DOCUMENT RESUME

05998 - [B1366373]

Why Are New House Prices So High, How Are They Influenced by Government Regulations, and Can Prices Be Reduced? CED-78-101; B-114860. May 11, 1978. 49 pp. + 8 appendices (17 pp.).

Report to the Congress; by Elmer B. Staats, Comptroller General.

Issue Area: Domestic Housing and Community Development (2100).
Contact: Community and Economic Development Div.
Budget Function: Commerce and Transportation: Mortgage Credit and Thrift Insurance (401); Community and Regional Development: Community Development (451).
Organization Concerned: Department of Housing and Urban Development.
Congressional Relevance: House Committee on Banking, Finance and Urban Affairs; Senate Committee on Banking, Housing and Urban Affairs; Congress.
Authority: Housing Act of 1949 (42 U.S.C. 1441). S. 2050 (95th Cong.). H.R. 9874 (95th Cong.). Internal Revenue Code of 1954.

Some housing officials have suggested that the American dream of owning a house may be vanishing because the median selling price of houses in 1976 hit an alltime high of $44,300, and the average selling price by the end of 1976 reached $51,000. Increased costs associated with Government regulations, materials, labor, financing, property taxes, and utilities have contributed to higher housing prices and a decline in housing affordability. Many young, middle-income, and first-time home buyers can no longer afford to buy an existing house. Findings/Conclusions: Typical new houses today are 700 square feet larger than popular houses of the 1950s because of additional bedrooms, bathrooms, family rooms, and eating areas. Although a 1976 survey showed that potential new home buyers would be willing to accept smaller houses to reduce costs and many communities allowed smaller houses to be built, builders believed that there was little incentive to build small houses when they could sell all the larger ones they build. Other factors influencing rising prices are local government regulations controlling development of land and building code requirements. Many communities seem to have adopted strict land development requirements because no national standards exist for communities to use. Some builders do not use less expensive materials or methods because of personal preference, familiarity with a particular method or material, or consumer demand. Recommendations: The Secretary of Housing and Urban Development should: initiate a research project to determine the types and sizes of less expensive new houses more median-income families can afford and would be willing to purchase; develop alternate approaches to encourage the building of less expensive new houses through incentives such as tax credits or insuring loans; perform a study to determine the impact that changes in the

capital gains tax treatment of sale proceeds could have on encouraging the purchase of smaller, less expensive homes; establish acceptable land development standards to use in mortgage insurance programs and encourage communities to use these standards; and establish a program to systematically identify communities that do not allow the use of less expensive construction material and methods and provide them with technical data and assistance necessary to encourage the communities to use these items. (RRS)

BY THE COMPTROLLER GENERAL

6373

Report To The Congress

OF THE UNITED STATES

Why Are New House Prices So High, How Are They Influenced By Government Regulations, And Can Prices Be Reduced?

The dramatic rise in the selling price and related homeownership costs is pricing an increasing number of American families out of the new housing market. Second- and third-time buyers can afford substantial downpayments and prefer large houses with many amenities. But new houses are less affordable for younger, middle-income families and first-time buyers. Local government regulations for land development and house construction have had sporadic influence on rising prices. In some communities, regulations added to prices while in others the effect was minimal.

This report contains recommendations to the Secretary of Housing and Urban Development and suggestions for the Congress to alleviate the hardships of median-income families buying new, single houses.

CED-78-101

MAY 11, 1978

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

B-114860

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

This is our report on the high cost of new, single-family housing and who is primarily affected. The report discusses the impact of government regulations on housing costs and suggests actions that the Congress and the Department of Housing and Urban Development can take to make housing more affordable for a greater number of families.

Our review was made pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

We are sending copies of this report to the Director, Office of Management and Budget; the Secretary of Housing and Urban Development; and the President, National Institute of Building Sciences.

Elmer B. Staats

Comptroller General
of the United States

COMPTROLLER GENERAL'S
REPORT TO THE CONGRESS

WHY ARE NEW HOUSE PRICES SO HIGH, HOW ARE THEY INFLUENCED BY GOVERNMENT REGULATIONS, AND CAN PRICES BE REDUCED?

D I G E S T

The prices of new, single-family, detached houses have significantly increased in the last 10 years, yet people are buying them in record numbers. In 1976 the median price house rose to $44,300 and required the home buyer to make an average downpayment of about $8,000 and monthly payments of about $465.

Increased costs associated with factors such as government regulations, materials, labor, financing, property taxes, and utilities have contributed to higher housing prices and a decline in housing affordability. This report deals primarily with the costs related to the influence of affluent home buyers and government regulations. (See p. 48.)

HOUSING AFFORDABILITY

New houses are now less affordable for young, middle-income families and first-time home buyers. Second-and third-time buyers can afford substantial downpayments and prefer large houses with many amenities. (See p. 4.)

Typical new houses today are 700 square feet larger than popular houses of the 1950s because of the addition of family rooms and more bathrooms, bedrooms, and eating areas. (See p. 8.)

Prices of existing houses have increased about 45 percent from 1972 to 1976. Many young, middle-income and first-time home buyers can no longer afford to buy an existing house. (See p. 6.)

Today's home buyers are (1) families in the upper or upper-middle income brackets with two incomes and/or (2) prior homeowners able to use the equity from their existing homes to buy higher priced new houses. In the 1950s and 1960s, most new home buyers were families with one income, buying their first home. (See p. 8.)

Although a 1976 consumer/builder survey showed that potential new home buyers would be willing to accept smaller houses to reduce costs and many communities allowed smaller houses to be built, builders believed there was little incentive for them to build small houses when they could sell all the larger ones they built. (See p. 11.)

IMPACT OF GOVERNMENT REGULATIONS

Another factor influencing the rising prices are local government regulations that control the development of land and the construction of houses. However, since no consistent pattern exists across the country, the impact varies from community to community. (See p. 41.)

Land development regulations

In many communities, large cost reductions in constructing new houses are possible by adopting less restrictive land development requirements. GAO believes many communities have adopted strict land development requirements because no national standards exist for communities to use. (See p. 14.)

Building code requirements

Restrictive building codes requiring the use of expensive methods and materials were not a major factor contributing to rising new house prices since many communities allow the use of less expensive items. However, encouraging some communities to use less expensive items could result in savings of about $1,700 per house. (See p. 29.)

Some builders do not use the less expensive materials or methods because of personal preference, familiarity with a particular method or material, or consumer demand. Potential savings of from $1,400 to $7,000 per house could be realized. (See p. 37.)

ACTIONS TAKEN BY THE CONGRESS

Recently, the Congress addressed the increased hardship of young families with only one income to buy their first house and took steps to assist them by:

--Reducing downpayments for the basic federally insured housing program. For example, on a $50,000 home, the minimum downpayment will now be $2,000 instead of $4,750. (See p. 42.)

—Establishing the Department of Housing and Urban Development's Graduated Payment Mortgage Program on a permanent basis. This program enables young families to initially make lower monthly payments and increased payments in later years when it is expected that their earnings have increased. (See p. 42.)

ACTIONS BEING CONSIDERED BY THE CONGRESS

Legislation was introduced in the Congress in 1977 to help first-time home buyers accumulate the downpayment needed to purchase a new house. (See p. 42.)

ADDITIONAL POSSIBILITIES TO REDUCE NEW HOUSE PRICES

New houses could be made more affordable by (1) encouraging builders to construct smaller, less expensive houses through direct tax credits, (2) developing national standards that can be used by communities as guidelines in establishing less restrictive land development regulations, (3) systematically identifying those communities still having restrictive building codes and encouraging them to allow less expensive, acceptable building materials and methods, and (4) establishing an insured loan program for builders of less expensive new houses. (See p. 43.)

MATTER FOR CONGRESSIONAL ACTION

To make new houses more affordable for more young families and to assist in reducing the prices of new houses the Congress should provide funds to enable the National Institute of Building Sciences to identify acceptable construction methods and materials that would reduce the cost of new houses. (See p. 45.)

RECOMMENDATIONS

GAO recommends that the Secretary of Housing and Urban Development:

—Initiate a research project to determine the types and sizes of less expensive new houses more median-income families can afford and would be willing to purchase. (See p. 45.)

—Develop, as part of the research project, alternate approaches to encourage the building of less expensive new houses through incentives such as tax credits or insuring loans to builders of smaller, less expensive new houses. (See p. 46.)

—Perform a study to determine the impact that various changes in the capital gains tax treatment of sale proceeds of a house could have on encouraging the purchase of smaller, less expensive homes. Such a study should identify the benefits and costs involved in any change. (See p. 46.)

—Establish acceptable land development standards for use by the Department in its mortgage insurance programs and encourage communities to use these standards. (See p. 46.)

--Establish a program to systematically identify local communities that do not allow the use of known, less expensive construction materials and methods and, using information developed by the National Institute of Building Sciences, provide them technical data and assistance necessary to encourage the communities to use these items. (See p. 46.)

AGENCY COMMENTS

The Department partially agreed with GAO's recommendations. However, the Department's comments were confined to current program initiatives because its Task Force on Housing Costs is addressing the issues discussed in this report. The Task Force's final report is expected in late May 1978. The National Institute of Building Sciences agreed with GAO's recommendations. (See pp. 46 and 47.)

Contents

ABBREVIATIONS

ASCE	American Society of Civil Engineers
GAO	General Accounting Office
HUD	Department of Housing and Urban Development
NAHB	National Association of Home Builders
SMSA	Standard Metropolitan Statistical Area

CHAPTER 1

INTRODUCTION

In 1949 the Congress set a national goal of a decent home and a suitable living environment for every American family. The Housing Act of 1949, 42 U.S.C. 1441 (1970). In setting this goal, the Congress anticipated that most American families would be able to reach this goal without direct government assistance and, as a result, focused on the needs of low-income families through various subsidy programs. Recent rapid increases in selling prices and operating costs of new single-family houses, however, have shifted attention to the needs of middle-income families, many of whom can no longer afford to buy a new house.

Some housing officials have suggested that the American dream of owning a house may be vanishing because the median selling price 1/ of new houses in 1976 hit an alltime high of $44,300 and the average selling price by the end of 1976 reached $51,000. Further, increases in the prices of existing houses have closely paralleled new house prices.

Others have questioned whether there really is a problem. One only has to look at today's booming housing market to see the paradox. Approximately 1.6 million new single-family detached units were started in 1977 and people are buying new houses in record numbers but opportunities for new home ownership for many are dwindling. In chapter 2 we discuss this phenomenon, using various economic measurements to define today's housing affordability problems and identifying those most seriously affected.

Under our competitive system, business usually responds to the demands of buyers. The new housing industry has reacted to such forces and, as a result, new home buyers predominantly influence what types of houses are built and what they are sold for. Chapter 3 discusses how new home buyers' shifting economic status and buying habits have influenced housing prices and have adversely affected the ability of many families to buy new houses.

For years, numerous studies, reports, and articles have placed government regulations at the heart of housing affordability problems. Some suggest complete abolition of regulations, letting the free market determine how land is developed and how houses are constructed. Others call for tighter, more restrictive controls for health, safety,

---

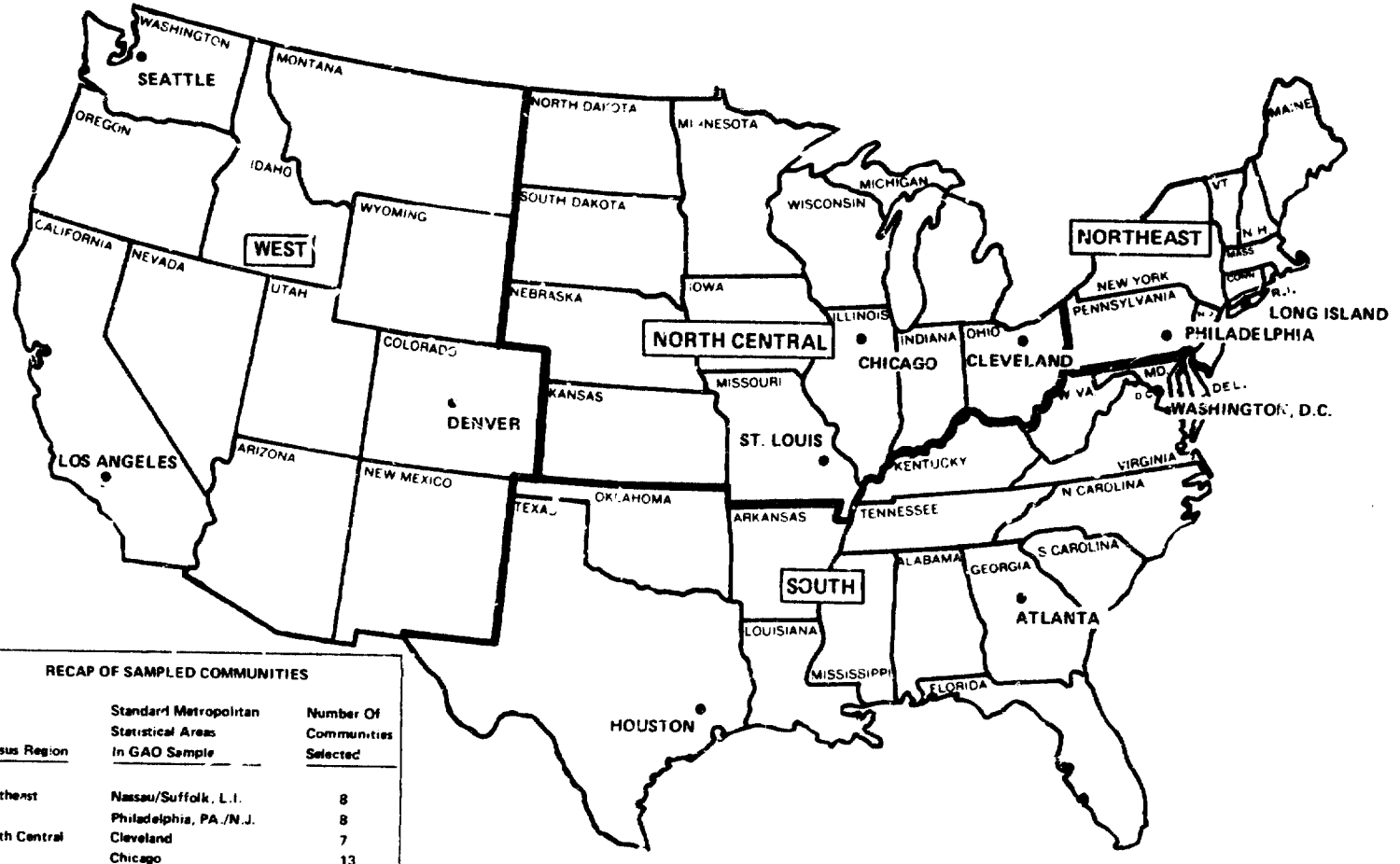
1/Median price falls directly in the middle between the lowest and highest selling prices; the average price is the average obtained by dividing the total selling prices of all new houses by the number of new houses sold.

energy, environment, and other reasons. While the degree of government regulation needed is a value judgment, the regulations do determine how land is developed and houses are constructed. And, therefore, regulations also have considerable influence on house prices. Chapters 4 and 5 discuss three primary regulations--subdivision regulations, zoning ordinances, and building codes--and how they play a part in either reducing or increasing new house prices.

Chapter 6 summarizes our conclusions on: (1) the extent of housing affordability problems and who is primarily affected, (2) how consumers influence the new house market, and (3) the impact of government regulations on rising housing costs. Where appropriate, we also recommend actions which could help make new houses more affordable.

Chapter 7 defines the scope and nature of our work, along with the methodologies we used, including highlights of where we went, who we talked with, and what we did. To get a proper perspective of the new housing market and some of its problems, we did extensive work in 87 communities located in 11 Standard Metropolitan Statistical Areas (SMSA) throughout the country. The map on the following page depicts each of these metropolitan areas.

MAP DEPICTING THE 11 METROPOLITAN AREAS SELECTED FOR REVIEW



RECAP OF SAMPLED COMMUNITIES

Census Region	Standard Metropolitan Statistical Areas In GAO Sample	Number Of Communities Selected
Northeast	Nassau/Suffolk, L.I.	8
	Philadelphia, PA./N.J.	8
North Central	Cleveland	7
	Chicago	13
	St. Louis	5
South	Washington D.C.-MD./VA.	5
	Atlanta	10
	Houston	8
West	Denver/Boulder	12
	Los Angeles/Long Beach	6
	Seattle/Everett	5
TOTAL	11	87

CHAPTER 2

HOUSING COSTS UP - HOMEOWNERSHIP POTENTIAL DOWN

The dramatic rise in homeownership costs is pricing an increasing number of American families out of the new housing market. The high cost of homeownership and an analysis of housing affordability by income class and age group indicate that lower- and median-income families are withdrawing from the market for new single-family houses, leaving an increasing proportion of the market to upper income groups. Further, the hardest hit are young families. The trend in affordability of existing homes is similar to that for new houses since increases in the prices of existing homes are closely related to increases in the prices of new houses.

Homeownership costs by 1976 had reached the point that a monthly expenditure of $465 was required to amortize the mortgage principal and pay the mortgage interest, insurance premiums, property taxes, utility costs, and repair and maintenance expenses on a median price new house which sold for about $44,300. This monthly outlay represented almost 47 percent of median family income, adjusted to exclude Federal and State income taxes and social security taxes for a family of four. By way of contrast, only about 31 percent of adjusted median family income was required to defray similar home ownership costs in 1965.

AFFORDABILITY BY INCOME CLASS AND AGE GROUP

Since the mid-1960s, lower- and median-income families have been withdrawing from the single-family housing market, leaving an increasing portion of the market to upper-income groups. In 1965-66, the top quarter of all families (those with annual incomes in excess of $10,000) purchased 31 percent of new single-family homes. Middle-income families ($5,000 to $9,999) accounted for 53 percent of new homes purchased while lower-third families (less than $5,000) purchased only 17 percent of all new homes in 1965. By 1975-76, the top quarter income families ($20,000 and up) increased their share of the new home market to 58 percent while both middle ($10,000 to $19,000) and lower (less than $10,000) income families proportion of the new single-family housing market declined to 36 percent and 4 percent respectively.

An analysis of who can afford a new house by age groups indicated that the percentage of families in various age groups able to afford a new house in 1976 was about the same as in 1960. However, there was a dramatic decline in affordability for all age groups from 1970

to 1976--and the gains made in affordability of new houses had all but vanished. However, the affordability decline from 1970 to 1976 is overstated because a large number of subsidized housing units entered the market in 1970. The age group most affected was families under 35 years of age.

In 1970, almost 30 percent of all families under 35 years of age could afford the median price new home, but by 1976, only slightly more than 15 percent, or half the families under 35 years of age, could afford the median price home. In addition, about 59 percent of the first-time home buyers were two income families. The following data developed by Data Resources, Inc., shows the proportion of families by age group who could afford a median price new house, assuming a family could afford a home worth twice its annual gross income.

The Proportion of Families by Age Who can Afford the Median-Price New Home

Year	Under 35	35-44	45-54	55-64	65+
1960	16.0	30.7	33.3	26.8	11.5
1970 a/	29.3	47.7	52.1	42.1	14.7
1976	15.3	32.5	38.7	28.8	10.3

a/Median house prices in 1970 were abnormally low due to the construction of a large number of low-priced subsidized units which resulted in an abnormally high rate of affordability. Since 1970 was a recession year, median family income grew less than its historical average.

HOUSE PRICES ROSE FASTER THAN INCOMES

New single-family houses have become less affordable in 1976 because new house prices have increased at a faster rate than median family income. For new single-family houses, the median price has more than doubled since 1965. In that year, the median price was $20,150 and by 1976 the price rose to $44,300--an increase of about 120 percent. During the same period, median family income-adjusted for Federal and State income taxes and social security taxes—increased only 77 percent, from $6,061 in 1965 to $11,919 in 1976.

From 1972 to 1976, new home prices have risen from $27,550 to $44,300, representing a growth rate of about 61 percent. Thus, over half of the growth rate since 1965 in new home prices has occurred in the last 5 years.

Similar to new house prices, the prices of existing homes also increased significantly during the 1972 to 1976 period. Existing home prices increased about 45 percent during the period 1972 to 1976, going from $26,700 in 1972 to $38,100 in 1976, compared to an increase of about 61 percent in the prices of new homes for the same period.

The following Department of Commerce and National Association of Realtors data shows the relationship between the prices of new and existing homes and the annual percentage change.

Median Sales Price of Single Family Houses

	New houses	Annual growth rate	Existing houses	Annual growth rate
		(percent)		(percent)
1965	$20,150	-	N/A	-
1966	21,525	6.8	N/A	-
1967	22,691	5.4	N/A	-
1968	24,833	9.4	$20,100	-
1969	25,575	3.0	21,800	8.5
1970	23,533	-8.0	23,000	5.5
1971	25,216	7.2	24,800	7.8
1972	27,550	9.2	26,700	7.7
1973	33,708	22.3	28,900	8.2
1974	36,016	6.8	32,000	10.7
1975	39,241	8.9	35,300	10.3
1976	44,283	12.8	38,100	7.9
1977	48,908	10.4	N/A	-

HOMEOWNERSHIP COSTS ALSO ROSE

The decline in affordability, particularly for first-time home buyers, was not only caused by the greater increases in house prices but also by the rapid escalation of homeownership costs. These costs represent payments on the mortgage principal and interests,

insurance premiums, property taxes, utilities, and repair and maintenance expenses. The amount of the mortgage principal represents the difference between the selling price and the amount of the downpayment made by the buyer. The average downpayment in 1976 was about $8,000 on a median-price house.

Overall, homeownership costs increased about 200 percent during the 1965 to 1976 period. The largest increase occurred in property taxes, which increased about 350 percent for the median-price new home. Utilities increased almost 120 percent since 1965 and maintenance and repair expenses increased over 200 percent during this same period.

The significant increases in homeownership costs have resulted in homeowners using about 47 percent of their tax adjusted 1976 monthly median family income to pay these costs, up from 31 percent in 1965.

The relationship of monthly homeownership costs to monthly adjusted median income is shown in the following table.

	1965	1976	Percent of increase	Ownership costs as a percentage of net monthly median family income	
Tax adjusted monthly median family income (note a)	$505	$993	97	1965	1976
Total monthly homeownership costs :	$155	$465	200	31	47
Principal and interest (note b)	98	288	195	19	29
Property taxes	17	78	353	3	8
Maintenance and repairs	11	33	208	2	3
Utilities	24	53	119	5	5
Insurance	5	13	145	1	1

a/Adjusted for Federal and State income taxes and social security taxes for a family of four. These taxes totaled $68.50 in 1965 and $250.00 in 1976, an increase of 267 percent (median gross income for a family of four was $573.50 monthly in 1965 and $1,237.00 in 1976).

b/Assumes 28-year maturity and 5.75% (1965) and 9.01% (1976) mortgage interest rates (average for the first year). Also, assumes an 18% downpayment.

CHAPTER 3

NEW HOUSES BUILT FOR AFFLUENT HOME BUYERS

Today many homebuyers are able to afford high cost housing. The buyers creating this market generally are: (1) families in the upper or upper-middle income brackets who can afford large downpayments and monthly homeownership costs and/or (2) prior homeowners who are able to use the equity from their homes to buy high-priced new houses.

The influence of these affluent home buyers is a major factor causing increased prices of new houses because they prefer large houses with many amenities. And, homebuilders are responding to this demand. The result was that typical new houses built in 1976 contained about 1,700 square feet of finshed living space, 700 square feet larger than popular houses of the 1950s. Today's new houses are larger because of the addition of family rooms and a trend toward more bathrooms, bedrooms, and eating areas. Buyers also want houses with built-in appliances, fireplaces, and air conditioners. These items do not add to the size but increase the cost of new houses.

The changing preferences of new home buyers can be directly linked to the changing nature of today's buyer. According to the National Association of Home Builders (NAHB), today's typical new home buyer is 33 years old, is buying at least his second home, and has a combined income—husband and wife—of $21,600. In contrast, builders told us new home buyers of the 1950s and 1960s predominantly were first time buyers in their early 20s with only one income.

This strong move-up buyer market has significantly influenced the type of houses builders are constructing. Builders said they were building large houses not only because this was what the current market prefers but because these houses were more profitable. On the other hand, several builders indicated a market also existed for smaller, less expensive houses. However, most builders did not cater to this largely untapped market because of the success they have had with bigger, more expensive houses.

CHANGING PROFILE OF NEW HOME BUYERS

Large new houses, with more rooms and extra features, can be directly related to the changing characteristics of people buying today's new houses. While national data was not available, builders told us that today's new home buyer tends to be older than his counterpart in the 1950s and 1960s. During those earlier periods, new home buyers usually were in their twenties, while today the 30-40 age group tends to dominate the new house market. The median age of today's new home buyer is 33, with only 6 percent of the buyers being under 25; 56 percent between 25-34; and 38 percent, 35 years old and older.

Another important changing characteristic of today's new home buyer is that a majority have previously owned a home and are now "trading up" using the equity accumulated in their current house. Builders told us that in the 1950s and 1960s their new homes were bought primarily by first-time buyers. By 1976, however, only 1 out of 4 of their customers were first-time buyers.

Not only was the 1976 new house market dominated by previous homeowners, it was also typified by affluent families--households in the top quarter income bracket, having annual incomes of $20,000 or more. NAHB's national survey indicated that in the 1975-76 period 60 percent of the new houses were bought by affluent families, with the annual median income being $21,600 and two or more incomes being common. Just 10 years earlier, affluent families bought only 31 percent of the new houses built, while middle-income families dominated the new house market. Moreover, most new house buyers in the 1950s and 1960s were single-income families.

NEW SINGLE-FAMILY HOUSES: TODAY AND YESTERDAY

Today's new single-family houses are larger than those built in the 1950s and 1960s. The average new house in 1950 contained less than 1,000 square feet of finished floor space. These small houses were the culmination of earlier efforts by the Federal Government and the building industry to focus greater attention on building for the lower priced market in a period of urgent housing shortage. By the middle 1950s, the average house size was still relatively moderate --about 1,150 square feet. Houses with Government-insured mortgages, which reached a peak of 41 percent during this period, were even smaller--ranging between 894 square feet and 1,140 square feet during the 1950s. The 1960s showed progressive increases in house sizes, a trend that continued into the 1970s. By 1976, the average new house had grown to 1,700 square feet.

The trend toward larger, more expensive houses since 1950 was influenced by home buyers' desires for extra features. Some popular extras are additional bathrooms and bedrooms, two eating areas, and family rooms. Besides additional rooms, many of today's houses include items not generally popular in the past, such as air conditioning, built-in appliances, and fireplaces. While these latter items do not increase the size of a house, they do increase the price. The following table, on page 10, based on Department of Commerce statistics, shows the percentage of houses built in 1950 and 1976 which contained these characteristics.

Characteristics	Percentage of houses 1950	1976
Bathrooms - 2 or more	4	67
Bedrooms - 3 or more	34	88
Garage or carport	47	80
Central air conditioning	(a)	49
Dishwasher	(a)	78
Stove/oven	21	91
Fireplace	22	58

a/National data not collected for these items.

A similar upward trend also holds true for such items as eating areas and family rooms. Since national data on these items was not available, we discussed the items with various builders throughout the United States. They indicated that today's homes generally include two eating areas--an eat-in kitchen and a formal dining area--whereas the single combined kitchen/dining area was more common years ago. Likewise, family rooms were uncommon in the 1950s, but now most builders include a family room as a basic part of the house.

PRICES AND HOMEOWNERSHIP COSTS HIGHER FOR LARGER HOUSES

As house size and amenities increase so do house prices. Housing costs and costs associated with amenities, such as fireplaces and built-in appliances, vary from builder to builder and from one geographical area to another. Therefore, it is difficult to measure with any degree of accuracy the impact these factors have on the selling prices of new houses.

Besides their obvious impact on selling prices, large houses also affect homeownership costs--the monthly expenses for principal and interest, taxes, insurance, utilities, and maintenance. As pointed out in chapter 2, housing affordability depends not only on the relationship between income and selling price but also on one's ability to operate and maintain a house once it is bought. From an affordability standpoint, these recurring expenses are an important consideration.

To illustrate how homeownership costs might differ between a large and a small house, we compared several of these expenses for a 1,000 and a 1,700 square foot house. Based on national data for taxes, property insurance, and electric charges, we determined that these costs along with principal and interest charges would be 44 percent higher for the 1,700 square foot house. This excludes repair and maintenance costs and nonelectric utility expenses (e.g., gas) for which data was not readily available. Our analysis is shown in the following table.

Selected homeownership expenses	Annual costs	
	1,000 sq. ft.	1,700 sq. ft.
Principal and interest (note a)	$2,640	$3,780
Taxes and insurance	798	1,140
Electric	180	306
Total	$3,618	$5,226
Increased annual expenses for a large house		$1,608
Percent increase		44

a/The selling price of the 1,700 square foot house was assumed to be $50,000 and $35,000 for the smaller house. Also, the assumed mortgage terms were a 9% interest rate, 25% down-payment, and a 25-year loan, for both houses.

LITTLE INCENTIVE TO BUILD INEXPENSIVE HOUSES

Although many potential new home buyers want smaller, less expensive new houses, and many communities allow smaller houses to be built, the builders we interviewed said they will primarily build larger houses as long as that market exists.

According to the "Professional Builder's" 1976 National Consumer/Builder Survey, about 70 percent of the people looking for a new house would be willing to accept a smaller house to reduce costs. However, most of those willing to accept a smaller house want a house that could be expanded at a later date. Others said they would be willing to give up duplicate items such as extra bathrooms, bedrooms, and eating areas.

To determine if communities would allow smaller houses to be built to meet this demand, we asked local officials in 87 communities their minimum house size requirements for (1) the type of house most commonly built (e.g., 1-story ranch) in a residential district where single-family houses predominated and where a significant amount of developable land is still available, and (2) the smallest house

allowed in the selected district. The first question was designed to show minimum requirements for the community's most popular house, while the purpose of the second question was to show the smallest house the community would allow, regardless of style.

Of the communities responding to the first question, 84 percent either had no minimum house size requirement or had minimums of 1,200 square feet or less for their community's most desirable house. For purposes of analysis, 1,200 square feet was used as the cutoff for a small house. Further, 74, or 89 percent, of the 83 responding to the second question said they permitted houses 1,200 square feet or less --regardless of house type. Only four of the communities responding to the first question and one community responding to the second question required houses to be built as large or larger than the national median --1,700 square feet. The results of our analysis are shown in the table below.

Minimum house size per zoning ordinance (square feet)	Number of communities requiring minimum for: Most popular house	Smallest house allowed
No minimum requirement	36	31
1,000 and under	23	25
1,001 to 1,200	17	18
1,201 to 1,400	3	5
1,401 to 1,699	7	3
1,700 and over	4	1
Total responses	90	83
No response	1	4
Communities sampled	91 (note a)	87

a/Four communities provided data on two areas in their community where an equal amount of building activity was occurring.

According to local officials whose communities had established minimum house sizes, most new houses generally exceeded the local minimum by at least 300 square feet. In only three communities did new houses usually approximate the minimum requirement. Most officials said consumer demand was the main reason bigger houses were built.

We also asked 17 builders whether local house size restrictions prevented them from building their best selling house in any of the 87 sampled communities. Unanimously, they responded no. In fact, most of the houses they constructed, including their best sellers, exceeded minimum floor area requirements. In several instances, their houses exceeded the minimums by over 1,000 square feet. As a group, the average best seller was almost 600 square feet above local minimums.

Builders believed there was little incentive for them to build smaller houses when they could sell all the larger houses they could build. In fact, 7 of the 17 builders we interviewed do not build any small houses, within the 1,000 to 1,200 square foot range. Moreover, of the 10 builders who construct houses of this size, such houses only represent about 15 percent of the houses they build. Further, builders said there is less profit in small houses unless a builder constructs a large number of such houses so he can take advantage of the economies of large volume construction and standardized designs.

Builders we interviewed told us there is a demand for smaller houses especially among the young, moderate income, first-time buyer. In profiling the buyer who would be interested in a smaller house, the builders said these buyers would be young couples in their twenties, having a combined income of about $15,000 with both working and no equity from a previous house. However, builders said such houses would probably have to be built in areas where land and land development costs were relatively inexpensive.

CHAPTER 4

SAVINGS POSSIBLE IN RESIDENTIAL LAND DEVELOPMENT

In most communities, potential savings in housing costs are possible through the adoption of less restrictive, less expensive land development requirements. In the 87 communities sampled, land development regulations varied considerably, with some communities having requirements which would add significantly to the cost of new houses. Since local communities do not have minimum acceptability standards to use as a guide, most communities developed their requirements based on past experience or local preference. The most restrictive communities in our sample had (1) specifications or standards for streets and related site improvements that could increase the cost of a house by as much as $2,655, (2) requirements for 150 to 200 foot wide lots that further increased site improvement costs, (3) requirements for dedicating land for parks and schools costing up to $850 a house, (4) municipal fees as high as $3,265 a house for such items as local reviews, permits, inspections, and utility connections, and (5) local review and approval processes that took up to 21 months.

LAND DEVELOPMENT REGULATIONS DEFINED

Traditionally, local governments have used two primary land use controls--subdivision and zoning regulations--to guide development within their boundaries. Broadly speaking, subdivision regulations govern the process and stipulate how lots are to be created out of larger tracks or subdivisions of land, while zoning ordinances dictate how the land is to be used. Even though great variability exists as to content and coverage of individual community regulations, certain elements are common to most subdivision and zoning regulations.

Typically, subdivision regulations require developers to install a variety of public facilities to serve the subdivision. Streets, sidewalks, driveways, storm and sanitary sewers, and water systems are commonly required by these regulations. Moreover, specifications and standards for these facilities are frequently found in subdivision regulations. In addition to requiring these site improvements, subdivision regulations prescribe various review and approval requirements as check points in the development process. In order to obtain approvals, numerous municipal fees and charges must be paid by the developer. Occasionally, developers must also reserve or dedicate portions of the subdivision for items such as parks and schools.

Zoning ordinances normally designate sections of the land for specific uses, such as for construction of single-family detached houses. In many zoning regulations, limitations on population density also are established. These limitations take many forms, with minimum house and lot sizes (including minimum lot frontages)

being two of the more popular restrictions often cited. Similar to subdivision regulations, zoning ordinances also prescribe review and approval processes and various fees before developments are approved.

The cost of undeveloped land and land improvements are the beginning point for determining the selling prices of new houses. In 1950, these costs represented about 10 to 12 percent of a new house's selling price. However, these costs have become more significant in recent years and now represent 20 to 25 percent of a new house price.

RESTRICTIVE SPECIFICATIONS FOR SITE IMPROVEMENTS

Some communities have restrictive requirements for site improvements which could add significantly to the cost of new houses. In the 87 communities sampled, we estimated typical savings of about $1,300 a house if communities would allow 17 less expensive requirements for streets, sidewalks, driveways, and water and sewer systems. The potential savings ranged from zero in two communities to $2,655 in one community. (See app. I and II.)

About 70 percent of the local officials we contacted stated that their requirements were based on past experience and local preferences, which apparently accounts for the fact that street and site improvements varied considerably in the sampled communities. Further, 76 percent of the local officials said that their current requirements were better defined, more extensive, more costly to comply with, and generally more restrictive than in the past.

During our research and in discussions with builders and developers, we identified 17 costly site improvement items which, if required by communities, could add to housing costs. To demonstrate potential savings, we identified less expensive alternatives which have been approved or recommended by HUD, other Government agencies, and professional organizations such as the American Society of Civil Engineers (ASCE) and the Asphalt Institute.

To determine local requirements for these items, we sent questionnaires to government officials in 87 communities in 11 SMSAs throughout the country. To determine the cost impact of community requirements, we obtained cost estimates through the ASCE. To calculate potential savings, we used a hypothetical 75-to 150-foot residential lot.

Our analysis of site improvement requirements is segmented into four categories—streets, sidewalks, driveways, and water and sewer systems.

Residential street requirements

Based on available standards, residential street pavement widths and thickness in some communities appeared to be restrictive. If less expensive requirements were adopted by some of the 87 communities sampled, the cost of new houses could be reduced. To establish residential street requirements, communities used past experience and local preferences, with 42 percent relying on State highway specifications.

The width of residential streets, in most instances, depends upon whether on-the-street parking is allowed. For local residential streets, the ASCE suggests the following street widths:

Parking allowed on both sides - 26 feet
Parking allowed on one side - 20 feet
No parking allowed - 20 feet

Our analysis of minimum street widtns required showed that 66 or 76 percent of the communities required widths in excess of the ASCE suggested standards. A comparison of the minimum street widths required in the 87 communities sampled and the standards suggested by ASCE, together with the potential savings possible if ASCE standards were used, follows.

Community requirement	Number of communities with requirement	Number of communities above standard	Range of street widths above standard	Savings per house if standards are used
			(feet)	
Parking on both sides	69	51	27 to 40	$40 to $550
Parking on one side	6	5	24 to 32	160 to 470
No parking	12	10	22 to 29	80 to 355
Total	87	66		

Development costs in some subdivisions could be reduced if the turning circle diameter of cul-de-sacs were 80 feet as allowed by HUD. A cul-de-sac is used on streets having only one entrance where, in order to leave the street, it is necessary to build a turning circle at the opposite end of the street. Community requirements for cul-de-sac diameters ranged from 40 to 140 feet. Thirty-nine, or 45 percent, of the communities required minimum diameters in excess of the 80 feet allowed by HUD, with the most frequently required being 100 feet in 18 communities. Reducing the 100 foot diameters to 80 feet could reduce land development costs by $3,900 for each cul-de-sac, or about $130 a house, assuming 30 houses were built on the street.

The thickness of concrete and asphalt streets also varies from community to community. For concrete streets, HUD recommends a minimum of 5 inches thick. Thirty-six of the 43 communities having minimum requirements for concrete streets called for thicknesses greater than the 5 inches recommended by HUD, with 21 communities requiring 6 inches and 15 communities requiring from 7 to 10 inches. Since each inch of concrete costs about $230 a house, potential savings ranged from $230 in communities requiring 6 inch thick pavements to $1,140 in communities requiring 10 inches.

For asphalt streets, a minimum top course of 1 to 2 inches is suggested by the Asphalt Institute. Thirteen of the 30 communities having minimum requirements for asphalt require thicknesses greater than 2 inches. The most restrictive requirement was for a 4-inch thick surface. For each inch of asphalt pavement above 2 inches, an estimated $130 is added to the cost of a new house.

The type of pavement edge required by communities also affects development costs. Basically, there are two types of pavement edges, although variations of each occur: curbs and gutters or grass drainage swales for natural drainage. Generally curbs and gutters are used when storm water runoff is to be channelled through storm sewers, while swales use the soil's natural drainage powers. Both are acceptable to HUD, where topographical and other favorable conditions exist. Seventytwo, or 83 percent, of the sampled communities require the more costly curbs and gutters. If swales instead of curbs and gutter could be used, about $240 a house could be saved.

Sidewalks

Similar to streets, sidewalk widths and thickness in some communities appeared to be restrictive. In addition, some communities required sidewalks on one or both sides of the street when not considered necessary by HUD requirements. Further savings could also be available if more communities would allow concrete substitutes for sidewalks.

In the communities having requirements for sidewalk widths, 27, or 36 percent, required more than the 4-foot HUD minimum, with 24 communities requiring 5-foot widths and 2 requiring 6-foot minimum widths. If a sidewalk width were reduced 1 foot--from 5 to 4 feet--approximately $60 a house could be saved, assuming concrete sidewalks were constructed on both sides of the street.

Reducing concrete sidewalk thickness to the HUD minimum of 4 inches could also result in savings of $30 to $120 a house in about 25 percent of the communities sampled. Of these communities, 6 required thicknesses of at least 6 inches, 11 required 5 inches, and 1 required 4-1/2 inch thick concrete sidewalks. Each 1-inch reduction in sidewalk thickness could save about $60 a house.

In addition, about $335 a house could be saved if communities did not require any sidewalks. Likewise, if sidewalks were installed on only one side of the street, $165 could be saved. HUD allows sidewalks on both sides of a street to be eliminated in communities where the predominant lot widths are 80 feet or greater. Thirty of our sampled communities required lot widths of 80 feet or more. Ten of these communities required sidewalks on both sides of the street in new subdivisions. One required sidewalks on one side.

Sidewalk composition is another area offering savings. For example, substituting asphalt for concrete can mean savings of $185 a house, assuming sidewalks are constructed on both sides of the street. Only 14 percent of our 87 sampled communities allowed materials other than concrete to be used for sidewalks.

Driveways

Similar to sidewalks and streets, driveway costs can be reduced by changing pavement composition or by varying driveway widths and depths. Also, by using ribbon-type (two concrete or asphalt runners) instead of full-width driveways, additional savings are possible.

The most frequently required material for driveways in our sampled communities was concrete, required by 30 of the 59 communities having a requirement for driveway composition. HUD allows less expensive alternatives, such as asphalt and crushed rock. Costs could be reduced $195 if asphalt were used, and $280 per lot if crushed rock were substituted for concrete.

Reducing some communities' requirements to HUD minimums for driveway widths and depth could also lower costs. For instance, $40 a house could be saved by reducing driveway widths just 1 foot. HUD considers 8 feet to be an acceptable minimum width. Forty-six, or 84 percent, of the sampled communities that regulate driveway widths required widths in excess of the HUD minimum, with 32 communities requiring minimum widths of 10 and 12 feet. The potential savings in the communities having 10 and 12 foot minimums would be $80 to $160 per house.

An additional savings of $50 a house could be realized if community requirements for concrete driveway thickness were reduced by 1 inch. Twenty-five of the 60 communities that required a certain driveway depth exceeded the HUD minimum of 5 inches. While 1 community required a 7-inch depth and another required an 8-inch minimum, the majority (23 communities) required 6-inch thick driveways.

Forty-one of the sampled communities allow ribbon-type driveways, an acceptable substitute for full-width driveways. However, 46 of the communities required full-width driveways in their new subdivisions. About $155 a house could be saved by allowing less expensive ribbon-type concrete driveways.

Water and Sewer Systems

Savings in housing costs are also possible by changing the type and size requirements for water and sewer pipes. Although no standards exist for pipe sizes for water mains and storm sewer lines, the wide variety of sizes allowed by the 87 sampled communities suggested that some communities may require larger sizes than necessary. In addition, some communities' requirements for spacing storm sewer manholes—which cost about $1,100 each—were more restrictive than suggested by ASCE.

In communities having central water systems (77 of the 87 sampled communities) instead of private wells, various materials can be used for water mains: cast iron, ductile iron, asbestos cement, and polyvinyl chloride (PVC), all of which are approved by HUD. The least expensive material is PVC, saving an estimated $195 a house when used in place of ductile iron. Most communities required one of the more expensive materials, while only 13, or 17 percent, of 77 communities allowed the less costly PVC to be used in water mains.

Additional costs can be added to the price of a new house if communities overdesign their water and sewer systems by requiring larger diameter pipes than needed. The 87 sampled communities required a wide variance in pipe sizes—which indicated some communities may have higher requirements than necessary.

For example, minimum pipe size requirements for residential water mains ranged from 4 to 15 inches in the 73 communities having a requirement in their subdivision regulations, with 50 communities requiring 6 inch diameter pipes, 14 communities requiring 8 inch pipes, and 2 communities requiring 12- and 15-inch pipes respectively. If pipe sizes could be reduced by just 2 inches, a savings of $155 a house would be possible. For storm sewer lines, communities required from 6-inch to 24-inch diameter pipes, with 12 inches being the most commonly required pipe diameter. A reduction of just 3 inches in the size of the pipe could save an additional $90 a house.

Community requirements for spacing of storm sewer manholes also impact on costs. According to the estimates we received, sewer manholes cost approximately $1,100 each. While the ASCE has suggested that manholes be spaced up to 500 feet apart for storm sewers, most communities in our sample did not allow this great a distance between sewer manholes. About 70 percent of the 61 communities that regulated this item required spacing under 500 feet, with most communities requiring either a 300- or 400-foot distance between manholes. The added costs per house when storm sewer manholes are spaced 300 instead of 500 feet apart amounts to approximately $55.

LARGE LOT WIDTH REQUIREMENTS

Potential savings in new house prices are possible in some communities if large minimum lot widths are reduced. Minimum lot widths were generally larger in communities that also had large minimum lot size requirements. Large lot widths increase per lot development costs because houses built on wide lots absorb higher costs for streets and site-related improvements.

Recognizing that minimum lot widths and lot sizes can vary by house type and where a house is built within a community, we asked local officials in the 87 sampled communities to cite their minimum requirements for the most commonly built house in a district or area where single-family construction is heavy and a significant amount of developable land is still available. We used this criteria to eliminate unusual situations where large width and lot size requirements exist but where little, if any, building activity was occurring.

The information obtained from local officials on minimum lot sizes follows:

Minimum lot size (square feet)	Number of communities	Percent
5,000 and under	7	8
5,001 - 7,500	25	28
7,501 - 11,000 (1/4 acre)	25	28
11,001 - 22,000 (1/2 acre)	20	22
22,001 - 44,000 (1 acre)	7	8
Over 1 acre	3	3
	87	97
No minimum requirement	3	3
Total	90 a/	100

a/Three zoning officials cited two areas in their community where an equal amount of building activity was taking place.

Excluding the three communities which have no lot size restrictions, minimum lot sizes ranged from a low of 4,500 square feet in two communities up to 2 acres in one community. Putting these in perspective, a typical lot in the first case would be 40 x 112 feet, while the largest minimum lot required would be 200 x 440 feet. Although the average minimum lot size was about 15,000 square feet, the more representative median lot size requirement was 9,375 square feet—comparable to a 60 x 145 foot lot. The most frequently cited minimum was 10,000 square feet, required by nine communities.

Minimum lot widths ranged between a low of 20 feet in one community up to 200 feet--required by two communities. About 75 percent of the sampled communities required lot frontages of 60 to 100 feet, with 75 feet being the median requirement. An analysis of community requirements follows:

Minimum lot width	Number of communities	Percent
(feet)		
50 and under	12	14
51 to 60	16	19
61 to 75	25	30
76 to 99	8	10
100 to 149	16	19
150 to 200	7	8
Total	84 a/	100

a/Does not total 87 communities since some communities have no requirement for lot widths.

Communities which required large lots usually required large lot widths or frontages. In our sample, of the 23 communities requiring lot widths of at least 100 feet, 22 also required minimum lot sizes of a quarter acre or more.

As lot widths increase, land development costs generally also increase. For demonstration purposes, we used $40 per "front" foot to illustrate how land development costs rise as lot widths increase. The $40 estimate was provided by members of the American Society of Civil Engineer's Committee on Estimating and Cost Control and assumes that the lot would be fully developed--paved streets, curbs and gutters, sidewalks, central water, and sewer systems. Raw land costs were not included in the $40 estimate. The estimate assumed that most lots would be fully developed because many communities requiring large lots also require them to be fully developed. For example, of the 16 communities requiring lots of 1/2 acre or larger, half also required street and related improvements (with the exception of sidewalks) similar to those in communities with smaller lot size requirements.

As shown in the following table, hundreds or even thousands of dollars a house could be saved if some communities reduced their minimum lot width requirements.

Lot width	Land development costs	Difference
(feet)		
50	$2,000	$ -
60	2,400	400
70	2,800	800
75	3,000	1,000
100	4,000	2,000
200	8,000	6,000

Unlike builders who often construct houses larger than local minimum size requirements, as discussed in chapter 3, developers usually develop lots which closely approximate minimum widths allowed by communities. This was substantiated by all the builders we interviewed plus most officials in the 87 sampled communities. Developers are staying within communities' minimum requirements apparently to hold down land development costs.

LONGER TIMES FOR LOCAL REVIEW AND APPROVAL

Community review and approval processes take longer today than in the past because of greater involvement by local agencies and groups and more concern for the environment. Ten to 15 years ago a developer could get his plans approved and a builder could obtain his first building permit in about 5 months. Today, it takes about 2 months longer. Recognizing that unneeded delays can increase house prices, some communities have taken steps to reduce the time spent in review and approval.

Time spent on local review and approval of residential developments depends on such factors as design complexity, the number and quality of reviewing personnel, the number and types of reviews made, and the quality of the developer's engineering work.

According to local officials in the 87 sampled communities, times spent in reviewing typical residential subdivisions range between 1 and 21 months, with 7.5 months being average. This analysis is highlighted on the following page.

Number of communities	Months consumed in review and approval processes
28	1 - 4
28	5 - 8
23	9 - 12
6	13 - 18
2	19 - 21
87	7.5 (average)

These estimates represent the time that transpires from the day a developer submits his preliminary plans to local officials to the day a house building permit is issued.

Compared to 10 to 15 years ago, the time consumed by today's review and approval processes is about 2 months longer, according to local officials in the sampled communities. These officials cited greater environmental awareness and involvement by more local agencies and groups in review and approval as the main reasons why more time is spent today.

In the sampled communities, the number of local review and approval groups ranged from 1 in two communities to as many as 25 in another community as shown below.

Number of communities	Local review groups
41	1 - 5
32	6 - 10
3	11 - 15
2	16 - 20
2	21 - 25
80 a/	6.4 (average)

a/Seven communities did not respond.

Moreover, many local officials and developers told us environmental impact reviews, wetland restrictions, coastal zoning restrictions, and flood plain reviews add to today's lengthier reviews.

New house prices could be increased when unnecessary delays occur in the review and approval process. This is because developers and builders incur certain continuing costs of doing business such as interest on loans, taxes on land, payroll and overhead expenses--not to mention inflationary costs--even when they are not actively engaged

in developing properties or building houses. These costs will vary from developer to developer and will be contingent upon many variables. Therefore, no accurate cost information for a typical development is ists.

Recognizing that unneeded delays can add to housing costs, some communities have taken steps to reduce their review and approval time. Twenty-six of the 87 communities have instituted various mechanisms to either simplify or cut down on their review time. Some have streamlined their review and approval operations by cutting out some review groups and setting up better coordinating mechanisms. Others have set maximum time limits for various review operations while a few have created umbrella-type agencies to centralize their review and approval functions.

LAND DEDICATION REQUIREMENTS

Many communities now require developers to dedicate land or cash in lieu of land for parks, recreational areas, schools, or other municipal facilities. Previously, the costs of community services or facilities were paid for by homeowners after houses were built rather than included in the price of a new house. About 66 percent of the 87 communities sampled required developers to dedicate land or pay cash for various community services or facilities. Requirements for land dedication ranged from 2 to 20 percent of the total land area of a subdivision and requirements for cash in lieu of land dedication ranged from $50 to $850 per house.

Historically, developers have had to dedicate or set aside a portion of land in a subdivision for site improvements such as streets, sidewalks, water, and sanitary and storm sewer systems, with the associated costs included in the price of a new house. Now, additional costs are included in the selling prices of new houses in many communities--a pro rata share of land required to be set aside for parks, recreational areas, schools, and other municipal facilities. Requirements for this relatively new type of land dedication are becoming increasingly common. In the past, these services and their costs were usually assumed by the local community and funded from tax and other revenues. Today, the developer often must assume this responsibility, and include the costs in the prices of new houses.

From our questionnaires to local officials in the 87 sampled communities, we found that 57 or 66 percent of the communities required developers to either dedicate land for community services and facilities or provide cash in lieu of such dedication. The table on the following page highlights these local requirements.

Requirement	Number of communities	Percent of communities
Dedication of land	38	44
Cash in lieu of land dedication	10	12
Either land dedication or cash in lieu (optional)	9	10
Communities with requirement	57	66
Communities with no requirement	30	34
Total	87	100

Amounts and methods of computing land dedication varied from community to community. In those regulations where land dedication was expressed as a percentage of the total subdivision, local requirements ranged between 2 and 20 percent. This meant, for example, that, for a hypothetical 100-acre subdivision, a developer had to set aside as few as 2 acres or as much as 20 acres for parks, recreation, schools, and other community facilities. The amount of land most frequently dedicated was 10 percent, or 10 acres of every 100-acre tract of land developed. However, we could not measure the impact on prices of new houses because (1) national data on land costs is not readily available and (2) the type of land dedicated can vary. Sometimes dedicated land is of the same quality as that used for building houses, while other times it is less desirable acreage suitable only for open spaces or other nonbuilding purposes.

We obtained some insight into the cost of land dedication requirements from information received from 19 communities that either required or provided developers with the option of paying cash in lieu of dedicating land. We asked officials in these communities to estimate, on a per house basis, what developers were charged if they did not have to reserve land. Cash in lieu varied considerably from a low of $50 per house in one community to $850 per unit in another. Almost half the communities assessed per house charges of $200 or more.

Our discussions of land dedication requirements with 14 developers throughout the country confirmed the information obtained from local government officials. The percentage of land dedicated and cash paid in lieu of land dedication varied from community to community. With one exception, land dedication or cash requirements fell in the same ranges cited by local officials. The exceptional case involved one particular subdivision where a developer had to not only reserve a portion of the tract for parks but also had to develop the dedicated land. According to the developer, the per house share of these costs amounted to about $200 for the raw land and an additional $1,800 for site improvements.

EXPENSIVE MUNICIPAL FEES

Some communities charge large fees for such items as permits, inspections, and utility tap-in which could add significantly to the cost of new houses. In the 87 communities sampled, the median fee was about $930 a house, ranging from a low of $56 in one community to $3,265 in another. Utility fees represented by far the largest portion of the total fees charged by communities. The median fee charged for utilities was $605, however, 15 communities charged over $1,500 a house. One community charged over $3,000 a house. The wide variance in fees charged seems to stem from a general lack of agreement by local officials on what is a fair and reasonable charge for specific municipal services provided.

In addition to the costs associated with buying and developing land and building houses, developers and builders pay numerous fees to local communities for reviews, permits, inspections, and the privilege of installing or tapping into existing utility systems. Since these fees normally are nonrefundable, they are included in the selling price of a new house.

Although historical data is not readily available, indications are that municipal fees have increased over the years. Further, our study showed that current fees vary considerably from community to community and, in some instances, can significantly increase selling prices of new houses.

For analysis purposes, we grouped municipal fees into three major categories:

1. Development fees - Include charges for zoning and rezoning, various subdivision plat fees, reviews and inspections related to site improvements, and permit fees for such items as grading, clearing, tree removal, erosion control, and street access.

2. Utility fees - Include water, sanitary sewer and storm sewer tap-in charges, and electric and gas utility fees.

3. Building fees - Include permit, filing, electrical, plumbing, and occupancy fees.

We determined the fees generally assessed for new single-family detached houses from fee schedules and contacts with local government and utility officials in our 87 sampled communities. A hypothetical $50,000 house with 1,500 square feet of living space and a 10,000

square foot lot in a recently completed subdivision was the basis for the data we collected. The data, compiled on a per house basis, were for non-refundable fees only and excluded all construction costs.

Overall, municipal fees ranged from a low of $56 in one community to a high of $3,265 in another community, with the median fee charged being $931 a house. As the next table shows, there was little consistency in the fees communities charged.

Municipal fees per house	Number of communities	Percent
$ 0- 500	19	22
501-1,000	28	32
1,001-1,500	22	25
1,501-2,000	4	5
over 2,000	14	16
Total	87	100

Although fees tend to be higher in certain sections of the country, a wide range existed within the 11 selected SMSAs, as shown in the table below.

Census region and selected SMSAs	Range of fees for selected communities	Average fee for the SMSA
NORTHEAST		
Philadelphia	$ 307-1,495	$1,025
Nassau/Suffolk	526-2,485	973
NORTH CENTRAL		
Chicago	200-1,293	775
St. Louis	73-1,302	841
Cleveland	192-1,144	639
SOUTH		
Houston	56-1,048	543
Atlanta	293- 909	564
Washington, D.C.	1,476-3,265	2,398
WEST		
Los Angeles/Long Beach	1,003-2,274	1,418
Seattle/Everett	434-1,949	852
Denver/Boulder	1,402-3,172	2,275

Individually, utility fees represented the largest portion of most communities' municipal fees. Three out of every four of the communities assessed utility fees which accounted for at least 50 percent of the total fees charged. For nine of the communities,

utility fees represented at least 90 percent of the total fees. The median utility fee for the 87 communities was $605. Many communities assessed utility fees much higher than the median. In fact, 15 communities charged more than $1,500 per house, with $3,030 being the highest. Tap-in fees for water and sewers accounted for the greatest share of many of the utility fees.

CHAPTER 5

BUILDING CODES NOT MAJOR CONTRIBUTOR TO RISING PRICES, BUT SOME SAVINGS POSSIBLE

Restrictive building codes requiring the use of expensive methods and materials generally are not a major factor contributing to rising new house prices since most of the communities sampled allowed the use of many less expensive items. However, opportunities exist for additional savings if some communities accept more of the less expensive items.

Our study in 87 communities showed that of the 64 building materials and methods included in our test, only 6 less expensive items were not accepted by as many as half of the communities. On average, the 87 communities accepted 51 of the 64 less expensive items.

Even though local building codes generally allowed less costly materials and methods to be used, greater acceptance of these cost-saving items offers opportunities for further reductions in housing costs. Potential savings varied widely among the sampled communities, with median savings being about $1,700 a house--ranging between zero in two communities to $7,300 in another community. However, all these potential savings may not be realized since several high cost items, such as a garage, are popular among new home buyers and probably would be included regardless of code requirements.

Although building codes allowed the use of the less expensive items, some builders did not use them. Instead, builders continued to use the more costly items because of personal preference, familiarity with a particular method or material, or consumer demand.

Our limited study of builder practices confirmed the results of a 1974 study by the National Association of Home Builders which showed that a number of builders still used conventional, more costly items when less expensive items could have been used. We asked 14 builders whether they used 47 of the 64 cost saving items included in our questionnaire to local building code officials. On average, builders did not use 13 of the 47 items, ranging from 4 to 22 items. As a result these builders were not taking advantage of potential savings of about $1,400 to $7,700 a house. However, as mentioned before, all of these potential savings may not be possible because consumer demand may have been responsible for the use of the more expensive methods or materials.

BUILDING CODES DEFINED

A building code is a series of standards and specifications establishing minimum safeguards in the construction of houses. Building codes are usually formulated by State governments but enforcement of them is generally delegated to local governments.

Codes use specification requirements, performance standards, or both to achieve their objectives. A specification requirement designates the particular material or construction method to be used, such as requiring wooden 2" by 4" boards spaced 16 inches apart for all exterior walls. A performance standard, on the other hand, usually establishes criteria for health or safety, such as a wall must retard the spread of fire for at least 2 hours. Performance standards usually permit the use of any material that is capable of achieving required results.

The code usually deals with more than just regulating the building structure. There are also codes that regulate plumbing, heating, and electrical items in a house. These are usually referred to as mechanical codes. Since they also deal with how a house is constructed, our analysis also considered them as building codes. When added together, building codes prescribe construction methods and materials which, according to some studies, amount to about 45 to 50 percent of the selling price of a new house.

In addition to the codes established by local communities, four major groups known as model code groups have established codes which local governments have been encouraged to adopt. These codes are

--Basic Building Code,

--Uniform Building Code,

--Southern Standard Building Code, and

--National Building Code.

The four model codes are very similar in that they all permit the use of most new materials and methods available for residential construction. Several years ago, the four groups jointly agreed upon a single one and two-family code to eliminate any conflicts and duplications among their respective codes and to achieve national uniformity.

In 1968, a major housing study by the National Commission on Urban Problems (Douglas Commission) reported that 71 percent of the communities had based their codes on one of the model codes. Our more recent study showed that 92 percent of the 87 communities sampled based their codes on one of the model codes or have plans to do so in the near future.

In addition to the model codes, HUD has established "Minimum Property Standards" which describe these characteristics of a house that will provide present and continuing utility, durability, desirability, economy of maintenance, and a safe and healthy environment. These standards represent the minimum level of quality acceptable under HUD's various mortgage insurance programs for single-family houses.

Further, about 60 percent of the States have separate codes for industrial house construction which usually allow builders of factory built houses or components to obtain State approval of their designs that do not have to be changed to meet individual community codes. In Ohio, for example, a builder who constructs one or more components or modules of a house at a factory rather than on a site is able to obtain approval of his unit from the State. This approval then allows the use of the product anywhere in the State without obtaining additional approval from local code officials.

As a further assistance to local code officials, the Congress established the National Institute of Building Sciences in 1974. One of the Institute's purposes is to act as an authoritative national source for the evaluation of new technology which could facilitate the introduction of innovative construction methods and materials and their acceptance at the Federal, State, and local levels. The Institute was established in response to a recommendation by the Douglas Commission, which identified about 75 different associations and technical groups involved in testing and approving new construction materials and methods.

When the Institute becomes fully operational, it could provide valuable assistance to local code officials who now use multiple sources to determine if a new technology or material not covered in their written codes is acceptable. Sources include independent laboratory tests, manufacturer's specifications, model code group recommendations, local-board of building standards, local engineer approvals, and State approvals.

MOST COMMUNITIES ALLOW LESS EXPENSIVE MATERIALS AND METHODS

Our study showed that local building codes allowed many less expensive materials and methods, while still providing acceptable standards for quality, safety, or health. Only 6 of the 64 building materials and methods included in our test were not accepted by as many as half the communities. On average, the sampled communities accepted 51 of the 64 less expensive items.

The 64 building materials and methods, included in our study were identified during our research and in discussions with builders and others in the housing industry. The items represented specific products

or practices identified by others as unnecessarily costly. Each costly item was contrasted with methods or materials generally considered to be both less expensive and acceptable under HUD's Minimum Property Standards.

To determine how frequently the more costly items were required, we sent questionnaires to building code officials in 87 communities. The communities selected were the same as those referred to in the preceding chapter. In the questionnaire, we asked local officials whether or not their building codes or code enforcement people required any of the 64 costly items. For those costly items required, we asked the local officials to tell us their primary reason for the requirement.

Communities allowing innovative items

On average, 51, or 80 percent, of the less expensive items were allowed in the communities. Only 1 of the 87 communities did not allow as many as half of the items. Two communities allowed every item. Seventy of the communities allowed at least 45 of the 64 less expensive items. (See app. III.) Summarized below are the number of less expensive items allowed by the communities.

Number of less expensive items allowed	Number of communities	Percent
60-64	11	13
55-59	23	27
50-54	22	25
45-49	14	16
40-44	8	9
35-39	7	8
30-34	1	1
0-29	1	1
Total	87	100

Our analysis showed that communities tended to allow a greater number of the less expensive items as one moves from the eastern section of the country to the western section. However, each of the four major geographical sections had one or more communities which allowed at least 55 (87 percent) of the items and at least one community which only permitted about half the less expensive items. The range of items allowed by the sampled communities within the four geographical regions and the 11 selected SMSAs, shown in the next table, indicates no community or area can be considered typical.

Region/SMSA	Communities sampled	Number of less expensive items allowed	SMSA average
NORTHEAST			
Philadelphia	8	34 to 59	47
Nassau/Suffolk	8	36 to 60	49
NORTH CENTRAL			
Chicago	13	29 to 55	48
St. Louis	5	40 to 61	48
Cleveland	7	46 to 55	51
SOUTH			
Houston	8	47 to 64	55
Atlanta	10	37 to 62	48
Washington, D.C.	5	56 to 63	59
WEST			
Los Angeles/Long Beach	6	42 to 59	54
Seattle/Everett	5	48 to 61	56
Denver/Boulder	12	35 to 62	52
Total	87	29 to 64	51

MATERIALS AND METHODS NOT ALLOWED BY COMMUNITIES AND POTENTIAL SAVINGS

Although many communities allowed the less expensive materials and methods, more needs to be done so more communities will accept the less expensive items and thereby reduce the cost of constructing new houses.

To determine the savings possible through the use of less expensive items, we asked HUD cost analysts to estimate, on a per house basis, the savings available when each of the 64 less expensive materials or methods were used instead of the more costly items. Recognizing that costs vary geographically and according to house type and size, we requested estimates for popular houses built in each of the 11 SMSAs included in our study. The figures used throughout this report are averages of the data from the 11 HUD estimators. (See app. IV.)

If more of the sampled communities accepted more of the less expensive items, potential savings of approximately $1,700 per house might be realized. This is the median savings considering the various restrictions in each of the 87 communities. Potential savings varied widely among the communities, so no one community could be considered typical. For example, in two communities the potential savings were zero since they allowed every one of the 64 less expensive materials and methods we surveyed. At the other extreme, one community prohibited 35 less expensive items with a potential savings of $7,300. (See app. V.) In this instance and others, however, all the savings probably would not be realized because several high cost items—such as a garage—are popular with new home buyers and might be included regardless of code restrictions. In addition, as will be discussed later, some of the more costly items might continue to be used by builders even though they are not required by building codes.

Potential savings not only varied nationwide, but also within the same metropolitan area. For instance, in one metropolitan area, one community allowed 60 of the 64 less expensive items while another community a few miles away only allowed 44 items. The potential savings in the first community if the additional 4 items were allowed would be about $500, while the potential savings in the second community if all were allowed would be about $3,100. About $1,100 of the potential savings in the second community could be realized if the community would allow some of the livable areas in the house to go unfinished.

Individually, potential savings per item ranged between a low of $15 (use of gravel instead of sand under concrete floors) to $2,870 (basement versus no basement) per house. Many of the 64 less expensive items offered relatively small individual savings but collectively could significantly reduce the cost of a house.

Items most frequently not allowed by communities

The 10 most frequently not allowed items ranged in potential savings from $25 to $323. At least 40 of the 87 communities did not allow all these materials and methods, as shown in the following table.

Less expensive items frequently not allowed by communities	Number of communities not allowing each item	Percent of total communities	Average potential savings per house
1. 3" rather than 4" concrete basement floor	58	67	$141
2. 2"x4" studs spaced 24" rather than 16" on the center (exterior wall)	56	64	119
3. No exterior sheathing	50	57	255
4. Plastic plumbing in hot/cold water supply rather than copper	49	56	130
5. Wood foundation instead of concrete	47	54	323
6. Single-layer combination subfloor and underlayment plywood floor 1/2" thick instead of a greater thicknes	44	51	112
7. Metal drywall clips instead of studs	43	49	79
8. Inline rather than over-lapping floor joists	41	47	45
9. 1" rather than 2" thick band joist	41	47	25
10. Preassembled wiring harness instead of onsite application of electrical wiring	40	46	47

When we asked code officials why they continued to require the more costly items, the primary reason cited was safety. It should be noted, however, that all of the less expensive items met HUD Minimum Property Standards.

Certain new items take longer to be accepted by communities than others. A good example is the use of plastic pipe in drainage systems. In 1968, the Douglas Commission reported that about two out of three communities in the country did not allow this item. Our more recent study showed that 93 percent of the sampled communities accepted this material in drain, waste, and vent piping systems. Further, only one of the Commission's survey items still showed a high rejection rate based on our study—preassembled electrical wiring harnesses.

Large cost-saving items not allowed by some communities

We also identified 11 less expensive items which, if allowed, could individually save at least $200 per house. Importantly, with the exception of three items, few communities would not allow these items. However, where the items were not accepted, they could significantly add to the cost of a new house. An analysis of these items follows.

Less expensive material or method	Average potential savings per house	Percent of communities not allowing the item
1. No garage or carport	$2,160	11
2. Exterior finish other than brick	1,499	1
3. One or more unfinished rooms (e.g., family room and extra bath)	1,100	32
4. Asphalt shingles	865	5
5. Drywall instead of plaster	700	2
6. Romex wiring	564	13
7. Exposed foundation instead of brick above grade	411	5
8. No fire sprinkler system	291	1
9. Prehung doors and windows	286	2
10. Poured concrete instead of block walls	254	3
11. Manufactured roof trusses	218	1

Significantly, none of the 87 communities prohibited all of the above large cost-saving items. As can be seen, except for item number 3--one or more unfinished rooms—all of the other cost saving items are allowed by about 90 percent of the communities.

BUILDERS PREFER TO USE SOME EXPENSIVE ITEMS

Builders often use conventional or traditional materials and methods even though less expensive items are allowed by local building codes. A 1974 study by the National Association of Home Builders (NAHB) identified a number of builders that still used conventional items, when less expensive items could have been used. Our limited followup of this study showed that some builders continued to use conventional materials and methods because of preference, familiarity with a particular material or method, or consumer demand.

National Association of Home Builder's Study

In a composite study of almost 84,000 single-family houses built in 1973 by over 1,600 builders, NAHB found that many of its member builders were not using less expensive construction methods and materials. This happened despite the fact that many of the items were widely approved as being cost effective, while at the same time preserving structural integrity and health and safety factors.

Twenty-two of the materials and methods studied by NAHB were also on our list of 64 items which we discussed with local code officials. We analyzed 13 of NAHB's cost saving items because they were approved by at least 85 percent of the 87 communities sampled. The following table shows the percentage of builders not using the 13 items contrasted with the percentage of the 87 communities which allowed these items and the estimated savings per house for each item.

Cost-saving materials and practices	Builders not using cost savings items	Communities allowing these items	Average estimated savings per house
	(percent)	(percent)	
1. Plastic interior trim	97	89	$ 47
2. No garage or carport	90	89	2,160
3. Fiberglass bath surround	87	95	66
4. Fiberglass bath	86	95	86
5. Spray painting	72	97	185
6. No basement	42	100	2,870
7. Poured concrete foundation	37	97	254
8. Some type of exterior other than brick or brick veneer	34	99	1,499
9. Plastic pipe for drain, waste, and vent plumbing systems	33	93	154
10. Manufactured roof trusses	31	99	218
11. Prehung doors and windows	29	98	286
12. Asphalt shingles	15	95	865
13. Drywall instead of plaster	4	98	700

As shown on the preceeding page, the first five items were not used by over half the builders surveyed by NAHB. NAHB's report did not cite reasons why builders were not taking advantage of these cost saving items.

Limited followup review

For the 17 builders we interviewed nationally, we listed 47 cost-saving materials and methods, all of which came from our original list of 64 code items presented to local government officials. On an average, the 14 builders who responded were not using 13 of the 47 less expensive items. One builder used all but 4 of the items, while at the other extreme another builder was not using 22 of the cost-savers. Consequently, these builders were not taking advantage of possible savings ranging between $1,400 and $7,700 on each house they built. Significantly, the builders did not cite building codes as the reason for not using the less costly materials or methods, but instead, said personal preference, familiarity with conventional materials and practices, and consumer demand were the main reasons they stayed with the more expensive items.

The builders responding constructed over 3,900 houses during 1976 in various communities within the metropolitan areas of Atlanta, Cleveland, Denver, Houston, Nassau/Suffolk, and Seattle.

Comparing the feedback from these builders with the results of the earlier NAHB study, we found that 10 of the 13 cost-saving items were still not commonly used by three or more of the builders we interviewed. In fact, five were not used by at least half the builders, even though allowed by building codes. These five items are shown below.

Cost saving materials and methods	Builders not using cost savers	Average estimated savings per house
Plastic interior trim	12 of 14	$ 47
No garage or carport	11 of 14	2,160
Fiberglass bath surround	11 of 14	66
Fiberglass bath	11 of 13 a/	86
Spray painting	7 of 14	185

a/One builder did not respond to this item.

In addition to the 13 items, we identified 8 additional items (not included in the 1974 NAHB study) allowed by building codes but not used by at least half the builders we interviewed as follows:

Additional cost saving materials and practices	Builders not using cost savers	Average estimated savings per house
1. 7'6" ceiling instead of 8' ceilings	10 of 14	$ 154
2. Preassembled rather than site assembled plumbing systems	10 of 14	55
3. Full wall-height closet doors rather than 6'8" high doors	9 of 14	59
4. Wood foundation instead of concrete	8 of 13 a/	323
5. Single-layer combination subfloor and underlayment plywood 1/2" thick instead of greater thickness	7 of 12 a/	112
6. Metal drywall clips instead of studs	8 of 14	79
7. One or more unfinished rooms	7 of 13 a/	1,100
8. No bulkhead framing over kitchen cabinets and tubs	7 of 14	64

a/Not all 14 builders responded for these particular items.

The above analyses showed that some cost-saving materials and methods frequently were not used by builders, but it did not disclose the overall impact on housing costs caused by builder preferences. This impact is difficult to measure because, individually, builder practices seem to be as diverse as community building codes. Therefore, the impact will differ depending on the builder and the extent to which he uses less expensive items in the houses he constructs.

CHAPTER 6

ALTERNATIVES FOR MAKING NEW HOUSES MORE AFFORDABLE

The price of new single-family houses has significantly increased in the last 10 years, yet people are buying new houses in record numbers. Our analysis of this paradox looked at (1) the extent of the housing affordability problem and who was primarily affected, (2) how today's consumers have influenced the market, and (3) the impact of government regulations on rising housing prices.

New houses are less affordable for middle-income families and first-time home buyers because the new house market is responding to the preferences of second and third time buyers who can afford larger downpayments and who prefer larger houses with more amenities. Further, government regulations--once thought to be primarily responsible for high prices--have had only a sporadic impact. In some communities, regulations could add significantly to prices, while in others the impact may be minimal.

The Congress has already taken some action in an effort to make new houses more affordable and is also considering other actions. Further, based on our analysis, we identified other possible actions that the Congress could take which could lead to making more affordable new houses available to more American families. These possible actions, while identified as a result of our work, would have to be further studied and possibly tested on a pilot basis before being fully implemented in order to more fully identify the potential benefits and costs involved. Nevertheless, we believe the possible suggested actions do provide the Congress with a broad spectrum of alternatives to choose from in its continuing effort to realize its stated goal of a decent home and suitable living environment for every American family.

CONCLUSIONS

The recent significant increases in new house prices can be attributed, in part, to the changing nature of the new home buyer, who is more affluent than the home buyer of the '50s and '60s. Buyers of today's new houses are generally (1) families in the upper or upper-middle income brackets with two incomes who can afford both the down payment and monthly homeownership costs and/or (2) prior homeowners who are able to use the equity from their existing homes to buy the higher priced new houses. In the 1950s and '60s most new home buyers were families with one income, buying their first home.

Today's many affluent new home buyers prefer larger houses with more amenities, and homebuilders are responding to this demand by

concentrating their efforts on building larger, more profitable new houses. While some builders indicated there was still a market for the smaller new houses, only 15 percent of the houses they build are in the small house category. Builders believed there was very little incentive for them to build smaller houses when they could sell all the larger houses they could build. Further, builders believed smaller homes were less profitable unless a builder specialized in building these types of houses, thereby taking advantage of the economies of large volume construction.

As a result of current market conditions, many young, middle-income families cannot afford a new house. The more expensive new houses built today require the home buyer to make a larger downpayment and larger monthly payments to amortize the mortgage principal and pay mortgage interest, insurance premiums, property taxes, utility costs, and repair and maintenance costs. Since the prices of existing single-family houses are closely related to the prices of new houses, young, middle-income families have a similar affordability problem with existing houses.

However, there is some indication, based on a 1976 consumer/builder survey, that potential new home buyers would be willing to accept a smaller house to reduce costs. Some would initially buy a smaller house if it could be expanded at a later date. Others indicated they would be willing to give up duplicate items such as extra bathrooms, bedrooms, and eating areas.

Another factor influencing the rising prices of new houses are government regulations that control the development of land and the construction of houses. However, no consistent pattern exists across the country. Instead, the impact varies on a community by community basis because of a wide variety of requirements.

In the area of land development, potential large savings are possible in many communities through the adoption of more reasonable --less expensive--land development requirements. In the 87 communities sampled, land development regulations varied considerably and in some communities, could add significantly to the cost of new houses. Since local communities do not have overall national standards to use as a guide in deciding on their specific requirements, most communities developed their own requirements based on past experience or local preference. As a result, new house prices in some communities could be significantly higher because of (1) excessive specifications or standards for site improvements such as streets, sidewalks, and sewers, (2) large lot width requirements, (3) requirements for dedication of land for parks and schools, (4) expensive municipal fees, and (5) lengthy subdivision review and approval processes.

In the area of house construction, restrictive government regulations were not a major factor contributing to rising housing prices. However, more can be done to encourage the greater use of less expensive

construction methods and materials. Importantly, our study showed that even when less expensive items are allowed by communities, builders continued to use some of the more traditional items because of preference, familiarity, or consumer demand.

ACTIONS TAKEN BY THE CONGRESS

The decreased ability of young families with only one income to buy their first house was addressed to some extent by recent actions taken by the Congress. Under the Housing and Community Development Act of 1977, Pub. L. No. 91-190, the Congress took certain steps to assist American families in buying their own house. The specific actions taken were:

—The downpayment was reduced for the basic FHA Section 203 program. The law retains the present requirement for a down payment of 3 percent of the first $25,000 on the appraised value of the home, but calls for a downpayment of only 5 percent above the first $25,000. This means that on a $50,000 home, the minimum downpayment requirement will now be $2,000 instead of $4,750.

—Perhaps one of the more significant changes was made in HUD's authority to use its Graduated Payment Mortgage Program, which is of particular benefit to young families. This program enables younger families to make lower monthly payments during the early years of home ownership, the monthly payments increasing as their earning power expands. The program is now established on a permanent basis, and there is no limitation on the volume of mortgages that may be insured. Also, some state restrictions on interest rates that could stymie the program were preempted.

ACTION BEING CONSIDERED BY THE CONGRESS

To help first-time home buyers accumulate the downpayment needed to purchase a new house, two bills were introduced in the Congress in 1977—S 2050 in the Senate and HR 9874 in the House of Representatives. The purpose of both bills is to amend the Internal Revenue Code of 1954 to provide tax savings incentives for savings accounts established for the purchase of a home. In essence, the bills provide that a family be allowed to put up to $2,500 in a segregated individual housing account. The family would be allowed to accumulate up to $10,000 in this account. At any time within the period allowed after the first contribution was made to the account, the money could be withdrawn and used to purchase a house. The bills provide that so long as the money in the account was used to purchase a house, no tax would be paid on the amount in the account or the interest earned in the account. The Senate bill limited the amount of the tax credit that could be taken in any year.

According to an August 1976 hearing before the Subcommittee on Housing and Urban Affairs, Senate Committee on Banking, Housing and Urban Affairs, a plan similar to that proposed in HR 9874 exists in Canada. It is known as the Registered Home Ownership Savings Plan.

Essentially it enables taxpayers who do not own a home to contribute up to $1,000 per year to a lifetime maximum of $10,000. The contributions to the plan and the plan's earnings are exempt from tax provided that, when the plan is collapsed, the proceeds are used for the purchase of a house or for furnishings at the time of first occupancy. Both husband and wife can have plans provided that they do not own a home, so that a family can contribute up to $20,000. No deduction for tax purposes may be made in any tax year in which a home is owned. For the 1974 tax year, 231,000 plans were started and contributions totalled some $199.4 million. For 1975 tax purposes, 215,000 new plans were started. We believe that the Congress, in its deliberations concerning this legislative alternative, should be aware of the apparent widespread interest that this program has generated in Canada.

ADDITIONAL ALTERNATIVES THAT COULD REDUCE NEW HOUSE PRICES

To further make new houses more affordable, we believe other alternatives are also available. These actions, in essence, take the form of (1) providing incentives to encourage the building of smaller, less expensive houses, (2) establishing national standards that can be used by communities as guidelines in establishing less restrictive land use regulations, and (3) systematically identifying those communities still having restrictive building codes and encouraging them to allow the use of the less expensive, acceptable items.

Building and buying smaller houses

From data obtained in our analysis, a demand exists for less expensive new houses which families could afford. However, very little is known as to what size houses would be acceptable to this potential market and what features or amenities these buyers would like to have. Since most new house builders we interviewed were hesitant to experiment in this area, we believe it is necessary to determine the type and size of new houses young families and first-time buyers want to buy.

Once reliable data is available on the type and size of new house young first-time buyers want to buy, builders could be provided incentives to build the more affordable houses. The incentives could take the form of a direct tax credit to those builders building smaller, less expensive new houses. The actual tax credit allowed builders could be computed by using as a base either the median size or the median price new house as determined by the Department of Commerce and, then, allowing as a tax credit a certain percentage of the difference between

the median size or price house and the lower actual size or selling price of a new house. For example, if the median size of new houses were 1,700 square feet and the actual size of a new house was 1,500 square feet, the tax credit could be computed as a percentage of the difference—200 square feet. The result would be: the smaller or the less expensive the new house the greater the tax credit.

Smaller, less expensive houses could provide a greater opportunity for median income families to become homeowners, thereby helping to provide decent, safe, and sanitary housing. In addition, smaller homes generally would be more energy efficient and require fewer materials in construction.

Another possibility which also should be considered and would have only limited revenue/budget implications would be to establish an insured loan program for builders of less expensive new houses. The purpose would be to insure a portion of a builder's loan used to finance initial construction costs of new houses priced to sell less than the median-price new house. Such a program would make it easier for builders to borrow the money necessary to start a new subdivision and, also, offset some of the marketing risks involved in an uncertain market. After the insured loan fund was established through appropriated funds, it could be made self sustaining through a small additional charge to builders obtaining insured loans.

As still another alternative for encouraging the purchase of less expensive houses, the National Institute of Building Sciences suggested that consideration be given to tax alleviation for capital gains on proceeds from sale of an existing home for those under 65. The Institute believes that the current requirement that funds from the sale of a home be reinvested within 18 months or taxed, discourages the purchase of a smaller less expensive house and thus creates a "larger market for more expensive houses." The Institute believes additional study is needed on this issue.

Standards for land development

The widely varying community requirements for land development could, in many instances, be contributing to the increased prices of new houses. Recognizing that land development requirements are generally considered the prerogative of individual communities, we believe generally acceptable land development standards, similar to the HUD Minimum Property Standards or Model Codes for house construction, should be developed for use by local communities. The standards should deal with such things as specifications for land improvement items, such as streets, sidewalks, and sewers; subdivision review and approval processes; and other land development aspects.

Once such standards are developed, local communities should be encouraged to adopt those standards most reasonable and appropriate for their circumstances. Such encouragement should be provided by HUD which could obtain the assistance of private organizations such as the National Association of Home Builders or the American Society of Civil Engineers. These promotion efforts could be further assisted, if HUD would adopt the standards as their minimum requirements under its various mortgage insurance programs.

Greater acceptance of less expensive building materials and methods

Although many communities have building codes that allow less expensive construction methods and materials, many other communities still require the use of some of the more expensive items. As a result, we believe that the once preceived national problem is now highly localized within individual communities and further efforts are needed to encourage individual communities to allow the use of acceptable, less expensive methods and materials.

One way to encourage communities to use less expensive construction methods and materials is to use the combined resources of the National Institute of Building Sciences and HUD. The Institute could identify new acceptable construction methods and materials which would be less expensive than current methods and materials commonly being used. With this information in hand, communities that do not allow the use of known, less expensive construction methods and materials could be identified by HUD and provided available technical data, developed by the Institute, which would show that particular methods or materials are acceptable without endangering health, safety, or structural integrity.

MATTER FOR CONGRESSIONAL ACTION

To make new houses more affordable to young American families, and to generally assist in reducing the prices of new houses we recommend the Congress provide funds to enable the National Institute of Building Sciences to identify acceptable construction methods and materials that would reduce the cost of building new houses.

RECOMMENDATIONS TO HUD

We recommend that the Secretary of Housing and Urban Development:

—Initiate a research project to determine the types and sizes of less expensive new houses more median-income families can afford and would be willing to purchase.

--Develop, as part of the research project, alternate approaches to encourage the building of less expensive new houses through incentives such as tax credits or insuring loans to builders of less expensive new houses.

--Perform a study to determine the impact that various changes in the capital gains tax treatment of sale proceeds of a house could have on encouraging the purchase of smaller, less expensive homes. Such a study should identify the benefits and costs involved in any change.

--Establish acceptable land development standards for use by HUD in its mortgage insurance programs and encourage communities to use these standards.

--Establish a program to systematically identify local communities that do not allow the use of known, less expensive construction materials and methods and, using information developed by the National Institute of Building Sciences, provide them the technical data and assistance necessary to encourage the communities to use these items.

AGENCY COMMENTS

Department of Housing and Urban Development

HUD did not include the views of its Task Force on Housing Costs because the Task Force's conclusions and recommendations will not be available until late May 1978 when a final report is expected. As a result, HUD's comments were confined to current HUD program initiatives and HUD stated that the Task Force's final report would discuss the issues included in our report in detail.

HUD agreed that a research study to determine the types and sizes of less expensive new homes median-income purchasers would buy could be undertaken. HUD stated that much is currently known about downsizing homes and that emphasis in research should be on the acceptability of smaller homes in the marketplace.

HUD stated that it now has land development criteria for use by communities in determining acceptability of subdivisions and land development projects. We believe that HUD needs to establish minimum acceptability standards so that communities that wish to adopt less restrictive standards have an authoritative basis for adopting such standards. HUD's existing land development standards are usually very general in nature and offer little guidance to a community for choosing less restrictive standards.

HUD stated that it provides data on new and innovative construction building systems to its field offices. However, HUD stated that it is not adequately staffed to identify and provide technical

assistance to communities that are now requiring restrictive construction materials and methods. We believe that, if HUD is serious about reducing the cost of new houses, this is a vital role that it must play.

National Institute of Building Sciences

The National Institute of Building Sciences agreed with our recommendations that relate to the Institute. The Institute stated that it appreciates the opportunity to perform in areas that will benefit the building community and the American consumer. Further, the Institute believed it could assist HUD in:

—Determining the types and sizes of less expensive new houses more median-income families can afford and would be willing to purchase.

—Establishing acceptable land development standards.

—Developing a program to systematically identify local communities that do not allow the use of known, less expensive construction materials and methods.

CHAPTER 7

SCOPE OF REVIEW

Our review focused specifically on new, single-family detached houses. In studying affordability and related problems of this, the most popular type of house built, we sought answers to three basic questions:

1. Are new houses less affordable today than in the past? Two aspects of this question were examined--selling price versus income and homeownership cost versus income.

2. What influence does today's home buyer have on the price of new houses?

3. Have local government regulations significantly contributed to higher new house prices? The focal points of this part of the study were the three traditional regulations: subdivision regulations, zoning ordinances, and building codes. To the extent they impact on costs, builder practices and preferences were also reviewed. Recognizing that the degree of government intervention is a value judgment, we did not determine how much regulation is necessary. Instead, we looked at how these regulations can either reduce or increase new house prices.

Although homeownership costs are a major influence on who can afford new houses, we did not do an indepth analysis of factors affecting these costs. However, these costs, along with income data, were used to determine housing affordability and to identify those who have been hardest hit by the rising prices of new houses.

Throughout the study, we were concerned with factors affecting the selling price, since it is the beginning point for determining affordability and strongly influences what overall homeownership costs will be. We addressed construction and land development costs --the two most significant components of the selling price of a new house--by evaluating the impact government regulations and other factors have on prices of new houses.

In evaluating the housing affordability issue and factors impacting on it, we:

--Reviewed numerous studies and reports on housing affordability, the impact of government regulations, and the effects of consumer and builder preferences and practices.

--Analyzed HUD, Census Bureau, Federal Home Loan Bank Board, and other data relating to income and selling prices to determine the extent of housing affordability problems. From these same

sources, we also obtained information on house characteristics in order to compare houses built in 1976 with those built in the 1950s and 1960s.

--Interviewed officials of the National Association of Home Builders, the industry's largest trade organization having a membership of over 75,000 builders and associates. We also interviewed 17 builders and 14 developers in the Standard Metropolitan Statistical Areas of Cleveland, Atlanta, Nassau/Suffolk, Houston, Denver and Seattle. Since 1975, these builders constructed over 15,000 houses in the above six locations. The volume of houses they built varied--one constructed only 35 houses during this period, most constructed less than 1,000, and one constructed about 2,900. Since 1975, the 14 developers completed or were in the process of completing land development for about 450 subdivisions, ranging in number from a single subdivision by one to 300 subdivisions by the largest developer. We interviewed these individuals to obtain information on the impact of government regulations on their costs and to obtain data not readily available from other sources on construction and land development costs, home buyer characteristics, and types of houses built during the 1950s and 1960s.

--Sent questionnaires to local officials in 87 communities within 11 Standard Metropolitan Statistical Areas throughout the country to determine their building code, subdivision, and zoning requirements. The criteria used for our selection of communities were: (1) the locations evidenced a substantial amount of single-family detached housing construction, (2) the locations provided a cross-section of the country, recognizing the number of sites would have to be kept relatively small in light of our limited resources, and (3) data on housing costs, selling prices, income, and other pertinent information was readily available. The primary source for our site selection was the Census Bureau's report "Housing Authorized By Building Permits And Public Contracts: 1975" (the most current report at the time of our selection). Each of the 87 selected communites issued a minimum of 250 permits for single-family houses, with a total of over 76,000 permits being issued by all the communities we sampled. The 87 communities represented 16 percent of all communities, nationwide, which issued at least 250 permits during 1975.

--Discussed and reached agreement with HUD officials that the innovative, less expensive building materials and methods tested by GAO met HUD Minimum Property Standards for new houses.

--Obtained the assistance of HUD, the Department of the Army, and the American Society of Civil Engineers in developing cost estimates of various materials and methods required by local government regulations.

ESTIMATED PER HOUSE SAVINGS
FOR 17 STREET AND SITE-RELATED IMPROVEMENTS

1 Street And Site-Related Improvements	2 Acceptable Materials, Methods Or Minimum Specifications	3 Requirements In 87 Sampled Communities Which Are ABOVE Minimums Shown In Column 2 (Lowest)	3 (Highest)	4 Estimated Per House Savings When Column 2 Items Or Specifications Are Used a/ (75' x 150' Lot)
1. Street pavement widths when parking is allowed on both sides of street.	26'	27'	40'	$ 40 - $ 550
2. Street pavement thickness for concrete streets.	5"	6"	10"	230 - 1,140
3. Street pavement thickness for asphalt streets.	2"	2 1/2"	4"	65 - 255
4. Street pavement edge.	Grass drainage swales instead of curbs and gutters	-	-	240
5. Cul-de-sac diameters.	80'	84'	140'	30 - 420
6. Sidewalks when lot widths are at least 80 feet.	Eliminate on both sides of street	-	-	335
7. Sidewalk composition.	Asphalt instead of concrete.	-	-	185
8. Concrete sidewalk thickness.	4"	4 1/2"	6"	30 - 115
9. Concrete sidewalk widths.	4'	4 1/2'	6'	30 - 120
10. Driveway composition.	Asphalt or crushed rock instead of concrete	-	-	195 - 280
11. Concrete driveway widths.	8'	8 1/2'	20'	20 - 495
12. Concrete driveway thickness.	5"	6"	8"	50 - 150
13. Driveway type.	Ribbon-type instead of full-width	-	-	155
14. Water main material.	Polyvinyl chloride (PVC) instead of cast or ductile iron	-	-	100 - 195
15. Water main pipe size.	6"	8"	15"	155 - 695
16. Storm sewer pipe size.	12"	15"	24"	90 - 360
17. Storm sewer manhole spacing.	500'	100'	450'	10 - 330

a/ The dollar range in this column denotes estimated per house savings for the community (ies) with the lowest and the highest requirements ABOVE the minimum specifications shown in Column 2. For those items not having a numerical specification in the second column, the estimated savings denotes potential savings when a particular material or method is used in place of another -- see Column 2 description.

APPENDIX I

POTENTIAL SAVINGS PER HOUSE IF GAO-SAMPLED COMMUNITIES HAD LESS RESTRICTIVE REQUIREMENTS FOR STREET AND SITE RELATED IMPROVEMENTS

Community	Number Of Community Requirements Above Acceptable Minimums For 17 Items Studied	Potential Savings Per House
1	9	$2655
2	12	2575
3	11	2255
4	11	2230
5	12	2100
6	13	2080
7	9	1910
8	8	1910
9	7	1865
10	10	1840
11	10	1820
12	11	1815
13	11	1805
14	11	1800
15	10	1775
16	12	1765
17	8	1730
18	12	1680
19	9	1675
20	8	1675
21	9	1660
22	9	1655
23	10	1635
24	8	1600
25	10	1600
26	8	1580
27	10	1535
28	9	1510
29	8	1505
30	9	1480
31	7	1460
32	8	1445
33	8	1445
34	8	1430
35	5	1410
36	10	1400
37	6	1365
38	9	1365
39	9	1355
40	9	1350
41	8	1345
42	9	1305
43	8	1300
44	7	1295 (median)
45	8	$1295
46	7	1270
47	8	1265
48	7	1260
49	7	1255
50	6	1230
51	10	1220
52	6	1200
53	9	1195
54	7	1160
55	7	1135
56	7	1120
57	8	1060
58	6	1060
59	7	1045
60	9	1035
61	7	1020
62	6	970
63	7	965
64	4	945
65	7	915
66	6	900
67	5	880
68	6	875
69	5	860
70	5	850
71	6	840
72	5	840
73	5	835
74	5	750
75	5	705
76	2	670
77	4	605
78	6	580
79	4	565
80	4	545
81	2	435
82	2	425
83	2	425
84	1	280
85	1	230
86	0	0
87	0	0

APPENDIX III

THE EXTENT TO WHICH 37 GAO-SAMPLED COMMUNITIES ALLOW 64 LESS EXPENSIVE BUILDING MATERIALS AND METHODS IN SINGLE-FAMILY RESIDENTIAL CONSTRUCTION

[1] Conventional Materials And Methods	[2] Less Expensive Alternative Materials And Methods	[3] Sampled Communities Which ALLOW Column 2 Alternatives (Number)	(Percent)
EXTERIOR WALLS (Assume all are loadbearing walls)			
1. 2x4 studs spaced 16" O.C.	1. 2x4 studs spaced 24" O.C.	31	36
2. Plywood sheathing	2. Styrofoam (or Celotex) sheathing w/plywood corner bracing	80	92
3. Some type of exterior sheathing always required	3. Eliminate exterior sheathing if certain racking and strength standards are met	37	43
4. Building paper over exterior sheathing	4. Eliminate building paper	57	66
5. Mid-height wall blocking between studs to act as fire stop	5. Eliminate mid-height blocking. Top and bottom wall plates act as fire stop	73	84
6. Fire rated door, ceiling and all walls in attached garages	6. Fire rated door and common wall only	60	69
7. Brick (or brick veneer) exterior finish	7. Aluminum, wood, wood shake, plywood or similar non-brick exterior finish	86	99
8. Doors and windows cut and fitted on-site	8. Prehung doors and windows	85	98
9. Egress windows in bedroom must have openable sash greater than 5.7 sq. ft. (820 sq. inches)	9. Egress windows in bedrooms with openable sash equal to 5.7 sq. ft.	59	68
10. Habitable rooms with natural light glazed area greater than 10% of floor area	10. Habitable rooms with natural light glazed area equal to 10% of floor area	66	76
INTERIOR PARTITIONS AND CEILINGS (Assume all are nonloadbearing)			
11. Lath and plaster (Rocklath)	11. Drywall (gypsumboard)	85	98
12. 8' ceilings (minimum)	12. 7'6" ceilings	72	83
13. Additional studs used for backup blocking where interior partitions meet exterior walls or other partitions	13. Metal drywall clips instead of additional studs	44	51
14. Wood studs	14. Steel (or aluminum) studs	71	82
15. Brush or roller painting (hand)	15. Spray painting	84	97
16. 2x4 studs spaced 16" O.C.	16. 2x4 studs spaced 24" O.C., or 2x3 studs spaced 16" O.C., or 2x3 studs spaced 24" O.C.	61	70

APPENDIX III

THE EXTENT TO WHICH 87 GAO-SAMPLED COMMUNITIES ALLOW 64 LESS EXPENSIVE BUILDING MATERIALS AND METHODS IN SINGLE-FAMILY RESIDENTIAL CONSTRUCTION

[1] Conventional Materials And Methods	[2] Less Expensive Alternative Materials And Methods	[3] Sampled Communities Which ALLOW Column 2 Alternatives (Number)	(Percent)
INTERIOR PARTITIONS AND CEILINGS (Assume all are nonloadbearing)			
17. 5/8" thick dry wall or gypsumboard (minimum)	17. 1/2" thick dry wall (or 3/8" if 16" O.C.)	84	97
18. Bulkhead framing over kitchen cabinets and tubs	18. Eliminate such bulkhead framing	70	80
19. Wood for interior trim	19. Plastic for interior trim	77	89
20. Conventional 6'8" high closet doors	20. Full wall-height doors (surface mounted, bi-fold, or folding)	70	80
FLOORS			
21. Overlapping floor joists at beam supports	21. In-line floor joists	46	53
22. In-line floor joists not preassembled	22. Preassembled in-line floor joists	83	95
23. Wood joists	23. Steel joists	71	82
24. 2x10 (minimum) floor joists	24. 2x8 floor joists	84	97
25. 2x6 or 2x8 sill plate on top of foundation wall	25. 2x4 sill plate if top course is concrete capped or solid block	55	63
26. 2" thick band joist at ends of floor joists	26. 1" thick band joist	46	53
27. Plywood flooring thickness greater than 1/2" (single-layer combination or two layers)	27. Single-layer combination subfloor and underlayment plywood 1/2" thick	43	49
28. Conventionally-built floors	28. Floor trusses	74	85
ROOFS			
29. Conventionally (on-site) constructed roofs--rafters	29. Manufactured trusses	86	99
30. Roof trusses 16" O.C.	30. Roof trusses 24" O.C.	87	100
31. 1/2" plywood roof sheathing (minimum)	31. 3/8" plywood sheathing with clips	59	68
32. Chimneys on all homes	32. No chimneys on all-electric homes	83	95

APPENDIX III

THE EXTENT TO WHICH 87 GAO-SAMPLED COMMUNITIES ALLOW 64 LESS EXPENSIVE BUILDING MATERIALS AND METHODS IN SINGLE-FAMILY RESIDENTIAL CONSTRUCTION

[1] Conventional Materials And Methods	[2] Less Expensive Alternative Materials And Methods	[3] Sampled Communities Which ALLOW Column 2 Alternatives (Number)	(Percent)
ROOFS			
33. Nailed shingles	33. Stapled shingles	68	78
34. Slate, tile, wood or wood shake shingles	34. Asphalt shingles	83	95
35. Asphalt shingles in excess of 240# per square	35. Asphalt shingles 235/240# per square	82	94
36. Copper used for flashing and valleys	36. Substitute with material such as Terne Plate or galvanized	86	99
37. Metal used for valleys	37. Valleys weaved with asphalt shingles	62	71
38. Conventionally constructed chimneys	38. Manufactured or factory-built (off-site) chimneys	85	98
BASEMENT AND FOUNDATION			
39. Brick above grade	39. Exposed foundation (block or poured concrete) above grade	83	95
40. Concrete slab or poured foundation (basement)	40. Wood foundation	40	46
41. 4" concrete basement floor (minimum)	41. 3" concrete basement floor	29	33
42. Sand under concrete floor	42. Gravel under concrete floor	80	92
43. Basement required	43. No basement required	87	100
44. Concrete block basement wall	44. Poured concrete walls	84	97
45. Reinforced concrete block walls	45. Non-reinforced concrete block walls	68	78
ELECTRICAL			
46. Conduit, Knob and Tube, or Greenfield wiring	46. Romex	76	87
47. Field applied (on-site) electrical works	47. Preassembled (off-site) electrical wiring harness	47	54
48. Metal outlet receptacles	48. Plastic outlet receptacles	74	85
49. More than 1 ground fault circuit interrupter	49. 1 ground fault circuit interrupter	66	76

APPENDIX III

THE EXTENT TO WHICH 87 GAO-SAMPLED COMMUNITIES ALLOW 64 LESS EXPENSIVE BUILDING MATERIALS AND METHODS IN SINGLE-FAMILY RESIDENTIAL CONSTRUCTION

[1] Conventional Materials And Methods	[2] Less Expensive Alternative Materials And Methods	[3] Sampled Communities Which ALLOW Column 2 Alternatives (Number)	(Percent)
ELECTRICAL			
50. More than 1 smoke detector	50. 1 smoke detector	74	85
51. More than 1 exterior outlet	51. 1 exterior outlet	80	92
PLUMBING			
52. Fire sprinkler system	52. No sprinkler system	86	99
53. Metal (cast iron) or copper drain, waste and vent piping	53. Plastic pipe	81	93
54. Copper plumbing (hot and cold water supply)	54. Plastic plumbing (hot and cold water supply)	38	44
55. "L" gauge copper	55. "M" gauge copper	60	69
56. Vent pipe for each bath regardless of bath location	56. One vent pipe per house if baths not widely separated	61	70
57. On-site installation of plumbing systems (drain, waste, and vent)	57. Preassembled plumbing systems (plumbing DWV trees)	60	69
58. Cast iron or formed steel (porcelain finish) bathroom fixtures (e.g. tubs)	58. Fiberglass bathroom fixtures	83	95
59. Ceramic tile bathtub surround	59. Fiberglass bathtub surround	83	95
60. Three (or more) exterior faucets	60. Two exterior faucets	87	100
OTHER			
61. Fiberglass insulation	61. Styrofoam insulation	70	80
62. Insulation batts	62. Blown insulation	76	87
63. All rooms (except basement and attic) must be finished	63. One or more unfinished rooms (e.g. family room and extra bath) as long as not part of living area	59	68
64. Garage (or carport)	64. No garage (no carport)	77	89

APPENDIX IV

POTENTIAL SAVINGS PER HOUSE IF LESS EXPENSIVE BUILDING MATERIALS AND METHODS ARE USED IN PLACE OF CONVENTIONAL MATERIALS AND METHODS

[1] Conventional Materials And Methods	[2] Less Expensive Alternative Materials And Methods	[3] Potential Savings Per House a/ (Range)	(Average)
EXTERIOR WALLS (Assume all are loadbearing walls)			
1. 2x4 studs spaced 16" O.C.	1. 2x4 studs spaced 24" O.C.	$ 45 - 386	$ 119
2. Plywood sheathing	2. Styrofoam (or Celotex) sheathing w/plywood corner bracing	106 - 263	167
3. Some type of exterior sheathing always required	3. Eliminate exterior sheathing if certain racking and strength standards are met	138 - 422	255
4. Building paper over exterior sheathing	4. Eliminate building paper	34 - 111	63
5. Mid-height wall blocking between studs to act as fire stop	5. Eliminate mid-height blocking. Top and bottom wall plates act as fire stop	49 - 132	71
6. Fire rated door, ceiling and all walls in attached garages	6. Fire rated door and common wall only	101 - 296	191
7. Brick (or brick veneer) exterior finish	7. Aluminum, wood, wood shake, plywood or similar non-brick exterior finish	609 - 2,282	1,499
8. Doors and windows cut and fitted on-site	8. Prehung doors and windows	110 - 430	286
9. Egress windows in bedroom must have openable sash greater than 5.7 sq. ft. (820 sq. inches)	9. Egress windows in bedrooms with openable sash equal to 5.7 sq. ft.	26 - 119	62
10. Habitable rooms with natural light glazed area greater than 10% of floor area	10. Habitable rooms with natural light glazed area equal to 10% of floor area	69 - 300	145
INTERIOR PARTITIONS AND CEILINGS (Assume all are nonloadbearing)			
11. Lath and plaster (Rocklath)	11. Drywall (gypsumboard)	568 - 845	700
12. 8' ceilings (minimum)	12. 7'6" ceilings	50 - 233	154
13. Additional studs used for backup blocking where interior partitions meet exterior walls or other partitions	13. Metal drywall clips instead of additional studs	20 - 151	79
14. Wood studs	14. Steel (or aluminum) studs	b/	b/
15. Brush or roller painting (hand)	15. Spray painting	65 - 343	185

a/ Denotes lowest, highest and average savings according to estimates provided by 11 HUD cost analysts.

b/ Savings for this item were indeterminable since HUD estimates varied widely with some showing a savings while others showed no savings by using the column 2 material.

APPENDIX IV

POTENTIAL SAVINGS PER HOUSE IF LESS EXPENSIVE BUILDING MATERIALS AND METHODS ARE USED IN PLACE OF CONVENTIONAL MATERIALS AND METHODS

[1] Conventional Materials And Methods	[2] Less Expensive Alternative Materials And Methods	[3] Potential Savings Per House (Range)	(Average)
INTERIOR PARTITIONS AND CEILINGS (Assume all are nonloadbearing)			
16. 2x4 studs spaced 16" O.C.	16. 2x4 studs spaced 24" O.C., or 2x3 studs spaced 16" O.C., or 2x3 studs spaced 24" O.C.	$ 16 - 155	$ 87
17. 5/8" thick dry wall or gypsumboard (minimum)	17. 1/2" thick dry wall (or 3/8" if 16" O.C.)	82 - 300	156
18. Bulkhead framing over kitchen cabinets and tubs	18. Eliminate such bulkhead framing	30 - 150	64
19. Wood for interior trim	19. Plastic for interior trim	0 - 105	47
20. Conventional 6'8" high closet doors	20. Full wall-height doors (surface mounted, bi-fold, or folding)	36 - 140	59
FLOORS			
21. Overlapping floor joists at beam supports	21. In-line floor joists	25 - 80	45
22. In-line floor joists not preassembled	22. Preassembled in-line floor joists	20 - 20	20
23. Wood joists	23. Steel joists	37 - 37	37
24. 2x10 (minimum) floor joists	24. 2x8 floor joists	36 - 241	149
25. 2x6 or 2x8 sill plate on top of foundation wall	25. 2x4 sill plate if top course is concrete capped or solid block	10 - 2	31
26. 2" thick band joist at ends of floor joists	26. 1" thick band joist	11 - 45	25
27. Plywood flooring thickness greater than 1/2" (single-layer combination or two layers)	27. Single-layer combination subfloor and underlayment plywood 1/2" thick	59 - 210	112
28. Conventionally-built floors	28. Floor trusses	0 - 124	40
ROOFS			
29. Conventionally (on-site) constructed roofs--rafters	29. Manufactured trusses	115 - 335	218
30. Roof trusses 16" O.C.	30. Roof trusses 24" O.C.	158 - 482	305
31. 1/2" plywood roof sheathing (minimum)	31. 3/8" plywood sheathing with clips	50 - 129	79
32. Chimneys on all homes	32. No chimneys on all-electric homes	60 - 261	178

APPENDIX IV

POTENTIAL SAVINGS PER HOUSE IF LESS EXPENSIVE BUILDING MATERIALS AND METHODS ARE USED IN PLACE OF CONVENTIONAL MATERIALS AND METHODS

[1] Conventional Materials And Methods		[2] Less Expensive Alternative Materials And Methods	[3] Potential Savings Per House (Range)	(Average)
ROOFS				
33.	Nailed shingles	33. Stapled shingles	$ 0 - 119	$ 31
34.	Slate, tile, wood or wood shake shingles	34. Asphalt shingles	339 - 1,360	865
35.	Asphalt shingles in excess of 240# per square	35. Asphalt shingles 235/240# per square	90 - 280	177
36.	Copper used for flashing and valleys	36. Substitute with material such as Terne Plate or galvanized	21 - 80	41
37.	Metal used for valleys	37. Valleys weaved with asphalt shingles	23 - 88	43
38.	Conventionally constructed chimneys	38. Manufactured or factory-built (off-site) chimneys	104 - 370	191
BASEMENT AND FOUNDATION				
39.	Brick above grade	39. Exposed foundation (block or poured concrete) above grade	172 - 605	411
40.	Concrete slab or poured foundation (basement)	40. Wood foundation	0 - 905	323
41.	4" concrete basement floor (minimum)	41. 3" concrete basement floor	80 - 225	141
42.	Sand under concrete floor	42. Gravel under concrete floor	0 - 75	15
43.	Basement required	43. No basement required	2,120 - 4,985	2,870
44.	Concrete block basement wall	44. Poured concrete walls	67 - 464	254
45.	Reinforced concrete block walls	45. Non-reinforced concrete block walls	65 - 216	155
ELECTRICAL				
46.	Conduit, Knob and Tube, or Greenfield wiring	46. Romex	160 - 1,372	564
47.	Field applied (on-site) electrical works	47. Preassembled (off-site) electrical wiring harness	0 - 100	47
48.	Metal outlet receptacles	48. Plastic outlet receptacles	12 - 95	49

APPENDIX IV

POTENTIAL SAVINGS PER HOUSE IF LESS EXPENSIVE BUILDING MATERIALS AND METHODS ARE USED IN PLACE OF CONVENTIONAL MATERIALS AND METHODS

[1] Conventional Materials And Methods	[2] Less Expensive Alternative Materials And Methods	[3] Potential Savings Per House (Range)	(Average)
ELECTRICAL			
49. More than 1 ground fault circuit interrupter	49. 1 ground fault circuit interrupter	$ 20 - 65	$ 43
50. More than 1 smoke detector	50. 1 smoke detector	29 - 75	53
51. More than 1 exterior outlet	51. 1 exterior outlet	8 - 60	27
PLUMBING			
52. Fire sprinkler system	52. No sprinkler system	132 - 450	291
53. Metal (cast iron) or copper drain, waste and vent piping	53. Plastic pipe	40 - 280	154
54. Copper plumbing (hot and cold water supply)	54. Plastic plumbing (hot and cold water supply)	74 - 196	130
55. "L" gauge copper	55. "M" gauge copper	16 - 50	33
56. Vent pipe for each bath regardless of bath location	56. One vent pipe per house if baths not widely separated	40 - 160	92
57. On-site installation of plumbing systems (drain, waste, and vent)	57. Preassembled plumbing systems (plumbing DWV trees)	25 - 103	55
58. Cast iron or formed steel (porcelain finish) bathroom fixtures (e.g. tubs)	58. Fiberglass bathroom fixtures	20 - 200	86
59. Ceramic tile bathtub surround	59. Fiberglass bathtub surround	20 - 128	66
60. Three (or more) exterior faucets	60. Two exterior faucets	5 - 45	26
OTHER			
61. Fiberglass insulation	61. Styrofoam insulation	0 - 53	17
62. Insulation batts	62. Blown insulation	0 - 134	46
63. All rooms (except basement and attic) must be finished	63. One or more unfinished rooms (e.g. family room and extra bath) as long as not part of living area	300 - 2,832	1,100
64. Garage (or carport)	64. No garage (no carport)	525 - 3,700	2,160

APPENDIX V

RECAP OF LESS EXPENSIVE BUILDING MATERIALS AND METHODS PROHIBITED BY 87 GAO-SAMPLED COMMUNITIES AND POTENTIAL SAVINGS IF SUCH MATERIALS AND METHODS WERE ALLOWED

Community	Less Expensive Materials And Methods PROHIBITED By Sampled Communities (Out Of 64)	Potential Savings per House
1	35	$ 7,327
2	30	4,177
3	29	4,576
4	28	3,040
5	28	2,849
6	27	3,260
7	26	3,836
8	26	3,035
9	25	3,036
10	24	3,337
11	24	1,822
12	23	3,035
13	23	2,606
14	23	2,244
15	22	5,655
16	21	2,473
17	20	3,106
18	19	2,853
19	18	2,987
20	18	2,310
21	17	3,454
22	17	2,390
23	17	2,319
24	17	1,667
25	16	2,649
26	16	1,557
27	16	1,501
28	16	1,378
29	15	5,317
30	15	1,919
31	15	1,741
32	14	3,458
33	14	3,202
34	14	1,861
35	14	1,794
36	13	1,907
37	13	1,517
38	13	1,459
39	13	1,021
40	12	2,505
41	12	2,116
42	12	1,892
43	12	1,400
44	12	1,386
45	12	$ 1,100
46	12	1,036
47	12	583
48	11	3,940
49	10	3,329
50	10	2,818
51	10	1,465
52	10	1,051
53	10	741
54	9	3,252
55	9	1,836
56	9	1,580
57	9	1,174
58	9	1,120
59	9	763
60	8	1,079
61	8	1,050
62	7	2,766
63	7	841
64	7	753
65	7	752
66	7	727
67	7	672
68	7	642
69	7	598
70	7	480
71	6	3,540
72	6	1,955
73	6	673
74	6	486
75	5	2,800
76	5	478
77	4	511
78	4	387
79	4	282
80	3	404
81	3	231
82	3	117
83	2	168
84	2	63
85	1	64
86	0	0
87	0	0

NOTE: The average number of less expensive materials and methods prohibited by the sampled communities was 13. The median was 12. On an average, therefore, the communities allowed 51 of the 64 less expensive items.

Potential savings per house ranged between 0 and $7,327 with the median savings being $1,741. The latter can be determined by arraying the above data by potential savings instead of prohibited materials and methods as was done in this analysis.

APPENDIX VI

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

APR

OFFICE OF THE ASSISTANT SECRETARY FOR
HOUSING-FEDERAL HOUSING COMMISSIONER

IN REPLY REFER TO:

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

Dear Mr. Eschwege:

Your letter of March 7, 1978, transmitting to the Secretary of HUD, a proposed report to the Congress entitled: "Why Are New House Prices So High, How Are They Influenced By Government Regulations, And Can Prices Be Reduced?" has been referred to me for reply.

Because the Task Force on Housing Costs has not concluded its inquiry, I shall confine my comments to current HUD program initiatives. I have reviewed the report's recommendations and will respond to them in the order of presentation.

Recommendation No. 1: that the Secretary of Housing and Urban Development initiate a research project to determine the types and sizes of less expensive new houses that more median-income families can afford and would be willing to purchase.

Reply: A research project to determine types and sizes of less expensive new homes for median-income purchasers can be undertaken, utilizing both existing and new data. However, recent efforts by the home building industry to reduce the size and amenities in single family housing generally resulted in such housing not selling well, while the larger homes with more amenities continued in great demand. We question, therefore, the need for such research since downsizing is not innovative. The basic test to be met is acceptability in the market place. Furthermore, land costs are such that without a write-down of the land together with reduced financing costs the reduction in construction costs from downsizing and reduced amenities will have little effect in reaching lower-income families.

Recommendation No. 2: that the Secretary of Housing and Urban Development develop, as part of the research project, alternate approaches to encourage the building of less expensive new houses through incentives such as tax credits or insuring loans to builders of smaller, less expensive new houses.

Reply: New legislation would be required to provide tax credit incentives. Under present authority, insured loans can be made available to operative builders who will build less expensive smaller homes. A policy decision on this issue will be made shortly.

Additionally, in the Title X Land Development program a requirement to set aside areas or lots for moderate-income housing will be considered.

Recommendation No. 3: that the Secretary of Housing and Urban Development establish acceptable land development standards that could be used by local communities and also be adopted by HUD as minimum standards under its mortgage insurance programs.

Reply: HUD has had land development criteria for many years that are now being used in determining acceptability of subdivisions and land development projects. Our Field Offices work with local communities to encourage compliance with these criteria. (Copies attached.)

Recommendation No. 4: that the Secretary of Housing and Urban Development establish a program to systematically identify local communities that do not allow the use of known, less expensive construction materials and methods and, using information developed by the National Institute of Building Sciences, provide them technical data and assistance necessary to encourage the communities to use these items.

Reply: HUD presently evaluates new and innovative construction building systems and components and issues Structural Engineering Bulletins for use by its Field Offices. The Department is not adequately staffed to evaluate each community's standards and to provide the technical assistance suggested in the recommendation.

No mention is made of high land costs, high closing costs, lender's fees, discount points, commissions, etc., which add up to a large cash outlay by the purchaser. Many of these fees are customary in all purchases and have no relationship to actual services rendered to the buyer or seller. Any such costs that the seller pays are passed on directly to the purchaser, adding either to the down payment required or the amount of mortgage needed.

As mentioned in the report, rapidly increasing real estate taxes, utility, financing and high interest costs are causing monthly payments to rise to levels that many middle-income potential buyers cannot afford even if they have managed to accumulate the down payment.

It should be noted that HUD will also be participating in an interagency study organized by the Council of Economic Advisors dealing with the availability of housing credit and the methods for assuring the availability of this credit within the total national economic picture.

As a member of the Task Force on Housing Costs, I have reviewed draft recommendations prepared by the Task Force which address these problems and suggest actions for HUD implementation to deal with them. The Task Force will conclude its deliberations in the next two months. It's Final Report should be transmitted to Secretary Patricia Harris by late May 1978. Because the language of these recommendations is still under discussion, it is not timely for me to comment more specifically upon them now. But the evolving report does address these issues in detail. Upon transmittal, the Report will be released to the Congress, the press, and the general public.

The above items should be included in your report to the Congress on the high prices of new homes.

Sincerely,

Lawrence B. Simons
Assistant Secretary

Attachments

APPENDIX VII

NATIONAL INSTITUTE OF BUILDING SCIENCES

March 24, 1978

Mr. Ronald Wood
Housing & Community Development Coordinator
General Accounting Office - Room 8254
451 7th Street, S.W.
Washington, D. C. 20410

Dear Mr. Wood:

We have reviewed the draft of the proposed report, "Why are New House Prices so High, How are they Influenced by Goverrment Regulations, and Can Prices be Reduced?"

We believe it to be appropriate for the National Institute of Building Sciences to perform the roles you recommended in your report. We find that it is consistent with the mandates in our authorizing legislation from the Congress.

The Institute appreciates this opportunity to continue to perform in areas that will benefit the building community and the American consumer.

Cordially,

Gene C. Brewer
President

GCB:lb

1730 Pennsylvania Avenue, N.W. • Suite 425 • Washington, D.C. 20006 • 202-347-5710

APPENDIX VIII

PRINCIPAL OFFICIALS RESPONSIBLE FOR THE ACTIVITIES DISCUSSED IN THIS REPORT

	Tenure of office	
	From	To
DEPARTMENT OF HOUSING AND URBAN DEVELOPMEMT		
SECRETARY, HOUSING AND URBAN DEVELOPMENT:		
Patricia R. Harris	Jan. 1977	Present
ASSISTANT SECRETARY FOR HOUSING--FEDERAL HOUSING COMMISSIONER		
Laurence B. Simons	Mar. 1977	Present
ASSISTANT SECRETARY FOR COMMUNITY PLANNING AND DEVELOPMENT		
Robert C. Embry, Jr.	Mar. 1977	Present
ASSISTANT SECRETARY FOR POLICY DEVELOPMENT AND RESEARCH		
Donna E. Shalala	Apr. 1977	Present
NATIONAL INSTITUTE OF BUILDING SCIENCES		
PRESIDENT:		
Gene C. Brewer	Nov. 1977	Present
CHAIRMAN, BOARD OF DIRECTORS:		
Otis M. Mader	July 1976	Present

(38101)

GPO 927 825