	200	150
1973	2,550	2,150	2,000	150	400	2,750	600	200	250	150
1974	2,700	2,250	2,150	100	450	2,950	700	200	350	150
1975	3,000	2,550	2,350	200	450	3,250	700	150	400	150
1976	3,300	2,800	2,500	300	500	3,600	800	150	450	200
1977	3,300	2,800	2,500	300	500	3,550	750	100	450	200
1978	3,250	2,800	2,500	300	450	3,500	700	100	400	200
Total	26,200	22,200	20,500	1,700	4,000	28,200	6,000	1,495	2,925	1,580

[1] Includes unassisted privately rehabilitated units, but not publicly assisted. [2] Not available; the total consists of new unit starts.

Source: Department of Housing and Urban Development.

TABLE 1-12. Estimated Annual Federal Cash Payments for Assisted Housing Programs

[In millions of dollars]

	Public housing	Rent supplement	Sec. 236	Sec. 235	Totals
1968.....	302.6	1.1	.....		[1] 303.7
1969.....	304.2	5.0	5.2	6.9	321.3
1970.....	327.4	20.8	25.5	34.9	408.6
1971.....	408.8	50.5	55.6	86.9	601.8
1972.....	542.2	89.2	88.1	150.4	869.9
1973.....	715.3	134.1	119.1	213.8	1,182.3
1974.....	899.5	187.6	147.4	284.5	1,519.0
1975.....	1,088.7	249.7	173.5	353.6	1,865.5
1976.....	1,265.3	314.7	196.6	457.7	2,234.3
1977.....	1,414.3	373.9	206.8	546.6	2,541.6
1978.....	1,548.4	423.8	211.9	644.6	2,828.7

[1] This figure does not include the costs of supporting the 202 and 221(d)(3)BMIR programs. These costs are estimated to have been 7.6 and 10.7 respectively.

Source: Department of Housing and Urban Development.

The staff has reviewed this timetable and believes it attainable, giving full consideration to the harsh fact that the first year goal for 1969 is over five times the production performance for fiscal year 1967. Title XVI of the Housing and Urban Development Act of 1968 requires the President to prepare a plan establishing housing production targets for each year in the next decade, and to make annual reports on the Nation's success in meeting these targets. The staff urges that the timetable in Table 2-3 be adopted (in its broad outlines) for this purpose.

In fiscal 1968, the Federal Government spent a little over $300 million to subsidize a total of approximately 800,000 housing units receiving Federal subsidies. How much will the program for six million such units cost the American taxpayers, and can the nation afford this price?

HUD estimates that by 1978 the annual budget must be raised from its present level of $303.7 million to $2.8 billion—an increase of some $2.5 billion—to add six million units to the current stock of subsidized housing. These estimates are detailed in the table below. We can anticipate that, as incomes rise, the level of expenditure will decline over the 30 years or more that it will take to amortize the total development costs of producing these six million new units.

Cost projections are extremely difficult, particularly as they pertain to the complex and volatile housing industry. For purposes of analyzing the budgetary impact, the staff chose a particularly conservative viewpoint. To HUD's estimates, we think a contingency factor of 20 percent might be added, thus increasing the annual cash subsidy requirements to $3.4 billion for fiscal year 1978, the year of peak cost in meeting the six million unit goal.

Unquestionably, this goal demands a substantial commitment of Federal funds. Comparing this demand with Federal expenditures for other important national commitments, however, will help place the problem in perspective. The following table compares recent Federal expenditures for nationa defense, space exploration, highway constructic agricultural subsidies, and housing and urb renewal. We can only observe that not even 1978—the peak year for housing subsidies—do the required expenditure for housing approach the current Federal costs for space exploration.

TABLE 1-13. Federal Expenditures, Fiscal Years 1962-67

[In billions of dollars]

	Defense	Space	Highways	Stabilization of farm prices and income	Housing urban renewal
1962.....	$53.2	$1.2	$2.9	$7.9	$0.9
1963.....	54.6	2.5	3.1	6.8	0.9
1964.....	57.3	4.1	3.8	5.0	1.5
1965.....	55.8	5.1	4.1	5.8	1.6
1966.....	60.8	5.9	4.1	4.2	1.6
1967.....	74.6	5.4	4.2	3.5	1.6

Source: Government Finances in the United States, U.S. Department of Commerce, Bureau of the Census.

We recognize that such a comparison may be specious in one sense. The commitment for six million new units of subsidized housing requires at least a 30-year time span for full amortization. Our Nation's commitment to highways, space, defense and agriculture theoretically must be reaffirmed from year to year.

On the other hand, the net costs to the Nation of the housing program are somewhat overstated, perhaps even vastly overstated. The continued existence of slums imposes certain costs on our society which could be avoided if the slums were eliminated. Slums are noted for higher incidence of illness, crime, and fire, the cost of which is at least partly borne by the people at large. Poor housing can lower the productivity of workers, thus wasting the nation's manpower resources. Living in a slum can destroy aspirations and morale, and lead to costly anti-social behavior. These social costs, and others that may arise from bad housing, are not easy to quantify. We suggest they are large, conceivably exceeding the cost of the proposed program.

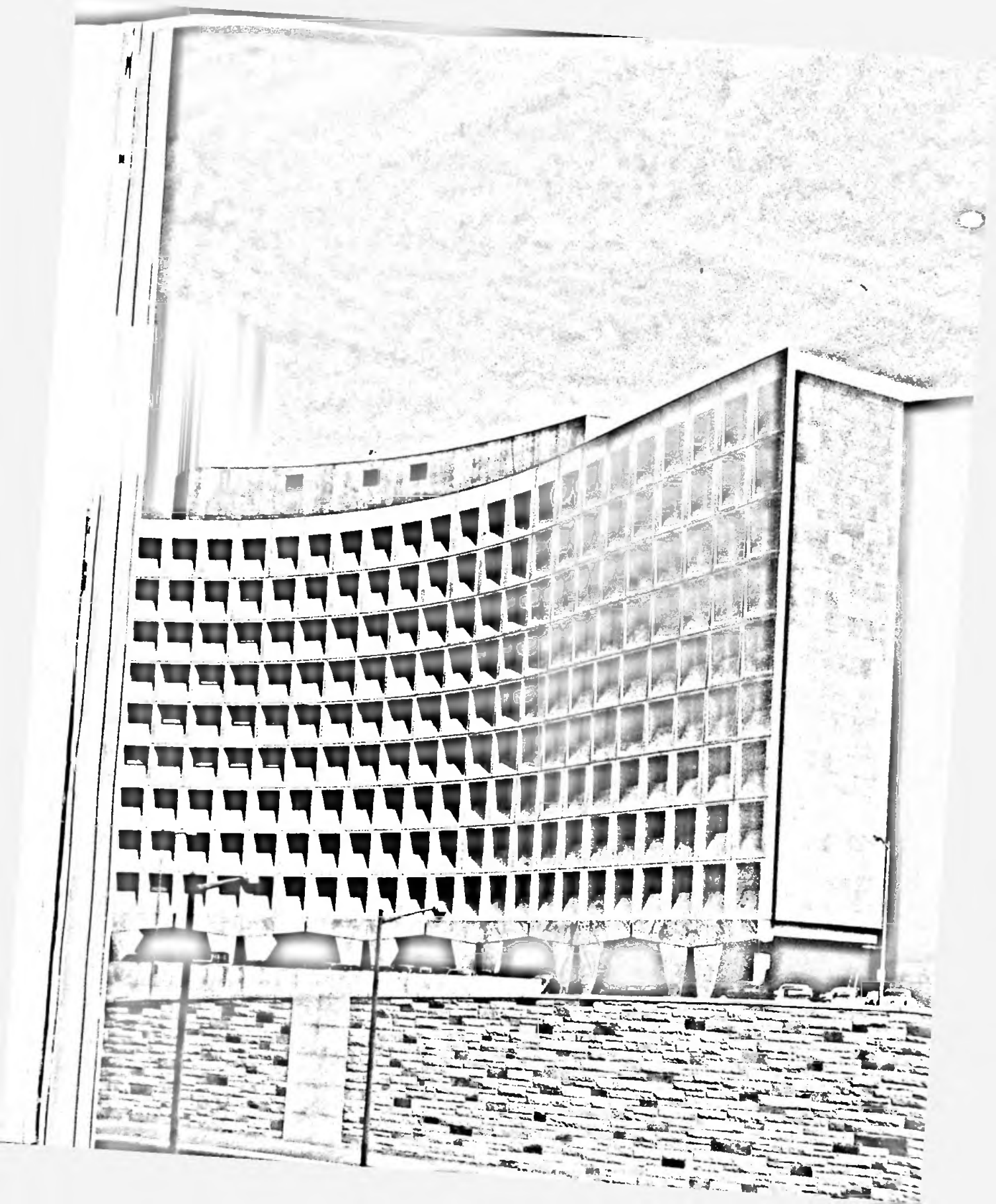
The issue is one of national priorities. The United States—as a Nation—seems finally committed to a goal of providing decent housing for all its citizens. In comparison with actual expenditures for other priority programs, the cost of fulfilling this commitment is not high.

Also, looking 10 years ahead, this commitment is not one of unending intensity. The number of American families requiring housing subsidies is expected to decline, assuming our economy continues moving forward. In fact, the poor will decline not only as a percentage of the population but also in numbers. TEMPO's study projects that the number of families in need of housing subsidies will drop from 8.3 million—as of 1960—to 7.5 million by 1978, while the total U.S. population will increase from 53.0 million households to 74.3 million. At the same time our economy can be expected to continue to expand, making available more tax revenues.

Considering all factors, we firmly believe that the costs of meeting the President's housing goals are well within the productive and economic capabilities of the Nation.

Section II

Federal Housing Programs



Part Two

History, Description, and Comparison

Since 1934 the United States has enacted an array of housing programs of bewildering complexity. Some of these have been successful in meeting the problems they were supposed to solve. Others have had mixed success, have generated undesirable side effects, or have simply failed. Still others are very new and have yet to prove what they will do. One advantage of the multiplicity of housing programs is that a variety of approaches have been tried, providing a body of experience with different techniques.

Housing programs have been enacted for a variety of purposes—to create jobs, to clear slums, to improve the tax base of central cities, and to help the poor. Some of these purposes, if pursued too single-mindedly, are contradictory. For instance, indiscriminate slum clearance may severely hurt poor families by restricting the supply of low-cost housing. In addition, housing programs may not be a particularly effective means for achieving some of the goals at which they have been aimed. During the 1930's, most housing programs were passed in large part to create jobs. Today, with our greatly increased understanding of economic problems, job creation is handled primarily through national policy.

Just as the purposes of housing programs have changed in the last one-third of the century, so have there been enormous changes in urban conditions. Our perceptions both of acceptable housing and of poverty are now very different from what they were; expectations have risen. The characteristics of the urban poor have changed and the absolute gap between the hard-core poor and the great majority increases steadily.

We believe that the primary purpose of housing programs should be to meet the housing needs of today's urban poor. By this standard, the existing arsenal of Federal housing programs, while greatly improved during the last decade, still shows serious deficiencies.

Inadequate Volume

First, the programs have simply not produced an adequate number of dwellings. There are approximately 7.8 million households unable "to afford" decent housing, even after giving account to existing subsidized units. About 800,000 such units have been built in the entire history of Federal activity in the field. In other words, after more than one-third of a century, Federal efforts have met only one-tenth of the nation's subsidized housing need.

Not Primarily for the Poor

Furthermore, as previously mentioned, the basic purpose of many existing housing programs has not been to provide housing for the poor. In the 1930's, construction of public housing was proposed largely to create jobs. FHA was established in part to start money moving again during the Depression years, and again largely to create jobs. In their earlier years, slum clearance was the stated goal of the Public Housing and Urban Renewal programs, even though this may sometimes have resulted in an overall reduction in the supply of low-cost housing. The most successful housing programs were not aimed at the poor at all, but rather were designed to help the middle class obtain mortgage financing. The nation has been slow to recognize unequivocally the necessity for subsidy if the poor are to be adequately housed.

Even programs whose announced purpose is to provide housing for the poor do not reach as far down as their originators intended. The subsidies provided under even the Public Housing and Rent Supplement programs are not sufficient to allow the very poorest families to live in such housing. Housing subsidy programs have tended (at least until recently) to be narrow and particularized, thus segregating different population groups. Many of the earlier programs have had adverse social consequences not anticipated by their founders.

Belated Recognition of the Role for Business

The nation has been slow to realize that private industry in many cases is an efficient vehicle for achieving social goals. The Federal housing subsidy programs of the 1930's assumed that the initiation and ownership of subsidized housing were the direct and full responsibilities of government. In 1959 Federally subsidized housing programs first provided a small role to the private sector, but then only to nonprofit groups. Not until 1961 did subsidy programs permit participation by profit-motivated entrepreneurs. Since then reliance on the private sector has expanded rapidly. More opportunities have been provided for private ownership of subsidized units, private development or management of publicly owned housing projects, and private financing of mortgages. Nevertheless, some programs still make too little use of the talents of private entrepreneurs. Others are shackled with restrictions and administrative hurdles that tend to discourage private interest.

One of the basic lessons of the history of Federal housing programs seems to be that the programs which work best—such as the FHA mortgage insurance programs—are those that channel the forces of existing economic institutions into productive areas. This approach has proved to be better than wholly ignoring existing institutions and starting afresh outside the prevailing market system. Reliance on market forces should be increased in the future.

The history of Federal housing activity dates primarily from the 1930's; but there were forerunners during and after World War I and even as early as the 1890's. This history is briefly traced in the Part I. The major housing subsidy programs—such as Public Housing, 221(d)(3), and others—are discussed only briefly. These programs are analyzed in detail after the historical overview.

I. A Brief History of Federal Housing Programs

Initial Efforts

Congress directed its attention to housing problems as early as the 1890's when it held the first hearings on slums and blight. These hearings, and the writings of reformers like Jacob Riis, helped to create a national awareness of housing problems although no governmental programs resulted.

The Federal Government became active in the housing field during World War I for more immediate and practical reasons. The demands of war production created new concentrations of workers near major shipyards and munitions plants. In response, the Federal Government built close to 30,000 units, about half of them as dormitories. Most were completed after the armistice and all were eventually sold.

Considerable Congressional interest in housing sprang up following World War I. Bills were submitted, without success, to create a system of banks oriented to residential finance and to give special consideration to veterans. During the 1920's the Departments of Labor and Commerce both looked into housing questions. The U.S. Bureau of Standards produced a series of uniform codes dealing with building standards and zoning which became the foundation for much of the legislation enacted later at state and local levels. However, substantial Federal efforts to influence the production and financing of housing did not occur until the 1930's.

Home Finance

In the early thirties, Congress and the Executive Branch found themselves faced with two overwhelming problems: (1) the collapse of mortgage credit and the system of home finance which had been in use; and (2) the need to generate jobs. The

collapse of the savings and loan industry was dealt with first.

In 1931 the White House Conference on Home Building and Homeownership convened by President Hoover directed its attention to the growing crisis in mortgage lending. Informed opinion was divided over whether Government action was necessary and, if it were, what form it should take. By the time the Home Loan Bank System was created in 1932, symptoms of financial collapse had spread from savings and loan associations to other lenders in the real estate credit market. The new Home Loan Bank Board was authorized to extend loans to its member savings and loan institutions through regional Federal Home Loan Banks. In effect, the savings and loan associations were required to invest primarily in real estate mortgages and, consequently, became major factors in residential finance. The Board faced a financial crisis with limited jurisdiction and found itself plagued with opposition from other banking sources of mortgage funds that had hoped for the creation of a central mortgage bank of broader jurisdiction.

After the inauguration of President Franklin Roosevelt and the bank holiday which followed, a system of deposit insurance was set up to guarantee deposits in commercial and savings banks. A separate insurance system was eventually created for savings and loan associations. Public confidence in the banking system was greatly enhanced.

Another effective measure to support the mortgage market was the establishment in 1933 of the Home Owners Loan Corporation (HOLC) which had the power to buy mortgages threatened with foreclosure. The Corporation was able to rescue families for whom loss of home was imminent and also to provide an opportunity for mortgage lenders to convert "frozen" assets to cash, thereby shoring up the banking system and protecting depositors from the loss of their savings. Although established amid dire predictions of its financial future, the Home Owners Loan Corporation at its peak held over 15 percent of the mortgage debt of the entire country and proved extremely effective in its role. By the time of its end some years after World War II, it had fully repaid the Treasury and its books showed a small profit.

Mortgage Insurance

A second major effort, this time in the area of mortgage instruments, was also highly successful. This was the National Housing Act of 1934, which established a system of mortgage insurance to be administered by the newly created Federal Housing Administration (FHA). The motivation was primarily that of creating jobs by improving the flow of mortgage credit, but FHA eventually brought about major changes in the practices used in financing housing.

Prior to the creation of HOLC and FHA, most mortgages had short terms with a large lump sum payment due at the end of the term, when the homebuyer had to refinance. In addition, mortgages rarely covered more than 50 percent of the value of the structure so that down payments were usually more than one-half of the purchase price. Second and third mortgages were common, adding to both interest costs and legal and recording costs.

The FHA mortgage insurance programs begun in 1934 were designed to reduce the risks of mortgage lenders in order to induce them to make credit available on more liberal terms. In return for a premium paid by the borrower, FHA insures the lender against the risk that the borrower will default. (The lender does absorb some of the foreclosure costs.) In case of default, FHA pays the lender the amount due on the mortgage from a fund in which the premiums are deposited. Because of this protection, lenders were willing to lengthen the term of the mortgage and to make it "fully amortized," so that no large lump sum had to be paid at the end of the term. In addition, lenders were willing to increase their loan-to-value ratios so that homes could be purchased with smaller down payments. Thus, by making mortgage financing more readily available, the FHA programs brought the possibility of homeownership within the reach of millions of additional American families, all at no cost to the taxpayer. In no other country in the world is private home financing generally available at such generous terms. In addition, FHA mortgage insurance with its long-term loans, high loan-to-value ratios, and level of payment amortization has become a major tool for meeting the credit needs of the subsidized housing market.

Another development which also helped primarily the middle class market was the creation of secondary market facilities in which government insured mortgages could be bought and sold. As will be noted in our description of major events of the fifties, the Federal National Mortgage Association (FNMA, commonly known as Fannie May), originally incorporated in 1938, is chartered to perform this function.

Public Housing

The effort to create jobs took other forms besides the new mortgage insurance technique. In

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1933 the Public Works Administration had offered loans to nonprofit and limited dividend housing corporations for the construction of inexpensive apartments. So little interest developed that a program of direct Federal construction of low-rent housing projects, primarily in slum areas, was initiated in 1934. Some 60 projects were built, but the program ran into local opposition and eventually into legal obstacles. A change in technique became politically imperative, and the Public Housing program was born with the passage of the United States Housing Act of 1937.

The salient feature of the Public Housing program is that the development, ownership, and management of projects are the responsibilities of local governmental bodies. Rents in Public Housing projects are lowered significantly by a combination of Federal and local subsidies. Thus, 1937 was a major watershed in Federal housing policy: in that year the first significant subsidy program to lower rents was established. (Other countries acted earlier; housing subsidy programs had been established in England and Sweden by 1919.) Admission to, and continued occupancy of, Public Housing was restricted to families of relatively low income. The families of fully employed blue-collar and semi-skilled workers were intended to be eligible. The Housing Assistance Administration, which presently is responsible for handling Federal relations with local housing authorities, is the successor to the Public Housing Administration, which itself succeeding the original United States Housing Authority.

The War and After

With the revival of the economy that preceded U.S. entry into World War II the home building industry experienced a brief spurt of activity. This was very shortly curtailed by growing shortages of materials and labor and the limited priority given to housing during the war. As might be expected, the housing tools developed during the thirties were now directed to the immediate development of dwellings, by construction or conversion, for warworkers and their families.

World War II also brought with it the creation of the National Housing Agency. For the first time many of the numerous activities of the Federal Government having a direct concern with housing were pulled together under one roof. A second major development of the war years was the creation in 1944 of the veterans' mortgage guarantee program administered by the Veterans Administration (VA). This was part of the package of veterans' benefits known as the G.I. Bill of Rights. The G.I. Loan, as it became known, is in effect an extension of the FHA system. Instead of insuring mortgages, however, the Veterans Administration guarantees the top portion of a mortgage loan without fee, enabling qualifying veterans to borrow 100 percent of the cost of the house.

By the end of World War II residential construction had been at a relatively low level for 15 years. The collapse of the housing credit system during the Depression, and the restrictions of the war period contributed to tremendous pent-up demand for housing which exploded after the war. Housing production leaped from 140,000 units in 1944 to one million in 1946 to close to two million in 1950. The growing pace of post-war housing activity brought pressure on interest rates and Congressional efforts to maintain these rates at a low level. At the same time Congress liberalized the basic FHA mortgage terms by authorizing a longer mortgage life and higher loan-to-value ratios. Mortgage loans based on estimated replacement costs were allowed under the 608 Multifamily program; and because of the severe housing shortage, builders were encouraged by FHA to take advantage of the profit potential under this program. The industry responded and production reached required levels. Construction of 608 projects often cost less than had been estimated, however, leading to the later "windfall profit" scandals and the requirement that builders certify their actual costs.

In response to the need for greater Federal support if relatively low interest rates were to be maintained, Congress restructured the Federal National Mortgage Association in 1948 and expressly prohibited creation of the other Federally-chartered, privately funded National Mortgage Associations that had been authorized through the 1930's. FNMA was authorized to make commitments to purchase in advance and by such commitments began to support the low interest rates of VA loans.

The period immediately following World War II was a time of heated controversy over the policies of the Federal Government toward housing. Was Public Housing to be the only vehicle for slum clearance? Or was the need for Federal support to local governments in the latter's efforts to eliminate slum conditions to be met in another way? This issue was settled in the landmark Housing Act of 1949. Although it authorized a Public Housing program of 135,000 units annually for six years, the '49 Act established a separate slum clearance and urban

redevelopment program, which has since evolved into Urban Renewal. It was to be the responsibility of this program to clear slums and blighted areas and (later in its growth) to provide sites for private enterprise to build new moderate-cost housing as well as for such residential, commercial, industrial, and public facilities as were most appropriate for the sites.

The best known provision of the Act of 1949 was its statement of a National Housing Policy. The most frequently quoted extract of this policy statement is that which establishes the goal of "a decent home and a suitable living environment for every American family." Other portions of this declaration of National Policy are equally important but less well known. They include the statement that "private enterprise shall be encouraged to serve as large a part of the total market as it can," and that "Governmental assistance shall be utilized where feasible to enable private enterprise to serve more of the total need."

The 1950's

Although Congress had authorized large appropriations for Public Housing in the Housing Act of 1949, the program was curtailed in the early 1950's. This cutback was a result both of Korean conflict budget stringencies and successful efforts of the Appropriations Committee to reduce the number of new units as well as their design amenities. The housing shortage faced by the voting majority received top priority. Congress spent much time designing stop-gap schemes for holding the lid on interest rates. For example, FNMA's financial authority was increased whenever the statutory limits on its secondary mortgage portfolio were approached. In 1950 FNMA became part of the Housing and Home Finance Agency (successor to the National Housing Agency in 1947).

The major housing legislation of the fifties was the Housing Act of 1954. It represented the first opportunity since the early 1930's for a Republican administration to have a major impact on national housing policy. Because the Act of 1954 made few major changes in the programs which had been established in the two preceding decades, it was looked upon as a confirmation of the bipartisan nature of housing policy. The Act grew out of a report by the President's Advisory Committee on Government Housing Policy and Programs established by President Eisenhower in 1953. In addition to the Charter Act which created the framework of FNMA as it operated until 1968, the bill added conservation and rehabilitation programs to broaden the 1949 slum clearance and urban redevelopment program into a more comprehensive tool.

The Housing Act of 1954 also initiated the requirement that a local government develop a "workable program" for community improvement before it could be eligible for assistance under the Public Housing, Urban Renewal and, later, the 221 (d) (3) programs. To be certified as having a workable program, a locality was required to develop a master plan, to adopt or to update various codes governing building, zoning, and fire standards, and to muster relocation and financial resources. Although they were not required to be in effect at once, a community had to show significant progress toward enacting the necessary local legislation and carrying it out.

Public Housing was continued at its reduced Korean conflict appropriation levels. The high-density, minimum-amenity projects which the Act promoted are now looked upon by many as "horror" cases demonstrating a lack of understanding that adequate housing means more than four walls, a roof, and a door. During the post-war years, Public Housing slowly lost many of its working class residents and came to house large concentrations of poor families, many with serious social problems.

FNMA's responsibilities were divided in 195 into three functions, all separately funded. The were its secondary market operations, its special a sistance functions, and its management and liquidation operations. The secondary market function involves the trading of FHA and VA supported mortgages originated by private institutions. "Special assistance" involves the purchase of mortgages which cannot be marketed to private lenders because of noncompetitive interest or because of lack of market experience with the program or instrument. This function became important in later subsidy programs like 221 (d) (3). The special assistance purchases are entirely funded by Government borrowing, whereas the secondary market operations use federal borrowing to support private borrowing, and for that reason can be used as an instrument of monetary policy.

The 1954 Act modified Urban Renewal to enable production of housing at reduced cost. The more liberal multi-family and single-family terms offered under the new Section 220 FHA mortgage insurance program for Urban Renewal areas were designed, in combination with provision for a land cost write-down, to attract the private sector into building middle-income housing in Urban Renewal areas.

FNMA special assistance was made available for these insured loans. Remembering the difficulties under the 608 program, Congress required cost certification to prevent windfall profits. It was still generally assumed that existing techniques would be adequate to serve those families above Public Housing levels. Later in the fifties it was found that even with urban renewal write-downs and more liberal mortgage terms, housing cost levels within the reach of moderate-income families could not be achieved.

Evolution of Subsidies in Privately Owned Buildings

The Housing Act of 1959 contained the first break in the pattern that restricted development and operation of subsidized projects to public owners. The Section 202 program begun in that year authorized direct loans from the Federal Government, originally at a rate based on interest rates on outstanding Federal debt (amended in 1965 to be no higher than 3 percent per year), to nonprofit sponsors of rental projects for the elderly and handicapped. The major significance of the 202 program is that, by its adoption, Congress authorized direct loans at less than market rates to *nonprofit private corporations,* although only nonprofit ones. In addition, this was the first statutory expression of the need for subsidy if the cost of shelter for those marginally above Public Housing levels was to be met.

The 221(d)(3) Below Market Interest Rate (BMIR) program, established by the Housing Act of 1961, expanded opportunities for private development of subsidized housing. The program authorized FNMA to purchase mortgage loans made to limited dividend and cooperative, as well as nonprofit, entities at low interest rates based on the average interest paid on the outstanding Federal debt. For the first time in the history of American housing, *profit-motivated private organizations* could develop subsidized housing. The subsidy was rather modest and indirect, being in effect a tender of the Federal borrowing power through FNMA's special assistance functions.

More important steps toward the use of subsidies in privately owned buildings were taken in

the Housing Act of 1965. By the spring of 1965 the average interest on the Federal debt had risen above 4 percent. The 1965 Act acknowledged the decreasing utility of the borrowing power technique used in the 221(d)(3) and 202 programs and pegged the below market interest rate at no higher than 3 percent. Both programs now enjoyed direct subsidies since FNMA and ultimately the Treasury would have to make up the difference between the Federal borrowing rate and 3 percent.

The 1965 Act also created two new subsidy techniques, one of which, Rent Supplements, became the subject of heated political controversy. The Rent Supplement program, unlike 202 and 221(d)(3), attempted to adjust housing subsidies to the needs of individual families, rather than simply to provide financial support of total project costs. Tenants were required to pay at least 25 percent of their income toward rent, and the Federal Government would make up the difference between that payment and the rental value of the units they occupied. As with the earlier private programs, rent levels were to be controlled to prevent private owners from making undue profits. The second new technique introduced in 1965 was the Section 23 leasing program which enabled local public housing authorities to subsidize rents in existing rental units.

The year 1965 also saw the creation of the Cabinet-level Department of Housing and Urban Development to succeed the Housing and Home Finance Agency.

Other Federal efforts in the 1960's attacked the non-physical aspects of slum problems. The Model Cities program, which attempts to coordinate Government policies, both physical and social within a defined neighborhood, was established in 1966. The various manpower programs, poverty programs, and changes in welfare policy had their own effects on housing conditions.

The Housing Act of 1968 culminated the strong movement toward use of housing subsidies in private dwellings. Its most important new feature was the Homeownership program in Section 235. This program provided modest subsidies to enable lower-income families to purchase new and, in some cases, existing homes. The Act also initiated a new rental program, Section 236, for families above the Public Housing income levels. This program is intended ultimately to replace both the 202 and 221(d)(3) programs since it provides a larger interest subsidy equal to the excess over an interest rate of 1 percent instead of 3 percent and since it has the advantage of correlating the amount of subsidy with the tenant's need. Both of these new programs rely almost exclusively on private developers—profit-motivated, nonprofit, and cooperative. Both programs also rely totally on private mortgage financing supported by subsidies payable directly to the mortgage lender in contrast to the Government's purchase of the mortgage in addition to the interest subsidy.

The Act of 1968 contained many other important innovations. It made FHA mortgage insurance more easily available in declining urban areas and for families with imperfect (but defensible) credit histories. FNMA's secondary market operations were transferred to a new privately owned corporation, and a new Government National Mortgage Association was established within HUD to handle the special assistance management and liquidating functions. The National Housing Partnership proposal, which was developed by this Committee, was enacted. Urban Renewal was given a new slant by the introduction of the "neghborhood development program" which provides greater program flexibility and encourages and rewards steady annual performance.

Most important of all, the Act of 1968 authorized large appropriations for the new homeownership and rental programs, as well as Rent Supplements and Public Housing, thereby making possible the President's goal of the construction and rehabilitation of six million housing units over a 10-year period for low- and moderate-income families. An annual report to establish targets and report progress was also required. In addition, the Act extended and expanded the funding of the Model Cities, Urban Renewal, Code Enforcement, and Community Facilities programs to permit a comprehensive attack on central city programs.

In the discussion which follows we leave the historical thread to take a closer look at the major subsidy techniques—how they work, their successes and failures—as a background for our program proposals.

II. Principal Federal Housing Subsidy Programs

There are a great many Federal housing programs. Most are administered by HUD, but the Veterans Administration, the Farmers Home Administration, and the Department of Defense all have significant housing programs of their own. Many of the HUD programs, like the traditional mortgage insurance programs of FHA, do not involve the subsidization of housing costs. The major HUD housing subsidy programs are outlined below.

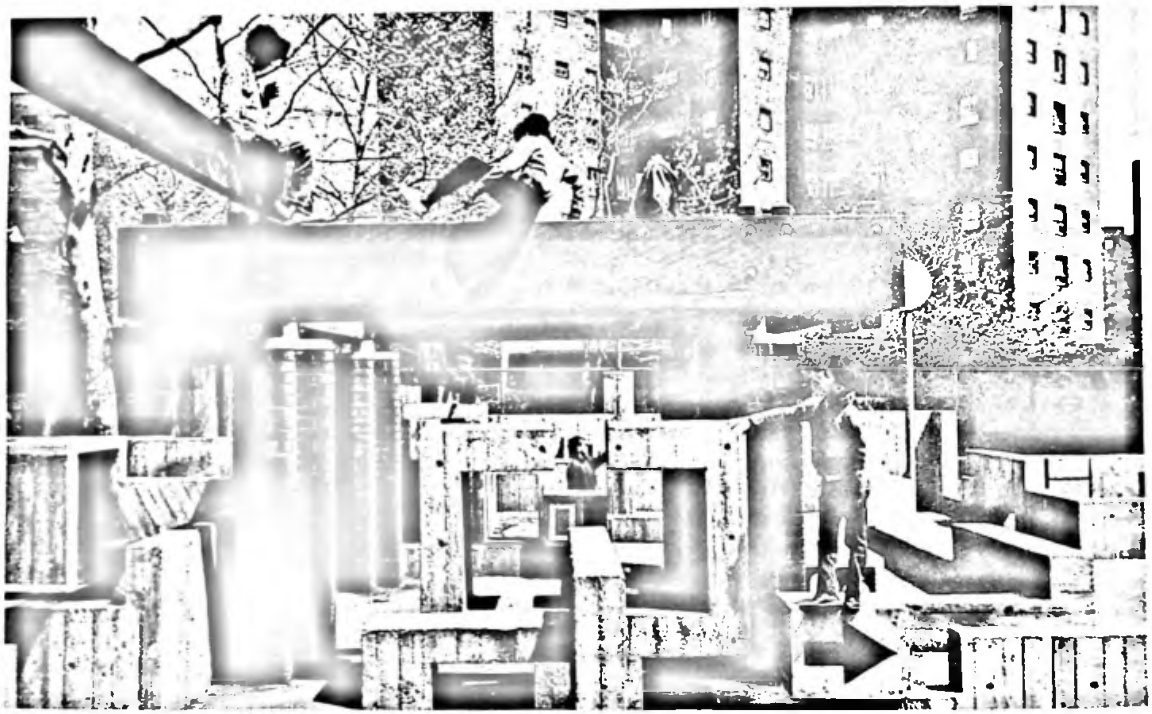
All programs are shown on the tables inserted on the back cover of the volume. Other Federal activities such as favorable income tax treatment for home-owners, and the write-down of land costs available under urban renewal, have also served to lower housing costs paid by consumers.

Public Housing

Although the layman may refer to all Government-assisted housing as "public housing," the term is used by housing professionals only to denote the specific program begun in 1937. The Public Housing program, as it has traditionally operated, places responsibility for development, ownership, and management of subsidized rental projects in the hands of independent local government agencies called housing authorities. A local housing authority cannot receive Federal assistance without the approval of both its local government and the Housing Assistance Administration, a subdivision of the Department of Housing and Urban Development. Some state laws go further and require local government approval of specific sites. Some jurisdictions, like the entire states of California and Texas, require that the Federal contract to support Public Housing projects be approved by local voters in referenda. Although practically all large cities have established housing authorities, many small jurisdictions, particularly suburban ones, do not participate in the program. For example, in 1967 less than half of the localities with populations between 25,000 and 50,000 had housing authorities.

A housing authority generally can only build within the boundaries of the local jurisdiction which established it. In addition, since 1954 Public Housing projects cannot be built in areas which do not have HUD-certified Workable Programs for community improvement. Thus, local governments which do not wish to have more subsidized projects located within their boundaries can "veto" them by simply letting their Workable Programs lapse. The result of all these forces is that most urban Public Housing projects have been located in decaying areas of central cities.

Rents in Public Housing are lowered through a number of subsidies, both Federal and local. The cost of project development is financed with long-term tax-exempt local bonds. This tax exemption lowers direct debt retirement costs. The Federal Government makes annual contributions to the local housing authority which cover all costs of retiring the bonds. The Federal Government is also authorized to pay a local authority an additional $120 per year for the benefit of each family which is elderly, displaced, extremely poor, or contains four or more



children. Lastly, public housing projects do not pay normal local real estate taxes but instead pay lower amounts in-lieu-of-taxes.

Because of these substantial subsidies, admission to public housing projects is restricted to families whose incomes are below limits established by the local housing authority under statutory Federal guidelines. At the end of 1964 the median income limit for admission for a family of two adults and two children, in localities within urbanized areas, was $4,000. The highest limit ($5,760) was in New York City. The median income of all families admitted to Public Housing in recent years has been roughly $2,500. The median rent for all public housing units is approximately $45. Roughly one-half of all public housing units are occupied by Negro tenants and one-third by elderly persons. Given the inadequate coverage and size of welfare payments, there are still millions of families who are too poor to live in public housing projects. Even those who live there may have to commit a disproportionate share of their incomes to pay the low rents.

Local housing authorities also set income limits for continued occupancy of public housing, normally at 125 percent of the limits for admission. Until a few years ago, tenants who earned more than the limits for continued occupancy were evicted—a practice widely believed to be damaging to incentives and to add to the instability within public housing. Recently, this practice has been softened somewhat.

The Public Housing program has been exclusively a rental program. Some recent efforts have been made to encourage ownership by tenants. For most of its history, Congressional pressure has required that projects have few amenities. This has proved to be short-sighted since many projects have been so distinctive in appearance that they have tended to stigmatize the neighborhoods in which they are located and the tenants themselves. Fortunately, in recent years there has been some change in attitude, and HUD has attempted, with some notable results, to encourage good design.

In 1967, the Public Housing program included some 650,000 units which housed almost 2.4 million persons. This figure dwarfs production totals under the other programs described below, principally because Public Housing was the only housing subsidy program in the United States until the last decade. Table 2–1 presents production figures for all Public Housing programs between 1939 and 1967. Production has been rather erratic, at least until recent years; the highest productic in 1941 and 1952–53.

TABLE 2–1. Low-Rent Public Ho Acquired, or Leased for Calendar

1939	4,960	1954	
1940	34,308	1955	[illegible]
1941	61,065	1956	11,993
1942	36,172	1957	10,513
1943	24,296	1958	15,472
1944	3,269	1959	21,939
1945	2,080	1960	16,401
1946	1,925	1961	20,965
1947	466	1962	28,682
1948	1,348	1963	27,327
1949	547	1964	24,488
1950	1,255	1965	30,769
1951	10,246	1966	31,483
1952	58,258	1967	38,756
1953	58,214		

Source: Housing Assistance Administration.

Some housing experts believe that the conventional Public Housing program as presently structured has proved to be an awkward method of producing housing. The requirement of local government approval of sites (not to mention problems raised by local referenda and the Workable Program requirement) has restricted the expansion of the program since Public Housing has rarely proved to be a popular neighbor. In addition, housing authorities have been criticized for using authoritarian management policies typfied by complex tenant regulations. Surveys indicate that many poor families believe that public housing will not offer them an attractive living environment. Many even prefer to live in unsubsidized, substandard private buildings. HUD has recently begun to place careful controls on project size, on use of high rise structures, on design, and has encouraged more flexible management, all in an effort to make future public housing projects more attractive.

A number of new developments have been introduced by HUD to involve the private sector in the production and management of public housing. These are discussed in another section.

202 and 221(d)(3) Below Market Interest Rate Programs

These two low-interest loan programs, although differing in details, use the same subsidy technique and are best analyzed together. The 202 program begun in 1959 is administered by the Housing Assistance Administration which is also responsible for Public Housing. The subsidy used is a direct loan from HUD to sponsoring nonprofit corporations, originally at an interest rate based on the outstand-

ing Federal debt and since 1965 at a flat 3 percent interest rate. Profit-motivated sponsors are not permitted to own these projects; only elderly or handicapped persons may live in 202 projects. Current income limits for tenant eligibility are the lesser of: (1) $4,500 per year for single persons, and $5,400 per year for two person families; or (2) 80 percent of the appropriate 221(d)(3) BMIR limits. Under this program, HUD also provides the interim financing needed for construction, again at a 3 percent rate of interest. The permanent loans may have a term of up to 50 years and can cover up to 100 percent of the costs of a project. Projects built under 202 are *not* restricted to jurisdictions which have HUD-approved Workable Programs.

The 221(d)(3) Below Market Interest Rate program (221(d)(3)BMIR), a considerably broader program than 202 in terms of eligible sponsors and eligible tenants, was begun in 1961. FNMA is now authorized to purchase 221(d)(3) mortgages bearing interest rates of 3 percent. Unlike 202, profit-seeking corporations as well as nonprofit ones can own 221(d)(3) projects. FHA, which administers 221(d)(3), prevents undue profits by requiring cost certification and by controlling rent levels and the distribution of profits. Interim financing must be arranged with conventional private lenders at market interest rates. The maximum term for the low-interest permanent mortgages has been established by HUD regulation at 40 years. The mortgage can cover up to 100 percent of replacement costs for nonprofit and cooperative sponsors and 90 percent for profit-oriented sponsors.

The majority of 221(d)(3) projects consist of newly constructed row houses and walkup apartments. They are either rental projects or cooperatives. They must be located in communities which have Workable Programs, a requirement which has restricted use of 221(d)(3).

The availability of a 3 percent loan permits a reduction of monthly rents in 221(d)(3) and 202 units of roughly $30 to $40 below the rents which would be charged if they were financed with market-rate mortgages. The income limits for admission to 221(d)(3) BMIR projects are usually several thousand dollars higher than the limit for admission to public housing in the same area. Income limits are established by HUD and depend upon family size and geographic area. In each area, they are set at the lower of: (1) the median income for families of that size in that area, or (2) the carrying costs of a unit with design characteristics which strike a balance between limited amenities and avoidance

of market unacceptability. Most limits are based on the latter factor, and consequently, rising construction costs require increases in income limits within the overall limit of median income. In the relatively few cases where the median income figure is controlling, increases in construction costs may make the program economically infeasible. An extreme example of this problem has arisen in the Upper Peninsula of Michigan where construction costs, because of unusual transportation charges and temperature problems, tend to be high, while the typical median income is relatively low. In a few instances like these, HUD has permitted higher income limits than it otherwise permits. In April 1968 the maximum income limit for admission to a 221(d)(3) project for a family of four was $9,050 in New York City; $7,500 in Denver, Colorado; and $5,950 in Montgomery, Alabama. Unlike 202, admission is not restricted to the elderly and handicapped. However, families displaced by Government action are given priority.

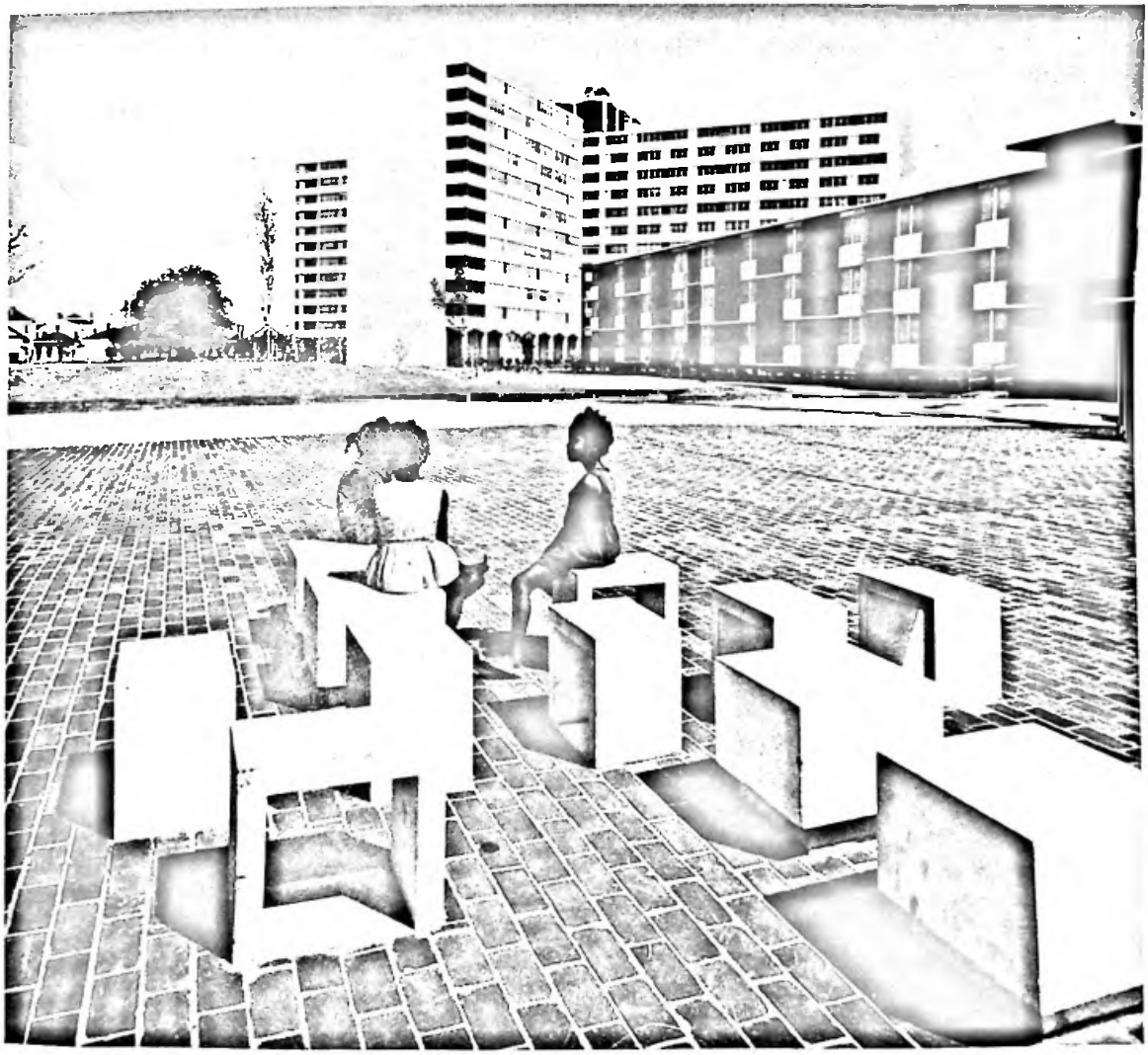
Table 2–2 presents projections of the rent levels achievable in Detroit with the 221(d)(3) BMIR, Public Housing and Rent Supplement programs and compares them with those achievable in nonsubsidized housing represented by the Section 207 program. It also indicates the incomes needed to support the required rents for 20 and 25 percent rent-income ratios. While this table is based only on Detroit cost data and contains some assumptions which may not be generally applicable, it does serve to illustrate that housing cannot be generally built for rents which low-income groups can be expected to pay without subsidies at least as great as those provided by the Rent Supplement program.

TABLE. 2–2. Average or Minimum Required Rentals on Newly Constructed One- and Two-Bedroom Apartments Under Different Federal Housing Programs and the Required Family Income Implied at Specified Rent-Income Ratios*

Program	Required annual (monthly) rentals on units with—		Required income at rent-income ratios of 20 or 25 percent for families occupying—			
	One bedroom	Two bedrooms	One bedroom		Two bedrooms	
			20 percent	25 percent	20 percent	25 percent
207 average (no subsidy)	$2,270 ($189)	$2,719 ($227)	$11,350	$9,080	$13,595	$10,876
Public Housing average	905 (75)	1,161 (97)	4,525	3,620	5,805	4,644
Rent Supplement minimum	472 (39)	540 (45)	2,360	1,888	2,700	2,160
236 minimum	1,472 (123)	1,763 (147)	7,360	5,888	8,815	7,052
221(d)(3) BMIR average	1,664 (139)	1,993 (166)	8,320	6,656	9,965	7,972

*The calculations apply to Detroit in 1967 and cities with similar cost levels. Within the group of cities with more than 2 million inhabitants, Detroit had the lowest dwelling construction cost limits for Public Housing in 1966. They were at the same level as those in Dallas (population 1.1 million in 1960). Development cost limits in all other cases except the Rent Supplement program (RS) were assumed to be equal to those specified for 221(d)(3) BMIR. These were $14,150 for one-bedroom and $16,950 for a two-bedroom dwelling unit. No rent supplement projects have been completed in Detroit by 1967.

Source: Von Furstenberg and Moskof: *Federally Assisted Rental Housing Programs: Which Income Groups Have They Served or Whom Can They Be Expected To Serve?*



Both the 202 and 221(d)(3) programs have certain disadvantages inherent in any below-market interest rate programs. Federal accounting techniques require that a Government purchase of a mortgage be treated as an expenditure in the year of purchase, but no credit is given to the fact that a mortgage is an asset. The result is a substantial increase in the apparent Government defict for the year in question. In addition, it is difficult to adjust the amount of subsidy provided to a project through a low-interest loan to the varying needs of individual families living in that project. As a result of these budgetary and flexibility problems, the more recent housing subsidy programs—Rent Supplements and the new Homeownership and Rental programs—rely not on low-interest loans but on annual Federal payments to reduce housing costs. This approach spreads out the budgetary impact over several decades and permits better correlation of the amount of subsidy with the needs of the recipient.

As of June 1967, 62,000 units of 221(d)(3) BMIR housing had been completed or were under construction. Roughly one-half of these units had been built by profit-motivated developers and about one-half by nonprofit and cooperative sponsors. The recent annual production rate under the 221(d)(3) BMIR program—roughly 13,000 units per year—is about one-half the recent annual production rate under the conventional Public Housing program. Production under the section 202 program has been somewhat less than under 221(d)(3), with 23,000 units in all having been started by June 1967. Although the 202 program is restricted to nonprofit owners, and projects can only be occupied by elderly or handicapped tenants, it has proved to be relatively popular compared to some of the more broadly applicable programs.

Rent Supplement

The Rent Supplement program was offered by the Administration in 1965 as a substitute for 221(d)(3) BMIR. Under the rent supplement technique, the tenant family pays 25 percent of its income toward rent, while the Federal Government pays directly to the landlord the difference between economic rent levels and the tenant's contribution. This aproach has the advantages of keying the amount of subsidy to the tenant's need and of spreading the cost to the Federal Government over a long period. In its deliberations on the Housing Act of 1965, Congress did not accept the Administration's recommendation that the Rent Supplement program be aimed at moderate-income families as well as low-income families. Instead, it adopted the Rent Supplement program only after restricting eligibility for supplements to families whose incomes on admission are below the eligibility limits for Public Housing in the same locality. In addition, Congress continued the 221(d)(3) program instead of substituting the Rent Supplement program for it as the Administration had recommended.

In essence, the Rent Supplement program attempts to shift the responsibility for building and operating low-rent housing projects from the local housing authorities (relied on in the Public Housing program) to private groups, both profit-motivated and nonprofit. After receiving approval of a proposed project from FHA (which administers the program), the private housing owner finances his project with a private mortgage at the market interest rate. On completion of construction, the housing owner rents units in the project to any family he chooses. However, not all tenants in a project are eligible for supplements. To be eligible, a family must have a low income (one below limits established by the Secretary of HUD which themselves must be below the limit for admission to Public Housing in that area), have few assets, and be a member of one of the following deserving groups: elderly, handicapped, displaced by Government action or natural disaster, or now living in substandard housing. As mentioned, these eligible tenants pay 25 percent of their income toward rent, and the Federal Government pays any remainder directly to the landlord. Tenants who are not eligible for supplements pay the entire rent themselves. As a tenant's income rises, his supplement is reduced. For this reason, a family whose income rises substantially after admission to a Rent Supplement project is not required to leave it.

Congress passed the Rent Supplement program by the smallest of margins in 1965 and has since limited its implementation in a number of ways. The program has received few appropriations; in fact it has barely survived attacks during the appropriations stage. To mollify Congressional pressures, HUD has been forced to impose regulations on the program which have made it increasingly unworkable. One regulation requires that in no instance may a tenant receive a supplement which exceeds 70 percent of the fair market rental of the unit. Other regulations which have proved to be very damaging to the program establish specific dollar limits on construction costs and on maximum fair market rentals. These low maximums inhibit pro-

duction and force those who do build to produce rather austere projects. Still other regulations flatly prohibit even some of the limited amenities allowed in 221(d)(3) BMIR projects.

The limits on maximum rents and construction costs have made the Rent Supplement program generally unworkable for new construction in major central cities outside the South and Southwest. In addition, the limitations on amenities have made the program much less attractive to builders since they now fear they will be unable to produce a project which will appeal to those ineligible for supplements. At present, both builders and FHA generally assume that at least 90 percent of the tenants in Rent Supplement projects will in fact receive supplements. Thus, these regulations, which have been forced on HUD by Congressional pressure, defeat the Administration's goal of economically integrated tenancies within projects and scare away builders who are reluctant to own projects housing mostly low-income families.

The Appropriations Committees have also restricted the program through riders on appropriations bills. The Rent Supplement program as enacted is largely free of the Workable Program requirement. One rider has restricted location of Rent Supplement projects to localities which either have Workable Programs or whose governments approve the projects. Another rider has increased the equity requirements for nonprofit sponsors who receive special assistance from GNMA. Congress's hostility to the Rent Supplement program has severely restricted production under it. Twelve hundred units were started under the program in fiscal year 1967 and about 12,000 in fiscal year 1968.

The basic rent supplement approach, emphasizing flexible subsidies as well as private ownership, private financing, and private management, has many advantages. As Table 2–2 illustrates, this program can reach rather low income levels. If Congressional limits were removed, this program could serve the full range of families in need and could be used effectively by private business.

Section 236 Rental Housing Program

The new 236 program, part of the Housing Act of 1968, is designed to replace eventually both the 202 and 221(d)(3) programs. Like the Rent Supplement program, it relies on private developers—both nonprofit and profit-oriented—of rental or cooperative housing. The subidy technique is similar to that used in the Rent Supplement program: tenants pay 25 percent of their income toward rent, and the Federal Government pays a supplement which makes up the difference between a tenant's payment and market rents. There is, however, a crucial difference. The maximum Federal payment on a unit lowers the rent to the level which would be achieved had the project been financed with a 1 percent mortgage. Thus, the primary difference between 236 and the Rent Supplement program is that the subsidy under 236 is not as deep.

The maximum Federal subsidy to a tenant per month will be about $50 to $60. This is not enough to reach the poorest families. To be eligible, a family's income (less $300 per child) must not exceed 135 percent of the limits for admission to Public Housing projects. Thus, 236 will serve primarily families whose incomes range between $4,000 and $6,500 per year. Table 2–2 indicates that in high cost areas, such as Detroit, tenant incomes must be higher unless families chose to allocate more than 25 percent of gross income to housing. To alleviate this problem partially, 20 percent of the units of a 236 project can be occupied by tenants receiving Rent Supplement payments and who thus might have lower incomes.

In some communities the basic income limits for the 236 program may be too low to make the program economically feasible. Not only would the very poor not be able to afford these projects, but moderate-income families may be excluded because they exceed the rather low income limits. In many communities, particularly higher-cost urban centers, the income spectrum the 236 program can serve may have been narrowed so much that some builders will be reluctant to participate in the program for fear they will be unable to find enough eligible tenants willing to occupy the units. However, some relief is provided by a provision permitting 20 percent of the appropriations to be used for families whose incomes exceed the limits for admission, but whose incomes are still below 90 percent of the 221(d)(3) BMIR limits in that area (with $300 deductions for each minor child).

Despite this feasibility issue and the inability of the 236 program to reach very poor families, it has several advantages over the earlier moderate-income programs. It offers deeper subsidies than those available under 202 and 221(d)(3) BMIR by providing the equivalent of 1 percent loans instead of 3 percent loans. In addition, it avoids the budgetary impact problems raised by direct loan programs and provides a technique for adjusting the amount of subsidy to a tenant's income. Lastly, the program is not subject to the Workable Program requirement, which does apply to 221(d)(3).

The authorization for appropriations for Section 236 in the Housing Act of 1968 should be sufficient to enable the construction of 700,000 housing units over a three year period.

Homeownership Program—Section 235

The Homeownership program contained in the Housing Act of 1968 is a major landmark in the history of Federal housing legislation. Prior to its enactment, all major housing subsidy programs were limited to rental units, with cooperative housing units permitted in a few instances.

Assistance under the new Homeownership program generally will be restricted to new or substantially rehabilitated units. Private homebuilders will plan the housing and have it approved by FHA for inclusion in the program prior to the beginning of construction. When built, the houses will be sold to eligible buyers who will finance their purchases with FHA-insured market rate mortgages from private lenders. The subsidy technique used is similar to that in the Section 236 rental program. The Federal Government contracts to pay part of the homebuyer's mortgage payments. The maximum Government subsidy reduces the homebuyer's payment to that which he would owe if his purchase had been financed with a mortgage bearing an interest rate of 1 percent. Translated into dollars, the maximum subsidy will be about $40 to $70 a month, depending on the value of the house and the market interest rate. The actual amount of the subsidy may be somewhat less, depending on the income of the family buying the house. All families must devote at least 20 percent of their income to paying off the mortgage. (This figure of 20 percent is lower than the 25 percent used under the rental programs because the homebuyer must bear all utility charges, maintenance, and repair expenses himself.) As family income rises, the Federal payments due to the lender consequently will be gradually reduced and eventually eliminated. Because the maximum Federal subsidy is limited, the program will not be of much help to families with very low incomes. However, it will provide assistance to those in the broad range of incomes between $3,000 and $7,000 a year.

Some examples might help explain how the program works. Assuming a $15,000, 35-year mortgage at 6¾ percent, the required monthly payment due the lender (counting principal and interest due on the mortgage, mortgage insurance premium, hazard insurance, and taxes) would be $125. A family with an annual income of $6,000 would pay $100 of this, while the Government would pay the remaining $25. A family with an annual income of $4,000 or less would pay $68 a month, and the Government would pay the remaining $57.

Houses built under the program will be of modest but adequate quality. In general, the mortgage on a house cannot exceed $15,000. A mortgage of up to $17,500 is allowed in high-cost areas and of up to $20,000 for large families in high-cost areas. Down payments would be low, as little as $200 for some families, and in no case greater than 3 percent of the value of the house.

During the debate in Congress, the hottest issue was whether the eligibility for assistance under the Homeownership program should be restricted to persons below certain income levels. Such limits, of course, were not strictly necessary since the amount of subsidy is automatically keyed to the homebuyer's income and thus the well-to-do could not have received any benefits even if there were no income limits. Congress eventually adopted income limits like those used in the Section 236 program. Assistance payments are restricted to homebuyers who, when they buy the houses, have incomes (less $300 per child) which do not exceed 135 percent of the income limits for admission to Public Housing projects in that locality. These limits are roughly $5,000–$6,000 per year for four-person families in major metropolitan areas.

Although the program is restricted primarily to new construction and substantial rehabilitation, a limited number of families, such as those displaced by Government action, can qualify for assistance in the purchase of an existing house. Public or private agencies will be hired to counsel families who need help in assuming the responsibilities of homeownership. Families which have imperfect but acceptable credit histories or irregular income patterns which would normally disqualify them from mortgage insurance under FHA programs, but who still make reasonably satisfactory risks, may participate in the program.

The Housing Act of 1968 authorizes large appropriations for the Homeownership program. Assuming that the average subsidy per house is $50 a month, the Act could enable nearly 500,000 families to become homeowners over the next three years.

Subsidies for Rehabilitation

All programs discussed above can be used to subsidize housing costs in rehabilitated dwellings. In addition to these programs, there are a number of relatively minor ones which can be used only for rehabilitation. Two of these, the Section 312 loan program and Section 115 rehabilitation grant pro-

gram, can only be used within limited Urban Renewal or Concentrated Code Enforcement areas. In fact, they are administered by the Renewal Assistance Administration in HUB which is generally responsible for the Urban Renewal programs. The Section 312 program, enacted in 1964, provides direct 3 percent loans to homeowners, the proceeds of which can be used for rehabilitation and, if necessary, also for refinancing existing mortgages. The 312 program was the first to authorize Federal housing loans at less than the average cost of Federal borrowing.

The Section 115 rehabilitation grant program, also designed to support the Urban Renewal process, was begun in 1965. Only families who own and occupy their own homes and who have very low incomes are eligible for these grants. The maximum grant now available is $3,000.

A third rehabilitation subsidy program, Section 221(h), was enacted in 1966. This program is extremely limited in scope. Its main significance is that it provided a historical precedent for the Homeownership program of 1968 into which it has been merged. Sponsors of 221(h) projects must be nonprofit organizations. These nonprofit sponsors acquire and rehabilitate single-family units and then sell them to families whose incomes are below Public Housing income limits. The subsidy provided is a 3 percent 25-year mortgage purchased by FNMA. This subsidy is often inadequate to enable these families to participate in the program.

This brief description of the major Federal housing programs reveals that a striking acceleration in the innovation of new programs has occurred in the last decade and particularly in the last five years. Even the conventional Public Housing program, the only Federal housing subsidy program in existence between 1937 and 1959, has been rejuvenated with recent innovations. The basic trends in policy development are:

- Increased reliance on private development, private financing, private ownership, and private management of subsidized housing;
- Greater subsidization of homeownership (and membership in cooperatives or condominiums) and less exclusive emphasis on rental buildings;
- Less reliance on low interest loans and greater reliance on periodic Federal subsidies;

- Less emphasis on particularized programs—such as 202 and 221(h)—in favor of broadly applicable programs; and
- More emphasis on subsidy programs for families somewhat above the very lowest income levels.

III. Proposals on Basic Issues

The above review of existing housing programs serves as a backdrop to our basic proposals for the future. The following are some of the fundamental issues involved in national housing policy:

Who Shall Receive Government Housing Assistance?

The basic conclusion in this study is that Government assistance be provided to all persons—regardless of family size, age, marital status, or health—who need help to afford the cost of modest, decent, safe, and sanitary housing. Despite great improvements in the last decade, existing government housing programs do not yet completely meet this basic goal. Most of the programs serve rather narrow populations within the income spectrum. Prior to passage of the Housing Act of 1968, there was a considerable gap between the income groups served by the Public Housing and 221(d)(3) BMIR programs. This is shown graphically in Figure 2–1.

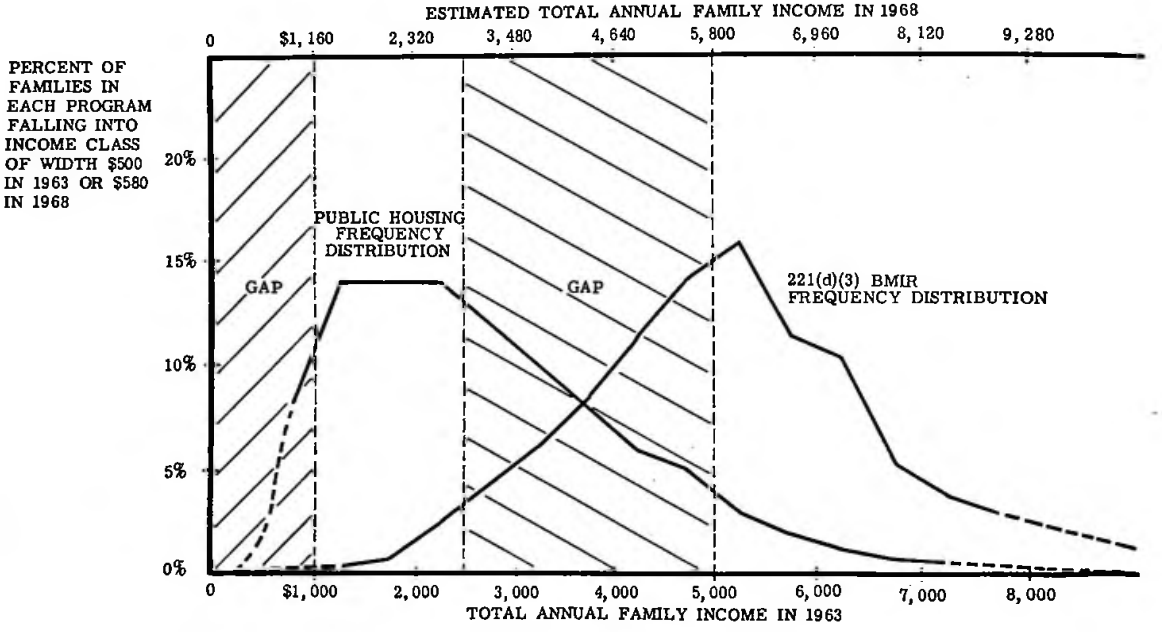
The Rent Supplement program did little to fill this gap because to be eligible initially for subsidies, families had to be below Public Housing income limits. However, the new 236 program will help fill it.

Figure 2–2 also shows that existing programs are of little help to the very poorest families, especially those earning less than $1,200 per year. Many of these families, without some form of welfare assistance, cannot afford even the low rents in Public Housing or Rent Supplement projects.

Figure 2–1 suggests that of the families presently served by Public Housing, a large percentage are earning between $1,200 and $2,900. This may be somewhat misleading because while the lower end of the income scale is being served in the aggregate, this chart hides locational variations. A disproportionate number of families in the lowest income classes live primarily in low-cost areas, such as the South, or in small towns. Many poor families living in higher cost areas like Detroit (see Table 2–2) cannot afford to live in Public Housing projects.

According to Table 1–2, a family earning $2,000 could not afford to live in a two-bedroom unit in even a new Rent Supplement project without paying more than 25 percent of income toward rent. As suggested earlier, this table may not be applicable to all communities and is based on some assumptions which may have to be modified by actual experience. But it does indicate the inability of existing subsidy programs to serve the very poor.

The implications of this finding are clear. Larger subsidies are needed.



How Much Assistance Should a Family Receive?

The amount of assistance a family receives should be determined by a flexible formula based on need. Existing programs in general use a formula based on a flat percentage of family income, with some allowing deductions for children. For example, the Rent Supplement program and Section 236 program require recipients to devote at least 25 percent of their income for rent; the Public Housing program (in general) and the Section 235 Homeownership program require 20 percent. As observed previously, there is little foundation for the use of these percentages. Von Furstenberg's paper in the volume of technical reports on "The Impact of Rent Formulas" shows how flat formulas work to the disadvantage of large families. It is questionable whether the same flat percentage should be required of all families regardless of their individual characteristics. It is suggested that the Departments of HUD and HEW undertake a comprehensive study of the patterns of family expenses and develop better formulas for Federal housing subsidies. Such a study would explore the effect on housing expenses of such variables as age of family, size of family, and location of the household to reflect the variations in the cost of living. In addition, the income concept as a determinant of social need and Federal subsidies may have to be amended or supplemented. Some families, particularly the elderly, may be expected to engage, without hardship, in planned dissaving out of previously accumulated net worth.

The amount of subsidy available to a family under the various programs must be continuously reassessed. All existing programs establish certain maximum limits on the amount of subsidy, and all of these maxima are entirely arbitrary. For example, under Public Housing the basic subsidy covers all of development costs, but project income must cover most occupancy costs. Under the Rent Supplement program, the subsidy cannot exceed 70 percent of the unsubsidized cost of the unit. The technique used under the new Section 235 and 236 programs sets the maximum subsidy at the amount by which housing costs would be lowered if development were financed with 1 percent loans. This latter approach has the advantage of seeming to use low-interest loans, a politically familiar technique; but otherwise it is arbitrary. The keying of subsidies to interest rates tends to make people believe that the maximum subsidy is available when the interest rate is reduced to zero. This, of course, is not true. Additional subsidies can be made available to retire the principal of a loan or to cover the operating costs of housing. If the amount of subsidy is keyed to a recipient's income, limits on maximum subsidies are theoretically unneeded.

Congress has often unwittingly undermined the feasibilty of these programs by imposing income limits for eligibility which are too low *given the maximum subsidy provided.* If only a small subsidy is provided, but eligibility is restricted to poor families, the program will not work and private sponsors will refuse to use it. The Congressional motivation for imposing low limits for eligibility is apparently to make sure that the most needy families receive priority. This is indeed a worthy goal. But lowering eligibility limits without at the same time increasing the depth of the subsidy, in effect, squeezes the life out of the programs by narrowing the effective target population. It is possible, for example, that Congress has seriously damaged the 235 Homeownership program and 236 Rental program by imposing income limits too low for the subsidy available.

Who Shall Develop, Own, and Manage the Housing?

The basic trend toward increased involvement of the private sector in housing programs is laudable. In view of the large volume of production required in the next few years, it is clear that private entrepreneurs, public agencies, and nonprofit developer must all be encouraged to take part in the production effort. Even where public developers are used, opportunities are still available for private contractors and subsequent private ownership and management of the subsidized units.

Full opportunities should be provided under the various programs for the subsidy recipients to own their units, either outright or through cooperatives or condominiums. Many studies have found that ownership is highly correlated with good maintenance and neighborhood stability. The Housing Act of 1968 made great strides in its direction in its Homeownership program (235) and in provisions for the acquisition of public housing units by tenants and of 221(d)(3) projects by cooperatives. After these programs have been digested, additional opportunities no doubt can be provided.

In What Kind of Neighborhood Should the Housing Be Located?

Housing should be built where people *want to* live. The location of assisted housing *should be* decided primarily by the play of *market forces,* which take into account both *the desires of* consumers and the costs of *production to the* builders.

Different families may have strongly divergent tastes about the location of housing: some will want to remain in the central city near the excitement of downtown; others may prefer the relative peace of suburban life; still others may enjoy the adventure of living in a new community built far from existing metropolitan centers. In any case, the household will have to live near the location of the breadwinner's job.

It must be emphasized that the removal of existing constraints on freedom of location—such as racial discrimination and zoning abuses—is essential to the achievement of decent housing for all. Strong measures should be taken to remove barriers which prevent ghetto dwellers from leaving the ghetto.

In approving the location of proposed subsidized housing projects, HUD must be mindful of the community facilities and transportation resources already available, or which can be expected to become available as the market responds to the development of the project. Experience under the Public Housing program has indicated that the availability of housing subsidies will sometimes cause families to move into areas even though they are seriously deficient in community facilities. In such cases, HUD should permit needed commercial, pob-producing, and community facilities to be included in the mortgage.

What Quality of Housing Should Be Built Under Subsidy Programs?

Housing built under Federal subsidy programs should avoid two extremes. Its quality should not exceed that of the housing of moderate-income families who do not need subsidies. On the other hand, the housing should be of high enough quality, in both design and construction, to avoid the dangers of early economic obsolescence and tenant stigmatization. The astere character of many of the Public Housing projects built during the 1950's is a somber reminder of the false economy of building at low quality levels. We urge expenditure of the modest amount of money necessary to make housing developments attractive enough to be positive additions to their environments.

At present, many different sets of quality standards apply to the various housing subsidy programs. Administration of these programs would be considerably simplified if the various statutes and HUD regulations were unified into a single consistent set of housing standards for the entire range of subsidy programs. Such standards should be flexible enough to reflect changes in popular perceptions of what is "modest housing." In addition, standards should vary according to location. Finally, standards should be flexible enough to allow design and market preferences to be tested.

Recognizing the need for a dynamic standard for housing quality, we recommend that housing developed under Federal subsidy programs should roughly correspond to the quality of new low-cost unsubsidized housing being built in the locality. Such housing can be made reasonably attractive and should avoid early economic obsolescense. For purposes of efficient administration, development cost limits in dollars based on this test should periodically be established by HUD for each locality. Development cost limits now in existence which are too low to permit economically feasible development of attractive projects should be raised. The practice of establishing maximum monthly rentals, which has limited the effectiveness of the Rent Supplement program, should be discontinued.

Builders should be given maximum flexibility within these development cost dollar limits. Flat prohibitions against specific amenities in subsidized housing make little sense.

To What Extent Should Subsidies Be Restricted to New Construction?

With some exceptions, notably the "leased housing" variation of Public Housing, all major housing subsidy programs have been used primarily to promote new construction and, to a lesser extent, substantial rehabilitation. The basic rationale for this emphasis on new construction is that new projects on vacant sites increase the total housing stock. So long as there is some interplay between different sectors of the housing market, an addition to the stock of housing tends to relieve prices for everyone. Thus, the construction of moderate-income projects in the suburbs may indirectly help to lessen housing shortages in central city slums. The extent to which this actually happens depends on the little-understood workings of the housing market. In areas where the supply of housing is tight (as indicated by low vacancy rates), there can be little doubt that the emphasis on new construction is proper.

Where vacancy rates are high, however, more use can be made of existing stock. In such cases, rehabilitation, where economically feasible, is equally as appropriate as new construction. In addition, it may occasionally be appropriate to permit the conversion of existing housing into subsidized housing under one of the programs. Policy-makers have long been reluctant to do this for fear they

would merely inflate rents and bring about no betterment in the housing stock. The workings of the housing market may be such, however, that a shift upward of the demand curve brought about through the subsidization of existing housing will eventually result in increased production by housing suppliers, either through additional new construction or through higher expenditures for the maintenance and improvement of existing structures. The full potential of using housing subsidies with the existing stock has yet to be tapped.

Should Another Approach—Involving Housing Allowances—Also Be Tried?

There are three basic techniques used to assist lower-income families in improvement of their housing conditions:

1. *Project subsidies* tied to specific dwellings. If the recipient leaves the subsidized dwelling, he loses the subsidy.
2. *Housing allowances* made available to families according to their needs. These cash allowances could be spent for housing only. Housing allowances are tied to recipient families, not to specific dwellings. Thus, a family could take the subsidy with them when they move.
3. *Income maintenance* involving some sort of unrestricted cash payments to needy families. Here again the subsidy is tied to the family; but unlike the housing allowance approach, the recipient would himself decide whether to spend the funds on housing or other items.

All current American housing programs rely on project subsidies. Assistance under the programs is tied to specific dwellings, not to specific families. Different families benefit as they move in and out of the subsidized units. Although there are still some program gaps to be filled, the present range of project subsidy programs is actually rather comprehensive.

The principle advantage of project subsidies is that they are the most direct tool for rapidly increasing new housing production. In the long run, however, we believe that the housing allowance subsidy technique may possibly prove to be the most efficient technique for adjusting the supply of housing to the needs of both subsidized and nonsubsidized users. Housing allowances provide purchasing power directly to the housing consumer, who decides where in the total housing market, of both new and existing units, to apply it. A housing allowance system thus offers the opportunity for the free market to operate in its traditional fashion. Widespread distribution of housing allowances to poor families should reduce the economic dependence on slum housing and shift the demand upward for standard units. In response to this shift in demand, suppliers of housing would be induced to produce more standard housing, either by upgrading slum properties or through new construction. Thus, a housing allowance program should bring about, albeit indirectly, the gradual elimination of slums and a general increase in the quality of the housing stock. In order to accelerate the effects of housing allowances on the removal of slums, it is imperative that their use be restricted to units of standard quality. Owners of slums would then have to upgrade or find it difficult to rent their apartments.

A housing allowance system appears to have several potential advantages. It would permit the consumer to make his own choices in the market place, a freedom which tends to enhance personal dignity. By relying on market forces, it should bring about a better matching of consumer demands and housing supply. Low-income consumers would make their own decisions on location and housing style rather than having others make these decisions for them The project subsidy programs are now largely insu lated from the healthy influences of market force: In addition, by allowing recipients of housing assistance to make their own decisions on location, public controversy over the location of subsidized projects would be avoided. Distribution of the benefits of housing allowances could be made more equitably than is possible under project subsidy programs. Lastly, it is possible, though not certain, that a housing allowance approach would eliminate administrative processing of projects and would involve lower administrative expenses for government than do the present project subsidy programs.

Several factors militate against a full-scale housing allowance program and have led to a conclusion that such a subsidy system initially be attempted on an experimental basis only. There is a strong need to stimulate new construction as quickly as possible and the project subsidy approach best lends itself to this purpose. In addition, the immediate adoption of a massive housing allowance system would be likely to inflate the cost of existing housing considerably, at least in the short run. The large infusion of new purchasing power would result in a bidding up of housing prices for the existing standard inventory. Consequently, any large-

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scale housing allowance system would have to be introduced gradually. Such a system might also require strong programs of consumer education and vigorous attacks on racial discrimination in order to work effectively. Despite these possible shortcomings, the potential merits of the housing allowance approach are such that it should be tried promptly on the experimental basis suggested.

The broader issues involved in income maintenance fall beyond the scope of our assignment. Major changes in the present welfare system would obviously affect the ability of poor families to participate in the market for standard housing, and thus would warrant the reconsideration of the structure of housing subsidy programs. We look forward to the findings of other commissions which have been charged with investigating these critical issues.

Can Housing Programs Be Simplified?

With the passage of the Housing Act of 1968, the Federal Government has available to it a wide variety of housing subsidy tools. There are two major programs for low-income families—Public Housing and Rent Supplements—and two for families with low-to moderate-incomes—the Section 235 Homeownership program and Section 236 (eventually to replace 221(d)(3) and 202). Some program gaps still exist. There is as yet, for example, no significant homeownership program for low-income families or any program which can by itself reach the very poor.

It is theoretically possible that the Federal Government could develop a single housing subsidy technique, involving periodic payments, which could be used for all income groups and for both rental and owner-occupied housing. The use of fewer approaches would reduce administrative costs to the Government and reduce confusion among private sponsors. Most of the programs are but a few years old, and thus a complete assessment of their merits cannot yet be made. Even the old Public Housing program has been transformed by so many new variations that it is no longer clear whether the old criticisms of it are still valid.

There must be continued reliance, at least for the next few years, on a variety of project subsidy techniques capable of integrated use. Given the great variety of urban housing problems, a comprehensive housing policy may well require a number of different programs. At present, the availability of a multiplicity of tools is desirable. However, programs extremely narrow in terms of sponsors or eligible beneficiaries should be avoided and all subsidy techniques should be capable of integrated use.

How Shall the Federal Government Administer These Programs?

Federal housing programs are now the responsibility of two separate divisions of HUD, headed by two different Assistant Secretaries. This administrative structure is an anachronism reflecting a time when the Public Housing Administration and the Federal Housing Administration were separate agencies. It is proposed that all housing programs be placed under one Assistant Secretary or other appropriate official. We believe this would eliminate public confusion caused by unnecessary dissimilarities in the processing of applications and the separate standards which now apply to each program. The development of one housing division would maximize the use of available Government expertise by reducing the duplication of effort. Finally, simplification of program administration could lead to uniform standards, forms, and processing techniques which would ultimately accelerate production.

In reviewing this difficult administrative problem, we considered and rejected recommendations to create a new authority outside HUD to administer subsidized housing programs or to create a new division within HUD for the same purpose. It was determined that HUD has the necessary expertise and experience to administer the programs. Furthermore, HUD has demonstrated a real interest and ability to reform present procedures to improve upon its past record. It is noted that HUD's past performance was in part due to legislative requirements under which the agency was required to operate and in part a response to Congressional pressures to eliminate mortgage defaults. The Housing and Urban Development Act of 1968 contains directives which will free HUD from these constraints. HUD's efforts in the past year indicate that a major transformation is under way. There is a danger that the establishment of a new bureaucracy would bring few benefits and would delay progress at a time when we can least afford such a delay.

How Can State Governments Assume Greater Responsibility?

It is surprising how little most state governments have participated in efforts to solve housing and urban development problems. Although most states have metropolitan areas of some size, only sixteen have created departments oriented to urban problems. States are eligible to participate in the Federal Public Housing program, but only one or two

presently do so. A state agency is potentially a particularly effective sponsor since it can condemn land without regard to local boundaries and preempt local building codes and zoning ordinances. The State of New York has recently approved legislation creating a state corporation to sponsor urban development programs.

Virtually all states would be well advised to reexamine their potential for bettering housing conditions. For example, a state government could enact legislation to supplement subsidies provided under Federal programs. Some states already reimburse localities which abate real estate taxes on structures housing low- and moderate-income families, and some have decided to supplement Urban Renewal funding.

The Housing Act of 1968 permits use of Rent Supplements and Section 236 subsidies in state-assisted projects. This provides a sound opportunity for cooperative Federalism, and we urge the states to pick up the challenge.

How Can the Poor Be Involved in Housing Programs?

Federal strategies for meeting the problems of the poor in the cities have recently undergone a transformation. The goal of maximum involvement of the poor in efforts to remedy their condition, which began with the Economic Opportunity Act of 1964, is becoming a watchword. This notion has become an important part of the Model Cities and Urban Renewal programs. Effective citizen participation can lead to more responsive public decisions and to enhanced dignity and responsibility. Of course, it is difficult to involve all the people in a neighborhood in any project and naive to think that they will always concur in their views. Efforts to involve the poor have of necessity been tentative and experimental. In many instances prompt consultation has allayed fears and misunderstanding.

The sponsors and owners of housing projects should be encouraged to consult with area residents in planning and policy making. Resident participation in the management of projects (tenant services, policing, etc.) is often essential for harmonious relations. It is proposed that a $10 million fund administered by HUD be established to underwrite promising public and private ventures in this field—training programs for resident real estate managers, programs to develop tenant management councils, efforts to create tenant maintenance contractors, and the like.

Housing programs also offer good opportunities for job training and employment of poor persons and members of minority groups. Section 3 of the Housing Act of 1968 directs HUD in its administration of the major housing subsidy programs to provide, to the greatest extent feasible, training and employment opportunities arising in connection with subsidized projects to lower-income persons residing in the area of such housing.

Lastly, housing programs should be used to encourage development of minority group entrepreneurs whose emergence would promote neighborhood stability and provide jobs for area residents. Negroes and other recent migrants to the cities are only beginning to form webs of small and medium-sized businesses. Negroes, for example, account for 11 percent of the national population but only 3.2 percent of self-employed persons. Housing programs can be especially useful in developing new entrepreneurial opportunities for minority group contractors and subcontractors. These entrepreneurs often have not been accepted in contactors' associations, are not used to bidding on large-scale jobs, and may not have the necessary capabilities in contract estimation, manpower scheduling, and job supervision. Many have encountered problems in obtaining credit and in posting required surety and performance bonds. Recent pilot projects, such as the one sponsored by the Ford Foundation in Oakland, California, have begun attacking these problems. Minority groups can also be assisted in developing other businesses related to housing—lending institutions, real estate agencies, architecture and engineering firms, and the like. Minority groups outside the mainstream of our free enterprise system should be brought into it. Self-reliance and self-help are surer roads to progress than continued dependency.


Lincoln

Part Three

Private Developers and Public Programs

This section reviews Federal housing programs and considers whether they offer ample opportunities for business to participate in the development of housing for the poor. The profitability of these programs is examined in detail because literature explaining their profit potential is not readily available. It is our hope that the materials presented here will stimulate wider program interest on the part of business.

The staff concentrated on the private sector in accordance with the Committee's charge, recognizing that this country will not reach the required level of production without the full involvement of American business.

Housing of the poor, however, cannot be considered the province of any single element of society; it requires all. Proposals are offered to improve the capabilities of local public agencies and nonprofit organizations.

In addition to determining what may be required to attract *existing* development talent to Federal housing programs for the poor, this paper considers ways to develop new instruments and to attract talent presently inactive in the field. One result of these studies is the National Housing Partnership, which was introduced as part of the President's 1968 Housing Program and has now been enacted into law. A portion of this discussion will explain the purposes and organization of the National Housing Partnership.

I. The Private Sector's Role in Federal Programs

A. Public Housing

At its inception Public Housing offered the private sector few opportunities to participate. The "conventional" system of developing public housing followed the usual public works format, limiting the role of the private entrepreneur to that of contractor. The private sector was afforded no opportunity to be a developer of housing (purchasing land, supervising the design, constructing the building, selling or leasing all or a portion of the completed project) or to be a builder (supervising the design and constructing the building) or even to be a manager of a completed project. However, in recent years opportunities for private participation in the development and management of public housing have been greatly expanded.

1. Turnkey I (Development)

The Turnkey process, started by the Department of Housing and Urban Development on an

experimental basis in January of 1966, permits a local Public Housing authority to enter into a commitment to eventually purchase a housing project (land and building) from a private developer who has built the project in accordance with plans approved by the authority. The purchase price is established under a procedure set forth in the contract between the parties and contains ample protection for both. Joseph Burstein, Associate General Counsel for Legal Services of HUD, summarized the significance of this program in an article appearing in the Summer, 1967 issue of "Law and Contemporary Problems" as follows:

> Although simple in concept, the Turnkey system completely reverses the traditional method of producing public housing—site acquisition by purchase or condemnation, preparation of competitive-bidding type plans and specifications by an architect retained by the Local Housing Authority, competitive bidding and award, and construction by the low bidder. This "conventional" system followed the pattern of public construction with its built-in safeguards and its concomitant built-in delays and expenses. More important from the standpoint of residential construction the system excluded the great bulk of private entrepreneurs engaged in private construction and thereby lost the potential benefit of their expertise and efficiency, developed in the residential field through competition for public acceptability. The purpose of Turnkey was to permit more adequate utilization of the means and knowledge of private enterprise in producing the finished public housing.

This Turnkey I program is very much like the turnkey process often employed by the private sector for the development of new plants. In this system the purchaser contracts with a builder to design and build a plant to certain specifications; a predetermined price is paid when the keys to the completed building are delivered.

The details of the Turnkey process in public housing are as follows:

a. Selection of developer. The local housing authority can accept solicited or unsolicited proposals for development of a project. The proposal should contain a preliminary price for land and building; a description of the site, including a citywide map showing the relationship of the site to schools, shopping centers and transportation; a rough sketch of a feasible site plan with a rough sketch of the building and typical units, and description of the type of construction and heating system to be used.

b. Letter designating turnkey developer. The local authority selects a developer on the basis of the suitability and feasibility of the proposal. No further selection or bidding process is required. Once selected, the authority will send a letter to the developer notifying him that his proposal has been approved and requesting him to prepare and submit preliminary plans, specifications, and a proposed sales price subdivided into land cost, construction cost, and architectural and engineering cost services.

c. Negotiation and execution of letter of intent. Upon receiving the "Letter Designating Turnkey Developer," the developer submits preliminary plans, outline specifications, evidence of ownership of the site (or that the developer will own the site prior to the start of construction), and a sales price. This submission must be complete enough to permit the local authority to obtain two independent land appraisals and construction cost estimates. On the basis of these independent estimates, the local authority negotiates a purchase price which is inserted in a Letter of Intent and executed by the developer and the authority and then approved by HUD.

The "Letter of Intent to Enter into Contract of Sale of Low-Rent Housing Project to Local Authority" obligates the parties to enter into a contract to sell the finished project when completed in accordance with plans prepared by the developer and approved by the local authority. The parties agree that the sale price shall be the lesser of (1) the price stated in the Letter of Intent or (2) the sum of (a) the negotiated land price, (b) architectural and engineering fees, and (c) the midpoint between two independent cost estimates based upon the final working drawings and detailed construction specifications. To protect the developer, the Letter provides that if the final cost estimate is less than 95 percent of the price stated in the Letter of Intent, and if the parties cannot negotiate an acceptable purchase price, then the developer may sell the site together with the plans, and the local authority must purchase the land and plans for a price equal to the stated value of the site and the stated cost of preparing plans and performing architectural and engineering services. If the parties agree not to sell the site, the developer must absorb the cost of the plans.

The Letter of Intent also contains a timetable for submission and approval of plans and execution of the Contract of Sale. In the event that there is a delay in the submission or approval of plans, the construction cost estimate is adjusted in accordance with the percentage change in the Department of Commerce composite cost index.

d. Executive of contract of sale. After execution of the Letter of Intent the developer prepares and submits working drawings and detailed specifications. The local authority obtains a cost estimate based upon these final plans. Once the final cost estimates are available, the parties execute the Contract of Sale. The price is determined in accordance with the pricing procedure set out in the Letter of Intent.

e. Construction and purchase. After execution of the Contract of Sale, work on the site proceeds. If required, Federal guarantees of interim financing can be arranged. Upon completion of the project, title is transferred to the local authority.

The program is based on the belief that involving the private sector in acquisition of sites and preparation of plans will produce public housing more quickly and at less cost. While precise results must await completion of a study now underway within the HAA, preliminary indications suggest that these objectives are being attained.

In addition to being beneficial to the public, the Turnkey procedure has proved attractive to the businessman. A price based on cost estimates provides the private developer with an adequate profit, but is subject to reasonable safeguards. The negotiation system does present some risk of excessive profit taking, but the risks are no different from those of business elsewhere and professional cost estimators can reduce substantially the possibility of excessive profits.

The Federal Government should encourage the use of Turnkey I by urging local housing authorities to solicit Turnkey proposals before proceeding with conventional methods.

2. Turnkey II Management

The Department of Housing and Urban Development has recently tried on an experimental basis the private *management* of housing projects owned by public authorities. This new practice, called Turnkey II, is a logical extension of the Turnkey I program. The new program was referred to the Committee for comment prior to its announcement and its response was favorable. It was felt that business can develop the management teams skilled in the special problems of managing low-income housing developments. The introduction of competent private management will provide a competitive element that will encourage flexibility in the traditional attitudes reflected in present practices. The feasibility of such a program depends, of course, upon adequate compensation to the private management.

At the present time management contracts are negotiated on the basis of an agreed budget plus a fixed fee. The local authority pays the direct expenses or reimburses the management firm for them. The management firm receives a fee based on that customarily paid for comparable services in the locality. The firm is required to manage the project within the annual budget. The budget may be revised for good cause with approval by the local authority and HUD.

While almost any type of fee arrangement is legally possible, HUD's budget plus fixed fee contract protects both the public interest and the owner from excessive risks. The parties can negotiate a budget containing a maximum figure which affords the manager a reasonable operating margin. Since the public agency pays only actual costs, in the event the manager is able to operate economically, the savings are passed along to the public.

Turnkey II can also add variety to the type and character of the housing to be provided. The proposed Lavanburg Foundation development in New York City, one of the pilot projects announced by HUD, is an illustration. The Lavanburg Foundation, a nonprofit organization, proposes to develop and sell to the New York City Housing Authority on a Turnkey basis an undivided interest in the residential portion of a project which includes moderate-income housing and accompanying commercial, recreational, medical, and community facilities. In addition, the Foundation will retain complete management responsibility by negotiating a Turnkey II management contract for the Housing Authority's project activities. In this manner, public housing tenants will be provided with a conventional housing setting. Any Public Housing tenant whose income exceeds Public Housing levels will be permitted to remain in the development and will receive the benefits of the moderate-income assistance. The transfer of a tenant from one program to another would appear only as a book entry.

3. Leasing Program

The new Section 23 leasing program authorizes local Public Housing authorities to lease privately owned real estate for occupancy by families eligible for Public Housing. The difference between the

rental received by the landlord and that part paid by the tenant—the subsidy—is contributed, subject to limitations as to amount, by the Federal Government.

HUD anticipates that in fiscal year 1969 the leasing techniques will account for approximately 16 percent of the total number of subsidized units to be provided under all Federal subsidy programs. Although only three years old, this program has proved the feasibility of subsidizing existing standard housing.

The leasing technique allows the private housing market to make existing standard housing units available to Public Housing authorities at market rentals. The private property owner executes a lease with the local housing authority. Selection of tenants is usually the function of the local authority. Rentals to be charged are decided by negotiation. The power to give notice to vacate is reserved to the local authority. The lease provisions fixing responsibility for maintenance and replacement (including redecoration) are required to conform to standard practice for the rental of other units in the building.

Section 23 of the U.S. Housing Act restricts the lease term to one to five years. However, with the approval of HUD, the lease may contain renewal options to be exercised at the discretion of the parties or automatically, which could extend the term to 10 years, or longer in rare instances. The Section 10(c) leasing program permits leasing up to 40 years. This program, however, requires:

1. The existence of an approved "Workable Program," and
2. Partial tax exemption or tax remission by the local community.

From a private investment standpoint, the leasing program can be economically attractive. In addition to earning a fair return on the lease, the developer retains the benefits of the tax savings available to owners of real estate. Given such a broadened profit opportunity, the negotiating position of Public Housing authorities should be substantially improved. The authority should be able to negotiate favorable lease terms, including the option to acquire the development, on attractive terms, at termination of the lease.

Both the Section 10(c) and Section 23 programs limit the use of Federal subsidies to existing structures. While this will not prohibit local authorities from executing leases with developers prior to the construction of a property, it does expose the local authority and the developer of a new project to unnecessary risks since there is no absolute assurance that the Federal subsidies will be available. It increases the difficulties of financing low-income housing development. The restriction of the leasing program to existing structures and the limitations placed on the Section 23 lease term unnecessarily complicate a program which offers substantial opportunity for the private sector to develop public housing.

For these reasons, a modification of the leasing program is proposed: HUD should permit lease renewal options to extend for that period of time that will best facilitate project financing, and Congress should remove the restriction to existing structures.

B. FHA Programs

The Federal Housing Administration administers the new Section 235 Homeownership program and the major rental programs involving private ownership. A homebuilder earns profits under Section 235 in essentially the same way that he earns them when he builds and sells conventional houses. The builder prepares plans and has them approved by FHA prior to the beginning of construction. On completion, the units are sold to qualifying purchasers who will receive a mortgage in an amount established by FHA. If the builder is efficient, this price should include a fair profit.

Substantial opportunities for profit are also available under the rental programs—221(d)(3) Below Market Interest Rate (BMIR), Rent Supplements and 236—but the situation is considerably more complex. We shall discuss at some length the prospects for profit under the 221(d)(3) BMIR program. Except for minor variations, this analysis is equally applicable to Rent Supplement projects and those developed under Section 236.

The 221(d)(3) BMIR projects can be developed in a variety of ways. They may be sponsored on behalf of a cooperative, a nonprofit corporation, or by an entity (which can be an individual, partnership, or trust) which contracts to accept a limited return on its equity (as calculated by FHA), thus referred to as a "limited dividend entity." If the ultimate owner is to be a cooperative or nonprofit corporation, profit opportunities—except for management services—are limited to the project development stage. However, if the sponsor is a limited dividend entity, profits may be achieved in both the development phase and during the life of the project. The discussion which follows will use the terms "sponsor" and "builder" as they are used in the FHA regulations governing the program. In general, the "sponsor" is what is usually called a developer, and the "builder" corresponds to a general contractor. The profit opportunities in the development process and during ownership (the investment stage) are analyzed separately.

1. Private Business Opportunities in the Development Process

The development process of a 221(d)(3) BMIR project can offer reasonable fees to general contractors, architectural and engineering firms, mortgage servicers, lawyers, consultants for nonprofit sponsors, and in some cases land owners. FHA permits mortgage proceeds to be spent as follows:

Builder's profit and overhead. For almost all 221(d)(3) BMIR projects,* FHA regulations require a cost-plus-fixed-fee contract with a maximum upset price. Under the terms of this contract, the builder is required to complete the project for no more than the predetermined maximum. However, in no case can he receive mortgage proceeds in excess of certified costs plus his fee allowance. Local FHA offices prepare percentage fee schedules for the builder's general overhead and profit. These fees will depend on the nature of the project and on the local experience. Total fees may vary from 10 percent on a $100,000 project to 4.25 percent on a $12,000,000 project. Where an "identity of interest" is established between the builder and the sponsor of a limited dividend entity, a flat 10 percent (exclusive of land) "builders and sponsors profit and risk allowance" is allowed in place of the profit fee

*A lump-sum contract can be used only where a cooperative housing project is being built, and there is no identity of interest between the cooperative (or its agent) and the builder.

schedule. This allowance is discussed more fully below.

Architectural and engineering fees. The architect's fee allowed by FHA depends upon services rendered, professional fees prevailing in the locality, the complexity of the work, and the degree of repetition in planning. Local FHA offices prepare a schedule of allowable fees.

Mortgage loan placement and servicing. A fee of up to 2 percent is currently recognized in calculating the mortgage to meet the costs of construction loan placement and its servicing. The amount of the fee is adjusted according to market conditions as reflected by prevailing interest rates for conventional and insured loans.

Legal and organizational fees. FHA allows a fee which covers both legal and organizational services. Amounts approved for such expenses are those established by local practice. FHA has established a guideline which varies from 0.75 percent to 0.5 percent of the mortgage amount, depending on the size of the mortgage.

Organizational consultant to nonprofit sponsors. A fee for consulting services needed by a nonprofessional sponsor is allowed in the case of a nonprofit sponsor. This fee reflects recognition of the difficulties that otherwise capable nonprofit sponsors have encountered because of their lack of expertise in the fundamentals of real estate development.

Sale of land. Profits on land are possible because the present market value of land rather than its cost is included in calculating the mortgage. But the economics of the program rarely permit land costs which are excessive. If land cost is too high, it would be impossible to complete the project and rent the units at a profit within the FHA-established rental ceilings. Thus, in many areas of the South, raw land value per unit is rarely permitted to exceed $850. In metropolitan markets in the East, this figure has reached $1,400 per unit.

2. Profit Opportunity for the Investor

The investor's profits are generated by project operation and the structure of the Federal tax system. There are three possible sources of profit: management fees, cash distributions from gross receipts which are allowed for limited dividend entities, and savings resulting from income tax deductions allowed both during and after construction.

Since the amount of tax savings (offsets against income subject to tax) depends on a taxpayer's "bracket," profits vary with the scale of an investor's taxable income from other sources. To illustrate the yield which may be achieved in a 221(d)(3) BMIR project, an illustrative case is considered based on a project developed by a limited dividend entity. An identity of interest is assumed between the builder and sponsor, thus permitting the use of the 10 percent "Builders and Sponsors Profit and Risk Allowance" in computing the mortgage. This is the sort of organizational approach many private builders could be expected to use.

To measure profit potential, the first tasks are to calculate the equity and the out-of-pocket cash investment required. The 221(d)(3) program provides for a mortgage loan to a limited dividend entity in an amount equal to 90 percent of a project's "actual" cost as defined by FHA. Table 2–3 illustrates the items included in the initial computation of "estimated replacement cost" and shows how the mortgage amount and equity requirements are computed.

Table 2–3 indicates that actual costs as defined by FHA include all development costs with the exception of a 2 percent working capital requirement to be deposited at the time the mortgage is signed and a 1 percent commitment fee payable to the Federal

TABLE 2–3. 221(d)(3) Below Market Interest Rate Project (Identity of Interest Between Builder and Sponsor) [1]

Computation of Mortgage Amount and Equity

Construction cost (272 garden apartment units) excluding builder's overhead and profit		$3,000,000
Construction fees:		
Architect and engineers (4.5 percent)	$135,000	
Builder's general overhead [2]	60,000	
Quantity survey	4,000	199,000
Carrying charges and financing:		
Interest during construction	146,000	
Financing	73,000	
Taxes during construction	32,000	
Title and recording	20,000	
FHA examination fee	11,000	
FHA inspection fee	18,000	300,000
Legal and organizational expenses		28,000
Builders and sponsors profit and risk allowance [3]		353,000
Land		200,000
Total estimated replacement cost		4,080,000
Maximum FHA-insurable mortage (90 percent)		3,672,000
Equity [4]		408,000

[1] An identity of interest exists when the builder has a proprietary interest in the project or when the sponsor has a proprietary interest in the builder.
[2] The builder's overhead allowance is calculated pursuant to informal FHA guidelines. In addition to overhead, the builder receives a profit fee. In this example, the profit fee is $90,000 (see Table 3–2). Payments to the builder thus total $150,000—5 percent of construction costs.
[3] When there is an "identity of interest" between the builder and the sponsor, FHA regulations allow a "builders and sponsors profit and risk allowance" of 10 percent of all costs other than land. The builder's profit must be paid from this allowance.
[4] The equity of $408,000 usually does not represent an actual cash requirement of the builder-sponsor. *See* Table 3–2 and accompanying footnotes.

National Mortgage Association (FNMA). Since the mortgage amount equals 90 percent of approved actual costs, cash requirements would presumably be the remaining 10 percent balance (in our typical case, $408,000) plus working capital and the FNMA fee.

Actual cash requirements are shown in Table 2–4. In calculating the mortgage, a 10 percent builder's and sponsor's profit and risk allowance was credited to the sponsor. This is not an out-of-pocket cost. The balance of potential cash expenditures is shown in the table. It should be emphasized that it is a rare situation in which the sponsor's cash requirements equal the stated equity. Since stated equity is based in part on estimated costs, the cash required will vary, thereby penalizing or rewarding entrepreneurial skill as the case may be. For example, if the sponsor has to spend an inordinate amount of time in developing the project, or if he has to pay his architect, builder, or construction money lender more than FHA estimates, the cash requirements could increase above the stated 10 percent figure. An efficient operator can obviously reduce his cash requirements. Even if the cash requirements are below the stated equity figure, this is not unreasonable considering the other real estate and business opportunities foregone and the risks involved.

TABLE 2–4. Analysis of Sponsor's Potential Cash Requirements

Equity needs	$408,000
Less:	
Builder's and Sponsor's Profit and Risk Allowance	353,000
Cash needed to meet closing requirements	55,000
Cash needs:	
To meet closing requirements	55,000
2 percent working capital [1]	73,000
1 percent FNMA commitment fee [2]	37,000
Builder's profit [3]	90,000
Sponsor's overhead costs [3]	[4] 153,000
Total	408,000

[1] Any unexpended funds returned at final closing.
[2] Recoverable from mortgage proceeds to the extent that savings are achieved in items for which use of mortgage proceeds is authorized.
[3] If the builder and sponsor are wholly identical, no cash payment is necessary.
[4] Experience suggests that the sponsor's overhead may be less than noted. "Cash needs" are correspondingly reduced. Sponsors may provide a portion of these needs in the form of services.

With equity and cash requirements defined, the next question is the return to the owner-investor. As previously mentioned, profits may be realized from management, the limited dividend payment, and tax deductions.

Management Fees

FHA allowances for management expense vary

with the size and type of project and location. However, they usually run from 3 to 6 percent of gross rents. For Rent Supplement projects, allowances for management expense may be as high as 8 percent.

If outside professional management is hired, it can receive the prevailing percentage (plus a fee) of gross rental income. If owner-management is chosen, FHA allows expenses (for salaries, overhead, and the like) equal to those typically found in similar projects. A paid employee-manager is customary in larger projects. His compensation often includes a project living unit.

Management profits have proven to be varied and hard to calculate in advance. Profits from management have not been included in computing yields for the illustrative case.

Cash Return—The Limited Dividend Payment

In a subsidized project insured by FHA, statutes and regulations control the amount of the mortgage, the rents which can be charged, and the amount of the net income which may be distributed to the owner. The regulations are embodied in the Regulatory Agreement executed by the project owner and FHA. The effect of FHA regulations is to place a ceiling on cash profits, regardless of actual earnings. Table 2–5 illustrates a typical *pro forma* operating statement.

TABLE 2–5. Pro Forma Annual Operating Statement (After Construction and Start-Up)

	221(d)(3) BMIR program: 40-year, 3 percent mortgage
Number of units	272
Monthly rent per unit	$120
Gross rental income	$392,000
Vacancy factor [1]	$28,000
Net rental income	$364,000
Operating expenses and property taxes [2]	$172,000
Replacement reserve	$10,000
Debt service [3]	$157,500
Cash flow to investors [4]	$24,500

[1] Assumed 7 percent of gross rents.
[2] Includes a management fee of 5 percent of gross rents or $20,000. Operating expenses, property taxes, and replacement reserve assumed to total $56 per unit per month (Replacement reserve is noted separately.) This figure is based on FHA experience related to a $1,500,000 project. Larger projects such as this should have lower per unit operating expenses, and rents would be reduced accordingly.
[3] Based on mortgage of $3,672,000 (see Table 2–3), at 3 percent for 40 years.
[4] Limited to 6 percent of 11.11 percent of the mortgage. In this case annual cash flow is equal to 6 percent of the equity of $408,000. (See Table 2–3.)

As shown in Table 2–5, the impact of the Regulatory Agreement is to restrict cash distribution to 6 percent of one-ninth of the mortgage. In the illustrative case, this is equal to 6 percent of the equity as shown in Table 2–3. While there is no guarantee that the project will have high occupancy and produce income, should some of the estimates in the *pro forma* operating statement prove unduly conservative (i.e., if the project has less than 7 percent vacancy or operating expenses are less than anticipated), the investors would still not be permitted to receive more than 6 percent. Any profits in excess of this amount are used to prepay the mortgage, to increase operating reserves, to finance project improvements, or to reduce rents.

It is submitted that such a cash return is unrealistic when compared to current rates of cash return for alternative investments. Because there is a risk inherent in any such investment, it is proper that its rate of return exceed that being paid for bonds, mortgages, and other debt paper of less risk. For these reasons it is suggested that *FHA increase the rate of return to 8 percent or some other figure which is more realistic than 6 percent.* If the rate were increased to 8 percent, the annual cash income in the illustrative case would increase from $24,500 to $32,600 per year. The increase to 8 percent would increase rents slightly—by about $2.50 per unit per month in the illustrative case. However, this is justified by the need to provide a more realistic return, brackets and who cannot enjoy the benefits of tax particularly to sponsors who are not in high tax savings generated by the project.

Tax Savings

While Federal regulations limit cash returns, the owner of a subsidized housing project is entitled to take normal depreciation deductions on project development cost (excluding land) in calculating his Federal income taxes. Moreover, under existing tax law, depreciation may be taken in various accelerated forms so that deductions are greater during the early years of project life. (A 1964 amendment of the Internal Revenue Code provided that some or all of the benefits of accelerated depreciation are recaptured.) Other tax deductions are also available in early years. If a project is owned by a partnership, individual and corporate partners can obtain the benefit of the partnership's tax losses. Each investor may use these book losses to offset other income in computing annual taxes. Thus, while the cash yield by itself may not be impressive, a Federally subsidized project may be sufficiently "profitable" to an investor who can offset other income with substan-

tial book losses, thus reducing the amount of tax currently payable.

Total Yields

Ignoring for the moment the tax consequences of sale, the total annual return—net cash income plus tax savings—available to taxpayers in various tax brackets is shown in Table 2–6. The table shows both the cumulative average return on equity ("average") and the discounted return ("dis"). The discounted yield takes into account the time when the return is received. Since income is higher in the early years and available for reinvestment, it is more valuable, and, therefore, the discounted yield computation would exceed average yield.

While the yields shown in Table 2–6 appear to be reasonably attractive, at least in the earlier years when tax savings are highest, the table does not reflect the serious impact upon those returns of the tax consequences of the sale of a project. In the year of sale the seller is required to pay taxes on the difference between the sales price and the depreciated basis of the project. Furthermore, depending on the length of time the property was held by the seller, some portion of this amount may be taxable as ordinary income.

The taxes on sale diminish the established yields substantially. Appendix H–3 shows the amount of tax payable on the sale of a project after various holding periods; the sale price is assumed equivalent to the unamortized mortgage amount which would be outstanding if the project had originally had a 100 percent mortgage (3 percent interest rate for 40 years). The effect on yields of the tax payable on sale is presented in Table 2–7 for taxpayers in the 50 percent bracket.

The tax consequences of the sale of the project seriously diminish the attractiveness of the investment since many investors seek a discounted after-tax return of at least 15 percent. It is apparent that the tax on sale may reduce reasonable returns in the early years to unrealistic levels and also reduce the previously marginal long-term yields.

Because of rising real estate values, the tax consequences of sale are minimized in the conventional housing market. Profits from the sale are available to pay the taxes. However, under past FHA procedures this solution is not available to owners of subsidized projects. Regulations have prohibited refinancing for 20 years, and sale has rarely been permitted to a subsequent owner without loss of subsidies on the project.

TABLE 2–6. Cumulative Average After-Tax Yield—(Including 6 Percent Cash Return and Tax Saving) on Investment of $408,000 [1] (221(d)(3) Below Market Interest Rate Project) for Investors in 30, 50, and 70 Percent Bracket Ignoring Tax Consequences on Sale

Years before sale [2]	Yield for taxpayer 30 percent bracket			Yield for taxpayer 50 percent bracket			Yield for taxpayer 70 percent bracket		
	Annual return [3]	Dis [4]	Average [5]	Annual return [3]	Dis [4]	Average [5]	Annual return [3]	Dis [4]	Average [5]
		Percent	*Percent*		*Percent*	*Percent*		*Percent*	*Percent*
1	$77,000		18.9	$128,300		31.4	$179,600		44.0
2	38,600	14.5	14.2	64,000	24.4	23.6	90,100	37.7	33.1
3	49,800		13.5	66,600		21.1	83,400		28.8
4	46,900		13.0	61,800		19.7	76,700		26.3
5	44,100	12.9	12.6	57,200	19.9	18.5	70,200	27.4	24.5
6	39,700		12.1	49,900		17.5	60,000		22.8
7	37,100		11.7	45,500		16.6	54,000		21.5
8	34,600		11.3	41,400		15.8	48,200		20.3
9	32,200		10.9	37,400		15.0	42,500		19.2
10	29,900	11.3	10.5	33,500	16.8	14.4	37,000	23.2	18.2
11	27,600		10.2	29,700		13.7	31,700		17.2
12	25,400		9.9	26,000		13.1	26,600		16.3
13	23,300		9.5	22,400		12.5	21,600		15.5
14	21,200		9.2	19,000		12.0	16,800		14.7
15	19,200	10.2	8.9	15,600	15.0	11.4	12,100	21.2	13.9
16	17,200		8.6	12,300		10.9	7,500		13.1
17	15,300		8.3	9,100		10.4	3,000		12.4
18	13,500		8.1	6,000		9.9	(1,400)		11.7
19	11,600		7.8	2,900		9.4	(5,700)		11.0
20	9,800	9.4	7.5	(100)	13.8	8.9	(9,900)	20.0	10.3

[1] If real equity is less than $408,000, yields would increase proportionately. Assumes that return is received annually, and that entire equity investment must be made at the beginning of construction.

[2] Assumes one-year construction period and one-year break even period.

[3] "Annual return" is the sum of Columns A (net cash income) plus applicable Column B, C, or D (tax savings) in the table in Appendix H–2.

[4] "Dis" represents the average cumulative rate of return on the $408,000 equity, discounted in accordance with accepted financial practice.

[5] "Average" represents the average cumulative rate of return on the $408,000 equity, not discounted.

TABLE 2–7. Effect of Tax on Sale[1] of 221(d)(3)BMIR Project on Yield[2]
Taxpayer in 50 Percent Tax Bracket

	After tax rate of return before sale[3] in percent		After tax rate of return after sale[4] in percent	
	Discount	Average	Discount	Average
Sale after 2 years	24.4	23.6	3.3	3.3
Sale after 5 years	19.9	18.5	5.8	4.5
Sale after 10 years	16.8	14.4	9.7	5.6
Sale after 15 years	15.0	11.4	10.7	4.7
Sale after 20 years	13.8	8.9	11.0	3.5

[1] The sale price is assumed equivalent to the unamortized mortgage amount which would be outstanding had the project initially received 100 percent mortgage financing.
[2] If real equity is less than $408,000, yields would increase proportionately.
[3] See Table 3–4.
[4] Table 3–4 yields reduced by tax consequences of sale. See Appendix H–3.

In light of the magnitude of the goal of six to eight million subsidized units in the next decade, it appears necessary to assure the satisfactory yield pictured in Table 2–6. This will require a solution of the tax-on-sale problem which reduces yields to the unsatisfactory levels shown in Table 2–7. We propose the following to maintain yields at adequate levels:

1. Table 2–6 shows that apart from tax consequences of the sale, profits can be maximized by a sale in the early years. The first step, therefore, is to make use of the new authority added by Section 105(a) of the 1968 Act which permits sale of 221 (d) (3) BMIR projects in their early years to similarly financed cooperatives and condominiums and the comparable provisions in new Section 236 (j) (3).

2. The second step is to reduce the impact of the tax on the sale of the project. This critical problem can be approached in several ways.

Recognize tax in sale price. In the case of the sale of a project to a cooperative, condominium, or nonprofit organization, FHA should be authorized to recognize a sale price which will permit the owner-investor to recover his equity investment and sufficient cash to pay the tax due on the sale. This would maintain yields at the levels shown in Table 2–6. This is the approach adopted with regard to Section 236 of the National Housing Act incorporated in the 1968 Housing Act. As the House Committee on Banking and Currency reported:

> *Mortgage insurance would also be available under this section [236] to enable a cooperative or private nonprofit organization to purchase a project from a limited-dividend mortgagor.* In such a case, the Secretary would be authorized to insure the purchaser's mortgage in an amount not exceeding the appraised value of the property at the time of purchase, *thereby making it possible for the cooperative or nonprofit organization to borrow, under a single mortgage, the funds needed to obtain ownership, while enabling the limited-dividend seller to realize a net amount out of the sales proceeds in many cases sufficient to recover its cash, land, and other investment and to retire the outstanding mortgage.* This will be especially useful in connection with the goal of attracting large amounts of private-equity money into the provision of low and moderate income housing through the establishment of national partnerships (proposed by title VIII of the bill). It will give the limited-dividend mortgagor a ready means of disposing of his project, thereby making his investment more liquid and attractive. [Emphasis added.]

Meeting tax requirements from sale proceeds would require, however, an increase in the mortgage which could affect monthly rents. To avoid any increase in rents, we propose that FHA be authorized to extend the term of the mortgage. For example, if the project with an original cost of $4,080,000 were sold after 10 years, the sale price would be at least $4,012,000 computed as follows: $3,181,000 unamortized mortgage outstanding which has to be refinanced, plus $408,000 equity plus $423,000 to cover the tax liability on the sale. In order to maintain the same rent payments, the term of the new mortgage would have to be at least 36.1 years. (See Appendix H–4 for further details.)

Tax credit. While the approach discussed above is simple to administer and requires no modification of the tax law, it does extend the term or increase the amount of the mortgage. This is not burdensome, but would be better avoided. Instead, the sponsor might be allowed, upon completion of development, a tax credit equal to 3 percent of the total replacement cost of the project. This would be similar to the existing 7 percent investment tax credit available

to those who place new machinery and equipment into service but not to those developing real property. It would be identical to the 3 percent investment tax credit available for placing into service qualified public utility property.

The advantage of the tax credit approach is that it allows tenants to assume ownership or control (through a nonprofit, cooperative or condominium) without an increase in monthly payment or without extending the mortgage term. Moreover, it removes the problems the Secretary might face in trying to appraise value fairly while cognizant of the economic constraints imposed on a seller facing a heavy tax burden. Finally, it is a widely accepted, well-undersood mechanism available to the vast majority of industrial firms. Appendix H–5 indicates the effect on yields of the combination of a 3 percent tax credit and the recommendation to increase annual cash return to 8 percent.

Tax forgiveness. As a third alterative, it is proposed that the tax laws be amended to limit the taxable gain on sale to the amount by which the sale price exceeds the original value of the project (equity plus original mortgage). This approach would also maintain the yields shown in Table 2–6. In order to assure that this tax benefit encourages the development of subsidized housing, the tax forgiveness might be conditioned on the investment of proceeds of sale in similar projects within a reasonable period of time.

II. A New Private Instrument—The National Housing Partnerships

How many private firms are ready and willing to join in the development of housing for low- and moderate-income families?

The Committee commissioned Walter Gerson and Associates, Inc. to survey business attitudes toward sponsoring housing projects. While hardly definitive, the survey did indicate that given the opportunities available last year when the survey was taken, big business as a whole was not likely to be much involved in the development of subsidized housing. Lack of technical knowledge and reluctance to become the owner of individual projects were the principal explanations for this inactivity.

The Committee, therefore, recommended to the President the creation of a new private instrument—The National Housing Partnerships—to permit firms not now engaged in the subsidized housing field to come into it on a sound business basis. This recommendation was later enacted into law as Title IX of the Housing and Urban Development Act of 1968. In acting on the Committee's recommendation in his message on "The Crisis of

the Cities" of February 1968, the President said this:

"I propose that the Congress authorize the formation of privately funded partnerships that will join private capital with business skills to help close the low-income housing gap.

"The Kaiser Committee identified three principal reasons why American industry has not yet been attracted to the field of low and moderate-income housing. The problems and the steps proposed to meet them are:

1. Concentration of Risk

The profitability of individual housing projects varies widely and the risk of loss on any one project is high. The proposed national partnerships would permit industrial and financing firms to pool their investments and spread their risks over a large number of projects.

2. Rate of Return

Substantial operating losses are usually incurred in the first 10 years of a housing project's life as the result of operating and interest expenses and depreciation.

Under existing law the partnership form of organization, now used by some building owners permits these operating losses to be "passed through" to each investor, and used by him as an offset against his other taxable income. This reduces current income taxes otherwise payable, and makes possible an annual cash return on investment comparable to the average earnings of American business in other manufacturing enterprises.

3. Management

The management personnel of major corporations are inexperienced in the field of low income housing. They cannot afford to devote substantial time to occasional housing ventures.

The proposed national partnerships would be strongly financed organizations fully committed to long-term activity in the single field of housing for the poor. As such, the proposed partnerships should be able to attract top flight management and technical experts on a competitive career basis.

The objective of these partnerships will be to attract capital from American industry and to put that capital to work. Their exclusive purpose will be to generate a substantial additional volume of low and moderate income housing. They will use the best private management talent, planning techniques, and advanced methods of construction. They will probe for savings inherent in the latest technology and in economies of scale. They will:

—participate in joint ventures throughout the country in partnership with local builders, developers, and investors;

—join with American labor to open new job opportunities for the very people their projects will house;

—participate in our existing and proposed federal programs for assisting low and moderate income projects on the same basis as other project sponsors.

This new undertaking will begin with one national partnership. We expect that others will follow as the approach proves itself."

As the President noted, the partnership form was chosen to permit the passing through of book losses (resulting from depreciation and other deductions) to each investor. Title IX of the Housing and Urban Development Act of 1968 governs the organization of the partnerships. The President has appointed the incorporators of a profit-motivated corporate General Partner. The incorporators will establish the General Partner and provide the framework for the partnership itself. They will raise capital from American business and financial institutions by sale of shares in the Corporation and interests in the Partnership.

The Partnership has the special purpose of engaging in activities related to providing housing for low- or moderate-income persons, relying primarily on the Federal housing subsidy programs. Local builder and investor participation is contemplated in all developments. The law assures that the Partnership will include local investors by limiting nonlocal investment to 25 percent of the equity of any specific project, except where additional funds cannot be raised from local sources.

Although neither the General Partner nor the Partnership has been given any special powers, it was deemed advisable to establish them by Act of Congress for the following reasons:

1. The existence of the legislation serves as a national invitation to industry to participate—to join in the development of housing for low- and moderate-income families on a profit-making basis;

2. The legislative history secures the feasibility of the pass-through of tax savings to individual partners; and

3. Provisions of the Act specifically settle questions of local law which might be thought unre-

solved, such as the power of the Corporation to operate as the General Partner of the Partnership.

In addition to helping to produce housing for low- and moderate-income families, the National Housing Partnership was conceived of as a laboratory for the development of practical solutions to the problems of reducing construction costs and production time, improving landlord-tenant relationships, and promoting and assuring successful homeownership for low- and moderate-income families.

No single private organization presently develops and only a few operate any large volume of housing for low- and moderate-income families. Accordingly, no single producer has the occasion or the incentive to develop solutions to problems inherent in the production of such housing. Those who have the incentive in management often do not have the capital. Reduced costs, timely construction, and good landlord-tenant relationships can lower rents and increase profits. For that reason, the profit-motivated Partnership will be stimulated to develop creative and effective solutions. Furthermore, given a sufficient volume of units, the Partnership can support meaningful research efforts. Finally, by devices such as incentives for sale to nonprofit or cooperative tenant groups, the Partnership will be motivated to seek citizen participation in its projects.

III. Ensuring Participation of the Private Sector

The availability of reasonable profits may not alone ensure the volume of private participation required to produce the needed housing. Other potential problems which may deter developers or investors must be attacked.

A. Accelerating Processing of Federal Programs

Developers frequently state that the time required to process mortgage applications has dampened their interest. Rapid processing is required to achieve the production of six to eight million subsidized units in the next decade.

1. FHA Programs

FHA has recently instituted an Accelerated Multi-family Processing (AMP) system for multi-family programs like 221(d)(3) BMIR, Rent Supplements, and 236. Because of the importance of prompt processing, the Committee requested a panel of mortgage experts to review the new AMP procedures in detail. The panel received the cooperation of FHA officials. It was clear from the outset that the simplification of forms, the elimination of seriatim reviews, and the emphasis on the early determination of market feasibility could dramatically

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reduce processing time. In a report submitted to the Committee, the review panel stated:

> The Panel unanimously agreed that the concepts underlined in the AMP proposal represent a very significant improvement in the FHA processing of multifamily projects. Panel members who have already had experience with AMP processing have been most favorably impressed.

It appears that with the proper training of local office personnel, the AMP program can effectively shorten processing time. From all reports available to the Committee, processing delays are not nearly as serious as they once were. The record of average processing time from initial application to occupancy has been:

221(d)(3)BMIR; before AMP; *32 months.*

221(d)(3)BMIR; processed under AMP; *19 months.*

Clearly the AMP program has brought about a substantial improvement.

In implementing AMP, FHA should dispatch a small team to review all applications pending in the local offices, with authority to expedite the processing of projects which are lagging. Early in 1967, FHA circulated such a team with great effectiveness.

2. Public Housing Programs

While FHA has made a vast improvement in the processing of its multi-family housing programs, improvement in the development time for public housing has not been as impressive. Table 2–8 indicates the average time it has taken to complete a public housing development in the various regions of the country.

Responsibility for the long development periods cannot be charged to HUD alone. Table 2–9, discussed later in this section, clearly indicates that projects are often delayed at the local level. Our concern, however, is not to pinpoint blame for past delays but to accelerate the process for the future. The Turnkey procedures introduced by the Housing Assistance Administration (HAA), discussed earlier, have dramatically reduced the development time ordinarily required for public housing. Furthermore, HAA has recently delegated responsibilities to local HAA offices, which should reduce excessive review and accelerate processing. One reform which is particularly noteworthy is the delegation to the local HAA office of the responsibility of developing reasonable cost limitations for each locality.

There is room for more improvement. We propose that a review team similar to that suggested for FHA programs be formed to review and expedite all public housing projects pending in the local offices. Second, and equally important, we propose that if a project has been pending for more than two years, and if development is not imminent, the reservation of funds should be taken away from the locality and reallocated to communities better able to use them. Finally, the fund reservation system should be reviewed and revised to assure that communities promptly use funds allocated to them. One reform to be considered is a delay of formal reservation of funds until local site approvals have been secured.

TABLE 2–8. Median Time for Development of Public Housing [1]

The approximate median "pipeline" time taken by a project from start to finish	44 months
The median time by stage is:	
Program reservation to preliminary loan (estimated)	2 months
Preliminary loan contract to annual contributions contract	10 months
Annual contributions contract to construction start	20 months
Construction start to date of full availability	12 months
The median time by region is:	
Region I (Maine, New Hampshire, Vermont, New York, Massachusetts, Connecticut, Rhode Island, New Jersey).	57 months
Region II (Pennsylvania, Maryland, Delaware, West Virginia, Virginia, District of Columbia)	122 months
Region III (Kentucky, Tennessee, Mississippi, Alabama, Florida, Georgia, South Carolina, North Carolina).	40 months
Region IV (Ohio, Indiana, Illinois, Wisconsin, Michigan, Iowa, Minnesota, Nebraska, North Dakota, South Dakota).	106 months
Region V (Texas, Louisiana, Arkansas, Missouri, Oklahoma, Kansas, New Mexico, Colorado)	37 months
Region VI (Alabama, Hawaii, Guam, Washington, Oregon, California, Neveda, Arizona, Utah, Idaho, Montana, Wyoming).	46 months
Region VII (Puerto Rico, Virgin Islands)	Not available

[1] The times are based in part on a survey of 745 projects between 1962–64. Only the 20 months median period for Annual Contributions Contract to Construction is based on 1967 figures.

Source: Housing Assistance Administration.

B. Reducing the Risks

Private development of housing for low-income families is still a relatively new approach. Private firms with little experience in the management of housing for the poor may be hesitant to undertake rental projects. Even more important, recent FHA administrative actions have made those interested in sponsoring subsidized projects particularly fearful of possible problems in making mortgage payments, since any record of a request for mortgage forebearance, let alone one of delinquency or default, may jeopardize a firm's future opportunities to produce housing under FHA multi-family programs.

Subsidized housing programs should be administered with sufficient sensitivity to such concerns of the private developer. Specifically, in the event a project has a high vacancy rate or high management costs and there is no evidence of mismanagement, it should be HUD's stated policy that with the consent of the lender, interest and amortization payments may be deferred and the mortgage term adjusted to reflect the change in the payment schedule but, if possible, without requiring a change in rents. Further, where a default is likely, it is recommended that in the absence of mismanagement the sponsor should have the option of tendering the project to FHA for the unamortized value of the mortgage. In that case he would not recover his equity or his operating losses, but he would not lose the privilege of sponsoring other FHA projects. It should be clear, however, that the tender should not result in, in the absence of any wrongdoing, the risk of such a loss. This is an excessive consequence to add to the financial losses; and as already noted, it could well discourage sponsorship of subsidized projects.

An additional approach to the risk problem is the development of a Federal insurance or reinsurance program which would cover operating losses for a specified period. It is recommended that HUD be directed to develop such a program and that the

cost of premiums be allowed as an operating expense.

C. Providing Additional Incentives

1. Development Fund

The development of housing projects requires the sponsor to advance about 2½ percent of total development costs before receiving any assurance that the project wil be approved for mortgage insurance. These "front money" costs of Public Housing and FHA projects are described in detail in Appendix H–6.

Because of the risks involved, it is generally difficult to finance "front money" except at inordinately high interest rates. In order to encourage the widest possible participation of developers, a revolving Development Fund similar to that provided for nonprofit sponsors should be established to make money available at a reasonable rate of interest to finance the purchase of land and to underwrite the initial planning of low-income housing developments where such funds are not otherwise available at a reasonable cost. To create the Development Fund, the Federal Government should either: (1) modify the provisions of the nonprofit revolving fund for nonprofit corporations to include limited distribution entities; (2) establish a program to guarantee such loans; or (3) make direct interest bearing loans from a special revolving fund. All loans or guarantees should be interest bearing and should be with recourse against the individual sponsor in the event of default. The cost of such loans should not be included as an eligible mortgage cost since in this case the purpose of the program

is to make funds available, not to reduce the developer's equity.

2. Depreciation of Subsidized Projects

Efforts should be made to encourage the Internal Revenue Service to recognize administratively a shorter "useful life" for all Federally subsidized housing developments. Under present procedures, the IRS generally requires that a taxpayer depreciate all housing properties over a 40-year period ("useful life") regardless of location or type of occupancy. It is submitted that a project occupied by low- and moderate-income families is likely to depreciate more rapidly than a conventionally financed project. For this reason the "useful life" for Federally subsidized housing should be reduced. This would increase the tax write-offs generated by such projects, increase yields, and thereby make such projects more attractive investments.

IV. Improving the Capabilities of Public and Nonprofit Developers

This report should make it clear that the development of housing for the poor is indeed a complex undertaking. The successful developer must have professional experience and competence, an understanding of market requirements, and adequate funds to support initial planning. Nonprofit organizations and local public housing authorities may lack these, but their deficiencies are amenable to solution.

A. Nonprofit Organizations

Nonprofit organizations were first thrust into the development of subsidized housing by Section 202 of the Housing Act of 1959 and have been heavily involved in the Section 221(d)(3)BMIR and Rent Supplement programs. Experience has been mixed. Well-intentioned but inexperienced and underfunded charitable organizations have sometimes been over-ambitious and have become disillusioned. This is unfortunate and unnecessary.

FHA's recent action allowing the cost to nonprofit organizations of hiring competent advisors knowledgeable in real estate and FHA programs to be met from mortgage proceeds is admirable.

Many charitable organizations do not have the necessary "front money" required to begin a project. We urge that HUD bring into operation immediately the revolving fund authorized by the 1968 Act to provied this front money to nonprofit sponsors.

B. Public Agencies

1. Federal Assistance to Local Housing Authorities

We have already noted the problems of local processing delays in the development of public housing. Table 2–9, derived from a recent report by a task force of the Housing Assistance Administration, indicates the number of units under Annual Contributions Contract on which construction has yet to begin.

TABLE 2–9. Public Housing: Time Elapsed Since Last Federal Action [1]

Time since last action	Number of units (cumulative)
3 years or more	15,931
2 years or more	22,933
18 months or more	27,947
1 year or more	44,959
6 months or more	62,330

[1] As of June 30, 1967, for projects at the stage between Annual Contributions Contract and construction start.

Source: Housing Assistance Administration.

Since Table 2–9 is based on elapsed time since the last Federal action for which records are kept, it does not show the total time that has elapsed from either the date of the original reservation of funds or execution of the Annual Contributions Contract. For example, a project which received an Annual Contributions Contract 10 years ago but for which land was purchased five months ago would not appear in the tabulation. Thus, the full dimension of the iceberg are not presently known.

To some extent these delays are reported to reflect the fact that local housing authorities lack the technical staff to prepare plans and specifications and to supervise bidding and the construction of a project. To help meet this problem, it is recommended that HUD be granted the necessary authority to assume full responsibility for the preparation of plans and supervision of bidding and construction when requested to do so by a local housing authority. This approach offers substantial potential for speeding up production. It might also enable HUD to operate on a scale sufficient to encourage private development of cost saving techniques and to support experimentation in new methods.

2. Funding Community Housing Plans

Perhaps even more important than strengthening the capability of the local housing authority is the need to strengthen the ability of the entire local government structure to deal with housing problems. It is becoming increasingly apparent that most local communities have neither made adequate assessments of their housing needs nor developed a program to assure that these needs are met. Re-

sponsibilities are often diffused among several uncoordinated agencies. Code enforcement, Urban Renewal, and Public Housing are often separately administered with no one public official being responsible for total housing requirements.

The Federal Government should provide funds to local governments to finance the preparation of plans to meet the housing needs of all their citizens. With appropriate modification of regulations governing existing programs, these needed planning efforts could be funded under existing authority. Public Housing, Urban Renewal, Model Cities, and the Community Renewal programs all offer possible funding sources.

Section III

Making Better Use of the Housing We Have

Part Four

Housing Markets and Rehabilitation

Housing is remarkably durable. With a moderate amount of upkeep, most dwellings decline in value rather slowly with age. Consequently, one characteristic of the housing market is that used housing plays a much greater role than new housing. New production increases the national housing stock by only 2–3 percent annually. A study of housing policy must therefore examine the use of the existing housing supply.

This section considers four basic questions:

- How can the poor be enabled to participate more effectively in the market for existing housing?
- How can housing subsidy programs make use of existing housing?
- What policies will accelerate the rehabilitation of existing housing?
- What can be done to upgrade entire slum areas?

I. Improving the Operation of Housing Markets

Most new housing units are designed to meet the needs of middle- and upper-income families. Lower-income households are not likely to live in new dwellings, but rather in older housing which was once of high quality. Many dwellings in hard-core slums were quite fashionable when built. The process by which such housing declines in relative quality and becomes available to lower-income occupants is known as "filtering." As middle- and higher-income groups move into newly constructed dwellings, their old units are then occupied by somewhat lower-income groups. If incomes generally are rising, some such hand-me-down process occurs continually. Not all housing units filter "downward." If a unit is extensively rehabilitated, the subsequent occupants are likely to be better off than the prior ones.

The important fact is that housing markets of different income groups are linked. Construction of housing for moderate-income families may help lower-income families by freeing units for them. How well the private market system serves the poor through the filtering process is the subject of an old debate, and one that cannot be resolved. Certainly the "filtering" process works very imperfectly, with many other factors affecting the value and occupancy of properties. Greater understanding of these forces is a prerequisite to the formulation of intelligent housing policies.

The stock of housing which the filtering system provides the poor is not good housing. It is typically old, worn out, and cut up so that each dwelling unit is of small size.

To a large extent, the existence of substandard housing can be attributed to the fact that some persons in our society simply cannot afford better accommodations, but poverty is not the sole cause of inadequate housing. Many of our problems in this area arise from imperfections in the operation of the housing market which deprive the poor of the full benefit of what little purchasing power they possess. The most obvious of these is racial discrimination. There are others, like counter-productive tax policies, "red-lining" by lenders, consumer ignorance, and inadequate controls to prevent a housing owner from making his property a nuisance to his neighbors. Unless progress is made in these other areas, neither the elimination of poverty nor massive housing programs will completely eliminate slums. Given the size of the used housing market and the pressures to make housing immediately available to the poor, public policy must focus on removing these impediments to a free market in housing.

A. Racial Discrimination

Discrimination has denied racial minority groups full and free participation in the housing market. TEMPO's study produced empirical evidence of the impact of racial discrimination on the ability of nonwhite families to obtain standard housing. Elimination of such racial barriers will enable nonwhite families to purchase better housing within their incomes. Vigorous enforcement of the 1968 Federal open occupancy law, Title VI of the Civil Rights Act of 1964, and the various state and local open housing laws is recommended.

B. The Need for Informed Housing Consumers

The success of housing markets depends in part on the housing consumers' awareness of the range of choices available. In his study of Newark slums, George Sternlieb found that only one-third of all property owners had heard of FHA programs. More important, those who owned only one property were the least likely to be aware of FHA. This suggests that the low-income homeowner, who would benefit most from liberal financing, was least informed.

Information about housing opportunities now is transferred on a rather haphazard basis through lenders, real estate brokers, advertising, and other channels. Government can help assure a better flow of information. In 1967 HUD introduced a Home Counseling Service in 15 of its 76 FHA local insuring offices. The purpose of the program was to advise prospective homeowners on mortgaging procedures and housing opportunities under FHA programs. This program has since been expanded and should be further strengthened. There should be more such offices located in lower-income neighborhoods. Also, the program content should include general financing and maintenance counseling. Additional direct Governmental efforts or programs to stimulate private consumer education activities appear to be an inexpensive way of making housing markets function better.

C. Ending the Dearth of Housing Financing in the Slums

Historically, lenders understandably consider neighborhood stability in making mortgage loans. Because slum areas are not noted for stable property values, many lenders could be lured into them only if high rates of return are available. Usury and banking laws may prohibit such returns. For this reason, it was not unusual for lenders to "blacklist" or "red-line" blighted areas and refuse to make loans on properties located within them under any conditions. Homebuyers in such areas consequently found it difficult to arrange mortgage financing for home purchases, and existing property owners were hard-pressed to finance improvements for their properties. The apprehensive attitude of lenders toward deteriorated neighborhoods was documented in Sternlieb's study of Newark slums. Table 3–1 shows that the principal institutional lenders such as savings and loans and banks were less active in Areas 1 and 2 of Newark, the most deteriorated areas, than in Area 3, a more stable neighborhood.

The shortage of financing available from lending institutions and the relatively high risks inherent in such loans meant that occupants of declining neighborhoods (and low-income families generally) had to borrow for short terms and at high interest rates. They frequently needed to place a second mortgage, bearing an even higher interest rate. Table 3–2 illustrates how shorter terms and higher interest rates sharply increase monthly payments under a $10,000 mortgage.

There should be a major Governmental effort to boost the flow of credit to slum areas. More liberal credit policies would enable more slum dwellers to buy their own houses. This is beneficial to society at large. Sternlieb presents evidence (Table 3–3) showing that owner-occupied dwellings are better maintained than others.

TABLE 3-1. First Mortgages by Source and Area, 1960-65

Source	Area 1		Area 2		Area 3		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Savings and loan	14	22.6	19	30.6	29	46.8	62	100.0
Private source	25	50.0	13	26.0	12	24.0	50	100.0
Mortgage company	4	20.0	11	55.0	5	25.0	20	100.0
Commercial and savings banks			2	66.7	1	33.3	3	100.0
Other:								
(realty and construction companies and those who didn't know source of their mortgages)	7	53.8	4	30.8	2	15.4	13	100.0
Total first mortgages	50	33.8	49	33.1	49	33.1	148	100.0

Source: Sternlieb, *The Tenement Landlord.*

TABLE 3-2. Monthly Payments for Principal and Interest, $10,000 Mortgage, by Length of Term and Interest Rate

Length in years	Interest rate		
	4½ percent	6 percent	7½ percent
5 years	$186	$193	$200
10 years	104	111	119
15 years	76	84	93
20 years	63	72	81
25 years	56	64	74
30 years	51	60	70

TABLE 3-4. Percentage Distribution of FHA Estimate of Value, Existing One-Family Homes, Section 203, Selected Years

Year	FHA estimate of value		
	Less than $10,000	$10,000 to $14,999	$15,000 and over
1950	64.9	29.9	5.2
1955	29.7	51.9	18.4
1960	17.0	53.3	29.7
1965	8.9	39.7	51.4

Source: Federal Housing Administration.

The FHA mortgage insurance and VA loan guarantee programs are the primary Federal tools for stimulating the flow of credit. Because the Government assumes the risk of loss under these programs, lenders can be persuaded to require low down payments and to offer longer terms on the mortgages. Unfortunately, these Federal programs have been used primarily to help middle-income families. FHA data show that only 11 percent of the families buying existing homes with Section 203 mortgage insurance in 1965 earned less than $6,000. Table 3-4 indicates that in 1965 only 8.9 percent of the homes covered in that program were valued at $10,000 or less.

TABLE 3-3. Parcel Maintenance as a Function of Number of Properties Owned by Owner

[In percent]

Size of holding	Well kept	Reasonably kept	Poorly kept
1 property	33	57	10
2-3 properties	18	57	25
4-6 properties	14	63	23
7-12 properties	7	63	30
Over 12 properties	7	72	21

Source: Sternlieb, *The Tenement Landlord.*

There are two basic ways to increase the availability of FHA assistance to poor families: (1) liberalizing the standards which the families must meet to get FHA backing, and (2) lifting FHA eligibility restrictions on the stability of neighborhoods where a dwelling is located.

The Housing and Urban Development Act of 1968 made major advances in both fields. In the past, many families could not qualify for FHA mortgage insurance because they had flaws in their credit histories or erratic records of earnings. Such families were turned down despite the fact that their current annual earnings could support a mortgage of moderate size. The 1968 Act specifically authorized FHA to look behind superficial flaws in a borrower's credit history and to insure a mortgage where the borrower "would be a reasonably satisfactory credit risk . . . . if he were to receive budget, debt management and related counseling." The Act authorized FHA to contract with private and public organizations to provide such counseling.

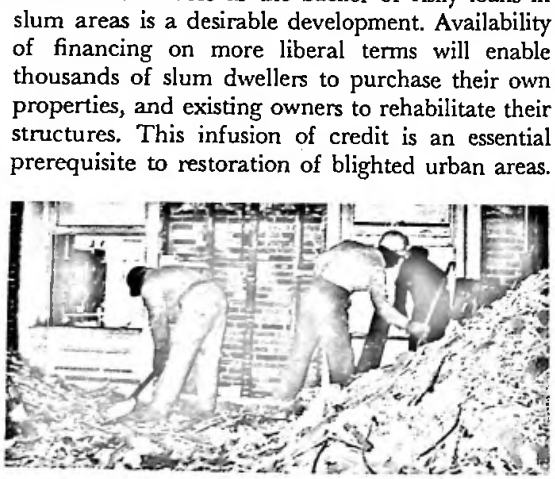
Congress has also taken several steps to relax mortgage insurance requirements in declining neighborhoods. Throughout most of its history, FHA was required to operate on an actuarily sound basis.

This requirement compelled FHA to refuse to write mortgage insurance on properties located in risky neighborhoods which institutional mortgage lenders also tended to avoid. In 1966, Congress amended Section 203 of the National Housing Act to authorize the Secretary of HUD to waive the "economic soundness" requirement, provided that the property was otherwise acceptable. This had the effect of eliminating FHA's red-lining policy. FHA's implementation of its new authority has been dramatic. At the time of the passage of the 1966 amendment, FHA loans in slum neighborhoods averaged less than 150 per week. By mid-1968 FHA averaged more than 2,000 such high-risk commitments per week. The average mortgage amount insured per unit has been less than $12,000.

Section 103 of the 1968 Act broadened FHA's authority to insure mortgages in declining areas. It removed the requirement that FHA make a determination that the area is not threatened. Now the area need only be "reasonably viable, giving consideration to the need for providing adequate housing for families of low- and moderate-income in such areas." In addition, the 1968 Act extended the relaxation of requirements for the stability of neighborhood to all FHA programs.

To carry out the programs for high-credit risk families and high-risk neighborhoods, the 1968 Act established a "Special Risk Insurance Fund." Premium charges and fees collected from mortgage insurance under the high-risk programs are deposited in this fund, along with premiums and fees collected under the new FHA subsidy programs. If the losses paid out of this fund exceed its income—not an unlikely possibility—the difference will be made up through appropriations.

FHA's new role as the backer of risky loans in slum areas is a desirable development. Availability of financing on more liberal terms will enable thousands of slum dwellers to purchase their own properties, and existing owners to rehabilitate their structures. This infusion of credit is an essential prerequisite to restoration of blighted urban areas.



D. Controlling the Nuisance Effects of a Slum Property

One bad building can ruin a block. Property owners in slum areas are foolish to upgrade their properties if their neighbors do not. Unless housing owners can be made to consider the effects of the condition of their property on their neighbors, the private housing market will not operate with maximum efficiency. Penalties must be devised for nuisances, and rewards for acts which enhance the value of neighboring properties.

Property owners have few private means for coping with the interdependency of the values of their properties. Voluntary agreements among neighbors to maintain or upgrade their properties are difficult to negotiate. One owner may try to purchase other properties near his so that he can control neighboring activities. (It is more feasible economically to rehabilitate a block than a building.) But aggregation of parcels in most slum areas is difficult because individual owners may be uninterested in selling.

The private market's ability to prevent some owners from allowing their units to deteriorate has prompted public action. Building codes, health codes, housing codes, zoning, and the law of nuisance are examples of measures designed to moderate the adverse spillover effects of land-use decisions. Spot clearance of isolated deteriorated structures by public authorities is another means to prevent such nuisances. Public measures to assist the aggregation of large parcels of land under one owner, such as those we propose in Section Four help to prevent deterioration by giving the private owner a strong incentive to maintain the neighborhood.

On the whole, existing techniques to make property owners take into account the effect of their land-use decisions on their neighbors are rather inexact. Most public programs rely on penalties. Few policies have been devised to reward property owners for carrying out property improvements which have positive advantages to their neighbors. This is a complex area. The problems are as yet little understood, and experimentation with a variety of policies seems to be called for.

E. Tax Policies and Housing Conditions

Local, state, and Federal tax policies have strong effects on the relative attractiveness of real estate investments. The impact of prevailing tax policies is mixed. Failure of the Federal income tax to treat the rental value of owner-occupied houses as income is often alleged to be a multi-billion dollar subsidy for homeownership. Other tax policies discourage

consumer expenditures on housing, and have contributed to the persistence of slums. Because tax questions are an important part of the mandate of the National Commission on Urban Problems, this presentation confines its role to pointing out those tax policies which may run counter to the goal of improved housing conditions.

1. Property Taxes

Local real estate taxes are widely considered to have the effect of distorting the operation of housing markets by discouraging consumption of housing. Property taxes account for a large portion of a family's monthly housing costs. In the cases used in the McGraw-Hill Study, property taxes represented 26 percent of monthly shelter costs in moderately priced single-family housing, and 14 percent in elevator apartment units. Local governments certainly need funds to finance their activities, but heavy taxation of housing consumption would seem to run counter to the goal of upgrading urban environments. Fear of increased tax assessments deters rehabilitation. Sternlieb asserts that, "In the face of tax uncertainty, combined with other negative factors which have been detailed, the slum market mechanism has been immobilized and with it a substantial part of the private potential for better slum maintenance and improvement." In addition, the property tax tends to be regressive, falling relatively more heavily on lower income groups. Dick Netzer, who has studied the property tax for many years, in a recently published study prepared for the National Commission on Urban Problems, concluded:

> * * * the highest priority would seem to attach to deemphasis of the property tax per se. It is a generally inferior tax instrument, although not the worst of all possible taxes. But an inferior tax becomes a monstrous one if applied at high enough rates * * *. There are alternatives to ever-increasing property tax rates in urban areas, alternatives which require a willingness to accept real change in that most conservative of all institutions, local government.

Given the adverse effect of high real estate taxes on housing conditions, local and state governments should seek out new sources of revenue with less harmful side effects. The specific relationship of real property taxes to rehabilitation is discussed later.

2. Federal Income Taxes

Whenever a property is sold, the Federal income tax law permits the purchaser to take accelerated depreciation on it. The effect of this practice is alleged to be that old properties are kept in existence longer than they otherwise would be because of the profit potential available simply from depreciation. In addition, because tax shelter benefits decline sharply after the first few years, the availability of accelerated appreciation is alleged to encourage frequent turnover in ownership of slum properties, which hardly enhances the stability of neighborhoods.

The net effect of Federal tax policies on housing conditions is far from clear. Some observers think that the impact of accelerated depreciation is not that adverse, especially since the tax amendments of 1964. In addition, Sternlieb found that few slum owners in Newark actually took accelerated depreciation. The capital gains system may also somewhat distort operation of housing markets. Tax treatment of repairs as capital improvements and not as operating expenses often acts as a deterent to rehabilitation. The important fact is that the Federal tax structure strongly shapes the incentive pattern faced by investors in real estate. As such, it is a potentially powerful engine for good or ill and

therefore should be reexamined to evaluate its impact on housing.

II. Subsidies and Existing Housing

Subsidies must be included in any package of measures to correct the problems in the housing market. How and where these subsidies are injected into the filtering process will have important repercussions throughout the entire housing market.

Most of the Federal housing subsidy programs are used primarily for new construction. The basic rationale for this emphasis is that new construction on vacant land, by increasing the housing supply, benefits all consumers in the housing market through the filtering process. Old units are vacated by the families moving into the newly constructed units. These vacancies relieve prices in housing submarkets closely related to the submarket in which the new construction occurred. Thus, price reductions are most likely to occur in structures geographically close to the new construction and which serve the same or slightly lower income groups. The recent emphasis on subsidized housing programs for moderate-income families is partly due to an awareness that these programs help lower-income families indirectly through the filtering process.

The major subsidy programs are used to a lesser extent to promote substantial rehabilitation of deteriorated properties. Rehabilitation adds no net units to the housing stock, and thus has less impact through the filtering process. On the other hand, rehabilitation directly eliminates some substandard housing, while new construction may not.

Federal housing subsidies are now rarely available to assist poor families in living in housing which was not originally built under a subsidy program and which has not been specially rehabilitated. Such subsidies are often looked on as unproductive because they neither add units to the housing stock nor directly bring about upgrading. Subsidy programs should make greater use of the existing housing stock. Where vacancy rates are high, new construction may be wasteful. Conversion of existing conventional units into subsidized units should indirectly prompt some improvements in the housing stock. For example, if an existing middle-income apartment building is converted into a low-income project, the former tenants are thrust onto the market where their added demand will encourage additional new construction and upgrading of existing units.

Subsidies can be restricted to specific dwellings—project subsidies—or housing allowances can be given to families who can spend them on any units they wish. Some existing project subsidy programs make use of the existing stock. The Public Housing "leasing program" is one example. A fraction of the appropriations authorized under the new Section 235 Homeownership program are to be devoted to enabling selected deserving families to purchase existing one-family homes. To be eligible for such assistance, the family must be either displaced by Government action, must contain five minors or more, or must presently be occupying public housing. This program to assist in the purchase of existing houses is scheduled to be curtailed after several years. This program should be continued and not cut back. Because eligibility for assistance is restricted to particularly needy families, it can be defended on grounds of equity alone. In addition, it provides a useful vehicle for promptly providing relocation housing for displaced families. Lastly, it enables families now living in the slums to purchase better dwellings in the same neighborhood, thus allowing them to better their housing condition without sacrificing strong community ties.

For the reasons just enumerated, the Rent Supplement program and the new 236 Rental program should be used to convert existing rental buildings into subsidized projects to a greater extent. As with the Homeownership program, eligibility should be restricted to families displaced by Government action, containing five or more minors, or living in public housing.

III. Rehabilitation

TEMPO, basing its estimates on U.S. Census data, reports there were 8.5 million occupied substandard housing units in the United States in 1960, 3.2 million of which were located within metropolitan areas. This represented a substantial reduction in the number of occupied substandard units since 1950. TEMPO estimates that upgrading continued and that the number of substandard units had been reduced to 6.7 million units by 1968. TEMPO projects that without public action there will still be 4.3 million occupied substandard units in 1978, half of which will be located in metropolitan areas. TEMPO's definition of "substandard" was fairly restricted; those who use more liberal definitions arrive at much larger figures. One of the challenges of the next decade will be to devise strategies to rehabilitate or replace these units.

A. Upgrading Dwellings

Rehabilitation is frequently seen as a quick, inexpensive way to solve the housing problems of the poor. In some cases it is. But recent experience sug-

gests that rehabilitation can be time consuming, complex, and relatively costly when the value of the final product is considered. Some buildings are beyond rehabilitation. An old tenement which lacks an elevator and has inadequate sources of light and air may be an inherently undesirable accommodation.

Table 3–5 suggests that the thoroughgoing rehabilitation of a deteriorated building is not cheap. A total development cost of $12,000 per unit—as in the table—is generally less expensive than new construction in most central cities, but it is substantial enough to require subsidies of rehabilitation to produce housing for the poor.

The following table shows some typical rehabilitation costs under FHA programs in recent years.

1. Financing Rehabilitation

The Federal Government has a number of programs to help finance rehabilitation. One of the earliest Federal housing programs was the FHA Title I Home Improvement Loan program. Under Title I, FHA insures unsecured loans of up to $5,000 per dwelling unit to finance repairs and improvements to property. Since 1934 over 27 million loans have been insured under this program. The short-term unsecured loan program has been supplemented with a number of FHA mortgage insurance programs, such as Sections 203, 207, 213, 220, and 221, which can be used to finance rehabilitation. By using these programs a housing owner can generally both refinance a prexisting high-interest rate, short-term mortgage, and obtain funds to pay for the cost of rehabilitation, by obtaining a single mortgage at a lower interest rate and for a longer term. Those who want to buy properties and rehabilitate them can obtain financing for both acquisition costs and rehabilitation costs under one mortgage. The low down payment and long-term features of these loan programs have assisted middle-income families to rehabilitate existing units. FHA's new liberalized authority to provide mortgage insurance to riskier families and in riskier neighborhoods should be exercised to increase the impact of these programs in the slums.

Willingness to insure in a deteriorated neighborhood may not be enough. An appraisal practice which looks at present value and not future value could make rehabilitation impossible because it would not produce adequate funds. HUD can assist rehabilitation by taking into account under its various programs the fact that upgrading is in progress. In recent months FHA has issued a new multi-family manual which permits appraisers to recognize neighborhood trends in calculating the value of a property after rehabilitation. This more flexible approach permits higher valuations in neighborhoods where concerted public and private improvement efforts promise to stabilize or increase property values. This appraisal technique has not yet been applied to the

TABLE 3–5. Typical Rehabilitation Costs, FHA 220, 221(d)(3) BMIR, Rent Supplement 221(h) Programs

	Total development cost	Land and building	Rehabilitation	Other [1]
Boston, Mass.:				
Walk-up	$11,603	$4,142	$5,818	$1,643
Row	12,417	1,300	9,238	1,879
Chicago, Ill., walk-up	11,256	3,340	6,878	1,038
Cleveland, Ohio:				
Elevator	11,702	4,788	6,084	830
Walk-up	10,413	1,458	8,124	831
Detroit, Mich.:				
Elevator	10,141	3,358	5,603	1,180
Walk-up	11,675	4,096	6,263	1,316
Hartford, Conn.:				
Highrise	14,389	3,408	10,414	567
Walk-up	13,254	6,547	5,055	1,652
New York City:				
Elevator	16,484	2,495	12,297	1,692
Walk-up	12,840	2,880	8,201	1,759
Row	19,835	4,650	13,636	1,549
Omaha, Nebr.:				
Walk-up	6,487	1,280	4,173	1,034
Single-family	10,637	3,894	5,746	997
Philadelphia, Pa., elevator	16,241	2,850	12,106	1,285
Pittsburgh, Pa., row	11,953	2,842	7,892	1,219
St. Louis, Mo., walk-up	8,582	1,820	5,800	962

[1] Legal and organization, financing, carrying charges, taxes, etc.

Source: Federal Housing Administration.

small-home mortgage programs. It should be used there, too. As an alternative to altering appraisal techniques, the Secretary of HUD should be authorized to make loans which exceed market value by $2,500 where (1) the additional financing is necessary for adequate rehabilitation; (2) the applicant demonstrates the capacity to support the higher mortgage payments; and (3) there is evidence of concerted community efforts to upgrade the neighborhood in which the structure is located. The availability of more generous financing should in itself help accelerate the rate of rehabilitation.

2. Subsidizing Rehabilitation

Housing officials and Congress have been slow in learning that the main reason for the continued existence of deteriorated housing is the existence of poverty. Officials were late to accept the fact that the passage of housing codes, which are essentially laws stating that everyone should live in good housing, were meaningless if not everyone could afford such housing. Landlords cannot and will not upgrade if the renters in the market they are serving cannot afford higher rents. Residents of low-income neighborhoods often find themselves in the anomalous situation of resenting their housing conditions but at the same time resisting code enforcement. Unless they receive subsidies, they know they will be unable to live in a neighborhood which is "up to code." Thus subsidy programs are another important part of the package of policies required for rehabilitation.

All major Federal subsidy programs—Public Housing, Rent Supplements, 221(d)(3), 235 Homeownerships, and 236—can be used for rehabilitation as well as new construction. Only the Public Housing and Rent Supplement programs provide subsidies deep enough to serve poorer families and, as observed, even those do not reach the poorest. The new 235 and 236 programs can reduce monthly housing costs on a unit valued at $12,000 after rehabilitation by almost $50 per month. These new greater subsidies should help to accelerate rehabilitation because they will for the first time, permit occupancy of rehabilitated properties by lower income families in communities where acquisition and rehabilitation costs would formerly not permit this given the limited subsidies previously available.

There are also some specialized subsidy programs for rehabilitation. The Section 115 rehabilitation grant, and the Section 312 low-interest rehabilitation loan programs can help provide the subsidies needed for rehabilitation in certain urban areas. An additional subsidy can be provided for rehabilitation through Urban Renewal "write-downs." Local renewal agencies can acquire a property for resale to a private owner subject to an obligation to rehabilitate. Because the obligation to rehabilitate deflates the market value of the property, the difference between acquisition cost and sales price is charged to the renewal agency budget as a project expenditure. HUD has generally restricted the use of this approach to experimental cases. It should be adopted as regular procedure.

There is an identifiable gap between the single-family and multi-family subsidy programs which may make subsidized rehabilitation of rental properties with from two to four units infeasible in some communities. Such properties are too large to qualify under the Homeownership 235 program (except as condominiums), but too small to become Rent Supplement, 221(d)(3) or 236 projects. The various programs should be adjusted so that rental projects of any size can qualify for subsidized rehabilitation.

Current FHA practice with respect to guaranteeing mortgages is based on the assumption that the term of the mortgage will not exceed the useful life of the property. Under its subsidy programs, as well

as its mortgage insurance programs, HUD establishes certain standards which must be met by a property after rehabilitation. One way of reducing total costs after rehabilitation, and thus expanding the economic group which can be served, is to reduce these standards somewhat. The reduction of rehabilitation standards may result in a shorter expected life for the property, and hence a shorter term for the mortgage and higher monthly payments. Nevertheless some flexibility in rehabilitation standards would be helpful.

Availability of subsidy programs will not be enough. They must be easy to use. Rehabilitation of small structures under various multi-family subsidy programs is now somewhat inhibited by cumbersome and expensive project processing techniques. All multi-family subsidy projects, regardless of size, must meet cost certification requirements and Davis-Bacon wage requirements. These requirements are workable in large contract situations, but can become serious roadblocks to small rehabilitation projects and new construction projects on small land parcels in central cities. The Davis-Bacon requirements should be removed from 221(d)(3), 236, and Rent Supplement projects of 11 units or less. The Secretary of HUD should also be given administrative discretion to eliminate cost certification for these small projects and to use small homes processing procedures and fees for them.

3. Property Taxes and Rehabilitation

Local tax policy can play a significant role in impeding the rehabilitation of slum neighborhoods. As previously observed, taxes have a direct impact on rents. Unlike construction costs which are amortized over a long period of time and thereby have a proportionately smaller impact on rents than is represented in the total expenditure, real estate taxes must be supported by an equivalent amount of income. Because of this relationship the local tax treatment of property improvements will influence whether such improvements are made.

The decision to rehabilitate a property is generally determined by whether or not rentals can support the costs inherent in making such improvements. If the units are attractive to enough people able to pay higher rents, the owner will generally be inclined to improve the value of his property. If the units cannot support increased rents, the landlord is less likely to make improvements because to do so would reduce his rate of return.

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Until recently it was popularly believed that slum properties were so profitable that landlords could be reasonably expected to make improvements and accept reduced but nevertheless reasonable returns. The increasing presence of abandoned or vacant housing in many urban communities suggests that high profits may be becoming a thing of the past. Property owners are choosing to abandon their properties and accept the loss of their equities, rather than making additional investments in properties which cannot generate the rentals necessary to support the tax and capital costs involved.

Implications of local tax policy are particularly important when one considers that most public rehabilitation efforts are attempts to use rehabilitation as a means of providing housing for lower-income families. Because of the important relationship of taxes to rents, local governments should review their policies. Although many tax assessors claim that their tax policies are based on legal requirements, it is suggested that existing policies are internally inconsistent, leaving much room for administrative reform without necessity for any change in tax law.

Most states require local governments to apply real estate taxes uniformly. In making a determination as to the value of a property, most assessors base their value on comparable market sales, particularly with respect to residential properties, because a non-occupant owner of a residential property rarely makes such a purchase for any other reason than its value as an income producing property, it is safe to assume that market value is related to income. Unless the condition of the property substantially affects maintenance costs, it is also safe to assume that the level of rents the occupants of a dwelling unit in a particular neighborhod can afford is more likely to influence market value than the condition of the property. This seems to be borne out in Sternleib's study of the tax assessment of Newark slum properties where he found little difference between the tax assessment of well maintained or poorly maintained properties. If condition has little relationship to market value, any increase in assessment related to the physical improvement of the property will result in an over-evaluation of the rehabilitated structure inconsistent with the legal requirement of a uniform tax policy.

To remove this disincentive to good maintenance, tax assessors should look to the earning ability of the property as reflected by annual gross rents in determining the value of the property for tax purposes. (In some states this change could be made rather simply through administrative action.) The level of rents which can be charged for a unit often depend more on neighborhood characteristics than on the condition of the property. Consequently, rehabilitation does not automatically increase annual gross rents, and if it does not, it should not result in increased tax assessments.

Other communities have recognized that irrespective of the impact on tax value, the taxation of slum properties is counter-productive in that it retards the rehabilitation of properties thereby tending to increase public costs in the form of increased public services. Such communities have secured appropriate legal authority to forego increasing local real estate taxes for a specified period of time where a property owner rehabilitates his property for lease to low- and moderate-income families.

Although there is much to be said for local tax reform in the very special area of tax treatment of the improvement of slum properties, tax reform alone will not generate substantial slum rehabilitation.

B. The Rehabilitation of Neighborhoods

The availability of credit, tax reform, and subsidies are all components of rehabilitation efforts. If a proper package of policies were to be enacted, the annual expenditures on property maintenance and rehabilitation—now around $12 billion per year—would rise, especially in slum areas. But even if these rehabilitation aids were available, private owners could not do the job alone. The rehabilita-

tion of an individual property is either impossible or wasteful if its neighborhood has no future.

The rehabilitation of entire neighborhoods, compared to the rehabilitation of dwellings, is a staggering undertaking. The goal of good housing for all is somewhat different from the goal of slum elimination. If eight million standard housing units were suddenly to appear and if all the families now occupying substandard housing were to move into them, all Americans might be said to be acceptably housed, but the slum buildings would still be standing. Additional policies are needed to assure the elimination of buildings which blight their environments.

1. Why Government Action Is Required

Private agreements to upgrade together, or parcel aggregation by a single owner, are difficult to arrange and carry out. These private solutions are attractive, however, and no doubt can be stimulated to some extent. But in most cases a united private commitment to upgrade can only be wrought with Governmental assistance.

A second important reason why private action alone cannot upgrade neighborhoods is that most slums are characterized not only by obsolete and deteriorated buildings but also by obsolete and deteriorated community facilities and public services. In many cases, public investment must precede private investment. Outmoded street patterns and transportation systems must be upgraded. Services like trash collection must be improved. Street pavement and lighting must be up to the standards of more affluent neighborhoods. Schools, libraries and parks must be built or upgraded as required, and the services within them made competitive. Private rehabilitation depends on public rehabilitation of public facilities and services.

2. Public Support of Concentrated Neighborhood Rehabilitation

The first Federal effort to assist in upgrading entire neighborhoods was the urban redevelopment program in the Housing Act of 1949. In 1954 the redevelopment program was made somewhat more flexible permitting rehabilitation along with selective clearance and was renamed Urban Renewal. A number of variations in the Urban Renewal approach have been added in recent years, but the major theme of Federal subsidization of project costs incurred by local renewal authorities remains. The various Urban Renewal programs are complex. This paper briefly discusses the major options available to a local renewal agency—code enforcement, or urban renewal (involving clearance or rehabilitation)—before turning to the problem of relocation.

a. Code enforcement and spot clearance. One way to instill confidence in private owners, investors, and lenders that a neighborhood will improve in quality is a concentrated public campaign to enforce housing codes, health codes, and similar measures. If owners and lenders are convincingly persuaded that a neighborhood actually is destined to improve, then private rehabilitation activity will begin to

occur. Concentrated code enforcement may also result in abandonment of particularly deteriorated buildings by their owners. In such cases public authorities must be empowered to acquire and demolish these structures quickly in order to prevent the blight of scattered derelict buildings.

Concentrated code enforcement and accompanying spot clearance have at least two serious limitations. The first, which cannot be emphasized too heavily, is that code enforcement may have the adverse consequence of raising rents. Poor families cannot afford the cost of housing which is up to standard. If housing subsidies are unavailable, strict code enforcement results in poor tenant families being evicted and poor homeowners being forced to sell. Code enforcement without subsidies in poor neighborhoods thus can cause enormous resentment. A second problem with code enforcement is its limited scope. It usually does not reach major underlying problems such as obsolete land-use patterns, unacceptable densities, or inefficient street systems.

The Federal Government has recently begun to offer assistance to local code enforcement efforts. Since 1965 the Urban Renewal law has authorized the Federal Government to pay up to three-quarters of a local government's net cost in carrying out a concentrated code enforcement campaign in a specified area. Rehabilitation grants of up to $3,000 are available to the poor (Section 115) and Section 312 offers 3 percent loans in such areas to help finance the cost of rehabilitation. Federal contributions to help cover the cost of improving street, lighting, and similar public works are also authorized. As enacted, this code enforcement program was seen as an alternative to Urban Renewal: any given area could not qualify for both.

If subsidies are available to families who cannot afford housing which is up to standard, code enforcement and accompanying spot clearance perform an important public service by instilling confidence in the scattered owners of slum properties who cannot instill confidence in one another.

At present, tax deductions for depreciation can be taken on a property regardless of its condition. A taxpayer should be denied the opportunity of taking depreciation on a property in any year in which the taxpayer or his agent was convicted of a housing code violation on that property. Enactment of this measure would not only put more teeth into code enforcement, but would also tend to deflate the value of substandard properties, thereby making their purchase and rehabilitation more economically feasible. This approach would be contingent on provision of adequate housing subsidies to all needy families.

b. *Urban renewal.* Code enforcement is too tame a step for neighborhoods, which, as physical environments, are destined to be obsolete. Population densities may be higher than anyone above a minimal income would find acceptable. Major roadways, parking areas, and community facilities may be needed. In the United States the basic technique for overhauling entire neighborhoods has been the Urban Renewal program. The city government approves the specific boundaries for an Urban Renewal area. The local renewal agency prepares plans for subsequent redevelopment, acquires the land in the area (or at least much of it) and relocates its inhabitants. The agency then clears the land and sells it to a private developer for redevelopment according to plan. The Federal Government pays up to three-quarters of the net costs incurred by the local renewal authority in its activities and must give its approval to the most important decisions.

Early Urban Renewal projects heavily emphasized total clearance, and have since been widely attacked because of the disruption they caused and their lack of emphasis on subsidized housing. The housing situation of low-income families was sometimes aggravated by early Urban Renewal projects which removed many low-cost units from the housing stock thereby tightening the supply of such units. The lack of emphasis on low-cost housing during the early years of Urban Renewal to a large degree reflected the lack of programs available for its construction. Local renewal officials were not authorized to develop housing themselves, and no housing programs with more than token subsidies were available to private developers until 1965. The much-maligned Public Housing program was the only option available.

Responding to their critics, local renewal officials began to deemphasize clearance. Recent renewal projects in general show several encouraging trends. More emphasis is now placed on housing for low- and moderate-income families, and indeed a fraction of housing built in Urban Renewal areas is now required by law to be for such families. Persons living in the neighborhood to be renewed are consulted about plans. The Model Cities program, begun in 1966, emphasizes not only physical renewal, but also better community facilities and services in blighted areas.

Many recent Urban Renewal projects strike a balance between total clearance and simple code en-

forcement. Particularly obsolete structures and land-use patterns are erased, but much of the existing neighborhood infrastructure and many of its buildings are retained. Owners of surviving properties are provided architectural, contracting, and mortgage financing services by the local renewal agency to help them make use of the various Federal programs available. This "retail" approach serves an important communications function. In some cases emphasis on neighborhood rehabilitation instead of clearance causes fewer relocation problems, permits preservation of buildings or blocks of historical value, and is cheaper and faster. In deciding whether to emphasize clearance or rehabilitation, local agencies have to take many factors into account. They are under pressure from their mayors and constituents to consider the assessed value for tax purposes which will be produced by the various approaches. They must consider the costs and benefits of either rehabilitation or clearance, and also meet the desires of the neighborhood occupants.

Rehabilitation is not as easy a choice as some comments may imply. There are a great many points to evaluate: the cost of rehabilitation compared to the cost of demolition and new construction; the suitability of the land use, the densities, and the traffic patterns; the adequacy of public facilities; the relocation of residents (discussed below); the time a rehabilitation project will require; the way rehabilitation of given structures fits (or doesn't fit) with larger plans for the city; the architectural and historical value of existing buildings among others. It is rarely a clear cut choice.

c. *Relocation.* Relocation of existing occupants is one of the most difficult problems confronting any slum improvement program. How to coordinate construction timetables with a minimum of impact on occupants of existing properties—families and businesses alike—is a very complex logistical and social problem requiring the highest degree of coordination and sensitivity. Following is a list of some factors and objectives which must be considered.

- Existing occupants must be identified and their requirements recorded.
- Suitable relocation resources must be identified.
- Each occupant's requirements must be matched with the supply.
- Relocation must be coordinated with construction timetables but care must be exercised that properties are not vacated before needed, thereby creating a nuisance problem.
- If possible, occupants desiring to remain in the area should be relocated when new units become available. When impossible, temporary relocation facilities should be provided until new properties are available.
- Families relocated to new and strange neighborhoods should be counseled until appropriate adjustments are made.
- Adequate relocation payments must be provided and applications processed in a timely fashion.
- Social problems of individual families identified in the relocation interviews should be referred to appropriate agencies for action.
- Neighborhood residents should at all times be fully informed of perspective timetables and the services available to them.

Some progress has been made in softening the inconveniences which result from displacement. Federal law now provides allowances of up to a total of $1,000 over a period of two years to help persons displaced for Urban Renewal to rent a new accommodation. Moving costs and personal property losses are also provided. A 1968 amendment provides up to $5,000 to the owner of a one-family or two-family structure taken for an Urban Renewal project, to pay the difference between the cost of an adequate replacement home and the amount received by the owner for his old dwelling. These are important measures. Nonetheless, some of the problems of due compensation (loss of "good will," compensation to tenants) require further study. Similarly, the relocation process requires constant examination to reduce hardships.

1. The Rehabilitation Process

Little is known about private rehabilitation activity except that there is a lot of it. The amount of rehabilitation activity can be estimated from a Census sample survey of expenditures for maintenance and remodeling of residential properties. This survey counts both the value of work which the owner contracts out, and the value of materials used when the owner does his work. Thus it does not include the value of do-it-yourself labor, which may amount to several billion dollars a year. The Census estimates contained in Table 3–6 were confirmed by a recent survey by the F. W. Dodge Company which estimated the market at $12 billion a year.

Most of the expenditures are minor, consisting of small fix-up jobs. The total rehabilitation of a deteriorated building into a luxury unit is rather rare. Changes in housing quality are usually incremental.

TABLE 3–6. Expenditures for Residential Additions, Alterations, Maintenance and Repairs, and Replacements, 1966

Object of expenditure	Billions of dollars in 1966	Percent distribution
Maintenance and repairs	4.8	41
Additions and alterations	5.0	43
Replacements	1.9	16
Total	11.7	100
Type of construction work:		
(1) Specified:		
Heating, central air conditioning	1.0	8
Plumbing	1.1	9
Roofing	0.8	7
Painting	2.1	18
(2) Not specified:		
Remodeling	0.6	6
Other	6.1	52
Total	11.7	100
Type of residential property:		
Single-family owner occupied	7.1	61
2 to 4 housing unit properties, owner occupied	0.8	7
1 to 4 units with no owner occupant and all properties with 5 units or more	3.8	32
	11.7	100

Source: Bureau of the Census.

A thorough-going rehabilitation effort may be more complicated and more time consuming than new construction. Rehabilitation rarely lends itself to highly sophisticated management techniques. Few jobs can be planned beforehand in a central office. Decisions on what should be done will often depend on what is discovered when walls are stripped. The rehabilitation work itself must be postponed until after the expiration of existing tenant leases, the relocation of tenants, and the gutting of the existing structure. Financing arrangements are likely to be even more complicated than for new construction. The uncertainty inherent in rehabilitation work means that supply of materials and labor is hard to schedule. Uncertainty forces contractors to raise their bids in case the worst possible conditions exist. Construction operations are likely to be slow and painstaking because many materials have to be custom-cut to fit the existing structural frame. Since many *ad hoc* decisions must be made, and because the cutting and assembly work is often more exacting than it is in new construction, both laborers and their supervisors must be especially skilled. Rehabilitation requires craftsmen.

2. *The Rehabilitation Industry*

Because most rehabilitation is done on a custom basis, the rehabilitation industry is presently dominated by small firms, often one-man operations, which tend to specialize in remodeling work. A property owner who wishes to renovate his structure can do the work himself, or he can hire a contractor to do it for him. Perhaps as much as three-quarters of the expenditures shown in Table 3–6 are paid to contractors. The Dodge study indicated that 68.1 percent of such work is performed by contractors. The merchant builders and general contractors responsible for most new residential construction carry out remarkably little rehabilitation. A 1964 NAHB survey found that responding members earned only about 2 percent of their gross sales volume through remodeling contracts. The large building firms (over 76 new residential units per year) responding to a survey by *Practical Builder* magazine accounted for 59 percent of total new residential units covered in that survey, but for only 3 percent of the roughly 500,000 remodeling projects undertaken by builders covered in the survey. Eighty-three percent of these remodeling projects were carried out by building firms either not engaged in new residential projects or building no more than 10 new residential units per year.

3. *Improving the Efficiency of Rehabilitation*

Rehabilitation rarely provides opportunities for significant economies of scale. Virtually every rehabilitation job is unique. Few structures have similar designs. If two structures were identical when originally built, they are likely to have been altered since. If still identical in design, it is unlikely that they have deteriorated in exactly the same manner, and thus they are likely to call for different types of rehabilitation work. Large-scale scheduling of labor and materials is difficult when different structures require different work and when unforeseen difficulties are likely to arise. The fact that ownership of the slums tends to be highly atomized greatly inhibits the emergence of any substantial changes. Over 60 percent of the dwelling units in the United States are owner-occupied. Owner-occupancy is surprisingly common even in the worst slum areas. George Sternlieb found that over 40 percent of the properties in the slums of Newark were owned by persons who owned no other rental property, and that less than one-quarter of the slum properties were owned by landlords who had over six parcels of this type. Sternlieb's findings corroborate earlier studies. One-third of the parcels

acquired in slum locations for public housing construction between 1938 and 1941 were resident owned. Even the largest property owners are usually interested in only a modest amount of rehabilitation work at any one time. The amounts involved in residential rehabilitation jobs are likely to be too small to attract larger general contractors. Scale economies are mostly likely where a large number of contiguous, structurally similar dwellings (such as the Old Law Tenements in New York City) are held in common ownership. In such cases bulk materials purchases, more efficient storage operations, and better scheduling of labor may be possible than on scattered rehabilitation jobs.

Opportunities and mechanisms for aggregating large parcels of land would assist individual owners in acquiring many properties on which they could arrange large rehabilitation contracts. Public measures to assist in parcel aggregation are necessary not only to achieve production efficiencies but also to improve marketing prospects for the structures after rehabilitation.

Recent amendments in the Urban Renewal program may also help bring about somewhat larger rehabilitation jobs. Limitation on the number of units local renewal authorities are authorized to acquire for rehabilitation and resale in an urban renewal area have been removed. After acquiring the

properties the renewal agency can hire a single contractor to rehabilitate them, or can sell them to a single owner who can then execute his own large rehabilitation contract. Recent experiments in Pittsburgh and Chicago offer solutions to the problem of unknown costs of rehabilitation. In these cities, local renewal authorities have acquired deteriorated properties and resold them at a reduced price in packages to a builder. The builder is obligated to rehabilitate the properties, with funds provided under FHA programs, in accordance with plans approved by the local authority. The risk of unforeseen rehabilitation costs is minimized by a provision for readjustment of the original sales price for the properties should rehabilitation costs prove excessive. The experimental program should be extended as a regular procedure.

Although there is little optimism about the prospects for a vastly different rehabilitation industry, there is room for improvement in existing rehabilitation techniques. The industrialized processing of thousands of deteriorated units at one time, which some persons have envisioned, is unlikely to prove to be an inexpensive way to rebuild the cities. Reductions in rehabilitation costs are probably more likely to result from improved rehabilitation technology which can be used by firms of somewhat modest size. Few specialized building materials have been developed for rehabilitation. The small size of most rehabilitation firms makes it difficult for them to communicate their needs coherently and persuasively to building materials manufacturers and distributors. But some advances have been made. For example, the U.S. Gypsum Company has achieved some cost savings in its rehabilitation efforts by using a liquid floor-leveling material and gypsum-ribbed interior walls.

Labor savings may be possible through training of rehabilitation specialists and relaxation of jurisdictional limits on the scope of a craftsman's work. Job management is another prospective area for cost reductions. Apparently little effort has gone into studying the production engineering of the rehabilitation process, and few high-powered contractors have ventured into the field. Systems analysis, time and motion studies, and comparable techniques might well be rewarded by generalizable lessons applicable to numerous rehabilitation efforts. Although most rehabilitation work will inevitably remain customized and economies of scale are unlikely, efficiency of the rehabilitation process unquestionably can be much improved.

Section IV

Building Houses

Part Five

An Overview of the Housing Industry

Is it possible for American housing producers to build and rehabilitate a total of 2.6 million housing units a year? Does the economy have the resources—business skills, trained manpower, capital, land, technical ability—for such a large expansion of housing production?

Can American housing be produced more efficiently? Are there new ways to build houses more quickly and more cheaply?

A summary of the answers to these questions about American housing production is assayed in a brief overview.

I. The Distinct Features of the Housing Industry

The "housing industry"—defined here to include all firms which share in the receipts of expenditures for housing—is one of the most complex in the American economy. The firms which perform the critical function of putting together the finished housing unit make up the heart of the industry. These home assemblers include homebuilders, contractors, home manufacturers (and their dealers) and mobile home producers. These firms procure their materials from an extraordinary range of building products manufacturers, from tiny millwork plants to some of the nation's largest corporations. Distribution of these materials from manufacturer to assembler is carried out primarily by specialized wholesalers and retailers—lumberyards and hardware stores, for example. Acquisition and preparation of land for the ultimate construction of housing commonly involves real estate brokers, lawyers, title insurance companies, surveyors, and civil engineers, and possibly land planners and landscape architects. Engineers and architects are sometimes involved in design. Much on-site construction work is characteristically performed by specialty subcontractors; painting, plumbing, and electrical work, for example. Financing, needed both by the builders to complete construction and development and by buyers to finance purchase of completed units, is available through a battery of lending institutions. Operation of apartments may involve superintendents or management firms. Maintenance of housing adds to the cast of characters—for example, repairmen, janitors, remodeling firms, and domestic workers.

Thus, the housing industry is made up of literally millions of business enterprises. Most are small and specialized, and competition throughout the industry is characteristically fierce. It is incorrect to speak of the need to involve private

enterprise in housing production; the housing industry is already one of the most important parts of the private enterprise system.

The housing industry has extremely ill-defined boundaries. Many building and contracting firms are involved not only in housing but in other kinds of light construction. Lenders and real estate brokers who service this industry do much of their business in other areas. Producers and distributors of materials tend to serve the entire construction market, rather than to specialize in residential construction. Craftsmen and laborers may be building houses one week, but working on missile silos the next. Significantly, the Bureau of the Census does not consider home building to be an industry at all. For example, the Census counts contractors as part of the construction industry, and merchant homebuilders as part of the real estate industry.

The housing process can be divided into several phases:

First, the preparation phase: potentially developable land is identified and plans are developed.

Second, the production phase: the site is prepared, financing is arranged, and the housing unit is constructed.

Third, the distribution phase: the house or apartment is marketed. This recurs throughout the useful lifetime of the structure.

Fourth, the servicing phase: the housing unit is repaired and maintained. This continues until the end of its economic or physical life.

The participants and the process and the external influences which affect them are graphically illustrated in Table 4–1.

A. Housing is the Most Important Consumer Good in the Economy

Housing, broadly defined, is the premier U.S. consumer good. Americans spend over $100 billion annually to buy, rent, operate and maintain their places of residence. About half goes for direct housing expenditures (such as rents or mortgage payments) and the remaining half for utilities, furniture, domestic help, and other household items. In addition, residential structures and their sites constitute almost one-third of the national wealth: more than one-quarter of new capital investment each year goes into housing.

Most money spent on housing goes to pay for use of existing housing. But new housing is a major expenditure, too. Roughly 10 percent of the Gross National Product each year is devoted to construction of all kinds; residential buildings are the object of roughly one-third of this amount. Recently the cost of private residential construction has averaged approximately $25 billion per year. About $5 billion of this is spent for additions to and alterations and repairs of existing housing.

The importance of housing in the economy underscores the need for efficient operation. If the cost of building new housing can be cut by 5 percent (with no corresponding drop in value), this will result in an annual savings in the American economy of $1 billion. Similarly, American consumers would save $1 billion for every 1 percent reduction in the total cost of owning, renting, and operating their residences.

B. A House is an Unusual Product

Housing's distinctive characteristics require a production and merchandising system unlike those typical in manufacturing.

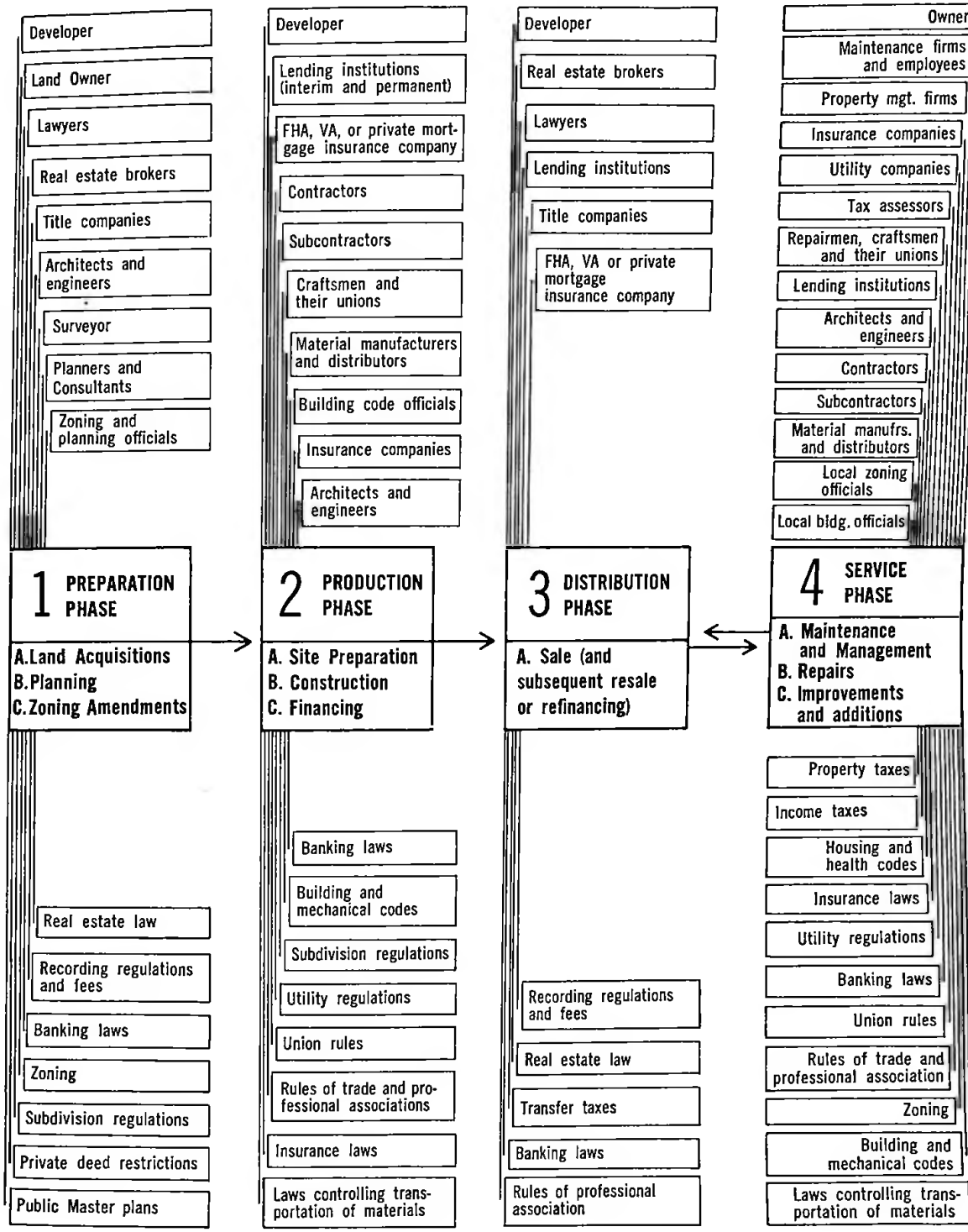
Housing is Tied to Land

The fact that housing developments are inevitably associated with land operations has numerous consequences. Land development has historically been regulated primarily by local governments who typically impose a battery of building and mechanical codes, zoning ordinances, and subdivision regulations on potential builders. The tradition of local regulation of building contributes to the localization of markets. Builders, lenders, and real estate brokers often must learn a new set of rules each time they venture from their home territory. The fact that housing units are immobile also means that their value is heavily influenced by the neighborhood in which they are situated. Builders must be concerned not only with whether the structure itself will appeal to the market, but also with whether there will be any demand for that structure on the sites where it can be built. Its ties to the land leads to housing's transferability being governed by cumbersome and often archaic procedures of real property law.

Housing is Durable

A house or apartment building, if structurally sound when built, may last for generations. Repair and replacements can remedy whatever deterioration in materials may occur, and may even forestall market obsolescence. The dominance of the existing stock in the market means that housing production can be deferred for long periods (during wars or depressions, for example). The annual rate of production of new housing can—and does—vary widely. In addition, the durability of housing leads to a level of expenditures for repair and mainte-

TABLE 4–1. The Housing Process Major Participants and Influences



nance that is usually high in comparison to most other goods.

Housing is Bulky

The sheer size of housing units and their components places strong pressure on the industry to minimize storage costs and handling expenses and to avoid the transportation of major elements where possible. The shipment of three-dimensional prefabricated houses is costly compared to shipment of the unassembled materials. Manufacturers of sectionalized houses, or mobile homes, who assemble materials at a convenient place and then ship the finished product to final site, have been successful primarily where they have not had to compete with modern line-assembly operations on the sites themselves. Many large homebuilders who have studied the problem believe that, if good production management is used, it is usually more efficient to assemble the structures on their sites. On-site assembly requires a complex system of supply of both materials and labor to diverse and shifting locations. The constant shifting of job sites has brought into being rather unique institutions in the construction labor market. The fact that much of the work is done in the open also means that it is vulnerable to daily weather conditions.

Housing is a Large Expenditure Item

Housing represents the largest single fraction of most family budgets. As a consequence, both homebuyers and owners of rental units usually make their purchases on credit, characteristically through a loan secured by a mortgage on the property. Housing therefore is tied to the money market and interest rates to a degree far beyond that of any other consumer purchase.

Housing Comes in Many Varieties

A housing decision involves numerous smaller decisions. The consumer can choose a single-family unit, as almost 75 percent of all American households do. If he does, it may be detached, connected to another as a duplex, or connected to many others as a rowhouse. If multi-family housing is preferred, the choice includes, among others, small walk-up apartments, garden apartments, and high-rise elevator buildings. Form of tenure represents another major choice. The housing consumer may choose to own his dwelling (as a solid majority of American family households do), join a cooperative, enjoy ownership in a condominium, or rent his unit over the long term, or on a shorter basis in a hotel or motel. The consumer must also consider space requirements in relation to his prospective residence. A shopper may have strong feelings about style and design. The consumer must also decide what features he wants in his residence—air conditioning, storage space, appliances. Those who design housing units are forced to make decisions on quality at every step in their work. They must choose grades of lumber of shingles, the thickness of gypsum board, the quality of thermal and sound insulation, even the luxuriousness of water faucets and touch plates behind electrical switches.

The consumer's choice of residence might still be rather simple if the only issues were style, size, quality, and form of tenure. Such choices must be made in many other purchases. What makes the housing decision truly complex is that the choice of a unit necessarily involves choice of location. (This is usually true even for mobile homes.) Thus, the consumer is likely to be keenly aware of the quality of neighborhood facilities—schools, shops, parks—and of the transportation problem he will face if he lives in that location. Every location is unique. Buildings which are structurally identical but on different sites may vary widely in their appeal to consumers. The housing producer must not only be concerned that he build an appealing structure, but also that the structure be located in a neighborhood where people will want to live.

The highly individual character of housing demand has forced the housing industry to offer an exceptionally wide range of units. Mass-produced standardized units are often difficult to market because of the variations in consumer demands. In fact, in recent years, over one-third of all new single-family homes have been custom-tailored to the desires of their first occupants. Individuation in the market is increasing. In the early 1950's, large tract builders were able to build and sell thousands of identical units on contiguous parcels. Today, housing consumers are much more discriminating; tract builders now find it necessary to offer a range of models.

C. The Housing Industry Is Unique and Complex

The methods of producing housing have evolved in response to these characteristics of its product. Laymen are inclined to wonder why houses are not produced like automobiles through a highly capitalized, factory assembly-line production process. There are several reasons; one is that factory assembly has often proved to be more expensive than on-site assembly, because of high overhead and transportation costs. Much can be done to improve the efficiency of housing production, but even a high-technology housing industry might have

little in common with assembly-line manufacturing industries.

With the major exception of the mobile home industry (and to a lesser extent the home manufacturing industry) the present characteristics of the housing industry are these:

Localization

The fact that housing is tied to land and locally regulated has meant that most builders, real estate brokers, and mortgage lenders (at least savings and loan associations) restrict their activities to rather small geographical areas. Only a handful of homebuilders look for nationwide market possibilities.

Fragmentation

The variety of the housing product has led to fragmentation of the industry into an elaborate complex of interlocking producing units. Different structures require different combinations of skills. Thus, the industry tends to work through *ad hoc* arrangements for each specific job. The practice of subcontracting, which is prevalent in the industry, is not necessarily irrational, and in fact, is often an efficient response to the need to meet many specialized demands. It is not clear whether greater vertical integration in the industry—that is, permanent alignment of a broader range of skills under the umbrella of a larger organization—would greatly increase efficiency in production. One clearly adverse result of fragmentation, however, has been an inadequate amount of research and development.

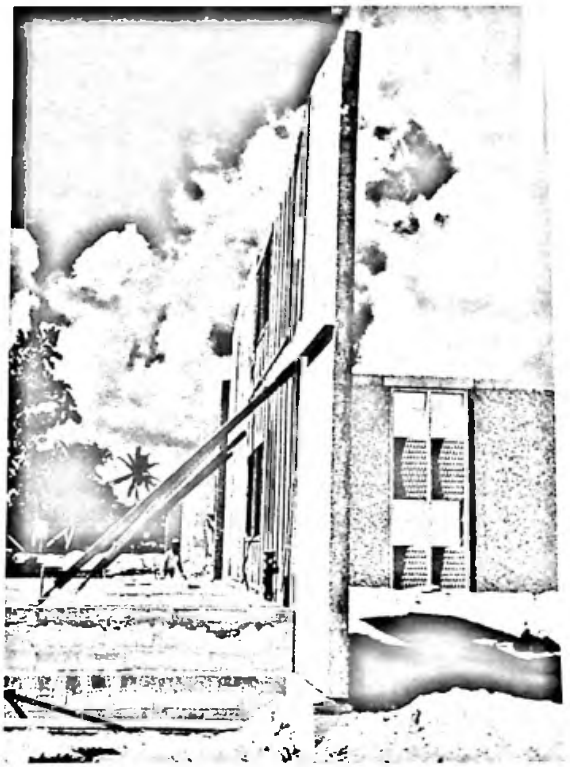
Trade associations have evolved to diminish the effect of this fragmentation. For example, in addition to providing technical services to its members, the National Association of Homebuilders has been effectively involved in the councils of government on housing policy, economic issues and other questions affecting the housing industry.

Lack of Size

With the major exception of some building materials manufacturers and a few distributors and lending institutions, most firms involved in the production and distribution of housing are relatively small. Smallness is characteristic not only of most builders, contractors, and subcontractors, but also of architectural and engineering firms, real estate brokers, and real estate management and maintenance firms. The smallness of these firms results primarily from the industry's localized and fragmented nature. There are, however, additional reasons for the smallness and light capitalization of construction firms. The rate of housing production is rather erratic, both on a national basis, and especially in each local market. The main causes of this instability are seasonal fluctuations in production (which now seem to be based mainly on tradition in as much as winter protection has been demonstrated to be completely feasible), the sensitivity of the industry to the supply of credit, and the dominance of the existing stock in the market. The erratic rate of output forces construction firms to try to keep their continuing overhead to a minimum, thus discouraging capital investment and assembly of large central staffs.

Dependence on Outsiders

The firms which make up the heart of the industry—primarily homebuilders and contractors—are dependent on larger enterprises not primarily engaged in housing. They are usually too small to bargain on an equal basis with the larger firms on the periphery of the industry. Thus financial institutions probably constitute the single most important locus of power in the industry. Builders and contractors have little influence over the rate of technological development in the industry: most innovations are introduced by building materials manufacturers.



II. The Cost of Housing

Each of the major elements of this complicated housing process are subsequently examined to see whether—and where—costs can be reduced. Here, by way of introduction, the elements and trends in housing costs as a whole are examined.

A. The Cost of Producing Housing

The cost of housing is made up of many bits and pieces. Any progress toward cost reduction must proceed through a broadbased approach which would probe for potential savings in every cost element.

The Committee commissioned the McGraw-Hill Information Systems Division (formerly F. W. Dodge Company) to chart a typical sequence of steps in production of five kinds of housing units; a conventionally built single-family home; a single-family home assembled by a home manufacturer; a mobile home; an elevator apartment building; and a rehabilitated unit in a walk-up structure. The sample cases are based on three-bedroom units designed for occupancy by lower-income families and located in metropolitan areas in the Washington-Boston corridor. The following rough breakdown of the major elements of initial development and construction costs for the single-family and elevator apartment units are derived from the McGraw-Hill study.

TABLE 4–2. Rough Breakdown of Initial Development and Construction Costs

[In percent]

	Conventional single-family unit	Elevator apartment unit
Developed land	25	13
Materials	36	38
On-site labor	19	22
Overhead and profit	14	15
Miscellaneous	6	*12
Total	100	100

*The cost of hiring an architect is one principal reason for this higher figure.

Source: McGraw-Hill Information Systems Technical Report.

Several figures in the table are striking. First, the cost of labor and materials makes up a surprisingly low percentage of total initial costs—roughly 55 percent for the single-family home, 60 percent for the apartment building. Second, materials are a much more substantial cost item than is on-site labor. In the McGraw-Hill figures, materials cost nearly twice as much as labor for both kinds of construction. Other studies, primarily those by the National Association of Homebuilders Research Foundation, indicate that the materials/labor ratio for single-family housing may sometimes be higher—by as much as three to one. Another important fact learned by examining detailed cost breakdowns is that the building envelope (the structural frame and the basic enclosing material), makes up only about one-sixth of the total initial cost. The bulk of construction costs is attributable to utility systems—plumbing, heating and ventilating, and electrical—and the provision of an attractive and functional interior finish. Those who seek to reduce the cost of the building envelope should be encouraged, but they should realize that they are dealing only with a portion of the housing dollar.

B. The Cost of Occupying Housing

The initial costs of housing production are not the only costs, nor does lowering these costs necessarily mean a long-term saving. The homebuyer or apartment owner wants to minimize his total long-term costs, which include not only initial costs, but subsequent operating, maintenance, and replacement costs. Installation of high-quality thermal insulation will raise initial costs, for example, but cut down on monthly heating and air conditioning bills. Table 4–3 illustrates how occupancy costs are attributable to the various elements of the production and servicing phases. The specific figures are of course only broadly indicative since they are subject to numerous variables. The fraction of total occupancy costs attributable to local property taxes, for example, obviously varies by locality.

TABLE 4–3. Rough Breakdown of Monthly Occupancy Cost of Three Kinds of Housing

[In percent]

	Conventional single-family homes	Mobile home	Elevator unit
Debt retirement	53	55	42
Site rent	.....	28	.....
Taxes	26	4	14
Utilities	16	11	9
Maintenance and repair	5	2	6
Admin. and similar costs	.....	.....	13
Vacancies, bad debts, and profit	.....	.....	16
Total	100	100	100

Source: McGraw-Hill Information Systems Technical Report.

The "debt retirement" row in the table indicates the portion of monthly housing expenses which are attributable to the initial cost of construction and development. The size of the debt retirement figure depends of course on the terms of financing: interest rates; length of term for the loan; and the fraction of the purchase price which is financed. For example, although mobile homes have low initial costs (a fairly good unit can be bought for $6,000), they are financed like automobiles with short-term loans at high interest rates. Thus, the monthly cost of mobile home living is higher than would be the case if long-term mortgages were available. Significantly, debt retirement constitutes only about one-half of total occupancy costs.

Tables 4–2 and 4–3 can be used to weigh the effect of reductions in different cost elements on total housing costs. This can only be done rather crudely as the cost items are not wholly independent; many are functions of one another. For example, the costs to a builder of interim financing or to an apartment owner of reserves for replacement might be reduced somewhat if construction costs were reduced. Architects' and real estate agents' fees are sometimes based on a percentage of construction costs or sales price. It is also quite common, however, for these fees to be negotiated out independently at a rate sufficient to give an economic return for work performed. They should thus not be considered as simple add-ons to construction costs.

Using the McGraw-Hill figures, it is possible to make a rough estimate of the effect of a 20 percent cut in on-site wages on monthly rents in an elevator building. Table 4–2 indicates that on-site labor constitutes 22 percent of the initial cost of such a structure. According to Table 4–3, 42 percent of rental income is used to pay off all initial costs. The product of these two figures (22 percent x 42 percent) is 9.2 percent. If a small increase is allowed for change of architects' fees, financing costs and other secondary effects, then approximately 10 percent of monthly rents are attributable to the cost of on-site labor. A 20 percent cut in building trade wages would thus permit a 2 percent reduction in rents, assuming no attendant losses in labor productivity or attendant increases in costs of materials, tools, transportation, or off-site labor.

C. Trends in Housing Costs

The widely prevailing view that the cost of housing has gone up unusually rapidly is not borne out by available statistics. Trends in housing costs as reflected in the Department of Labor's Consumer Price Index closely approximate trends in the cost of all consumer items. Here are their figures:

TABLE 4–4. Housing Costs [1]

	1953	1965
Total housing index	92	108
Rent	90	108
Home ownership	90	111
Fuel and utilities	91	107
Household furnishings and operation	99	103
All consumer items	93	109

[1] 1958 having a base of 100.

Source: Bureau of Labor Statistics.

The median value of new housing units has of course been increasing rapidly. For example, the median value of new single-family homes insured by FHA in 1950 was $8,300. By 1965 this figure had doubled to $16,600. The median sales price of *all* new single-family homes for sale at the end of 1965 was $21,300. Most of the increase in value is due, however, not to rising costs, but to rising quality. For example, the median square footage of FHA insured new single-family homes increased 40 percent between 1950 and 1965. Today's housing is likely to have air conditioning, better thermal and sound insulation, more and better appliances, more tasteful design and landscaping, and many other quality features. The widely held view that "they don't build them like they used to" is usually based on a comparison of the average unit in today's market with the cream of yesterday's market. If one compares quality trends in a given segment of the market (for example, the luxury market) it is clear that, in most respects, they didn't used to build them like they do today.

The popular indexes of construction costs are partly responsible for exaggerated impressions about the increases in the costs of housing. These cost indexes fail to take into account advances in labor productivity. In fact, most homebuilders believe

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that, if the specifications of the product had been kept constant, it would be apparent that housing prices have not been rising particularly rapidly. The Bureau of the Census recently issued a "Price Index for New One-Family Homes Sold" which seems to corroborate their views. The following table shows the relative changes in various indexes between 1963 and 1967:

TABLE 4-5. Trends in Cost Indexes for Housing Construction

Index	Percent change 1963–1967
Census price index for new one-family houses sold	Up 10
Average sales price of new one-family homes	Up 24
Boeckh construction cost index for residences	Up 17
Consumer price index	Up 9

Source: Bureau of the Census.

A comparison of the Census Price Index and the Boeckh Index with the Average Sales Price suggests that much of the increase in the average price of single-family homes between 1963 and 1967 was due to quality increases. It also indicates the danger of applying conventional construction costs indexes to residential construction without further investigation.

The factors that have been most significant in causing the increase in the cost of new houses cannot be pinpointed with confidence. Most observers agree, however, that land has been the fastest-rising major cost element over the last several decades. Although there are obviously variations from city to city, the average value of land in all metropolitan areas more than doubled between 1950 and 1965. The trend in the site cost of one-family FHA insured homes shows a 6 percent per year increase. Site value as a percent of total house value for FHA single-family homes increased from 12 percent in 1950 to 20 percent in 1965.

The effect of wage increases paid on-site labor on total housing costs is hard to calculate. Hourly wage rates paid to building trades workers have gone up extremely fast, roughly doubling between 1950 and 1966. Over the same period, the labor share of the housing dollar has *actually declined.* Data prepared by the National Association of Homebuilders indicate that the cost of on-site labor constituted 29 percent of housing sales price in 1944, but only 18 percent in 1964. This relative decline can be attributed to rising labor productivity, transfer of many activities formerly performed on building sites back into factories, and extremely rapid increase in land prices.

Prices of building materials have been relatively stable in post-war years. The index of wholesale prices for construction materials increased only 25 percent between 1950 and 1966. However, the fraction of initial housing costs made up by building materials remains high, with more and more factory-finished products (such as ready-built kitchen cabinets, or pre-hung doors) being used by builders.

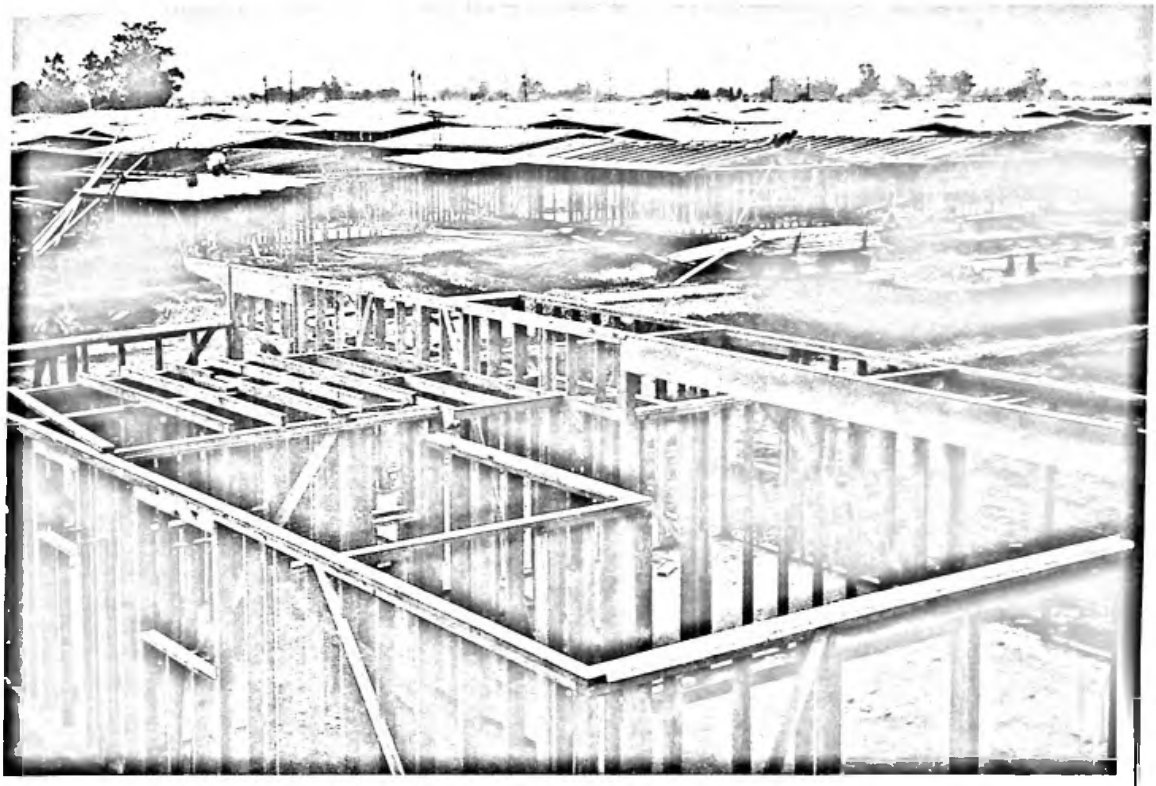
Direct construction costs—the total bill for both materials and labor—have apparently not been rising very rapidly for residential construction. An NAHB study found that direct construction costs for new single-family homes actually declined by 2 percent between 1960 and 1964. This same study laid the greatest percentage cost increases to the factors of financing (higher interest rates and larger discounts on interim loans) and closing costs (title search, recording fees, escrow fees, title insurance, and the like). Interim financing and closing costs of course make up a minor fraction of total housing costs.

Trends in the various elements of occupancy cost of housing are discussed in the Appendix of the McGraw-Hill Report. The single most important factor determining occupancy costs is the terms of the loan used to purchase the building. For example, assuming a housing unit selling at $15,000 and a 40-year mortgage, an increase in the interest rate on the mortgage from 6 percent to 7 percent would increase monthly costs to the owner by over $10. This 1 percent increase in interest rates has the equivalent effect on monthly costs of a 13 percent increase in total construction and development costs.

Perhaps it is fair to ask: "Is the American housing process as progressive, as productive, as efficient as it might be?"

III. Is The Housing Industry Efficient?

It is clear that this industry is less dynamic and more resistant to change than most other major industries. Indeed, it is one of the industries which conspicuously requires stimulation through judicious public policies. On the other hand, the industry is probably much more efficient and rationally organized than is popularly thought. Foreign visitors find much to admire in American construction. Prevailing technologies for housing construction and development are moderately good. Many attempted technological breakthroughs have failed, not so much because of artificial con-



straints upon their use, but rather because they turned out to be more expensive than existing techniques. It is perhaps significant that American housing producers, using rather conventional construction methods, have begun to compete in foreign markets, but that foreign builders have yet to make a serious try to enter the U.S. market.

Many economists have concluded that construction has lagged seriously behind most other segments of the economy in rate of productivity growth. On the other hand, economists who have taken a closer look at the construction industry have been more favorable in their reports. They claim that the generalists' estimates are derived from construction price indexes based partly on trends in hourly wages, and thus assume no change in labor productivity. The weakness of Federal construction statistics is such that this dispute cannot be finally resolved. The Committee's consultant on productivity, Christopher Sims, has concluded that, from the best evidence available, the construction industry was technologically stagnant over the years 1929–47, but has since made relatively impressive gains. While the construction industry still lags somewhat behind manufacturing (taken as a whole), it had an annual growth rate of 2.3 percent in output per employee from 1947–65 belying the notion of a technologically stagnant industry in the last two decades. Rigidities in the industry, while certainly important, are not strong enough to stifle all changes in construction technology. In addition, there is evidence that the construction industry has been more responsive to post-war changes in prices of inputs than has the manufacturing sector.

The housing industry is operating with at least modest efficiency and has experienced more technological advances than the casual observer would suspect. The fiercely competitive structure of the industry encourages builders to adopt more efficient techniques as they are developed. On the other hand, the prevalence of institutional barriers, such as zoning ordinances and labor practices, and the low level of research in the industry, are signs that much progress can still be made.

Although much can be done to improve the efficiency of this industry, the existence of slum housing is not in itself evidence of the limits of its productive capacity. On the contrary, the housing industry has shown a remarkable ability to provide housing for those whose incomes are sufficient to afford it. Slums exist, in large part, because slum dwellers are too poor to afford anything better.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$50 Dn/$73 Mo
No Settlement Cost
A OWN YOUR OWN
LESS THAN RENT
EVERY WANTED AREA
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Part Six

Allocating the Resources and Providing the Financing

Housing is a very important part of the American economy, and the condition of the economy, in turn, has a peculiarly intense impact on housing.

As with any large segment of the economy, there is the simple question: Can enough of the nation's resources be allocated to this particular economic necessity to meet the people's need for it?

In addition to this universal question of the availability of resources, there are much more specific questions in the housing field:

- Is there enough credit?
- If credit is available for housing in general, will it be equally obtainable by low-income families?

A house is a commodity that is usually costly and has unusually long life. Therefore, the money market is very important both in building it and in selling and reselling it. In housing to a degree beyond any other field of consumer expenditure, people must borrow money. The housing industry, therefore, is tied in a unique way to the cost of money (interest rates) and to the supply of money.

The President has recommended a substantial increase in housing production, up to an average of 2.6 million units a year for a 10-year period. Can the economy stand that? Will there be financing for it?

In the past two years unusually high interest rates and a tightening of the availability of long-term mortgage credit have cut back housing production from the high level of 1.7 million units in the middle 60's to a level of 1.3 million units in 1967. For one brief period during the credit squeeze in 1966, the rate of starts dropped to the equivalent of only 800,000 units a year. There are serious financial questions about the 10-year, 2.6 million-a-year program proposed.

In this section we discuss, first, the relation of housing to the overall condition of the economy;

second, the problems of credit (the supply, demand, and allocation of credit for these next 10 years);

third, the availability of credit specifically for housing—and the problems of the institutions that channel savings into housing; and

fourth, recommendations intended to make more credit available, especially for subsidized housing.

We reach a conclusion about the economic feasibility of the program proposed in this report: assuming a full employment economy—a healthy growth rate in GNP without serious inflation—there will be both the resources and the supply of money to carry out the housing program proposed—if the nation chooses to do so. The situation at best will be tight.

I. Does the American Economy Have the Resources to Build the Housing America Needs

Economy, by definition, concerns choice and allocation of scarce resources. America's $800+ billion economy theoretically can allocate the resources for a sharply increased housing program for low-income families. But, given the many other claims on our national resources, can this choice realistically be made?

It can, so long as the nation's economy maintains its growth rate of recent years. It may need an assist by being given a top priority status.

The economy of the United States has been growing very rapidly. Even allowing for price increases the Gross National Product has *doubled* since 1950.

TABLE 4–6. Gross National Product in the United States for Selected Years

[In billions of dollars]

Year	Current dollars	1958 Dollars	Index of GNP[1] 1950=100
1929	$103.1	$203.6	57.3
1930	90.4	183.5	51.6
1933	55.6	141.5	39.8
1935	72.2	169.5	47.7
1940	99.7	227.2	63.9
1945	211.9	355.2	100.0
1950	284.8	355.3	100.0
1955	398.0	438.0	123.3
1960	503.7	487.7	137.5
1962	560.3	529.8	149.1
1963	590.5	551.0	155.1
1964	631.7	581.1	163.6
1965	681.2	616.7	173.6
1966	743.3	652.3	183.6
1967	785.0	669.3	188.4
1968 (1st quarter estimate)	826.7	689.7	194.1

[1] Computed by Committee staff.

Source: U.S. Department of Commerce, Office of Business Economics.

Moreover, the growth rate of the recent past can reasonably be expected to continue.

The Joint Economic Committee of the Congress has published the following projections on future economic growth:

TABLE 4–7. Projected GNP in Billions of Dollars

Year	Projection A		Projection B	
	1958 dollars	Current dollars	1958 dollars	Current dollars
1970	$770	$950	$760	$920
1975	960	1310	925	1205

Source: *U.S. Economic Growth to 1975: Potentials and Problems.* Study prepared for the Subcommittee on Economic Progress of the Joint Economic Committee, Congress of the United States, 89th Cong 2d Sess., p. 16, table 4.

The projections labeled "A" are based on a 4½ percent real growth rate, a 2 percent annual increase in prices, and a 3 percent unemployment rate. Those labeled "B" assume a 4 percent real growth rate, a 1.5 percent annual price increase, and a 4 percent rate of unemployment.

These projections were made on the assumption that there would be no basic changes in public policy from those in effect in 1965.

The staff of the Council of Economic Advisers also has recently made a projection of the level of GNP; they asked what level of GNP will be necessary in 1976 if the country is to hold the unemployment rate down at 3.8 percent. Their answer was as follows:

TABLE 4–8. Projected GNP by Council of Economic Advisers

[In billions of dollars]

	Constant 1958 dollars	Current dollars
1967 GNP	669.2	785.1
1976 GNP	960.0	1398.0

As there are serious difficulties in forecasting future growth even for short-term periods, it is notable that although the Congressional and CEA projections used a slightly different set of assumptions and different time periods, the two sets of conclusions are remarkably parallel. The Committee staff extended the CEA projections to 1978 with the following result: 1958 dollars—$1,040 billion; current dollars—$1,500 billion.

The following table shows the amount and the percentage of the GNP that has been invested in private non-farm residential real estate in selected years.

These figures include additions and alterations to existing houses, plus new nonhousekeeping units such as hotel and motel rooms.

TABLE 4–9. Gross National Product and Amount and Percent of Fixed Investment in Residential Structures for Selected Years in Constant Dollars

[In billions of dollars]

Year	GNP (1958 dollars)	Investment in non-farm residential structures	Percent of GNP invested in non-farm, residential structures
1929	$203.6	$9.9	4.9
1930	183.5	6.0	3.3
1933	141.5	1.9	1.3
1935	169.5	3.8	2.2
1940	227.2	8.6	3.8
1945	355.2	2.5	0.6
1950	355.3	22.6	6.4
1955	438.0	24.4	6.6
1956	446.1	21.5	4.8
1965	616.7	23.6	3.8
1967	669.3	18.6	2.8

Source: Department of Commerce and OBE.

Table 4–9 shows a wide fluctuation in the proportion of GNP going into housing, especially through the depression, World War II, and its aftermath. But during the entire period 1950–64 (most of which is omitted in the table) the percentage of GNP devoted to non-farm residential construction did not drop below 4 percent in any year. The *average* proportion of the GNP in the fifties was 4.9 percent; the average in the 60's so far (1960–67) is 3.8 percent; the average for the entire period 1950–67 is 4.3 percent. In the high post-war year (1950) the percentage was 6.4 percent; in the low post-war year (1967), 2.8 percent.

It is not unreasonable, given the performance of the economy in housing's best years, to embark on a program that will require an average of less than 5 percent of the GNP for housing (as defined in Table 4–10). It is also reasonable in comparison to the performance of other countries; even with the President's program, the United States will still be allocating a smaller part of its resources to housing than do many other nations. Only the United Kingdom has been devoting a smaller part of its GNP to housing than would the United States at the level proposed in the President's program.

The following table, Table 4–10, prepared by the Department of Housing and Urban Development, shows the relation of new housing to GNP in the years since 1950 and projections in the years ahead until 1978. It shows how the President's 26-million unit program would fit into the economy. One can see in columns (5) and (7) that the proportion of

TABLE 4–10. Estimated New Residential Construction Expenditures as a Percent of GNP—New Construction, 1950–67, and Projected New Plus Assisted Rehabilitation, 1969–78

[Dollar amounts in billions, current]

Year	GNP	New housing activity			Total new housing as percent of GNP (col. 4 divided by col. 1)	Assisted rehabilitation	Total new housing plus assisted rehabilitation (col. 4 plus col. 6)	Total new housing plus assisted rehabilitation as percent of GNP (col. 7 divided by col. 1)
		Private	Public	Total (col. 2 plus col. 3)				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1950	$284.8	$15.5	$0.4	$15.9	2.6			
1955	398.0	18.2	.3	18.5	4.6			
1959	483.7	19.2	1.0	20.2	4.2			
1962	560.3	18.6	.9	19.5	3.48			
1963	590.5	20.4	.5	20.9	3.53			
1964	632.4	20.4	.6	21.0	3.32			
1965	683.9	20.4	.6	21.0	3.07			
1966	743.3	18.0	.7	18.7	2.52			
1967	785.0	17.7	.7	18.4	2.34			
1968	846.0							
1969	892.5	[1] 26.3	[2] 3.0	29.3	3.28	[3] $0.5	$29.8	3.34
1970	941.6	30.7	3.9	34.6	3.67	.9	35.5	3.77
1971	993.4	31.6	5.1	36.7	3.69	1.2	37.9	3.82
1972	1,048.0	35.5	5.6	41.1	3.92	1.5	42.6	4.06
1973	1,105.6	40.5	6.4	46.9	4.24	1.5	48.4	4.38
1974	1,166.4	42.6	7.6	50.2	4.30	1.9	52.1	4.47
1975	1,230.6	50.5	7.4	57.9	4.70	2.1	60.0	4.87
1976	1,298.3	55.9	8.2	64.1	4.94	2.6	66.7	5.14
1977	1,369.7	58.8	8.4	67.2	4.91	2.1	69.3	5.06
1978	1,445.0	60.2	7.6	67.8	4.69	2.2	70.0	4.84

[1] Unassisted programs, 1969–78.
[2] Assisted programs including "private" assisted housing, 1969–78.
[3] Only assisted rehabilitated residential construction expenditure.

Source: Department of Housing and Urban Development, Hearings Before the Subcommittee on Housing and Urban Affairs of The Committee on Banking and Currency of U.S. Senate, Mar. 21 and 22, 1968.

GNP devoted to housing in the years ahead, under the projected program, is not out of line with the best years of the past (1950 and 1955). (The figures in this table differ from those in Table 4–9 because they are in current dollars not "1958" dollars, and because only *new* housing activity is included. This HUD table assumes a 5.5 percent annual growth of GNP, a 1.5 percent annual price increase, and a 4 percent unemployment rate).

These projections indicate that the new housing program will require a substantial increase in dollars, but only a reasonably small increase in the percentage of GNP. The program should be obtainable *if* inflation is checked, *if* there is a reasonable monetary and fiscal policy, *if* manpower is available in sufficient quantities, *if* Vietnam is settled and no new international incidents arise, *if* the taxpayers will support an urban program, *if* the flow of savings maintains its recent levels, *if* capital requirements are not disproportionately large, and *if* there are not too many programs bidding for funding and investors' dollars.

The consultant to this Committee, Carter Golembe, has also made projections of the proportion of GNP that might be devoted to housing; his median estimates, which assume full employment without inflation, are only slightly lower than those of HUD. He has also made projections for less favorable economic conditions, "growth with slack," and "inflationary growth." (The entire Golembe study is in a later volume of this report.)

The American economy can support a major new housing program, but this may become a difficult matter of choice among alternative uses of resources. Obviously, resources committed to a large new housing program will be unavailable for other purposes. The HUD figures indicate such a program can be carried out without undue pressures on other parts of the economy, if the economy is healthy. But if money, manpower, or materials are in short supply, difficult choices in the use of resources will have to be made by the American people.

The President is now required to present an annual housing report assessing the performance of the economy in the housing field and projecting specific new goals. This "audit" will reveal how the housing field is progressing. If shortages develop, policies will have to be reexamined and some priority will have to be established.

II. The Impact of Monetary Conditions on Housing

The economic foundation of an enlarged housing program requires something more than the resources of a growing economy and the continuing policy decision to devote a larger share of those resources to housing. It requires, also, a sufficient supply of credit, and a sufficient flow of that available credit into housing—particularly low-income housing.

The supply of credit in the economy depends not only upon the rising GNP, but also upon the amount of that total product that is saved. Housing is very dependent both on the general monetary situation—whether money is "tight" or not, and whether interest rates are high or low—and on the particular institutions that savers use. The Nation's savers through insurance, savings accounts in savings and loan associations, savings banks, and commercial banks and pension funds provide the major portion of mortgage money.

The Committee's economic consultant, Carter Golembe, who reviewed all these broad questions, constructed the following table from data in the 1968 Economic Report of the President. The table shows the amount of personal savings, the relation of savings to disposable income, and the relation of personal savings to the GNP.

TABLE 4–11. Personal Savings in the Economy

	Personal savings (PS)	PS/DI*	PS/GNP
	(Billions)	*Percent*	*Percent*
1950	$13.1	6.3	4.6
1951	17.3	7.6	5.3
1952	18.1	7.6	5.2
1953	18.3	7.2	5.0
1954	16.4	6.4	4.5
1955	15.8	5.7	4.0
1956	20.6	7.0	4.9
1957	20.7	6.7	4.7
1958	22.3	7.0	5.0
1959	19.1	5.6	3.9
1960	17.0	4.9	3.4
1961	21.2	5.8	3.4
1962	21.6	5.6	3.9
1963	19.9	4.9	3.4
1964	26.2	6.0	4.1
1965	27.2	5.8	4.0
1966	29.8	5.9	4.0
1967	38.7	7.1	4.9

*DI=Disposable Income.

Source: Economic Report of the President (February 1968), Table B–1, p. 209 and Table B–15, p. 226, Council of Economic Advisers.

The critical issue for the availability of credit again depends on the growth of the economy and the propensity to save. After discussing the several elements involved in this matter, Dr. Golembe concludes that the savings rate is not likely to rise much above recent levels and may decline. Given a supply of savings rising roughly in proportion to the rising total product, what disposition will be made of these new savings? Table 4–12 gives an indication of how

TABLE 4–12. Uses of Funds—Net Flow of Funds Model

[In billions of dollars]

	1962	1963	1964	1965	1966	1967
All uses	52.3	55.7	63.5	68.4	67.6	67.8
Residential mortgages	16.2	18.9	19.6	19.8	12.7	15.1
1- to 4-family mortgages	13.4	18.9	15.4	16.1	10.0	12.0
Multi-family mortgages	2.8	3.2	4.2	3.6	2.7	3.1
Other mortgages [1]	5.1	6.1	5.8	5.7	6.9	6.6
Household borrowing (nonmortgage)	7.0	8.4	11.8	12.5	11.7	6.6
Nonfinancial business borrowing (nonmortgage)	10.3	9.8	12.2	20.1	24.5	23.2
State and local	5.6	7.0	6.2	7.8	6.6	10.5
Foreign	2.1	3.3	4.4	2.6	1.4	4.3
U.S. Government	6.0	2.2	3.6	0.2	3.2	3.6

[1] Includes all other than residential mortgages.

Source: Office of the Secretary of the Treasury, Office of Debt Analysis.

net borrowed funds in general are used in the economy.

The table indicates wide fluctuation in the net flow of funds to the residential mortgage market. Such funds dropped from $19.8 billion in 1965 to $12.7 billion in 1966—an abrupt decline of $7.1 billions, or more than 35 percent. But during the same period the net use of credit decreased less than $1 billion. The total demand for funds and the impact of changing monetary policies on housing can be very severe.

Stringent monetary conditions have affected the cost of housing two ways.

First, the cost of construction financing is capitalized as part of the housing unit cost. When money is expensive, and even more, when money is both scarce and expensive, there is an increase in the cost of new housing. It must be remembered that all segments of the housing industry generally borrow money, the cost of which must be included in their product.

Second, and more importantly, the cost of borrowing money directly affects the monthly mortgage payment. Monthly payments on a $10,000, 25 year mortgage are 15 percent higher when the effective rate to the buyer is 7.25 percent (FHA maximum interest rate plus FHA premium at the time of this writing) than when the rate is 5.75 percent.

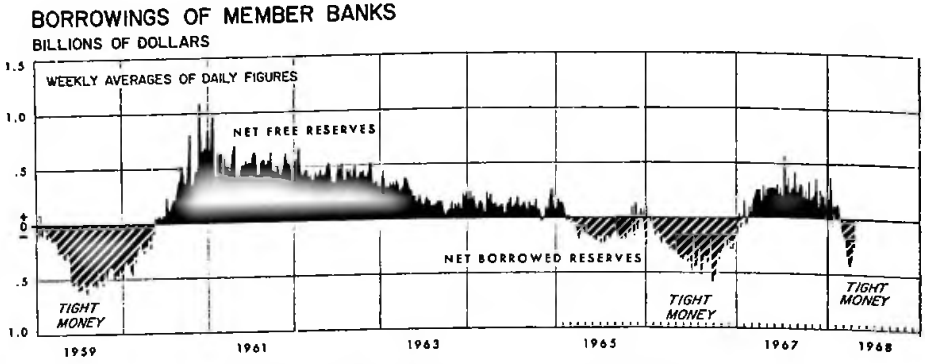
Increased efficiencies in construction can well be wiped out by the impact of rising costs of financing. Increases in housing costs, coupled with high interest rates, if permanent, decrease the number of households that could obtain housing without subsidies or any Governmental aids other than an insured mortgage. Increased interest rates also increase the subsidy amounts required per family.

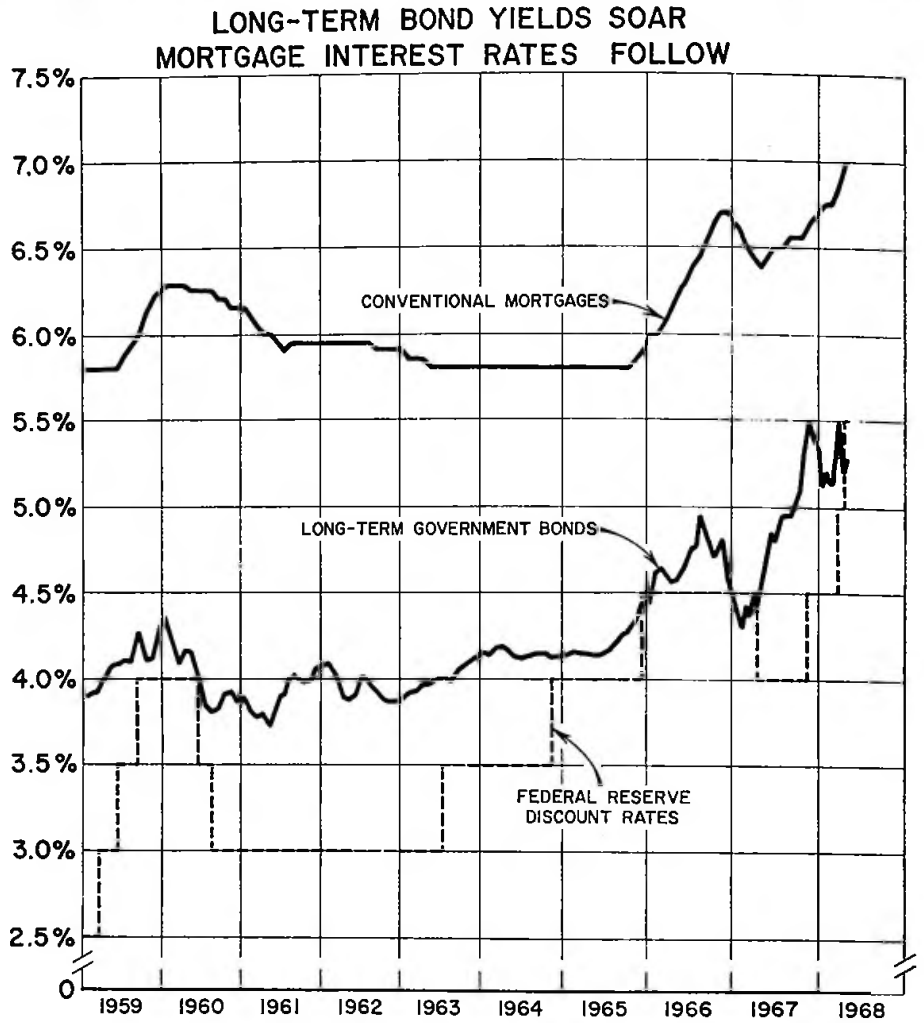
High interest rates and tight money have a striking effect on housing starts, as revealed in the following charts. When the Federal Reserve Bank increases its discount rate to member banks (A), a tight money situation results (1959; 1965; 1966); the cost of bonds and mortgages rises (B—see 1959, 1965–6), and FHA home applications abruptly decline, (D).

If housing starts are compared to the general level of economic activity—as reflected in industrial production—the relationship of housing to the economy is shown in another way. When industrial production is high, there generally is an expansion of capital investment which tends to increase the cost of money, in turn resulting in higher housing costs. When the economy starts down, the cost of money decreases and housing production tends to increase. For this reason economists tend to say that housing production is "counter-cyclical."

But as we have observed, the swing in housing activity also reflects particular actions of Government in the larger economic context, as much as it reflects the broad economic conditions themselves. In 1966, housing suffered because the attempt was made to control inflation by monetary policy (interest rates) without accompanying restraints in fiscal policy (higher taxes—lower Government spending).

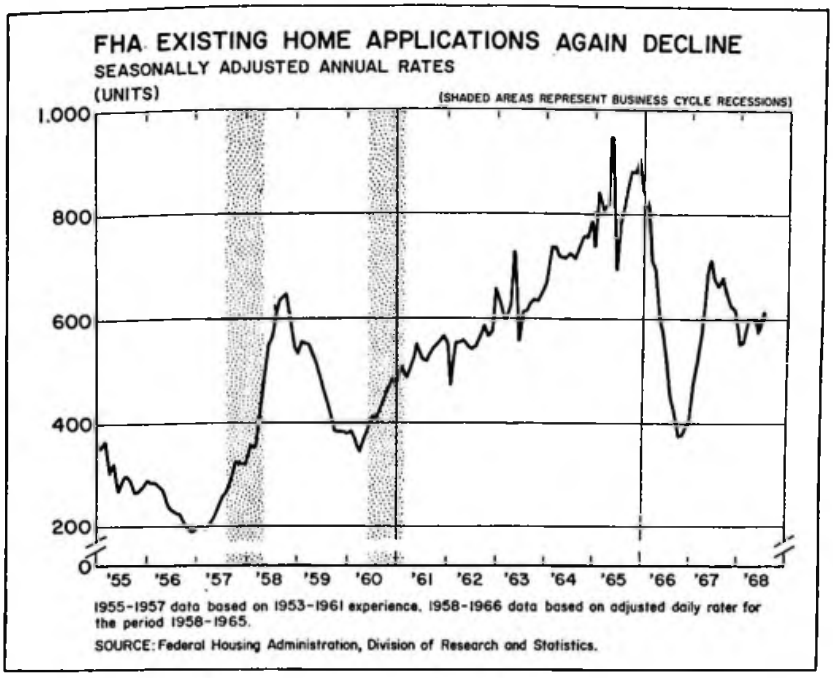
It cannot be emphasized too much that sound monetary and fiscal policies are of the utmost importance to achieving the housing goals. Charts A–D clearly show the interplay of money market forces and the resulting penalty on housing when these forces are not in balance. On the demand side, rising costs tend to reduce production. In addition, on the supply side, the saver's dollar is lured from its saving account into the stock market often as a hedge against inflation, or as a result of the bond and other financial markets seeking a better yield. The investor finds more attractive investments than mortgages; if he invests in mortgages, they are often hedged against inflation by equity or other forms of participation. The home mortgage becomes an unattractive investment.

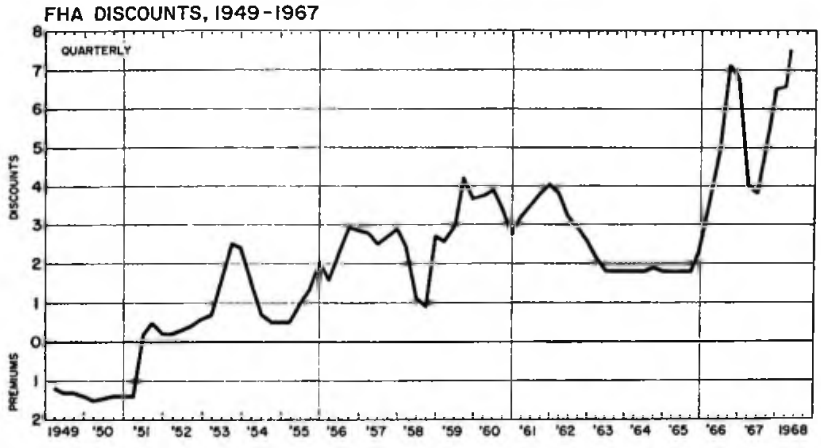




Sources:

A. Board of Governors of the Federal Reserve System. Latest data plotted, April 17, 1968.
B. Board of Governors of the Federal Reserve System and Moody's Investors Service, FHA.
C. Federal Housing Administration.
D. Federal Housing Administration.





The single most important step that public officers can take to help housing may be in the field of monetary and fiscal policies: to avoid policies that severely restrict funds available to housing. Such a course depends upon a high and stable level of economic activity and upon balanced fiscal and monetary policies by the Federal Government.

III. The Savings Institutions That Channel Money Into Housing

The institutions that savers choose make a significant difference in the funds available for housing, because some savings institutions invest in housing and others do not.

Today the typical investor seldom invests directly; rather, he places his money in an institution which does the investing for him. The type of intermediary he chooses determines the kind of investment that will be made. If he places his savings in a savings and loan assocation, the money will be lent to finance residential real estate development. If he puts his savings in a mutual fund, it will be invested in stocks. The character of these intermediaries almost automatically determines the ultimate type of investment. To move money into housing there must be money in the institutions that do invest in housing.

Who Makes the Mortgage?

Almost all housing is financed by long-term loans secured by a mortgage. Typically, such loans are made by one of five major classes of savings institutions. These five, and their relative sizes, are shown in table 4–13.

The amount of savings in these institutions taken as a group has grown by over 56 percent in the past five years. The average annual increase of savings in these institutions over the last five years has been 10 percent.

The savings institutions listed above are of two groups—those that receive money for a contracted purpose (life insurance companies, pension funds), and the depositories (savings and loan associations, mutual savings bank, commercial banks). The following table shows the importance of the second type—the depository institutions—in the financing of housing.

In terms of the type of institutions which finance housing, the most important have been the savings and loan associations.[1] They are specifically designed to channel savings into housing. Because of tradition, charter requirements and Federal tax laws, they have had a very limited number of alternative investment outlets and therefore, as a practical matter, invest primarily in real estate loans. Since 1945, the total savings capital in them has increased twenty-fold; in the last 10 years, over three-fold.

The second largest source of funds for housing are the mutual savings banks.[2] Their percentage and absolute growth in the period since 1945 has not been nearly as spectacular as that of the savings and loans, but they have quadrupled their total savings capital since 1945, and almost doubled it in the last 10 years. The mutual savings banks are restricted as to their area of operation, being permitted in only 37 states. They are less restricted as to investment than savings and loans, but, as they are concerned with the investment of savings, they are generally interested in mortgages. In some of the Eastern states, they have dominated home financing. They hold one-fourth of the total of FHA insured mortgages, the largest concentration of insured loans in any one type of institution.

The third type of depository institution financing housing is the commercial bank.[3] Commercial banks have also been a major purchaser of local housing authority bonds which finance the capital cost of public housing. (Such holdings are not reflected in the Appendix data.) Many banks also lend funds

[1] Table I–1 in the Appendix, shows the amount of savings capital and the proportion of such funds going to mortgages in general, and to housing mortgages specifically, from the savings and loans.

[2] Table I–2 in the Appendix, shows the amount of savings capital and the proportion of such funds going to mortgages in general and to housing mortgages specifically from mutual savings banks.

[3] Table I–3 in the Appendix shows the amount of savings capital and the proportion of such funds going to

TABLE 4–13. Savings in Five Major Types of Institutions 1962–1967 [In billions of dollars]

Year	Total	Insurance companies	Commercial banks time deposits	Savings and loans	Retirement funds (private and public)	Mutual savings banks
1962	$424.7	$133.3	$99.7	$80.2	$66.4	$45.1
1963	466.9	141.1	111.1	91.3	73.7	49.7
1964	513.8	149.5	126.1	101.9	82.2	54.2
1965	535.8	158.9	146.7	110.4	91.6	58.2
1966	603'5	167.0	159.8	114.0	101.7	61.0
1967	663.9	177.0	181.4	124.6	114.5	66.4

Source: Federal Reserve Board; Federal Home Bank Board; National Association of Mutual Savings Banks; Institute of Life Insurance.

TABLE 4–14. Percentage of Non-farm Residential Mortgage Debt Held by Depository Institutions [In billions of dollars]

Year	Percent of total residential mortgage debt	Total depository institutions	Savings and loans associations	Mutual savings banks	Commercial banks
	Percent				
1962	65.9	$126.8	$74.1	$29.2	$23.5
1963	68.2	144.1	84.9	32.7	26.5
1964	69.2	159.7	94.3	36.5	28.9
1965	69.6	174.5	102.3	40.1	32.1
1966	69.5	183.1	106.0	42.2	34.9
1967	69.8	194.6	112.5	44.8	37.3

Source: Federal Reserve Board; Federal Home Loan Bank Board; National Association of Mutual Savings Banks; Institute of Life Insurance.

for housing construction; such loans are only partly reflected in the Appendix data.

Commercial banks' real estate activities are generally the most volatile. They have greater flexibility of investment and receive funds in both demand and time deposits. An increasing percentage of bank time deposits has been going into mortgages, but demand deposits are unsuitable for mortgages. Like other institutions in tight money periods, banks usually restrict mortgage credit as savings become more volatile.

In addition to the three depository institutions, two contract savings institutions provide financing for housing. The major contract institution, the life insurance industry, has generated a substantial amount of housing capital. The mortgage loans for housing made by the life insurance industry are substantially greater than those made by commercial banks and are almost as large as the mortgage investments of the mutual banks.[4] Again, because of investment flexibility, these institutions tend to move in and out of mortgages as yields from other investments increase or decrease with the market.

Total loans for housing by life insurance companies have continued to increase, even through the period of 1966.

The private pension funds and state and local government retirement funds are comparatively new major repositories of savings.[5] Their combined assets increased by over $48 billion from 1962 to 1967, an asset growth of 82 percent. Total housing mortgages held by pension funds have more than doubled in the past years, but they still represent only slightly more than 6 percent of their total assets. Such funds are a potential source of much more money for housing.

IV. Making Mortgages More Attractive and Money for Housing More Readily Available

The financing of 26 million units of housing may involve some reallocation of capital from other parts of the economy that have successfully outcompeted housing for funds in the past. The financing of low-income housing must have high priority. New steps must be taken to assure funds for housing, and especially for low-income housing, primarily by making housing investment attractive to all lenders. It is preferable that the impact of the reallocation required be spread equally throughout the rest of the economy and not taken disproportionately from other *housing* needs. Housing has suffered neglect in the economy.

Housing is heavily dependent upon financial conditions, financial policies, and the structure of financial institutions. It is affected by the availability of financing to a disproportionate and unhealthy degree. A large, new and continuing program to meet the nation's housing needs will require more than a growing and stable economy; it will also require specific changes in the way housing financing works.

Recommendations made have the following purposes:

- To assure funds for low-income housing;
- To create an instrument (salable paper) that will open new sources of funds for housing;
- To prevent monetary policies from affecting housing disproportionately;
- To make mortgages more attractive to lenders;
- To make certain that subsidized housing has adequate access to construction money.

A. Generally Improve the Attractiveness of Home Financing Instrument—A New Housing Market Instrument

The complexities of mortgage documentation make problematical the supply of *new* funds for housing. To attract such funds, housing investments must be simplified for institutions like pension funds, and mortgages generally made a more attractive investment for institutions like banks that are already putting money in housing. The implementation of the new provision of the 1968 Housing Act which creates a new market instrument—a bond guaranteed by the government and secured by a "pool" of mortgages—must be encouraged.

GNMA should be empowered to issue market instruments (bonds, notes, or other appropriate instruments) bearing an unequivocal Federal guarantee of principal and interest. Proceeds from the sale of such instruments would be used to purchase mortgages. The advantages of this methods are these:

- The bond would be attractive to more lenders;
- The cost to the Government is lower;
- The programs are certain to obtain the needed funds.

The Government National Mortgage Association, has the power to insure bonds or debentures issued by private institutions or FNMA and secured by

mortgages in general and to housing from commercial banks.

[4] Table I–4 in the Appendix shows the amount of savings capital and the proportion of such funds going to mortgages in general and to housing mortgages from insurance companies.

[5] Table I–5 in the Appendix shows the amount of capital and the amount going to housing mortgages from pension funds.

pools of both subsidized and nonsubsidized Federally insured or guaranteed mortgages. The bond will be directly guaranteed by the Federal Government and hopefully will be of denominations that the market requires; have various maturities; be at interest rates competitive with other securities; and be redeemable in cash if a particular pool of mortgages were to become insolvent. The implementation of the provision should help to provide the flow of funds to all housing insured by FHA—both subsidized and unsubsidized. This should help to insulate housing from some of the fluctuations of funds to and from the mortgage market.

A mortgage is not the most appealing investment to many investors. Often it is not easily converted into cash without a substantial discount. The complexities of foreclosure—dependent upon the laws of the several states—make it difficult for a lender to obtain redress. Mortgages require investors or their servicing agents to have special staffs which add to the cost of investing in them, costs that may prove prohibitive for smaller investors. A Federally guaranteed debenture would overcome all of these problems and prove attractive to all lenders.

B. The Use of Government Credit for Subsidized Housing

The highest priority is housing for low- and moderate-income families—but such housing has the greatest difficulty obtaining funds. Such housing requires a subsidy. We propose that all subsidized housing (except Public Housing, which is financed by the issuance of local housing authority, municipal type bonds) be supported by the issuance of Federally-secured bonds to tap new sources of credit and to obtain lower interest rates. It is proposed that the new Government agency—Government National Mortgage (GNMA)—borrow money to purchase FHA insured mortgages for subsidized housing projects in much the same way as the old FNMA "special assistance" function operated.

This proposed instrument (with a Government guarantee) will be attractive to insurance companies, the commercial side of commercial banks, pension funds, endowment funds and individual investors, thus assuring *a new and very broad source of funds.* This should not interfere substantially with the present source of funds for the middle and upper income housing because the savings and loan associations, mutual savings banks, and mortgage departments of the commercial banks will most likely need the higher rate of return on conventional mortgage loans which will be available on the individual middle- and upper-income, a rate considerably higher than will be paid on the GNMA debentures carrying the Government guarantee.

This should be an excellent tool to raise the money for the low-income housing, without disrupting the present financing on middle- and upper-income housing. The source of funds it will bring into housing is, in fact, a *new* source.

In the proposed procedure, the Government will have to pay only the difference between 1 percent (Sections 235 and 236 of the National Housing Act) and the Federal borrowing rate (now approximately 6 percent rather than the difference between 1 percent and the market rate for mortgages (now approximately 6⅞ percent). This cost would be lower than the new subsidy programs, which obtain money in the private market with the Government subsidizing the interest rate.

In addition, the use of the special assistance function assures these programs that the funds they need will be available. It does not leave them to compete in the market unaided against other housing needs and other claimants for capital, since Federally guaranteed debentures are generally more salable than other investments.

The problem with this way of supporting the programs—economically illusory but politically real—is the impact on the Federal budget under present accounting procedures. When FNMA (or, now, GNMA) borrows $1 million to purchase a $1 million loan on a housing project the money put out for this loan is treated the same as a $1 million dollar Federal expenditure for paper clips. But the housing project is producing income; paper clips do not. The cost of the housing project to the Government in a given year is not the entire $1 million but only a much smaller sum, the difference between the borrowing rate and the loan rate or, at most, $50,000 (6 percent minus 1 percent × $1 million).

The treatment of such Governmental borrowings is a controversial subject, about which there was a division of opinion even on the President's own Commission on Budget Concepts (the Kennedy Commission). A majority recommended the practice described above. From the point-of-view of housing needs, however, the contrary position is to be preferred—that Governmental borrowings to purchase self-liquidating securities which it services, such as special assistance mortgages, not be included in the annual budget total.

The political problem—the real issue—is that when Congress or the Executive Branch attempts to keep down Federal spending, which is usually in

periods of tight money, FNMA special assistance programs are curtailed because they appear to represent Federal expenditures. This means that subsidized housing is curtailed.

The 1968 Housing Act avoids the budget issue by having mortgages purchased by FNMA, which is no longer a Government instrument and is therefore outside the budget. The less costly and more effective special assistance approach is preferable. This is not politically feasible unless the budgetary impact is limited to the annual subsidy cost. This might be accomplished by requiring (rather than authorizing) GNMA to purchase all mortgages for which the subsidy funds have been appropriated thereby allowing Congress to control the process at the initial appropriation stage and not at the financing stage.

While historically and, indeed, currently, a very large proportion of the funds directed into middle- and upper-income housing is channelled through savings institutions, especially savings and loans, mutual savings banks and the time deposits of commercial banks, these channels may not be adequate to take care of the middle- and upper-income and *also* the lower-income housing. As a consequence, it is necessary to find a new vehicle for attracting a wider share of the capital market to low-income housing.

C. Expand the Secondary Market Functions

Both procedures described above have many of the characteristics of a secondary market in mortgages—the buying and trading of mortgages. One undesirable investment characteristic of mortgages is the lack of a ready resale market. Mortgages cannot be traded as easily as stocks and bonds. Because an improvement in liquidity would improve their investment attractiveness, the expansion of secondary market operations is a further desirable step.

D. Simplify Mortgage Handling Procedures

Mortgage handling procedures should be simplified, in any event, to make present Federally insured paper more attractive. There should be a single national foreclosure procedure for all Federally insured or guaranteed mortgages. Such a procedure, which would pre-empt state foreclosure laws, would facilitate the flow of funds to housing. At present some lending institutions are reluctant to become involved in multi-state lending because the varying procedures require additional staff expertise and handling.

In order to permit funds to flow more evenly to all parts of the country and to help eliminate areas of capital shortage, state usury laws as they apply to Federally insured or guaranteed housing mortgages should be preempted.

Permanent statutory ceilings on the maximum interest approvable on FHA and VA mortgages should be eliminated in order to encourage investment in these mortgages and to enable them to compete more effectively for funds.

E. Protect Housing from Acute Money Shortages

When there is a very severe shortage of credit for conventional housing—but only then—these measures may be considered: directing the Federal Home Loan Bank Board to lend savings and loan associations up to $2 billion each year in loans for both conventional and low-income housing; empowering the Federal Reserve Board to purchase housing agency obligations directly.

The above measures should be considered only when there is a clear and extraordinary need.

F. Construction Financing

Like long-term credit, short-term construction financing may become scarce during tight money periods. To alleviate what is only likely to be a short-term problem, consideration should be given to the following:

In 1967 Congress authorized FNMA to provide interim loans to sponsors of those subsidy programs where FNMA was to be the permanent lender. To date, FNMA has not used its authority. It is urged that FNMA and now GNMA be prepared and authorized to use its authority in tight money periods.

Insurance companies and other institutional lenders who generally do not make construction loans should reconsider their policy, particularly where FHA insured advances are available.

State and local governments should examine the program of the Illinois State Treasurer of purchasing certificates of deposit at going rates of interest from banks which agree to use such funds for interim construction loans for assisted housing.

Federal limitations on interest rates for construction loans which may be included in the mortgage should be adjusted to reflect periodic market fluctuation for Federally assisted loans.

In conclusion, it needs to be said again that financing is a key determinant of the supply of American housing. The provision of this essential economic good varies widely, according to the flow of money and credit. The primary purpose of the recommendations in this area is to make housing more independent and more securely based, and to insure that sufficient funds will be available to build the houses the people need.

Part Seven

Making Land Available

The United States is rich in land. All two hundred million Americans could be housed in single-family homes in an area roughly the size of the state of Iowa. If all Americans were to move to the states of Texas and Oklahoma, the population densities of those states would then be comparable to the United Kingdom or West Germany.

Even though our metropolitan areas have been growing very rapidly in population, they have been growing in area even more rapidly; population per square mile in most older urban areas has actually been declining for the last few decades. Compared to the turn of the century, far fewer Americans live today at the low densities found in rural areas. At the same time, far fewer live at the extremely high densities found in the larger cities prior to the advent of the automobile.

I. Patterns of Metropolitan Development

A. The United States as an Urban Nation

For decades Americans have been leaving farms and villages for the bright lights and attractive employment opportunities of the cities. In 1790, 5 percent of the U.S. population inhabited urban areas with populations of 2,500 or more. By 1920 a majority of all Americans lived in such areas, and by 1960, 70 percent did.

Although this last figure is often quoted, it is somewhat misleading. Most people would call a community of, say 5,000 people a town, not a city. But even by stricter definitions, a majority of Americans now live in cities. In 1963, 63 percent of the American people lived in what the Census Bureau calls Standard Metropolitan Statistical Areas (SMSAs), each of which contains an urban place of at least 50,000 population. General Electric's TEMPO has predicted that close to two-thirds of the United States housing construction needs for the next decade lie within the boundaries of these SMSAs.

Jerome Picard of the Urban Land Institute projected the growth of the major urbanized areas which have populations of 100,000 or more—in some ways a more precise definition of metropolitan areas than SMSAs. The following table is derived from his study.

Dt. Pickard's study also found that the annual growth rates of urbanized areas over the last four decades are not correlated with size of population. The largest cities are not growing more rapidly than the smaller ones, or vice versa.

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TABLE 4-15. Population in Major Urbanized Areas in Relation to U.S. Population, 1920–2000

	1920	1960	2000
Number of major urbanized areas (100,000 or more population each.)	70	160	223
Population of major urbanized areas (millions)	35	91	220
Percent of U.S. population living in major urbanized areas	33	51	70

Source: Pickard: *Dimensions of Metropolitanism.*

B. The Central Cities and the Suburbs

Most of the growth in urbanized areas has of course occurred on relatively undeveloped land beyond the older developed areas. This suburban growth is usually measured by contrasting the population trends in central cities of metropolitan areas with population trends in the surrounding areas which are within the SMSA. This system has its limitations since some central cities—such as Phoenix, Houston, and Milwaukee—are relatively large and have urban fringe densities within them.

Nevertheless, the contrast between the growth of central cities and their "ring" areas is illuminating. About one-quarter of the U.S. population lived in these ring areas in 1950; about 40 percent will live in them in 1978. In that period the population of these areas will increase from 36 million to over 90 million persons. In the mid 1960's the total population of all the rings first exceeded the total population of all the central cities they surround. By 1978, the rings will hold 50 percent more people than do the central cities. Suburbanization is not coming to an end.

The relative importance of the suburban ring areas is enhanced by the "uncrowding" of the American city cores which has occurred during the last several decades and which most observers believe will continue to occur. Many of the older areas of central cities have been losing population for many years. The population of Manhattan, for example, declined from 2.3 million in 1910 to 1.7 million in 1960. During the 1950's, the extent of population decline in the older areas for the first time was not compensated by added population in the newer areas of central cities. Eight of the 10 largest American cities—including New York, Chicago, Philadelphia, and Detroit—lost population during that decade. The central cities which are still growing are located primarily in the West and South. TEMPO projects that the total population of central cities will have increased by somewhat over 10 million persons between 1950 and 1978, but that over this same period the percentage of Americans residing in these central cities will have declined from 34 percent to 27 percent.

C. Are the Cities Becoming More or Less Crowded?

The answer to this question depends largely on the size of the area examined. In general, if one takes a large area which includes the urban fringe, and holds it constant, population densities have been going up. If one takes a small area near the city center, and holds it constant, densities in most cases have been going down. Applying a dynamic standard—namely, whether urbanized areas are gaining land proportionately faster than they are population—in most cases one finds that the metropolitan areas of the United States have been slowly thinning out.

Following are Dr. Pickard's data and projections of core densities of two cities, one old, and one new. Note that the old city, Baltimore, is several times as dense as the new city, Houston.

TABLE 4-16. Trends in Population Density, Baltimore and Houston "Core" Areas

[population per square mile, in thousands]

Year	Baltimore "core" (30 square miles)	Houston "core" (75 square miles)
1920	21.4	.....
1930	21.5	.....
1940	22.5	5.3
1950	22.7	6.3
1960	19.8	5.9
1970 (predicted)	18.5	5.7
1980 (predicted)	17.2	5.5

Source: Pickard: *Dimensions of Metropolitanism.*

While the core areas of the cities have been "uncrowding," the fringe areas have been becoming more dense as the land within them becomes more fully developed. Even when fully developed, however, present trends indicate that the fringe areas will be considerably less dense than the cores. New development at the urban fringe generally adds proportionately more land to an urbanized area than it adds to its population. Thus overall densities in metropolitan areas are tending to decline slightly, and most experts on land development patterns believe that this trend toward lower overall densities will continue. The following table derived from data prepared by Dr. Pickard shows, how, taken together, the 269 urbanized areas with

populations of 50,000 or more in 1960 show an overall trend toward declining density. The urbanized areas are projected to increase their land area eight-fold between 1920 and the year 2000, while only increasing their population five-fold.

TABLE 4–17. Trends in Area, Population, and Density for 269 Urbanized Areas of 1960

Year	Urbanized areas (square miles)	Population (millions)	Density (population per square mile)
1920	7,500	42.6	5,650
1940	11,500	61.2	5,310
1960	24,100	98.7	4,090
1980 [1] (predicted)	40,600	153.5	3,780
2000 [1] (predicted)	59,700	222.1	3,720

[1]The figures in these rows include in the total 24 areas under 50,000 population in 1960 which are projected to contain over 100,000 population in 2000, or to merge into areas of such size. Thus the figures in these rows are not wholly comparable to those in the other rows and may be off by several percentage points.

Source: Pickard: *Dimensions of Metropolitanism.*

According to these projections, about 70 percent of the total United States population will live in these urbanized areas in the year 2000, and these areas will encompass somewhat less than 2 percent of all U.S. land. Regions which have a large number of urbanized areas—such as the Atlantic seaboard and coastal California—will, as regions, become much more dense. In these areas "land shortages" (evidenced by high land prices) will be most severe.

D. Trends in Location by Race

Patterns of metropolitan location have of course not been the same for whites and Negroes. Most of the Negroes who joined the heavy exodus from the South in the last few decades have settled in the central cities of other regions. This exodus has slowed somewhat, with annual out-migration from the South in recent years being only about half of what it was in the 'forties. Today roughly 90 percent of the nonwhites living outside the South live in SMSAs. While the central cities have gradually been losing their white population (TEMPO projects that the central cities will have fewer whites in 1978 than they had in 1950), the nonwhite population of central cities has doubled since 1950, and is projected by TEMPO to continue to increase. By the projections, 30 percent of the population of central cities will be nonwhite in 1978, compared to 22 percent today and 12 percent in 1950.

About 5 percent of the persons living in the ring areas now are nonwhite. Over a million nonwhites will move into these ring areas during the next decade. But, because of spectacular increases in the white suburban population as well, TEMPO projects that the fraction of the population in these areas which is nonwhite will increase only slightly, if at all.

The TEMPO figures are based on projections of past trends. A recent survey by the Census Bureau, which was published after TEMPO had completed its report, hints that trends may indeed be changing. This survey indicates that, after increasing steadily for decades, the number of Negroes living in central cities dropped slightly between 1966 and 1968. At the same time, an unusually high rate of movement of Negroes to the suburbs was noted. Rising incomes, the recent legal attacks on housing segregation, and other factors will help accelerate the suburbanization of America's black population. The rate of this suburbanization is of course subject to numerous variables, including economic growth, consumer preferences, and the policies of governments at all levels.

II. The Demand for Residential Land in Urban Areas

Every year at least one-half million acres of land is added to the metropolitan areas of the United States. Each annual addition amounts to about one-fortieth of 1 percent of the total land area of the United States. The rate of land consumption for urban use is of course subject to numerous variables, particularly the rate of population growth in the United States. Despite the sharp drop in the birth rate in the last decade, many observers still project that the population of the United States will exceed 300 million by the year 2000.

The demand for urban land depends not only on overall population growth, but also trends in migration. If the high rate of rural to urban migration is slowed or reversed, metropolitan areas will expand at a slower rate. Migration trends are tightly interlinked with employment opportunities: people follow jobs, and employers locate their businesses where workers are available. The last few decades have witnessed a major shift in job locations into the suburban areas surrounding the major cities. Many central cities have actually experienced a net loss in jobs, and this has influenced the pattern of land consumption.

The amount of land required for future urbanization is also a direct function of population density. We have seen that the trend has been toward progressively lower densities. Median lot sizes for

single-family homes have been increasing gradually. The recent spurt in multi-family construction (although much of it was no doubt a response to the housing needs of the war baby generation) may be partly due to changing tastes. Higher density development can be encouraged by various actions of governments at all levels. In addition, a concerted public effort to rehabilitate existing urban dwellings and to redevelop central cities would reduce the demand for land at the urban fringe.

The demand for residential land cannot be treated in isolation. There is always a need for nearby employment centers, stores, schools, parks, transportation, communication, and utility networks. The following table, derived from a RAND study, indicates a rough breakdown of land uses in central cities:

TABLE 4-18. Mean Proportions of Land Devoted to Various Uses in 12 Cities

[In percent]

Type of Use	Proportion of total land	Proportion of developed land
Total Developed	80.2	100.0
Residential	30.0	37.4
Industrial	10.0	12.4
Commercial	4.5	5.5
Road & highway	20.3	25.4
Other public	15.4	19.4
Total Undeveloped	19.8	.....
Vacant	18.4	.....
Underwater	1.4	.....

Source: Niedercorn and Hearle: "Recent Land Use Trends in 48 Large American Cities."

As a rule of thumb, then, the use of 100 acres for residential development would require an additional 150 acres for industrial, commercial, and public use.

How Much Land is Required to Carry Out the President's Housing Program?

Despite the number of variables involved, estimates can be made of the land required to achieve the construction goals of the next decade. Land consumption around major urbanized areas is now proceeding at the rate of at least one-half million acres per year. Overall land consumption in urban areas has been roughly at the rate of six persons to every one acre of developed land. The Davidoff-Gold study prepared for the Committee suggests that the projected increase in unsubsidized housing starts in the next decade will, if past patterns continue, increase the rate of land consumption by as much as one-third.

On top of this are the land requirements for six million subsidized units, both new and rehabilitated. If one adopts a middle range of assumptions—namely, that most of the subsidized units will be new, that many of the units will be located in suburban areas, and that their densities will be somewhat higher than existing suburban densities, the land requirements for the six million subsidized units in the next 10 years will be one million net acres in round numbers. Perhaps an additional 1.5 million acres will be required for ancillary facilities. Thus, under these assumptions, approximately 250,000,000 additional acres will have to be consumed per year to accomplish the President's subsidized housing program. That figure, added to the projected increase in the production of unsubsidized housing, will increase the rate of consumption of fringe land around major metropolitan areas to roughly one million acres per year, twice the current rate. To the extent that the requirement for subsidized units is satisfied by rehabilitating or replacing substandard units, land requirements will be reduced.

The magnitude of this increase has numerous implications. The upward shift in demand will tend to send the price of land still higher. In addition, the consumption of this additional land will require the rapid expansion of transportation and utility systems, and increased construction of community facilities of all kinds.

III. The Supply of Urban Land

The supply of land appears to be relatively fixed. Yet the supply of land effectively available to metropolitan centers is in fact quite elastic. New land can be created by filling swamps and shallow water areas. In some cities—Boston is a good example—land filling operations have been a major source of land supply for centuries. Technological advances may make residential construction possible on sites which were formerly not buildable. Construction on steeply sloped ground or over railroad tracks and highways is now technologically feasible. Extension of sewers and sources of water supply (especially in the Southwest) may also free additional land for development.

While these sources are not irrelevant, they are all minor compared to the importance of transportation. Improving transportation is an important means of increasing the supply of housing sites for persons who must have access to specific downtown locations. In virtually all metropolitan areas, the supply of land within, say, one hour's traveling time of the city center has been increasing rapidly. Advances in

transportation systems have geometric effects on the supply of sites. For example, if travel speeds triple, the amount of land within one hour's traveling time from a central point increases nine-fold.

Thus the nation's transportation policies obviously have profound effects on metropolitan development and on the availability of sites for housing. The development of express highways, accompanied by widespread ownership of automobiles, has been the main cause for the increase to date in the size of metropolitan areas. Rapid transit, which has been allocated less of our resources than highways, offers the same potential.

A. The Supply of Vacant Land in Urban Areas

How much vacant* land is there in urban areas. and where is it located? One of the most comprehensive studies on this question was carried out by John Niedercorn and Edward Hearle for the RAND Corporation. The RAND study dramatically documents that the supply of vacant land has fallen sharply in central cities in recent years, and that few large, vacant parcels now remain. Some examples are instructive. The fraction of land which was vacant in Washington, D.C. dropped from 22 percent in 1928 to 4 percent in 1955. Land in Detroit was 22 percent vacant in 1943, but only 8 percent in 1954. Land in the newer and larger city of Los Angeles was 31 percent vacant in 1960, but it had been 64 percent vacant in 1940.

There is some evidence that vacant land is most scarce in slum areas. Davidoff and Gold point out that the geographical areas of Los Angeles which contained 80 percent of that city's Negro and Mexican-American population in 1960, contained only ½ percent of the vacant land in the city. In 1960, 3.6 percent of the land in the Watts area (one-ninth the overall Los Angeles figure) was vacant. On the other hand, the fringes of metropolitan areas have plentiful supplies of vacant land. For example, a transportation study found that 63 percent of the Chicago SMSA was vacant in 1956.

*Any answer to this question must recognize the difficulty of defining "vacant." Investigators must decide, for example, whether to treat parking lots, dumps, or farmland as "vacant."

The implication of these figures is unmistakable. Regardless of the extent to which the nation chooses to tear down the central cities and rebuild them, a large share of the new housing, including subsidized housing, developed in the coming decade will have to be located outside of central cities.

B. The Effect of Public Policies on the Supply of Residential Sites

Patterns of land development are shaped by a myriad of public policies, many of which have traditionally been exercised by local government. The assessment practices used in administering local property taxes may have profound effects on whether vacant land is in fact made available for development or is withheld from the market in anticipation of future price increases. Many jurisdictions tax undeveloped land at lower rates than land which has been developed. This lowers holding costs and in effect reduces the supply of land offered on the market.

Land-use regulations have obvious effects on the availability of land. The practice of zoning—an institution barely 50 years old—is now widespread throughout urban areas of the United States. The basic purpose of zoning, a laudable one, is to minimize land development activities on one parcel which will detract unreasonably from the value of other parcels. Too often, however, zoning has had harmful side-effects, and has frequently been misused by communities to zone out social or fiscal "undesirables."

A recent study by the Regional Plan Association dramatically illustrates how zoning practices of suburban communities tend to inhibit residential growth in the New York City region. In 1960 there were more than 500 zoning jurisdictions in this region. Of the vacant land in these jurisdictions, 90 percent was zoned for residential use, and, outside New York City, only 0.4 percent of this residentially-zoned land was zoned for multi-family housing. The remaining 99.6 percent was zoned for single-family housing only. In 1960 the jurisdictions outside New York City had, on average, median required residential lot sizes of one-third of an acre. The median lot size required by an average zoning jurisdiction in Westchester County, New York, or Fairfield County, Connecticut, was one acre. In fact, 48 percent of the vacant land zoned for residential use in the New York City region, excluding the city itself, required lots of one acre or more. In Westchester County, 78 percent of such land was committed to parcels of one acre or more. Yet several decades ago lot sizes of one-eighth of an acre were common for one-family detached houses. If there are no zoning changes, the vacant land in the New York region now zoned for residential use may not be sufficient to hold the projected growth of that region's population to 1985.

Communities may also use subdivision regulations and building codes to prevent sites from being used for the construction of low-cost housing. And far too many communities choose to do so. Potential builders of low-cost housing may fear they will be harassed by local officials with overly stringent code administration, delays in the granting of permits, or threatened use of the local power of condemnation. Although legal relief is available in exceptional cases,* a community which has set its mind on excluding low-cost housing, or even average-cost housing on small lots or in multi-family structures, has little trouble achieving this end. The Federal Government has actually provided an additional weapon since a locality can exclude some kinds of subsidized housing merely by failing to develop a Workable Program.

IV. The Cost of Land for Housing

The combined forces of supply and demand determine the price of land. In metropolitan areas of the United States, the consequence of relatively fixed supply and sharply increased demand has been rapidly increasing land prices. According to the McGraw-Hill study prepared for the Committee, raw land represents the "fastest-rising element" of all major housing costs. In 1950 the average price for the site of a new FHA-insured one-family house was $1,035, or 12 percent of the total house price. By 1967, average site value had increased to $3,766, and represented 20 percent of total house price.

A. Elements of Land Costs

The proportion of total housing costs attributable to land depends on three factors: the price of raw land, the cost of land development, and the amount of land used per unit of housing. Sherman Maisel investigated the reasons for increased FHA lot prices in the San Francisco Bay area between 1950 and 1962. He found that 52 percent of the increased lot price was directly attributable to rising costs of raw land; that 28 percent of the cost increase was directly due to higher development costs, some of which no doubt reflected higher development standards; and, lastly, that 20 percent of the increase was related to larger lot sizes.

Trends in raw land costs, although up sharply in almost all metropolitan areas, do show signifi-

* Some courts have declared large-lot zoning requirements invalid.

cant variations. The McGraw-Hill study reports, for example, that while the price of raw land has roughly doubled in major metropolitan areas of the United States between 1950 and 1965, in areas of particularly rapid growth—such as Staten Island, New York, or Montgomery County, Maryland—prices have gone up five-fold in the same period. The 1964 NAHB membership survey documents the sharp increase in raw land prices in strong market areas. Responding builders from the Washington, D.C., vicinity reported that the prices they paid per acre of the land increased from $3,400 in 1960 to $5,800 in 1964, a jump of over 70 percent in a four year period. Land prices are highest where immigration is strong. In California in 1966, site value was some 26 percent of total value from new FHA-insured houses. The figure was 14 percent for the state of Rhode Island.

Within any given metropolitan area, the cost of land tends to rise as one moves toward the center of the city. Land costs in downtown areas, even in slum areas, are extremely high compared to suburban land. Land in urban renewal areas, after clearance, has sold on the average for $158,000 per acre in New York City, and $39,000 per acre in Philadelphia. However, the steepness with which land prices drop off as one travels away from the city center is less pronounced than it used to be. In other words, the curve which plots land prices against distance from the central city, is flattening out.

The second factor affecting overall land costs, after the price of raw land, is the cost of land development.* Trends in land development costs are obviously related to trends in construction costs. The rapid advances in heavy construction equipment may result in labor productivity in land development work rising faster than in construction generally. Price indexes for total land development costs are not available, but these costs appear to be rising along with the quality of land development work. For example, roads and curbs are larger and made of better material, and utility lines are increasingly being put under ground. Some of these quality increases no doubt reflect consumer preferences; others are simply required by communities which

*For a description of variables in land development, *see* the technical report prepared for the Committee by Levitt & Sons.

have raised the standards in their subdivision regulations.

A builder has relatively little control over raw land costs or land development costs. But, given favorable zoning, he has considerable control over the third variable—the amount of land used per dwelling unit. The basic way to conserve on land per dwelling unit is of course to build multi-family structures. Where land costs per acre are extremely high, such as near the center of a city, elevator structures are almost mandatory to bring per-unit land costs down to an acceptable figure. For each major FHA multi-family program in 1965, per-unit site costs were higher for elevator buildings than for walk-ups. This would seem to indicate that even the greater intensity of land use normally characteristic of elevator buildings was not enough to counterbalance the high per-acre site costs completely.

Despite the fact that they generate a high number of housing units per acre, elevator buildings are not at present a particularly economical way to produce low-cost housing. As the McGraw-Hill study demonstrates, construction costs per square foot are considerably higher for elevator buildings than for others. Thus per-unit savings on land tend to be cancelled out by higher construction costs. Walk-up structures, like garden apartments, have the advantage of making intense use of land while retaining a less expensive form of construction. For modest multi-family structures, whether elevator apartments or walk-ups, total site costs presently range between $1,000 and $2,000 per unit, or from 5 percent to 10 percent of total project development costs.

Land costs make up a much greater percentage of total costs for one-family homes, particularly detached ones. The McGraw-Hill study allocates over one-fourth of total one-family home costs to land and land improvements. The fraction of total housing costs attributable to the value of the site rises with the quality of the house. For new FHA homes in 1967, sites averaged 13 percent of total value for houses in the $8,000 to $10,000 range, but 27 percent of total value for houses in the $30,000 and over range.

If Maisel's findings in the San Francisco area can be applied nationwide, the major reason for increased land costs per housing unit is the rise in the costs of raw land. Other important reasons are the rising cost of land development, the rising standards of land development and increased land consumption per unit. Each of these factors can be influenced by public policy. In fact, there is considerable evidence that the high cost of land is due in part to Government action affecting the land market.

B. The Effect of Public Policies on the Cost of Land

In many urban communities, the net effect of public land policies is to reduce the supply of land available for modest-cost housing and thus to increase its cost. Zoning and subdivision regulations are the most obvious policies having this effect. If a zoning ordinance requires lot sizes larger than consumers demand, the market for land is distorted and lot costs per unit are shifted unnecessarily upward. However, because frontage is so important, and because larger lots do not require the same proportion of site improvement, increases in lot sizes, especially at the higher levels, actually cause surprisingly little increase in total lot costs. Local regulations which govern frontage requirements and the quality of land improvements often have more profound effect on costs.

Development standards are apparently becoming increasingly strict. Developers are often required to install high-quality street, curb, and sewer systems, and to donate parcels of land for parks, schools, and other purposes. Street construction standards exceed use requirements. While some of these measures are justifiable, others are simply an attempt to shift a disproportionate amount of community costs to newcomers: if a builder must donate a park to the community, the buyers of his houses will bear the cost of this park, but those already residing in the community will bear none of it. If land were purchased for a park in an older section of the community, however, both the newcomers and the old-timers would be taxed to finance this purchase. In some situations strict subdivision requirements may thus represent an unfair exaction on entrants to a community.

Some local governments may require minimum floor areas for houses through their zoning ordinances. These are often consciously directed at preventing modest cost construction. For example, one municipality in Minnesota has imposed a 1,700 square foot minimum floor area requirement on part of its land, while the median number of square feet of finished floor area of all new one-family homes in 1966 in the United States was less than 1,500 square feet.

Zoning and subdivision regulations have varying impact on land costs for different parts of the market. Widespread requirements for large lots and high-quality land improvements might not only in-

crease the supply of sites for high-quality housing, but also increase the demand for them since those who move in can be assured of a "quality" neighborhood. In some instances so-called "snob" zoning may in fact so increase the supply of such high-quality sites that land prices for rich housebuyers are reduced. On the other hand, these restrictive zoning and subdivision requirements clearly raise housing costs for average American families by raising site costs. Burns and Mittelbach believe that these practices may have additional indirect costs: "the maintenance of 'high standards' in zoning and exclusionary tactics tends to reduce the supply of new housing and raise prices or rents especially for those least able to pay. Moreover, locating new housing in alternative and less advantageous locations tends to increase transportation costs to places of work and elsewhere."

Other public policies besides zoning and subdivision regulations affect the land costs borne by housing consumers. As mentioned, favorable property tax assessment of undeveloped land reduces holding costs and thus tends to increase the price of such land.

The land component of housing costs appears to be particularly amenable to reduction through reform and technological progress. In a special report to the Committee, the Council of Housing Producers stated that "the greatest economies in housing can be made through increased efficiency in the utilization of land." Of course, since land represents only roughly 10 percent of total initial project costs for multi-family housing, and perhaps 20–25 percent for single-family housing, the maximum reductions in total initial housing costs possible through reform of land policies are necessarily somewhat limited.

V. How Can Land Policy Be Improved?

Because of the pre-eminent interest of the National Commission on Urban Problems (Douglas Commission) in this area, only a few basic recommendations on land policy are presented.

A. Making Land Available for Subsidized Housing

1. Federal Pre-emption of Local Zoning Ordinances for Federally Subsidized Housing

The Committee believes that subsidized housing should be more widely diffused throughout urban centers and surrounding areas than it has been in the past. This is not only desirable as a matter of public policy; the shortage of vacant land in central cities has made it a matter of necessity. It is feared that some local communities will continue to use their land-use regulations to prevent the construction of such housing.

It is recommended that limited power be granted to the Secretary of HUD to pre-empt local zoning codes from application to Federally subsidized low-

or moderate-income housing projects. This limited power of pre-emption should also apply to any state codes or other local ordinances—such as subdivision regulations—which are exclusionary in purpose or effect. The Secretary of HUD should be authorized, after notice and opportunity to be heard, to pre-empt local zoning for purposes of permitting the construction of particular Federally subsidized housing projects. The pre-emption order would be issued upon a finding by the Secretary that pre-emption was necessary to accomplish the goals of the Federal housing programs and that the pre-empted zoning ordinances have a discriminatory effect. The Secretary's pre-emption order could be made subject to veto by the Governor of the state, following a somewhat similar procedure employed in the Economic Opportunity Act with regard to local projects approved for financing by OEO.

Recognizing the right of the residents of any state or local political subdivision to establish reasonable zoning standards designed to assure development of orderly communities, it is apparent that zoning has been abused in many jurisdictions. Restrictive zoning laws can artificially raise the cost of housing. They may bring about inefficient patterns of metropolitan land development by artificially increasing transportation costs. In metropolitan areas where there are many zoning jurisdictions, many jurisdictions are likely to ignore the effects of their zoning practices on housing problems or development patterns in neighboring jurisdictions. When zoning is poorly attuned to market forces, the rezoning of land often has economic consequences. Land owners whose parcels are zoned for more intensive use may receive windfalls, and those who are "downzoned" suffer uncompensated losses.

The primary purpose of zoning, to control the impact of land use on neighboring parcels, may be achieved at least in part through measures such as private deed restrictions, the law of nuisance, and tax policy adjusted to account for these nuisance effects. As a general proposition, it is not desirable to reduce the powers of local governments. But given the widespread abuses, and need for low cost housing, local prerogatives should yield somewhat in this instance.

Moreover, exclusionary zoning raises important constitutional issues. When zoning standards applicable to a substantial area are framed or administered so as to screen out the poor from the right to occupy dwellings to meet their needs, serious questions of unconstitutional discrimination arise—particularly when the area is adjacent to a large city and the majority of the poor are nonwhite.[1]

2. *Emergency Land Acquisition Program for Local Governments*

We recommend legislation to help renewal authorities (or other appropriate local agencies) acquire (by purchase or lease) land for subsequent sale or lease for the construction of subsidized housing. Federal assistance would take the form of 100 percent reimbursement of the locality's net costs—namely, the costs of acquisition, relocation, and demolition, less the resale price of the property. Some cities already own large numbers of parcels in slum areas which have been abandoned or have become tax delinquent. The new program would seem well suited for use in buying up, by contract or condemnation, the remaining parcels in such an area so that an attractively large parcel can be sold for redevelopment. Such a program obviously is somewhat similar to the Urban Renewal program.

This recommendation is reflected in the new Neighborhood Development program introduced by the Housing and Urban Development Act of 1968 as a modification of the Urban Renewal program. This measure could be further strengthened by allowing acquisition outside slum areas and by providing Federal support more liberal than that available under the usual urban renewal formula.

3. *Eliminate "Workable Program" Requirement from Federal Housing Programs*

Local and state governments are not responsible for all of the barriers to the construction of Federally subsidized housing outside of central cities. The Federal Workable Program requirement, enacted in 1954, limits the location of certain types of subsidized housing to areas where the local government has undertaken certain comprehensive planning measures and affirmatively sought certification of their progress from HUD. The Workable Program requirement now applies to the Public Housing program, to 221(d)(3) BMIR projects, and, to a lesser extent, to the Rent Supplement program. The practical effect of the Workable Program requirement has been to restrict severely the number of sites available for Federally subsidized housing, for that reason the Workable Program requirement should be elim-

[1] *See* generally "The Case of the Checker-Board Ordinance: An Experiment in Race Relations" by Boris Bittker, *Yale Law Journal*, vol. 71, p. 1387.

inated insofar as it applies to Federal housing subsidy programs.

Limited pre-emption of zoning and elimination of the Workable Program requirement are proposed to promote free choice in residential location and to create a wider variety of neighborhoods for all housing consumers to choose among. If these recommendations are followed, for example, employees of an industry which moves its plants and warehouses from the central city to the suburbs would be more likely to find adequate housing near their work. We think sponsors of subsidized housing projects should be free to build anywhere they think there will be demand for their units. Allowing them this freedom would seem preferable to a policy of restricting the location of most projects by law to one part of the metropolitan area.

4. *State Governments Should Consider Establishing Procedures for Reviewing the Reasonableness of Local Zoning Ordinances To Assure That They Do Not Interfere With the Meeting of Metropolitan Housing Needs*
5. *State Governments Should Review the Reasonableness of Both State and Local Restrictions on Mobile Homes*

B. Reducing the Cost of Land

The clearest roads to reducing land costs lie through reform of zoning and subdivision regulations and revision of property tax assessment techniques. Besides the recommendations just offered, the following is proposed:

1. *State Governments Should Be Encouraged To Adopt Uniform Subdivision Regulations Which Do Not Unreasonably Add to the Cost of Building Housing*
2. *A Detailed Economic Study Should Be Undertaken of the Impact of Federal Income Taxes and Local Real Estate Taxes on Land Development*

Prevailing tax policies are not neutral in their impact on the consumption of housing or on the cost of land as compared to other commodities. The effect of Federal taxes is less understood that the effect of local property taxes, which have been subjected to considerable scrutiny in recent years by Richard Netzer and others.

Heavy reliance on property taxes as a source of local revenue is certain to delay progress in improving housing conditions. Netzer calculated that in 1965 the property tax on all non-farm housing in the United States averaged 19 percent of rental value or the equivalent of 24 percent excise tax on the consumption of housing. He concludes:

> It is simply inconveivable that, if we were starting to develop a tax system from scratch, we would single out housing for extraordinarily high levels of consumption taxation. More likely, we would exempt housing entirely from taxation, just as many states exempt food from the sales tax.

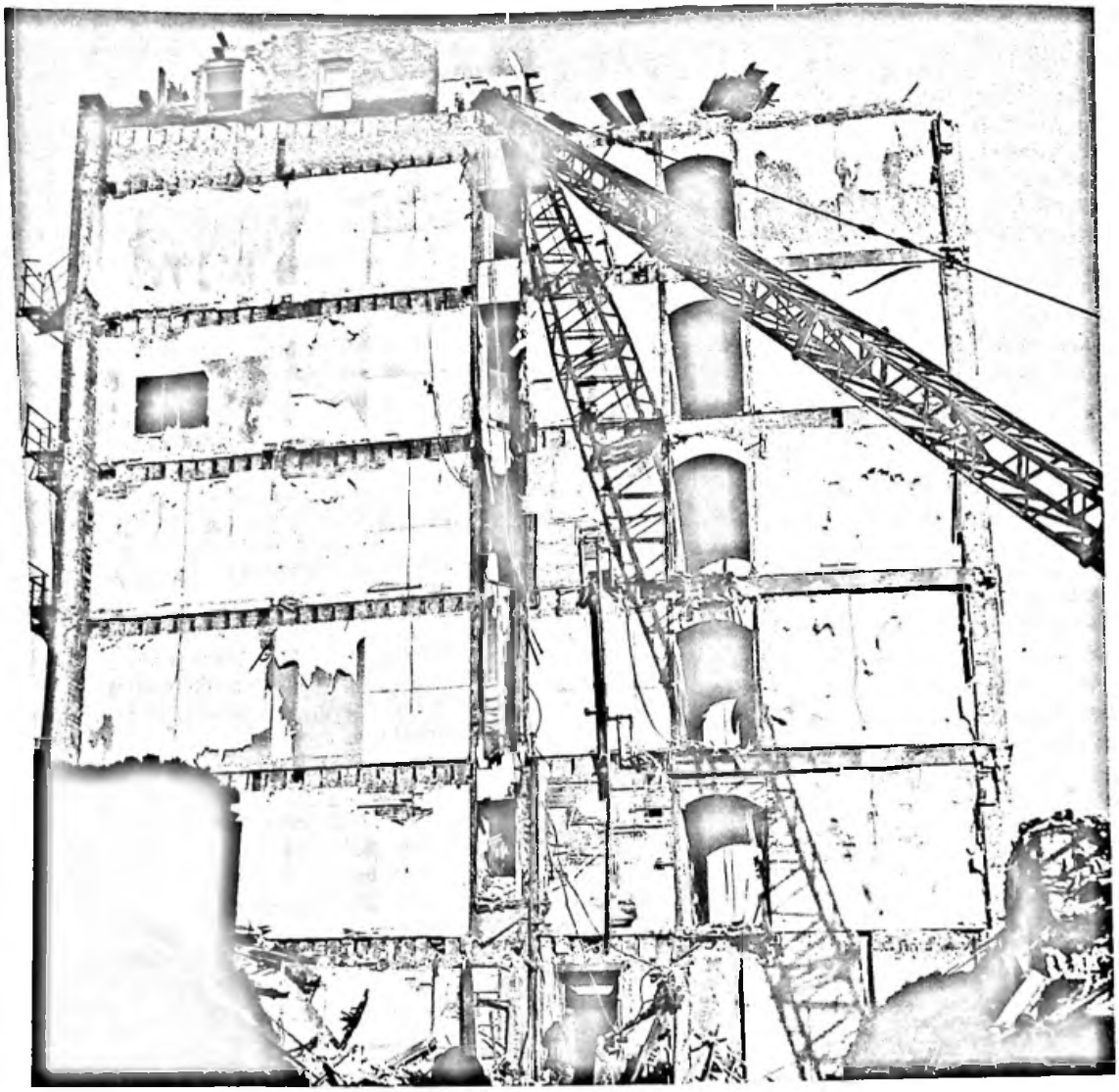
Another defect in the property tax is that it is sharply regressive, falling relatively more heavily on poor families than richer ones. This regressivity is somewhat disguised, since occupants of rental units do not pay the tax directly. They do pay indirectly, however, since the tax on the structure is shifted by landlords to renters in the form of higher rents. Netzer estimates that families earning less than $2,000 a year devote over 8.5 percent of their total income to property taxes, in contrast to families earning over $15,000 a year, who devote only 1.4 percent of their income to this purpose.

The effect of Federal and local tax policies on low-income housing is very complex. The Urban Institute, or other appropriate bodies, might study this problem on a comprehensive and detailed level. Particular emphasis should be placed on the question, which has been debated since the days of Henry George, of the potential beneficial effects of shifting more of the relative burden of property taxes from land improvements to land itself. Heavier taxation of site-values has the apparent advantages of discouraging speculative withholding of land from development, and of enabling the public to recoup more easily the benefits it bestows on local landowners through improvements like roads and sewers. Lighter taxation of buildings might remove existing tax disincentives which discourage new construction, rehabilitation, or adequate maintenance of housing. This area seems to be a promising one for reform.

C. Aggregating Large Parcels of Land

Large parcels of land are usually better sites for new housing construction than smaller ones. Scale economies in construction are possible which could not be achieved on smaller sites. Secondly, the developer of a large parcel can be more creative and flexible in his site plan. In addition, the larger the site, the more likely the developer will find it economically feasible to provide community facilities like parks, recreation areas, or community centers.

Because of these advantages the following recommendations are offered to assist in the aggregation of large parcels of land as sites, in whole or part, of subsidized housing.



1. Direct Federal Acquisition of Land to be Leased for the Development of Subsidized Housing

To provide suitable sites for subsidized housing, it is recommended that HUD be authorized to acquire land directly by purchase or condemnation. This land would then be leased to private or public developers who would be required to build housing and related community facilities for low- and moderate-income families. Because of the great financial resources of the Federal Government and its ability to use the power of condemnation, this program could be an effective vehicle for aggregating large parcels of land which otherwise could not be assembled. To make such developments practical, HUD should be authorized to execute long-term (up to 50 year) leases at a nominal rental equivalent to not more than 1 percent of the land acquisition costs.

Prior to the acquisition of such land, the Secretary of HUD should be required to give notice and afford an opportunity for local public hearings. Acquisition should require a prior finding by the Secretary that there was a need for housing for low- and moderate-income families in that area which would not otherwise be met.

The program would not impose substantial additional costs on the Federal Government. Under the new Section 236 rental program, the Government

pays all but 1 percent of the interest charges on a private 40 year mortgage which covers at least 90 percent of total project costs, including land. Thus a healthy fraction of the Government's interest payments cover the housing sponsor's costs of buying land. Therefore, the leases at nominal rents which we recommend will result in only somewhat higher annual costs to the Federal Government, and will permit slight reductions of rents in the subsidized projects.

The leasing approach, as opposed to outright sale to developers, has the advantage of keeping large parcels together for subsequent redevelopment. Moreover, since the improvements would become the property of the Federal Government upon termination of the lease, the Government would have an opportunity to recover some of its investment.

While it may be argued that Federal acquisition of land automatically pre-empts application of state and local zoning, building, and property tax laws (even though the land has been leased to a private party), this issue should be clarified in the legislation granting HUD the acquisition power. These issues could be resolved as follows:

Building codes. HUD should be authorized to pre-empt the enforcement of state or local building codes for structures built on Government-acquired land if the Secretary, after review of the plans and appropriate inspection, determines that they meet reasonable standards of safety and durability.

Zoning. Local zoning and other land-use regulations should not apply to structures built on the Government-acquired land, provided that the Secretary makes a finding that the proposed use is substantially consistent with constitutional (i.e., non-discriminatory) objectives of the local zoning ordinance. Any discriminatory features of local zoning ordinances (including criteria stated in economic terms) could be successfully attacked on a case-by-case basis under judicial criteria similar to those currently being applied to state school plans which seek to avoid the constitutional requirement of integration.

Governor's veto. The Secretary's pre-emption orders, for both building codes and zoning, could be made subject to veto by the Governor of the state.

Property taxes. To assure local communities that the Federal acquisition of land within their boundaries will not reduce their tax base, the legislation governing this program should require the payment of local real estate taxes. If the statute provided for Federal payment of these taxes, this would further reduce rents in the subsidized projects by as much as 15 or 20 percent in some cases.

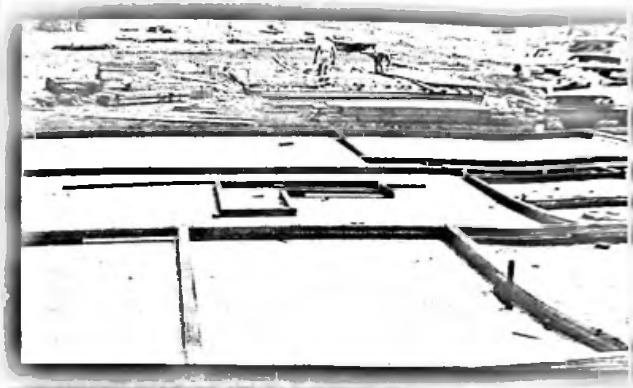
2. *Disposition of Excess Federal Land at a Price Which Will Permit Development of Subsidized Housing*

Today, the Federal Government owns 34 percent of the land in the United States—mostly in forests and wildlife preserves in the Western states. The President inaugurated an Excess Land program a year ago to accelerate the sale of surplus Federal lands in urban areas. The first parcel chosen for sale was the National Training School site in Washington, D.C.; other parcels have been disposed of since. Existing Federal law governing the sale of excess land permits sale at a reduced price if land is to be used for parks, hospitals, or schools. Sale at less than "market value" is not now permitted if the land is to be developed for housing. It is recommended that the Federal excess land laws be amended to conform to Section 107 of the Housing Act of 1949, requiring that land restricted to development of low- and moderate-income housing and ancillary facilities be sold at a price reflecting such restrictions.

3. *Modifications in the Urban Renewal Program*

Although the Urban Renewal process will not be able to meet all low-moderate-income housing needs it has been and will continue to be a major source of sites for subsidized housing projects. The regulations governing the Urban Renewal program should be continually re-assessed to assure that subsidized housing projects can be built at reasonable rents. For example, when land is sold for low- or moderate-income housing projects, the sale price should be determined by working back to a land evaluation from the rent schedule which the "target population" can afford—a land residual appraisal approach. To take another example, the cost of supporting structures erected to permit the development of subsidized housing over air-rights should be included as an eligible Urban Renewal project cost without the need for a finding of economic comparability of equivalent land.

Yet, compared to the state and local governments, the Federal Government has rather few direct controls over land development activity. We exhort, and expect, local and state governments to shape their land policies to assist the national effort to bring good housing to all Americans. Our Federal system of government maintains its vitality only if all levels of government meet their responsibilities.



Part Eight

Producers of Housing

The central entrepreneurs in the housing industry are the firms which supervise the assembly of completed units and their attachment to the land—builders, contractors, factory assemblers and their dealers. They orchestrate all the diverse elements of production into a completed unit, They must see that land is acquired and prepared; a design for the structure developed; labor and materials arranged for; financing secured; construction carried out; and a marketing strategy devised.

I. The Types and Characteristics of Housing Producers

The various skills needed to produce the final product can be combined in numerous ways. Even if the production process is simplified to consist of only five different steps—supply of land, design of structure, construction financing, construction, and marketing—many variations are possible. The following table illustrates rather common combinations.

Firms involved in on-site residential building activity, both large and small, tend to specialize in it. Although many occasionally dabble in other kinds of light construction, responding members in the 1964 NAHB survey earned 92 percent of their dollar sales volume through new residential construction. Nonresidential building and remodeling accounted for most of the remaining 8 percent. It is common for residential builders to involve themselves in nonconstruction activities related to housing. The NAHB survey shows that they are most likely to act as land developers for others or as real estate brokers.

In addition, many residential builders specialize solely in single-family or multi-family housing. Slightly less than half of the larger builders (100 units per year or more) built both single- and multi-family units. About one-sixth built multi-family only, and three-eighths single-family only. Smaller builders are even more likely to specialize in one type.

Four basic types of builders are grouped into two categories as described below. Countless other combinations are possible. The construction process alone can be subconstracted in almost an infinite number of ways.

On-Site Builders

1. *Merchant builders,* who build housing, usually of their own design, on their own land, for sale or rental to others.
2. *General contractors,* who build on land owned by others, usually according to owners' plans.

Factory Builders

3. *Home manufacturers,* using assembly line techniques to produce sectionalized units or packages of materials for rapid assembly on-site.
4. *Mobile home manufacturers.*

Owner-builders (persons acting as their own general contractors in building housing for their own occupancy) account for almost one-tenth of annual housing starts; they are not discussed because they are not in the housing production business on a commercial basis. Firms in the remodeling and rehabilitation industry were discussed in an earlier section.

The following table indicates the rough shares of new housing production achieved by the various types of housing producers during the middle 1960's. Although based on the best available data, the table should only be taken as a rough indication of recent trends. Data on the construction industry are too haphazard to permit confident descriptions. A long overdue Census of Construction, the first since 1939, is now being tabulated, and should increase understanding of this industry's organization. The table indicates an ANNUAL production rate of 1.7 million units. This figure includes mobile home production, which the Bureau of the Census does exclude in its data on housing starts. The data separate merchant builders and factory-built producers although it is recognized that merchant builders are users of factory-built houses. Figures showing the quantity of factory-built houses installed by merchant builders are unavailable.

Three major trends should be noted. The first is the rapidly rising share of the market being won by the mobile home industry, which has doubled its output in the last five years and shown faster growth than the home manufacturing industry.

The second is the sharp decline in the importance of owner-builders. As late as 1949, an estimated one-third of total houses in the United States were built by non-professionals, with the fraction running even higher in rural areas. Today owner-builders produce one-tenth of total housing starts.

The third trend is the increased importance of multi-family units in the market. During the 1950's, single-family homes constituted almost 90 percent of total housing production. By the middle 1960's, however, multi-family units constituted roughly one-third of total housing starts.

There is no dominant firm within any category of housing producer, much less in the entire residential construction market. One of the largest domestic merchant builders, Levitt & Sons, Inc., produced 5,100 units in 1967; the largest home manufacturer, National Homes, produced 11,500 units in that year; and the largest mobile home manufacturer, the Skyline Corporation, produced 18,000 units.

When compared to the size of the market even these very largest producers control only a tiny fraction of the output. Even the 50 largest housing producers (ranked irrespective of type) account for less than 15 percent of annual production. The contrast between this industry, and others, like auto-

TABLE 4–19. Sample Organizations of Housing Production

Merchant builder:	
Land	Homebuilder.
Design	Do.
Construction money	Do.
Construction	Do.
Marketing	Do.
Owner plus general contractor:	
Land	Owner.
Design	Architect or engineer hired by owner.
Construction money	Owner.
Construction	General contractor hired by owner.
Marketing	Owner (when not owner-occupied).
Mobile home:	
Land	Trailer park owner.
Design	Mobile home manufacturer.
Construction money	Do.
Construction	Do.
Marketing	Mobile home dealer.

mobile, steel, and aircraft, which are highly concentrated in the hands of a few large firms, is striking.

Small firms survive because the market tends to be local and these firms are familiar with local demand. The local building markets are not only diverse; they are also unstable, and this, too, discourages large firms. The instability deters capital investment and encourages building and contracting firms to avoid large fixed overhead costs. Homebuilding has a high rate of entry and exit by firms—a big turnover.

II. On-Site Residential Building Firms

In 1968, at least 50,000 firms were assembling finished residential units on specific sites. This figure includes both merchant builders and general contractors (or contract builders). The majority of on-site residential building firms are small contract builders who do custom jobs. A 1964 survey by the National Association of Homebuilders (NAHB), found that roughly 50 percent of its members were primarily contract builders.

At present, the best evidence indicates that roughly 50 percent of all site-assembled housing is started by building firms producing more than 100 units per year. A 1949 survey found that firms of this size were responsible for only about one-quarter of production. Thus, the over-all trend toward greater concentration in the industry may now be leveling out. The biggest surge in concentration appears to have come in the late 1940's and early 1950's as the industry expanded rapidly to meet the demand pent up during the Depression and World War II.

Regardless of these trends, a large share of on-site building firms still put up no more than 10 residential units per year. The smaller builder is well entrenched in the custom home market, and dominates the field outside the larger metropolitan centers. A 1964 NAHB membership survey revealed that 60 percent of NAHB members had less than four fulltime employees, and that only 1.4 percent had 50 employees.

The Prevalence of Subcontracting

As in most construction firms merchant builders and general contractors subcontract a substantial portion of the construction. The 1964 NAHB survey found that almost two-thirds of responding builders subcontracted over 50 percent of their construction dollar; some three-fifths had subcontracted half of their work in 1959. A survey by the Bureau of Labor Statistics in 1962 indicated that on average, 14 subcontractors are hired during construction of a private one-family house. A similar survey found that an average of 20 subcontractors were used in public housing construction projects. The incidence of subcontracting does not seem to vary significantly with the builder's volume.

Operations most likely to be performed by the builder's own employees are building layout, rough and finished carpentry, and final cleanup. Operations most likely to be subcontracted are heating, electrical work, plumbing and finished flooring.

The subcontracting system is flexible. It per-

TABLE 4-20. Approximate Shares of Annual Housing Starts, by Type of Producer, in the United States for the Middle 1960's

Type of producer	Approximate number of units, annually	Percent of total annual production
Merchant builders:		
One-family (not including factory-built)	450,000	26
Multi-family	*260,000	*15
General contractors:		
One-family units for private owners (not including factory-built)	170,000	10
Multi-family construction for private owners	*260,000	*15
For public agencies	30,000	2
Factory built:		
Home manufacturers	180,000	11
Mobile homes	200,000	12
Owner built one-family homes intended for ultimate occupancy of the owner and built with the owner acting as general contractor and often doing some or all of the work	150,000	9
Total	1,700,000	100

* There is no data on the split in multi-family starts between merchant builders and general contractors. These units were split evenly between the two simply to minimize the maximum possible error; the numbers *do not* represent an estimate of how these units are actually divided between the two kinds of producers.

Sources: Bureau of the Census and Trade Associations.

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mits rapid mobilization and dispersal at scattered sites of workers and supervisors with specialized skills and equipment. Unless a merchant builder has a continuing and steady need in a rather small geographical area for specialists such as electricians or plumbers, he simply cannot afford to have them as his permanent employees. The amount of subcontracting varies with the type of construction. If more assembly operations can be regularized, the practice of subcontracting can be expected to decline. Recent trends, however, seem to be toward an increasing number and variety of speciality subcontractors, partly because of the greater intricacy of structures.

Special trade subcontractors are small, commonly one-man operations. Only 8 percent were incorporated in 1963. Of the 200,000 special trade contractors who made social security contributions on behalf of their employees in 1966, 56 percent had less than 4 employees. The number of special trade contractor firms has increased slightly in the last decade, indicating that their economic position is apparently more viable than, say, that of the Mom and Pop grocery stores or small farmers.

Merchant Builders

A merchant builder's involvement in actual construction activity can cover a broad range. Some merchant builders are primarily managers who subcontract out most construction on a work-in-place basis with subcontractors providing both materials and labor. At the other end of the spectrum are builders who perform a substantial portion of construction work within their own organizations. Between are a variety of types who undertake some functions and contract out others. For example, the largest merchant builder—Levitt & Sons, Inc.—purchases all required materials and subcontracts all labor.

Merchant builders often extend their subcontracting activity to steps outside the construction process itself. Land development activities such as grading, surveying, and landscaping, are likely to be subcontracted to specialists. Architects, engineers, and land planners may be hired to assist in design. Only the largest builders can afford to have such professionals on their permanent staffs. The 1964 NAHB member survey indicates that while a large majority of builders have their own sales force to market their housing, most salesmen are paid by commissions only; in addition, over one-quarter of NAHB members hire other real estate firms to market their houses.

The merchant builder, who builds on speculation, is largely a post-war phenomenon. Merchant builders, as they first emerged after World War II, were engaged primarily in building single-family homes. The rising importance of multi-family housing in the market in the 1960's has attracted some merchant builders into building rental dwellings on their own land. The evolution of merchant builders has led to a somewhat greater degree of integration in the highly fragmented housing industry. Today, merchant builders account for a greater volume of housing production than any of the other three kinds of major housing producers.

Until very recently, Federal housing programs have not been designed to take advantage of the merchant builder's skill in melding land, financing, a design, labor, materials, and management talent into completed housing. Merchant builders got their first opportunity in 1961 when they were allowed to become sponsors of limited distribution 221(d)(3) projects. Since then substantial efforts have been made to expand their opportunities. The "Turnkey" method of public housing production is well suited to the merchant builder. The pending Homeownership program fits perfectly into his operations, which still consist primarily of developing land and building and marketing single-family units.

General Contractors

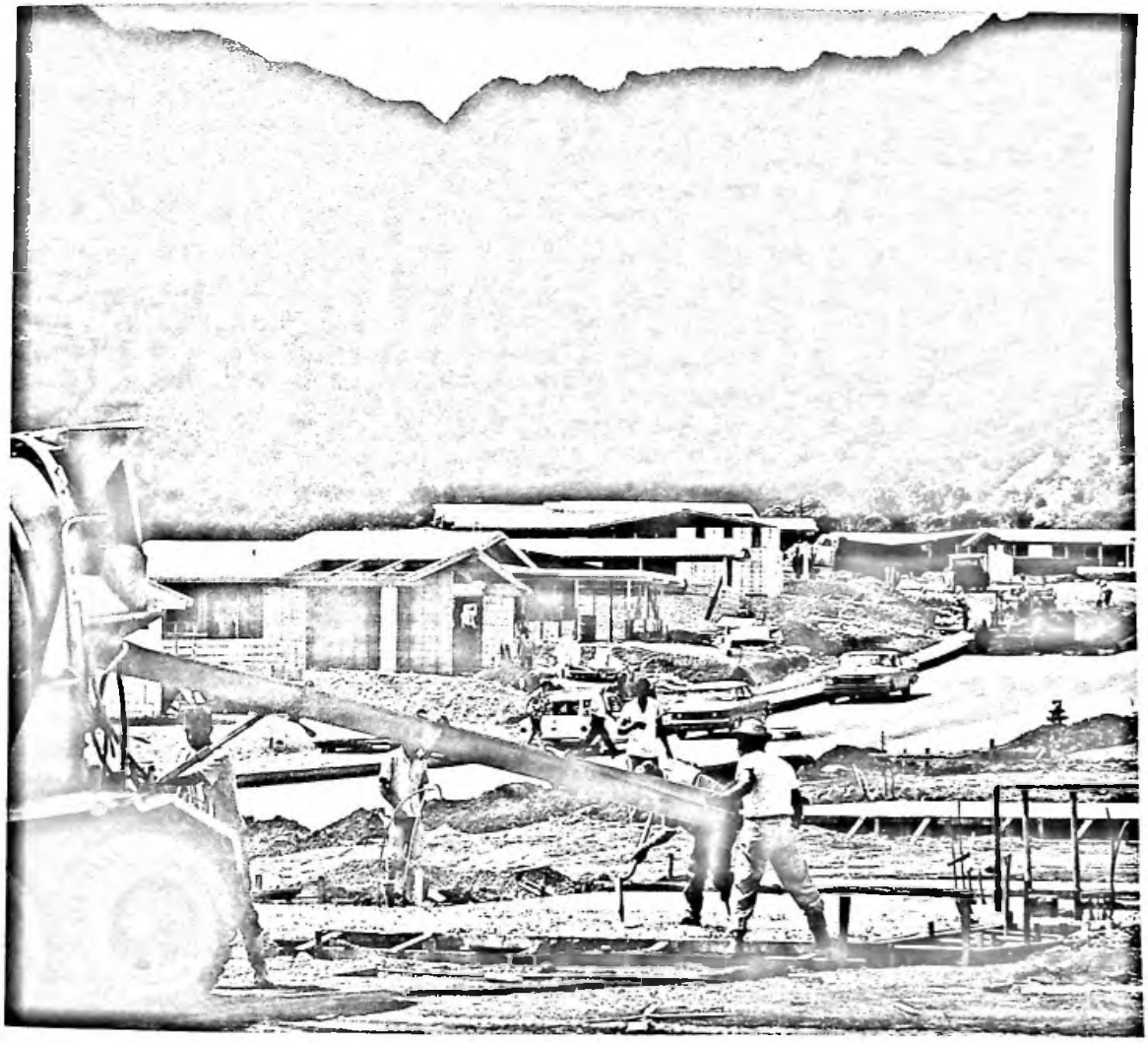
General contracting firms, as defined here, are those that manage the assembly of completed structures on land they do not own. In most cases, a general contractor has limited influence over the design of the structure he is to build, and plays no part in land acquisition, construction finance, and marketing operations. General contractors are the servants of the land owners. They may be hired through a number of methods, including private negotiation and public bidding. Some act only as managers, receiving a flat management fee for supervising subcontractors hired and paid by the property owner. More commonly, the general contractor will have a fixed-price contract with the owner covering the entire job, and will himself hire the subcontractors he needs. Like merchant builders, most general contractors have only a small nucleus of workers on their staff and are likely to subcontract the bulk of the construction work.

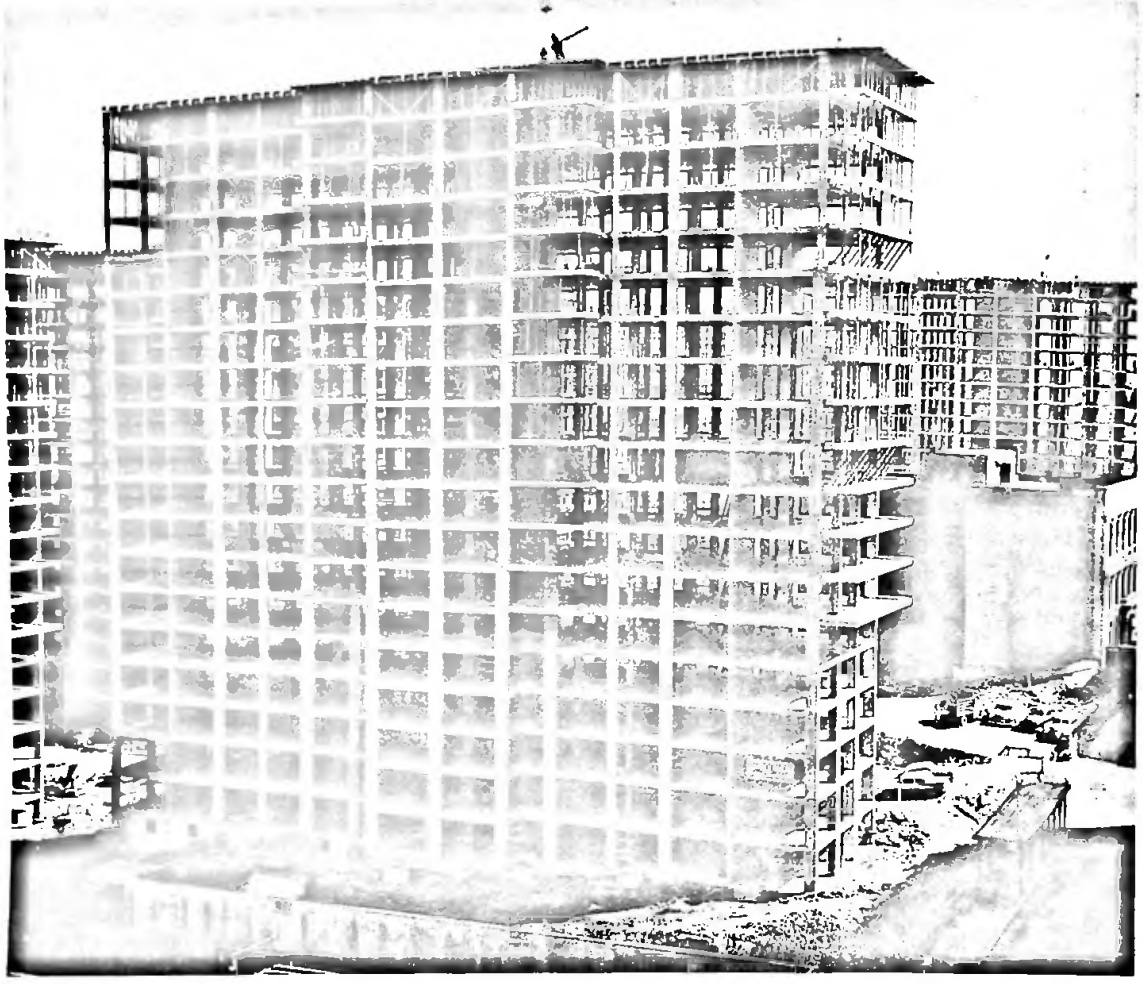
Differences in the organizational structure of general contractors and merchant builders are not necessarily sharp. Virtually all merchant builders have the capability of building housing on contract for others and may be willing to do so if presented with a promising opportunity. The critical distinc-

tion between the two is that a merchant builder can build housing on his own initiative, while a firm acting as a general contractor must wait for projects to be initiated by others.

The number of general contractors has been increasing steadily. The 1939 Census of Construction identified 35,000 general contractors. Internal Revenue Service data derived from business tax returns indicated 140,000 such firms in 1957 and close to 200,000 in 1965. Like most construction firms, general contractors show some tendency to specialize, the major break being between those who concentrate on buildings (residential and nonresidential) and those who specialize in highway and heavy construction. Most general contractors fall in the former category. Like the merchant builders, most general contracting firms are small. Today, perhaps 30 percent of them are incorporated, although this percentage has been rising slowly over the years.

Until the Census of Construction for 1967 is available, the characteristics of general contracting firms must be derived primarily from social security and IRS data. In 1966, 93,000 general building contractor firms made social security contributions on behalf of their employees. These firms had 10 fulltime employees on average, with a majority of firms having less than four employees, and some 1,200 firms (1.3 percent) having 100 employees or more. Among the 29,000 general building contracting firms in 1964 which were incorporated, 4 percent had over $1,000,000 in assets. The firms in this





top 4 percent took in some 40 percent of all operating receipts of all incorporated general building contractors.

III. Factory Builders

The past decades, and even centuries, have witnessed a steady shifting of construction operations to off-site locations. On-site builders are making ever greater use of pre-assembled and prefinished components. Two major types of housing producers—home manufacturers and mobile home producers—carry out a major portion, if not all, of their assembly operations in factories.

The Home Manufacturer

Home manufacturers market rather complete packages of the materials needed for construction of housing units. They pre-assemble major components and precut other pieces, and typically distribute these packages through a network of franchised builder-dealers. These dealers often have exclusive rights to distribute the product line in a given territory.

Few home manufacturers choose to do much three-dimensional assembly. Assembly of larger components in the factory would increase handling, storage, and transportation costs, and perhaps limit the number of models they could offer. They are likely to manufacture wall and floor panels, but not entire rooms. The wall panels typically encompass framing, sheathing, installation of windows, and application of exterior siding. In a minority of cases, insulation, wiring, and plaster board are also installed. A few home manufacturers produce what are called "sectionalized" houses, made up of the combination of two or more three-dimensional units assembled in factories. These three-dimension

sections are shipped on highways like mobile homes, and then attached together on their sites. At present, this practice is not widespread, but interest in the sectionalized approach seems to be increasing

Because much of the assembly work typically occurs on-site, and since the builder-dealer bears the cost of acquiring land, preparing the foundation, and many other incidental costs, the package supplied by the home manufacturer usually makes up only between 15 percent and 30 percent of the final total cost. The great majority of home manufacturers use wood as a framing material, although a few use concrete, steel, or other materials. Single-family detached units make up the great bulk of home manufacturers' output, but they have increasingly been entering the townhouse and garden apartment markets.

Although he usually does not supervise the assembly of the finished product on its site, the home manufacturer plays the dominant role in the production process. He determines the structure's design, purchases most materials, and does some initial assembly work. The franchised dealers who build and sell the completed units tend to be small, averaging from 10 to 20 units annually. Consequently, the home manufacturer often provides them with supporting services to assist in land development, financing, and business management. Some even provide the crews and equipment to perform on-site erection. A minority carry out erection functions themselves.

Although home manufacturers are active throughout the United States, they are particularly influential in the "prefab belt" which runs roughly from Ohio to Wisconsin. Two firms, National Homes and Kingsberry Homes, which produced 11,500 and 5,000 units respectively in 1967, are conspicuously larger than any other firms in the industry. The tenth largest firm produces slightly over 1,000 units per year. Of approximately 600 home manufacturers, at least 75 percent produce less than 500 units per year. None of the home manufacturers markets his product nationwide. As a rule of thumb, the costs of truck transportation of their packages limit their operations to within 300 miles of the plants. Larger scale operations are also inhibited by building code requirements which more seriously affect the operations of these firms than any other major type of housing producer. Varying specifications and the requirement of local inspection of electrical wiring, plumbing and the like are the principal code problems.

Trends in the home manufacturer's share of the market are difficult to trace. Private statistics collected by those most familiar with the industry show an increase in shipments of manufacturer homes from 132,000 in 1959 to some 230,000 units in 1967. Only units with pre-assembled exterior and interior walls, and the bulk of material necessary to finish the unit were included in this estimate. On the other hand, Census figures show a drop in the shipment of prefabricated wood buildings from 68,000 in 1958 to 60,000 in 1963. In addition, the largest producer in the industry now turns out only slightly more than half the number of units it produced a decade ago. Recent NAHB surveys show a small increase in the fraction of their members using "factory built" homes—from 4.6 percent in 1959 to 5.1 percent in 1964. Despite the weakness of the data, it is generally agreed that the home manufacturing industry accounts for somewhat more than 10 percent of total housing production and that its output in units has not increased dramatically in the last six years.

The Department of Defense tried to tap the special competence of the home manufacturing industry in the three "USAHOME" programs carried out between 1962 and 1965. Home manufacturers bid on three occasions on supplying "packages" for construction of over 2,000 units of military housing overseas. The program was designed in part to improve the nation's balance of payments. The project was not judged an unqualified success either from the point of view of the manufacturers, who did not find their participation profitable, or from that of the Department of Defense, which found it achieved little if any cost savings. The fact that the USAHOME packages had to be shipped overseas made it particularly unlikely that they would prove to be less expensive than on-site assembly at over-seas locations.

Mobile Homes

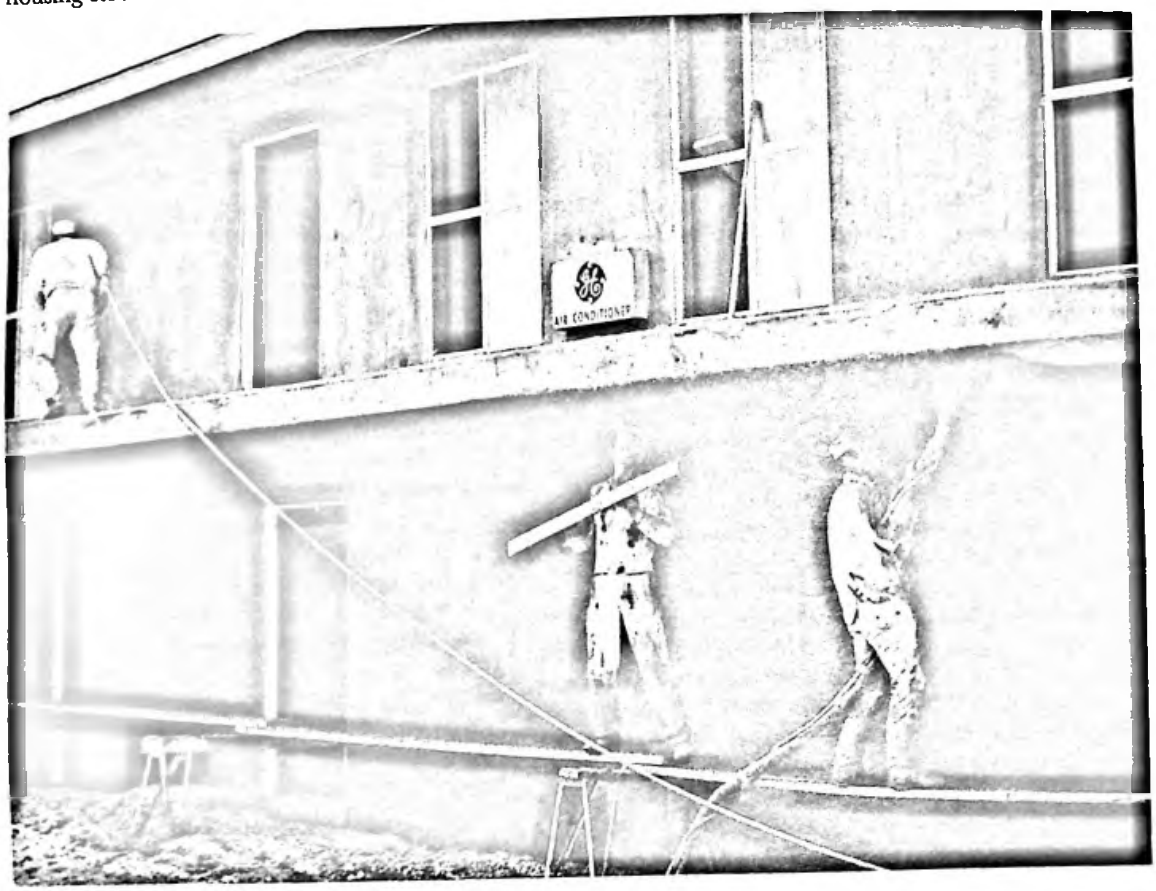
The mobile home industry is the fastest growing subsector within the larger housing industry. In recent years, it has accounted for over 15 percent of total housing production (counting the mobile home production itself). Production and marketing of mobile homes involves, in most cases, the combined efforts of three kinds of firms. The mobile home manufacturer produces a completely finished and furnished unit in its factory. Like automobiles, the units are normally sold through local dealerships who often accept older mobile homes as trade-ins. These dealers may also help service the units after purchase. Operators of mobile home

parks, where almost 90 percent of mobile home units are located, provide sites and utility connections in return for rental payments. Densities in new parks run 10–12 units per acre. At present, there are close to 300 mobile home manufacturers, 7,000 dealers, and 20,000 mobile home parks.

Although the mobile home industry accounts for over 15 percent of housing starts, less than 3 percent of all occupied housing units are mobile homes. The basic reasons for this discrepancy are that mobile homes have much shorter expected lives than conventionally built housing, and that this industry has only come into prominence in recent years. In 1968, some 4.5 million people occupied approximately 1.7 million mobile home units. The 1960 Census of Housing found that 88 percent of occupied mobile units are owner-occupied, and that 9 out of 10 are located outside central cities or metropolitan areas. There are significant regional variations in the popularity of mobile homes. In some southwestern states, they may exceed 10 percent of the total housing stock.

Mobile homes are built more like houses than like automobiles. Although the base is a steel undercarriage vital for safe transportation, framing members are typically of wood, mostly 2 x 2's, rather than 2 x 4's used in conventional wood housing construction. Aluminum sheeting is the normal exterior covering material. Efficiencies achieved through assembly line production usually cut direct labor costs of the finished unit to less than 10 percent of the retail price.

To qualify as a mobile home (as opposed to a "travel trailer") for statistical purposes, the structure must be over 8 feet in width, 30 feet in length, and 4,500 pounds in weight. The largest mobile homes (12 x 75 feet) are roughly the same size (900 square feet) as the average new single-family home insured by FHA in 1950. The effective size of the mobile home units may be further increased through use of expandable sections pulled out from the main units, or, as with a sectionalized home, through on-site connection of two or more main units. The key determinants of unit widths are



transportation restrictions on highway use. At present, only a small minority of states permit transportation of 12 foot units on their superhighways. The retail sales price in 1968 of a completely furnished mobile home of comfortable size (60 feet x 12 feet) is approximately $6,000.

Although designed for mobility, mobile homes once positioned are rarely moved. They depreciate much more rapidly than conventionally built homes because of their lighter construction, and the obsolescence of nonreplaceable built-in elements. There is no firm data on the average life expectancy of mobile homes. However, lenders are becoming somewhat more generous in the terms for financing the purchase of mobile homes. The length of the loan may now run up to 10 years or more, still much shorter than the 30-year (or longer) mortgage loans available for purchase of conventional single-family homes. In addition, a 1964 survey of commercial banks and finance companies involved in new mobile home financing indicated that only about 25 percent of all purchase contracts had maturity periods exceeding five years.

Although scale efficiencies are more apparent in mobile home production than in any other kind of housing production, most companies in this industry are surprisingly small. According to Census data, the average production establishment for mobile homes had 45 employees in 1947 and 60 employees in 1963. Surprisingly little capital investment is needed to enter this business. It has been estimated that only $100,000 to $125,000 is needed to purchase the equipment for producing 1 to 6 mobile homes a day. On the other hand, production in this industry is more highly concentrated in a few companies than it is in on-site assembly operations or home manufacturing. This indicates the presence of some scale economies. Perhaps as many as five different companies now manufacture over 10,000 mobile home units per year. The top 20 companies account for somewhat over half the total industry production.

Freedom from constraints which inhibit mass production by other housing producers may account in part for the large scale of mobile home manufacturers. As a rule, they are not subject to local building regulations. (The industry trade association, however, does apply certain production standards, and some states also regulate production.) In addition, the entire production sequence is carried out in an integrated manner under one roof; thus the protective practices characteristic of the various groups which participate in the on-site assembly process are not a problem. The mobile home industry has virtually no connections with the automobile industry. Most producers are independent firms. Some larger home builders and other broad-based housing producers, however, have indicated a strong interest in purchasing existing mobile home companies. This trend indicates that the mobile home industry will not be as isolated from other housing producers as it has been.

The sharp increase in mobile home production has occurred mainly in the last few years.

The reasons for the sudden rise in output in the middle 1960's are not entirely clear. The following factors may have some significance: (1) production efficiencies achieved through factory assembly; (2) the fact that the units come furnished, and that the cost of the furnishings can be included in the financing of the units; (3) freedom of manufacturers from both public and private restrictions in their operations; and (4) the comparatively light property tax burden borne by mobile home occupants.

The mobile home industry has won this expanded share of the market by overcoming several serious obstacles. The most severe inhibiting factor is the shortage of mobile home parks. Many local governments are hostile to mobile homes, fearing, often without justification, that their presence will cause esthetic blight and bring about an insufficient increase in tax revenues to take care of additional municipal expenses. Consequently, many localities flatly prohibit introduction of mobile homes within their boundaries, thereby shutting off one of the major sources of low-cost housing.

Secondly, financing arrangements for mobile homes are more similar to those used for the purchase of automobiles than for the purchase of real estate. Real estate mortgages, with their relatively low interest rates, are not possible since the units are not inalterably fixed to their sites. In addition, the fact that mobile homes depreciate rapidly means

TABLE 4-21. Annual Shipments of Mobile Homes, 1956-67

Year	Manufacturers' shipments of mobile homes	Year	Manufacturers' shipments of mobile homes
1956.....	125,000	1962.....	118,000
1957.....	119,000	1963.....	151,000
1958.....	102,000	1964.....	191,000
1959.....	121,000	1965.....	216,000
1960.....	104,000	1966.....	217,000
1961.....	90,000	1967.....	240,000

Source: *Construction Review.*

that the term for a loan is short. Higher interest rates and shorter terms act to increase monthly payments sharply, as the McGraw-Hill Study indicates. In the examples used there, the debt retirement cost for purchase of a $6,000 mobile home was $86 per month, only slightly lower than the monthly debt retirement cost ($92) for purchase of a conventionally-built single-family unit selling for $16,000. Rapidly increasing sales in the face of these obstacles indicate that the mobile home industry must be doing something right.

IV. Can the Industry Respond to the Housing Needs of the Next Decade?

Can the costs of housing production be significantly reduced? Do the housing producers have the capacity to expand their production levels by more than 50 percent in the next few years to meet production goals established for the next decade? Will the housing producers be willing to serve the low-income subsidized market? Can they produce six to eight million housing units for the poor?

A. The Cost of Production Management

A significant fraction of the final cost of a housing unit is attributable to overhead costs incurred and profits earned by the housing producer. For merchant building firms, these two items may range from 10 percent of the final selling price for the smallest builders to 25 percent for the largest ones. These percentages would be even higher if overhead costs and profits of subcontractors were included. Mobile home manufacturers, to take another example, allocate almost 20 percent of their revenues to overhead and profit. For both large home-builders and mobile home manufacturers, producer's overhead and profit make up a substantially greater share of final dwelling unit costs than do all wages paid construction labor.

Is there any indication that these profits are exorbitant or that overhead costs could be sharply reduced through more efficient management? The first question is the easier of the two. This is a highly competitive industry. Market forces keep profit down to a level which is just sufficient to induce the entrepreneurs to continue their activity. This does not mean that some builders or manufacturers do not make large profits. Some do. But others less skillful in analyzing their markets and managing their operations suffer heavy losses. Profit margins are likely to fluctuate widely in an industry, such as this one, where risks are great. The turnover rate for firms in the contract construction industry is more rapid than in any other major industry. According to IRS data, net profits earned by contract construction firms in 1963 were 5.3 percent of their business receipts, somewhat lower than the 7.2 percent net profit figure earned by firms in all industries lumped together. As a general rule, profit levels in homebuilding are reasonable.

Assessment of the reasonableness of overhead costs is more difficult. In general, business management techniques of housing producers are probably not nearly as sophisticated as those of firms in some of the "growth" industries. Apparently overhead costs per unit increase with the housing producer's volume. The large producers, however, appear to be the most efficient managers. They achieve savings through better purchasing and scheduling of labor and materials, are more sophisticated in their market research, and generally are more willing to try new techniques. The largest firms achieve sufficient savings in construction costs to offset their higher overhead expenditures; otherwise, they could not stay competitive. Given the existing institutional environment in which the industry must operate, the most significant scale economies seem to exist in the mobile home industry and perhaps in off-site assembly efforts in general. Scale economies in on-site assembly efforts are apparently achieved up to the point where a firm builds several hundred units per year.

B. Capacity of Housing Producers

The United States has the entrepreneurial ability and management talent to achieve the President's production goals. An increase from the present production level of 1.7 million units (counting mobile homes, but not counting rehabilitated units) to a level of 2.6 million units per year (including rehabilitated units) will not be blocked by a lack of willing entrepreneurs. Some historical examples will help document the elasticity and flexibility of this industry. Production of new residential units jumped from 140,000 in 1944 to one million in 1946 to close to two million in 1950. Mobile home manufacturers and home manufacturers would have to make only modest capital investments to expand their productive capacity. In fact, the mobile home industry has doubled its output in the last five years, illustrating its capacity for growth.

The housing producers of the United States, *if* mobilized through the proper incentives and *if* the necessary resources (land, manpower, financing, and material) are available, should be capable of producing the needed housing.

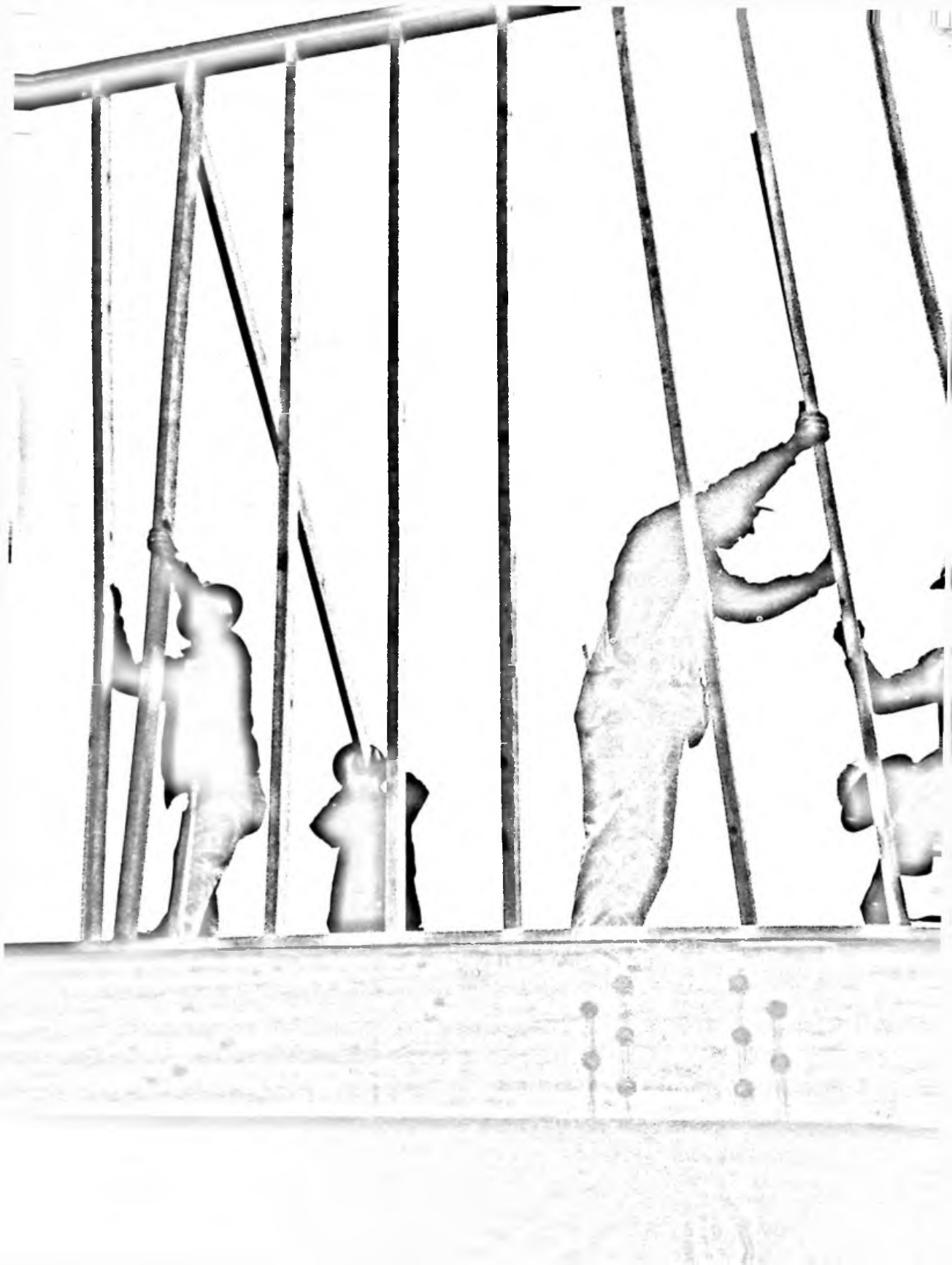
C. Housing Producers and the Federal Housing Programs

The earliest subsidized housing program authorized the Federal Government to act as a producer of housing. The Government acquired land and then hired contractors to supervise construction. Because the Government owned the land, local building and zoning requirements were inapplicable. For these and other political reasons, this approach soon came under attack, particularly from local and state officials, and the program was abandoned for the local initiative system of the present Public Housing program. The role of the Federal Government as a housing producer was too short-lived to pass judgments on its effectiveness.

The traditional Public Housing program begun in 1937 depends upon the initiative of local housing authorities. The opportunities for the traditional housing producers are somewhat restricted to the role of general contractor. The local housing authorities acquire land, arrange for preparation of the design and then let the construction contract, commonly after public bidding, to a general contractor. The most important producers of housing—the merchant builders—had no opportunity to participate.

The growth of the merchant builder is a post-World War II phenomenon; the traditional Public Housing system was designed to fit the housing production system as it was in 1937. When the annual level of housing produced by traditional Public Housing methods began to decline below the level provided for in Congressional appropriations, HUD re-examined the system. The Turnkey and Public Housing leasing programs recognized the fact that the Public Housing production system did not tap the full potential of the private market. The new approaches to Public Housing acquisition allowed local authorities to purchase or lease housing produced by merchant builders. By conforming acquisition policies with the existing organization of the industry, HUD has tapped a new resource. Response has been impressive.

The increasing importance of the 221(d)(3) and Rent Supplement programs, as compared to Public Housing, is also revealing. Like the Turnkey and leasing approaches these programs give all housing producers an opportunity to participate. The merchant builder can sponsor his own project or develop a project for sale to an eligible sponsor. The general contractor can supervise construction for a merchant builder or as a nonprofit sponsor. Similarly, the off-site producers of housing can furnish units on contract to a merchant builder. This system recognizes the organization of the industry and works with it. The new 235 and 236 programs follow this pattern and should prove successful.



Part Nine

Assuring Adequate Manpower

Building houses, for the most part, is not the work of machines, factories, assembly lines, or masses of unskilled labor but of craftsmen doing skilled work at the site on which the house will stand. It is an industry in which the labor force is exceptionally important and has a high level of skill. It includes carpenters, bricklayers, plumbers, electricians, painters, glassworkers, roofers, plasterers, and many others. The question must be asked, whether the men and skills can be made available in sufficient numbers to increase the level of the industry's production to fulfill the President's 10-year program. And it is necessary to ask also how manpower, skilled labor, and the craft unions affect the cost of housing. Labor costs are sometimes thought to be a major reason that the price of housing is beyond reach of low-income families. A shortage of trained manpower is sometimes thought to be a roadblock to a major new homebuilding program. In this section we examine the work force in the housing industry and inquire into related questions.

I. The Jobs and the Work Force in Homebuilding

In manpower, as in other regards, the housing industry is unusual—fragmented, transitory, localized, varying, and—as is especially important for the work force—seasonal in its operations. It is important to understand that even with a very full supply of manpower and construction skills in the economy in general, there still might not be an adequate number in the particular field of homebuidling. That field competes for skilled labor with other kinds of construction, and all of the construction industry in turn is in competition with other industries for skilled and able men. In this doubly competitive situation homebuilding is not in a strong position, for reasons we will indicate. With respect to manpower, as elsewhere, housing may too often be last and least among the nation's priorities.

Perhaps the most helpful way of looking at the work force in construction and homebuilding is to think of it as a pool of persons possessing the needed skills. People within this pool are constantly moving in and out of construction and homebuilding in response to the level of demand in the

industry and alternatives available elsewhere. In their study for the Committee, John T. Dunlop and D. Quinn Mills report that it takes 1.8 workmen to fill each average annual job, a higher ratio than prevails in any other industry. Of workmen who report earnings in construction, only slightly more than half received the major portion of their earnings from this industry. Even among those who received earnings from construction in all four quarters of the year, only 7 in 10, according to social security data, received the major portion of their earnings from construction. We do not have similar data for homebuilding, which is not enumerated as a separate industry by the Census Bureau or the Social Security Administration, but there is reason to believe that these patterns are even more pronounced in homebuilding. The homebuilding industry has been subject to greater peaks and valleys of activity, has smaller-scale individual operations, and relies less upon labor unions that rationalize the supply of manpower, than other construction subdivisions. Moreover, homebuilding has tradtionally been least flexible in price among consumers of construction manpower. Therefore, it has been the last to draw construction workers in times of labor shortages.

A. Mobile Work Force

In construction and homebuilding, jobs are of short duration; the place of employment is constantly shifting; and workers (except for a very few "key men," mostly supervisors and foremen) are not tied to individual projects or employers. About half of all homebuilders employ three or fewer employees on a steady basis. Others are recruited and hired as the needs of particular projects dictate. Therefore, it is impossible to ascertain with precision the number of workers in construction and homebuilding or the demand for such workmen at any one time.

Decisions about manpower are made separately in hundreds of communities. To be effective, national policy to increase housing manpower dramatically, or to change its sources and composition, will have to be accepted and, in a sense, ratified in all of these communities.

B. High Wages, Low Yearly Income

The problem of payment in the construction occupations is not so much a matter of hourly rates as of yearly income. Hourly wage rates in this industry are high. Dunlop and Mills report that differentials in hourly rates for the construction and other industries, even for jobs which bear the same title, range from 3 percent to 73 percent. But these hourly differentials are not reflected in annual wages. Median annual earnings for construction in all crafts in 1965 were $5,867, as compared with $7,002 in basic steel. Indeed, over 44 percent of all construction workers reported earnings of less than $3,000 during 1965. This pattern of earnings—or lack of earnings—results from the intermittent character of employment in construction and gives rise to the movement of workmen in and out of construction and homebuilding. One answer to the problem of manpower is to reduce the insecurity of employment by providing year-round, full-time construction and homebuilding jobs. Many "full time" workmen in the construction industry today work only 1100 to 1400 hours a year. A 1966 study showed that laborers worked an average of 814 hours a year—or the equivalent of only 5 months' full time employment. (A full work year in construction is considered to be about 1800 hours.) What these workmen need are steady jobs.

Attempts to recruit new workmen into the industry will not succeed unless this pattern is changed and workingmen can earn a satisfactory and rising yearly income. Construction training is expensive and can only be justified if those who are trained can significantly increase their earning capacity.

C. A Seasonal Industry

The pattern of homebuilding and construction is still very much tied to the seasons. Over the past seven years, employment in the industry has increased by nearly 30 percent between February and

August, but then has declined by over 25 percent from one August to the following February.

This is an ancient tradition, as the following tables show. The first table is the wage list for building the Eton Chapel in 1442 and 1443. The second covers seasonal employment changes in contract construction from 1947 to 1966. Seasonality in construction employment has been with us, almost unchanged in magnitude, for the last 500 years.

TABLE 4-22. The Wage List for the Building of Eton Chapel, 1442–43

	Men on the list—							
	August 1442				January 1443			
	6	13	20	27	7	14	21	28
Freemasons..	55	55	49	53	38	43	47	47
Rowmasons...	21	22	27	27		2	2	2
Carpenters....	41	48	48	37	7	9	8	10
Sawyers.....	8	8	4	4	4	4	4	4
Smiths.....	1	1	1	1	1	1	1	1
Daubers.....	2	1	1	1	1	1	1	1
Jackers.....					2	2	2	
Tilers.....					1	1	1	1
Hard hewers..	10	12	13	14	4	9	9	9
Laborers.....	32	37	49	40	6	8	8	21
Total men.....	170	184	192	177	64	77	83	96

Source: G. G. Coulton, *Medieval Faith and Symbolism* (New York: Harper and Bros., 1928), Appendix II, p. xxxi.

TABLE 4-23. Cyclical and Seasonal Employment Changes in Contract Construction, 1947–66

	Percent change in annual average employment of construction workers	Percent change, February to August, of employment of construction workers [1]	Percent change, August to February of employment of construction workers
1947–48.....	9.26	33.06	−19.95
1948–49.....	−.26	36.20	−20.97
1949–50.....	7.82	24.27	−22.02
1950–51.....	11.55	44.44	−16.88
1951–52.....	.69	29.67	−18.80
1952–53.....	−.82	24.07	−20.26
1953–54.....	−1.14	22.28	−20.70
1954–55.....	6.97	26.35	−20.30
1955–56.....	7.09	37.27	−21.25
1956–57.....	−2.91	37.11	−25.38
1957–58.....	−6.03	26.78	−31.72
1958–59.....	6.46	38.92	−23.10
1959–60.....	−3.11	41.51	−27.54
1960–61.....	−2.81	33.29	−31.13
1961–62.....	3.01	41.40	−26.82
1962–63.....	2.48	42.27	−29.29
1963–64.....	2.93	45.16	−26.30
1964–65.....	4.24	37.92	−24.52
1965–66.....	3.10	36.92	−23.47
1966–67.....		34.28	−25.54

[1] The change refers to the initial year listed.

Source: Bureau of Labor Statistics, *Employment and Earnings for the United States, 1909–66* (Washington [October 1966]).

Between the 1940's and 1960's, we have learned to pour concrete at almost 40° below zero, to keep access roads in good shape throughout the winter with pulverized lime, to plaster in the middle of winter—but these advances have not had the effect on homebuilding's seasonal practices that might have been expected.

D. A Mixed Employment Picture

Much work time is lost both on the job and between projects. Even during the summer construction peak unemployment in the industry have averaged just over twice the national unemployment rate. Yet both union and nonunion contractors and builders complain of serious manpower shortages. The picture is further complicated by annual fluctuation—high employment one year, low employment the next. In ordering a study of the construction industry about two years ago, President Johnson referred to the anomaly of serious unemployment and shortages existing simultaneously in the same industry.

E. Lesser Influence of Unions in Homebuilding

The diversified and volatile construction industry, with its many small firms, its variety, and its fluctuations, has been given such form and cohesion as it may have in large part by the international labor unions in the central construction crafts. This rationalizing function of the unions has not, however, generally extended to homebuilding.

There is, in fact, a major difference on this point between construction as a whole and the particular field of homebuilding. Construction in general is a highly unionized industry, but homebuilding in most parts of the country is not organized at all. While approximately 80 percent of construction workers belong to local affiliates of one of the 17 AFL–CIO Building Trades Unions, significantly less than half of homebuilding employees are covered by collective bargaining agreements. A labor survey conducted by the NAHB Economics Department in May 1968, showed that 29 percent of the NAHB members in residential construction employed union labor and 71 percent employed nonunion labor. The pattern of unionization in the homebuilding work force varies widely from city to city and region to region; the West Coast and many cities are unionized, but a larger part of the nation is not.

F. Competing Opportunities

To a great extent, the current manpower situation in construction has resulted from high employment generally. Unemployment has fallen

considerably below 4 percent. Opportunities for the majority of American workmen have never been greater; they do not need to face the risks of short-term jobs and seasonal and annual fluctuations which characterize construction and homebuilding.

To understand the manpower problems in construction and homebuilding, one must understand the way workmen move in and out of these industries. For example, assume there is a shortage of carpenters in homebuilding in a certain locality. More carpenters could be obtained by taking carpenters from other divisions of the construction industry in that same community, or from other communities, or from nonconstruction industries, or new workmen—trained or untrained—could be brought in from other occupations. Similarly, if there is a surplus of carpenters (which is unlikely these days) the reverse movements could take place. We have very little data about the directions of these flows or their magnitudes.

A survey of occupational mobility, summarized by Dr. Mills in the *Monthly Labor Review* in 1966, indicated the kinds of flows mentioned above.

> Approximately one-third of job shifts by persons initially employed as carpenters were to non-construction occupation groups (e.g., to occupations other than those of construction craftsmen or laborers). Similarly, of 562,000 shifts from construction craft occupations other than carpenters, 25 percent were into non-construction occupations. Conversely, over one-quarter of shifts into carpentry were from non-construction occupations, and one-quarter of shifts into other craft occupations in construction were from non-construction occupations. On the other hand, only 1.5 percent of shifts from carpenters' jobs were to other construction occupations; and 1.2 percent of shifts from non-carpenter construction trades were into carpentry.

Shifts to other occupations or industries were far greater than those to different divisions of construction. Most experts explain this by reference to the pattern of payment referred to above: workmen seek a steady annual income.

G. An Older Work Force

One final point about the workingmen now engaged in the field: There are indications that the average age of construction workmen is surprisingly high for an industry which places a premium on hazardous, highly strenuous work. The Committee has been informed that in New Orleans, the average age of journeymen carpenters is close to 55. A survey conducted for the AFL–CIO Building Trades Council for Northern California (Table J–I in the Appendix) indicated that the average ages for journeymen in the various building trades is high: at least as high as the forties for almost every craft and very high in some selected crafts: 60 for plasterers, 57 for coppersmiths, 50 for hardwood finishers.

While these are isolated studies, they appear to be representative of nationwide trends. It is generally anticipated that there will be a significant attrition of the work force beween now and 1975 due to death and retirement, in addition to losses of workmen to other occupations.

II. Will There Be Enough Workmen for a Big New Housing Program?

It is exceedingly difficult to estimate the size of the construction and homebuilding work force. Dunlop and Mills give varying estimates of the size of the manpower pool depending on definitions:

(a) those currently working in construction jobs;
(b) those whose last job was in construction and who, although presently unemployed, are seeking jobs in the industry;
(c) employees on public or private payrolls who are performing construction tasks;
(d) persons with building trades skills or training who are working in other industries or occupations.

There are no statistics covering workmen in homebuilding occupations. The definition chosen makes a substantial difference in the number of persons counted as part of the industry. Table 8–3 indicates the range of estimates of the work.

Will a manpower shortage be a barrier to the President's 10-year program? The National Association of Homebuilders conducted an informal survey of over 300 homebuilders. About two-thirds reported present shortages of varying lengths and degrees of seriousness at a time when we are building units at an annual rate of less than 1.4 million. But temporary manpower shortages are endemic to a highly mobile and volatile industry such as homebuilding. The needs for manpower change constantly even on individual projects. Engineers, carpenters, iron workers and laborers may be used extensively for foundation work; painters will be needed only near the end of the project. Moreover, the lack of attachment of most workmen to any individual employer means that job opportunities are constantly being created and liquidated. Conse-

quently, recruiting of workmen is a constant preoccupation. It would probably be impossible, and would certainly be an inefficient use of resources, to eliminate transitory shortages. What would be required would be large numbers of workmen in all crafts waiting for jobs of short duration. Such a situation cannot exist in an economy with reasonably full employment. A short delay for some craftsmen is tolerable and expected, but projects deferred substantially or even abandoned for lack of manpower, indicates a serious shortage. Such long delays have occurred in some parts of the country.

The construction industry is particularly vulnerable to shortages, not only because of its variable and transitory characteristics, but because so much of the work force must be highly skilled. On the typical work site, skilled craftsmen, whether performing skilled jobs or not, outnumber laborers and helpers by about two to one. Training new workmen is time consuming, and marginal or casual workmen cannot be used as reasonable substitutes because they lack the requisite level of skills.

A. The Demand for Manpower in the Years Ahead

Many projections of the demand for labor by construction and homebuilding have assumed, in an unsophisticated way, that the number of workmen in this industry is a fixed quantity, almost completely unaffected by general economic conditions. But estimating future requirements for workingmen is speculative and hazardous; those requirements are subject to many variables difficult to project. There is little accurate data available on increases in productivity, which is one of the most important considerations. The *Economic Report of the President and Council of Economic Advisers, 1968,* contained a table which showed that labor productivity for 1959–66 was −0.3 percent. Many commentators feel that this conclusion was based on misleading data. Christopher Sims in a report prepared for the Committee (printed in the Volume II of the Technical Studies) analyzed all the data and found that productivity of construction workers has been increasing at an annual rate of approximately 2.3 percent since 1947.

The Committee's consultants, Dunlop and Mills, sought to analyze each of the more important influences on the future demand for construction manpower. Their study includes estimates for varying levels of productivity and overall unemployment, and for several levels of Federal housing activity.

From their work it is estimated that there will be a demand for over one million more man-years in construction and homebuilding in 1975 than at present. This estimate assumes that nonhousing construction would continue to increase at approximately 4.3 percent per year and adds the *additional* demand for manpower created by a housing program of the size recommended.

As noted above, very few workmen actually work a full year in construction and/or homebuilding. Therefore, the projections made by Dunlop and Mills may understate the number of workmen needed to fill the number of full-time jobs being created.

In the following sections, we indicate how one million additional man-years may be made available through better use of the existing work force and through training of new workmen.

TABLE 4–24. Employment in Construction, 1961–67, by Selected Definitions of "Employees" and "Construction"
[In Thousands]

	Employment in contract construction			All persons Reporting earnings in contract construction	Persons reporting most earnings from contract construction	Persons reporting 4 quarters of earnings in contract construction	Employment in the "construction" industry (annual average)	Wage and salary workers whose longest full-time job was in construction
	Annual average	Seasonal						
		High	Low					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1961	2,816	3,157	2,339	5,095.4	3,811.5	2,190.4	4,190	4,096
1962	2,902	3,284	2,418	5,190.9	3,798.3	2,229.3	4,277	4,235
1963	2,963	3,355	2,439	5,384.5	3,911.6	NA	4,296	4,216
1964	3,050	3,419	2,530	5,605.1	4,106.5	NA	4,465	4,501
1965	3,186	3,541	2,691	NA	NA	NA	4,590	4,556
1966	3,292	3,653	2,822	NA	NA	NA	4,603	4,332
1967	3,341	3,594	2,863	NA	NA	NA		

NA=Not available.

Sources: (1)–(3) Bureau of Labor Statistics estimates, available in issues of *Construction Review, The Monthly Labor Review,* and elsewhere; (4) Estimates from the *Continuous Work History Sample of the Social Security Administration;* (5) Same as (4); (6) Same as (4); (7) Bureau of Labor Statistics estimates, derived from several sources, including publications of the National Planning Association; and (8) Bureau of Labor Statistics estimates, *Manpower Report of the President, 1967,* p. 244.

B. The Supply of Manpower in the Years Ahead

In assessing the future supply of men for homebuilding, the existence of the separate manpower pools must be borne in mind. The sources of workmen, their recruitment, training and deployment on particular jobs will be different in homebuilding than in other kinds of construction.

This is not to say that there is not significant overlapping. Often opportunities in construction may lag when homebuilding is experiencing a peak. At such times union workmen may work for nonunion home builders building houses. Then when construction activity increases, the reverse may occur—workmen may move from homebuilding to construction.

There is also great movement of workmen in and out of the ranks of foremen, contractors, and subcontractors. During summer construction peaks it is often exceedingly difficult to find workmen for minor repairs and rehabilitation. In the winter the same workmen may be small contractors happy to take on such work.

For all these reasons it is difficult to provide universally accurate breakdowns of current workmen by craft and region. Table 4–25, which follows, indicates the number of construction workmen by region and state.

TABLE 4–25. Percentage Distributions of Employment in Contract Construction, by State and Region, 1939, 1950, 1964, 1966

	Contract construction employment annual averages*			
	1966	1964	1950	1939
Total (In thousands)	2281	3050	2333	1150
Total (In percent)	100.0	100.0	100.0	100.0
New England	5.7	5.8	6.1	6.9
Maine	.5	.4	.4	.6
New Hampshire	.3	.3	.3	.5
Vermont	.2	.2	.2	.3
Massachusetts	2.7	2.8	3.1	2.9
Rhode Island	.4	.5	.5	.7
Connecticut	1.6	1.6	1.6	1.9

See footnote at end of table.

	Contract construction employment annual averages*			
	1966	1964	1950	1939
Middle Atlantic	16.8	17.3	20.1	22.8
New York	7.9	8.6	9.8	12.4
New Jersey	3.4	3.5	3.5	3.6
Pennsylvania	5.5	5.2	6.8	6.8
East North Central	17.8	16.9	19.3	18.6
Ohio	4.8	4.4	5.4	5.1
Indiana	2.4	2.2	2.3	2.3
Illinois	5.2	5.1	5.8	5.3
Michigan	3.4	3.3	3.7	3.8
Wisconsin	2.0	1.9	2.1	2.1
West North Central	7.7	7.8	8.4	8.8
Minnesota	1.9	1.8	1.9	2.2
Iowa	1.3	1.2	1.4	1.8
Missouri	2.3	2.3	2.3	2.5
North Dakota	.3	.4	.3	.2
Nebraska	.7	.8	.8	.8
Kansas	1.0	1.0	1.3	1.0
South Atlantic	18.0	17.3	14.4	15.3
Delaware	.4	.4	.5	.5
Maryland	2.6	2.5	2.4	2.0
District of Columbia	.7	.8	.9	1.6
Virginia	2.9	2.9	2.2	2.3
West Virginia	.8	.7	.8	1.0
North Carolina	2.7	2.5	2.0	2.2
South Carolina	1.5	1.2	1.0	1.2
Georgia	2.2	2.2	1.7	2.3
Florida	4.2	4.1	2.9	2.2
East South Central	6.1	5.7	5.1	5.7
Kentucky	1.5	1.4	1.2	1.6
Tennessee	2.0	1.8	2.0	1.4
Alabama	1.7	1.6	1.2	1.5
Mississippi	.9	.9	.7	1.2
West South Central	11.0	10.2	10.0	9.4
Arkansas	1.0	.9	.8	.8
Louisiana	2.7	2.2	2.0	1.7
Oklahoma	1.1	1.2	1.3	1.1
Texas	6.2	5.9	5.9	5.8
Mountain	4.2	4.8	4.0	3.5
Montana	.4	.4	.4	.5
Idaho	.3	.3	.4	.3
Wyoming	.2	.3	.3	.3
Colorado	1.2	1.2	1.0	1.0
New Mexico	.6	.6	.7	.4
Arizona	.7	.9	.5	.4
Utah	.5	.6	.5	.4
Nevada	.3	.5	.2	.2
Pacific	12.8	14.2	12.6	9.0
Washington	1.7	1.3	1.8	1.9
Oregon	1.0	1.0	1.1	.7
California	9.3	11.2	9.7	6.4
Alaska	.2	.2	.....	.....
Hawaii	.6	.5	.....	.....

*Including wage and salary employees of contractors only.

Source: Bureau of Labor Statistics.

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It has been impossible to separate these figures by craft or communities within states. Table 4–26, however, provides average percentage distributions by craft throughout the nation based upon the Census Bureau's Current Population Survey data. There may be great variations throughout the country, and the figures are probably less valid for homebuilding than for other branches of construction, but this is the best currently available information.

TABLE 4–26. Percentage Distribution of Employment in Construction,[1] by Craft, Average, 1962–66

Total	100.0
Professional and technical personnel	4.7
Managers, officials, and proprietors	12.2
Clerical workers	5.2
Craftsmen, foremen and kindred workers	50.7
Carpenters	14.5
Brickmasons, stonemasons, and tile setters	3.7
Cement and concrete finishers	1.2
Electricians	4.0
Excavating, grading, and road machinery operators	4.7
Painters	6.7
Plumbers and pipe fitters	4.3
Plasterers	.8
Roofers and slaters	1.1
Structural metal workers	.9
Tinsmiths, coppersmiths, and sheet metal workers	1.0
Other	7.8
Operatives and kindred workers [2]	9.8
Service workers [3]	.5
Laborers (including helpers) [4]	17.0

[1] Including employees of contractors, government force account, the self-employed and unpaid family workers.
[2] Operatives are traditionally considered semi-skilled workers, including apprentices, asbestos workers, oilers and greasers, truck drivers, etc.
[3] Service workers include guards and watchmen, cleaning personnel, and others.
[4] Laborers include carpenters' helpers and other laborers.

Source: Current Population Survey data.

The estimates of nationwide employment by craft compiled from various sources and set forth in Table J–2 in the Appendix show a similar picture of employment in construction by craft.

There are some shortages in homebuilding manpower today, and homebuilding is a weak competitor for the skilled manpower it requires. If a high level of economic activity continues, and if the nation embarks on a new homebuilding program of the dimensions the President has proposed, the demand for construction manpower will be sharply increased. "The most urgent manpower problem of the construction industry," our consultants Dunlop and Mills have written, is "the need for improved utilization of manpower already attached or flowing in and out of the industry, rather than the mere attraction of more men to the industry." But new sources of manpower for the industry must also be found. What will these new sources be? What new training methods can be used to reach them?

III. Assuring Enough Manpower for Homebuilding

A. The Growth of the Labor Force

It is estimated that one million additional man-years of work in construction and homebuilding will be needed by 1975, seven years from now. The average yearly increase therefore would be 143,000. Actually, the increase in man-years of work will build up over the seven-year period, as the homebuilding and rehabilitation program gets underway and expands—from annual increases of 100,000 or less in the first couple of years to 200,000 or more in the sixth and seventh year. Additional increases in available manpower will be needed each year to offset deaths and retirements of those presently at work in construction and homebuilding.

The required increase in available manpower for construction and homebuilding in the period ahead is large, but so is the potential supply.

The labor force has been expanding sharply in recent years—more than twice as fast as the labor force growth of the 1950's, for those who were born after the end of World War II have reached the age to seek work. Between 1966 and 1967, the net increase of the civilian labor force was 1.5 million in addition to a rise of approximately 400,000 in the Armed Forces.

Largely as a result of the sustained high birth rate of the postWorld War II years into the late 1950's, the labor force is expected to continue to increase rapidly in the period ahead—by about 1.5 million a year (net) between now and 1975, according to the Labor Department. In this anticipated sharp expansion of the total labor force—approximately 10.5 million between 1968 and 1975—there is a source of potential manpower supply for construction and homebuilding if the anticipated rising demand for building trades manpower actually materializes and if this potential manpower supply is adequately trained in the necessary skills. Construction will have to compete with other sectors of the economy as skill requirements increase throughout the economy.

In addition, the return of veterans from Vietnam and the anticipated reduction of the Armed Forces will gradually provide additional personnel to the labor force, many of whom have learned some rudimentary skills in the Services. And because the edu-

cational and vocational skill potential of this group is enhanced by the opportunities of the new GI bill, returned veterans can become a valuable manpower asset to construction and homebuilding, as well as to other industries.

B. The Central City as a Source for Manpower

Moreover, there is an additional potential supply of manpower in the concentrated high levels of unemployment among teenagers, Negroes, and members of other minority groups. In the first half of 1968, there were 2.8 million unemployed or 3.6 percent of the civilian labor force, according to Labor Department reports. However, among nonwhites in the labor force, 6.8 percent were reported to be unemployed. Among teenagers, 12.5 percent were unemployed and among nonwhite teenagers, the percentage was 24.7. Unemployment of young Negroes throughout 1967 was at a level exceeding that for the economy as a whole in the depths of the Great Depression. In the Labor Department's report on "Jobless Trends in 20 Large Metropolitan Areas," unemployment rates are compared for various central cities and for their respective metropolitan areas. Of 550,000 unemployed persons in these central cities in 1967, 40 percent were nonwhites, although nonwhites accounted for less than 25 percent of the population.

And unemployment rates are misleading because they do not take into account the chronically underemployed or those who, after repeated frustrations, have ceased to actively look for work.

Table J–3 in the Appendix indicates that the same general situation prevails throughout the nation: almost full employment in metropolitan areas as a whole—but very high unemployment in the ghettoes.

There obviously is a plentiful supply of potential workmen for homebuilding exactly in the central cities where many of the needed housing units must be built.

C. Equal Opportunity

Reaching these potential workmen, however, requires both vigorous programs to provide equal employment opportunity for members of minority groups and new kinds of training.

Equal employment opportunity in construction is next discussed, not only because it represents a moral principle and now also a legal requirement, but also because Negroes and other minority groups can furnish a primary source of homebuilding manpower.

Construction and homebuilding are only a small part of the total picture of equal opportunity in employment. Although construction has been a major source of employment for Negroes in America, employment opportunities have often been restricted in that industry, as elsewhere throughout the American economy. If the entire picture of equal employment opportunity in the building of houses were to be examined, it would be necessary to ask about every industry and activity connected with it. It is to be doubted that the record of minority group employment in real estate, banking, the management and ownership of construction firms, and in other fields related to homebuilding, is markedly better than that of the skilled trades in construction.

The construction skilled trades, in fact, have better records, particularly in the last two to three years, than the skilled crafts in other industries—but there is still room for much improvement. Recently the Building Trades Department of the AFL–CIO issued a statement, to be implemented locally, that will guarantee pre-apprenticeship training opportunities for ghetto residents on Federal Housing programs. It will provide for new classifications and wage rates for workmen and trainees and relax some work rule restrictions to facilitate housing rehabilitation. Unlike some union and business leaders, the trades leadership has taken a strong position urging the employment of minority members. Plumbers' President Peter T. Schoemann stated that what is needed is for trade unions to start "affirmative action programs, and let's quit arguing and pussyfooting and bellyaching about the objections and difficulties." In a similar vein, he urged new flexibility in recruiting standards.

> "Thus, it is one thing to refuse to lower existing standards and it is quite another thing to take a hard, unyielding, inflexible stand on some formal requirement that in a given situation is simply not an essential standard.
>
> "For example, as to the requirement found in many apprenticeship programs of the high school diploma or equivalency certificate, we should ask why that requirement was put there in the first place.
>
> "It was more or less to assure a high quality of work and workmanship by requiring a certain amount of formal education and by requiring also a young man who had the character to persevere to the end of his high school course. What is fair to ask—and our critics are asking it, so we might as well ask ourselves—is whether the same objective might be achieved by a different route.
>
> "I am not saying that as a general matter we ought to put a premium on dropping out of high

school, but only that the present times are too serious to play games with pretty little artificialities. I know of no law which says that a joint apprenticeship committee cannot in particular instances waive a formal requirement for special reasons. This is one area in which some flexibility in our operation could prove useful. And that word "flexibility" sums up much of what I am trying to say."

Over the past three years, with union-management cooperation, over 2,000 minority group members have been prepared to enter apprenticeship programs in 43 cities. In Pittsburgh, the local building trades department has made agreements concerning equal employment opportunities in connection with a large rehabilitation project. The construction electricians in New York City have taken a leadership position, recruiting minority group members and graduating them from the ranks of apprentice into journeymen status. There is movement, but more must be done.

Racial discrimination in the construction industry reflects the custom and bias of hundreds of communities and crafts, and the subtleties of many informal practices; it is, therefore, difficult to root out.

Executive Order 11246 introduced the concept of "affirmative action" to assure equal employment opportunities on Federal construction. This concept proposed to judge civil rights compliance on the basis of results rather than abstract acquiescence to law.

Compliance efforts have been complicated by the fact that Federal enforcement comes from two sources of authority and has been divided among three agencies. Full equality for jobs in the construction and homebuilding industry, as in all other industries, is required both by Title VII of the Civil Rights Act of 1964 and, for Federal contractors, by Executive Order 11246.

At present, the Equal Employment Opportunities Commission (created by the Civil Rights Act of 1964) receives reports on the number of minority group workmen on construction and homebuilding jobs and in unions as journeymen and apprentices. It also receives complaints from individuals and groups. As the report forms are investigated, or complaints received, indicating a pattern of discrimination, EEOC may either engage in private conciliation efforts or turn over its findings to the Department of Justice's Civil Rights Division. When conciliation efforts are unsuccessful, and when no Federal legal action is contemplated, complainants may pursue private legal redress.

The Justice Department's activities are directed solely toward legal action. Its Civil Rights Division will frame consent orders, which are used to resolve matters of discriminatory employment policies without the necessity of formal litigation, if possible.

Perhaps the agencies that have been most active in attempting to assure employment opportunities in construction and homebuilding have been the Offices of Federal Contract Compliance established in each of the Federal Agencies and Departments that has a large amount of contracting.

Drawing upon the authority granted under Executive Order 11246, the OFCCs have insisted that Federal contractors take affirmative action to bring about meaningful integration on Federal projects. In several cities compliance plans have been drawn up which require, among other things, that contractors advertise jobs in such ways that the information will reach minority groups, that contractors actively seek out minority group workmen on military bases, in vocational schools, and in training or outreach programs, and that they work actively to solicit bids from minority group subcontractors.

The requirements in these communities have been enforced at pre-award conferences. After the low bid has been accepted, a conference is held at which the successful bidder explains how he will comply with Civil Rights requirements to an OFCC officer. There are often complicated negotiations at this stage. Projects have been deferred and awards not made if the negotiations had been unsuccessful. This system has important ramifications on the competitive bid system. Low bidders are almost always given a second chance to determine whether or not they want a contract at the bid price, since by failing to satisfy the OFCC officer they may be released from their obligation. Also the system leads the contractor to guess what the OFCC officer will accept. Projects have been delayed in several cities, notably Cleveland and Philadelphia.

The tripartite administration of equal employment legislation has resulted in uneven enforcement, and on occasion the use of arbitrary quotas. Merely placing black or brown faces on one or two construction sites does not guarantee equal employment opportunities, even for the particular individuals affected.

Federal agencies should develop a uniform set of performance standards by which the industry—labor and management—could be judged. Such

standards should refer to the total pattern of employment opportunities and procedures in a locality rather than to the number of minority group members employed on any single job as the basis for determining whether minority groups are being encouraged and given equal employment opportunities in the construction industry. In other words, a contractor or union cannot place a few Negroes on one job and practice discrimination throughout the rest of the city.

Standards for Judging Compliance

The items listed below should be the basis for judging civil rights compliance within the industry. The appropriate enforcement agency should review each of these items in a total analysis of minority employment practices in the locality. The absence of any single element—except a showing of racial discrimination in admission to a union—may not necessarily result in a finding of noncompliance. All elements would be reviewed to determine the local pattern.

1. Admission Policy.

Are all qualified persons admitted to union membership without regard to race, creed, color, or national origin? Specifically:

Are interested and qualified applicants admitted to apprenticeship programs without regard to race, creed, or color?

Are experienced mechanics who can demonstrate a level of skills equal to the admission requirements admitted to full union membership without regard to race, creed, or color?

Are pre-apprentice and advanced training experiences given weight in judging admission to apprentice programs and as journeymen?

Are the size of apprenticeship classes and the number of new journeymen such as to represent only token compliance, or do they truly reflect the need for skilled mechanics?

Are apprentice and journeyman admission policies being reviewed and revised to conform to the foregoing principles?

2. Recruiting Policy

Have "outreach" programs designed to encourage minority group participation in the building and construction trades been developed and encouraged? Specifically:

Are there opportunities for upgrading members within the existing work force?

Are there efforts to attract, prepare, and admit qualified nonunion mechanics; minority group contractors and subcontractors?

Are there efforts to attract, prepare, and admit qualified members of minority groups for apprenticeship programs?

Are there effective procedures to notify minority group members and others of general employment opportunities and pre-apprentice and apprentice programs?

3. Training

Have training programs been designed to provide training and counseling for minority group members? Specifically:

Are there MDTA or other local programs to train area residents for construction and building trades?

Are the locals participating or cooperating to place Job Corps graduates trained for construction and building trades?

Are there industry training programs designed to qualify partially trained mechanics for full journeyman status?

Are there efforts to coordinate training programs with those of Governmental agencies and local community groups in creating minority employment opportunities?

D. Leadership Within the Industry

The leadership in providing equal employment opportunities in construction and homebuilding, as elsewhere, must come from within the industry itself. What is required is an effort to assess the total situation within a community, according to the guidelines noted above, rather than merely an insistence upon an arbitrary quota on particular projects. Basically, all enforcement agencies should attempt to determine whether all qualified applicants for construction and homebuilding employment are treated equally without regard to race, creed, color, or national origin, and whether, in each community, there are sufficient opportunities created for the presently unskilled to obtain the necessary training so that they can compete equally in the job market.

This industry has been the object of attacks—at times well founded—but a new spirit is beginning to make itself felt, partially as a response to new social concerns and partially to comply with laws and regulations. The recent policy statement of the Building Trades Unions, setting forth guidelines for the employment of residents of the area in Model Cities programs, is a distinct step forward.

Manpower projections indicate that a demand for a little more than one million more man years (almost two million men using the standard of 1.8 men for one man year) will be created if the Com-

mittee's recommended housing program is implemented and if other construction increases at the projected rate. At most another three-fourths of a million jobs will be made available due to deaths, or retirement of members of the current work force. Construction and homebuilding can obviously not be, in any sense, an employment of last resort for minority members. There are not enough jobs considering normal growth of the work force and the size of the employed work force. However, a new spirit of equal employment opportunities can guarantee a just share of the economic benefits inherent in a large housing program to minority groups who have been discriminated against in the past in this industry. With this new spirit, and with new training programs, an adequate number of workmen can be assured to meet the nation's housing needs.

What should these training programs be?

E. Apprentices and Others: Entry Into Homebuilding

The accepted model of training for construction and homebuilding is the apprenticeship system. There are national standards for apprenticeship programs established by the Bureau of Apprenticeship and Training in consultation with the international unions. Apprenticeship programs, however, are coordinated by local joint labor-management committees which decide admission standards, wages and working conditions, instructional programs, and the like. Typically, entrants into apprenticeship programs must be between the ages of 19 and 25, although individual local rules may vary at both ends of the spectrum. To be considered, candidates must generally have between 9 and 12 or more years of education depending on the trade.

Usually the union will undertake to assure that all apprentices work at least a certain number of hours during a week. The maximum number of apprentices permitted on any job is usually determined by reference to a ratio with journeymen employed on a craft-by-craft and project-by-project basis.

While the apprenticeship program provides a level which will assure employment at most skill levels, thereby improving employment prospects, many commentators have expressed concern over various alleged aspects of apprenticeship programs ranging from discriminatory practices and overly restrictive admission policies to irrelevant and unnecessarily time-consuming instruction. Given the increased demand which will be created by the new housing programs and the growth of the economy, the apprenticeship training programs need re-examination to improve the level and speed of training.

But completed apprenticeships do not provide, as is commonly supposed, the bulk of journeymen. The 1964 report, "Formal Occupational Training of Adult Workers," of the Department of Labor, indicates that of current construction journeymen surveyed, only 39.4 percent had learned their trades in apprenticeship programs, and only 11 percent found that these programs were applicable to their trades. This survey dealt with all apprenticeship programs. If the focus is restricted to completed programs, only the plumbers and pipefitters can boast of even 20 percent of journeymen entering through that route, and the average is well under 10 percent, according to the Labor Department's Bureau of Apprenticeships and Training. This bureau reports that a greater proportion of more recent journeymen are apprenticeship trained, but still this mode of entry is not predominant in any single craft. Nor is it likely to be over the next decade.

Many journeymen are not trained in these apprenticeship programs; many apprentices do not go on to be journeymen; many construction jobs do not require the degree of skill an apprentice learns. In the study *Employment Policy and the Labor Market,* George Strauss observed that

> * * * The construction and metal trades industries have room for a large number of men who are less skilled than apprenticeship programs turn out * * * Many jobs do not require journeymen with the complete, all-around training which a good apprenticeship program presumably provides.

Strauss goes on to describe the two groups in the construction workforce:

> Most building trades firms maintain a core of highly skilled men who are offered relatively full time employment; when demand is good these men are supplemented by partly trained men who will work under the key men's direction. The key men are needed to provide supervision and perform the difficult parts of the job; particularly on large projects there is usually enough routine work to keep the unskilled men busy * * *

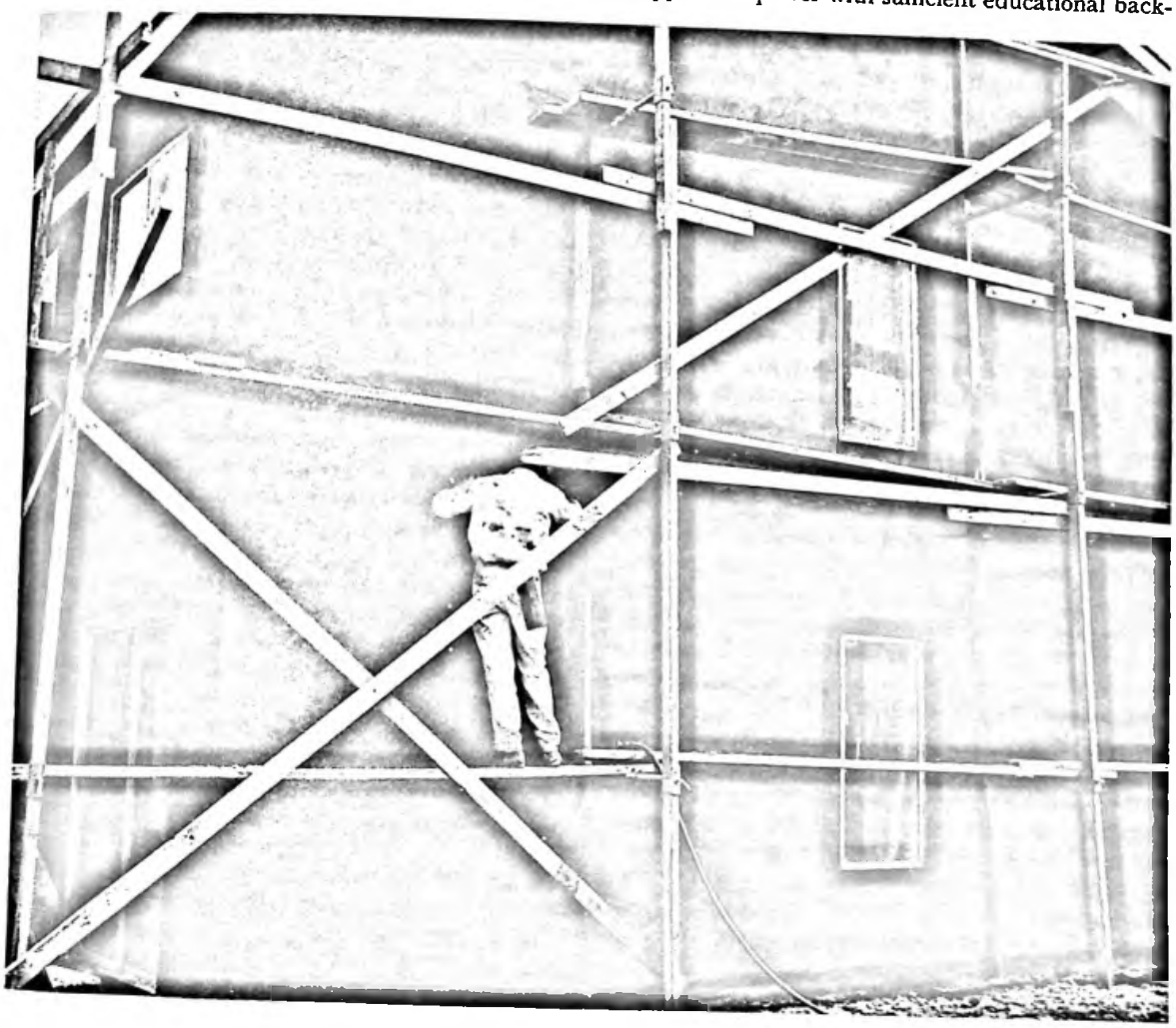
A primary function of the apprenticeship programs, says Strauss, is to train the core of really skilled men who provide guidance to others. A Federal study of apprentices who completed their programs in 1950 found that, by 1956, 19 percent

were working as supervisors and another 8 percent as contractors. A California study was even more striking: of apprentices who completed programs in 1950, more than 30 percent were foremen or supervisors, and another 13 percent contractors by 1955.

The important question, then, is how are the other journeymen, who perform the more routinized tasks, trained?

In the Manpower Administration study mentioned above, nearly 60 percent of journeymen stated that they had learned their trades through informal on-the-job training arrangements. Perhaps the most common arrangement is for a young man to go through a part of a formal program—the beginning year or year and a half of apprenticeship, a military construction training program, or a vocational or adult educational program—and to learn at least the rudiments of the trade and then to enter into some kind of informal on-the-job training. He may work for a nonunion shop builder or contractor or, in peak construction markets, he may even receive a temporary union permit. After a suitable period of this informal training, he may have learned the trade well enough to become a key man for a builder, or perhaps he may be taken into a construction union as a full-fledged journeyman. This system is largely invisible and almost totally unaccounted for in current data, but it serves the purpose of maintaining flexibility in a highly changeable industry.

Although this dual system (apprenticeship for key men and more informal arrangements for others) has worked well enough in the past, it will need to be re-examined. The existence of a large pool of untapped manpower with sufficient educational back-



ground for construction can no longer be taken for granted. As noted previously, the nation has approached conditions of full employment—and a program is proposed that will require an added million man-years. New training programs, like those discussed below, will be required; some will provide on-the-job training; some will provide entry into apprenticeships; some will direct entry into unions.

F. The Role of Vocational Education

An improved system of vocational education is also needed.

Approximately seven million persons are enrolled in vocational education courses. Of these only about 93,000 are in the so-called Special Needs program, designed especially for disadvantaged youngsters. It is estimated that another 80,000 disadvantaged young people are in the general vocational programs. Thus, the disadvantaged comprise perhaps only one-fortieth of the total national student body in vocational education.

But most vocational students are not studying much that is relevant to housing or building trades in general. One-third of the vocational educational funds are spent on home economics programs; one million of the seven million students are learning traditional agricultural skills at a time when the United States is undergoing a revolution in the patterns of farming. This situation must be changed.

The Federal Government has been spending slightly more than $260 million a year for vocational education; states and local governments spend a large additional amount. The Federal contribution in this area, however, is much smaller than the multi-billion dollar amounts spent for other aspects of the nation's education.

There is some question about the effectiveness of the course of study even for those being trained. One 1963 graduate of a New York City vocational education school had the following experience. He was his class laureate and was given the plumbing award after four years of vocational training. Yet, when he took the apprenticeship test for the local plumbers' union, he failed. He had a score of 5 out of a possible 100 in mental alertness, 7 out of a possible 100 in mechanical reasoning, and 5 out of a possible 100 in numerical ability. Thus, the best student of one vocational school had been prepared only to rank in the lowest 5 percent of all high school graduates in that year. This is not an isolated case.

Because such programs have the potential to help to train skilled mechanics, we believe that the amount of Federal funds being devoted to vocational education in the construction trades should be increased. But the increased funds should be accompanied by curriculum reforms.

Instruction in homebuilding manpower must constantly be revised by well-trained people. In general, the provisions report of the Federal Advisory Council on Vocational Education which recommends a substantial increase in the annual appropriation in this area should be supported.

G. Federal Training Programs

Federal manpower training programs have attempted to substitute relevant work experience for the skills which should have been learned in traditional education programs. They are intended to prepare young men who do not have the requisite skills to enter upon useful careers in construction and homebuilding.

The primary Federal program in this area is the Manpower Development and Training Program. Its principle focus is skill training, both to meet national manpower shortages and to train the presently unskilled and unemployed and underemployed. It is estimated that there will be 280,000 trainee openings at a cost of $347 million in fiscal year 1968. Some portion of this money will be devoted to the JOBS program (Jobs in the Business Sector), which, in cooperation with the National Alliance of Businessmen, provides payments for supportive services to industries that agree to employ and train the presently unemployed or underemployed. The Job Corps will include skilled training among a whole range of other services for 39,000 enrollees at a cost of $315 million.

The Bureau of Work Programs of the Department of Labor offers opportunities for acquiring skills through work-experience programs. Approximately 483,000 youngsters will be enrolled in in-school, out-of-school, and summer projects at a cost of $308.5 million. There are other work-experience programs funded at a total of $350 million serving approximately 150,000 adults, including about 50,000 persons on welfare. However, these work experience programs are not generally used to provide skill training but, rather, to deal with negative attitudes which prevent employability. Presumably, graduates of these programs might be in a position to enter more formal construction and homebuilding skill programs.

Very small portions of the funds appropriated for the programs noted above have been devoted to skill training in construction. Probably the total is just over $11 million, although precise figures are

very difficult to obtain. The following table indicates that as of August 1966, of 431,000 persons in institutional training programs, and 99,400 in the on-the-job program, only 9,900 (just over 2 percent) and 4,800 (close to 5 percent), respectively, were being trained in construction-related occupations.

The priorities for manpower programs reflected in the above table must be significantly altered if an adequate supply of workmen is to be assured to meet our nation's housing needs. The table also shows that even of those persons who had been trained for construction occupations, over two-thirds were trained in institutional or classroom settings. Traditional methods of construction training have involved on-the-job type training. Publically-supported construction training efforts should be as closely related as possible to private efforts in this industry which have proved effective and should, therefore, strongly emphasize on-the-job training.

H. Some Model Training Programs

There have been, however, some projects to provide construction training which might serve as models for vastly increased efforts in this direction. Some of the most successful have been the so-called outreach programs, most notably the Joint Apprenticeship Program in New York City run by the Workers Defense League. These programs have provided remedial education, counseling, interim employment and other services for young men who, although they possess the formal qualifications to enter apprenticeship programs, might not pass written or oral examinations. The New York program has helped some 400 or 500 young men to enter apprenticeship programs.

Throughout the nation, other such programs have been coordinated by the local affiliates of the Urban League, by joint apprenticeship committees, and by the Building Trades Councils in various cities. At present, 2,000 young men have been placed or are in training in 43 cities.

The national total is encouraging in that it proves that minority group youngsters can be recruited and trained to enter apprenticeship programs in almost every area of the country. These programs require formal education. There are also some "outreach" programs that attempt to reach young dropouts and a few others designed for older men, victims of previous racial discrimination, now too old for apprenticeship programs.

In some cases the programs that have attempted to reach youngsters with inadequate formal education have combined remedial education leading to high school equivalency certificates with work experience and some construction skill training. One such program is the Urban Conservation Project (formerly known as PEPSY) in Cincinnati and the recently announced project BUILD being run by the Washington, D.C., Central Labor Council. In these projects unemployed youth, under the super-

TABLE 4-27. Labor Department Sponsored Training Programs in Construction Industry, as of August 1966
(Cumulative from August 1962 through August 1966)

	Institutional		On the job		
	U.S.	Percent of Negroes	U.S.	Percent of Negroes	Total Negroes trained
Total of all programs of all occupations	431,100	32	99,100	17	154,818
Construction:					
1. Asbestos and insulation	200	12	(1)	(2)	24
2. Bricklayers	1,700	40	200	23	726
3. Brick apprentices	600	55	500	37	515
4. Carpenters	2,400	26	200	13	650
5. Carpenter apprentices	600	36	400	10	256
6. Electricians	600	17	(1)	(2)	102
7. Floor covering	100	14	(1)	(2)	14
8. Operating engineers	200	6	2,500	3	87
9. Painters	200	37	(1)	(2)	74
10. Plumbers	300	32	(1)	(2)	96
11. Pipe fitters	1,700	13	800	14	333
12. Sheet metal	1,300	15	200	16	227
Total construction, number	9,900	26 (2,588)	4,800	10 (516)	21 (3,104)

[1] Under the Manpower and Development Training Programs, the two segments of training covers (a) Institutional setting, apprentices being trained mainly through the classroom methods (b) On the job training where learning of skilled trades is done primarily on the job.
[2] Too small to be indicated.

Source: Department of Labor, unpublished data.

vision of trained journeymen, perform such rehabilitation work on individual houses financed with Federal rehabilitation loans and grants. A similar approach was tried in Bedford-Stuyvesant with the support of the New York City Building Trades Council. Under these programs union members have been actively involved in the supervision of ghetto youth and have received work thereby that would not otherwise have been done. The Cincinnati project has not only provided very worthwhile training, but it has also performed substantial rehabilitation work at low cost. It is the expectation of both the Cincinnati and the Washington, D.C. projects, to some extent confirmed by the Bedford-Stuyvesant experience, that many trainees will demonstrate an aptitude for construction work and will be accepted into the various unions.

Another very interesting program is Project JUSTICE in Buffalo, New York. It is unique in that trainees, although unqualified, will be paid union scale with all fringe benefits and will work side by side with union men. Potential journeyman-trainees will receive 27 paid hours of orientation training and 54 hours of paid specific craft training, capped by 20 weeks of on-the-job training (at about 40 hours a week) at the regular pay rate for journeymen in that craft. If at the end of the cycle the journeyman-trainee passes an examination, he will be admitted to the craft as a full-fledged journeyman, and only then would he be expected to join the relevant union.

These pre-apprenticeship training programs should be greatly expanded. At present, just over $11 million a year is spent on them. It is impossible to determine the most appropriate dollar figure, but a goal between $75 and $100 million should be set for the next fiscal year.

With the multiplicity of legislative requirements, programs, neighborhood groups, and other factors to deal with, local communities may not be able to assure sufficient manpower and training opportunities while meeting local housing needs. Therefore, there should be established in each community a local advisory committee with the specific responsibility of coordinating all training activities. These committees should be composed of representatives of labor and management as well as those of public agencies, civil rights and community agenices. They would coordinate all Federally supported manpower training programs and be tied in closely with Model Cities programs where they have been funded. Specific construction and homebuilding training programs would be run directly under appropriate joint labor-management auspices, as indicated in the Building Trades Department's recent Model Cities Policy Statement, or by other industry groups.

The programs we have described above have not yet affected many persons. They point the way, however, to significant inroads into the problem of assuring adequate manpower. It is hoped that public education will play an increasing role in preparing those who wish to enter into the construction and homebuilding industries. Until that time, the creation of significantly expanded special training opportunities will be necessary if housing commitments are to be met. If these programs are funded adequately and implemented effectively, enough workers can be provided to fill national housing goals.

I. Manpower Training Programs and the Davis-Bacon Act

The needed training programs may require some adaptation of the Davis-Bacon Act—an Act that provides that all laborers and mechanics employed in certain Federally assisted construction projects should be paid wages at rates no less than those prevailing on similar construction in the locality, as determined by the Secretary of Labor. With the exception of the new 235 program it is applicable to all subsidized housing programs.

The previous recommendations assume that trainees will be given on-the-job training on Federal housing and rehabilitation construction. Since the trainee's classification is a new job classification, it is not generally provided for in the Davis-Bacon wage rate scheduled. At present, the only trainee rates on file cover some of the crafts in Syracuse. If the training programs recommended are to be meaningful, the trainee rate must be recognized.

The Labor Department's position is that no trainee rate at or above the federal minimum wage rate will be objected to if it has been agreed to by local and management negotiators. Because such negotiations exist only where the industry is organized, the Labor Department's approach could stall training programs in areas where housing construction is unorganized. It is recommended that the trainee classification be recognized as part of approved training programs designed to prepare workmen for regular industry employment. The trainee's rate could be used as a means of reducing wage scales by hiring laborers or other workmen at the trainee rate; to protect against that, and because trainee programs are intended to lead to journeyman status, no trainee classification should be recognized unless training programs approved by the Department of

Labor are also provided. There should also be assurance that the trainee will be given continual employment opportunities and other protections normally afforded by training programs that have been negotiated by management and the unions.

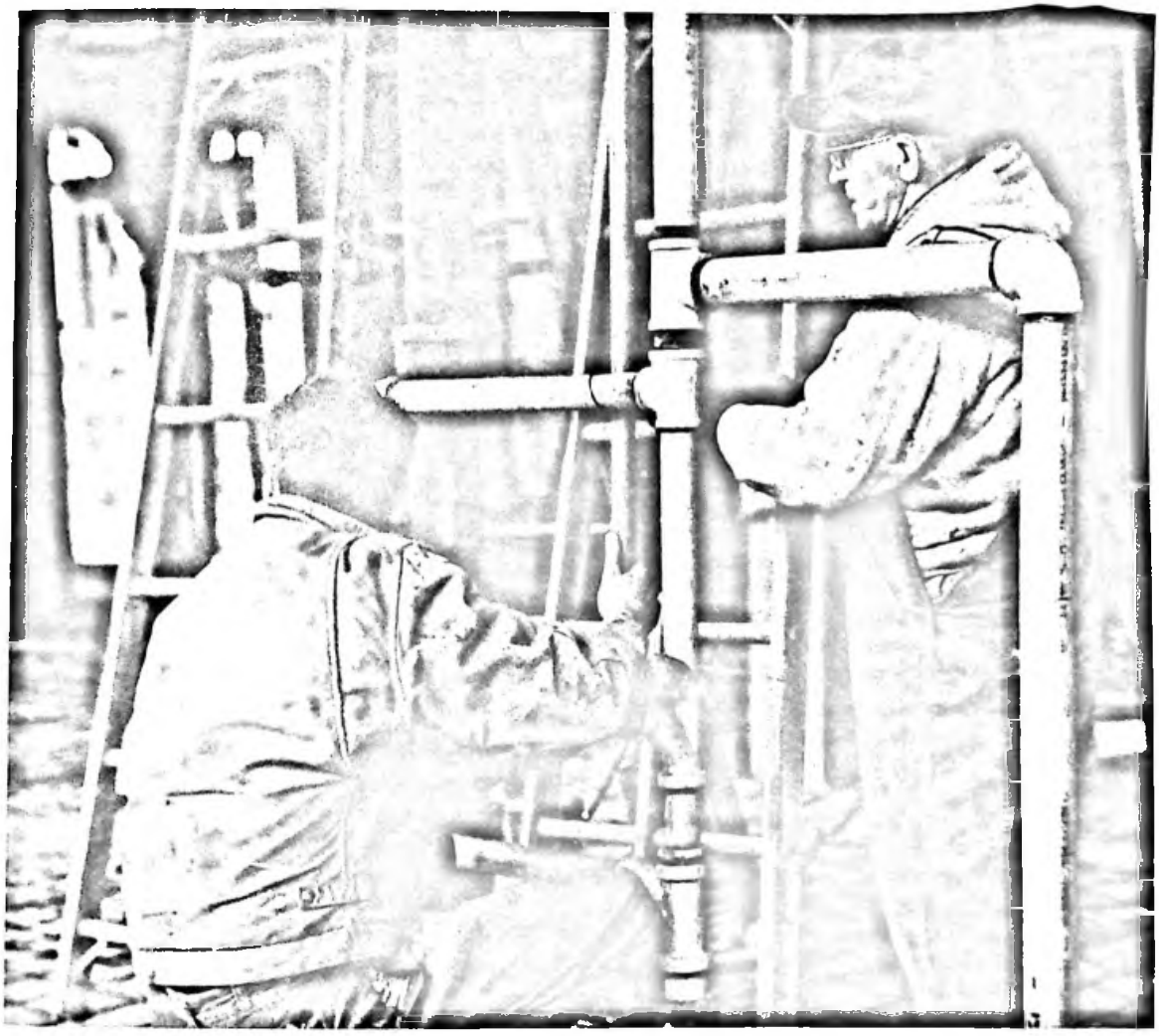
IV. Making Better Use of the Work Force on the Job

Providing manpower to build and rehabilitate the nation's slums will require new workmen; it will also require a more effective use of the present workforce.

A. Working in the Winter

Reference has been made to the anachronistic pattern of variation by seasons in construction and homebuilding. These traditional seasonal fluctuations waste more man hours than any other feature of this industry. Workers are much in demand in one month, idle another, and valuable equipment also stands idle. Summer work may require premium payments, and in many cases off-site workers suffer some slow-downs in building activities. It has been estimated, for example, that for every man-hour on-site another is required off-site in one or another of the building supply industries.

Accurate information is not available concerning costs which might be incurred in winter building, for protective clothing or other devices and new procedures. Various winter projects have reported costs from 1 to 4 percent higher than comparable projects built in summer. One conclusion *is* clear: it is possible to build in the winter.



The reasons that building is not done in the winter have more to do with consumer preferences and psychological attitudes than they do with cold weather and snow. Indeed, there is some evidence that seasonality patterns are almost as pronounced in Southern California as they are in more wintry climates. There are also some specific impediments to reduced seasonality. Very often building codes prohibit various operations during the winter months. Many codes were either written, or based upon those that were written, 50 years ago or more. Rather than prescribing the ways in which particular operations might be performed during the winter, they reflected technologies which did not know how to do them at all.

In his book *Reducing Seasonal Unemployment in the Construction Industry,* Mr. Jan Wittrock discusses modern procedures for various operations performed during the winter in Western European countries; in most areas the United States is far behind.

This is one area in which local codes might be pre-empted according to well-known and well-accepted performance standards. Communities might also revise their own codes to allow for the most efficient seasonal use of men, materials, and capital investment.

Other impediments to winter building are found in labor agreements. For example, there is a fairly typical rule that contractors must pay some additional amount per hour to employees who fail to receive a minimum number of hours of work during a week in the winter months. Another provision is called the "show-up time" rule, requiring the contractor to pay his men for a minimum of hours once they have reported to work. The purpose of both of these rules is to prevent contractors from calling a work force to the job without putting it to work. Their effect can be to cause contractors to suspend operations for a day or even a week if weather conditions appear doubtful. The objective of both of these and of similar rules is clearly sound; they need to be re-examined, however, because they result very often in opposite behavior from what was intended.

Another, and perhaps more surprising cause of pronounced seasonality is Federal contracting. The Federal Government accounts for approximately one-third of all construction. Rather than attempting to overcome the impact of seasonality in construction, the Federal Government has concentrated approximately three-fourths of its contract awards in the summer months. To some extent, this is a function of the appropriations cycle. However, there is an outstanding Executive Order which requires that all building that can be done in the winter be performed at that time. An office to coordinate a Federal winter building program should be established in the Department of Commerce. All Federal agencies which let large numbers of contracts (approximately five agencies account for three-fourths of all Federal construction) should be asked to submit plans to this office in order to assure that the Federal Government program will help spread construction activities throughout the year. The office should also serve as a clearing housing for information about winter building techniques both for the public and private sectors. It should be noted that over the past 10 or 15 years, Federal contract awards have become more, and not less, seasonal in nature. This trend must be reversed.

It may be more difficult to deal with private building activities. Lengthening the average number of hours worked annually will require dealing with the attitudes and practices of literally thousands of contractors and builders. But a start can be made. Wittrock details many of the ways in which winter building is achieved in Western European countries. These range from strong encouragement to various forms of subsidy, some form of which should be tried in this country.

B. Work Practices

Popular opinion often holds that inflexible, archaic, and restrictive work practices and union work rules makes construction manpower inefficient and costly. The excessively strict division of labor by craft is one common complaint; alleged labor resistance to the introduction of new cost-saving technology is another. Some of these "restrictions" no doubt are real and of some importance, but they do not represent as large a part of the cost of housing as is sometimes alleged. Indeed, all on-site labor costs represent such a small percentage of monthly rents that a general reduction of 20 percent for all workmen would mean only a reduction in rent from $100 a month to $98 in a typical unit. And many of them may not be as reactionary as critics contend. What may be a restrictive work practice from one point of view is a vital safety rule from another.

Our consultants, Burns and Mittelbach, referring to the studies in this field, conclude that on the whole there are fewer indefensibly restrictive work practices than is often alleged.

But insofar as they do exist they represent another area in which the cost of housing can be reduced, if

only slightly. The most important restrictive rules from this point-of-view are those directed against the introduction of cost saving technology. Burns and Mittelbach speculate that although labor resistance to new techniques and new machinery is much overestimated (most effective new devices in fact do come to be used) that the anticipation of union resistance may forestall the development of new techniques and machines in construction. For some localities, a greater flexibility on the part of the crafts and liberality on the part of management in the legislation of these issues would be desirable.

Several factors make this field less important than often thought. As we have said, the larger part of homebuilding is not done with union labor. Also, the rapid growth of the operating engineers union (the heavy equipment operators) suggests that there is a widespread introduction of new machinery. The latent possibility of competition among the several crafts, or of laborers taking over the work of a skilled craftsman, operates as a restraint against egregious abuses.

To say that this is less of a problem than is commonly thought is not to dismiss it altogether. A vast new homebuilding program will require real efforts to overcome ancient craft restrictions. Flexibility in the new rehabilitation agreement we referred to above represents the attitude that is needed.

Greater flexibility and lessened reliance on old rules on a national basis can only come about if we can create general conditions of job security in the industry. There is evidence that restrictive agreements are more widely enforced in times of rising unemployment and general job insecurity. Even during peak summer periods, workers' resistance to new technology may be based upon fears of the impending long cold winter. Where it is a problem, our efforts should be directed toward increasing the general sense of job security. Recommendations dealing with rounding off the boom or bust cycle of homebuilding as well as lengthening the work year should also help ease the fears which give rise to restrictive work practices. If workmen have the prospect of fairly steady employment throughout the year, and from year to year, it may well be possible to create the needed flexible work force.

C. Managing the Work Force More Efficiently on the Job

Studies of industrial efficiency largely began in the construction industry. However, attention has shifted in the last few decades to other industries. As a result, only the very largest operations have taken part in some of the more recent revolutions in management efficiency. The PERT and CPM systems have demonstrated their effectiveness in construction projects, yet they have not been generally introduced into homebuilding. Perhaps the entry of large corporations into this industry, as well as the increase in research, will stimulate their more widespread adoption.

Construction workmen spend much time waiting either for materials or instructions. In some projects, it is thought that merely introducing more workmen without adequate space for them to work efficiently and without taking pains to increase supervisory personnel will result in a greater output. This often results in inefficiency and waste of craftsmen. There is a great deal of work to be done in this area both in improving management skills and in enhancing the flexibility of the work force so that productivity in construction and homebuilding can be improved.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Part Ten

Obtaining Building Materials

According to the McGraw-Hill study prepared for the Committee (printed in the volume of Technical Studies), the cost of materials makes up slightly more than half of total construction costs for both single-family detached units and apartment buildings. Materials constitute roughly one-third of total project costs, including land and other non-construction expenses. Because the cost of building materials has an important effect on the cost of housing, the efficiency of the industries that manufacture and distribute building materials warrants attention. In addition, we should examine the building materials industry's capacity to expand its production to meet new demand generated by a national housing goal of 2.6 million units a year.

I. Building Materials Manufacturers

Although housing construction requires inputs from most major industrial groups, four are particularly significant. The lumber and wood products industry is by far the most important single supplier to the residential construction industry. The stone and clay products industry; the heating, plumbing and structural metal products industry; and the primary iron and steel manufacturing industry are the next three in importance. The manufacturers of building products, such as saw mills, often depend heavily on other firms, like loggers, to supply them with raw materials.

Although there are several giant corporations which are primarily concerned with building materials—for example, Johns-Manville, U.S. Gypsum, and Weyerhauser—no single company comes close to dominating overall production. Concentration of production in most product lines is less pronounced than in many major American industries. The degree of concentration varies substantially from product to product; production of some products, like window glass, is especially concentrated. The easy substitutability of building materials adds significantly to the sharpness of competition. Wood siding competes with aluminum. If the price of steel rises, more concrete will be used. This fact helps keep manufacturers on their toes.

The lumber and wood products industry, the most important supplier, is the least concentrated of all major manufacturing industries in the United States. The Census

of Manufacturers indicates that sawmills and planning mills shipped $3.2 billion of lumber in 1963. The four largest companies accounted for about 10 percent of these shipments. The average mill employed only 17 workers. Production of veneer and plywood is somewhat more concentrated, with the four largest companies accounting for somewhat less than a quarter of total production. The average plant producing veneer or plywood has about 100 employees.

Table 4–28 indicates the fraction of total shipments of selected major building materials attributable in the years 1954 and 1963 to the four largest producers. Manufacture of most materials is more heavily concentrated than the production of lumber and wood products. There appears to be no overall trend toward greater concentration.

TABLE 4–28. The Value of Shipments of Selected Major Building Materials Accounted for by Four Largest Companies: 1954 and 1963. [In percent]

Product	Share of top 4 companies, 1954	Share of top 4 companies, 1963
Dressed lumber	10	13
Paints, varnishes, etc	27	24
Brick and structural tile	13	12
Vitreous and semi-vitreous plumbing fixtures	65	56
Concrete brick and block	3	5
Gypsum products	89	82
Asbestos products	51	54
Cast iron soil pipe, and fittings	*39	62
Hand saws, saw blades, and saw accessories	44	40
Builders' hardware	24	26
Metal plumbing fixtures	52	46
Steel nails and spikes	*41	33
Household refrigerators	62	76
Lighting fixtures	18	15

*Figures are for 1958, not 1954.

Source: Bureau of the Census.

The Appendix of the McGraw-Hill study demonstrates that wholesale prices of building materials have not been increasing rapidly. The Department of Commerce overall index has been rising by 1½ percent per year since 1950 for a total rise of 27 percent. Prices of structural clay products, such as bricks, are up sharply, but the price of plywood has actually declined since 1950. Considered as a group, the prices of building materials have increased no faster than prices generally in the economy.

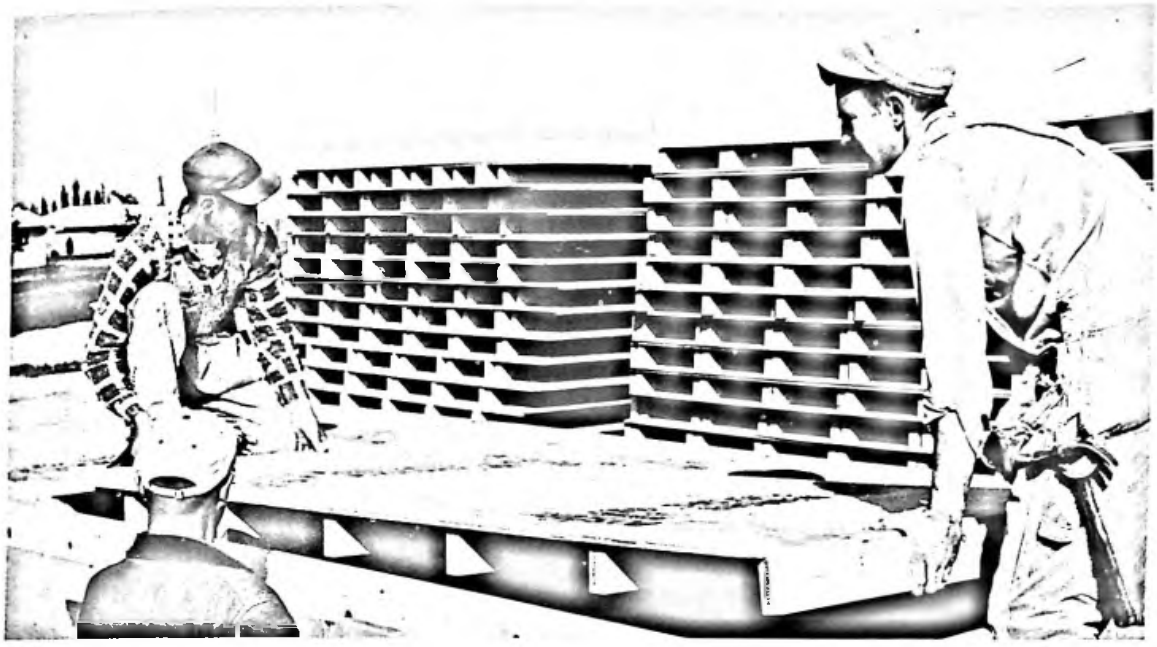
II. Innovations in Building Materials and Components

Manufacturers of building materials are among the major sources of technological change in the housing industry. Just a few centuries ago, bricks were made and timber dressed on the construction sites. Today, for most housing units, including those built with the most conventional methods, the cost of purchased materials and components prepared off-site makes up a majority of the structure's direct costs. The industrialization of housing production has been occurring for many years, beginning with small elements, and advancing in evolutionary stages to ever larger and more sophisticated components.

Much industrialization which has occurred in an evolutionary manner in the housing industry has resulted from innovations in the manufacture of building materials. Change has occurred at a moderately steady and rapid pace. The fact that most houses of today look like those built several decades or several centuries ago, is apparently not due so much to the technological limitations of the industry as to consumer tastes. Most consumers apparently accept interior walls made of plastics or other synthetic materials only if these plastics look and feel like wood paneling or brick. The changes in construction materials have actually been rather dramatic in the last few decades, but these changes have deliberately been disguised because of the market demand for traditional appearance.

Innovation has come about from a variety of sources. The lumber and wood products industry, for example, has been responsible for introduction of plywood and numerous reconstituted wood products, such as particle board and hardboard. The gypsum industry has developed sheets of gypsum board which are much easier to apply than wet plaster. The chemical industry has made great strides in paint and floor coverings, and has developed polyvinyl chloride pipes for plumbing, and polyethylene sheeting, an enormously versatile material. Stronger and lighter concretes have been devised and new methods such as pre-stressing and post-tensioning introduced. Insulating glass and other innovations have made possible curtain wall construction and greater prefabrication. Insulating and accoustical materials have been enormously improved. New uses have been found for ferrous products and aluminum. Such innovations as electric heating, self-storing storm windows and screens, and single lever faucets have been introduced in the last few decades. The spectacular increase in the quality and variety of household appliances is familiar to everyone.

Substantial cost savings have been made possible through these improvements in materials. Mr. Ralph Johnson of the NAHB Research In-



stitute, in his paper printed in the Technical Studies estimated that the following cost reductions have been made in several specific jobs: exterior paint—one-third saving; interior walls and ceilings of gypsum board, instead of wet plaster—more than one-third saving; use of polyethelene as a vapor barrier—50 percent saving.

There has also been a pronounced trend in the post-war years toward more off-site assembly and finishing of some of housing's more complex sub-assemblies. In wood construction, notable examples include the rising popularity of pre-assembled roof trusses, pre-hung doors and windows, prefabricated stair assemblies and kitchen cabinets. According to Johnson, use of these new components alone may result in savings of close to $300 over conventional methods for a typical house. NAHB figures indicate that about half the larger builders use pre-assembled roof trusses and pre-hung doors. Perhaps one-eighth make use of pre-assembled exterior or interior wall wall sections. Manufacture of these wooden components is often carried out by lumber yards or other material suppliers, or by the builder himself, either on- or off-site. To illustrate the rapid increase in use of pre-assembled wood components, census data indicate that the value of the shipment of such parts increased from $3 million in 1958 to $43 million in 1963. A plant to fabricate such assemblies as roof trusses, pre-hung doors, exterior wall panels and interior partitions may require a capital investment of no more than $10,000 in equipment. The lumberyards and builders likely to fabricate such components are usually small in size; according to estimates by the Home Manufacturers Association some five-sixths of them have fewer than 50 employees.

In high-rise construction, off-site preparation of major components and sub-assemblies is probably more advanced than in low-rise construction. Prefabricated stairs, integrated ceiling systems, curtain walls, and interior partitions systems have come into increasing use in the last few decades.

Recently there has been interest in the pre-assembly of entire "core units" containing much of the expensive mechanical equipment which goes into housing. Familiar examples are the kitchen-bathroom combination in the "instant rehabilitation" experiment in Manhattan, and a one-piece bathroom in Habitat in Montreal. There is as yet little consensus on the fruitfulness of this approach. Some observers fear that any production economies achieved may be lost in the high cost of transportation and handling of "space." Several major plumbing equipment manufacturers, however, are working on wholly prefabricated bathrooms, and a number have begun production. These units are pre-plumbed, pre-wired, and contain molded-in plumbing fixtures. Some manufacturers have broken down these packages into several major components which nest together for easy shipment and handling.

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The manufacture of major components and subassemblies is likely to become increasingly important in the housing industry in the next few years with the result that the manufacturer's share of the construction dollar is, if anything, likely to increase. Different combinations of these products can fit together to make up the entire structure. This then is an "open" system of construction. The designer has a wide variety of choices, and thus a flexibility he usually desires. "Closed" systems of construction which allow for few variations apparently have a more limited appeal.

III. Building Materials Distributors

The Census of Business for 1963 indicates that some 80,000 establishments were engaged in retail selling of building materials. Although large housing producers often buy directly from manufacturers, smaller builders and contractors rely heavily on retail distributors to perform inventory and delivery functions for them. As Table 4–29 indicates, lumberyards dominate the retail trade of building materials.

TABLE 4–29. Sales of Lumber-Building Materials by Type of Distributors, 1963

Type of establishment	Number selling building materials	Building materials sales ($ millions)	Percent of total sales
Lumberyards	17,600	$4,850	55
Building materials dealers	8,100	1,510	17
Paint, glass, and wallpaper stores	8,900	780	9
General merchandise stores	9,400	630	7
Hardware stores	18,300	380	4
Heating and plumbing equipment dealers	3,200	310	3
All other retail industries	15,700	490	5
Total	81,200	8,940	100

Source: *Construction Review.*

Retail trade in building materials has become somewhat more concentrated; the number of lumberyards and building material dealers has declined slightly in recent years. Average annual sales for lumberyards and building materials dealers rose from $204,000 in 1958 to $242,000 in 1963. In 1963, 58 percent of the lumberyards were incorporated, and this percentage is increasing. Surprisingly few materials distributors are part of retail chains. In 1963, for example, 73 percent of the lumberyards and 97 percent of the heating and plumbing equipment dealers were single-unit establishments. The larger outlets, however, are more likely to be owned

by multi-unit firms. Most of these retailers are small, The average number of employees per lumberyard or building material dealership dropped from seven in 1954 to six in 1963, partly in response to rising labor productivity.

Small housing producers depend heavily on these distributors to warehouse a wide variety of materials at all times, and to operate a reliable and precise delivery system. In ideal cases, a builder can have almost any material he needs delivered to his building site on rather short notice. The retail outlets may also provide builders with other services, such as cutting or otherwise preparing the materials for delivery, and may even assist in installation. They may service warrantied items or serve as a credit supplier. Distributors are also enormously important in channeling information about products between manufacturers and builders. A manufacturer trying to market a new material or tool must persuade these retail establishments to stock them.

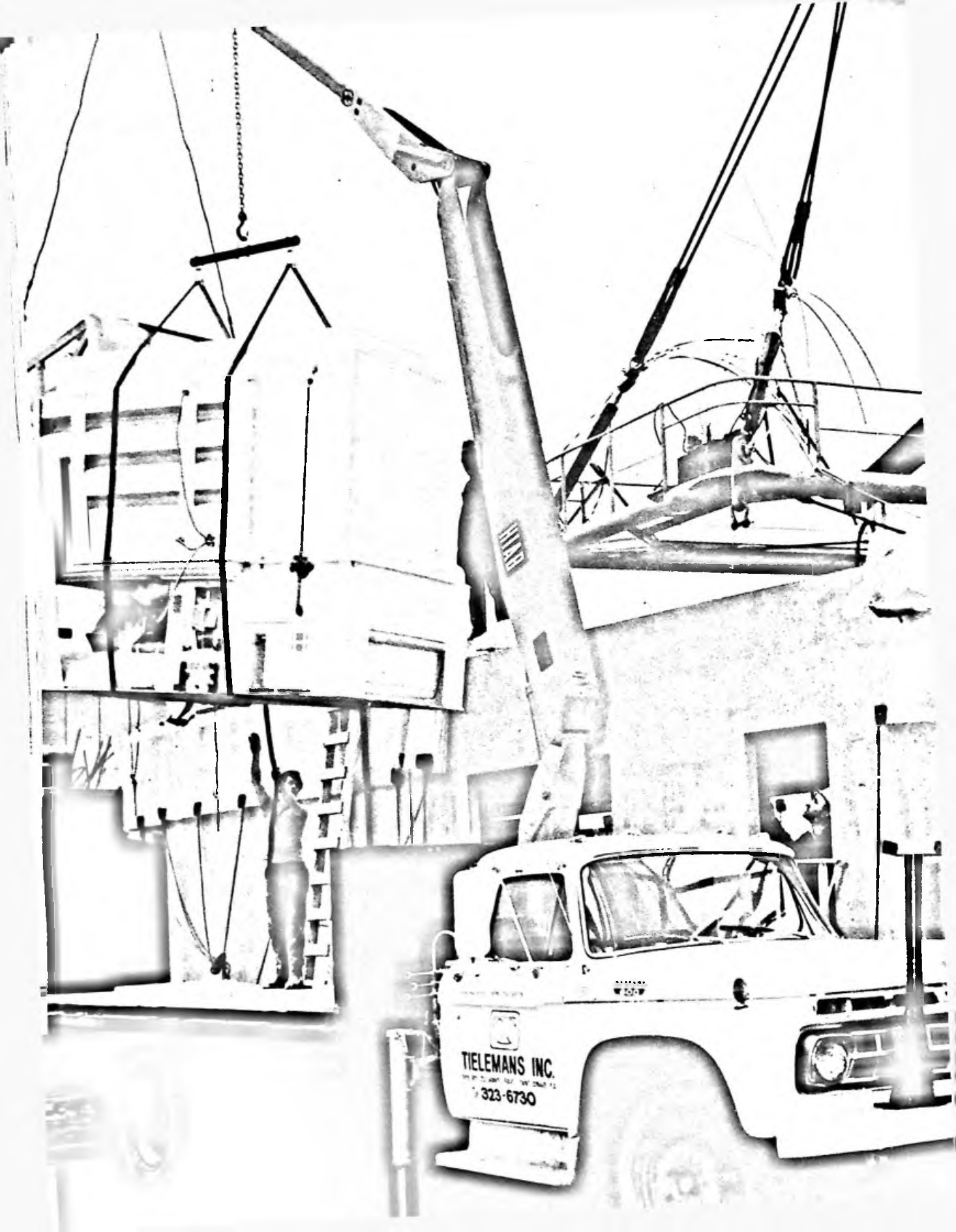
Specialization of distributors corresponds by and large to specialization in construction. The principal specialty subcontractors tend to have their own specialized suppliers. For example, the Producers' Council 1962 survey of large builders found that 94 percent of these builders subcontracted their plumbing operations, and that they supplied their subcontractors with plumbing materials in less than 10 percent of these cases. Similarly, 79 percent of painting jobs were subcontracted, and in only 13 percent of these cases were the subcontractors supplied with paint by the builder. In light of these facts, it is not surprising that much plumbing equipment and paint continues to be supplied by specialty distributors who tailor their services to the needs of subcontractors. Table 4–29 indicates that these narrow retail outlets continue to survive by the thousands, even though the general purpose dealers, like the lumberyards, are likely to sell the same products.

Home manufacturers, mobile home producers, and larger builders and contractors are more likely to "eliminate the middleman" by buying building materials directly from manufacturers. This practice is not without its costs, because the housing producer must then do his own warehousing, sorting, and delivery. According to the Producers' Council survey, a majority of builders starting over 100 units per year in 1960 had their own distribution yards. In many cases, these yards were set up primarily to carry out cutting or fabricating operations, not because builders were anxious to perform sorting and storage operations for themselves. The percentage of larger builders operating distribution yards appears to be fairly stable. Smaller builders, on the other hand, apparently have not found them profitable as they show a clear trend toward discontinuing operations of their own distribution yards.

There are faint signs that somewhat more vertical integration between building materials suppliers and the builders themselves is taking place. Data prepared by the Federal Trade Commission show that from 1962 through the first quarter of 1967, 47 nonconstruction companies acquired 52 construction companies. During the same period, 24 construction companies acquired 35 nonconstruction companies and an additional 10 construction companies. These mergers might involve, for example, a home builder purchasing a saw-mill, or *vice versa*. At present it is impossible to determine whether there is a firm trend in this direction.

IV. Building Materials Capacity

The housing production targets for the next decade which have been advocated by the President and supported by this Committee are not likely to be defeated by an absolute shortage of building materials or their raw materials. A big jump in housing production would put some upward pressure on the prices of these materials. However, a steadily growing private market for building materials will help stimulate manufacturers to build up their productive capacity. Two historical examples illustrate the flexibility of the process of supplying building materials. The cement industry expanded rapidly in the late 1950's and early 1960's to accommodate the jump in demand brought about by the Interstate Highway program. Similarly, the Korean conflict created severe shortages in steel and copper (and ultimately brought about their rationing), but the substitution of one product for another nevertheless made possible a high level of construction activity during that period. Although there will be strains reflected through higher prices, the construction materials industry should be able to meet the increased demand through both innovation and increased productive capacity.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Part Eleven

Supporting Research and New Technology

The present structure of the housing industry reflects its adaptations to prevailing constraints and demands. This structure is not immutable. As constraints are removed and as patterns of demands change, the industry can, and should, find new ways to organize itself more efficiently. When new goals are set for any industry, technological and other types of innovation often provide tools to adjust the industry's capabilities to the new demands placed upon it. For example, new components, new production methods, or new financing techniques can be developed to help the housing industry serve the low-income market.

Much progress can result from the industry's own initiative and from its assumption of added responsibilities for improving the American living environment. The restrictive factors which now constrain the industry have inhibited firms in it from reexamining their opportunities with a view to restructuring their activities with the aid of high-powered technical manpower. Government must lend needed support to promote research and development activity and to remove constraints on more rapid technological advance.

Although analogies to other industries are always potentially dangerous, the pattern of technological growth in agriculture seems to offer some lessons for the housing industry. Agriculture, like housing, is dominated by specialized producers widely scattered throughout the country. It also is an industry where individual producers are rarely able ot carry out their own research and development work. The Federal Government began providing research support as early as the 1830's (including operation of an experimental farm), and has been significantly involved in agricultural research since the passage of the Morrill Act in 1862. Although it is still dominated by relatively small firms (compared to manufacturing), agriculture has long been noted for its rapid rate of technological advance, and is often pictured as one of the United States' outstanding industries. Productivity per farm worker has soared.

In contrast, Government has not provided needed research support to the housing industry. In 1966, research and development expenditures by HUD constituted less than 1

percent of R&D expenditures by the Department of Agriculture. Yet Government support of housing R&D promises to have enormously high payoffs. At the minimum, such support would serve as an "insurance premium" to assure that Government gets maximum results from the dollars it spends on housing programs. Government support of housing research and development is long overdue.

Definitions of "Research" and "Development" as Related to Housing

This report views the housing industry as including not only the housing producers who assemble the finished units, but also all firms who share in the housing dollar. For this reason a broad view is taken of the potential scope of housing research and development activity. Any activity which has as its purpose or effect the advancement of knowledge in the housing field or the development of new methods or products for developing, transferring, and operating housing is included in our definition.

Research produces the ideas and knowledge which are translated into processes or products through development activity. Research projects may involve investigations which do not have specific commercial or policy objectives but which are designed solely to bring about the advancement of knowledge. A survey to find out who owns the slums would be an example of this kind of fundamental research. Or research may be mission-oriented; for example, it may be aimed specifically toward the discovery of new products and processes which have commercial application. An original investigation into the possible use of a condominium heating plant for single home clusters would be an example of this later type of research.

The distinction between research and development is not sharp. Development involves non-routine technical activity to translate research findings or other general scientific knowledge into products or processes. In the case of fabricated products ("hardware"), development activity might include design, construction, and testing of prototypes and models. The translation of the idea for a condominium heating system into an actual field experiment would be an example of development activity. Its purposes are to obtain experience and to compile engineering and other data to be used in evaluating hypotheses, to establish finished product specifications, and to design the production system for the new product. New methods or processes not specifically related to fabricated products also require development activity. For example, the proposed use of computers in the marketing and transfer of houses would require carefully designed and monitored pilot tests. Other innovations in the "software" of housing—new methods of financing, land ownership, or scheduling of construction projects—might also involve carefully conducted development activities.

I. Research and Development in the Housing Industry Today

The housing industry today is not a high-technology industry. This is not necessarily because most housing producers are small in size and housing units are assembled on their sites and not in factories. These conditions are not inherently inconsistent with high technology. The problems with the housing industry have already been alluded to: it is subject to many external constraints; it tends to be tradition-bound in atmosphere; it undertakes little R&D and then mainly in the area of product development; and it has failed to attract its proportionate share of the nation's engineering and managerial talent.

A. Patterns of Technical Change in the Housing Industry

Although the housing industry cannot be characterized as a high-technology industry, some changes have occurred. Housing units are no more built today as our grandfathers built them than wheat is grown today as our grandfathers grew it. Changes resulted from many sources. Since 1945, the housing industry has been transformed from an essentially handicraft industry into one in which the larger producers—home manufacturers, mobile home producers, and builders and contractors starting over one hundred units per year—account for approximately one-half of all housing starts. These larger housing producers were only beginning to appear in significant numbers two decades ago. (Although comparatively large for this industry, they are of course still tiny when compared to the largest industrial firms.) The size of individual developments started by builders has increased significantly in this period. A few builders have begun to use critical path scheduling and time-and-motion studies to improve their efficiency. Innovations in building materials have been plentiful. Development of power tools, such as electric drills and saws, have freed craftsmen from many tedious tasks. New transportation and materials-handling equipment has been another major source of change. For example, invention of the concrete truck mixer in the 1930's and the introduction into the United States of the tower crane in the late 1950's and early

1960's have revolutionized concrete pouring operations. As a result of all these innovations, labor productivity in construction, by best estimates, has been growing since World War II at a rate somewhat over 2 percent a year.

However, the changes have resulted from the accumulation of many small increments. There has been no radical change of great technical and economic significance associated with a single invention or family of inventions. Rather there has been a gradual wave of change generally leading toward greater industrialization of the building process. This greater industrialization finds its ultimate expression in the factory built house, typified in the United States by the mobile home.

B. How Much Housing Research and Development Activity Is There at Present?

Some sources indicate that there is almost no research and development in the housing industry. This is somewhat misleading. The industry is usually defined for statistical purposes to include only housing producers. Many innovations which have a significant effect on the construction practices are classified statistically as occurring in other industries. For example, the use of plastics in housing has been made possible by research reported as occurring in the chemical industry. Similarly, advances in kitchen appliances, elevators, or lighting systems, result from R&D in what statistical sources identify as the electrical industry. New construction techniques may be developed in the heads of architects and engineers, and thus are likely to be omitted from any statistical totals.

Even if allowance is made for these statistical understatements, however, the volume of research and development activity in housing is clearly inadequate at present. Inadequacy is most acute at the housing producers' level, the only part of the industry at which the entire housing process can be studied.

Existing research and development activity is strongest in the fields of building materials, tools, and mechanical equipment. These products are manufactured in industries populated by firms large enough to support specialized research and development staffs. One general building materials manufacturer has approximately 700 research employees working on new products, almost all in a single laboratory complex. The largest wood and wood products manufacturers have several hundred research employees. Manufacturers of paint, glass, gypsum products, floor-covering materials, steel, aluminum, and chemicals, to mention several conspicuous examples, also have impressive research operations. Unfortunately, particularly in view of the great needs of low-income persons, the focus of much of this research and development by building materials manufacturers is rather narrow.

R&D on parts of the housing system other than materials, and especially on the total system, or on large prefabricated components, is much less substantial. Few housing producers are large enough to attempt significant continuing research on such activities as land development or management of assembly operations. New ideas for building housing are not uncommon; one sees them in popular magazines rather frequently. However, most efforts at building experimental houses have been so scattered and haphazard that no solid data bank based on past experience has built up. There is virtually no research and development on such software activities as marketing, financing, and housing maintenance and operation. Indeed, cost reductions may be easier to achieve in some of these related nonconstruction areas than in the construction process itself. Most importantly, few firms in the housing industry take the comprehensive look at the entire system necessary to effect the most significant changes. Most of those with the best vantage point—for example, mobile home manufacturers, home builders, home manufacturers, and architects—are too small to have large permanent R&D staffs, lack a research tradition, and often find it difficult to protect their innovations with patents.

These observations are not intended to belittle the work of pioneers who have striven to increase the efficiency of their industry. Existing building research institutions have made important contributions, but none of them operate at a scale sufficient to have profound effects on the industry. The 1963 Building Science Directory published by the Building Research Institute listed 454 associations and societies, 284 private testing and research laboratories, and 119 colleges and universities then conducting building industry research. But even the most important institutions among these (such as the National Association of Homebuilders Research Foundation, and the Building Research Advisory Board of the National Research Council) have themselves forcefully argued the present inadequacy of private institutions to perform the required volume of housing R&D.

The amount of research which is not mission-oriented but which simply seeks to advance understanding of housing problems has also been insufficient. Universities, foundations, trade associations,

and Government have carried out most of the small amount of this kind of research. The fact that one of the principal sources of housing information is still the series of books financed by the Ford Foundation and published a decade ago by ACTION is indicative of the slow rate of growth of basic knowledge about housing. The recent surge of interest in analysis of urban problems is encouraging. A recent survey by the Joint Economic Committee identified some 80 "urban research study centers" at U.S. universities, and an additional 15 nonprofit institutes concerned with urban problems. But only a handful of these have yet made significant contributions in housing. Far too many universities and engineering schools have very few people on their staffs who are familiar with the problems of the housing industry or with the basic issues of housing policy, and they are not well equipped to train persons to be active in the field of housing R&D.

No one knows the current annual dollar volume of all kinds of housing R&D. The following estimate in a 1963 report to a special Presidential Panel on Civilian Technology may be as good as any:

> "At the outset of this discussion it would be well to recognize the immensity of the housing industry and thus the magnitude of research and development effort which might be required to provide a rate of technological growth and betterment comparable to that of the major growth industries which have provided such important stimulation to the nation's progress. These growth industries spend on an average roughly 1½ percent of sales income for R&D. On this basis the current housing industry should conceivably spend as much as 360 million dollars per year. Although data on expenditures for building research are not available (which is itself indicative of the status of research in the field), it is estimated that such an effort would represent a six-to-tenfold expansion of current expenditures."

The National Science Foundation (NSF), the main source of data on R&D activity, follows the Census Standard Industrial Classification system. This approach results in the scattering of firms in the housing industry among many different industries. NSF

data may, however, have some marginal usefulness. For example, they show that mission-oriented R&D expenditures in 1965 amounted to $91 million for stone, clay and glass products, and $70 million for construction mining and materials handling machinery. The bulk of this activity was probably concentrated on development of rather narrow products and processes only remotely related to housing.

C. How Many Housing Technologists Are Now Active?

Technically-trained professionals involved in housing research and development lack strong institutions through which to communicate among themselves to make their influence felt. The absence of such institutions is due partly to the fact that housing technologists have been few in number, and have come from a wide variety of backgrounds. Such professions as engineering, business, architecture, economics, sociology, physics, systems analysis, city planning, and law have made important contributions to the housing industry.

Yet an inadequate number of the graduates in these professions enter the housing industry. The basic reason is probably that there are few professional employment opportunities presently available. Few housing producers or real estate firms can afford to hire professionals or provide them with an attractive environment in which to work. In addition, Government is only beginning to provide the necessary supporting funds and institutions needed so that professionals in universities or research organizations may effectively devote themselves to housing problems. Until now, the lack of such institutions as a professional association (as distinguished from a trade association), technical periodicals, and other vehicles for communication and coordinated effort, have diminished the attractiveness of the housing industry to professionals who may have considered entering it. Lastly, as noted, the scarcity of housing technologists reflects the inadequacy of most existing educational institutions to train people for this work.

The number of professionals and technologists active in the housing field is not even large enough for the data sources to identify them as such. One source, the National Register of Scientific and Technical Personnel, found in its survey of close to 250,000 technical professionals in 1966 that only twelve said their area of special competence was "public housing," and eight of these worked for government. Those responding under "urban sociology" rose from 82 in 1964 to 117 in 1966, but those under "architectural engineering" dropped from 22 to 8 over the same period. These figures are too sketchy to be accorded much significance except perhaps to indicate that few of the nation's best brains are now working on housing problems. Even the architects and engineers who specialize in building construction are much more likely to be involved with skyscrapers, schools or factories than with housing, especially low- and moderate-cost housing. Sim Van der Ryn, writing in the *American Institute of Architects Journal,* has estimated that architects have been directly responsible for only 1 percent of single-family housing and only 6 percent of the dollar volume of multi-family housing.

II. A Vision of a High-Technology Housing Industry

Suppose for a moment that housing became a high-technology industry. A high-technology housing industry would be characterized by a continual probing for greater efficiency in the design, production, transfer, and operation of housing units. It would not necessarily, involve mass production of large numbers of identical units. Technology can be of assistance whatever the characteristics of the product. Great variety is possible even with assembly-line production methods, as the continuing diversification of automobiles and radios indicates. If highly individualized housing units continue to make up the bulk of U.S. housing production, advances in technology can help assure that these units are produced as efficiently as possible.

Nor would a high-technology housing industry necessarily be dominated by a few large producers: electronics isn't. If there are significant efficiencies of scale in housing R & D, but not in housing production, these functions can be separated. Specialized research firms can carry out the R & D activity, while housing producers of a variety of sizes continue to carry out production. Such a division of labor is feasible if there are adequate channels which permit producers to communicate their needs to researchers, and researchers to convey their findings to producers. If these channels for communication and feedback are difficult to establish, research and production functions would have to be integrated under one roof. In that case, larger producing firms might be expected to develop.

The fundamental characteristics of a high-technology housing industry are thus independent of the types of housing units it produces or the size of the firms involved in it. The change would be chiefly one of attitude, approach, and manpower involved. Prevailing constraints have made the housing industry somewhat tradition-bound and sluggish in

developing and adopting new approaches. In contrast, a high-technology industry might well have the following characteristics:

Characteristics of a High-Technology Industry

A Questioning Attitude

Rather than accepting traditional methods, firms in a high-technology housing industry would view prevailing practices with a questioning eye. Probing for development of more efficient techniques would be incessant. Few assumptions would escape challenge. There would also be a new risk-taking attitude. Promising areas for study would be pursued with the idea that even if only a few provide a great payoff, those few might well justify the entire effort.

A Broader Scope of Inquiry

Firms would look for opportunities throughout the entire housing process. Those responsible for initial construction and development would become more concerned with the durability, flexibility and subsequent operation and maintenance of housing units. Manufacturers of materials and sub-assemblies would become increasingly concerned with the cost of handling, storing, and installing these materials, and would seek to improve the interface connections between their assemblies and those of other manufacturers. Horizons would be raised across the board.

Scientific Approach

An innovation-oriented housing industry would make much greater use of analytical tools and methods of modern science. Firms in this industry have too often relied on intuition. A high-technology industry would be characterized by a more scientific approach which would involve more systematic, and quantitative, inquiry into the hard problems which face the industry. This change in approach would enable the industry to attract and hold top-quality scientific and technical manpower.

Aggressive Stance

A high-technology housing industry would be less passive than the present industry. It would attempt to encourage consumer acceptance of new materials, designs, and technology rather than blindly following consumer tastes in housing. Housing producers would be more aggressive in their bargaining for the introduction of more efficient systems and methods with building materials manufacturers, lending institutions, labor unions, and Government. The dwelling units produced in a high-technology industry might or might not be very similar to present ones. The organization of the industry might change little or much. The only certain development is that a thorough re-examination of the potential of technological innovation would transform the industry's mood.

Opportunities for progress through R&D exist from the initial stages of the design, construction and marketing process through to when the unit leaves the housing inventory after many decades of life. Figure 4–1 indicates some of the areas amenable to progress through R&D. Specific examples within these areas can be proposed.

R & D Opportunities in Housing

Land and land development

How can densities be increased without losing amenities? Can trees and shrubs be better preserved during the construction process? What savings are possible in the cost of land improvements? Can land-use controls, like zoning and subdivision regulations, be improved or better ones devised to meet human needs?

Utilities

The cost of installing and operating of the utility lines and equipment which provide housing units with water, heat, electricity and telephone service, and dispose of storm and sanitary sewage (not to mention trash and garbage) constitutes one of the largest components of overall housing costs. There is as yet too little sensitivity to the tradeoffs between initial costs and subsequent operating and maintenance costs of these utility systems. Interest in condominium utility systems for single-family homes is only beginning to develop. Appropriate methods for allocating the cost of new public utility systems between new residents and taxpayers at large are not yet agreed upon. Few careful cost analyses have been done on the effect of hop-scotch suburban development patterns, or lengthy frontage requirements, on utility costs. Do these patterns impose added social costs for education, police protection, transportation and other vital services?

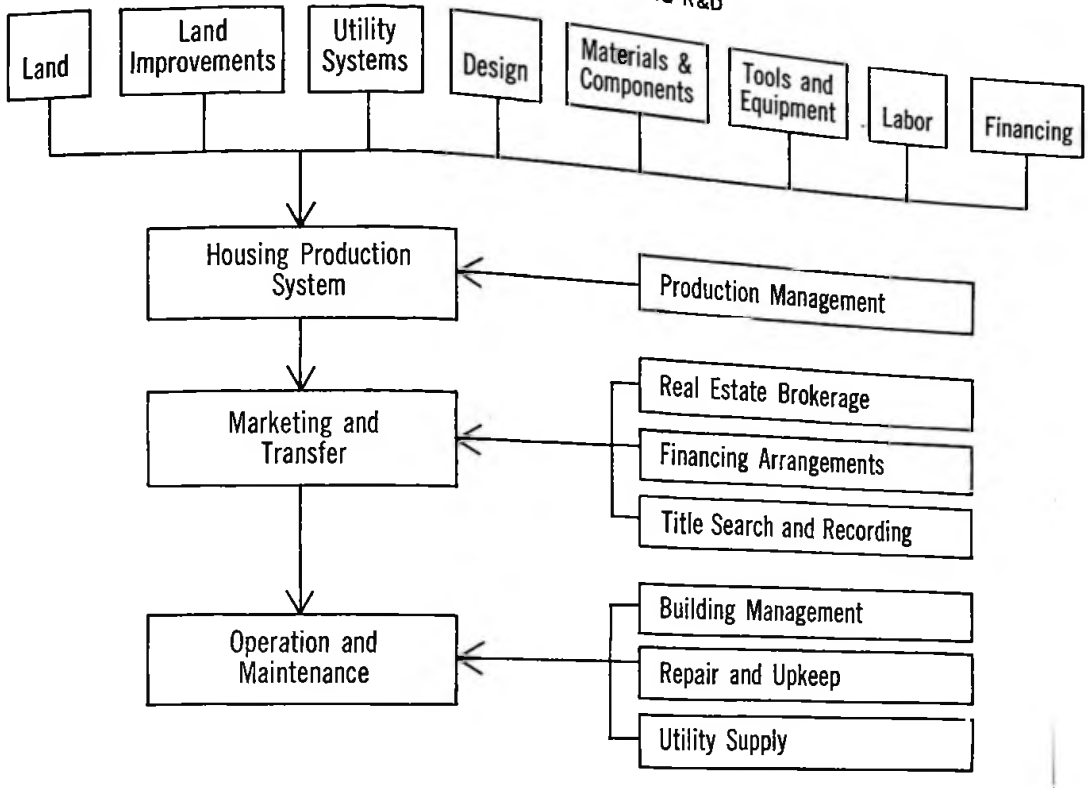
Building materials and components

This area provides one of the most obvious opportunities for progress through research. And, not surprisingly, this is where most research in the housing industry now occurs.

Construction labor

Time-and-motion studies might make possible more efficient use of craftsmen, or might point the

FIGURE 1. OPPORTUNITIES FOR PROGRESS THROUGH HOUSING R&D



way to decreasing the number of crafts employed. The efficacy of various methods of training skilled workmen should be studied. Technology has a vital role in eliminating seasonal constructions patterns to assure year-round use of skilled workers. Much progress can be made in smoothing patterns of supply and demand for construction labor. Housing components and systems might be designed to be utilized by low-skill workers, or even used in "sweat equity" programs.

Design

Use of computers to cost out design alternatives and land-use patterns is just beginning. Automation is coming to the preparation of working drawings; some architects are applying systems analysis to the construction process.

Tools and materials-handling and transportation equipment

Advances in this area have already had a profound effect on labor productivity. Important gains have been made in the past decades, and even greater ones can be expected.

Production management

The efficiency with which the housing produ carries out his operations is a rich topic for research. Large producers are beginning to use PERT or CPM techniques for scheduling operations and the supply of labor and materials. The cost effectiveness of different assembly techniques warrants much analysis. For example, in a wood frame structure, what variables effect the relative cost of (1) building sectionalized units off-site; (2) packaging the necessary building materials, and pre-assembling major sub-assemblies off-site; (3) pre-cutting all materials off-site; and (4) performing all cutting and assembly operations off-site? When should scraps of material be discarded? (An NAHB study found that many builders, seeking to minimize labor costs, actually added to total construction costs by discarding valuable scraps from sheets of plywood or gypsum board.) What degree of specialization in labor tasks is appropriate? What operations are most efficiently done by subcontractors, as opposed to the housing producer himself? How can more on-site assembly work be performed during the winter

months? Production management, a potential goldmine for research, is now conspicuously lacking.

Marketing and transfer of real estate.

Legal systems governing the transfer of real estate in this country are notably archaic as compared with serveral innovations in Australia, Canada and Western Europe. Use of modern data-processing equipment is only beginning to enter the real estate brokerage industry. Marketing research by housing producers as yet remains far too intuitive and haphazard.

Financing

Innovations in financing techniques for real estate have come slowly and painfully. Experiments with such practices as ballooning of the land cost until the end of the mortgage or flexible interest rates which vary with market rates, are rare. Lending practices are too often based on accepted folklore, not on hard fact. The effect of the trend toward liberalized mortgage terms on interest rates and housing costs is little understood.

Property maintenance

Maintenance operations are now carried out largely on a handicraft basis. To what extent can the product manufacturer or housing producer be involved in the maintenance of his product or structure after its initial sale? What incentives would persuade housing producers to take into account the ultimate maintenance and social costs of their structures? What changes in the design, and engineering of housing would enable occupants to carry out more repair and remodeling work on a do-it-yourself basis? How can cleaning systems be more completely automated?

Management of rental dwellings

Innovations in marketing might help to lower vacancy rates. New kinds of leasing arrangements might reduce the incidence of bad debts and cut the cost and time involved in eviction proceedings.

Generalized and Basic Research

More generalized research into the total context of housing production, which would attempt to identify the human needs which housing helps serve and to estimate the cost effectiveness of alternative means for fulfilling those needs, should go far to increase the industry's efficiency. Research on the total housing system is essential if we are to provide 26 million subsidized units in the next 10 years. What kind of user needs should be met in addition to mere units? Would the lowest cost housing satisfy pressing social needs? This systems analysis approach has a somewhat different applicability to a reasonably competitive industry like housing than it does to Government-managed industries like space or defense.

In competitive industries, strong economic forces already exist which tend to encourage efficient operation. In traditional economic models, competition forces producers to seek lower costs through innovation. But, housing is subject to so many external constraints that the model has not worked completely. A system-wide approach, backed by public support where appropriate, might involve the broader type of inquiry that is presently lacking.

In addition to such mission-oriented research, many investigations designed simply to advance the frontier of basic knowledge would be carried out in a high-technology housing industry. This kind of research creates a knowledge base sufficient to assure the industry's efficient operation and the development of sound public programs. Such investigations would delve into areas like the organization and operation of the housing industry and its subsectors; the impact of public and private institutional factors, such as city administration, building codes, and union restrictions; the effect of housing conditions on social performance; and experience under various Government housing programs.

Whether mission-oriented or not, research and development in a high-technology housing industry would be performed by many different competing organizations—individual business firms, joint ventures of several firms, trade associations, research institutes, universities, and others. Irrespective of the sponsoring organization, this research and development activity would involve a proportionate share of the nation's managerial, engineering, and intellectual talent.

III. Government Responsibilities Toward Research and Development

Government has an enormously important role in supporting national R&D activity. Its two broad objectives should be to create technical advances needed by Governmental agencies in performing specific functions (such as national defense) and to stimulate progress to benefit either a particular private sector or the economy as a whole.

The tradition of large-scale Federal support for research and development activities in areas of national importance is well established. According to estimates prepared by the National Science Foundation, of the $22.2 billion in R&D funds

expended throughout the United States in 1966, some $14 billion, or 63 percent, was provided by the Federal Government. Of the $15.4 billion of R&D actually performed by private industry in that year, 54 percent was Federally funded. About one-third of the Federal funds go to support research, and two-thirds to support development. In fiscal year 1966, some of the major Federal outlays for R&D were these:

TABLE 4-30. Federal Expenditures for R&D for Selected Agencies Fiscal Year 1966

Agency	Expenditures
Department of Defense	$6,700,000,000
National Aeronautics and Space Administration	5,300,000,000
Atomic Energy Commission	1,200,000,000
Department of Health, Education, and Welfare (mostly to the National Institutes of Health)	830,000,000
Department of Agriculture	230,000,000
Department of Transportation	160,000,000
Office of Economic Opportunity	50,000,000
Department of Labor	8,300,000
Department of Housing and Urban Development	*1,400,000

*NSF has estimated HUD's R&D expenditures for fiscal year 1967 and 1968 at $4.9 million and $12.1 million respectively. Only a fraction of these expenditures is directly related to housing; the remainder is devoted to the other areas with which HUD is concerned.

Source: National Science Foundation.

Many different programs can be used by Government to influence the rate, direction, and effectiveness of technological advances. The most obvious are grants or contracts for R&D. Other forms of assistance include technical information services; education and training programs; incentives for R&D (like the patent system); and policies to lessen constraints on private R&D activity.

Government R&D support has been deliberately channeled into specific mission-oriented industries in response to special national needs. Only a rather limited number of industries, as such, have been targets for Government stimulation and support. A recent study entitled *Technology, Economic Growth and Public Policy,* a RAND Corporation and Brookings Institution Study, proposed three criteria for selecting new industries for such suport:

1. "The industry must have both a low level of R&D activity and a low rate of technical progress."
2. "The industry must have institutional barriers that are deterring R&D by private firms."
3. "The industry should be one where the value of more rapid technical progress is high."

The housing industry easily meets all three criteria. In fact, the authors of the RAND-Brookings study selected the housing industry as their prime example of an industry deserving Government R&D support.

1. Low Level of R&D Activity

Even according to the most generous estimates, the current dollar volume of housing R&D is well below the needed levels. The inadequacy of current levels is most pronounced in the software and systems analysis areas which are widely thought to present the best opportunities for major technological advances. The housing industry has clearly failed to attract its proportionate share of top managerial and technical personnel.

2. Presence of Institutional Barriers

Responsibilities in the housing industry are fragmented among millions of specialized firms, the vast majority of which are unable to carry out any R&D at all. In particular, the firms in the industry which have a critical responsibility of supervising the final assembly of housing units—the housing producers—are usually modest in size at best. Thus they are rarely able to sponsor much R&D, or (as individual firms) to play a leadership role in the industry.

In addition to these problems of industrial structure, the housing industry is shackled by numerous artificial constraints against innovation imposed by

public bodies at all levels and by participants in the housing process. Building codes, restrictive labor practices, or the reluctance of lenders to provide mortgage funds for non-traditional dwellings are frequently mentioned examples. These constraints are discussed throughout this report and are treated in detail in the consultant study by Professors Burns and Mittelbach. The prevalence of these public and private constraints, or, more accurately, *the widespread belief in* their prevalence and intransigence, has discouraged firms in the housing industry from trying to be pioneers. Pessimism about prospects for change pervades the industry.

A third institutional barrier is the existence of a "market imperfection" which usually prevents housing innovators from keeping for themselves the full benefits which flow from their own successful innovations. These firms bear added costs in developing and introducing new approaches. These costs are likely to be especially high in the housing industry where there are so many constraints to be overcome or accommodated. To be willing to innovate, firms generally must see prospects for added profits through retention of exclusive rights to the use of their inventions. Yet the patent system, which is generally designed to provide such incentive, applies poorly to the housing industry. New financing, landplanning, or production management techniques, for example, cannot be protected. Thus, the innovator bears all the costs of developing the innovation and gaining consumer acceptance and public approval for it, only to find that his competitors can almost immediately share in the benefits.

3. *High Value of Rapid Technical Progress*

The housing industry easily meets this last criteria for Government R&D support. Americans spend over $100 billion a year for housing and household operations. The annual value of residential construction is roughly $25 billion a year. Thus, even marginal reductions in the cost of housing can save the economy billions of dollars in resources each year. In the long term, introduction of innovation into all parts of the housing industry might result in very substantial savings, particularly in the cost of subsidizing housing for the poor.

By lowering the amount of subsidies needed, such advances could accelerate the rate at which housing conditions in urban ghettos could be relieved. Technology has an important role in contributing to efforts to make urban areas more attractive and helping to provide employment opportunities for members of minority groups. Few research areas promise so many direct and indirect social benefits.

IV. Government's Role in Housing R&D

Table 4–30 indicates how little Government assistance has been provided to housing R&D, even when compared to other domestic problem areas. Federal support has been sporadic over the last several decades and has never exceeded the token level, with the single exception of the ill-starred Lustron experiment. A technical division in the FHA carried on some housing R&D prior to World War II. The Housing Acts of 1948 and 1949 authorized an ambitious housing research program. Annual appropriations for that program were as follows:

Fiscal year	Appropriation
1948	$62, 440
1949	332, 000
1950	2, 050, 168
1951	1, 403, 961
1953	533, 312
1954	124, 741

The difficulty in obtaining appropriations for housing R&D has been persistent. The Housing Act of 1956 contained an additional $2,500,000 authorization for housing research. Whereas that amount was authorized for the years 1957, 1958 and 1959; it was not until 1967 that appropriations reached that total. The FHA did begin a modest technical studies program limited to $500,000 per year. One small advance was the Low-Income Housing Demonstration program begun in 1961, under which some $7 million has been committed to developing or testing new or improved means of providing housing for low-income families. HUD has also received a few carefully earmarked appropriations to support R&D on urban planning problems and to fund studies in urban renewal areas.

The first significant hopeful sign, if only a bare beginning, came in 1967. Congress granted HUD a $10 million appropriation for general purpose R&D, 20 times the amount provided the year before. Although HUD understandably must devote some of its general purpose R&D funds to other urban problems such as community development, local government administration, and public facilities, a substantial fraction of these funds can be spent on housing. Expenditure of HUD's R&D funds is now overseen by the Office of Urban Technology and Research, whose recent establishment within HUD is an encouraging sign in itself. The Housing Act of 1968 authorized appointment of an Assistant Secretary to oversee HUD activities in research and technology. We hope that HUD's housing research efforts, too long spread among several agencies, will be coordinated by this one office.

Some R&D on housing problems is supported by agencies for the Federal Government other than HUD, perhaps in part because of past Congressional reluctance to provide its housing agencies with R&D funds. The Department of Defense is now encouraging the development of innovative construction systems through its purchases of military family housing. In addition, the Army Corps of Engineers plans to devote some $2,000,000 a year to a construction research laboratory at the University of Illinois. Data on the housing industry and on the condition of the housing stock have historically been collected by the Department of Commerce, which is also generally responsible for preparation of standards for the Federal Government. The Department of Health, Education and Welfare has financed most of the significant studies of the effects of housing conditions on the health and social performance of its occupants. The Bureau of Labor Statistics in the Department of Labor has done a modest amount of research over the years on housing costs, and on productivity trends in housing. Other R&D on housing problems has been financed by the Department of Agriculture, the Office of Economic Opportunity, the Advisory Commission on Intergovernmental Relations, and other agencies. Despite this lengthy list of Federal agencies which have played a part in housing R&D in the past, the sum of their efforts has been insignificant in comparison to the needs. A few states, such as California and New York, have extended some support to housing-oriented research. But all government efforts put together have not yet been sufficient to establish a sound base for a systematic and growing body of knowledge on housing problems.

The Committee strongly recommends a major step-up in Government stimulation and support of housing R&D.

V. Recommendations on Research and Technology

Given the pressing need for Government help in promoting housing R&D, and given the token level of present support, strong measures are warranted. The following pages propose a marked jump in Federal funding and recommend how to put that money to work.

A. Increase, Over a Three-Year Period, the Annual Level of Federal Appropriations for Housing R&D to $100 Million

The present level in appropriations to HUD for R&D, although recently expanded, is still grossly inadequate. HUD needs at least $100 million a year to support housing R&D alone. It is recommended that appropriations for housing R&D be gradually increased to that level over the next three years. Examination of Table 4–30 will reveal that such a level of support is reasonable when compared to support now provided in other areas of comparable national importance.

The annual level of funding should ideally be determined by a formula based on part of the amount of private R&D on housing. Because no one knows the amount of such private activity, a flat dollar figure is proposed instead. This figure will obviously be subject to adjustment with changing conditions. After several years, when institutions geared to housing R&D have developed more fully, additional funding may well be a wise public investment. In arriving at an annual level of $100 million, the assumption is made that no major capital facilities will be directly financed by Government, but will be privately financed in response to new market opportunities flowing from an accelerated rate of technological change.

B. Program Recommendations

These funds should be spent in three basic ways: (1) on contracts for R&D in subject areas where private activity is now inadequate; (2) to study and remove constraints to technological advance; and (3) to create new institutions needed by a high-technology housing industry. Funds should be allocated through the normal channels—to business firms, trade associations, research institutions, universities, and others. In the long run, it is hoped that most housing R&D will be privately initiated and supported. Government's role is to act only as a researcher-of-last-resort.

1. *Contracts With Private Organizations for R&D on Housing Problems*

Both to bring forces of competition into play and to gain the contributions of outside experts in their areas of specific knowledge, the Government agency distributing funds should seldom perform R&D projects with its own personnel. HUD's existing practice is to rely primarily on research by private organizations. We urge continuance of this practice.

HUD should contract for research and development work on any aspect of the housing system where private activity is now insufficient and in which the probability is high of either technological advance or of additions to basic knowledge about housing problems. Projects might involve fundamental research, development of research ideas for application, prototype development and introduc-

measures to reduce the inhibiting effects of building codes are possible. The Advisory Commission on Intergovernmental Relations has proposed that states enact model codes for voluntary adoption, without amendment, by localities. Some states have already done this; for example, 52 of the 62 cities in New York State (but not New York City) have adopted that state's model code since its introduction in 1952. States can also authorize local governments to incorporate model building codes by reference so that updating of codes by model code groups is immediately put into effect in communities. States can also enact mandatory codes which pre-empt all local regulations.

b. The question of a uniform national building code. The Committee believes that uniform national building and mechanical codes authorized by Federal legislation and drafted within the Department of Commerce (in consultation with the Department of HUD and other appropriate agencies), for publication in the *Federal Register,* are technically feasible. Such codes could allow for varying quality levels above some minimum standards based on strict considerations of safety, health, and other fundamental social concerns. Regional variations in structural strength, insect and weather protection, and other requirements could be handled by use of simple maps. The Federal Government would appear to have the power of promulgate such a code under the commerce clause of the Constitution.

There is less than total enthusiasm, however, for uniform national codes. More diversity and potential for innovation are possible when there is more than one center of authority. We would much prefer to see code reform proceed at state and local levels, and by model code groups. It is hoped that these groups will not abdicate their responsibilities so that total Federal pre-emption of their functions then becomes necessary.

3. *Creation of a Building Standards and Testing Institute*

A strong national institution is required to provide leadership in the development of standards and coordination for testing of products and systems. Existing institutions concerned with these matters, such as the United States of America Standards Institute (USASI), the American Society for Testing and Materials (ASTM) and the National Bureau of Standards of the Department of Commerce, do not have sufficient authority to perform this role.

No recommendation is made as to precisely how a Building Standards and Testing Institute should be created and how it should relate to these existing organizations, or whether any of them should be reconstituted into the new Institute. The Institute should be quasi-public in structure, as it would need binding Governmental authority in some of its activities. On the other hand, it should have close ties to industry, and sufficient flexibility to take advantage of private organizations now active in testing and preparation of standards. The Institute might be organized as a corporation chartered by Congress with its powers set out in its statutory charter. The President could appoint the Board of Directors, some of whom would be drawn from private industry and from other testing and standards organizations. The Building Standards and Testing Institute need not have an especially large staff. Much of its work should be subcontracted to private testing laboratories, universities, and other groups with the required expertise and equipment in these areas. Instead of doing the testing and standards preparation itself, the Institute could provide a central focus for these activities and bestow upon them greater legal authority than they have at present. Much of the Institute's work, therefore, would be carried out in liaison, or through subcontracts, with USASI, ASTM, the National Bureau of Standards, or similar groups.

It is suggested that the Building Standards and Testing Institute undertake:

a. Promotion of voluntary industry coordination of the dimensions of building products and subsystems. Greater coordination of the dimensions of building products and subsystems would help immeasurably to further rationalize the production of housing. In a full-blown system of dimensional coordination, the dimensions of all building components, and of the buildings themselves, are reduced to multiples of one basic dimensional unit—the basic module. This module must obviously be small enough to provide flexibility in design, but large enough to promote simplification in the number of sizes of various components. In Europe, dimensional coordination based on a module of 10 centimeters has been widely promoted and is already widely used.

Partial dimensional coordination is not unknown in the United States at present. Most products in walls of wood-frame buildings, for instance, are designed to meet the standard 16-inch stud spacing. There is also considerable coordination in the sizes of such items as electrical and plumbing supplies and kitchen appliances. This area is nevertheless ripe for still greater progress. In particular, too little attention has been paid to the coordination of dimensions where subsystems meet—where windows meet walls, or masonry meets wood. Greater inter-

national dimensional coordination could help open foreign markets to American building materials manufacturers. The Building Standards and Testing Institute would be the appropriate body to spearhead these efforts.

b. Development of national standards, worthy of official international recognition, for measuring the quality of building products and construction system. The Institute could provide strong central leadership to standards-setting activity in U.S. construction. Congress should grant it the power, and supply the necessary funds, to support an activity level substantially greater than that characteristic of existing standards bodies. Performance standards, as opposed to specifications standards, should be used wherever possible. Existing standards institutions would either work in liaison with the Institute, or be reconstituted into it.

c. Drafting of more uniform Federal standards for construction. At present, Federal construction standards border on chaotic. Not only are different standards used for FHA housing, Public Housing, farm housing, and military housing, but there are no uniform Federal standards for nonresidential construction. Indeed, HUD-FHA standards may vary from one regional office to another. Because many materials, processes, and management methods used in nonresidential construction are applicable to housing, this diversity in standards has the effect of splintering into many tiny markets what might be one very large market (one-third of all construction) at which innovators could aim, such as in schools, college dormitories, office buildings, barracks, and elsewhere. The Building Standards and Testing Institute, working in liaison with the National Bureau of Standards, should undertake to draft substantially uniform performance standards for all Federally-financed construction and for applicability to all Federal housing programs. Recognizing the great complexity of such a task, it is believed that adequate exceptions can be made for special kinds of construction. In addition, even if the standards are relatively uniform, different specifications may still be drawn under them to meet Government's diverse needs fo different kinds and qualities of construction.

d. Central coordination of the testing of building products and subsystems. Few local inspectors have the training, equipment, or budget to test acceptability of products and subsystems under codes, particularly those using performance standards. Consequently, increased use of performance language in codes or in Federal housing standards will not be particularly helpful unless accompanied by adequate vehicles for testing the acceptability of products or subsystems under those codes. Many of the existing model and state code groups (as well as HUD/FHA) do measure and test products and assemblies at present, but their decisions on the acceptability of the tested item are not mandatory for communities which have adopted these codes. It is strongly recommended that the Building Standards and Testing Institute, acting principally through private testing associations and laboratories under contract with it, be authorized by Congress to be the ultimate arbiter of testing decisions. The finding of the Institute in judging the compliance of a product or system with a standard or set of standards would be binding upon local or state officials. The Institute need not have any power over standards; rather it could simply test a specific item against a range of existing standards and judge its acceptability under each.

An example might help illustrate how this system would work. A manufacturer of a unitized bathroom could submit it for testing to the Institute upon payment of a fee. The Institute would subcontract actual testing operations to a reliable laboratory. The laboratory might find, for example, that the bathroom was acceptable under Model Code X but unacceptbale under State Code Y. The laboratory might also find that the manufacturer's production and inspection facilities were reliable enough that subsequent on-site inspection would not be necessary. It would submit these findings to the Institute for review and approval. If approved by the Institute, the bathroom could be used with assurance in all the jurisdictions where Model Code X prevails; local inspectors could not insist on retesting it or on disassembling it for on-site inspection.

The establishment of a central authority over testing functions would help accelerate the rate at which new innovations would be introduced and provide new hope to innovative building materials manufacturers and systems designers. On the other hand, the proposed system does not abridge the rights of local and state governments to develop their own codes; rather, it brings uniformity and efficiencies of scale to the testing function.

4. Toward More Self-Policing in the Housing Industry

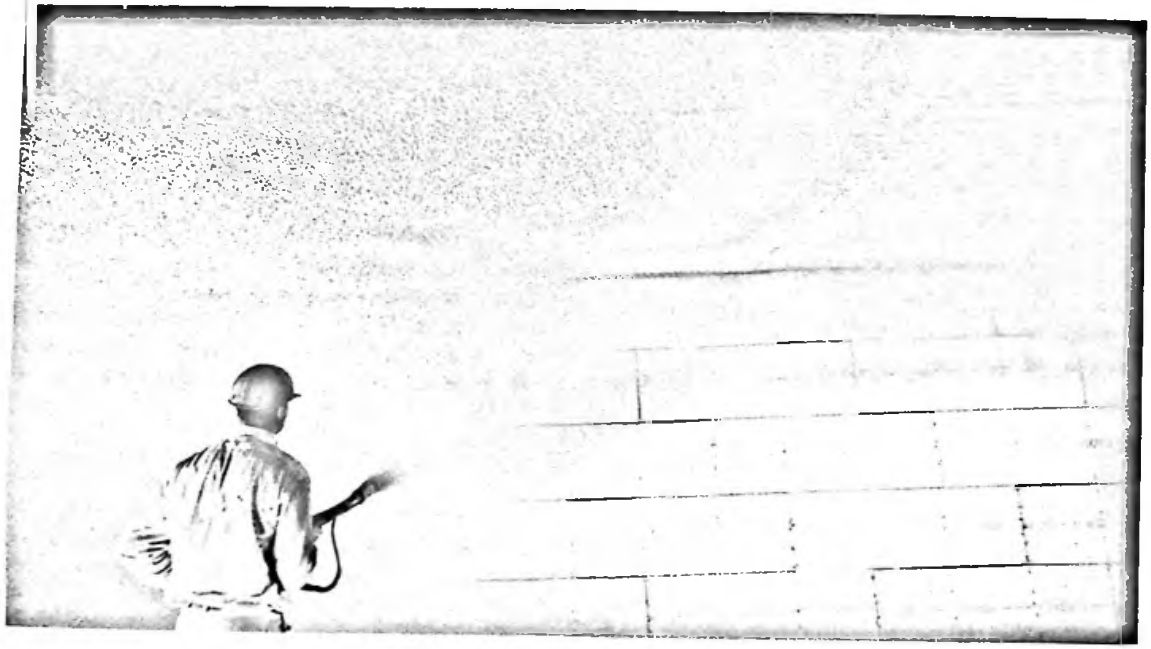
Relatively few products in our economic system are subject to public quality controls enforced by public inspection. A variety of techniques which involve self-policing are used for most products. For example, large established manufacturers tend to police the quality of their products to protect their

long-term reputation in the market place. Warranties, either voluntarily extended or legally required, help to protect consumers. For many types of products, producers agree on industry-wide standards and arrange a system for private inspection to certify those products which meet these standards. These private systems of quality control have proved adequate for such consumer products as electrical appliances, fire extinguishers, gasoline, and most building materials.

The quality of buildings, on the other hand, has long been publicly regulated. This is due to a number of factors. There is a strong public interest in safe construction, not only to protect building residents, but also their neighbors. Thus, voluntary controls over building quality are not acceptable. Use of warranties is limited since buildings often outlive the firms which erect them. The buyers of housing are so diffuse and often so poorly-informed that building firms have few incentives to develop strong reputations in the market place. Despite these factors, private systems of quality control might be applied to residential construction to a greater degree than they have been in the past. Such private systems, provided that they adequately protect the important public interests involved, generally provide greater flexibility and allow more room for innovation than do public regulations enforced by public inspection.

There are already some limited examples of self-policing in the housing industry. The Mobile Home Manufacturers Association has developed standards governing the mechanical and structural systems of mobile homes. The Association sends inspectors to visit the factories of its members to determine whether they meet these quality standards. Manufacturers who comply with the standards are permitted to attach certificates to that effect on their mobile homes. Manufacturers who fail to meet the standards are warned, and if they fail to upgrade their facilities promptly, are expelled from the Association. The Home Manufacturers Association has begun developing standards for factory-built homes and the National Association of Home Builders has initiated a "Registered Builders Program." In addition, some housing producers provide warranties on their houses. Although these warranties rarely exceed one year in duration, a few homebuilders extend five-year warranties.

These developments may hint that more of the functions of quality control can ultimately be shifted to private hands. It is recommended that appropriate bodies, such as the newly-formed Urban Institute, undertake research and devise experiments to explore ways in which the housing industry may be relied upon to self-police the quality of its output. For example, warranties on housing units extended by housing producers (backed by bonds or insurance if necessary) might have some potential as a voluntary alternative to building codes. De-



velopers of large parcels of land might be allowed more freedom in their land development activities, since they have strong incentives not to use one part of their parcel in such ways that will lower the value of the rest of the parcel. Substitution of adequate systems of private quality control for public regulations may be possible in other areas. Innovation in an industry will not be enhanced if the acceptability of new ideas must always be checked against a shelf of public regulations and a multitude of public regulators.

5. Updating Government Information and Evaluation Systems

The bulk of housing R&D which is supported with public funds should be subcontracted to private organizations. There is also much room for progress in those supporting functions which Government carries out directly.

a. Improvement of construction and housing statistics. Virtually all of the consultants to the Committee report that they were severely limited in their efforts by the primitive state of construction and housing statistics in the United States. The Bureau of the Census, which is responsible for collecting most of these statistics, has never received adequate funds to do a thorough job. There are small glimmers of progress. The Census of Construction, which was last taken in 1939, is being taken once again. A much improved statistical base is a critical prerequisite to development of the bank of knowledge needed for progress in this industry. Better data are needed in the following areas:

- Trends in housing conditions. A decennial Census is too infrequent.
- Housing market surveys and studies. There are now few statistical sources which reveal the rates at which new units are absorbed by the market or at which housing units are transferred from family to family.
- Trends in construction prices and output. Existing data are not well adapted to measurement of productivity change.
- Housing and land use regulations in effect in localities. One cannot make a good assessment of the impact of building codes or zoning ordinances when there is no easy way of finding out what local regulations are actually in effect around the country.
- Land prices and rates of turnover of land.
- The number and characteristics of firms involved in the housing production process and their interrelationships.
- Surveys to reveal changing patterns of occupancy of housing by racial, ethnic, economic, and other demographic subgroups.

It is suggested that increased appropriations for housing and contruction statistics would produce a high return for both policy makers and private organizations.

b. Accelerated implementation of program evaluation techniques. Increased application of cost-benefit analysis, the planning, programming, and budgeting system (PPBS), and similar techniques to housing and urban development programs is noted with approval. While these techniques have limitations, they are methods of forcing agencies to define carefully what they are trying to do and how well they are doing it. Increased use of these techniques within Federal, state, and local governments is recommended.

Much of this work could fruitfully be subcontracted to the Urban Institute and other private research organizations.

6. Creation of an Association for Urban Technology as a Focus for the Promotion of R&D on Housing

Surprisingly few highly-trained technical personnel are now involved in the housing industry. Those who are involved lack strong institutions to communicate with one another, to draw other professionals into the field and to make their influence felt. For that reason, a new professional organization is proposed which might be called the Association for Urban Technology. Given the close interplay between housing problems and other urban problems, the activities of the Association should not be restricted to housing, although this field would be the subject of a large part of its work.

The Association might operate at a significant scale, with its own headquarters and permanent staff, and a multi-million dollar annual budget. Private industry, trade associations, foundations, technical universities and Government might all serve as initial sponsors of the Association. Funding would be provided from these sources and from fees charged those who receive services from the Association. HUD could devote part of its R&D funds to starting such an institution. Responsibility for overseeing formation of the Association might be contracted to the Urban Institute.

During the Committee's study of the field of housing research and technology, it identified a number of supporting functions needed by a high-technology housing industry which are now not being adequately performed. It is suggested that the As-

sociation for Urban Technology would be the appropriate organization to do the following:

a. Publish technical journals, among them one tentatively entitled "Housing Abstracts." Although there are numerous popular and trade publications which deal with various aspects of housing, none of them approaches the quality or rigor of a good professional journal. While high quality articles are certainly published on housing, they are often quite tangential to the main thrust of the journals in which they appear. The need for a housing journal was dramatized to the Committee by the fact that its consultants rarely had any logical forum in which to publish their material. A well-conceived housing journal would provide a forum for the publication of articles by physical scientists, social scientists, engineers, members of the design professions, lawyers, and others who are concerned with the efficient production of housing. The mere existence of such a forum would probably mean that more high-quality articles on this subject would be written and more high-quality thinking would be stimulated.

While the proposed Association for Urban Technology would sponsor the project, it is hoped that a private publisher would be willing to assume much of the responsibility in overseeing establishment and publication of a technical journal on housing. Ultimately it might be self supporting. However, if sufficient private support is not forthcoming either from private publishers, foundations or universities, it is recommended that the Federal Government underwrite the costs of such a journal for its first several years of existence. The National Science Foundation has assisted the formation of such professional journals in this way in the past.

The initial journal might be entitled "Housing Abstracts." It would contain technical articles as well as short analytical descriptions of current developments in housing research and technology. This information is now widely scattered. Ultimately, a variety of journals would seem desirable, with some of them more specialized and some of them dealing with related urban problems. The establishment of such journals would do much to strengthen the professional community now involved in housing problems and help attract more scientifically and technically trained people into this field.

b. Serve as a professional association for urban technologists. The Association for Urban Technology could also serve as a meeting place for housing professionals and act as a spokesman on their behalf. Like other professional associations, its activities could include annual meetings, conferences on current topics, and appointment of special task-forces to work on specific problems. Also, like so many such associations, it could serve as a job market for housing professionals. The existence of such a professional association would help accelerate the spread of knowledge about new developments.

c. Oversee administration of training and fellowship programs in urban technology. Attracting some of the most talented members of the nation's scientific and technical community to the field of housing will require not only a great increase in the demand for their services, but also support for the costs of their training. Selective training and fellowship programs, financed by the Federal Government but administered in part by the Association for Urban Technology, would assist the rate of technological advance in the industry. The Housing Act of 1964 initiated a limited program along these lines. It provides matching grants to states to help finance special training programs for persons employed (or to be employed) in governmental community development agencies. The Act also initiated a modest program of fellowships for graduate training of professional city planning and urban housing specialists. These programs should be greatly expanded and broadened so that less emphasis is placed on training only for ultimate employment in public agencies.

d. Assemble an information bank on housing R&D. The impact of much of even that small amount of housing R&D which is now performed is dissipated by the lack of a strong institution to serve as a clearinghouse for technical information. A clearinghouse would not only actively seek to gather and catalogue information on latest developments, but also would do enough supporting work—such as literature searches, foreign document translations, and preparation of survey papers—to make this information useful. The Association for Urban Technology seems ideally suited to carry out this clearinghouse function. It could work out liaison arrangements with existing information centers, like that of the NAHB. The clearinghouse would charge fees to cover part of its expenses. Its services would be available to all.

e. Help transfer knowledge of the latest developments to firms interested in housing problems. One of the prime determinants of the rate of technological growth in an industry is the rate at which innovation is transferred to the field from a laboratory, drawing board, or scholarly journal. Experience in the housing industry indicates that it often takes a decade to convince most producing firms of the effectiveness of a technical breakthrough. At present, trade associations, trade periodicals, cataloging

services, and the promotional efforts of building materials manufacturers and distributors are the main channels of the transfer of technology in the housing industry. Transfer of technology is always particularly difficult in an industry in which small localized production and design firms predominate. In the field of agriculture, which is also characterized by localized production units, the Federal Government has long supported the operation of an "extension service" to help spread knowledge of new developments to farmers. A similar service would be most valuable in the housing industry. Since the extension service function is rather closely related to the clearinghouse function, it is recommended that the Association for Urban Technology supervise its operations.

To perform this service, the Association would conduct seminars, hold conferences, give courses, and make presentations on technical matters to firms of various sizes, types, and locations which are involved in the process of housing design and production. The extension service would not only transfer information on new systems, materials, and construction techniques, but also on management and accounting practices, the handling of relations with local government, and marketing, financing, and project management devices. Groups which might be served would include any which have difficulty in picking up new technologies without external assistance.

The extension service might operate at a cost of several millions of dollars a year. Again, appropriate fees could be charged those who receive its services. The Association would be wise to take advantage of the excellent work now being done by existing trade associations and trade magazines in technology transfer. Consequently, many of the functions of the extension service should be subcontracted to private organizations now active in this area.

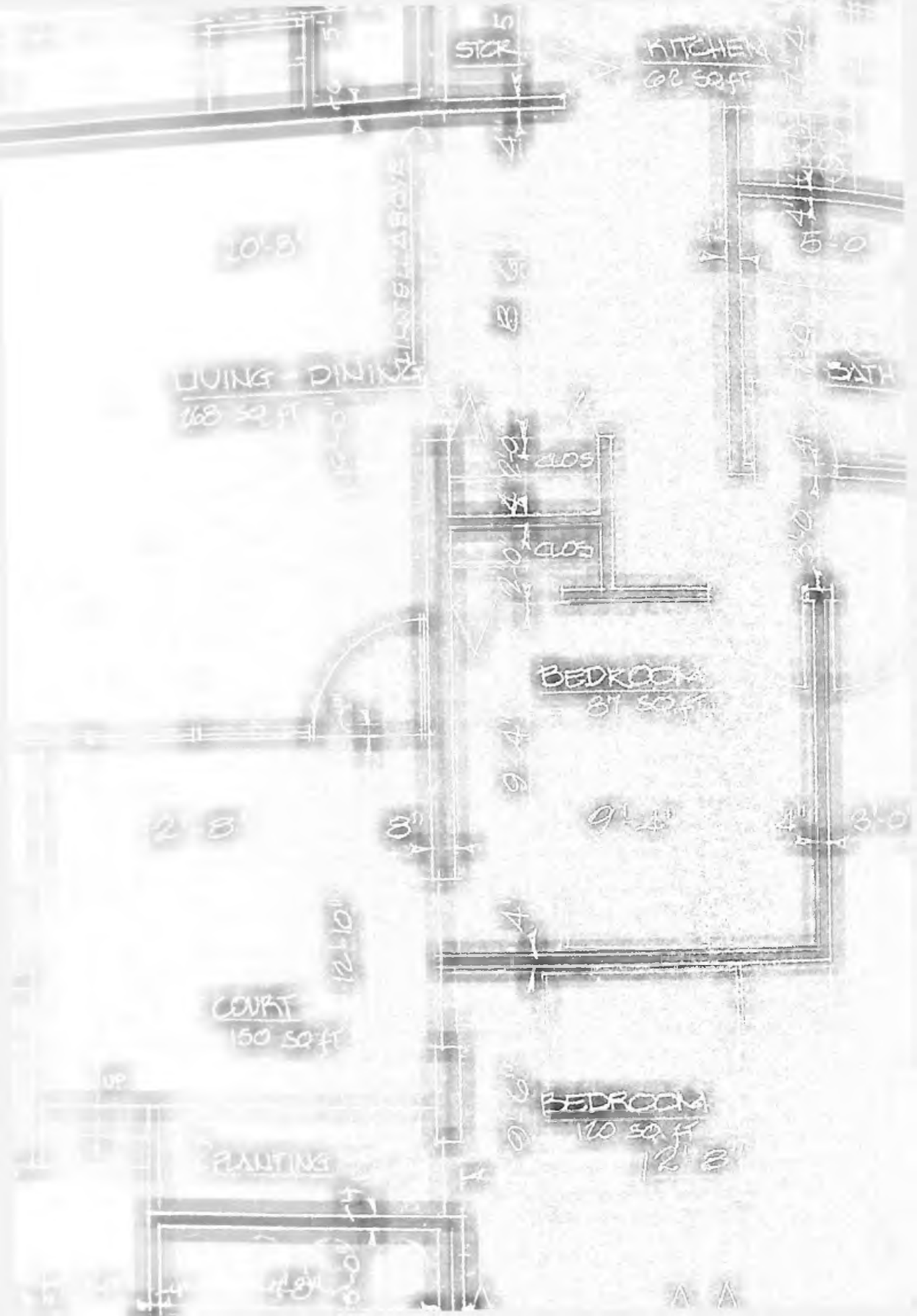
The Federal Government has long been deeply involved in the cataloging and dissemination of scientific and technical information in other fields. Federal obligations for these functions in all agencies amounted to $278 million in fiscal year 1966, with the average rate of growth during the 1960's being roughly 20 percent a year. The Department of Health, Education, and Welfare, for instance, earmarked in fiscal year 1966 over $5 million for publication and distribution of literature; $18 million for documentation, reference, and information services; and over $6 million for symposia and audio/visual media. According to National Science Foundation data, HUD's obligations for all these functions in the same year amounted to $32,000. The Federal Government should be providing at minimum several millions of dollars a year to help private associations carry out these functions in the housing field.

f. Maintain systematic contacts with institutes in foreign nations which have been concerned with housing research. Given the differences between U.S. and foreign public and private institutions, technological developments in other industrialized nations are difficult to transfer to the United States without substantial modification. Nevertheless there is concern that the United States has not fully used existing international organizations to learn more about foreign developments in housing. It is suggested that the Federal Government participate more actively in the appropriate committees of the Economic Commission for Europe and the International Council for Building Research, Studies and Documentation (CIB). The Association for Urban Technology should be one vehicle for such participation.

The list of functions which the Association for Urban Technology could carry out is only suggestive. Whatever its exact functions, such an Association could act as a catalyst for innovation in the housing industry.

VI. Conclusions on the Impact of Research and Technology

It is submitted that implementation of the foregoing recommendations, including a significant step-up in housing R&D contracts, and creation of such institutions as the Building Standards and Testing Institute and the Association for Urban Technology would rapidly accelerate the rate of technological progress in the housing industry. Such progress would result in massive savings of resources in the American economy and actually reduce the total burden on Federal taxpayers. These policies should also secure a knowledge base adequate for the formulation of more appropriate public policies dealing with housing activities than have been developed in the past. They should go far to hasten the relief of conditions in slum areas and to make cities more attractive and efficient. Their effect on the housing industry cannot be predicted. The evolution of this industry will continue to be determined by the unique attributes of the housing product and by the unique institutions of the United States. The only certain characteristic of a high-technology housing industry is that it would be better able to produce rapidly and efficiently whatever kinds of dwellings the American people want to have.


STOR
KITCHEN
62 SQ FT
LIVING - DINING
168 SQ FT
CLOS
CLOS
BEDROOM
87 SQ FT
BATH
COURT
150 SQ FT
BEDROOM
110 SQ FT
PARKING

Part Twelve

Conclusions: The Future of the American Housing Industry

This discussion brings together answers to some of the basic questions asked regarding the elements of housing production—builders, land, financing, labor, building materials, and technology—and, indeed, regarding the entire subject of providing "a decent home" for "every American family."

- What are the prospects for reductions in the cost of housing?
- Does the housing industry have the capacity to meet the President's goals of 2.6 million housing units a year?
- Is the American housing industry reasonably efficient in its production of housing?
- Can very large building firms achieve significant cost savings because of the larger scale of their operations? In other words, is the small builder becoming obsolete?

Also discussed, as a way of looking at American housing as a whole, is the following comparative question:

- How relevant are the highly-industrialized multi-family housing systems, like those popular in Europe and the Soviet Union, to housing problems in the United States?

I. Prospects for Cost Reduction

The cost of housing can be reduced in two ways. The easiest way is reducing standards by using less land, providing less floor space and cutting down on quality features like insulation and appliances. A rather spacious tent, after all, can be bought for $100. Many observers have been misled into thinking that low-cost units involve new technology; to the contrary, most often such units have been built to lower standards. The standards for subsidized housing units certainly warrant reexamination. Severely cutting standards to lower costs may be unwise. A society is judged partly by how it houses its people. A nation as wealthy as the United States need not house its poor in dwellings which fail to meet generally prevailing expectations of minimum quality.

The second way to reduce the cost of housing, the more difficult way, is to lower real resource costs through technological advances while keeping quality constant. "Cost reduction" is used in this latter sense in the following discussion.

Any campaign to reduce the cost of housing must work on all the bits and pieces which

make up the initial costs of a housing unit and its subsequent operating and maintenance costs. Too often, innovators have been concerned with only the basic structural shell and enclosing envelope of a housing unit, which accounts for only one-sixth of initial costs.

More efficient use of land is perhaps the greatest single, immediate opportunity for cost savings. This, at any rate, is the conclusion of the large builders comprising the Council of Housing Producers. Land costs now constitute roughly one-quarter of the sales price of single-family units. Too many communities have enacted rigid and restrictive zoning and subdivision regulations which have raised the cost of land and land development. Greater densities and more flexibility must be allowed if truly low-cost housing is to be achieved. Perhaps as many as 10 or 12 units can be attractively situated on one acre if designers had sufficient freedom in planning, with impressive cost savings for each unit.

Financing costs for housing—principally the interest rates on mortgages—are perhaps the most important single variable which determines monthly housing costs. Greater reliance on fiscal policy, as pposed to monetary policy, to counter inflationary ressures in the economy would help keep interest ates down. At present, a 1 percent rise in the interest rate is equivalent to as much as a 10 percent rise in the initial cost of a house. The availability of more flexible underwriting criteria for Federal mortgage insurance programs, as authorized in the Housing Act of 1968, will lower debt financing costs in central city areas and for minority group purchasers.

The unit cost of construction labor can be reduced by ways discussed in the review of manpower. Construction labor, however, rarely accounts for more than one-quarter of total initial production costs. In addition, unit labor costs should not be confused with hourly wage rates; it is quite possible that with better supervision and utilization of manpower on the job, productivity can be increased at the same or slightly higher wage rates. Dealing with seasonality of construction will help to reduce overtime and other premium payments to workers during the peak season without affecting present wage scales.

Other opportunities for cost reduction exist throughout the housing system—in production management, in marketing and real estate brokerage activities, in management of apartment units, in title searching and recording systems, and elsewhere. The additive effects of minor savings in these areas can become significant, but no single segment of the complex system, taken alone, seems to offer dramatic reductions in shelter costs.

The main vehicles for achieving attainable reductions in the cost of housing, without any sacrifices in quality are policies to: (1) eliminate existing institutional impediments to innovation and cost reduction; (2) promote research and development activity; (3) stabilize patterns of construction; and (4) create new institutions, such as a testing institute and a professional association, which a high-technology housing industry would need.

In crude terms, it is estimated that relative monthly housing costs might be reduced by at least 10 percent by such policies in the next few years. This estimate must be only rough, and the size of possible reductions would vary substantially from place to place, and from cost item to cost item.

In one sense, a cost reduction of 10 percent appears small. It would be insufficient, for example, to bring new standard housing within the reach of low-income families. However, the annual amount of new residential construction (not to mention expenditures on operation and maintenance of existing housing), is so enormous that a 10 percent reduction would save billions of dollars of resources annually.

It is extremely difficult to speculate accurately on possibilities of long-term reductions in the cost of housing. Technological developments and institutional changes cannot be clearly foreseen. Important technical breakthroughs, such as self-contained utility systems which free housing units from community utility lines or new low-cost means for transporting complete housing units, may completely transform the economics of the housing industry within a few decades. Whatever methods it uses, a high-technology housing industry would be worth many times the relatively small national investment needed to create it.

II. The Structure of the American Industry and Efficiencies of Scale

Meanwhile, is the present industry inefficient and disorganized? Not to the degree some people believe. The organization of the American housing industry is not arbitrary; rather, it reflects the unique characteristics of its product and the values of its society. The high degree of fragmentation of responsibilities enables the industry, through the subcontracting process, to produce housing units with highly diverse characteristics appealing to many different tastes at widely scattered locations.

The existing industry structure is not unchanging,

however; there are signs that it is moving toward increased scale in operations and more vertical integration between the various specialists.

Apparently significant efficiencies of scale can be achieved in on-site assembly by building scores or hundreds of units per year, instead of a handful. However, given existing technology and existing institutional arrangements, there appear to be few significant efficiencies to be gained in on-site assembly once production has reached the level of several hundred units per year. The importance of the largest on-site builders in the market has not increased significantly in the last decade, and according to some evidence, may actually have decreased. Most students of the housebuilding industry (Maisel, Herzog, and others) have concluded that there are few efficiencies of large scale in it at present. Economies of somewhat larger scale seem to be present in the mobile home industry, which has perhaps as many as five firms producing over 10,000 units per year.

However, the existing institutional environment, which is hardly conducive to large-scale operations, can be changed. Larger producing firms with their more sophisticated managements would become increasingly important if the following events were to occur:

1. Stabilization of residential construction markets, thereby reducing the risks of large capital investments or creation of large permanent organizations;
2. Reform of the archaic provisions in housing and land development regulations, and the diversity between regulations of different jurisdictions;
3. Less individuation of the housing product, which could result both from changes in consumer demand, or through efforts toward better dimensional and other coordination of the major sub-assemblies of which housing is built; and
4. New technical developments in the transportation and handling of larger components which would add to the relative advantage of off-site assembly.

Even if all these events were to occur, however, it is doubtful that this industry would be dominated by a handful of large producing firms. The bulkiness and wide variety of housing will inevitably tend to fragment its production process. Small builders, at least for the next decade or two will probably remain dominant in the custom-home and rehabilitation markets.

In the last few years, such corporations as Boise-Cascade, IT&T, Occidental Petroleum, Penn-Central Railroad, and U.S. Plywood-Champion Papers have purchased large home building firms. These acquisitions may be the beginning of a trend toward larger building operations and more vertical integration between building material suppliers and building assemblers. It is as yet unclear how much the backing by a large, highly-capitalized parent corporation will enhance the feasible scale of operations of one-site builders.

The National Housing Partnership which the Committee has proposed should help both to remove the institutional constraints impeding progress in this industry and to remedy some of the adverse consequences which have resulted from the existing fragmented production structure. The Partnership should be able to overcome its relatively high overhead costs by using the most sophisticated management techniques available. It can serve as a major spokesman for housing producers. It can undertake more research and development work than now possible for most firms in the industry. It can bargain as an equal with major suppliers of the industry—building materials manufacturers, lending institutions, and labor unions—rather than accepting the policies of these suppliers without dispute The principle benefit of the Partnership may not lie so much in its production efficiency as in its role as a catalyst for the further modernization and rationalization of the housing industry.

III. Industrialization of Housing and Foreign Experience

Earlier reviews have indicated that industrialization of housing production has been proceeding in an evolutionary manner for centuries: ever more cutting, assembly, and finishing operations are being performed off-site; sub-assemblies like roof-trusses, pre-hung doors, kitchen cabinets, and even complete bathrooms are now mass-produced; housing producers are becoming more sophisticated in their production engineering. The most dramatic example of industrialization today is the mobile home, completely assembled and finished in a factory. Undoubtedly this trend will continue. But there are forces working against it as well as forces pressing it forward. It does not offer the possibility of an instant solution to American housing problems.

The forces behind the movement from sites to factories are quite apparent: mass production permits much more efficient use of labor and greater reliance on highly mechanized and specialized equipment in factories; labor costs are lower because employees working on assembly lines need not be as skilled, in most cases, as on-site workers;

management can schedule production operations with greater precision, when production is independent of weather conditions. Better supervision of production operations and closer quality control also are possible, and for many materials and components, significant cost savings may be possible through bulk purchases of needed inputs. And it is certainly true, as the BRAB report, included in the Technical Studies, points out, that existing technical knowledge makes possible an enormously sophisticated off-site assembly system for housing: even 20 years ago, the assembly line for the Lustron home involved 1,443 parts moving by automation over eight miles of conveyor.

Although the technical knowledge to design such a factory is available, we may still not know how to make its operations efficient enough to undersell on-site builders. Frequent failures of highly industrialized attempts at housing production indicate that at present there is little hard knowledge of the cost-effectiveness of alternative production methods. Such knowledge is gained through trial and error, a costly and painfully slow process.

And there may be *increased* costs when manufacturing methods are used. This possiblility is often overlooked by critics of the housing industry. Too much fabrication early in the flow of materials can lead to substantial increases in the cost of warehousing and transporting these materials—increases that more than offset any savings from prefabrication. Use of larger pre-assembled components may also require more expensive materials handling equipment on the building sites, and create difficulties in assembly operations by introducing rigidly inflexible parts which prove difficult to fit together.

Even if cost reductions were unambiguous, there would still be important deterrents to mass production of housing in this country:

- The diverse expectations of the American consumer, and
- The web of local restrictions.

Characteristics of the U.S. market for new housing strongly deter large scale investment in plant and equipment for the mass production of largely pre-assembled housing units. The demand by American consumers for individuation of their housing units discourages pre-assembly of standardized components. Most single-family homebuilders have been forced to offer many more models today than a decade or two ago.

High transportation costs for large components to some extent localize markets for packaged or pre-assembled housing systems. The volatile character of these local markets acts as a deterrent to large-scale investment in plants, equipment, and continuing organization required for true mass production, since the high overhead costs of such an operation cannot be avoided during troughs in the market.

External constraints on industrialization of housing production are extremely serious. It is difficult to think of an industry with so many artifical barriers to technological progress. The main governmental constraints against industrialization are the web of regulations surrounding the building process—building codes; plumbing, electrical, and other mechanical codes; housing codes; subdivision regulations; zoning ordinances; etc.

These public constraints by and large reflect the tradition-bound approach of most groups participating in housing production. Virtually every group exerts its own constraining effect. The architect is wedded to certain concepts of style which may be violated by more industrialized approaches. Engineers prefer to work with familiar structural techniques which they can easily analyze and understand. Most contractors prefer working with methods they know and trust. Materials suppliers (and distributors) may be suspicious of innovations which threaten to displace their materials. The on-site laborer, who is usually craft-oriented regardless of whether he is a union member or a "keyman" for a non-union builder, is fearful of developments which threaten to reduce his importance, to demand skills which he does not have, to make his skills obsolete, or to change radically the conditions of his work.

While there have been some successes in major off-site assembly operations, the history of the housing industry in this century contains numerous examples of unsuccessful attempts to mass produce housing. In most cases, the company found it was unable to market its product at a price which would cover all of its costs. Apparent savings gained through factory assembly may be offset by high inventory or transportation costs. In short, the highly industrialized approach in these cases did not prove to be more efficient than rationalized conventional methods. The long string of failures experienced by outsiders who attempted to invade this industry with highly industrialized production methods does not prove that conventional on-site assembly techniques are necessarily the most efficient. Rather, it indicates that there is no easy panacea in rapid industrialization of housing production. The lesson to be learned is that attempts to mass produce housing should be

preceded by exceptionally careful cost analyses and marketing research.

American housing construction is often compared with that of other countries. In multi-family housing construction, as distinguished from single-family homes, there can be little doubt that the United States has much to learn from foreign systems. Some observers even claim that U.S. housing production techniques are hopelessly behind those used abroad and that the cost of housing could be substantially reduced if we would only take advantage of western European or Russian building systems. From what evidence is available, this latter view is incorrect; in addition, it often fails to take into account the institutional differences among nations.

Most widely publicized experimental multi-family construction systems involve one of two specific techniques: (1) pre-casting of concrete structural panels, fitted together on-site; or (2) mass construction of three-dimensional boxes which can be attached together through a variety of techniques to form a larger structure. Panelized systems, while certainly not unknown in the United States, are commonly used in Europe and represent perhaps the primary technique for multi-family housing construction in the Soviet Union. In their most sophisticated form, insulation, doors and windows, electrical wiring, and exterior finishing materials are all cast into place in the panels prior to erection. Radiant heating equipment may be installed in the floor panels. Panel construction systems sharply reduce on-site labor requirements and, because of production efficiencies in the factories, overall construction labor requirements. On the other hand, storage and transportation of the panels adds new costs. For some systems, the maximum economic distance from plant to site may be as little as 50 miles. Because the systems require use of cranes and other heavy equipment at the sites, they are rarely used in western Europe or the Soviet Union for construction of buildings less than four stories high.

The "box" approach has many variants. Structural materials used include concrete, steel, and wood (for example, in mobile homes or sectionalized houses). Assembly of the boxes may be carried out far from their final location, or in an on-site factory. The boxes may be stacked, placed in an independent frame, or suspended from towers. The most spectacular recent cases, in Quebec, California, and Texas, involved stacking three dimensional concrete boxes poured on or near the ultimate site. Several experiments in two-story stacking of mobile homes have been tried in recent years. There is less experience with racking boxes in a grid which provides them with independent support, or suspension of boxlike structures from a central tower by cables or other means. Several of the largest mobile home producers are taking a serious look at these

approaches, rather understandably, because they are some of the world's leading manufacturers of housing boxes. Design changes—greater structural strength, more fire resistance, and better acoustical quality, for example—will be necessary before mobile homes can be used in multi-family construction.

The relative cost effectiveness of the best panel and box systems, compared to conventional construction techniques, is as yet unclear. Although enthusiasts and skeptics abound, neither can point to careful cost analyses to support their position.

While there are over 400 industrialized building systems available for licensing throughout Europe, many of them for multi-family housing, only a handful of units using these techniques have been built in the United States. Why are these systems so much more popular abroad, especially in the Soviet Union and France?

To answer that question is to go to the heart of American housing in American society:

1. Elsewhere, there is a single large purchaser of housing—characteristically the central government.

American practice has been to leave decisions about what kind of housing is to be built to private entrepreneurs, or, in the case of public housing, to local housing authorities. This strong reliance on private market forces and on decentralization of public decisions is not characteristic of the countries which have made the greatest use of industrialized systems. The Federal Government could, and should, coordinate the efforts of private builders and local governments who use Federal housing subsidy programs to bring about voluntary aggregation of markets large enough for a full-scale trial of highly industrialized systems. The level of compulsory aggregation which occurs in many other nations, however, is inconsistent with existing American institutions.

2. Elsewhere there are lower housing standards and a narrower range of consumer choices than Americans expect.

The most highly industrialized systems may not allow the degree of individuation demanded by the unsubsidized market, and which, as a matter of social policy, should be provided to the subsidized market. If, as in the Soviet Union, little allowance is made for the individuation of dwelling units, massive scale economies can certainly be achieved. But, as Gunner Myrdal has written in the *Journal of Housing*, the mass production countries have discovered that lack of individuation has its costs:

Some experts argue—and this is in fact beginning to be recognized in these countries as well—that standardization has in some cases even been driven too far, so that functional requirements and the characteristics of the products do not harmonize. It has also led to monotony in architecture. A more flexible approach is now searched for in these countries.

3. Fewer Americans choose to live in apartments than do citizens of many European countries.

Industrialized multi-family systems have been most successful where minimum standard high-rise buildings are the preferred form of residential construction, either because of consumer preferences or Government prescription. In the United States, *even in recent years,* units in apartment buildings with four or more stories account for only about 6–8 percent of all housing starts. While roughly one-third of U.S. housing units in recent years have been located in structures with two or more units, 80 percent of these multi-family units have been located in structures with fewer than four floors. The highly industrialized concrete box and panel systems are not well adapted to serve this market. If the roughly 100,000 units per year located in structures over three stories in height were built only in the 50 largest U.S. metropolitan areas, this would involve an average of 2,000 units per year per area. The potential investor would have to be rather confident that he could win at least a majority of this market before he would be willing to invest a substantial sum in the plant and equipment needed to begin production with a highly industrialized system. The outlook is not quite as bleak as these figures might suggest. In a handful of metropolitan areas, especially New York City, there is a large market for high-rise residential construction. In addition, the much larger volume of production for low-income urban families advocated in this report would probably involve a proportionately greater amount of high-rise construction. The experience with high-rise housing built under the Public Housing program in 1950, however, casts some doubt on the wisdom of too much emphasis on high-rise housing for the subsidized market.

4. It is not wholly evident that the highly industrialized multi-family systems are more efficient than sophisticated on-site assembly methods. There have been no sufficiently careful analyses of the cost of using an industrialized system with the cost of building a comparable structure with rationalized conventional methods. Conjecture plays too large a part in estimates often thrown about. A HUD

report on "Industrialized Building" reviewed the present evidence and concluded: "In Western Europe industrialized systems have demonstrated cost superiority over conventional building in some countries, notably Denmark and West Germany, approximately equal costs in other countries, and even in certain instances cost inferiority to rationalized conventional methods." General bounds can be placed on the comparative efficiency of the highly industrialized systems. On the one hand, they apparently cannot achieve dramatic (i.e., over 20 percent) reductions in construction costs. After all, wages paid construction labor when conventional methods are used rarely account for over one-quarter of construction costs, and these systems are mainly designed to reduce the cost of on-site labor. On the other hand, the highly industrialized multifamily systems have not proved to be so inefficient that their use is being phased out. In fact, they are being used more and more throughout Western Europe, except apparently in Sweden, the only highly developed Western European country that has not provided special assistance to industrialized housing systems. Some countries are satisfied with their performance; others are not. A final verdict will have to await their full trial in this country. They clearly deserve to be tried. However, so long as high-rise construction constitutes only a tiny fraction of American housing production, their impact will necessarily be limited.

The difference between U.S. and Soviet Union housing production deserves special comment. The Soviet Union is pre-eminent in the mass production of housing. However, those who claim that the Soviet housing industry is several decades ahead of the American industry may fail to recognize some important points. Most Soviet housing would not only be unmarketable in the United States, it would even be unacceptable from a policy standpoint for low-income families. Small room sizes, poor thermal insulation, and high site densities are among its drawbacks. Even those who take a rather austere view of such things agree that there is far too little individuation in Soviet housing units. Soviet workmanship, while improving rapidly, is still far below the American standard.

No doubt there will be more off-site production of housing and housing components in the United States. Perhaps, also, there will come in time some dramatic breakthrough in the technology of homebuilding. These changes will have important consequences on the cost of housing. Nevertheless, to be effective they will require relinquishing some local autonomy, as reflected in the America's wide variety of building and zoning codes; and they will require careful design and marketing of the product, to meet the standards and tastes of American consumers.

The Federal Government as the Houser of Last Resort

What about housing specifically for the poor? Many factors may impede expansion of housing production for low- and moderate-income families:

- Zoning laws and their administration
- An insufficient number of sponsors (public and private) willing to undertake the development of subsidized housing
- The unavailability of mortgage credit
- An inadequate number of skilled workers
- Building codes and their administration
- The unavailability of housing subsidies

The list suggests that the achievement of the goal of the production of 600,000 subsidized units per year will depend on the ability of local public and private institutions to respond and adjust. A Federal program of adequate size has been authorized for the first time in the Housing Act of 1968. That Act, however, merely provides subsidies. The Federal Government is neither a builder nor a sponsor of housing projects. These are the responsibilities of local public agencies and of private developers. Progress under Federal programs will depend on the ability of local sponsors and builders to solve local problems.

Will local officials adjust zoning ordinances to permit the development of housing for low- and moderate-income families?

Will local governments establish public housing authorities to build housing for low-income families?

Will local private sponsors (profit and nonprofit) respond to the demand and develop the required housing?

Will local lending institutions provide the necessary funds?

Will local officials adjust building ordinances to permit implementation of cost-saving technology?

These are some unanswered questions.

A direct Federal program—Federal acquisition of land and Federal sponsorship and management—could produce housing. Such a program should only be resorted to if local institutions, private and public, do not respond to the need by producing the required housing with the tools now available. Whether extraordinary Federal powers must be invoked to meet the very real needs of the poor depends now on the actions of local institutions.

Summary of Committee and Staff Recommendations

Section I—The Shape of the Problem

PART ONE—"*The Most Pressing Unfilled Need of Our Society*"

Section II · Federal Housing Programs

PART ONE—*History, Description, and Comparison*

PART TWO—*Private Developers and Public Programs*

Public Housing

Section IV • Building Houses

Appendices

APPENDIX A

June 2, 1967

THE WHITE HOUSE

Statement by the President on the Formation of a Committee to Rebuild America's Slums

In my message to the Congress on Urban and Rural Poverty, I announced my intention to appoint a Committee to study this vital question: How can the resources and talents of private industry be directed into the rehabilitation of urban slums?

I said then that I would ask this group "to examine every possible means of establishing the institutions to encourage the development of a large-scale efficient rehabilitation industry."

I am pleased to announce today the formation of that Committee, which will draw upon the talents and the experience of a group of distinguished industrialists, bankers, labor leaders and specialists in urban affairs.

The Committee will be headed by Edgar F. Kaiser, President of Kaiser Industries, Inc.

No domestic task facing this Nation today is more demanding or more urgent than reclaiming the corroded core of the American city. A substantial part of that task is the rebuilding of the slums—with their 7 million dilapidated dwellings—which shame this Nation and its cities.

So vast an undertaking represents, as well, an enormous potential market. American industry has sought and developed markets around the globe. This one lies—waiting—at its very doorstep.

To tap this market, and do the job that must be done, the inventive genius of private industry and the creative productivity of American labor must be fused with the support and initiative of State and local governments and the resources of the Federal Government.

We must find the incentives which will stimulate business and labor to apply the most modern techniques; production systems, work practices, and economies of scale to the problem of the city slum.

The Committee I am appointing today will explore this complex problem in all of its aspects, and recommend those incentives and the private institutional machinery which it believes will best accomplish the task.

The Committee's challenge, in short, is to find the way to harness the productive power of America—which has proved it can master space and create unmatched abundance in the market place—to the most pressing unfilled need of our society. That need is to provide the basic necessities of a decent home and healthy surroundings for every poor American family now imprisoned in the squalor of the slum.

A major instrument of progress is already available to us—The Model Cities Program, enacted last year.

The work of this Committee can be a major step forward in fulfilling the high purpose of the Model Cities Program—to develop the blueprint for the future of the American City.

I have asked Secretary of Housing and Urban Development, Robert Weaver, and other responsible cabinet officers to work closely with the Committee.

The Committee members are:

Edgar F. Kaiser
Chairman (President, Kaiser Industries, Inc.)

Gaylord A. Freeman
Vice Chairman, The First National Bank, Chicago

Honorable Joseph Barr
Mayor of Pittsburgh

S. D. Bechtel, Jr.
President of Bechtel Corporation, San Francisco

R. V. Hansberger
President, Boise-Cascade, Boise, Idaho

Joseph D. Keenan
International Secretary, International Brotherhood of Electrical Workers

Charles Keller, Jr.
President, Keller Construction Corporation, New Orleans

Peter Kiewit, President
Peter Kiewit Sons', Inc., Omaha, Nebraska

John A. McCone
Investment Banker and Corporate Director, San Marino, Calif.

George Meany
President, AFL–CIO

Joseph I. Miller
President, Cummins Engine Company, Inc.

Graham James Morgan
President, Member, Executive Committee, and Director, U.S. Gypsum Company

Raymond D. Nasher
President, Nasher Properties

Walter P. Reuther
President, United Automobile, Aircraft and Agriculture Workers of America, CIO

Walter Alter Rosenblith
Professor of Communications Biophysics, Massachusetts Institute of Technology, Cambridge, Massachusetts

John H. Wheeler
President, Mechanics and Farmers Bank, Durham, North Carolina

Whitney M. Young, Jr.
Executive Director, National Urban League, New York City

Leon Weiner
President, National Association of Home Builders

APPENDIX B

August 2, 1967

THE WHITE HOUSE

President Johnson today announced the appointment of Graham J. Morgan of Chicago as Vice Chairman of the newly formed President's Committee on Urban Housing. Edgar F. Kaiser, President of Kaiser Industries Corporation, is Chairman of the Committee.

Howard R. Moskof of Washington, D.C., has been named as the Committee's Executive Director.

Mr. Morgan is President and Chief Executive Officer of U.S. Gypsum Company. He has held a number of posts with the company since 1939. He serves as a director of a number of companies in the United States and Europe.

In January 1967 the Urban Pioneer Award of the Department of Housing and Urban Development was presented by Secretary Weaver to Mr. Morgan.

Mr. Morgan, a 1938 graduate of Carleton College, is a past President of the Gypsum Association and is active in community affairs in Chicago.

Mr. Moskof, 32, is Deputy Executive Director and General Counsel of the District of Columbia's Redevelopment Land Agency. He is a graduate of Colgate University and Yale Law School. He formerly was an associate of the Washington law firm of Donohue, Kaufman & Shaw. He also served as Assistant United States Attorney, District of Connecticut, and Assistant Director and Deputy General Counsel of the New Haven Redevelopment Agency.

The formation of the committee was announced by President Johnson on June 2, 1967.

APPENDIX C

BIOGRAPHIES OF THE PRESIDENT'S COMMITTEE ON URBAN HOUSING

EDGAR F. KAISER, Chairman of the Board and Chief Executive Officer, Kaiser Industries Corporation. Attended University of California. Honorary LL.D., University of Portland, 1955; Honorary LL.D., Mills College, 1968. Served as a member of the President's Committee on Equal Employment Opportunity, the President's Missile Sites Labor Commission, the President's Advisory Committee on Labor-Management Policy. Incorporation Director, Communications Satellite Corporation; Trustee, the Urban Institute, San Francisco Bay Area Council, Council for Latin America; Director, National Industrial Conference Board, Stanford Research Institute, National Opportunities Industrialization Center, Oakland-Alameda County Coliseum. Member of The Business Council.

JOSEPH M. BARR, Mayor, Pittsburgh, Pennsylvania, since 1959; President, U.S. Conference of Mayors; Graduate School of Business Administration, University of Pittsburgh, 1928; member of Pennsylvania State Senate 1940–60.

STEPHEN D. BECHTEL, JR., President, Bechtel Corporation, San Francisco, California; Director, Crocker-Citizens National Bank, Industrial Indemnity Company, Hanna Mining Company, Southern Pacific Company, Tenneco, Inc.; Trustee California Institute of Technology, California Academy of Sciences, Vice Chairman and Trustee, National Industrial Conference Board; member of The Business Council; B.S. Purdue University, M.B.A. Stanford University; recipient of Distinguished Alumnus Award from Purdue University.

GAYLORD A. FREEMAN, JR., Vice Chairman of the Board of The First National Bank of Chicago, Chicago, Illinois; Harvard, L.L.B.; Dartmouth, A.B. and LL.D. (honorary); Director: Borg-Warner Corporation; Caterpillar Tractor Co.; Chicago and North Western Railway Company; Clearing Industrial District, Inc.; Container Corporation of America; The First National Bank of Chicago; Northwest Industries, Inc.; Time, Incorporated; Trustee: Northwestern University; Committee for Economic Development.

ROBERT V. HANSBERGER, President, Boise Cascade Corporation, Boise, Idaho; B.M.E. University of Minnesota, M.B.A. Harvard, Honorary LL.D. from Seattle University, Lewis and Clark College, Gonzaga University, University of Idaho; Director of Albertson's, Castle & Cooke, First Charter Financial Corp., First Security Corp., Gould-National Batteries, Idaho Power, Western Pacific Railroad, VSI Corp., Penn Mutual Life Insurance Co.; member Business Council; trustee of Committee for Economic Development.

JOSEPH D. KEENAN, International Secretary, International Brotherhood of Electrical Workers, Vice President of the AFL–CIO and a member of the Executive Council, Washington, D.C.; was one of the major contributors to labor support of the Manhattan (atom bomb) Project; served as Labor Adviser to General Lucius Clay, 1945; elected Secretary-Treasurer, Building and Construction Trades Department AFL, 1951; member, President's Advisory Committee on Labor-Management Policy.

CHARLES KELLER, JR., is President of the Keller Construction Corporation and served as President of the Public Affairs Research Council of Louisiana in 1960–61 and the United Fund of the Greater New Orleans Area in 1955; Chairman, Central Area Committee of New Orleans, 1959 to 1961, Trustee, Committee for Equal Opportunity in Housing; Member, National Citizens Committee; Member, Community Relations Service, Department of Commerce; Member, Commission on Race and Housing, The Fund for the Republic, 1957; President of the Metropolitan Area Committee (MAC); Charter member, Council for a Better Louisiana, and is a member of its executive committee and was Chairman of its Technical-Vocational Education Committee; Secretary, Bureau of Governmental Research of New Orleans since 1963. President, New Orleans Chapter of the Associated General Contractors 1954–55; President of the National AGC, 1963; Chairman and Vice-Chairman of the Labor Committee of the New Orleans Chapter, AGC; Member, Labor Committee of National AGC, Chairman from 1960 to 1963.

Mr. Keller is a graduate of the United States Military Academy at West Point, N.Y., and the Massachusetts Institute of Technology. He resigned from the regular Army in 1939, was recalled to

active duty as a Captain, Corps of Engineers, Reserve, and returned to inactive status in 1946, with the rank of Colonel. His decorations include the Legion of Merit with Oak Leaf Cluster, Bronze Star with two Oak Leaf Clusters, French Legion of Honor, French Croix de Guerre with Palm.

PETER KIEWIT, Chairman of the Board and President Peter Kiewit Sons' Inc., Omaha, Nebraska; attended Dartmouth College; LL.D. (honorary); University of Omaha 1958, Dartmouth College 1960, Hastings College 1964, University of Nebraska 1964, The Creighton University 1968.

Director, World Publishing Co., Northern Natural Gas Co., Chicago, Rock Island and Pacific Railroad Co., The Omaha National Bank, Northwestern Bell Telephone Co., Omaha Chamber of Commerce, Junior Achievement of Omaha, Girls Town, Inc., Eugene C. Eppley Foundation, Inc., Omaha Redevelopment Corporation; Trustee Omaha Industrial Foundation, Joslyn Liberal Arts Society, Hastings College, University of Nebraska Foundation; Governor, Knights of Ak-Sar-Ben, Boys' Clubs of Omaha; President, Bishop Clarkson Memorial Hospital; Member, Omaha Development Council, Inc., United Presbyterian Foundation; Recipient, Moles non-member Award, 1953; Golden Beaver Award for Management, 1968; Brotherhood Award from National Conference of Christians and Jews, 1967.

JOHN A. McCONE, Chairman of the Board, Joshua Hendy Corporation, Los Angeles, California.

GEORGE MEANY, President, AFL–CIO, Washington, D.C.

J. IRWIN MILLER, Chairman, Cummins Engine Co., Inc., Columbus, Indiana since 1951; associated with Cummins since 1934, President 1945–51; A. B. Yale University 1931, M. A. (Hon.) 1959; M. A. Oxford (England) University 1933, LL.D. Bethany College 1956, Texas Christian University 1958, Indiana University 1958, Oberlin College 1962, Princeton University 1962, Hamilton College 1964, L.H.D. Case Institute of Technology 1966, LL.D. Columbia University 1968, Michigan State University 1968.

Director and Chairman, Irwin Union Bank and Trust Co., Columbus, Indiana; Director, American Telephone & Telegraph Company; The Equitable Life Assurance Society; Chemical Bank New York Trust Company; Purity Stores, Inc.

Member of the Executive Committee of the Central Committee of the World Council of Churches; former President, National Council of Churches (1960–63); Fellow, Yale Corporation; Trustee, The Ford Foundation. Member, the Business Council, National Industrial Conference Board; Member Commission on Money & Credit (1958–61); Chairman, Special Committee on U.S. Trade with East European Countries and the Soviet Union (1965); Chairman, National Advisory Commission on Health Manpower (1966–67); Member, President's Commission on Postal Organization (1967–68); Chairman, Incorporators of the Urban Institute (1968); Member of the Steering Committee, The Urban Coalition.

GRAHAM J. MORGAN, President, Chief Executive Officer, United States Gypsum Company, Chicago, Illinois; B. A. Carleton College; Member, Advisory Committee of the National Housing Center; Member of Board of Directors, Metropolitan Housing and Planning Council of Chicago; Past President and Director, Gypsum Association; Vice President, Building Research Institute; Member of the Council on Medical and Biological Research of the University of Chicago; Member of School of Business Advisory Council of Northwestern University; Member of Kemper Insurance Advisory Board; Member of the Board of Directors of the following companies: American National Bank and Trust Company of Chicago; American Hospital Supply Corporation; Square D Company; Illinois Central Industries, and Evanston Hospital Association.

RAYMOND D. NASHER, President Raymond D. Nasher Co., Dallas, Texas, Developer of Urban Environment; B.A. Duke University 1943; M.A. Boston University 1950; Chairman of the Board, North Park National Bank; Director, American Bank of Atlanta; Executive Director, White House Conference on International Cooperation 1965; Member of Advisory Committee on Urban Development; Consultant to the Bureau of the Budget, State Department; Member, Board of Trustees, Duke University.

WALTER P. REUTHER, President, United Automobile, Aircraft and Agriculture Workers of America, Detroit, Michigan.

WALTER A. ROSENBLITH, Professor, Communications Biophysics, Chairman of the Faculty, 1967–, Massachusetts Institute of Technology, Cambridge, Massachusetts; Member, Life Sciences Panel, President's Scientific Advisory Committee; and Chairman, HUD-OST Summer Study on Science and Urban Development, 1966.

LEON N. WEINER, President, Leon N. Weiner, Associates, Inc., Wilmington, Delaware, President, National Association of Home Builders, 1967. He has been instrumental in NAHB's progress in educating builders, developers, and government officials throughout the nation on the latest concepts of land use and development. He has given particular impetus to the acceptance of cluster zoning and town house living—he has been a strong defender of urban renewal, and a leader in the recent surge of interest in improving America's environment.

JOHN H. WHEELER, Born Kitrell, N.C., January 1, 1908; President, Mechanics and Farmers Bank, Durham, North Carolina; Lawyer, Banker; *Member, Durham, North Carolina Urban Redevelopment Commission.* L. H. D. from Morehouse College; LL. D. from Johnson C. Smith University, Shaw University and Tuskegee Institute; Trustee, Mutual Real Estate Investment Trust, Inc. of N.Y.; Recipient of Averell W. Harriman Equal Housing Opportunity Award for 1967; Served as member of the National Advisory Commission on Food and Fiber, 1965–67; Treasurer and Member of the Board of the North Carolina Fund, Inc. 1963–68; Member, President's Committee on Equal Employment Opportunity 1961–65; Member Board of Trustees of Atlanta University and Morehouse College; President, Southern Regional Council, 1964–68; Exchangee and member of the Board of U.S.–South Africa Leader Exchange Program, Inc.; Member, National Advisory Committee to the Small Business Administration, 1968; Trustee, Committee for Economic Development 1964–68; Member, Commission on Race and Housing, 1954–58; President, Low-Income Housing Development Corporation of N.C. 1965– (at the present time, this corporation is engaged in sponsoring the production of 1500 new units of low-income housing in North Carolina within the next two years); Vice-Chairman of Board of the Durham City-County Library-1968–; Member, Board of Directors of NAACP Legal Defense Fund, Inc. of New York, also member of its legal staff in North Carolina, 1968; Listed in the following publications: Who's Who in America; Who's Who in the South and Southwest; Who's Who in American Politics; Who's Who in Commerce and Industry; Life Member-NAACP; 32° Mason and Shriner; Married to the former Selena Warren. Two children; daughter, Mrs. Julia W. Taylor and son, Warren Hervey.

WHITNEY M. YOUNG, JR., Executive Director, National Urban League, New York City; Social Work Administrator; Author: INTERGROUP RELATIONS AS A CHALLENGE TO SOCIAL WORK PRACTICE: STATUS OF THE NEGRO COMMUNITY: PROBLEMS-PROPOSALS-PROJECTIONS; TO BE EQUAL: Member, Advisory Committee, ACTION Council for Better Cities.

APPENDIX D

COMMITTEE'S SCOPE AND METHODOLOGY

The President's Committee on Urban Housing was established on June 2, 1967, by President Lyndon B. Johnson. The President's full charge to the Committee—basically, that it find ways to attract business into the building of urban housing—is printed elsewhere in this Volume.

From the onset the Committee viewed its mandate as going well beyond rehabilitation. At its second meeting the Committee adopted a definition of scope and purpose (later concurred in by the White House) which said that:

> *The primary assignment of the Committee is to develop and prepare a report to the President covering ways of creating a climate that will stimulate the rebuilding of the depressed areas of our cities. To this end, the Committee will engage in study and exploration of means by which the private sector of the American economy can be encouraged to play a more active role in the rebuilding of urban housing. The Committee will consider the use of new institutions, corporate structures, technological innovations, and financial incentives that could promote the participation of private investment and management skills at various levels of rehabilitation activity. At the same time, the Committee will study methods of enlarging the size and skills of the labor force available for rehabilitation work.*
>
> *While the Committee recognizes the close interplay of numerous social, political and economic forces that affect the problem of rebuilding our cities, the Committee believes it impractical to go into such areas beyond identifying their impact on rehabilitation and fashioning proposals that will take full account of these forces and make adequate housing equally available to all. Another important aspect of the environment for rehabilitation is the complex of building and housing codes, federal, state and local tax structures, and zoning regulations that are now being studied by the National Commission on Urban Problems, headed by former Senator Paul Douglas. The Committee will coordinate its work closely with the Douglas Commission and looks forward to receiving the Commission's suggestions as to practicable reforms in these areas.*

The Committee divided its work into six basic areas, each with its Subcommittee and staff assistant: housing needs and goals; credit; Federal housing programs and subsidies; research and technology; manpower; and industry incentives and land. Each Committee member was assigned to two subcommittees, and one or two were designated as Chairman or Co-Chairmen.

Contractors and Consultants

The Committee engaged consultants to do a variety of kinds of research. In the area of housing needs the Committee commissioned G. E. TEMPO to study housing requirements for the next 10 years. In addition, the Committee enjoyed the benefit of a paper prepared by Robert Gladstone and Associates for one of the Committee members. These studies were supplemented by information made available by the National Association of Home Builders, the Department of Housing and Urban Development, and the Bureau of the Census.

The Committee commissioned Carter Golembe Associates to review the credit requirements of housing for the period 1968–78. The study explored potential strains in capital markets and evaluated proposals aimed at channelling sufficient funds into housing. This study was supplemented by an analysis prepared by the Department of Housing and Urban Development. Officials of the Treasury and the Federal Reserve Board were also helpful. Finally, an advisory panel of mortgage officials from leading lending institutions was formed to study the special problems of mortgage financing.

An analysis of existing housing programs and subsidy requirements was prepared by the staff in consultation with public officials and industry leaders. The advisory panel of mortgage officials was particularly helpful in evaluating the relationship of Federal housing programs to the practices of traditional lending institutions.

The Committee employed three consultants to help assess the efficiency with which the housing industry is operating and to determine those areas in which research and technology would offer the greatest rewards. The McGraw-Hill Information Systems Company (formerly F. W. Dodge Company), was asked to identify the time and cost steps involved in the production of five different types of housing units. Professors Leland Burns and Frank Mittelbach of the Graduate School of Business Administration at UCLA were hired to identify im-

pediments to greater efficiency in the housing industry which might be influenced by public policies. Burns and Mittelbach were specifically asked to assess the seriousness of the various impediments in quantitative terms. Their study was limited to a survey of existing knowledge. The Committee employed Professor Christopher Sims of the Department of Economics at Harvard University to explore what aggregate national statistics indicate about technological change in the construction industry in general and the housing industry in particular. Much of his study is devoted to discussion of trends in labor productivity.

Several other studies which bear on the general problem of housing costs and construction systems were made available to the Committee during the course of its work. The first such document is the conclusions and recommendations section of a study on industrialized housing and building systems prepared by a Special Advisory Committee of the Building Research Advisory Board of the National Research Council. A brief overview of the topic of housing technology by Ralph Johnson, Staff Vice President of the NAHB (National Association of Home Builders) Research Foundation was also made available to the Committee. Lastly, the Committee benefited from material prepared by Levitt & Sons, and the Council of Housing Producers, which discusses prospects for cost reductions and presents a breakdown of the elements of land development costs.

In the manpower area, the Committee wished to determine the impact of its housing program on the demand for skilled workmen; to investigate the current supply of such workmen and methods through which the supply could be expanded to meet housing and other construction needs over the next decade; and to improve understanding of employment relations generally in the construction industry including homebulding. Professor John T. Dunlop of Harvard University and Professor D. Quinn Mills of the Massachusetts Institute of Technology were commissioned to study these problems. Public officials, representatives of business and labor, and other interested parties provided further assistance.

In examining the incentives required to expand business interest in low-income housing, the Committee commissioned Walter Gerson & Associates, a marketing research firm, to survey business attitudes toward housing. A special panel of tax experts was organized to explore the tax code as a source of incentives. Professor Paul Davidoff of Hunter College and Neil Gold of New York were asked to review the demand for residential land and its potential sources of supply. They were also asked to evaluate trends in land costs and programs for making land available for low- and moderate-income housing.

Committee Staff

A small full-time staff of professionals was selected to direct the Committee's research. Howard R. Moskof, a lawyer and formerly an urban renewal, housing, and code enforcement public official in New Haven, Connecticut, and Washington, D.C., was selected to head the staff. He was assisted by Robert Ellickson, an attorney, who not only was responsible for the research and technology area, but also made contributions in the preparation of all Committee recommendations and in the writing of this report; Sol Ackerman, on leave from the Department of Housing and Urban Development, worked in the credit, housing needs, and program evaluation areas; Steve Silvert, an attorney with detailed knowledge of development processes of low- and moderate-income housing, was principally responsible for the review of existing programs; Ted Small, formerly staff attorney, Office of Criminal Justice, Department of Justice, and an adviser to the President's Committee on Law Enforcement and Administration of Justice, was mainly responsible for the manpower area; Anita Martin, a Washington attorney, worked in the area of housing needs and goals until her marriage; Jane Pasachoff, formerly a research assistant to the National Commission on Civil Disorders, briefly served as a research assistant to the Director. Mrs. Virginia Banister was the Committee's Administrative Officer. George Von Furstenberg, an economist, and Brookings Economic Policy Fellow worked with the Committee staff in program evaluation.

Committee Procedures

The Committee's efforts can be divided into three phases. Responding to the urgent need for low- and moderate-income housing, the Committee concentrated its early efforts on accelerating production under existing programs, an approach it thought best suited for achieving prompt results. During this phase, administrative and statutory modifications affecting existing programs were proposed to the Department of Housing and Urban Development and to the President. The second phase involved an overview of the gamut of housing problems and development of new approaches and solutions. The Committee was afforded an opportunity to comment on and make suggestions affecting the Housing and Urban Development Act of 1968 prior to

its submission to Congress. In addition, suggestions and proposed modifications were transmitted to Congress while the Bill was under consideration. The final phase involved the preparation and submission of the Committee's report.

During its existence the Committee met about once a month, usually for two days. In addition, each of the Subcommittees held separate meetings. All recommendations presented by the Subcommittees were discussed and considered at full Committee meetings. Where possible, materials were submitted to the Committee in advance of the meetings. The Committee's work production is represented by this report and by the Housing and Urban Development Act of 1968 (to the extent that it was shaped by the Committee's thinking). Two additional volumes contain many, but not all, of the technical papers prepared for the Committee.

APPENDIX E

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APPENDIX G

RECOMMENDED PROGRAM CHANGES

A. Section 221(d)(3).

1. *Increase subsidy to the equivalent of 0 percent interest rate.*

The 3 percent interest rate does not represent a subsidy of sufficient depth to serve the millions of families above poverty levels but below the conventional market. A living cost reduction in the range of $25 per month could be achieved.

2. *Expand the definition of "family" for eligibility purposes to include one-person households.*

The law presently permits one-person households if the prospective tenant is 62 years or older or handicapped. In addition, another 10 percent of project units can be occupied by single persons of any age or physical condition. These controls are unnecessarily arbitrary. Single persons with limited income represent a large population group presently outside the range of subsidy programs. If this group is to be served effectively, present limitations must be removed.

3. *Permit job-producing facilities and community facilities to be included in the development cost of Federally-insured projects.*

In many urban centers effective land use may call for industrial or commercial functions on the first few floors, with residential uses above. Housing and job sources could thus be brought into immediate proximity. For all practical purposes such a combination of uses is not presently possible because of the requirement that an FHA mortgage entity include only a limited percentage of nonresidential uses. An experimental program initially restricted to major metropolitan areas is recommended.

4. *Permit use of "Small Home Processing" and eliminate applicability of Davis-Bacon Act and cost certification requirements for all housing projects of 11 units or less.*

Section 221(d)(3) projects regardless of size (as well as all other multi-family subsidy projects) must meet cost certification requirements and Davis-Bacon wage requirements. These requirements are workable in large contract situations, but can become serious roadblocks to small projects on small land parcels in central cities. The Committee recommends that the Davis-Bacon requirements be removed from projects of 11 units or less and administrative discretion granted to the Secretary of HUD to waive cost certification for these small projects. Further, the Secretary should authorize the use of small home processing procedures and fees in such projects.

5. *Remove Workable Program requirement.*

The Workable Program requirement often has been ignored by localities to prevent development of subsidized housing regardless of market need. This power to negate private efforts should be removed.

6. *Reduce the five-dwelling unit minimum to two units to permit subsidy-eligible rehabilitation of small units and maximize use of small land sites.*

Subsidies to housing clusters of less than five units are available only for rehabilitation within urban renewal circumstances and if a condominium ownership concept is accepted. The subject recommendation would effectively liberalize subsidy alternatives.

7. *Increase the rate of return in equity on limited distribution situations from 6 percent to 8 percent.*

Current returns on alternative investment opportunities tend to make the 6 percent limitation noncompetitive, particularly for those whose income from other sources is not of sufficient size to take advantage of tax deductions generated by accelerated depreciation.

B. Section 202.

1. *Increase subsidy to the equivalent of a 0 perce interest rate.*

See Comment A. 1.

2. *Permit development and ownership by limited distribution entities.*

At present, Section 202 is limited to nonprofit mortgagors only. In accordance with the goal of encouraging the broadest participation by the private sector, it is recommended that this limitation be removed.

C. Public Housing.

1. *General.*

a. *Serve low-income families by increasing annual contribution contracts to the maximum permitted by law.*

The annual contribution contract statutory ceiling is approximately 2 percent above the cost of Federal borrowing. If contracts were written to this full amount, local housing authorities would be better able to accommodate low-income families that are too poor to meet their full share of operating expenses.

b. *Remove workable program requirement.*

See comment A. 5.

2. *Construction.*

a. *Expand the use of Turnkey procedures for development by encouraging local housing authorities to solicit "Turnkey" proposals before proceeding by conventional methods.*

The Committee believes that Turnkey procedures offer advantages over conventional processing that justify their constant promotion.

b. *Authorize HUD to act for local public authorities when so requested by the locality.*

Public housing processing delays have at mes been symptomatic of a lack of technical iff at the local level. The Committee recomends that HUD be granted the authority to ssume responsibility for preparation of plans and supervision of bidding and construction when requested to do so by a locality.

3. *Leasing.*

a. *Permit HAA to make contracts to provide subsidies in advance of completion of construction.*

The language of Section 23 limits its use to existing structures. This does not prohibit local authorities from making leases prior to the construction of a property. It does expose the local authority and the developer to unnecessary risk, since there is no absolute assurance that the subsidies will be available. The subject recommendation is intended to correct this situation.

b. *Extend the maximum lease term to facilitate financing new construction.*

HUD should permit lease renewals to extend for that period of time that will best facilitate project financing. With such a change, the leasing program would become more competitive with private development alternatives.

D. Rent Supplement.

1. *Expand the definition of "family" for eligibility purposes to include one-person households.*

See comment A.2.

2. *Authorize rent supplement payments with 35 percent of the units of a Section 236 project.*

Section 236 permits rent supplement eligibility for 20 percent of project units. The subject recommendation to increase this to 35 percent has as its purpose an expansion of program capacity to serve lowest income groups.

3. *Permit job-producing facilities and communities to be included in the development costs of Federally-insured projects.*

See comment A.3.

5. *Permit use of "small home processing" and eliminate applicability of Davis-Bacon Act and cost certification requirements for all housing projects with 11 units or less.*

See comment A. 4.

6. *Remove Workable Program requirement.*

See comment A. 5.

7. *Modify regulatory restrictions upon maximum housing costs and project amenities.*

In response to Congressional concern, FHA has established limits on the architectural design and monthly shelter costs of units with rent supplements. Both limitations have severely restricted effective use of the program.

First, the gross monthly rental limitations, even with the 25 percent increase allowed in high cost areas, are not adequate to cover both the amortization of development costs and the operating costs that are inherent in projects of this type. As a result, the program cannot function very effectively unless it is used with rehabilitated units where costs limits are more in line with actual expenses.

Second, even in areas where the economic limits are not prohibitive, rigid concepts of efficient and economic design serve to defeat the program. Private projects which are not allowed to include air conditioning, swimming pools, and other common amenities are unlikely to attract market rate tenants. Because of the limitations imposed on architectural standards, and because unsupplemented rental rates are no better than those on the private market, tenants ineligible for supplements will prefer the better designed private projects. Economically integrated projects are unlikely.

The Committee recommends that the regulations restricting maximum gross monthly rental and design amenities be changed to reflect both contemporary costs and marketing requirements.

8. *Modify rent supplement subsidy limits to meet the requirements of families whose source of income is restricted to welfare payments or the equivalent.*

Congress is requested to review its position on the question of rent supplement payment limitations. Current administrative limits responsive to such attitudes prevent the program's reach to many thousands of families.

9. *Permit displaced families, large families, and families moving from public housing to occupy existing standard housing by allowing program subsidies to be used for this purpose.*

The restriction to new construction unduly limits Federal capacity to meet special situations. The subject recommendation is intended to allow more flexible response to such situations.

10. *Increase the rate of return on equity in limited distribution situations from 6 percent to 8 percent.*

See comment A.7.

E. Section 235.

1. *Provide for homeownership subsidies based upon principal, interest, taxes, insurance, and insurance premiums in excess of 15 percent of annual income.*

The Committee is of the opinion that lower-income families should not be required to pay a greater proportion of income for housing than is paid by families using FHA mortgage insurance. Current FHA experience suggests a 15 percent factor against gross income. The Committee questions whether lower-income families should be required to pay more.

2. *In rehabilitation, apply valuation standards and techniques in FHA No. 3900 for project processing to small homes processing.*

FHA No. 3900—Multifamily Rehabilitation—authorizes consideration of increasing land values, neighborhood upgrading, improved municipal services, capitalization of income stream at whatever the applicable interest rate—thus, consideration of ability to pay. The valuation rationale approved for project processing should be applied to small homes processing.

F. Section 236.

1. *On behalf of a mortgagor of Federally-insured rental housing of two or more units, subsidize the difference between 20 percent of family income and market rental.*

Section 236 now imposes a 25 percent factor. FHA experience suggests its average for this purpose to be 20 percent. As with the parallel situation discussed in E.1, the Committee questions whether lower-income families should be required to pay more.

2. *Expand the definition of "family" for subsidy purposes to include one-person households.*

See comment A.2.

3. *Increase subsidy to the equivalent of a 0 percent interest rate.*

See comment A.1.

4. *Authorize use of rent supplement payments with 35 percent of the units of a Section 236 project.*

See comment D.2.

5. *Permit job-producing facilities and community facilities to be included in the development costs of federally-insured housing projects.*

See comment A.3.

6. *Permit use of "Small Home Processing" and eliminate applicability of Davis-Bacon Act and cost certification requirements for all housing projects with 11 units or less.*

See comment A.4.

7. *Reduce the five-dwelling unit maximum to two units to permit subsidy-eligible rehabilitation of small units and maximize use of small land sites.*

See comment A.6.

8. *Authorize the Secretary to approve requests for transfer of existing 221(d)(3) BMIR programs to the direct subsidy program.*

It is contemplated that such authority would be used only in situations where the market circumstances called for greater subsidy rather than additional units.

9. *Permit displaced families, large families, and families moving from public housing to occupy existing standard housing by allowing program subsidies to be used for this purpose.*

See comment D.9.

10. *Increase the rate of return on equity in limited distribution situations from 6 percent to 8 percent.*

See comment A.7.

APPENDIX H–1. Analysis of Annual Tax Loss [1] [221(d)(3) Below Market Interest Rate Project]

Year [2]	A.	B.	C.	D.	E.
1	$0	$0	[3] $251,000	$5,600	$256,600
2	0	48,300	171,400	5,600	128,700
3	34,500	49,700	162,800	5,600	84,200
4	34,500	51,200	154,700	5,600	74,600
5	34,500	52,800	147,000	5,600	65,300
6	34,500	54,400	139,600	0	50,700
7	34,500	56,000	132,600	0	42,100
8	34,500	57,700	126,000	0	33,800
9	34,500	59,500	119,700	0	25,700
10	34,500	61,300	113,700	0	17,900
11	34,500	63,200	108,000	0	10,300
12	34,500	65,100	102,600	0	3,000
13	34,500	67,100	97,500	0	(4,100)
14	34,500	69,100	92,600	0	(11,000)
15	34,500	71,200	88,000	0	(17,700)
16	34,500	73,400	83,600	0	(24,300)
17	34,500	75,600	79,400	0	(30,700)
18	34,500	77,900	75,400	0	(37,000)
19	34,500	80,300	71,700	0	(43,100)
20	34,500	82,700	68,100	0	(49,100)

Explanation of Column Headings: A.—Cash flow plus nondeductible payments to Reserve for Replacements; [4] B.—Mortgage amortization payments [4] which are nondeductible; C.—Depreciation deduction (double declining balance); D.—Legal and organization fee deduction; E.—Tax loss, C plus D less A less B.

[1] The total figure (Column E) represents the net tax losses which are available to compute tax savings (Appendix H–2). The tax savings = tax upon the marginal income tax rate, or "tax bracket" (tax savings = tax loss x tax bracket). Figures in Column E in parentheses represent additional taxable income.

[2] Assuming 12 months construction period, and "break even" in first year of operations.

[3] This figure represents the sum of interest payments, financing premium, and state and local taxes. There is no depreciation deduction during the year of construction.

[4] Column A plus Column B equals gross income less tax, interest, and operating expense deductions.

APPENDIX H–2. Annual Cash Income and Tax Savings [1] [221(d)(3) Below Market Interest Rate Project] for Taxpayers in 30, 50, and 70 Percent Tax Brackets

Year [2]	A. Net cash return from operations	B. Additional tax saving 30 percent bracket [3]	C. Additional tax saving 50 percent bracket [3]	D. Additional tax saving 70 percent bracket [3]
1	$0	$77,000	$128,300	$179,600
2	0	38,600	64,000	90,100
3	24,500	25,300	42,100	58,900
4	24,500	22,400	37,300	52,200
5	24,500	19,600	32,700	45,700
6	24,500	15,200	25,400	35,500
7	24,500	12,600	21,000	29,500
8	24,500	10,100	16,900	23,700
9	24,500	7,700	12,900	18,000
10	24,500	5,400	9,000	12,500
11	24,500	3,100	5,200	7,200
12	24,500	900	1,500	2,100
13	24,500	(1,200)	(2,100)	(2,900)
14	24,500	(3,300)	(5,500)	(7,700)
15	24,500	(5,300)	(8,900)	(12,400)
16	24,500	(7,300)	(12,200)	(17,000)
17	24,500	(9,200)	(15,400)	(21,500)
18	24,500	(11,100)	(18,500)	(25,900)
19	24,500	(12,900)	(21,600)	(30,200)
20	24,500	(14,700)	(24,600)	(34,400)

[1] Exclusive of the effects of project sale. Total annual return is computed by adding Column A to Columns B, C, or D as applicable.

[2] Assumes 12-month construction period and "break even" in the first full year of operations.

[3] Data derived from Appendix H–1 showing actual taxes saved as compared with tax loss. Depreciation based upon "double declining balance" method. Parentheses indicate tax payments required.

APPENDIX H–3. Tax Consequences of Sale of 221(d)(3) BMIR Projects

(Sponsor: Limited Distribution Entity)
(Total "Replacement Cost"=$4,080,000; 90 Percent Mortgage=$3,672,000)
(Taxpayer in 50 Percent Tax Bracket)

	Sale after—				
	2 years	5 years	10 years	15 years	20 years
1. Sale price [1]	$4,026,000	$3,856,000	$3,535,000	$3,161,000	$2,728,000
2. Unamortized mortgage	3,624,000	3,470,000	3,181,000	2,845,000	2,455,000
3. Cash realized (1–2)	402,000	386,000	354,000	316,000	273,000
4. Adjusted basis [2]	3,477,000	3,012,000	2,381,000	1,891,000	1,514,000
5. Taxable gain (1–4)	549,000	844,000	1,154,000	1,270,000	1,214,000
6. Tax	[3] 159,000	[3] 264,000	[3] 303,000	317,000	304,000
7. Net cash gain after tax (line 3 less line 6)	243,000	122,000	51,000	[4] (1,000)	[4] (31,000)

[1] The sale price is assumed equivalent to the unamortized mortgage had the project been initiated by a nonprofit sponsor (100 percent mortgage as compared to the 90 percent mortgage available to limited dividend sponsors). The $153,000 of sponsor's operating cost is excluded from the yield computations; the additional tax loss from expensing or depreciation would increase yields accordingly.

[2] Reflects cost basis as reduced by accelerated depreciation.
[3] The effective tax rate exceeds the 25 percent capital gain rate as a result of Internal Revenue Code Section 1250.
[4] Figures in parentheses indicate cash loss.

APPENDIX H–4. Effect of 100 percent BMIR Financing on the Sale of a 221(d)(3) Project at a Price Sufficient to Recover $408,000 Equity After Taxes

(Original Project "Replacement Cost"=$4,080,000)
(Original Project BMIR Mortgage=$3,672,000)
(Original Loan Terms=40 years, 3 percent)

	Sale after—				
	2 years	5 years	10 years	15 years	20 years
1. Sale price	$4,245,000	$4,237,000	$4,012,000	$3,707,000	$3,313,000
2. Adjusted basis	3,477,000	3,012,000	2,381,000	1,891,000	1,514,000
3. Tax	[1] 213,000	[1] 359,000	[1] 423,000	454,000	450,000
4. Unamortized mortgage	3,624,000	3,470,000	3,181,000	2,845,000	2,455,000
5. Net cash return (line 1 less 3 less 4)	408,000	408,000	408,000	408,000	408,000
6. Term (years) of refinanced mortgage [2]	40.1	40.0	36.1	31.5	26.3

[1] The effective tax rate exceeds the 25 percent capital gain rate as a result of Internal Revenue Code Sec. 1250. The $153,000 of sponsor's operating cost is excluded from the yield computations: the additional tax loss from expensing or depreciation would increase yields accordingly.

[2] Maturity required when 6 percent cash distribution is no longer a factor, interest rate remains at 3 percent level, and rents are not increased. If interest rate is lowered below original BMIR level, maturity or rents could be reduced.

APPENDIX H–5. Cumulative Average After-Tax Yield on Investment of $408,000 Assuming Investor is in 50 Percent Tax Bracket, 8 Percent Annual Operating Cash Flow, and Sale Price Equivalent to Unamortized 100 Percent Mortgage Loan Balance

(221(d)(3) Below Market Interest Rate project)
(Assumes identity of interest between sponsor and contractor)
(Assuming 3 percent tax credit on completion of development)

Sale after—	Yield with 3 percent tax credit	
	Dis	Nondis
	Percent	*Percent*
2 years	22.8	18.3
5 years	18.9	11.1
10 years	20.8	9.4
15 years	21.2	7.6
20 years	21.4	5.9

APPENDIX H–6. "Front Money" Requirements for Typical Project Processed Under Turnkey Public Housing Procedures and FHA Conventional and Accelerated Multi-family Processing Procedures

This is an effort to indicate the typical cash expenditures which may be anticipated in the development of the several Federally subsidized housing programs. For purposes of this discussion, we have prepared a typical development containing 272 units with a construction cost of $11,000 per unit. The total development costs for the typical unit are set forth below.

Typical Project, 272 units at an average construction cost of $11,000 per unit and an average development cost of $14,500

Construction cost	$3,000,000
Architects and engineering (4.5 percent)	[1] 135,000
Overhead and profit	300,000
Carrying charges and financing	300,000
Legal and organizational	28,000
Land	250,000
Total	4,013,000

[1] Includes allowance for inspection of construction.

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A. PUBLIC HOUSING—TURNKEY

Phase I—Housing Authority Issues "Letter Designating Turnkey Developer"

The Public Housing authority will invite private developers to submit proposals for the development of public housing units, or proposals may be submitted on the developer's own initiative. The proposal will include preliminary sketches of the proposed site plan and typical units. If the proposal is accepted, the authority will issue a Letter Designating Turnkey Developer. The costs involved in securing this Letter are as follows:

Land—No purchase expense if use of urban renewal land is contemplated.[1] If use of private land is intended an option is required----------*$5,000

Architect—Preliminary sketches to estimate the number and type of units may be appropriate to secure an expression of interest on the part of the housing authority. This is very preliminary site planning which will not require a large expenditure—if any----------*$1,000

Legal—Except for the option to purchase, no legal work is required at this point $200

*Indicates the amount will vary and is subject to negotiation.

[1] Should a presentation be required to be selected as developer—$1,000 to $5,000.

Phase II—Letter of Interest to Letter of Intent

The objective in this phase is to secure a formal letter of intent wherein the local Public Housing authority indicates that they will enter into a contract to buy the units shown in preliminary plans on the site described in the proposal for a price between $X and $Y with the final purchase price to be based on completed plans. Further, the local Housing Authority agrees in the letter of intent that, in the event the price established by appraisal (plus architectural costs and land value) is less than 95 percent of the seller's offered price and an agreement cannot be negotiated, the LHA will buy the land and reimburse the developer for the cost of preparing plans. The expenditures required to secure a formal letter of intent are as follows:

Land—If urban renewal land, no expense. If private land an option to purchase of sufficient length to cover processing time will be necessary. Cost will be a matter of negotiation between the developer and the land owner. ($250,000 if cannot negotiate option.)

Architect—The local housing authority will require the developer to prepare plans in sufficient detail to permit the authority to estimate the value of the construction. Detailed preliminary drawings will involve about two-fifths of the total architectural's fee less funds already expended. Of course, the precise fee schedule will be subject to negotiation. *$53,000

Legal—A lawyer will be involved in the preparation of the letter of intent and the purchase or optioning of the land. Here again the fee and time of payment will be subject to negotiation. *$3,000

Phase III—Letter of Intent to Final Agreement

The object of this phase of negotiation is to prepare final plans and negotiate the actual purchase price. The costs involved are as follows:

Land—No additional cost---------- $0

Architect—Final plans will be required. This involves an additional two-fifths of the fee---------- *[2]$54,000

Legal—Review of final contract------- *$0

[2] Remaining one-fifth of architect's fee recognized by HAA covers the cost of architect's inspection of the project during construction.

Phase IV—Final Agreement to Sale

During this phase, the developer secures interim financing, constructs the buildings, and sells the project to the Local Housing Authority. The cash requirements will be as follows:

Land—Purchase price_____ $250,000 unless already acquired.

Architect—No additional cost. $0

Interim financing—The developer will probably have to pay a fee (probably two points) to secure interim financing. *$73,000

Legal—Review and handling of construction financing and final closing. $5,000

B. FHA—CONVENTIONAL PROCESSING

Phase I—Determination of Suitability of Sponsor and Site

The objective of this phase is to secure FHA approval of the proposed developer and the type and location of the project proposed. If the site and the developer are acceptable, FHA will issue a *letter "B"* which means FHA has inspected and approved the site for the projected use and has determined that the developer is an acceptable sponsor. The letter encourages submission of formal application (Form 2013). FHA obtains an allocation of FNMA funds and has received regional FHA approval. It should be noted, however, that assurance of formal commitment is *not* given, which means, the developer is proceeding at his own risk. The costs involved are as follows:

Submit FHA Form 2012—No fee is required. $0

Land—The developer must control the land. If the land is controlled by public agency, no fee will be required. However if private property is involved, the land will have to be optioned or purchased. *Option $5,000 ($250,000 if cannot negotiate option).

Architect — Preliminary sketches to permit a rough estimate of the number of units and determine the amount of the mortgage that be needed. However, since FHA does not require the submission of any plans, the amount of architectural work is a matter of the developer's discretion. The amount of the fee and the time of payment will be subject to negotiation. *$1,000

Legal—Legal services will required to negotiate the option or purchase of the land and to create the appropriate nonprofit or limited distribution corporation. While it is customary for the lawyer to wait until initial closing to obtain his fee, this is a matter of negotiation. *$2,000

Phase II—Submission of Application

The objective during this phase is to secure from FHA what is in effect a nonbinding conditional letter of commitment. FHA indicates the land value they will approve. Further, FHA evaluates preliminary plans and makes a rough estimate of construction costs and the approximate amount of the mortgage. Detailed plans are requested. Costs involved at this stage are as follows:

Submit FHA Form 2013—FHA application fee (.15 percent of amount of mortgage requested) is required ___ $6,000

Architect—Schematic drawings and outline specifications must be submitted with application. This will usually involve about two-fifths of the architectural fee. Again, the time and amount of payment is a matter for negotiation _____ *$53,000

Land—No additional money is required_ $0

Legal Fee—No additional work is required _____ $0

*Indicates the amount will vary and is subject to negotiation.

Phase III—Commitment

During this phase the requirement is to finish final drawings and obtain a quantity survey so that FHA can issue a formal commitment. After FHA reviews plans and estimate of costs, a commitment is issued. If the developer believes the commitment is too low, negotiations proceed. Once the developer receives an acceptable commitment, he takes it to FNMA and secures a commitment to purchase the mortgage.

Architect—Preparation of working drawings. This will require work equivalent to an additional two-fifths of the fee. It is usual for the architect to wait for initial closing to receive this payment ---------- *$0

Legal—No additional work is required-- $0

Quantity survey—Estimate of costs based on final drawings. This usually costs .05 percent of construction costs---- *$2,000

FHA commitment fee—When commitment is issued, a fee of .15 percent is required ---------- $6,000

FNMA commitment fee—1 percent---- $37,000

Phase IV—Initial Closing

The objective here is to secure FHA approval of the entire project and to begin construction. At the initial closing the developer can draw down a substantial portion of all expenditures to date, *e.g.*, legal, architecture, land, application fees, to an amount which is the lesser of cost or allowance.

Architect—Architect paid additional two-fifths of fee allowed for plans- [1]*$54,000

Land—The developer will have to purchase the land. This usually takes place simultaneously with or just prior to the initial closing-------- *$250,000

Legal—All of the FHA papers are drawn and the land is purchased- *$4,000

Off-site escrows and working capital—If any work has to be accomplished to bring in the utilities or roads, this amount will have to be escrowed at the time of the initial closing. In addition FHA will require 2 percent working capital-- *$80,000

[1] Remaining one-fifth of architect's fee recognized by FHA covers the cost of architect's inspection of the project during construction.

C. FHA—ACCELERATED MULTI-FAMILY PROCESSING (AMP)

Phase I—Issuance of Feasibility Letter

The determination of economic feasibility—the assessment of the costs and the rents to be allowed is one of the most critical steps in processing. Once FHA makes a determination of feasibility, financing is assured so long as the developer can bring the project in at the costs and rent level projected. In the conventional procedure, FHA postpones determination of economic feasibility until the middle of processing—after the preparation of detailed drawings and study of costs and land value are completed. This means the developer has expended a great deal of time and effort before securing any firm commitment from FHA.

The new accelerated multi-family processing requires FHA to make a determination of feasibility at an earlier stage. FHA estimates the rent levels which can be marketed and the construction and land costs which can be supported by such rentals. If the rent levels and mortgage amount contained in FHA's letter of feasibility are unacceptable, the developer is running a great risk in proceeding any further. Since the mortgage amount will be determined at an earlier stage, the developer should be more careful in developing his cost and rent structures. The costs involved in this stage are as follows:

Submit FHA Form 2013— This form will be submitted in all stages. In the first stage lump sum or percentage cost estimates will be accepted. Detailed breakdowns are not required. No fee is required for the filing of this application. $0

Land—The developer must control the land. If the land is controlled by a public agency, no fee will be required. However, if private property Option $5,000 $250,000 if option cannot be negotiated).

*Indicates the amount will vary and is subject to negotiation.

is involved, the land will have to be optioned or purchased.

Architect — Preliminary sketches that permit an estimate of the number of units and determine the cost of construction are advisable. Since FHA does not require the submission of any plans at this stage, the amount of architectural work is the developer's decision. Because the economic feasibility of the project is being determined at this stage, it is advisable that the developer have a good idea of costs. *$2,500

Legal—Legal services will be required to negotiate the option or purchase of the land and to create the appropriate nonprofit or limited distribution corporation. While it is customary for the lawyer to wait until initial closing to obtain his fee, this is a matter of negotiation. *$2,000

Phase II—Conditional Commitment

At this stage the mortgagee submits a formal application for conditional commitment (Form 2013). This application is accompanied by detailed schematic drawings. An FHA application fee of .15 percent is required. If the drawings and request for mortgage commitment conform with the feasibility letter and are acceptable in detail, a conditional mortgage commitment will be issued. The commitment is conditioned on the development of final drawings which conform to FHA requirements and are within the budget set forth in the conditional commitment. Since FHA will have already approved the site, sponsor, type of project, and general financial program (i.e., rent schedule, general land cost, and construction cost), there should be few problems—all of the basic economic issues will have been resolved.

Submit FHA Form 2013—The form will be filled out in greater detail. Application and commitment fee of .30 percent will be required ---------- $12,000

Architect—Schematic drawings and outline specifications must be submitted with application. This will usually involve about two-fifths of the architect's fee. Again, the time and amount of payment is a matter of negotiation ---------- *$51,500

Land—No additional money is required_ $0

Legal fee—No additional work is required ---------- $0

Phase III—Final Commitment

During this stage the object is to complete drawings and estimates of costs so that FHA can certify that everything conforms with the conditional commitment and issue the final commitment. Once the developer receives an acceptable commitment, he takes it to Fannie Mae and secures a commitment to purchase the mortgage.

Architect—Preparation of working drawings. This will require work equivalent to an additional two-fifths of the fee. It is usual for the architect to wait for initial closing to receive his payment ---------- *$0

Legal—No additional work is required___ *$0

FNMA commitment fee—1 percent_____ $37,000

Phase IV—Initial Closing

The objective here is to secure FHA approval of the entire project and to begin construction. At initial closing the developer can draw down expenditures for legal and organization, architecture, land, application fees, quantity survey, to an amount which is the lesser of cost or allowance.

Architecture—Architect paid remainder of fee for plans---------- *[3] $54,000

*Indicates the amount will vary and is subject to negotiation.

*Indicates the amount will vary and is subject to negotiation.

Land—The developer will have to purchase the land. This usually takes place simultaneously or just prior to the initial closing---------- $245,000

Legal—All of the FHA papers are drawn and the land is purchased- *$4,000

Off-site escrows and working capital—If any work has to be accomplished to bring in the utilities or roads, this amount will have to be escrowed at the time of the initial closing. In addition FHA will require 2 percent working capital.[4]- *$80,000

*Indicates the amount will vary and is subject to negotiation.

[3] Remaining one-fifth of architect's fee recognized by FHA covers the cost of architect's inspection of the project during construction.

[4] Paid from mortgage proceeds in nonprofit cases.

APPENDIX I-1. Savings Capital, Total Mortgage Loans and Loans for Housing, Savings and Loans Associations

(In Billions of Dollars)

Year	Savings capital	Mortgage loans	Amount of housing mortgages	Mortgages in—		Percent of saving capital in—	
				One- to four-family structures	Multi-family structures	All mortgages	Housing mortgages
1962	$80.2	$78.8	$74.1	$69.8	$4.3	98.2	92.4
1963	91.3	90.9	84.9	79.1	5.8	99.6	93.0
1964	101.9	101.3	94.3	87.2	7.1	99.4	88.6
1965	110.4	110.3	102.3	94.2	8.1	99.9	92.7
1966	114.0	114.4	106.0	97.4	8.6	100.4	93.0
1967	124.6	121.9	112.5	103.2	9.3	97.8	90.3

Source: Federal Home Bank Board and 1967 estimates of Department of Housing and Urban Development.

APPENDIX I-2. Total Deposits, Mortage Loans and Housing Loans, Mutual Savings Banks

(In Billions of Dollars)

Year	Deposits	Mortgage loans	Housing loans	Percent of deposits in loans	Percent of housing loans
1950	$22,446	$8,039	$7,053	35.8	31.4
1955	31,346	18,279	15,568	55.1	49.7
1960	40,571	26,702	24,306	65.8	59.9
1961	42,829	28,902	26,341	67.5	61.5
1962	45,121	32,056	29,181	69.5	63.3
1963	49,702	36,007	32,718	72.4	65.8
1964	54,238	40,328	36,487	74.4	67.3
1965	58,232	44,433	40,096	76.3	68.9
1966	60,982	47,193	42,242	77.4	69.3
1967	66,365	50,311	44,767	75.8	67.5

Source: National Fact Book: Mutual Savings Banks, Issued by the National Association of Mutual Savings Banks, New York, May 1968.

APPENDIX I-3. Deposits by Type and Total Loans and Investments in Commercial Banks

Total Mortgages and Housing Mortgages

(In Billions of Dollars)

Year	Total deposits	Demand deposits	Time deposits	Loans for—		Percent house mortgages are of time deposit
				All mortgages	Housing mortgages	
1962	$214.5	$116.8	$97.7	$34.5	$23.5	20.1
1963	231.6	120.5	111.1	39.4	26.5	22.0
1964	251.8	125.1	126.7	44.0	28.9	23.1
1965	277.2	130.5	146.7	49.7	32.1	22.1
1966	291.9	131.1	159.8	54.4	34.9	21.3
1967	322.5	141.1	181.4	58.9	37.3	20.6

Source: Federal Reserve Board Data and HUD estimates.

APPENDIX I–4. Mortgages and Housing Loans and Assets of Life Insurance Companies 1962–67
(In Billions of Dollars)

Year	Total assets	Mortgages	Housing loans	Percent of assets in mortgages	Percent of assets in housing mortgages
1962	$133.3	$46.9	$31.1	35.1	23.3
1963	141.1	50.5	32.6	35.8	23.1
1964	149.5	55.2	35.6	36.9	23.8
1965	158.9	60.0	38.3	37.8	24.1
1966	167.0	64.6	40.1	38.7	24.0
1967	177.2	67.6	40.7	38.1	23.0

Source: Institute of Life Insurance and 1967 estimates of the Department of Housing and Urban Development.

APPENDIX I–5. Private Noninsured Pension Funds and State and Local Government Retirement Funds Total Assets Total Mortgage and Housing Mortgage

Year	Total assets	Total mortgages	Housing loans	Percent mortgages are of total assets	Percent housing credit as of total assets
1962	$66.4	$4.1	$3.1	6.2	4.7
1963	73.7	4.8	3.6	6.5	4.9
1964	82.1	5.8	4.3	7.1	5.2
1965	91.6	7.1	5.4	7.8	5.9
1966	101.7	8.2	6.2	8.1	6.1
1967	114.5	8.4	7.2	8.2	6.3

Source: Bureau of Census and Security Exchange Commission.

APPENDIX J–1. Survey of Average Age of Unionized Construction Workmen in Northern California

Name and designation of union	Local	Average age
Asbestos workers	16	44
Boilermakers	6	47
Bricklayers, stone masons, terrazzo mechanics, tuck pointers, caulkers, block layers and cleaners	7	44
Carpenters	22	42
Do	483	42
Do	2164	42
Carpet, linoleum and soft tile workers	1235	39
Cement masons	580	41
Coppersmiths	438	57
Electrical workers	6	44
Elevator constructors	8	44
Engineers	3	41

APPENDIX J-2. Estimated Annual Average Employment [1] in Construction, (Thousands)

Year	Brickmasons, stonemasons, and tile setters	Carpenters	Cement and concrete finishers	Electricians	Excavating, grading and road machinery operators
1950	150	760	29	100	79
1951	163	808	32	111	95
1952	174	842	36	122	111
1953	166	791	36	119	116
1954	157	730	35	115	118
1955	164	746	38	123	133
1956	164	730	40	126	144
1957	164	714	42	130	154
1958	166	703	44	134	166
1959	170	702	46	140	181
1960	166	669	47	141	188
1961	162	638	48	147	189
1962	162	631	52	157	198
1963	159	635	56	143	221
1964	169	651	55	151	210
1965	178	671	51	166	206
1966	164	658	67	194	237

[1] Including employees of contractors and Government construction agencies, the self-employed, and unpaid family workers.
[2] Includes carpenters' helpers, a few gardeners, and others in addition to other construction laborers.
[3] Maintenance carpenters who are employees of contractors, Government construction agencies, or who are self-employed or unpaid family workers.

Source of the Estimates:
1950 and 1960: These are Census estimates of occupation by industry which have been converted to an annual basis by comparison with the Current Population Survey estimates for 1960 (only).

by Craft, 1950–66

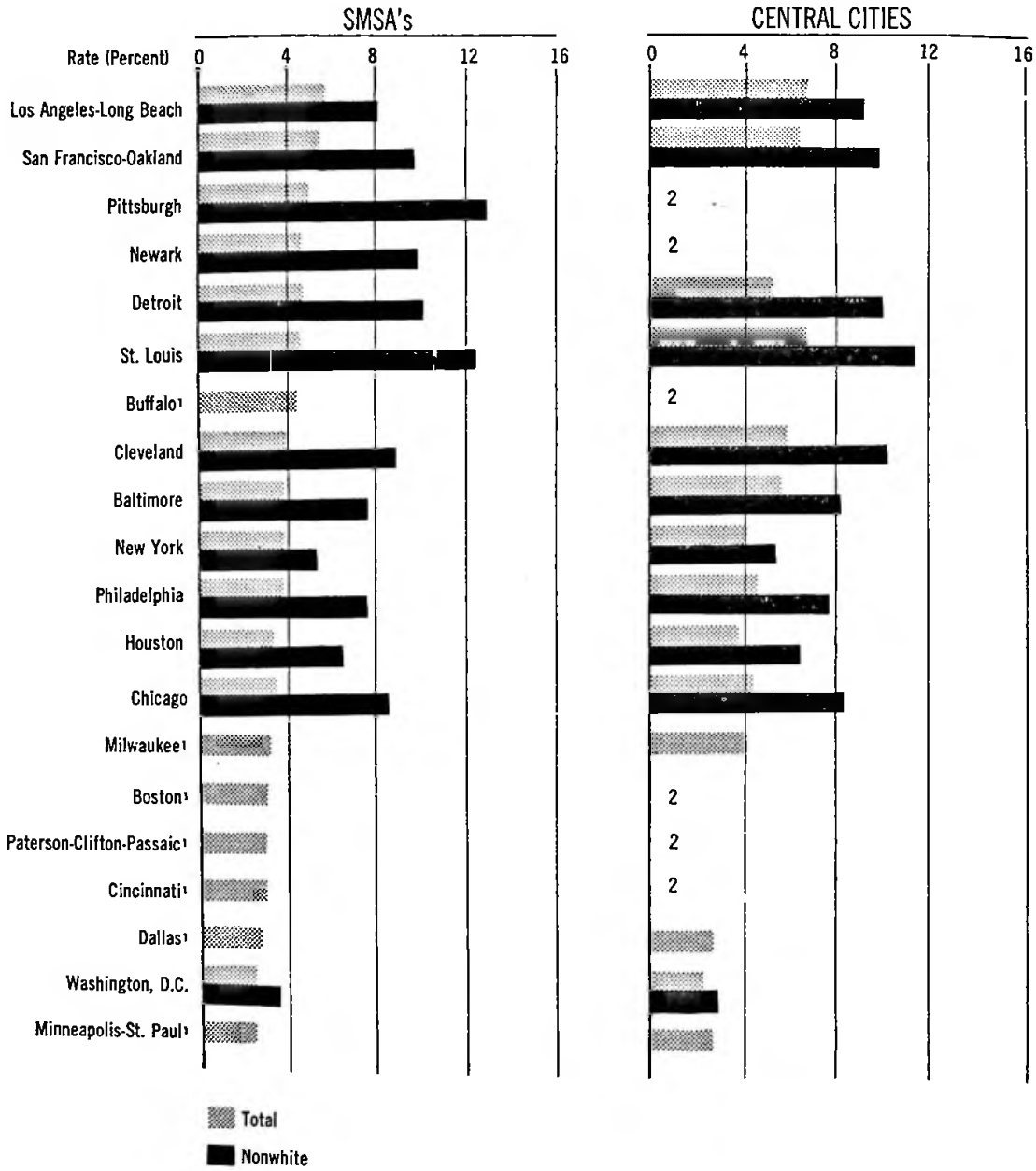
Laborers [2]	Painters, construction and maintenance [3] and paperhangers	Plasterers	Plumbers and pipefitters	Roofers and slaters	Structural metal workers	Tinsmiths, coppersmiths and sheet metal workers
695	326	61	179	43	29	32
756	348	65	194	47	32	35
807	366	67	205	50	34	37
776	345	63	196	49	34	35
735	321	58	185	46	32	33
771	330	59	192	49	34	34
774	325	57	192	49	35	34
778	320	56	191	49	36	34
789	317	54	193	50	37	34
811	319	54	197	52	38	35
797	307	51	192	51	38	34
756	292	42	178	52	34	38
741	288	33	172	57	32	42
731	302	40	177	47	32	42
787	307	43	193	55	41	46
806	315	39	183	50	40	46
728	320	35	214	50	49	48

1951–59: These estimates were obtained by using trending occupational distributions applied to Current Population Survey construction industry employment (all occupations) estimates (annual averages). Trends in the occupational distributions were obtained by a linear distribution between the occupational mixes given in the two Census (1950 and 1960) adjusted to the Current Population Survey distribution for 1960.

1961: This year's estimates were obtained by using an average of the 1960 and 1962 occupational distributions (CPS-base) applied to total construction employment estimates for the year 1961.

1962–66: These data are from the Current Population Survey.

APPENDIX J–3. Unemployment Rates for 20 SMSAs and 14 Central Cities, 1967 Annual Averages



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