

April 1983

MANUFACTURED HOUSING

An Assessment for
Shelter Industry
Decision Makers

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Working Paper No. 83-4

Joint Center for Urban Studies of MIT and Harvard University

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ISSN 0275-2964

INTRODUCTION

Over the past few years, the circumstances of the shelter industry have changed dramatically, prompting a search for new ways to meet the housing needs of the American public. Manufactured housing is frequently mentioned as an area of opportunity in this search. To many, however, manufactured housing is a mystery. The housing sector comprises many interdependent actors, each with rather different primary concerns. The purpose of this paper is to assess manufactured housing in light of the concerns of various actors in the shelter industry.

What is manufactured housing? Most simply, it is housing constructed at a location other than the site of occupancy. The extent of off-site construction varies: a unit may be panelized, pre-cut, modular, and so on. Nearly every common housing type is now available from a housing manufacturer. The typical manufactured home is a single-story, single-family detached house, constructed in a wide range of styles. Manufactured housing is also available in various two-story, single-family detached styles; one- and two-story duplexes; town houses; and three- or more-story, multi-family structures. Prices for homes range from as little as \$5,000 to more than \$200,000 (FOB).

Manufactured housing may be built to state or local codes, which are in turn based on model codes such as BOCA, or to a single, national code embodied in HUD's Manufactured Home Construction and Safety Standards. Homes built to either code may appear identical;

the basic distinction is in the mode of delivery to the site. A HUD code house has its own chassis, with axle, wheels and hitch, thus providing the unit's mobility. Houses built to other manufactured codes, in contrast, require some other mechanism for transportation, such as a low-boy trailer.

Mandated by Congress in 1974 and effective June 15, 1976, the HUD code preempts all state or local construction codes for its type of manufactured housing. Since 1977, over 220,000 units have been built to the HUD code each year, with a high of nearly 275,000 in 1978. By 1981, HUD code houses represented nearly 20 percent of all U.S. housing starts, and over 36 percent of all single-family housing starts.

Because construction records rarely distinguish site-built from manufactured housing starts, it is difficult to determine the number of non-HUD code manufactured homes built in a given year. Based on data from the Red Book of Housing Manufacturers, however, the National Association of Home Builders estimates that 18,000 of the 236,000 manufactured housing starts in 1981 were pre-cut, 38,000 modular, 52,000 panelized, and 128,000 built by industrialized (that is, volume) home builders.

Since all non-HUD code manufactured housing units must be placed on a permanent foundation, they necessarily become real property. Because they are constructed on a chassis, HUD code manufactured homes have received substantially different treatment in the shelter sector. This paper addresses a set of key questions, focusing on HUD code manufactured housing, (designated as MH).

CONSTRUCTION QUALITY

Construction quality is an issue of engineering standards, not appearance: Unattractive housing can be well built, and attractive housing can be badly built. Construction codes exist to ensure that conforming structures will protect the health and safety of occupants. Attractiveness, in contrast, is a matter of design, choice of materials and, to a large extent, personal aesthetic preferences.

Imposition of the HUD code in 1976 signaled an important change in the standards of MHs. It meant, quite simply, that this type of housing henceforth would be built to a publicly determined and administered housing construction code. Although voluntary standards already existed, the process of standard implementation allowed such variation in construction quality that few guarantees were afforded to any lender, consumer, or regulatory body that a given MH would in fact meet at least minimum housing construction standards. Most of the concerns often expressed about MH construction quality derive from the absence of a uniformly applied, publicly determined construction standard, and from the "trailer" heritage of this housing type, when a premium was placed on mobility rather than durability.

It is important to note that the HUD code mandates performance rather than specification standards. Instead of specifying the use of a certain amount of insulation, for example, the HUD code requires that the home's thermal envelope achieve a certain performance level. This approach allows home manufacturers to use the most current and efficient material and design solutions. HUD approves all MH designs through design approval primary inspection agencies (DAPIA), which may be private testing or engineering firms or state agencies. HUD also

designates both public and private in-plant primary inspection agencies (IPIA), responsible for certifying that the manufacturer is capable of producing DAPIA-approved units and for inspecting each unit during construction.

Instituting HUD code construction standards has lead to significant improvements in the characteristics of MHs. Perhaps the most dramatic improvement is in fire safety. The HUD code requires a smoke detector for each sleeping area and materials with low flame-spread classifications in the furnace and kitchen areas. Based on National Fire Information Reporting Service data, the incidence of fires per 100,000 MHs dropped in 1978 from 563.1 to 378.9. (The comparable figure for all homes is 534.5.) The decrease in the incidence of fire-related fatalities revealed in 1978 data is even more dramatic: from 14.10 to 3.44 fatalities per 100,000 homes. The 1978 rate of fire-related fatalities for all houses was 4.20 per 100,000 units. HUD research shows similar improvements in areas such as storm safety and energy efficiency.

It is difficult to compare the HUD construction code with standards for other manufactured and site-built housing because each housing type has certain areas of structural uniqueness. Nonetheless, where comparisons are possible, it is clear that requirements for all housing types focus on the same general health and safety objectives. Indeed a January 1983 Montana court decision (Martz v. Butte-Silver Bow) explicitly reached this conclusion regarding HUD and UBC codes.

Two other aspects of construction merit attention. The first is design flexibility; the second involves siting. As with other forms of housing, only the inventiveness of the designer and the pocketbook

of the buyer limit MH design possibilities. Most buyers find a preferred home design among standard models. In short, the HUD code does not especially constrain design.

Recent changes in home financing and zoning laws have focused on a "permanent foundation" as an important element in the treatment of manufactured homes. In terms of construction, a permanent foundation is one that supports the home and transfers its load into the ground, in effect enabling the home to stay in place "permanently." The issue is performance in respect to geological and climatic forces. Regardless of legal definition of the home as real or personal property, the same siting solution could be a functionally "permanent foundation." The major code and standards organizations are now attempting to provide specific guidance on MH foundation systems, and Indiana has already adopted a state standard. HUD has completed considerable research on the effectiveness of "anchoring systems" for MHs. This remains an area of active technical development.

A useful generic definition of a permanent foundation appears in Section 3282.12(b)(1) of HUD's MH Procedural and Enforcement Regulations: A site-built permanent foundation is a system of supports, including piers, either partially or entirely below grade which is:

- (A) capable of transferring all design loads imposed by or upon the structure into soil or bedrock without failure;
- (B) placed at an adequate depth below grade to prevent frost damage; and,
- (C) constructed of concrete, metal, treated lumber or wood, or grouted masonry.

MARKET

In the early stages of manufactured housing, "mobile home" was a term describing a unit built in a plant, having its own capability for mobility, and, designed with a flat roof, vertical metal siding, and a high length-to-width ratio. This stereotype is no longer appropriate. Between 1970 and 1980, nearly 3.9 million MHs were built. During this same period, the proportion of multi-section MHs built in a given year increased from 10 percent annually in the early 1970s to 25-30 percent in the later years of the decade. The types of designs and materials used in both single- and multi-section homes also increased, so that many MHs are indistinguishable from houses built to other codes. In short, the code to which an MH is built no longer serves to predict its appearance and/or function in the housing market.

Manufactured homes built to the HUD code are basically a type of sectional manufactured housing. A single-section home leaves the plant essentially complete, with all four walls, floor, and roof in place; multi-section homes (usually comprising two or three sections) leave the plant with three walls, floor and roof in place for each section.

Sectional manufactured housing is built to satisfy consumer preferences for particular house styles. The three most common types of sectional manufactured housing are:

- Ranch, a single-story house with horizontal lap siding and pitched roof meeting in the middle;
- Contemporary, a single-story house with vertical wood siding and pitched roof with broken profile; and,

- Mobile home, a single-story house with vertical metal siding and flat (or slightly rounded) metal roof.

All of these common types can be, and are, built to HUD as well as other manufactured housing codes.

About one-half of MHs are found in conventional shelter locations, i.e., individual lots, subdivisions, and large parcels (farms or other rural settings).¹ The other half are found in settings unique to this housing type, an MH park. Often referred to as a leased land community, an MH park typically separates ownership of the land and the unit, with the park owner providing services (water, sewer, road maintenance, trash removal, and recreation). From a land use point of view, MH parks are probably one of the earliest forms of Planned Unit Development (PUD), a comprehensive site plan for residential use with provision of related amenities and services by the developer/owner. From a consumer point of view, an MH park provides a certain quality of life. Many MH parks are so-called "retirement communities," which restrict occupancy to persons over a given age. An emerging phenomenon is the conversion of MH parks to condominium or cooperative ownership, making the homeowners collectively the owner/operator of the park.

MHs are not evenly distributed across the 50 states. Ten states have roughly one-half of all year-round occupied units. Contrary to conventional wisdom, however, not all of these are Sunbelt states. The top ten states include Pennsylvania, Ohio, and Michigan as well as Florida, California, Texas, North Carolina, Georgia, Arizona, and Alabama. Only three states of the top ten by total number, (Arizona, Florida, and North Carolina) also rank in the top ten by number of MH

units per 100,000 population. The other seven states with high proportions of MHs per population are Wyoming, Montana, Nevada, Idaho, New Mexico, South Carolina, and Alaska.

The profile of MH occupants also does not agree with conventional wisdom. Although over one-half of all occupants are under 30 or over 60, the bi-modal age distribution is not as pronounced as expected, and is in fact decreasing. The 1981 distribution of occupants and buyers of MHs was:

Age of Household Head in MHs, 1981

<u>Occupants</u> ^a		<u>Buyers</u> ^b	
Under 30 years old	23%	Under 25 years old	17%
30-39 years old	23%	25-34 years old	29%
40-49 years old	10%	35-44 years old	14%
50-59 years old	13%	45-54 years old	14%
60-69 years old	16%	55 years old and over	26%
70 years old and over	14%		

Note: Columns may not add to 100% due to rounding.

^aData from Foremost Insurance Co., National Family Opinion survey.

^bData from Owens-Corning, Opinion Research Corp. survey.

The socioeconomic status of MH occupants is shifting upwards. Increasing numbers have at least some college education (33 percent). About one-quarter of all MH occupants are retired. Of those employed, about one-third have white-collar occupations. Median family income by state for non-retired households in 1981 ranged from \$11,000 (Delaware) to \$21,000 (Massachusetts), with an overall average of \$14,424. Median income for retired households varied from \$4,714 in Maine to

\$14,125 in Nevada. While the median age of the household head was 47, it ranged widely across states from an average of 36 in North Dakota to 59 in Florida.

What these data suggest is that MHs serve diverse housing markets --by state, by age of household head, and by income class. Given the variety of home types currently available, this is not surprising. Indeed, the market for MHs is likely to continue expanding to meet the demand not only of young and old households with lower incomes but also of those with higher incomes in the middle-aged group. How rapidly market expansion will occur depends primarily on the response of lenders and the public sector in areas that heretofore have made limited use of MHs.

FINANCE

The traditional personal property definition of manufactured homes has meant that until recently, owners have paid considerably higher interest rates with shorter maturities for chattel mortgages than if they had shelter mortgages. With the general increase in interest rates and the liberalization of both conventional and government lending programs, however, the difference in costs between real and personal property loans has narrowed. In December 1982, conventional lenders were making MH personal property loans in the range of 14.17 percent, with terms of 15 to 18 years. Veterans Administration (VA) guaranteed and Federal Housing Administration (FHA) insured loans offered somewhat longer maturities (20 to 23 years) and lower rates (14 to 15 percent).

The VA and FHA programs have played an increasingly important role in MH lending. In 1980, VA and FHA loans combined financed 13.4 percent of all MH units built during the year, up from only 1.4 percent in 1971. Nearly all of these loans were in turn sold on the secondary market through the GNMA mortgage-backed securities program.

The median price of a new site-built house now exceeds \$80,000; the 1981 median price of an MH was under \$20,000. Although these prices do not compare housing with exactly the same structural attributes, they do suggest that market responsive strategies using MHs are possible that involve sales prices well below the current median.² For equivalent units (e.g., similar-sized three-bedroom, two-bath ranch houses on permanent foundations on the same lot), the rule of thumb is that a HUD code house should cost about 20 percent less than a site-built house. Obviously, the actual difference in prices will vary with lot and off-lot development costs; the higher these costs, the smaller the difference between sales prices of houses built to different codes.

Although the majority of MH sales are in the personal property category, an increasing proportion are now considered real property. In large part, this change has occurred because of the FNMA's announcement in August 1981 that loans for MHs sold as real estate would be purchased on par with all other single-family dwelling mortgages. FNMA required that the loan be on a real property transaction, citing the need for, but providing no definition of, a "permanent foundation." Indeed, FNMA is not interested in the construction details per se but rather in ensuring a public record of ownership through a real property deed (or equivalent mechanism), thus securing investor risk.

As with FNMA, the FHLBB has also liberalized its regulations on MH lending over the past few years. In addition, HUD has recently incorporated MHs on a par with other forms of single-family dwellings into its FHA 203(b) program. Some state housing finance programs, most notably Oregon's Veterans Housing program, offer loans for MHs in both the personal and real property categories.

One of the misconceptions that has dampened enthusiasm for MH lending is that MHs depreciate in value. This view derives from the "trailer" heritage, when units were not as well-built and when ownership records were simply a variation of motor vehicle titling. It is not clear, however, whether units actually depreciated or whether the titling and taxing procedures imposed a presumption of depreciation. Whatever the situation historically, studies of units built since 1973 indicate that MHs in fact appreciate in value, with the degree of appreciation depending on the same factors that affect other forms of shelter: location, unit attributes, maintenance, and demand.

One difficulty in MH finance has been the absence of an adequate recording system for MHs owned as personal property. Although some states require titling, usually through the Department of Motor Vehicles, the procedures and forms vary considerably. The lack of uniformity has hampered the creation of a secondary market for this paper. California has taken perhaps the biggest step toward creating a consistent recording system through its Department of Housing and Community Development, prompted in part by the decision to treat all MHs as real estate for tax purposes, regardless of the legal definition as real or personal property.

PUBLIC SECTOR TREATMENT

In its financing programs and in such major policy statements as the 1981 Report of the President's Housing Commission, the federal government has been relatively quick to perceive the possibilities for MHs in meeting housing needs. At the state and local levels, however, the public sector has been slow to recognize MHs as a viable option in the shelter market and therefore to establish appropriate policies and programs. Indeed, the treatment of MHs in terms of state and local taxation and development regulation has seriously limited the availability of this housing form to consumers.

By categorizing MHs as personal property, state and local governments tax manufactured homes differently than other forms of housing. While the taxing mechanisms--e.g., license fee, excise tax, or personal property tax--vary from state to state, most incorporate the deterioration/depreciation assumption. These systems thus build in annual decreases in public revenues from each MH, even though MH occupants use the same sorts of public services as other residents. Given a tax system that builds in declining revenues, it is not difficult to see why local jurisdictions resist more widespread use of MHs.

The problem lies in the tax system, however, not in the form of housing. As noted earlier, whether considered real or personal property, MHs appreciate rather than depreciate in value. California's recently enacted statute, requiring that MHs be assessed and taxed on a real property basis even if technically they remain personal property, is a sensible way to address the tax situation.

For whatever reasons--low tax yield, objections to unit appearance, or perceptions of occupants as undesirable--local jurisdictions have moved to limit the use of MHs through zoning ordinances. In some cases, the ordinances exclude MHs altogether, defining them as something other than residences but not specifying them as permitted uses in either residential or non-residential zones. In other cases, zoning ordinances limit MHs to MH parks. Rarely does a jurisdiction permit MHs as uses by right in all residential zones.

Exclusionary zoning policies were more sustainable when units were not built to publicly determined and administered construction standards. Imposition of the HUD code, however, eliminates any doubt that MHs meet publicly established minimum standards for a well constructed and safe house. It is therefore difficult to justify the argument that a house built to the HUD code should be excluded as possibly detrimental to public health and safety because of how it is built.³

The most persistent and emotional issue relating to control of MHs is not how they are built, but how they look. The fear is that MHs (and here the reference is to the traditional "mobile home" variety of housing built to the HUD code) will be aesthetically incompatible, and in the end, lower the property values of surrounding homes. Although no studies exist of how MHs affect property values, it seems likely that any impacts would not be a function of the code to which the dwelling is built, but of how the unit looks and is maintained. Indeed, enabling statutes in some states have authorized, and courts have tended to uphold, appearance standards specifically for MHs. Such an approach is deemed supportable because the traditional "mobile home" form (high length-to-width ratio and flat roof)

and exterior building materials (vertical metal siding) are considered incompatible with much of existing housing stock; this incompatibility is seen as disrupting neighborhood stability, at least economically. Recent decisions, however, suggest that courts are now unwilling to sustain an a priori correlation between the code to which a residence is built and how it will look. The courts do seem willing to uphold development controls that impose certain appearance standards intended to ensure compatibility, such as pitched roofs and use of "house-type" exterior materials.

There is some question whether the appearance control approach is constitutional. Although such controls have been sustained when uniformly applied to all structures as, for example, in historic districts, it is not clear whether the courts would uphold appearance standards only for structures built to a particular code. Regardless of the legal resolution of this problem, public officials at the local level must decide whether to institute a universal appearance review process. If jurisdictions are concerned about upholding property values by maintaining appearance compatibility of uses in given areas, they could conduct appearance reviews of every development proposal, whether for new construction or modification of existing structures. Except for special purposes such as historic districts, few jurisdictions have chosen to allocate resources in this manner. Most jurisdictions seem content to allow market forces to work toward compatibility objectives on individual lot proposals, on the assumption that investors will have sufficient interest in protecting their investment to make appropriate decisions.

In the case of large development proposals, however, most jurisdictions do tend to conduct some form of appearance review. The approval process for subdivisions, PUDs, and special use permits typically includes review, whether formal or informal, of all facets of the proposed development (e.g., site plan, unit type and appearance, and services). Approvals are often granted conditionally. Developers frequently accept such conditions because the costs of acceptance are lower than the costs, in time and money, of fighting them through hearings, publicity, and litigation.

A FINAL WORD

Manufactured housing in general, and MHs in particular, provide an important opportunity to help meet the nation's housing needs. Although the process of incorporating manufactured housing into the routines of the shelter industry will not be without difficulty, there are clear benefits from doing so for builders, developers, lenders, public officials and, ultimately and most importantly, consumers.

NOTES

1. Census data on MHs are generally suspect. The more recently built MHs, with non-mobile home appearance, are frequently not recorded as such, either by enumerators or through self-reporting, especially when they are found in settings other than MH parks. Similarly, data from private consumer panels about MH occupants typically use a "mobile home" definition, and depend on self-reporting. These same limitations apply to other data, e.g., on fire incidence and value. The appearance-based colloquial definition for MHs tends to emphasize the "mobile home" type of HUD code house, which is also the least expensive and the type with the most idiosyncratic (and, for that matter, unstudied) market.
2. In particular, the MH price is for structure only; it does not include land, transportation, and site set-up costs.
3. It should be noted that this argument applies only to structure. While jurisdictions clearly need to impose standards for site installation, these additional standards do not alter the fact that the MH is a "decent, safe and sanitary" dwelling, in the litany of housing policy, and therefore a use type that should have presumptive acceptance in residential zones. This was the thrust of the Martz decision.

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