

# Perceptions of Manufactured Housing in Virginia

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## **Abstract**

Manufactured homes are highly affordable alternatives to both site-built single-family houses and apartments. The bulk of the demand for manufactured housing comes from low- to moderate-income families who are otherwise a close cross-section of households in Virginia in terms of age, household size, family type, and mobility. Some communities still prohibit manufactured homes in agricultural districts even though state legislation had mandated that double-section manufactured homes must be permitted in these districts. Community officials and residents have viewed manufactured housing and the people who reside in them as homogeneous but different from other types of housing and households.

When attitudes of non-residents about manufactured housing were assessed, double-section units were more accepted than were single-section ones. Non-residents showed a more negative attitude than residents did about the impact of placing manufactured housing in their community. Comparing residents of single-section homes and residents of double-section homes, respondents in double-section homes reported greater satisfaction with their housing than did residents of single-section manufactured homes.

The Industry faces some stiff obstacles, including design and construction issues, as well as public relations with consumers, community officials, and non-profit housing groups. Manufactured housing poses many challenges to public policy at the local, state, and national levels. Policy makers should look toward integrating the manufactured product line into the mainstream of America's housing, rather than impeding the progress of the industry toward a more acceptable and highly affordable housing choice.

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## Prologue

Affordable housing has continued to be an important concern for many Virginians throughout the 1990s. Although the decade has experienced sustained economic growth, many families still struggle to afford safe and decent housing. Manufactured housing is one alternative that can meet the needs of moderate-income households. It is a housing option that is especially prevalent in small towns and rural areas. Many issues surround the use of this housing alternative in these communities. Some of these issues are related to the actual manufactured housing product, while others are related to the people who live in the housing. This report explores manufactured housing in Virginia by reporting on a variety of studies that were conducted through a Virginia Agricultural Experiment Station Research Project, "Analysis of Factory-Built Housing in Rural Virginia." The studies were designed to examine manufactured housing from the community and consumer perspectives. Questions that guided the studies were:

- What is the manufactured housing situation in Virginia?
- What is the community regulatory environment?
- Who lives in manufactured housing? What do they think about it?
- What do people who don't live in manufactured housing think about it?
- How different is the opinion of manufactured housing residents and non-residents?
- If manufactured housing is an acceptable housing alternative, what can be done to encourage its use?

To answer these questions, this report is divided into six chapters. The editors wish to acknowledge the work of C. Theodore Koebel on Chapters I and VI, Rebecca Wood on Chapter II, Youngjoo Kim on Chapters III and V, and Jorge Atilas on Chapter IV. Chapter I provides an overview of manufactured housing in Virginia. The terms manufactured housing and mobile homes are defined and the code restrictions that apply to this type of housing are explained. General information about the housing and the people who live in it is gleaned from Census data and a survey of manufactured housing dealers.

Chapter II explores the role of zoning regulations on community acceptance and placement of manufactured housing. Local planning officials throughout the state responded to a survey about the regulatory environment in their jurisdiction.

In Chapter III, the survey results of a sample of residents of both single-section and double-section housing units are reported. The demographic and housing characteristics of these two groups are compared, so that distinctions are made between the single-section home and the double-section home. The residents' perceptions of manufactured housing are also reported.

In Chapter IV, the survey results of a sample of community residents who do not live in manufactured housing are reported. Their demographic and housing characteristics and their perceptions of single-section and double-section manufactured housing are compared.

Chapter V compares the perceptions of manufactured housing held by the residents and non-residents surveyed in the two studies. Their perceptions of single-section and double-section units and the people who live in them are explored. Finally, in Chapter VI, challenges for the manufactured housing industry and for policy makers are identified. Some of the challenges emanate from the findings of the collected studies, but others are gleaned from the authors' efforts to understand housing choices and decisions from community and consumer perspectives. Therefore, the needs of the manufactured housing consumer and the community that will host this housing are explored.

The report is intended as documentation of the procedures and basic findings of the studies. More extensive analysis of specific aspects of the data have been conducted and reported elsewhere. This report captures the scope of the issues that could be addressed in order to enhance the use of manufactured housing as an affordable housing alternative for rural Virginians.

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# ***I. A PROFILE OF MANUFACTURED HOUSING IN VIRGINIA***

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*C. Theodore Koebel*

## **INTRODUCTION**

In setting the stage for this report's in-depth examination of manufactured housing in Virginia, this introductory chapter provides some basic facts about the use of manufactured housing within the Commonwealth, including the number of units, geographic distribution, and characteristics of occupants. First, however, it is important to understand what we mean by manufactured housing or, what is more commonly called "mobile homes."

### ***If a Mobile Home Isn't Mobile, What Is It?***

"Mobile home" is probably the most confusing term in the housing lexicon. The term is disliked by the industry and seldom understood by consumers. Generally, mobile homes are not at all mobile, except in being shipped from a manufacturer to their first owner. But not all homes manufactured and shipped to a site are called "mobile homes," although "manufactured housing" is considered in the industry as synonymous with mobile homes. Modular homes, also factory built, are referred to as "industrialized housing," a term that does little to clarify the confusion over terminology except for those experienced with the industry's jargon. It is not manufacturing that distinguishes "mobile homes," but manufacturing to a specific national building code, developed by the Department of Housing and Urban Development (HUD) called the "HUD code." All other manufactured housing is built to the same state and local building codes that govern site-built housing.

To understand the definition of a mobile home or of manufactured housing, it is necessary to understand how factory-built housing qualifies for the HUD code. The key ingredient is a chassis built into the structure so that it can be attached to axles, so that the unit can be shipped

directly on wheels rather than on a flat bed truck (Mays, 1998). Wheels and axles are typically removed when the unit is placed on site, but the chassis must stay in place. The identical unit built without a chassis and shipped on a flatbed truck would not qualify for the HUD code.

The next most important characteristics distinguishing mobile homes are length, width, and height, which are set by the HUD code to conform to highway regulations. Width for individual units -- called 'single-sections' -- is either 14 or 16 feet; 'double-sections' are 24 to 28 feet wide. The HUD code also imposes a maximum height of 14 feet. Length is essentially determined by cost considerations related to the chassis, which basically means that most units will be close to the maximum trailer length permitted for highway shipment. The combination of length, width, and height restrictions gives mobile homes their distinctive "trailer" appearance--long, narrow, and flat.

Since mobile homes are the only residential structures regulated by a national building code, they are the only units that can be shipped across state lines without concern for variations in state and local building codes and without approval by state or local building inspectors. The use of a national code standardizes the product and also reduces the cost of inspections and modifications required of modular units that have to be built in conformance to state and local codes. Since by definition mobile homes are HUD-code homes, the trailer appearance of the product is difficult to avoid. Side-to-side combinations of units (double-sections) or top-to-bottom stacked units (less common because the chassis has to remain in place) offset the trailer appearance, but the dimensions of the individual unit are an inherent design limitation. Although the term 'trailer homes' might be more accurate, the popular use of

'mobile homes' to identify this product appears appropriate despite industry objections.

## PROFILE

### *Location and Characteristics of Mobile Homes in Virginia*

A total of 155,429 housing units were recorded in Virginia in the 1990 Census as mobile homes or trailers. From 1990 through 1996 an additional 43,276 units were shipped to sites within the state. Adjusting for the overlap between annual shipments for 1990 and the April 1<sup>st</sup> Census date, and for nonresidential use of units, there would have been a maximum of 196,000 units in Virginia at the start of 1997 (unadjusted for any units removed from the inventory between April 1, 1990, and January 31, 1996).

Although manufactured housing constitutes a relatively small percentage of total housing units in the state (6.2% in 1990), mobile homes are restricted by many local land use laws (and by the high cost of land in many urban areas) to rural areas. Throughout the state's principal urban and metropolitan areas, mobile homes made up less than 5% of the occupied housing stock in 1990, whereas, they were between 15 and 33% of occupied units in the southwest and southern portions of the state and between 10 and 15% of occupied units through much of the Shenandoah Valley. The Planning District Commissions (PDC) with the highest percentages of mobile homes are the Cumberland Plateau, Lenowisco, and Mount Rodgers PDCs (which make up the southwest corner of Virginia), the West Piedmont, Piedmont, and Southside PDCs (the bulk of the southcentral portion of the state), and Accomack-Norhampton (the eastern peninsula), -- see Table 1.

Mobile homes are an important part of the housing market in the rural areas of the state, proportionately equivalent to the share of the new housing market held by multi-family housing in urban areas (Koebel, Engelen-Eigles, & Cavell, 1992)--between one-fourth and one-

third of the supply of new housing units. Indeed, mobile homes and multifamily structures might be meeting very similar demands for affordable new housing in rural and urban areas. Land values, community norms, and zoning regulations influence whether the supply response will be with mobile homes or with multifamily structures, but the underlying characteristics of demand are fairly similar.

Mobile homes have also played an important role in upgrading housing quality in the state. Coming out of World War II, more than half the housing units in Virginia lacked complete plumbing. The largest improvements in housing quality resulted from rural to urban migration and the expansion of the urban and suburban housing stocks. But mobile homes have also been important in upgrading rural housing quality as a replacement for older, substandard houses. Even in 1990, 5.1% of rural housing units lacked complete plumbing, but only 2.3% of mobile homes did.

Mobile homes are also likely to be newer than other housing units (Table 2). The median age of mobile homes was 13 years in 1990 compared with 20 years for all housing units. Consequently, the majority of mobile homes in existence today were constructed under the national HUD code which went into effect in 1976. Fewer than 5% of the units were built prior to 1960—about 10,000 units. These mobile homes are significantly smaller and of poorer quality than are newer units and should be prime candidates for replacement.

Mobile homes, particularly older units, are often used to provide housing for migrant farm workers (Koebel & Daniels, 1997). In a survey of growers in the state with work camps, more than one-third of the workers were housed in mobile homes. Older units were much more likely to have moderate or severe housing problems.

Reflective of their exclusion from most urban areas, mobile homes are much more likely to use private rather than public sources for water supply and waste water disposal than are

**Table 1. Manufactured Housing<sup>1</sup> in Virginia by Planning District Commission, 1990**

Planning District Commission	Manufactured Housing (Occupied Units)	
	Number	Percent
Lenowisco	7,740	22.5
Cumberland Plateau	12,671	27.9
Mount Rogers	10,932	15.8
New River Valley	7,297	13.0
Fifth	3,603	3.6
Central Shenandoah	7,502	9.1
Lord Fairfax	4,546	7.6
Northern Virginia	3,893	0.7
Rappahannock-Rapidan	2,074	5.1
Thomas Jefferson	4,772	7.8
Central Virginia	9,794	12.7
West Piedmont	14,053	15.2
Southside	5,299	17.5
Piedmont	5,643	19.0
Richmond Regional	5,849	2.0
RADCO	5,592	9.8
Northern Neck	2,256	12.7
Middle Peninsula	4,169	15.2
Crater	4,705	8.2
Accomack-Northampton	3,240	18.2
Hampton Roads	14,300	2.9
Virginia	139,930	6.1

<sup>1</sup>Mobile homes and trailers**Table 2. Year Structure Built and Median Age, 1990**

Year Structure Built	Manufactured Housing <sup>1</sup>	All Housing
	(Occupied Units)	Units
	Percent	Percent
1989 - April 1, 1990	4.6	3.3
1985 - 1988	17.6	12.5
1980 - 1984	16.6	10.5
1970 - 1979	39.1	23.6
1960 - 1969	14.2	17.4
1950 - 1959	3.5	13.4
Pre-1950	4.4	19.3
Median Age	13 years	20 years

<sup>1</sup>Mobile homes and trailers



**Table 3. Source of Water and Waste Water Disposal, 1990**

	Manufactured Housing <sup>1</sup> (Occupied Units)	All Housing Units
	Percent	Percent
<b>Water Supply</b>		
Public system	39.4	76.1
Drilled well	45.7	17.8
Dug well	9.1	3.8
Other	5.8	2.3
<b>Sewage System</b>		
Public system	29.2	69.7
Septic tank	67.7	28.3
Other	3.1	1.9

<sup>1</sup>Mobile homes and trailers

other homes (Table 3). Whereas 76.1% and 69.7% of all occupied housing units obtain water and waste water treatment from public systems, only 39.4% and 29.2% of occupied mobile homes are hooked up to public water and waste water systems. Instead, approximately two-thirds of mobile homes rely on wells and septic tanks or other water systems. Water supply may indeed be the most significant problem associated with mobile homes. Nearly 10% rely on dug wells and another 6% on cisterns or other water sources, increasing the risk of exposure to health problems.

Most mobile homes (76.2%) have four to five rooms (Table 4). Just over 10% are larger units--most of these have six rooms. With a median of 3.7 rooms, mobile homes are smaller than other housing units. The median number of rooms for all units was 5.1 rooms in 1990. Owner-occupied houses were larger, with a median of 6.6 rooms. Even renter-occupied housing in Virginia is typically larger than mobile homes are, with a median of 4.5 rooms in 1990.

One of the major attractions of manufactured housing is its affordability. The median value of owner-occupied mobile homes recorded in the 1990 Census was \$14,450, and nearly 90% of the units had values below \$40,000. In contrast, the median value for all occupied homes was

\$91,000. The average sales price in 1990 for new manufactured homes placed in residential use was \$25,500. Average sales prices for new single-section and multi-section homes were \$19,800 and \$35,300, respectively. More recently (1996), the average sales prices for new manufactured homes placed in residential use in Virginia were \$35,800 overall, \$26,100 for single-section homes, and \$45,800 for multi-section homes. Although manufactured housing is highly affordable, cost burdens for owners are proportionately similar to those for all owners, primarily because they serve households with lower incomes. Among mobile home owners, 19.4% paid 30% or more of their incomes for ownership costs, a proportion that is almost identical to the proportion for all owners (20.5%). The proportion of mobile home renters paying 30% or more of income for renter costs was also very similar to that for all renters: 34.2% and 38.8%.

#### *Characteristics of Occupants*

Mobile homes are more likely to contribute to homeownership opportunities than are townhouses or multi-family housing, but are less likely to be owner-occupied than are other single-family units (Table 5). Almost 80% of mobile homes are owner occupied, compared with only 10.7% of multi-family units. The

**Table 4. Number of Rooms, 1990**

Rooms	Manufactured Housing <sup>1</sup>	All Housing
	(Occupied Units)	Units
	Percent	Percent
1-3	10.4	10.3
4	42.5	17.2
5	33.7	20.7
6	8.9	18.1
7+	4.4	33.7
Median	3.7	5.1

<sup>1</sup>Mobile homes and trailers

**Table 5. Tenure of Occupied Units, 1990**

Tenure	Manufactured	Other, Single-family	Townhouse	Multi-family
	Housing <sup>1</sup>	Detached		
	Percent	Percent	Percent	Percent
Owner	78.8	82.5	61.0	10.7
Renter	21.2	17.5	39.0	89.3

<sup>1</sup>Mobile homes and trailers

ownership rate for mobile homes also substantially exceeds the 61% of townhouses that are owner occupied, but falls below the rate for single family houses of 82.5%. Given the lack of multi-family housing in rural areas and the restriction of mobile homes in most urban areas to mobile home parks where the land is rented and not owned, it is not surprising that a higher percentage of mobile homes is rented than is other single family housing. Nonetheless, the role of mobile homes in promoting ownership was noted in Koebel, Cavell, & Saraphis (1995). In a multivariate analysis of changes in homeownership in Virginia between 1980 and 1990, an increased market share for mobile homes led to a sizable increase in ownership rates.

The proportion of families among mobile home occupants is identical to that for all households in Virginia, 71.1% (Table 6). The proportions of mobile home occupants who are married – couple families and female - headed

families also closely parallel the distribution among all households: 55.4% versus 56.8% for married couples, and 11.8% versus 11.1% for female-headed families.

White householders occupy 85% of mobile homes. This is somewhat above the percentage of all households headed by whites (80.2%), but is virtually identical to (and statistically indistinguishable from) the percent of rural householders headed by whites (86%).

The ages of householders in mobile homes are fairly similar to those in other housing, although mobile home occupants tend to be somewhat younger. Householders in mobile homes are more likely to be under the age of 45 when compared with all other householders in the state: 60.6% versus 51.7%.

Mobile home households are also virtually identical to all households in terms of household size. Average persons per household for mobile

**Table 6. Household Type, 1990**

Household Type	Manufactured Housing <sup>1</sup> (Housing Units)	All Housing Units
	Percent	Percent
Married couple	55.4	56.8
Female-headed family	11.8	11.1
Male-headed family	3.9	3.1
Non-family	28.9	28.9

<sup>1</sup>Mobile homes and trailers

home occupants are 2.6 persons, the same for all households.

Mobile home occupants are much more likely to have lower incomes and education levels than occupants of other households (Table 7 and Table 8), a fact that further identifies mobile homes as an important source of affordable housing for low- and moderate- income families. Nearly half of mobile home occupants (48.6%) have household incomes below \$20,000 compared with just over a quarter of all households (28.1%). Few mobile home occupants have incomes of \$50,000 or more (5% whereas 28.9% of all households are in this income category).

Reflective of rural location and low- to moderate- income occupancy, mobile home householders are much more likely not to have finished high school and much less likely to have completed college. Nearly half of mobile home householders (48%) have not finished high school compared with only 24.9% of all persons age 25 and older. Only 2.7% of mobile home householders have graduated from college whereas 20.9% of other adults in the state have.

Residential mobility of mobile home occupants is similar to that of all households, with a median occupancy of five years compared with six years for all households. The primary difference is that few mobile home occupants have lived in their units for 20 or more years, 5.4% compared with 17.3% for all households.

### **PURCHASER AND UNIT CHARACTERISTICS FROM 1995 SURVEY OF DEALERS**

Although census information provides an overview of manufactured housing and the people residing in it, a profile of recent buyers was sought to better describe the consumer of manufactured housing in the 1990s.

A questionnaire was sent to all 143 manufactured home dealers in Virginia in February 1995 as part of "Analysis of Factory Built Housing in Rural Virginia" project. The questionnaire requested that dealers' report information on their three most recent purchasers. Completed questionnaires were received from 59 dealers (a 42% response rate), providing information on 65 purchasers of single-section homes and 82 purchasers of double-section homes. The demographic characteristics reported for buyers from the survey of mobile home dealers provide the following portrait of mobile home buyers as younger married-couple households with moderate incomes (Table 9). The average age of householders was 39 years, with little difference in average age between purchasers of single-section homes and of double-section homes. The average income was \$31,130, with a lower average income for purchasers of single-section homes than for those of double-section homes. Although 65.3% of the purchasers were married-couples and only 19.7% were single persons, most of the households (59.2%) had no children.

**Table 7. Household Income, 1990**

Household Income	Manufactured Housing <sup>1</sup>	All Occupied
	(Occupied Units)	Housing Units
	Percent	Percent
<\$10,000	21.9	12.6
\$10,000 to \$19,999	26.7	15.5
\$20,000 to \$34,999	33.0	24.2
\$35,000 to \$49,999	13.3	18.8
\$50,000 to \$74,999	4.2	17.1
\$75,000 +	0.8	11.8

<sup>1</sup>Mobile homes and trailers

**Table 8. Education Level of Householder, 1990**

Education Level	Manufactured Housing <sup>1</sup>	All
	(Housing Units)	Housing Units
	Percent	Percent
Less than 9th grade	23.5	11.2
9 - 12 years	24.5	13.7
High school graduate	34.3	26.6
Some college	15.1	18.5
College graduate	2.0	5.5
Post graduate	0.7	15.4

<sup>1</sup>Mobile homes and trailers

Additionally, purchasers of double-section homes were much more likely to be married couples than were purchasers of single-section homes. Single-parent families represented only 5% of purchasers.

Most, but not all, buyers financed their purchase: 80.4% of single-section purchasers and 83.8% of double-section purchasers (Table 10). Single-section purchasers were much more likely to use a fifteen-year loan (64.3%), whereas double-section purchasers were more likely to use a 20 or 30-year loan (67.7%). In addition to having shorter loans, interest rates were higher on average for single-section purchasers than for double-section purchasers (11.8% vs. 10.7%).

The combination of shorter terms and higher rates would make payments on single-section homes higher than double-section homes for an equal amount of debt. Double-section homes

are, of course, more expensive than single-section homes, \$46,386 vs. \$24,252. Single-section buyers reported an average monthly payment of \$272.87 and double-section buyers had an average monthly payment of \$474.17. Monthly housing costs would be much higher with the inclusion of land, utility, insurance, and related housing costs. Nonetheless, the average ratios of the house payment to income were only 12.1 and 16.5% for single-section and double-section homes. Single-section purchasers made an average down payment of 17% compared with 14% for double-section homes (\$4,122 and \$6,539 respectively).

The average sizes of single-section and double-section homes were 1,011 square feet and 1,610 square feet, respectively. Sixty percent of single-section buyers moved their homes onto rented land, whereas 84% of double-section buyers moved their homes onto their own land.

**Table 9. Demographics of Buyers, 1995**

Demographics	Single-Section Purchasers (Total: 65)	Double-Section Purchasers (Total: 82)	All (Total: 147)
Age	37	40	39
Income	\$27,093	\$34,331	\$31,130
<b>Marital status</b>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
Married	47.7	79.3	65.3
Divorced	16.9	7.3	11.5
Single	32.3	9.8	19.7
Widow	3.1	3.7	3.4
<b>Households - no children</b>	60.0	58.5	59.2

**Table 10. Price and Financing, 1995**

	Single-Section Purchasers	Double-Section Purchasers
<b>Price of home</b>	\$24,252 (mean)	\$46,386 (mean)
<b>Down payment</b>	\$4,122 (mean)	\$6,539 (mean)
<b>How financed:</b>		
Bank	17.8%	22.7%
S & L	3.1%	1.2%
Mortgage company	23.2%	39.4%
Finance company	48.2%	34.8%
Other	6.2%	1.2%
<b>Interest rate</b>	11.8% (mean)	10.7% (mean)
<b>Financed for:</b>		
15 years	64.3%	16.1%
20 years	16.1%	40.3%
30 years	0%	27.4%
<b>Monthly payment</b>	\$272.87 (mean)	\$474.17 (mean)

### CONCLUSIONS

Manufactured houses (mobile homes) are highly affordable alternatives to both site - built single-family houses and to apartments. Because of zoning restrictions and land costs, mobile homes are mostly restricted to the rural areas of the state. Reflective of their affordability, the bulk of the demand for manufactured housing comes from low- to moderate-income families who are otherwise a close cross-section of

households in Virginia in terms of age, household size, family type, and mobility (length of occupancy of the same residence).

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## II. MANUFACTURED HOUSING REGULATIONS

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Rosemary Carucci Goss, Julia O. Beamish, and Rebecca Wood

### INTRODUCTION

Local zoning regulations have been the greatest constraint to manufactured housing's ability to accommodate affordable housing needs in many communities. For the most part, manufactured housing is relegated to outlying, rural areas or mobile home parks within suburban neighborhoods. In many instances, rural areas and mobile home parks are not the most convenient or desirable locations for the majority of residents who may benefit from the affordability of manufactured housing. Although an increasing minority of jurisdictions conditionally include manufactured housing in conventional neighborhoods through aesthetic controls (Kmiec, 1983), the vast majority of localities effectively limit manufactured housing through zoning or building codes (Geisler & Mitsuda, 1987; HUD, 1991; Wallis, 1991).

Although manufactured housing provides an effective means of supplying low-cost quality housing, zoning restrictions commonly limit the delivery of this type of housing to many areas whose residents may benefit from it. In a Southwest Virginia study of constraints to quality housing, manufactured housing dealers most frequently mentioned zoning as a constraint to residents' purchasing and placing of manufactured homes in the region (Goss, Parrott, & Engelen-Eigles, 1992).

The original system of zoning was developed in the 1920s and was meant to be used by a group of community leaders whose intent was to protect the common interests of health and safety (Wallis, 1991). The use of zoning practices is also intended to direct contiguous land uses in ways that are compatible with each other, and this is done by requiring uses to conform to a preconceived master plan or set of

public purposes. The main purposes of zoning are to separate incompatible land uses before they occur and to avoid haphazard land-development. In practice, however, the separation of land use does not always follow the considerations of health and safety. There is no single guiding standard of incompatible use that is followed by all jurisdictions; thus exclusionary criteria are often based on community sentiment, and more affordable housing --such as multifamily homes, accessory apartments, and manufactured housing -- is often ruled incompatible. (HUD, 1991).

The power to zone is given by the state and such power can become dominated by interests who are not necessarily responsive to community needs. The landmark case of 1926, *Euclid v. Ambler*, designated zoning as a legitimate use of the police powers that states could delegate to cities. The *Euclid* decision still is the law today and reinforces the NIMBY (Not In My Back Yard) opposition to affordable housing (HUD, 1991).

Zoning has become mainly a local government function that mirrors the values and attitudes of intrinsic community residents, rather than reflecting the need of the entire geographic area. Community character is imparted by a local zoning board whose values and norms may or may not be shared by those affected by their decisions. For many owning property and a home is a key component to generate and maintain wealth, often any use that threatens this effort will not be viewed with favor. Members of zoning boards are often residents who have a vested interest in maintaining or increasing property values and improving the ambience of the community (HUD, 1991). Studies suggest that manufactured housing is more likely to be accepted in communities

where fundamental housing needs are important to most residents (Geisler & Mitsuda, 1987; Nutt-Powell, 1982; Wallis, 1991). A 1977 study found that mobile homes were most likely to be restricted in communities that were wealthy, densely populated, and experiencing rapid growth (Bernhardt, 1980). Likewise, Geisler and Mitsuda (1987) found that zoning was more restrictive in communities that had economies based on tourism and second-home ownership than those localities that were primarily agricultural in nature. The bias for traditional single-family homes often exists and persists regardless of market demand (Kmiec, 1983). For example, a report by the U.S. Department of HUD (1991) noted that in Fairfax County, Virginia, of the 211,904 acres zoned for residential use, only 1% allows multifamily rental housing, and alternative housing types are zoned out altogether. Thus, bias against manufactured housing is maintained by class-specific differences in the acceptance of mobile homes as an alternative form of affordable housing.

### ***Restrictive Zoning***

Zoning restrictions often drive up the cost of housing and make it less affordable. A tactic often used to exclude mobile homes where they are technically permitted is to add requirements that make them too costly to be competitive with site-built housing such as foundation systems, minimum floor areas, and minimum dimensions (Wallis, 1991). Essentially, such requirements make land and home ownership much less affordable. Zoning also can be used to exclude certain populations from a community. Geisler and Mitsuda (1987) found that social class is a stronger factor than population growth to the formal regulation of manufactured housing in rural communities and that the existence of zoning as an opposition to manufactured housing is only a symptom of deeper social malaise in a community. The argument of class bias against mobile homes was shown in the *Mount Laurel II* decision in which the New Jersey Supreme Court declared the use of zoning to exclude mobile homes as unconstitutional, ruling that such exclusionary zoning was in effect a form of class discrimination (Wallis, 1991).

Kmiec (1983) commented that many judicial decisions excluding manufactured homes have been based on assumptions, however erroneous, that a) materials used in manufactured housing are incompatible with those of conventional housing; b) manufactured housing presents health and safety hazards; c) as personal property, manufactured housing is not taxed as real property, and places an additional burden upon local budgets that derived their revenue from property taxes; and d) manufactured housing attracts undesirable people.

Current exclusion of manufactured housing based on such assumptions, however, has little factual basis. First, materials used in manufactured homes are compatible with or the same as those used in site-built housing. Second, the health and safety problems have been mostly eliminated through the enactment of the National Manufactured Housing Construction and Safety Standards Act of 1976, which instituted the HUD-code. Third, manufactured housing has become a significant contributor to the property tax base; 41 states now treat manufactured housing as real property if it is attached to a permanent foundation, is meant to be occupied as a permanent residence, is located on owner occupied land, or is a combination of these factors. Only Connecticut, New Mexico, and Rhode Island currently consider manufactured housing as personal property under any of the foregoing conditions. Finally, public awareness and acceptance of manufactured housing has increased, especially among young families and the elderly (Kmiec, 1983).

By not considering manufactured housing to be a dwelling unit under local zoning, localities are able to exclude it from most conventional residential zones. In many localities' zoning ordinances, only housing built under local codes is permitted in residential districts. Only 54% of mobile homes are on private, individually owned lots (Wallis, 1991).



### *Mobile Home Parks*

Even though their construction is under a preemptive Federal building code, if allowed at all, manufactured housing is mostly relegated to parks or undesirable outlying areas (HUD, 1991). Approximately 46% of all mobile home owners live in one of the more than 24,000 mobile home parks in the United States (Wallis, 1991). But if manufactured housing is restricted to mobile home parks, then the ability of manufactured housing to accommodate affordable housing demands may be constrained (Collin & Cowan, 1990). Collin and Cowan further conclude that this restriction of manufactured housing to mobile home parks decreases the consumer's positive perception of manufactured housing as an acceptable alternative.

In spite of the early effort to have mobile home parks located in conventional residential neighborhoods, older parks are now usually found in cities in locations that were once beyond city limits, having been annexed as the city grew. In such cases, zoning ordinances were often revised to accommodate the parks as a land use, and the only land zoned for them was that which they already occupied. Many older parks are now disappearing or losing lots as highways adjacent to the parks are widened or land values increase to such an extent that they are more profitable as other uses (Wallis, 1991).

Efforts to improve older parks or develop new parks are often hampered by local zoning ordinances. Manufactured housing community managers identify zoning restrictions as common limitations to the development of new mobile home parks, as well as to the expansion of existing parks. These restrictions often create delays that increase builder/owner cost and time, effectively discouraging the development and improvement of mobile parks (Burkhardt, Mireley, & Syal, 1996).

### *Zoning and Special Use Permits*

The permit system is a means to further the regulation to an even more local level and reduce the power of special interest groups (Wallis, 1991). The two most common types of permits issued under zoning ordinances are zoning permits and special use permits. Uses of zoning permits are issued as uses "permitted by right" or "permitted uses" and require compliance under the appropriate ordinance. Special use permits usually require a special public hearing with advance notice to neighbors. It is by far the most arbitrary means of issuing permits because it gives the governing body the opportunity to make case-by-case evaluations of land use. Some smaller cities permit single-lot siting of mobile homes "by right," a ruling that allows them to be located in zones designated for conventional single housing units without special hearings (Wallis, 1991). But most small cities require zoning variances or special use permits to allow a mobile home to be placed on a lot with an existing site-built home. Such special variances require public hearings, which can be time-consuming and traumatic for the property owners as such variances often provoke prejudice against both the housing type and its residents (Wallis, 1991). The North Carolina Manufactured Housing Institute (1988) recommends that by carefully defining terms, making well thought-out choices about types of permits to require, and determining specific size and appearance criteria of manufactured homes so that they are compatible with surrounding neighborhoods, localities can satisfactorily remove unreasonable barriers to affordable housing while ensuring the most appropriate and compatible uses of land.

#### *Zoning Regulation Supporting Manufactured Housing*

Many states have passed legislation to prohibit total exclusion of manufactured homes from areas designated for single-family homes

but these statutes differ in their interpretation of accommodation. For example, Vermont prohibits zoning regulations that exclude mobile homes from any location in a municipality except under the same terms that would exclude conventional housing. California, on the other hand, prohibits any locality from excluding mobile homes from any lots zoned for single family residences, but allows a jurisdiction to specifically designate lots for manufactured homes within single family home areas and impose conventional restrictions (e.g., setbacks, minimum square footage, aesthetics, roof and siding material). Other states -- such as Tennessee, Kansas, and Minnesota -- have limited their legislative activity to prohibiting total exclusion of manufactured housing without attempting to restrain local regulation or mandate the inclusion of manufactured housing in conventional residential areas (Kmiec, 1983).

In 1988, the North Carolina Manufactured Housing Institute issued a publication that provided assistance to local governments in developing zoning ordinances that pertain to manufactured housing. The paper presented zoning tools and options that assisted planning boards in meeting concerns of cities and counties in North Carolina in ways not to impose restrictions on manufactured homes as an achievable option to affordable housing. The Institute recommended that definitions be drafted by localities that accurately classify and identify housing types according to their differing features, mainly according to the construction code to which they are built. Once manufactured housing is distinguished from other types of housing, then it should be further divided into subgroups based upon aesthetic criteria. Such grouping may allow for zoning ordinances to make distinctions by the types of manufactured housing permitted in different residential districts, rather than treating all manufactured housing as one and the same (North Carolina Manufactured Housing Institute, 1988).

Land use law has become more accommodating as facts about manufactured housing become more widely known. Most jurisdictions exhibit some duty to accommodate

manufactured housing somewhere in the locality on appropriate land. State courts have also expressed a duty to accommodate manufactured housing within the community. For example, the Supreme Court of Michigan, in the well-known court case of *Robinson Township v. Knoll*, overruled a previous decision allowing limitation of manufactured homes to mobile home parks, stating that there cannot be a *per se* exclusion of mobile homes from all areas not designated as mobile home parks (Kmiec, 1983).

### ***Zoning Regulations in Virginia***

Local ordinances in Virginia vary from prohibiting manufactured housing to restricting it to parks, to allowing it to be placed in designated residential or agricultural zones (Collin & Cowan, 1990). The Virginia General Assembly approved legislation in 1990 requiring localities to provide for the placement of double-section manufactured housing in districts zoned primarily for agricultural use. In 1993, legislation was approved that asserted the responsibility of localities to consider the affordable housing needs of a more widely defined community. Then, in 1994, the General Assembly approved recommendations that included manufactured housing and authorized localities to develop affordable dwelling unit (ADU) ordinances (Virginia Housing Study Commission, 1994). In 1995, the legislation was amended to allow single-section manufactured homes in agricultural districts.

### ***Survey of Local Planning Officials***

#### **Methodology**

The purpose of this study was to determine the regulatory environment of manufactured housing by jurisdictions in the Commonwealth in the 1990s. Specifically this study attempted to determine the willingness of jurisdictions to allow single- and double-section manufactured houses in agricultural, residential, and mobile home parks with or without special use permits and to determine the various types of design restrictions placed on the housing. This survey was conducted after the Virginia General Assembly passed legislation that allowed

double-section manufactured housing in agricultural districts, but before the law was amended (1995) to allow single-section manufactured homes in agricultural districts.

In the fall of 1993, 276 questionnaires were mailed to local zoning administrators or planning commissioners in Virginia's counties, cities, and towns. Two hundred ten responses were returned (77% response rate). The majority (52.4%) of the respondents were from towns, with 32.2% from county and 15.4% from city planning administrators.

### Results

Almost 13% of the jurisdictions (Table 11) did not allow double-section manufactured housing, while over 17% did not allow single-section homes in any district. Many jurisdictions that did not allow manufactured housing in any district may not have had agricultural districts; otherwise these communities had regulations that were in violation of state legislation. When asked about permitting single-section and double-section homes in agricultural districts, 40 respondents indicated that the questions were not applicable to them, indicating that they did not have an agricultural district. Of those who did have agricultural districts, double-section manufactured homes were permitted 10% of the time with a permit and 57 % without a

permit, while single-section homes were permitted with a permit 24% of the time and without a permit 25% of the time.

Residential zones were more restricted; only 18% allow manufactured single-section homes and 44% allow double-section homes without permits. However, communities allowed double-section (23%) and single-section (24%) manufactured homes in residential districts if permits were obtained. Permitting allowed double-section units to be placed in residential districts at about the same frequency as in agricultural districts. Using permits for single-section units was about the same in residential and agricultural districts. Most communities allowed manufactured homes in mobile home parks (single-section 72% and double-section 64% of the time).

Although permits are not a requirement in most of the agricultural and residential districts, approximately 102 permits for single-sections and 408 permits for double-sections were issued in 1992. The majority of these permits (75%) cost less than \$100.

The number of jurisdictions that had comprehensive plans for manufactured housing was equal to those that did not (Table 12). However, only 34 % of the jurisdictions allowed manufactured housing as temporary structures or accessory housing as

**Table 11. Local Zoning Ordinance Provisions**

Zoning Provisions	Mobile Homes			
	Single-Section		Double-Section	
	Number	Percent	Number	Percent
<b>Agricultural</b>				
Permit required	40	24.2	16	9.7
No permit	42	25.1	95	56.9
<b>Residential</b>				
Permit required	49	24.0	46	22.5
No permit	37	18.0	90	43.9
<b>Allowed in mobile home parks</b>	137	72.1	120	63.5
<b>Not allowed in any zoning districts</b>	36	17.4	26	12.6

compared to 66% that did not permit temporary use of manufactured housing.

Taxation continues to be a controversial issue affecting manufactured housing. In Virginia, the respondents reported that 42% of single-section and 72% of double-section homes are taxed as real property with certain stipulations, such as requiring placement on a permanent foundation. Real property, land and all that is attached to the land is valued at a lower rate per base unit and it is generally assumed that real property will appreciate in value. Personal property is considered less permanent, generally depreciates in value, and is taxed at a higher rate per base value.

### CONCLUSIONS

These findings indicate that at the time the survey was conducted, some communities still prohibited manufactured homes in agricultural districts even though state legislation had mandated that double-section manufactured homes must be permitted in these districts. Some jurisdictions were meeting this mandate by renaming their agricultural districts. Subsequent legislation addressed the issue, and later, added that single-section manufactured homes must be allowed in agricultural districts. Permitting was used as a way to increase the inclusion of

manufactured homes in residential neighborhoods. Single-section manufactured homes were allowed with permits by 24% of the jurisdictions, and double-section manufactured homes were allowed with permits by 22.5% of the jurisdictions. Although manufactured home advocates would argue that stipulations often required to obtain a permit -- such as permanent foundations, size, and specific roof pitches -- are cost prohibitive, others would argue that permitting is a compromise that will increase the availability of affordable housing in a community. Following the recommendation of the North Carolina Manufacturers Association for consistent terminology and definitions could make the permitting system more effective in Virginia.

A common criticism of manufactured housing is that it is taxed as personal property and does not generate enough taxes to pay for services to the residents. In Virginia, 58% of the single-section and 28% of the double-section manufactured homes are still being taxed as personal property. The implications here are apparent. Communities should tax all manufactured housing as real property--especially if it is located on a permanent foundation. Local tax assessments could verify the value of the homes on a regular basis, documenting their true appreciation or depreciation.

**Table 12. Jurisdiction's Allowances for Manufactured Housing**

Exist	Allowances			
	Comprehensive Plan for Manufactured Housing		Manufactured Housing as Temporary Accesories	
	Number	Percent	Number	Percent
No	90	50.0	129	66.2
Yes	95	50.0	66	33.8

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### **III. SINGLE- AND DOUBLE-SECTION MANUFACTURED HOUSING: DIFFERENCES IN RESIDENT AND HOUSING CHARACTERISTICS**

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#### **INTRODUCTION**

Manufactured housing is often viewed as one product. The regulations of the HUD-code home define the manufactured home product in terms of construction and safety, and apply the same standard to the various types of units available (single-section and multi-section). Many local community officials and residents have viewed manufactured units and the people who reside in them as homogeneous, but different from other types of housing and the residents living in them. Brown and Sellman (1987) indicated that traditional home owners thought that manufactured housing attracted transient people with unconventional lifestyles.

In a 1990 nationwide survey of manufactured housing residents, affordability, ownership, low maintenance costs, and less upkeep were cited as major advantages (Foremost Insurance Group, n.d.). People choose manufactured housing because of these reasons and because they consider it to be quick, convenient housing, and they like the design. The desire for mobility was reported by 23% of the new home buyers as a reason for purchasing a manufactured home.

A focus group study of site-built residents and manufactured housing residents in Georgia found that both groups had similar opinions and impressions of manufactured housing (Focus Group Study, 1994). The main advantage was affordability, with other advantages cited as: expediency of purchase, availability of furnishings, flexibility of movement, and ease of design changes. The groups did not view manufactured homes as high-quality housing and they were concerned with the safety of the homes.

Housing satisfaction frequently has been used in housing research to evaluate housing types and compare housing situations. Annual Housing Survey (AHS) data indicated that non-metro mobile home residents were almost as satisfied with their homes and neighborhoods as are non-metro residents of non-mobile homes (Housing Assistance Council, 1996). Mobile home residents in non-metro areas were more satisfied (68%) than were those in central cities (64%) and suburban areas (65%).

Mobile home and conventional home owners in rural North Carolina were compared in a study by Gray, Shelton, and Gruber (1980) on the relevance of manufactured housing to meet the needs of low-income families. They found that mobile home owners were generally as satisfied with their housing as were conventional home owners; however, they were specifically less satisfied with the number of bedrooms and bathrooms, and with the size of the rooms. There was also dissatisfaction with general indoor and outdoor storage. The mobile home residents reported satisfaction with the neighborhood and they were less likely to report homes in need of repair than were conventional home owners.

In a series of reports, Shelton, Gruber, and Godwin (1983) reported that mobile home residents in rural North Carolina were no different in their housing satisfaction than were conventional housing residents; however, they experienced more satisfaction than did apartment residents. Satisfaction with specific aspects of the housing were measured and categorized into six factors: near environment, physical structure, community amenities, church/ school, public services, and housing

costs. Mobile home residents were significantly more satisfied than were conventional home residents with public services and community amenities and were more satisfied than apartment residents on the near environment, church/school, and housing costs (Gruber, Shelton, & Godwin, 1983; 1985).

The research conducted on manufactured homes has tended to categorize all manufactured housing as one type. However, single-section and double-section manufactured housing would seem to be different housing products in many ways, including size, arrangement, and costs. Atilas, Goss, & Beamish (1998) found that a recent sample of community residents recognized and perceived differences in the housing and the residents of the two types of units (See Chapter 5). These community residents more frequently perceived that single-section units appeared to be in bad condition, were located in mobile home parks, and were older. They were also likely to perceive the residents of single-section units as being low-income and less educated. The double-section units were perceived as having an OK or good appearance, being located in residential neighborhoods, and being less than five years old. Residents of these units were perceived as being more middle class and having slightly more education. While these perceptions are not surprising, it is important to verify their accuracy and establish if the residents of single-section and double-section units are actually different. Further questions arise about differences in their broad housing characteristics, including the level of housing satisfaction.

The purpose of this study was to compare resident and housing characteristics and housing satisfaction of single-section and double-section manufactured home residents in rural Virginia.

#### **METHODOLOGY**

The sample consisted of persons who obtained a building permit for a manufactured home between 1989-1992 in eight rural Virginia counties. The state was divided into four geographic regions: Southwest, Southside, Golden Crescent, and Eastern. Rural counties in

each of these regions were identified and those with the highest and lowest percentage of manufactured homes were selected. These counties therefore represent counties throughout the state where manufactured housing is either a substantial housing alternative or not readily available. The proportionate random sample of 1000 residents was selected from the total number of manufactured home building permits issued in those counties during 1989-1992. Of the 1,000 questionnaires mailed to the sample, 278 were returned undeliverable, suggesting a high proportion of resident turnover. During late fall 1995 data were collected using the Dillman method, which included an initial mailing, a follow-up postcard, and a second complete mailing. This procedure resulted in 234 responses from 722 deliverable questionnaires (32% return rate). The fact that many of the permits may have gone to owners of the units rather than to renter residents may explain the return rate. The questionnaire was designed to obtain information about the manufactured home residents, their housing characteristics, and their housing satisfaction. Chi-square analysis and t-tests were used to compare differences in the respondents who lived in single-section and double-section units.

#### **SAMPLE DESCRIPTION**

Two hundred twenty-eight individuals residing in manufactured homes responded to the survey. Of this number, 140 indicated living in single - section homes and 80 reported living in double-section homes. Eight did not indicate which type of manufactured home they resided in and were not included in the data for this chapter. The highest proportion of respondents were located in Buchanan County, while only one respondent was located in Rappahannock County (Table 13). The return rate per county was not consistent with the proportion of the sample identified by county. Poor addresses caused undeliverable mail in certain counties, many sample respondents had moved, and mail was not delivered to different persons at that address. The sample was not segmented by county in analysis.

**Table 13. Frequency Distribution of Respondents by County Name and Manufactured Home Type**

County Name	Manufactured Home Type					
	Total		Single-Section		Double-Section	
	Number	Percent	Number	Percent	Number	Percent
Bath	10	4.4	8	5.7	2	2.5
Buchanan	88	40.0	53	37.8	35	43.8
Buckingham	47	21.4	28	20.0	19	23.7
Craig	16	7.0	12	8.6	4	5.0
King & Queen	10	4.4	7	5.0	3	3.7
Pulaski	34	15.5	25	17.9	9	11.3
Rappahannock	1	0.4	1	0.7	0	0
Southampton	14	6.1	6	4.3	8	10.0
Total	220	100.0	140	100.0	80	100.0

## FINDINGS

### *Demographic Characteristics*

A slightly higher proportion of the sample was male (54%) and a very high proportion was white (90%) (Table 14). The highest proportion of the sample was in the 36-50 age bracket (42%). Only 13% were 66 or older. The small two-parent family was the dominant household type for the total sample (41%) and for the households in double-section units (51%). Significant differences were found between the single-section and double-section respondents for household type. While the single-section respondents were often in small two-parent households (35%), they were more likely to be in small single-parent households (19%) than were the double-section respondents (6%).

### *Socio-economic and Housing Characteristics*

#### **Income**

Income of the total sample was fairly evenly divided among the income categories above \$5,000 (Table 15). However, when comparing the single-section and double-section respondents a significant difference was found. Double-section residents were more likely to be in higher income categories than were single-section respondents. Twenty-seven percent of the

double-section respondents were in the \$45,000 or more category, while only 11% of the single-section respondents were in this category.

#### **Education**

Most of the respondents in the total sample had graduated from high school (40%) or had attended some college (22%) (Table 15). However, when single-section and double-section respondents were compared, a significant difference was found. Single-section residents were more likely to have high school degrees (44%) than college (14%), while double-section respondents were fairly evenly divided between these two categories (34% and 36% respectively).

#### **Employment**

Most respondents in the total sample worked full-time (59%) (Table 15). A large proportion was retired (19%) and some reported being homemakers (10%). Very few reported being unemployed (4%). No differences in employment status were found between the single-section and double-section respondents.

#### **Foundation**

Differences did exist between the single-section and double-section residents on several housing characteristics. A majority of double-section respondents reported having their



**Table 14. Demographic Characteristics of Respondents**

Variable Name	Manufactured Home Type					
	Total		Single-Section		Double-Section	
	Number	Percent	Number	Percent	Number	Percent
<b>Gender</b>						
Male	114	53.8	66	48.9	48	62.3
Female	98	46.2	69	51.1	29	37.7
Total	212	100.0	135	100.0	77	100.0
	X <sup>2</sup> =3.57		DF=1	N.S.		
<b>Race</b>						
Black	18	8.4	11	8.0	7	9.0
White	194	90.2	124	90.5	70	89.7
Other <sup>1</sup>	3	1.4	2	1.5	1	1.3
Total	215	100.0	137	100.0	78	100.0
	X <sup>2</sup> =.07		DF=2	N.S.		
<b>Age</b>						
35 or less	46	20.9	32	22.9	14	17.5
36 to 50	93	42.3	56	40.0	37	46.3
51 to 65	53	24.1	32	22.9	21	26.2
66 or more	28	12.7	20	14.2	8	10.0
Total	220	100.0	140	100.0	80	100.0
	X <sup>2</sup> =2.15		DF=3	N.S.		
<b>Household</b>						
Singles	24	11.2	22	16.2	2	2.6
Couples	51	23.8	29	21.3	22	28.2
Small SPF <sup>2</sup>	31	14.5	26	19.1	5	6.4
Small TPF <sup>3</sup>	87	40.7	47	34.6	40	51.3
Large SPF <sup>4</sup>	6	2.8	2	1.5	4	5.1
Large TPF <sup>5</sup>	15	7.0	10	7.3	5	6.4
Total	214	100.0	136	100.0	78	100.0
	X <sup>2</sup> =20.54		DF=5	P=.001		

<sup>1</sup>Other = Latinos, Native Americans, Asian/Pacific Islander, and mixed race.<sup>2</sup>Small SPF= 2 to 4 members, single-parent family.<sup>3</sup>Small TPF= 2 to 4 members, two-parent family.<sup>4</sup>Large SPF= 5 or more members; single-parent family.<sup>5</sup>Large TPF= 5 or more members; two-parent family.

**Table 15. Socio-economic Characteristics of Respondents**

Variable Name	Manufactured Home Type					
	Total		Single-Section		Double-Section	
	Number	Percent	Number	Percent	Number	Percent
<b>Income (\$)</b>						
Less than 5,000	8	4.0	8	6.3	0	0
5,000 - 14,999	33	16.3	28	21.9	5	6.8
15,000 - 19,999	25	12.4	19	14.8	6	8.1
20,000 - 24,999	28	13.9	19	14.8	9	12.2
25,000 - 34,999	41	20.3	23	18.0	18	24.3
35,000 - 44,999	33	16.3	17	13.3	16	21.6
45,000 or more	34	16.8	14	10.9	20	27.0
Total	202	100.0	128	100.0	74	100.0
	$X^2=23.29$		DF=6		P = .001	
<b>Education Level</b>						
Grade school	15	7.2	12	9.1	3	3.9
Some high school	28	13.5	22	16.7	6	7.9
High school/GED	84	40.4	58	43.9	26	34.2
Some college	46	22.1	19	14.4	27	35.5
Vocational	9	4.3	4	3.0	5	6.6
2 - year college	18	8.7	14	10.6	4	5.3
4 - year college	5	2.4	1	0.8	4	5.3
Graduate degree	3	1.4	2	1.5	1	1.3
Total	208	100.0	132	100.0	76	100.0
	$X^2=22.48$		DF=7		P = .002	
<b>Employment Status</b>						
Full-time	126	58.6	76	55.5	50	64.1
Part-time	15	7.0	9	6.6	6	7.7
Retired	41	19.1	29	21.2	12	15.4
Homemaker	21	9.8	15	10.9	6	7.7
Unemployed	8	3.7	5	3.6	3	3.8
Student	4	1.8	3	2.2	1	1.3
Total	215	100.0	137	100.0	78	100.0
	$X^2=2.36$		DF=5		N.S.	

homes on a permanent foundation (68%), while most single-section respondents reported that their homes were on blocks and skirted (83%) (Table 16).

**Tenure and Location**

Almost all of the double - section respondents owned their home and the land it was on (93%) (Table 16). While a large proportion of single-section respondents reported this kind of ownership (73%), a significant portion also reported owning their home but renting the land (23%). A majority of respondents from both groups reported living on open land (80%); however, a higher proportion of double-section respondents lived in a subdivision (13%) and a higher proportion of single-section residents lived in a park (15%).

**Age of Residence**

Most of the homes in the sample were new or less than five years old ( 58% ) ( Table 16 ).

However, more double – section respondents reported this age of residence (79%) than did single-section respondents (46%). The single-section respondents were divided between the newer units and the 10-year-old (30 %) and 20-year-old units (23%). Most of the respondents had lived in the units 5 years or less (71%) and no differences in this category were found among the two groups.

**Previous Experience in Mobile/Manufactured Home**

A majority of respondents had lived in a mobile/ manufactured home before (59%) (Table 16). Among the single-section respondents, 50% had lived in mobile/manufactured housing before, but among the double-section respondents over three fourths had lived in a manufactured home previously. This was a significant difference and indicates the tendency for double-section units to be a trade-up housing choice for many respondents.

**Table 16. Housing Characteristics of Respondents**

Variable Name	Manufactured Home Type					
	Total		Single-Section		Double-Section	
	Number	Percent	Number	Percent	Number	Percent
<b>Foundation Type</b>						
Provisional	5	2.3	4	2.9	1	1.2
Block/Skirted	140	63.9	115	82.7	25	31.3
Permanent	74	33.8	20	14.4	54	67.5
Total	219	100.0	139	100.0	80	100.0
	X <sup>2</sup> =64.0		DF=2		P = .000	
<b>Tenure Status</b>						
Own home & land	176	80.0	102	72.9	74	92.5
Rent home & land	8	3.6	6	4.3	2	2.5
Own home/rent land	35	15.9	32	22.8	3	3.8
Other	1	0.5	0	0	1	1.2
Total	220	100.0	140	100.0	80	100.0
	X <sup>2</sup> =16.33		DF=3		P = .001	

(Table continues)

**Table 16 (continued). Housing Characteristics of Respondents**

Variable Name	Manufactured Home Type					
	Total		Single-Section		Double-Section	
	Number	Percent	Number	Percent	Number	Percent
<b>Location of Home</b>						
Open land	174	79.8	105	76.1	69	86.3
Subdivision	22	10.1	12	8.7	10	12.5
Park	21	9.6	20	14.5	1	1.2
Other	1	0.5	1	0.7	0	0
Total	218	100.0	138	100.0	80	100.0
		$X^2=11.18$	DF=3	P = .011		
<b>Age of Residence</b>						
Older than 20 years	37	16.9	32	23.0	5	6.2
About 10 years old	54	24.7	42	30.2	12	15.0
New or 5 years old	127	58.0	64	46.1	63	78.8
Do not know	1	0.4	1	0.7	0	0
Total	219	100.0	139	100.0	80	100.0
		$X^2=23.16$	DF=3	P = .000		
<b>Residential Period</b>						
Below 5 years	157	71.4	100	71.4	57	71.3
6 to 10 years	54	24.5	37	26.4	17	21.3
11 to 15 years	2	0.9	1	0.7	1	1.2
16 to 20 years	3	1.4	2	1.5	1	1.2
Over 21 years	4	1.8	0	0	4	5.0
Total	220	100.0	140	100.0	80	100.0
		$X^2=7.73$	DF=4	N.S		
<b>Living Experience</b>						
Yes	130	59.4	70	50.0	60	75.9
No	89	40.6	70	50.0	19	24.1
Total	219	100.0	140	100.0	79	100.0
		$X^2=14.10$	DF=1	P = .000		
<b>Preference for MH<sup>1</sup></b>						
Yes	116	53.0	73	52.1	43	54.4
No	50	22.8	33	23.6	17	21.5
Maybe	53	24.2	34	24.3	19	24.1
Total	219	100.0	140	100.0	79	100.0
		$X^2=.14$	DF=2	N.S		

<sup>1</sup>MH = Manufactured Home

**Preference for Mobile/Manufactured Home**

Over half of the respondents (53%) indicated that they would choose another mobile/manufactured home if they left their current one. This response was consistent among both single-section and double-section respondents.

*Neighborhood Characteristics*

**Neighborhood Composition**

Most of the respondents' homes were located in residential neighborhoods (59%) (Table 17). However, nearly a third also reported living on farmland (31%). Double-section respondents reported living on farmland more frequently than did single-section respondents (41% vs. 25%), while single-section respondents reported living in residential areas (62%) and open land (12%) more frequently than did double-section respondents.

**Community and Location Size**

Most respondents reported living in very small communities of less than 1,000 (69%) (Table 17). About one fourth lived in communities of 1,001 to 10,000. These percentages were similar for both single-section and double-section respondents. A vast majority reported being located in the country (82%), and this characteristic did not vary between the two groups.

**Length of Residency**

Respondents were fairly evenly divided in the number of years they had lived in their neighborhood (Table 17). The largest proportion (27%) had lived in their neighborhood more than 30 years, while about a fifth (20% each) had lived there 21-30 years and 1-5 years. Slightly less than that had lived there 6-10 years (15%) and 11-20 years (17%). There were no significant variations among the two types of respondents.

**Table 17. Neighborhood Characteristics of Respondents**

Variable Name	Manufactured Home Type					
	Total		Single-Section		Double-Section	
	Number	Percent	Number	Percent	Number	Percent
<b>Neighborhood Composition</b>						
Residential	127	58.8	85	62.1	42	53.1
Industrial	1	0.5	0	0	1	1.3
Institutional	2	0.9	1	0.7	1	1.3
Farmland	66	30.5	34	24.8	32	40.5
Open land	17	7.9	16	11.7	1	1.3
Other	3	1.4	1	0.7	2	2.5
Total	216	100.0	137	100.0	79	100.0
		X <sup>2</sup> =14.6	DF=5	P = .012		
<b>Neighborhood Location</b>						
Within town limits	5	2.3	3	2.2	2	2.5
Outside town limits	34	15.6	26	18.8	8	10.0
Out in the country	179	82.1	109	79.0	70	87.5
Total	218	100.0	138	100.0	80	100.0
		X <sup>2</sup> =3.01	DF=2	N.S.(Table continues)		

**Table 17 (continued). Neighborhood Characteristics of Respondents**

Variable Name	Manufactured Home Type					
	Total		Single-Section		Double-Section	
	Number	Percent	Number	Percent	Number	Percent
<b>Neighborhood Location</b>						
Within town limits	5	2.3	3	2.2	2	2.5
Outside town limits	34	15.6	26	18.8	8	10.0
Out in the country	179	82.1	109	79.0	70	87.5
Total	218	100.0	138	100.0	80	100.0
	X <sup>2</sup> =3.01		DF=2		N.S.	
<b>Community Size</b>						
Less than 1,000	147	69.4	90	67.1	57	73.1
1,001 to 10,000	52	24.5	32	23.9	20	25.6
10,001 to 20,000	11	5.2	10	7.5	1	1.3
20,001 to 50,000	2	0.9	2	1.5	0	0
Total	212	100.0	134	100.0	78	100.0
	X <sup>2</sup> =5.10		DF=3		N.S.	
<b>Length of Residency</b>						
Less than 1 year	2	1.0	0	0	2	2.5
1 to 5 years	43	19.5	28	20.0	15	18.8
6 to 10 years	32	14.5	24	17.1	8	10.0
11 to 20 years	38	17.3	22	15.7	16	20.0
21 to 30 years	45	20.4	29	20.7	16	20.0
More than 30 years	60	27.3	37	26.5	23	28.7
Total	220	100.0	140	100.0	80	100.0
	X <sup>2</sup> =5.98		DF=5		N.S.	
<b>Neighborhood Social Homogeneity</b>						
Strongly agree	29	13.2	15	10.8	14	17.5
Agree	132	60.3	87	62.6	45	56.2
Disagree	50	22.8	32	23.0	18	22.5
Strongly disagree	8	3.7	5	3.6	3	3.8
Total	219	100.0	139	100.0	80	100.0
	X <sup>2</sup> =2.07		DF=3		N.S.	
<b>Neighborhood Physical Homogeneity</b>						
Strongly agree	17	7.8	9	6.5	8	10.0
Agree	102	46.8	65	47.1	37	46.3
Disagree	80	36.7	51	37.0	29	36.2
Strongly disagree	19	8.7	13	9.4	6	7.5
Total	218	100.0	138	100.0	80	100.0
	X <sup>2</sup> =1.01		DF=3		N.S.	

### **Neighborhood Homogeneity**

The respondents perceived that manufactured homes would fit with the social aspects of their existing neighborhood (60% agreed) (Table 17). While more agreed that there would be a physical fit with their neighborhood, over one third disagreed that manufactured housing would fit in their neighborhood. There were no significant differences in their perception of neighborhood homogeneity for single - section or double - section units.

### ***Perceived Characteristics Of Manufactured Homes***

#### **Foundation Type**

Respondents were asked how they perceived both single-section and double-section manufactured homes (see Table 18). A majority perceived that single-section manufactured homes would be blocked and skirted (74%). A small portion indicated that they perceived they would have permanent foundations (13%), and even fewer thought they would have a provisional foundation (6%). On the other hand, most respondents perceived that the double-section homes would have permanent foundations (60%), and a smaller portion thought they would be blocked and skirted (31%). There were significant differences in the perceptions of respondents living in single-section and double-section homes with higher expectations for permanent foundations in double-section homes among the double-section respondents.

#### **Appearance**

The respondents perceived that double-section manufactured homes had a good (63%) or very good (23%) appearance, but that the single-section units were neutral (41%) or good (47%) (Table 18). The respondents living in double-section homes rated the perceived appearance of double-section units significantly higher than did the respondents in single-section homes. One third of the double-section respondents indicated that they appeared very good, while only 17% of the single-section respondents rated them this high. There were no significant differences in their perception of the appearance of single-section units.

### **Neighborhood Type**

A majority of respondents indicated that they perceived single-section manufactured homes were located in mobile home parks (56%), while about one-third indicated that they thought they were in residential neighborhoods (Table 18). Three-fourths of the respondents thought that double-section homes were located in residential neighborhoods, and 20% indicated that they thought they were most often located on farmland. There were no differences in the perceptions of the respondents living in single-section or double-section homes.

#### **Age of Structure**

Over half of the respondents perceived that single-section homes were around ten years old (57%), and double-section homes were new or less than five years old (55%) (Table 18). Almost one-third perceived double-section homes to be about ten years old (30%). While 11% thought the single-section units were older than 20 years, 16% thought they were new or less than 5 years old. There were no differences in the perceptions of age of structure by respondents living in single-section or double-section homes.

### ***Perceived Characteristics Of Manufactured Home Occupants***

#### **Origin**

Occupants of both single-section and double-section manufactured homes were perceived as originally being local people (88% and 82% respectively) (Table 19). Very few respondents thought they were outsiders (3% for single-section occupants and 8% for double-section occupants). There were no significant differences in the perceptions of respondents residing in single-section and double-section homes on these two items.

#### **Household Composition**

Most respondents perceived that the households occupying manufactured homes were small two-parent families (55% for single-section homes and 66% for double-section homes)(Table19).

**Table 18. Perceived Characteristics of Manufactured Homes**

Variable Name	Manufactured Home Type					
	Total		Single-Section		Double-Section	
	Number	Percent	Number	Percent	Number	Percent
<b>Foundation Type of Single-Section</b>						
Provisional	13	6.1	8	5.8	5	6.5
Blocks/Skirted	159	73.9	106	76.8	53	68.8
Permanent	28	13.0	17	12.3	11	14.3
Do not know	15	7.0	7	5.1	8	10.4
Total	215	100.0	138	100.0	77	100.0
	$X^2=2.61$		DF=3		N.S.	
<b>Foundation Type of Double-Section</b>						
Provisional	1	0.5	1	0.7	0	0
Blocks/Skirted	66	31.1	42	31.1	24	31.2
Permanent	127	59.9	75	55.6	52	67.5
Do not know	18	8.5	17	12.6	1	1.3
Total	212	100.0	135	100.0	77	100.0
	$X^2=9.11$		DF=3		P = 0.28	
<b>Appearance of Single-Section</b>						
Bad	19	8.8	8	5.8	11	13.9
Neutral	89	41.0	55	39.9	34	43.0
Good	101	46.5	71	51.4	30	38.0
Very good	8	3.7	4	2.9	4	5.1
Total	217	100.0	138	100.0	79	100.0
	$X^2=6.51$		DF=3		N.S.	
<b>Appearance of Double-Section</b>						
Neutral	31	14.3	18	13.2	13	16.2
Good	135	62.5	95	69.9	40	50.0
Very good	50	23.2	23	16.9	27	33.8
Total	216	100.0	136	100.0	80	100.0
	$X^2=9.66$		DF=2		P = .008	
<b>Neighborhood Type of Single-Section</b>						
Mobile home parks	117	55.5	73	54.5	44	57.1
MH subdivisions	4	1.9	4	3.0	0	0
Residential neighborhoods	68	32.2	45	33.6	23	29.9
Farmland	22	10.4	12	8.9	10	13.0
Total	211	100.0	134	100.0	77	100.0
	$X^2=3.33$		DF=3		N.S.	

(Table continues)



**Table 18 (continued). Perceived Characteristics of Manufactured Homes**

Variable Name	Manufactured Home Type					
	Total		Single-Section		Double-Section	
	Number	Percent	Number	Percent	Number	Percent
<b>Neighborhood Type of Double-Section</b>						
Mobile home parks	3	1.4	3	2.3	0	0
MH subdivisions	7	3.4	7	5.3	0	0
Residential neighborhoods	157	75.5	99	74.4	58	77.3
Farmland	41	19.7	24	18.0	17	22.7
Total	208	100.0	133	100.0	75	100.0
	X <sup>2</sup> =6.21		DF=3		N.S.	
<b>Age of Structure / Single-Section</b>						
Older than 20 years	24	11.2	18	13.2	6	7.7
About 10 years old	122	56.7	74	54.0	48	61.5
New or 5 years old	34	15.8	24	17.5	10	12.8
Do not know	35	16.3	21	15.3	14	18.0
Total	215	100.0	137	100.0	78	100.0
	X <sup>2</sup> =2.72		DF=3		N.S.	
<b>Age of Structure/ Double-Section</b>						
Older than 20 years	2	0.9	1	0.7	1	1.3
About 10 years old	64	30.1	38	28.4	26	32.9
New or 5 years old	117	54.9	73	54.5	44	55.7
Do not know	30	14.1	22	16.4	8	10.1
Total	213	100.0	134	100.0	79	100.0
	X <sup>2</sup> =1.90		DF=3		N.S.	

A large portion of the respondents indicated that small single-parent families were the perceived household type in single-section units (29%), while a smaller portion perceived that large two-parent families were the occupants of double-section homes (14%). There were no significant differences in the perceptions of respondents residing in single-section or double-section homes on these two items.

#### Social Behavior

The social behavior of single-section occupants was perceived as good (51%) or neutral (32%) (Table 19). The social behavior of double-section occupants was perceived as good

(57%), very good (20%), and neutral (21%). There was a tendency for double-section respondents to perceive double-section occupants as having better behavior and for single-section respondents to perceive that single-section occupants had better behavior but the differences were not statistically significant.

#### Tenure Status

Almost all respondents perceived that double-section occupants own their home and land (93%) (Table 19). Single-section occupants were perceived as owning their home and renting the land (42%) or owning the home and the land (42%).

**Table 19. Perceived Characteristics of Manufactured Home Occupants**

Variable Name	Manufactured Home Type					
	Total		Single-Section		Double-Section	
	Number	Percent	Number	Percent	Number	Percent
<b>Occupants' Origin / Single-Section</b>						
Local people	191	87.6	125	89.3	66	84.6
Outsiders	7	3.2	4	2.9	3	3.9
Do not know	20	9.2	11	7.8	9	11.5
Total	218	100.0	140	100.0	78	100.0
		$X^2=1.02$	DF=2	N.S.		
<b>Occupants' Origin / Double-Section</b>						
Local people	176	82.2	110	81.5	66	83.6
Outsiders	17	8.0	12	8.9	5	6.3
Do not know	21	9.8	13	9.6	8	10.1
Total	214	100.0	135	100.0	79	100.0
		$X^2=.45$	DF=2	N.S.		
<b>Household Composition / Single-Section</b>						
Singles	3	1.5	2	1.5	1	1.4
Couples with no children	18	8.8	11	8.2	7	10.0
Small SPF <sup>1</sup>	59	28.9	43	32.1	16	22.9
Small TPF <sup>2</sup>	112	54.9	72	53.7	40	57.1
Large SPF <sup>3</sup>	8	3.9	4	3.0	4	5.7
Large TPF <sup>4</sup>	4	2.0	2	1.5	2	2.9
Total	204	100.0	134	100.0	70	100.0
		$X^2=2.93$	DF=5	N.S.		
<b>Household Composition / Double-Section</b>						
Couples with no children	5	2.5	4	3.2	1	1.4
Small SPF <sup>1</sup>	21	10.5	13	10.2	8	11.0
Small TPF <sup>2</sup>	131	65.5	78	61.4	53	72.6
Large SPF <sup>3</sup>	16	8.0	14	11.0	2	2.7
Large TPF <sup>4</sup>	27	13.5	18	14.2	9	12.3
Total	200	100.0	127	100.0	73	100.0
		$X^2=5.59$	DF=4	N.S.		

(Table continues)

**Table 19 (continued). Perceived Characteristics of Manufactured Home Occupants**

Variable Name	Manufactured Home Type					
	Total		Single-Section		Double-Section	
	Number	Percent	Number	Percent	Number	Percent
<b>Social Behavior of Single-Section</b>						
Very bad	3	1.4	2	1.5	1	1.3
Bad	16	7.6	7	5.2	9	11.7
Neutral	67	31.8	39	29.1	28	36.3
Good	107	50.7	74	55.2	33	42.9
Very good	18	8.5	12	9.0	6	7.8
Total	211	100.0	134	100.0	77	100.0
	$X^2=5.07$		DF=4		N.S.	
<b>Social Behavior of Double-Section</b>						
Very bad	1	0.5	1	0.8	0	0
Bad	2	1.0	1	0.8	1	1.3
Neutral	44	21.0	29	21.9	15	19.5
Good	120	57.4	80	60.6	40	51.9
Very good	42	20.1	21	15.9	21	27.3
Total	209	100.0	132	100.0	77	100.0
	$X^2=4.63$		DF=4		N.S.	
<b>Tenure Status / Single-Section</b>						
Own home & land	88	41.9	59	44.0	29	38.2
Rent home & land	33	15.7	19	14.2	14	18.4
Own home / rent land	89	42.4	56	41.8	33	43.4
Total	210	100.0	134	100.0	76	100.0
	$X^2=.98$		DF=2		N.S.	
<b>Tenure Status / Double-Section</b>						
Own home & land	193	93.2	118	91.5	75	96.1
Rent home & land	6	2.9	5	3.9	1	1.3
Own home / rent land	8	3.9	6	4.6	2	2.6
Total	207	100.0	129	100.0	78	100.0
	$X^2=1.79$		DF=2		N.S.	

(Table continues)

**Table 19 (continued). Perceived Characteristics of Manufactured Home Occupants**

Variable Name	Manufactured Home Type					
	Total		Single-Section		Double-Section	
	Number	Percent	Number	Percent	Number	Percent
<b>Socio-economic Status of Single-Section</b>						
Middle class	67	32.4	40	30.3	27	36.0
Low income	130	62.8	86	65.2	44	58.7
Poor	10	4.8	6	4.5	4	5.3
Total	207	100.0	132	100.0	75	100.0
	$X^2=.86$		DF=2	N.S.		
<b>Socio-economic Status of Double-Section</b>						
Rich / well off	5	2.4	4	3.1	1	1.3
Middle class	170	81.3	104	80.0	66	83.5
Low income	34	16.3	22	16.9	12	15.2
Total	209	100.0	130	100.0	79	100.0
	$X^2=.84$		DF=2	N.S.		
<b>Education Level / Single-Section</b>						
None/grade school	7	3.6	5	4.0	2	2.9
Some high school	59	30.3	37	29.3	22	31.9
High school / GED	100	51.3	62	49.2	38	55.1
Some college	23	11.8	18	14.3	5	7.3
Vocational	4	2.0	3	2.4	1	1.4
2-year college	1	0.5	1	0.8	0	0
Graduate degree	1	0.5	0	0	1	1.4
Total	195	100.0	126	100.0	69	100.0
	$X^24.63$		DF=4	N.S.		
<b>Education Level / Double-Section</b>						
None/grade school	4	2.1	2	1.6	2	2.8
Some high school	27	14.0	21	17.4	6	8.3
High school / GED	98	50.8	65	53.7	33	45.8
Some college	48	24.9	24	19.9	24	33.3
Vocational	12	6.2	7	5.8	5	7.0
2-year college	2	1.0	2	1.6	0	0
4-year college	1	0.5	0	0	1	1.4
Graduate degree	1	0.5	0	0	1	1.4
Total	193	100.0	121	100.0	72	100.0
	$X^2=11.41$		DF=7	N.S.		

(Table continues)

**Table 19 (continued). Perceived Characteristics of Manufactured Home Occupants**

Variable Name	Manufactured Home Type					
	Total		Single-Section		Double-Section	
	Number	Percent	Number	Percent	Number	Percent
<b>Employment Status / Single-Section</b>						
Full-time	163	79.5	101	77.7	62	82.6
Part-time	22	10.8	17	13.1	5	6.7
Retired	7	3.4	5	3.8	2	2.7
Homemaker	7	3.4	5	3.8	2	2.7
Unemployed	6	2.9	2	1.6	4	5.3
Total	205	100.0	130	100.0	75	100.0
		$X^2=4.70$	DF=4	N.S.		
<b>Employment Status / Double-Section</b>						
Full-time	176	87.1	107	84.9	69	90.8
Part-time	5	2.5	4	3.2	1	1.3
Retired	17	8.4	12	9.5	5	6.6
Homemaker	3	1.5	3	2.4	0	0
Unemployed	1	0.5	0	0	1	1.3
Total	202	100.0	126	100.0	76	100.0
		$X^2=4.80$	DF=4	N.S.		
<b>Racial Composition / Single-Section</b>						
Blacks	21	10.0	10	7.6	11	14.3
Whites	158	75.6	102	77.3	56	72.7
Other <sup>5</sup>	30	14.4	20	15.1	10	13.0
Total	209	100.0	132	100.0	77	100.0
		$X^2=2.47$	DF=2	N.S.		
<b>Racial Composition / Double-Section</b>						
Blacks	17	8.2	10	7.8	7	9.0
Whites	167	81.1	104	81.3	63	80.8
Other <sup>5</sup>	22	10.7	14	10.9	8	10.2
Total	206	100.0	128	100.0	78	100.0
		$X^2=.10$	DF=2	N.S.		

<sup>1</sup>Small SPF= 2 to 4 members, single-parent family.

<sup>2</sup>Small TPF= 2 to 4 members, two-parent family.

<sup>3</sup>Large SPF= 5 or more members; single-parent family.

<sup>4</sup>Large TPF= 5 or more members; two-parent family.

<sup>5</sup>Other = Latinos, Native Americans, Asian/Pacific Islander, and mixed race

There were no significant differences between the single-section respondents and the double-section respondents on these two items.

#### **Socio-economic Status**

Occupants of single-section homes were perceived by both single-section respondents and double-section respondents as being primarily in the low-income socio-economic category (63%) (Table 19). One third perceived that they were in the middle-class category (32%). The vast majority of respondents in both groups perceived that the double-section occupants were in the middle class. Only 16% perceived that they were in the low-income category. There were no significant differences in the perceptions of class between the two categories of respondents.

#### **Education Level**

About half the respondents perceived that occupants of both single-section homes and double-section homes were high school graduates (51% for both types of occupants) (Table 19). The respondents were more likely to perceive that single-section occupants were likely to have some high school education (30%) and that double-section occupants were likely to have some college education (25%). There were no significant differences in the perceptions of respondents residing in single-section homes and those residing in double-section homes on these two variables.

#### **Employment Status**

Most respondents perceived that occupants of single-section and double-section homes were employed full-time (80% and 87% respectively) (Table 19). They were more likely to perceive that single-section occupants would be working part-time (11%) and that double-section occupants would be retired (8%). Respondents residing in single-section homes and those residing in double-section homes perceived the employment status of manufactured home occupants similarly.

#### **Racial Composition**

The respondents perceived that most occupants of both single-section homes and double-section homes are white (76% and 81% respectively) (Table 19). About one tenth perceived that occupants of single-section homes were black, and a similar proportion perceived that occupants of double-section homes were black (8%). There were no significant differences in the perceptions of respondents residing in single-section and double-section homes on these two items.

#### ***Perceived Impact on Neighborhoods***

Most of the respondents were somewhat neutral about the impact that manufactured housing would have on neighborhoods in their community. Thirteen items were asked about positive and negative impacts that could occur if manufactured housing were placed in neighborhoods (Table 20). The average scores ranged from 2.90 to 2.24. Respondents tended to disagree that manufactured housing would lower property taxes. Respondents living in single-section units had a significantly lower mean score than did residents of double-section units (2.83 and 3.01, respectively), indicating that double-section residents did not perceive that manufactured housing would lower property taxes. The respondents were in the most agreement that manufactured homes were a good social and physical fit with neighborhoods. Responses to all of the other items tended to cluster in a neutral range, and single-section and double-section residents were in general agreement on these ratings.

#### ***Satisfaction with General Housing Characteristics***

Respondents were asked to rate several general housing characteristics on a five point Likert scale in which 1 was "very bad" and 5 was "very good." Mean scores were calculated and a t-test analysis run (see Table 21).

**Table 20. Perceived Manufactured Housing Impacts in the Neighborhood of Respondents**

Variable Name	Manufactured Home Type							
	Total			Single-Section		Double-Section		T-Value
	M	SD	N	M	N	M	N	
Increase property value	2.72	.64	220	2.68	136	2.75	77	N.S.
Increase traffic	2.40	.68	219	2.39	134	2.40	77	N.S.
Increase neighborhood satisfaction	2.53	.67	218	2.53	132	2.47	78	N.S.
Move out and sell home	2.77	.77	222	2.78	136	2.76	78	N.S.
Create a better social image	2.65	.63	216	2.62	131	2.69	77	N.S.
Create more noise	2.60	.77	222	2.57	136	2.65	78	N.S.
Stronger neighborhood character	2.60	.57	213	2.58	128	2.58	77	N.S.
Attract desirables	2.57	.62	212	2.56	126	2.55	78	N.S.
Create a safer living environment	2.46	.65	217	2.48	132	2.40	78	N.S.
Lower property taxes	2.90	.67	218	2.83	132	3.01	78	T = -2.09 P = .0382
A more attractive neighborhood	2.54	.65	215	2.58	129	2.45	78	N.S.
Better neighborhood quality	2.66	.60	212	2.65	128	2.67	76	N.S.
Good social & physical fit	2.24	.61	220	2.26	134	2.17	78	N.S.

Note. Measurement of variables ranged as follows: 1 = Strongly agree, 2 = Agree, 3 = Disagree, and 4 = Strongly disagree.

**Table 21. Satisfaction with General Housing Characteristics**

Variable Name	Manufactured Home Type								T-Value
	Total			Single-Section		Double-Section			
	M	SD	N	M	N	M	N		
Outside appearance	4.19	.71	226	4.03	140	4.47	80	T=-4.69 P=.000	
Ease of maintenance	3.85	.85	225	3.75	139	4.01	80	T=-2.11 P=.0362	
Energy efficiency	3.61	1.02	225	3.57	140	3.66	79	N.S.	
Safety in fire	3.45	1.11	225	3.29	139	3.67	80	T=-2.51 P=.0128	
Safety in storm	3.47	.95	225	3.34	139	3.62	80	T=-2.12 P=.0353	
Quality of construction	3.49	1.05	222	3.46	137	3.51	79	N.S.	
Durability	3.54	.97	220	3.50	136	3.58	78	N.S.	
House layout /design	3.96	.83	222	3.81	136	4.19	80	T=-3.33 P=.0010	
Overall amount of space	3.71	1.01	225	3.37	139	4.26	80	T=-7.60 P=.0001	
Amount of storage space	3.06	1.19	226	2.73	140	3.54	80	T=-5.07 P=.0000	
Width of halls	3.60	.99	225	3.34	139	4.02	80	T=-5.60 P=.0001	
Width of doors	3.63	.96	226	3.47	140	3.85	80	T=-2.85 P=.0047	
Size of bedroom	3.52	1.08	226	3.17	140	4.09	80	T=-7.18 P=.0001	
Layout of kitchen	3.86	.89	226	3.66	140	4.17	80	T=-4.22 P=.0000	

Note. Measurement variables ranged as follows: 1 = Very bad, 2 = Bad, 3 = Neutral, 4 = Good, and 5 = Very good.



**Table 22. Overall Satisfaction with Manufactured Housing**

Variable Name	Manufactured Home Type						
	Total		Single-Section		Double-Section		
	Number	Percent	Number	Percent	Number	Percent	
<b>Overall Satisfaction</b>							
Very satisfied	86	39.1	47	33.6	39	48.7	
Somewhat satisfied	74	33.6	47	33.6	27	33.8	
Neutral	27	12.3	24	17.1	3	3.7	
Somewhat dissatisfied	22	10.0	16	11.4	6	7.5	
Very dissatisfied	11	5.0	6	14.3	5	6.3	
Total	220	100.0	140	100.0	80	100.0	
		$X^2=11.62$		DF=4		P =.020	

Note. Measurement variables ranged as follows: 1 = Very satisfied, 2 = Somewhat satisfied, 3 = Neutral, 4 = Somewhat dissatisfied, and 5 = Very dissatisfied.

Respondents were most satisfied with the outside appearance of their home (4.19) and least satisfied with the amount of storage space (3.06). Respondents in single-section and double-section homes had significantly different ratings on all but three of the 15 items. In all cases the double-section respondents rated the feature better than did the single-section respondents. Several of these were related to space: amount of storage space, width of hallways, width of doors, house layout and design, size of bedrooms, layout of kitchen, and ease of working in kitchen. Greater satisfaction on these items is not surprising, considering the larger overall size of the double-section home. Other items where double-section home residents rated their home higher were on: outside appearance, ease of maintenance, safety in fire, and safety in storms. The respondents did not rate their homes differently on energy efficiency, quality of construction, and durability.

#### *Overall Satisfaction*

Chi-square analysis compared the overall satisfaction level of the single-section and double-section residents and found that double-section residents were more satisfied than were single-section residents (Table 22). Approximately 70% of all respondents said they were satisfied or somewhat satisfied with their home. While only one third of the single-section residents indicated

they were very satisfied, half of the double-section residents indicated this high level of satisfaction. About one fourth of the single-section residents indicated that they were very dissatisfied or somewhat dissatisfied with their home, while only 14% of the double-section residents indicated these lower levels of satisfaction.

#### **CONCLUSIONS**

The findings suggest that residents of the two types of manufactured housing are different in several demographic characteristics. Their housing is somewhat different in location and foundation. The perceptions of manufactured housing varied among the single-section and double-section respondents on a few items, but they tended to agree on the characteristics of the occupants. Residents' satisfaction with specific features and overall satisfaction are different, with the double-section units being more satisfactory than the single-section units.

These findings confirm many of the perceptions held by community and manufactured housing residents and document differences in single-section and double-section manufactured housing and residents. While some of these differences have obvious causes, such as size and price variation, they still

suggest that different regulations for the two products may be warranted. They also suggest that manufacturers might consider further separating the double-section homes from the HUD-code standards by producing these units as modulars that meet local building codes and can be placed in residential areas within the community.

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## **IV. CHARACTERISTICS OF NON-RESIDENTS AND THEIR ATTITUDES ABOUT MANUFACTURED HOUSING**

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### **INTRODUCTION**

Manufactured housing is a relatively low-cost alternative to conventional stick-built housing that can play a major role in providing affordable, safe, and adequate single-family housing to limited-income home buyers and tenants. The use of inexpensive housing units--such as factory-built housing and accessory apartments--is considered by some experts to be a viable way to address housing affordability problems in the United States due to the economies of scale that characterize the "high-quality/low cost" production of manufactured housing (White, 1992).

Despite the affordability advantages associated with manufactured housing, many sectors of the population oppose its use. In fact, some community residents, local public officials, and builders reject manufactured housing as an acceptable option for residential use, particularly when the manufactured home unit is to be located anywhere near them (HUD, 1991). This phenomenon is what many call the "Not In My Back Yard" (NIMBY) syndrome.

The NIMBY syndrome is supported by local land-use regulations that confine manufactured housing (particularly single-section units) to mobile home parks or small lot subdivisions, excluding them from most residential districts. NIMBY actions affect the placement of manufactured housing and consequently limit the affordable choices available to limited-income households. For example, in 1986 only 16 states allowed manufactured housing in residential zoning districts outside mobile home and trailer parks (Sanders, 1986). Today, however, more states recognize the role of manufactured housing as a low-cost alternative and are actively advising local governments to promote the use of manufactured homes as a means to reach

acceptable housing affordability levels (White, 1992; HUD, 1991).

Negative attitudes about manufactured housing are confirmed in the literature. These attitudes often centered on two areas--the impact mobile home communities have on the neighborhood and economic well-being of the community at large and the "types" of people who lived in the homes.

### ***Impact on the Neighborhood and Community Economic Well-Being***

Focus groups of local government officials in Michigan expressed concern that new manufactured home communities are poorly planned and will ultimately become an economic drain on the jurisdiction (Burkhardt, Mireley & Syal, 1996). When builders, lenders, real estate agents, government and non-profit agency heads, and mobile home dealers in Southwest Virginia were asked how the people in their community would feel about having people in manufactured houses living next to them, 64 % judged that residents would "rather not" have or "dislike" having them (Goss, Parrott & Engelen-Eigles, 1992).

Often manufactured housing is thought to lower the property values of houses that are located near them. A study by Gruber, Shelton, and Hiatt (1988) found that, at least in one North Carolina County, proximity of a manufactured house was not associated with lower property values with respect to selling price relative to appraised tax value.

### ***Perceptions about Manufactured Home Residents***

Focus Group Research of Georgia consumers found that participants viewed "mobile home"

residents as lower income, less educated, and less likely to desire to succeed or improve their lives (Focus Group, 1994). Often manufactured housing is thought to lower the property values of houses that are located near them.

Even manufactured home residents are aware community prejudices exist. Focus group participants in Southwest Virginia acknowledged the fact but expressed optimism that this prejudice was decreasing because of the improved quality and appearance of manufactured housing and the increasing number of people in the area living in them (Goss, Parrott & Engelen-Eigles, 1992). These participants believed that prejudice against manufactured housing resulted from

- 1) a general prejudice against all forms of lower-income housing;
- 2) mobile home parks that were crowded, poorly maintained, and improperly managed, and thus developed the social and physical problems typical of any densely populated area;
- 3) earlier-model mobile homes that looked like boxes on wheels and "all looked alike--like tin coal camp housing;"
- 4) the perception that people who were mobile -and moved their homes--did not have roots in the community and therefore could not share the same values;
- 5) the practice of renting mobile homes, which was associated with poor upkeep (Goss, Parrott & Engelen-Eigles, 1992, p. 137).

### **Purpose**

This study investigated community residents' acceptance of single- and double-section manufactured housing as a residential alternative in rural neighborhoods. The "NIMBY" syndrome was addressed as it affected the acceptance of this type of residential dwelling in rural areas of Virginia.

The literature reviewed in this study supported the notion that the NIMBY syndrome, or opposition to manufactured homes, affects their placement and limits the housing choices

available to limited-income households. Moreover, previous studies acknowledged the prevalent prejudice against manufactured homes and their residents. However, no study to date has addressed empirically the NIMBY syndrome with regard to manufactured housing. Consequently, this study investigated the reasons for accepting or opposing manufactured housing in order to fill this gap in housing research.

### **METHODOLOGY**

A total of 2,000 rural households in the counties of Bath, Craig, Southhampton, Buckingham, Pulaski, Buchanan, Rappahannock, and King and Queen were surveyed through mail questionnaires. Two questionnaires were developed, one about single-section and one about double-section manufactured homes. There were 552 usable questionnaires, resulting in a response rate of 48.5% of the deliverable questionnaires. The overall response rate for this survey was affected by the large number of undeliverable questionnaires that lacked the correct or full address.

### **SAMPLE DESCRIPTION**

The sample consisted of 552 individuals who at the time of the survey did not reside in a manufactured home, mobile home, or trailer. This total sample was comprised of two groups of non-manufactured-home residents in rural areas of Virginia. One group of subjects consisted of respondents to questions regarding single - section manufactured housing and its occupants, and the other group consisted of respondents to questions about double-section manufactured housing and its occupants. Table 23 shows the distribution of respondents by county in Virginia and the type of manufactured home questionnaire per sample group. The single-section subsample group included 274 subjects, while the double-section subsample group consisted of 278 subjects. The following is a description of the demographic and socio-economic characteristics for the total sample.

**Table 23. Frequency Distribution of Sample Group by County Name**

County Name	Manufactured Home Sample Groups					
	Total		Rated Single-Section Homes		Rated Double-Section Homes	
	Number	Percent	Number	Percent	Number	Percent
Bath	22	4.0	9	3.3	13	4.7
Buchanan	65	11.8	34	12.4	31	11.2
Buckingham	59	10.7	29	10.6	30	10.8
Craig	34	6.2	17	6.2	17	6.1
King & Queen	24	4.3	8	2.9	16	5.8
Pulaski	211	38.2	102	37.2	109	39.2
Rappahannock	43	7.8	21	7.7	22	7.9
Southampton	94	17.0	54	19.7	40	14.4
Total	552	100.0	274	100.0	278	100.0

## FINDINGS

### *Demographic Characteristics*

Overall the sample was male (61%) and white (92%) (Table 24). The respondents ranged in age from 21 to 95 years of age. The majority was between the ages of 36 and 50 (36%) followed by those 66 years or older (27%). Just over 37% of all respondents' households were comprised of couples with no children, and 30% of all respondents were in small two-parent households (4-5 members). There was little variation between the single- and double-section sample groups for any of the demographic variables.

### *Socio-economic and Housing Characteristics*

#### **Income**

A total 508 respondents reported total annual household income. Of these, 38% reported having incomes at or above \$45,000; 31% had incomes between \$25,000 and \$44,999; and 31% had incomes below \$25,000. Table 25 shows the reported incomes of all respondents according to sample group. Both the single- and double-section sample groups reported similar income distributions.

#### **Educational Level**

The highest percentage (23%) of the respondents were high school or GED graduates. In addition, 19% of all respondents had some college or vocational education beyond high school but had not completed a degree. A similar frequency distribution was obtained from both single- and double-section survey respondents.

#### **Employment Status**

Over half of all respondents (56%) indicated that they were fully employed (Table 25). Thirty percent of the sample were retired from the work force. Of 543 respondents, only 8% were homemakers, 1% were unemployed and not retired, and less than 1% were students. Again, single- and double-section survey respondents followed a similar distribution.

#### **House Type**

As shown in Table 25, the housing type characteristics of the sample were very homogeneous; 95% of all respondents lived in a single-family house and only 5% lived in apartments, townhouses, duplexes, or other forms of dwelling. Both single- and double-section sample groups had a majority of respondents residing in single-family houses.

**Table 24. Frequency Distribution of Sample Group by Demographic Characteristics**

Variable Name	Manufactured Home Sample Groups					
	Total		Rated Single-Section Homes		Rated Double-Section Homes	
	Number	Percent	Number	Percent	Number	Percent
<b>Gender</b>						
Male	332	61.3	169	62.4	163	60.1
Female	210	38.7	102	37.6	108	39.9
Total	542	100.0	271	100.0	271	100.0
			X <sup>2</sup> =0.28	DF=1	N.S.	
<b>Race</b>						
Black	28	5.2	16	5.9	12	4.5
White	497	92.4	251	93.3	246	91.4
Other <sup>1</sup>	13	2.4	2.0	0.8	11	4.1
Total	538	100.0	269	100.0	269	100.0
			X <sup>2</sup> =6.85	DF=2	P = .033	
<b>Age (years)</b>						
35 or less	61	11.6	31	11.6	30	11.6
36 to 50	190	36.1	107	30.9	83	32.0
51 to 65	135	25.6	68	25.4	67	25.9
66 or more	141	26.8	62	23.1	79	30.5
Total	527	100.0	268	100.0	259	100.0
			X <sup>2</sup> =4.9	DF=3	N.S.	
<b>Household Composition</b>						
Singles	97	18.0	49	18.2	48	17.7
Couples	201	37.2	90	33.5	111	41.6
Small SPF <sup>2</sup>	38	7.0	20	7.4	18	6.6
Small TPF <sup>3</sup>	161	29.8	87	32.3	74	27.3
Large SPF <sup>4</sup>	6	1.1	5	1.9	1	0.4
Large TPF <sup>5</sup>	37	6.9	18	6.7	19	7.0
Total	540	100.0	269	100.0	271	100.0
			X <sup>2</sup> =6.05	DF=5	N.S.	

<sup>1</sup>Other = Latinos, Native Americans, Asian/Pacific Islander, and mixed race.

<sup>2</sup>Small SPF= 2 to 4 members, single-parent family.

<sup>3</sup>Small TPF= 2 to 4 members, two-parent family.

<sup>4</sup>Large SPF = 5 or more members; single-parent family.

<sup>5</sup>Large TPF= 5 or more members; two-parent family.

**Table 25. Frequency Distribution of Sample Group by Socio-economic Characteristics**

Variable Name	Manufactured Home Sample Groups					
	Total		Rated Single-Section Homes		Rated Double-Section Homes	
	Number	Percent	Number	Percent	Number	Percent
<b>Income (\$)</b>						
Less than 5,000	18	3.5	9	3.5	9	3.6
5,000-14,999	60	11.8	30	11.7	30	11.9
15,000-19,999	35	6.9	16	6.3	19	7.5
20,000-24,999	46	9.1	16	6.3	30	11.9
25,000-34,999	84	16.5	39	15.2	45	17.9
35,000-44,999	73	14.4	42	16.4	31	12.3
45,000 or more	192	37.8	104	40.6	88	34.9
Total	508	100.0	256	100.0	252	100.0
			$X^2=7.91$	DF=6	N.S.	
<b>Educational Level</b>						
Grade School	35	6.5	15	5.6	20	7.5
Some High School	53	9.9	22	8.1	31	11.6
High School/GED	124	23.0	58	21.5	66	24.6
Some College	103	19.1	57	21.1	46	17.2
Vocational	33	6.1	21	7.8	12	4.5
2-year College	55	10.2	31	11.5	24	9.0
4-year College	76	14.1	40	14.8	36	13.4
Graduate Degree	59	11.0	26	9.6	33	12.3
Total	538	100.0	270	100.0	268	100.0
			$X^2=8.31$	DF=7	N.S.	
<b>Employment Status</b>						
Full-time	303	55.8	159	58.7	144	52.9
Part-time	28	5.2	13	4.8	15	5.5
Retired	164	30.2	75	27.7	89	32.7
Homemaker	42	7.7	20	7.4	22	8.1
Unemployed	5	0.9	3	1.1	2	0.7
Student	1	0.2	1	0.4	0	0.0
Total	543	100.0	271	100.0	272	100.0
			$X^2=3.37$	DF=5	N.S.	
<b>Housing Type</b>						
House	519	94.5	259	94.9	260	94.2
Apartment	20	3.6	10	3.7	10	3.6
Town house/Duplex	5	0.9	2	0.7	3	1.1
Other	5	0.9	0.7	0.7	3	1.1
Total	549	100.0	273	100.0	276	100.0
			$X^2=0.39$	DF=3	N.S.	

(Table continues)

**Table 25 (continued). Frequency Distribution of Sample Group by Socio-economic Characteristics**

Variable Name	Manufactured Home Sample Groups					
	Total		Rated Single-Section Homes		Rated Double-Section Homes	
	Number	Percent	Number	Percent	Number	Percent
<b>Housing Tenure</b>						
Own	481	88.0	243	89.4	238	86.5
Rent	47	8.6	18	6.6	29	10.5
Other	19	3.5	11	4.0	8	2.9
Total	547	100.0	272	100.0	275	100.0
			X <sup>2</sup> =3.08	DF=2	N.S.	
<b>Housing Value (\$)</b>						
Less than 50,000	74	13.8	40	14.9	34	12.6
50,001-100,000	242	45.0	122	45.4	120	44.6
100,001-150,00	96	17.8	52	19.3	44	16.4
150,001-above	76	14.1	34	12.6	42	15.6
Does not apply	50	9.3	21	7.8	29	10.8
Total	538	100.0	269	100.0	269	100.0
			X <sup>2</sup> =3.29	DF=4	N.S.	

Note. GED = Graduate Equivalency Degree; Does not apply = Respondents who were not homeowners.

**Housing Tenure**

A large majority of the respondents (88%) owned their homes; only 8.6% were renters. Single- and double-section survey respondents were similar in this characteristic.

**Housing Value**

Of the 538 respondents to this question, 45% of homeowners believed that their homes were valued between \$50,001 and \$100,000, and 32% indicated house values above \$100,000. The subsamples showed a similar distribution for housing values (Table 25).

***Respondents' Knowledge about  
Manufactured Homes***

Respondents were asked to indicate how close they lived to a manufactured home, if they ever lived in one of these units, or if they knew someone living in one. They were asked if they had ever visited a manufactured home and if so, how long ago that visit occurred and the perceived condition of the dwelling.

Respondents also indicated how knowledgeable they were regarding single or double-section units. Table 26 summarizes the results and is discussed below.

**Closeness to Manufactured Homes**

Results showed that 47% of the respondents indicated that they lived very close to manufactured homes. There were no significant differences between the single- and double-section manufactured home units.

**Previous Residency in a Manufactured Home**

Just over 23% of the respondents had lived in either a single- or a double-section manufactured home (Table 26). However, there were important differences between the single- and the double-section subsamples. Only 10% of the double-section sample respondents had lived in a double-section manufactured home. In contrast, more single-section sample respondents had lived in a single-section manufactured home (37%).



**Knowledge of a Manufactured Home Resident**

About 88% of the respondents knew someone who lived in a single- or double-section manufactured home (Table 26).

**Visit to a Manufactured Home**

More single-section sample respondents (93%) had visited a single-section manufactured home than double-section sample respondents (85%) had visited a double-section manufactured home (Table 26).

**Time of Visit to a Manufactured Home**

There were important differences between the subsamples because, on average, the single-section survey respondents had visited single-section homes more recently ( $M = 9$  years,  $SD = 25.07$ ) than the double-section survey respondents had visited double-section homes ( $M = 15$  years,  $SD = 33.80$ ). Additionally, in the total sample, many of those who had visited a single- or a double-section home (48%) had done so less than a year before this study.

**Table 26. Frequency Distribution of Sample Group by Manufactured Home Knowledge**

Variable Name	Manufactured Home Sample Group					
	Total		Single-Section Homes		Double-Section Homes	
	Number	Percent	Number	Percent	Number	Percent
<b>Proximity to MH</b>						
Very close	257	47.2	134	49.3	123	45.2
Close	163	30	83	30.5	80	29.4
Not close/Not far	67	12.3	26	9.6	41	15.1
Far	24	4.4	14	5.1	10	3.7
Very far	8	1.5	5	1.8	3	1.1
Do not know	25	4.6	10	3.7	15	5.5
Total	544	100.0	272	100.0	272	100.0
			$X^2=6.05$	DF=5	N.S.	
<b>Previous MH Residency</b>						
No	420	76.8	172	63.2	248	90.2
Yes	127	23.2	100	36.8	27	9.8
Total	547	100.0	272	100.0	275	100.0
			$X^2=55.70$	DF=1	P = .000	
<b>Knowledge of MH Person</b>						
No	67	12.3	24	8.8	43	15.7
Yes	478	87.7	248	91.2	230	84.3
Total	545	100.0	272	100.0	273	100.0
			$X^2=6.60$	DF=1	P = .014	

(Table continues)

**Table 26 (continued).Frequency Distribution of Sample Group by Manufactured Home Knowledge**

Variable Name	Manufactured Home Sample Group					
	Total		Rated Single-Section Homes		Rated Double-Section Homes	
	Number	Percent	Number	Percent	Number	Percent
<b>Previous Visit to MH</b>						
No	61	11.1	20	7.3	41	14.9
Yes	487	88.9	253	92.7	234	85.1
Total	548	100.0	273	100.0	275	100.0
			$X^2=7.98$	DF=1	P = .005	
<b>Condition MH Visited</b>						
Very bad	9	1.7	5	1.9	4	1.5
Bad	26	4.8	21	7.8	5	1.8
OK	120	22.1	85	31.5	35	12.8
Good	171	31.4	85	31.5	86	31.4
Very good	161	29.6	55	20.4	106	38.7
Does not apply	57	11.0	19	7.0	38	13.9
Total	544	100.0	270	100.0	274	100.0
			$X^2=53.26$	DF=5	P = .000	
<b>Knowledge about MH</b>						
Very knowledgeable	66	12.1	42	15.6	24	2.8
Some knowledge	141	25.9	76	28.1	65	23.7
Average knowledge	159	29.2	77	28.5	82	29.9
Little knowledge	113	20.8	46	17.0	67	24.5
No knowledge	65	11.8	29	10.7	36	13.1
Total	544	100.0	270	100.0	274	100.0
			$X^2=10.55$	DF=4	P = .032	

Note. MH = Manufactured home; Does not apply = Respondents who had not visited a MH

**Condition of Manufactured Homes Visited**

The condition of the single- and double-section units that were visited by the sample respondents mostly ranged from "OK" (22%) to "good" (31%) to "very good" (30%) (Table 26). However, most of the single-section subsample (63%) rated the single-section units visited as "OK" to "good" (32%), while the double-section subsample (70%) believed that the double-section units visited were in "good" (31%) to "very good" (39%) condition. More single-section survey respondents (10%)

believed that the single-section units were in "very bad" to "bad" condition than did the double-section survey respondents (3%) when indicating the condition of the double-section units.

**Knowledge about Manufactured Housing**

Finally, 29% of the respondents indicated that they had "average" knowledge about either single- or the double-section units. The subsamples differed in that many single-section survey respondents noted that they had "average

to little knowledge" about double-section units and that many single-section survey respondents were closer to being "somewhat knowledgeable" about single-section units. This finding suggested that double-section survey respondents believed they were less knowledgeable about double-section units than single-section survey respondents believed they were about single-section units.

### ***Perceived Home Characteristics Of Manufactured Home Occupants***

#### **Foundation Type**

Of the total sample, 54% were aware that manufactured homes were placed on block foundations and may also be skirted. In this category, the proportion of single-section sample respondents (67%) was higher than that of double-section survey respondents (41%) (Table 27). Therefore, it appears that more double-section units were perceived to be placed on permanent foundations than were single-section units.

#### **Appearance and Condition**

Almost 48% of the sample indicated that the manufactured homes in their counties were in "OK" condition. Fifty five percent of the single-section subsample rated the single-section units in their country to be in "OK" condition. An additional 24% rated them in "good" condition. In contrast, the double-section subsample believed the double-section units in their counties were in "OK" (41%) to "good" (41%) condition. These results suggested an important difference between their perceptions of the two different types of housing.

#### **Neighborhood Type**

An important difference regarding neighborhood type was noted between single- and double-section survey responses about age of manufactured home. In fact, 67% of single-section survey respondents perceived that single section units were mostly located in mobile home parks. In contrast, 41% of double-section survey respondents perceived that most double-section units were located in residential neighborhoods.

#### **Age of Structure**

An important difference was noted between the single- and the double-section survey responses about age of manufactured housing. Just over 54% of single-section survey respondents indicated that single-section units in their counties were around 10 years old. However, 40% of the double-section subsample noted that most double-section units in their counties were new or no more than 5 years old.

### ***Perceived Manufactured Home Occupants' Characteristics***

#### **Occupants' Origin**

Most respondents (69%) indicated that most manufactured home occupants were local people and not outsiders. Similar frequencies were obtained for the single-section survey respondents (70%) and the double-section survey respondents (68%). See Table 28.

#### **Household Composition**

Most respondents (61%) believed that most manufactured home households were comprised of small two-parent families. No important differences were noted in the responses from the single-section survey respondents (58%) and the double-section survey respondents (64%).

#### **Social Behavior**

An important difference was noted between perceived social behavior of single- and double-section home occupants. Single-section survey respondents indicated that most single-section manufactured home occupants displayed "OK" behavior. In contrast, double-section survey respondents noted most double-section unit occupants displayed behavior closer to "good."

#### **Tenure Status**

An important difference was observed between the single and the double-section survey responses about tenure status of manufactured home occupants. Most single-section survey respondents indicated that single-section manufactured home occupants owned the units but rented the land. The double-section subsample noted that most double-section and the manufactured home occupants owned the units land.

### **Socio-economic Status**

An important difference was observed between the single- and the double-section survey responses about the socio-economic status of manufactured home households. Single-section survey respondents indicated single-section unit occupants were mostly "low income." Conversely, double-section survey respondents noted most double-section unit occupants were closer to being "middle class."

### **Educational Level**

An important difference was noted between the single- and the double-section survey responses about educational levels of manufactured home occupants. Although over half of the respondents (55%) noted that most manufactured home occupants have a high school or GED diploma, single-section survey respondents indicated that single-section unit occupants did not finish high school. In contrast, double-section survey respondents noted that most double-section unit occupants completed high school or obtained a GED.

### **Employment Status**

A majority (83%) of the 520 respondents indicated that most manufactured home heads of households were in full-time jobs or at least in two part-time jobs. No important differences were noted between subsamples.

### **Racial Composition**

Most respondents (79%) agreed that the majority of single- and double-section manufactured home occupants were White. No important differences between the subsamples were noted.

### ***Perceived Neighborhood Characteristics of Respondents***

Table 29 illustrates the distribution of frequencies for the samples in terms of the respondent's perceptions regarding their immediate environment.

### **Neighborhood Composition**

Most respondents (74%) indicated that their neighborhoods were mostly composed of single-

family houses, while 16% of the respondents noted that their neighborhoods were composed mostly of a mixture of houses and mobile homes.

### **Neighborhood Location and Community Size**

A majority (59%) of respondents from the single- and double-section survey subsamples indicated that their neighborhoods were located "out in the country." Over 46% lived in a community or town with a population of fewer than 1000 persons.

### **Length of Residence**

Almost 32% of the sample indicated that they had lived in their neighborhoods for over 30 years.

### **Closeness to Manufactured Homes**

The largest proportion of respondents indicated that they lived "very close" to either single- (49%) or double-section (45%) manufactured homes (also see Table 26).

### **Neighborhood Physical Homogeneity**

Of the 536 respondents, 53% agreed that their neighborhoods had houses with similar physical characteristics. Fifty four percent of the single- and 52% of the double-section survey subsamples agreed with the above statement.

### **Neighborhood Social Homogeneity**

Of the 536 respondents, 58% agreed that their neighborhoods had a majority of residents with similar social characteristics.

### ***Perceived Manufactured Housing Impacts on the Neighborhood***

Perceived manufactured housing impacts were obtained for 13 characteristics (Table 30). A single scale was created by adding the mean scores for each of 13 individual characteristics. Overall, most respondents agreed that the placement of single- or double-section manufactured homes would have a negative impact upon their neighborhoods ( $M = 24.85$ ,  $SD = 5.35$ ,  $N = 461$ ). However, an important difference was noted between the single and the double-section survey respondents. After

**Table 27. Frequency Distribution of Sample Group by Perceived Manufactured Home Characteristics**

Variable Name	Manufactured Home Sample Group					
	Total		Rated Single-Section Homes		Rated Double-Section Homes	
	Number	Percent	Number	Percent	Number	Percent
<b>Foundation Type</b>						
Provisional	23	4.5	16	6.3	7	2.8
Blocks/Skirted	273	53.8	171	67.1	102	40.5
Permanent	129	25.4	36	14.1	93	36.9
Do not know	82	16.2	32	12.5	50	19.8
Total	507	100.0	255	100.0	252	100.0
			X <sup>2</sup> =50.08	DF=3	P = .000	
<b>Appearance/Condition</b>						
Very bad	14	2.6	7	2.6	7	2.6
Bad	62	11.4	41	15.0	21	7.8
OK	260	47.9	150	54.9	110	40.7
Good	176	32.4	65	23.8	111	41.1
Very good	31	5.7	10	3.7	21	7.8
Total	543	100.0	273	100.0	270	100.0
			X <sup>2</sup> =28.52	DF=4	P = .000	
<b>Neighborhood Type</b>						
Mobile home parks	236	44.5	178	67.4	58	21.8
MH subdivisions	35	6.6	14	5.3	21	7.9
Res. neighborhoods	155	29.2	45	17.0	110	41.4
Farmland	104	19.6	27	10.2	77	28.9
Total	530	100.0	264	100.0	266	100.0
			X <sup>2</sup> =113.71	DF=3	P = .000	
<b>Perceived MH<sup>1</sup> Age</b>						
Older than 20 years	51	9.4	37	13.7	14	5.1
About 10 years old	231	42.4	147	54.2	84	30.1
New or 5 years old	135	24.8	25	9.2	110	40.1
Do not know	128	23.5	62	22.9	66	24.1
Total	545	100.0	271	100.0	274	100.0
			X <sup>2</sup> =81.18	DF=3	P = .000	

<sup>1</sup>MH = Manufactured Home.

**Table 28. Frequency Distribution of Sample Group by Perceived Manufactured Home Occupants' Characteristics**

Variable Name	Manufactured Home Sample Group					
	Total		Rated Single-Section Homes		Rated Double-Section Homes	
	Number	Percent	Number	Percent	Number	Percent
<b>Occupants' Origin</b>						
Local people	376	68.9	189	69.7	187	68.0
Outsiders	59	10.8	31	11.4	28	10.2
Do not know	111	20.3	51	18.8	60	21.8
Total	546	100.0	271	100.0	275	100.0
			X <sup>2</sup> =0.86	DF=2	N.S.	
<b>Household Composition</b>						
Single	8	1.5	5	1.9	3	1.2
Couples/no children	46	8.8	23	8.8	23	8.9
Small SPF <sup>1</sup>	123	23.6	69	26.3	54	20.8
Small TPF <sup>2</sup>	316	60.7	151	57.6	165	63.7
Large SPF <sup>3</sup>	15	2.9	6	2.3	9	3.5
Large TPF <sup>4</sup>	13	2.5	8	3.1	5	1.9
Total	521	100.0	262	100.0	259	100.0
			X <sup>2</sup> =4.23	DF=5	N.S.	
<b>Social Behavior</b>						
Very bad	14	2.6	10	3.7	4	1.5
Bad	58	10.8	32	12.0	26	9.7
OK	283	52.9	160	59.9	123	45.9
Good	157	29.3	55	20.6	102	38.1
Very good	23	4.3	10	3.7	13	4.9
Total	535	100.0	267	100.0	268	100.0
			X <sup>2</sup> =22.49	DF=4	P = .000	
<b>Tenure Status</b>						
Own home & land	256	49.2	67	25.2	189	74.4
Rent home & land	102	19.6	71	26.7	31	12.2
Own home/rent land	162	31.2	128	48.1	34	13.4
Total	520	100.0	266	100.0	254	100.0
			X <sup>2</sup> =128.16	DF=2	P = .000	
<b>Socio-economic Status</b>						
Rich/Well off	2	.04	1	.04	1	.4
Middle class	179	33.6	50	18.7	129	48.7
Low income	320	60.2	197	73.8	123	46.4
Poor	31	5.8	19	7.1	12	4.5
Total	532	100.0	267	100.0	265	100.0
			X <sup>2</sup> =53.55	DF=3	P = .000	

(Table continues)

**Table 28 (continued). Frequency Distribution of Sample Group by Perceived Manufactured Home Occupants' Characteristics**

Variable Name	Manufactured Home Sample Group					
	Total		Rated Single-Section Homes		Rated Double-Section Homes	
	Number	Percent	Number	Percent	Number	Percent
<b>Educational Level</b>						
None/Grade School	18	3.6	6	2.4	12	4.8
Some High school	145	28.9	95	37.7	50	20.0
High School/GED	275	54.8	131	52.0	144	57.6
Some College	46	9.2	16	6.3	30	12.0
Vocational	12	2.4	2	.8	10	4.0
2-year college	5	1.0	2	.8	3	1.2
4-year college	1	.2	0	0	1	.4
Total	502	100.0	252	100.0	250	100.0
			X <sup>2</sup> =27.37	DF=6	P = .000	
<b>Employment Status</b>						
Full-time	430	82.7	205	79.2	225	86.2
Part-time	57	11.0	38	14.7	19	7.3
Retired	12	2.3	7	2.7	5	1.9
Homemaker	9	1.7	2	.8	7	2.7
Unemployed	11	2.1	6	2.3	5	1.9
Student	1	.2	1	.4	0	0
Total	520	100.0	259	100.0	261	100.0
			X <sup>2</sup> =11.46	DF=5	P = .043	
<b>Racial Composition</b>						
Blacks	48	9.3	24	9.3	24	9.3
Whites	407	79.0	212	82.2	195	75.9
Other <sup>5</sup>	60	11.7	22	8.5	38	14.8
Total	515	100.0	258	100.0	257	100.0
			X <sup>2</sup> =5.02	DF=2	N.S.	

<sup>1</sup>Small SPF= 2 to 4 members, single-parent family.

<sup>2</sup>Small TPF= 2 to 4 members, two-parent family.

<sup>3</sup>Large SPF= 5 or more members; single-parent family.

<sup>4</sup>Large TPF= 5 or more members; two-parent family.

<sup>5</sup>Other = Latinos, Native Americans, Asian/Pacific Islander, and mixed race.

adding the average mean scores for all 13 characteristics, the placement of single-section units in a neighborhood was perceived more negatively ( $M = 23.61$ ,  $SD = 5.43$ ,  $N = 231$ ) than the placement of double-section units

( $M = 26.10$ ,  $SD = 5.43$ ,  $N = 230$ ). Higher means were associated with less negative impacts.

Table 30 shows the variables that comprised the perceived impacts scale used in this study. The mean scores for each variable indicate the

direction of agreement or disagreement with the statements about potential impacts on the neighborhood. On average, respondents disagreed with the idea that the placement of manufactured housing in their neighborhoods would provide higher neighborhood satisfaction, create a better social image, increase the quality of the neighborhood, create a stronger neighborhood character, and make the neighborhood more attractive. Respondents also indicated on average that they disagreed to strongly disagreed with the suggestion that their property values would increase if manufactured homes were placed in their neighborhoods.

Finally, on average, respondents remained neutral with regard to the potential impact of manufactured housing in terms of several characteristics. These were: increased traffic and noise levels, safer environment, low property taxes, attraction of undesirables, neighbors moving out and selling their houses, and manufactured home units fitting the social and physical character of the neighborhood.

#### ***Respondents' Acceptance of Manufactured Homes in their Neighborhoods***

About 39% of the respondents neither opposed nor favored the location of manufactured housing in their neighborhoods. Likewise, 45% of the double-section survey respondents neither opposed nor favored the location of double-section manufactured homes in their neighborhoods, whereas, 38% of the single-section survey respondents strongly opposed the location of single-section manufactured homes in their neighborhoods (see Table 31). Consequently, there were important differences between the subsamples in terms of their acceptance levels. In fact, their means indicated that single-section survey respondents were more likely to mildly oppose the location of single-section units ( $M = 2.19, SD = 1.12, N = 272$ ) and double-section survey respondents were more likely to be neutral toward the location of double-section units ( $M = 2.68, SD = 1.19, N = 269$ ). Similarly, in the entire sample, females

( $M = 2.63, SD = 1.19, N = 207$ ) were more accepting of either type of manufactured homes while males ( $M = 2.32, SD = 1.17, N = 330$ ) were less accepting ( $t = -3.01, p = .003$ ).

#### ***Characteristics of Opponents to Manufactured Homes***

Opponents were defined as those respondents who indicated they would mildly or strongly oppose the placement of either single- or double-section manufactured homes in their neighborhoods ( $N = 252$ ). Most opponents were found to be White (94%), mostly mature in age (an average of 53 years of age), male (68%), high school or GED graduates with some vocational training, in full-time occupations (61%) or retired (27%), mostly married with no children, and with household incomes between \$30,000 and \$45,000 dollars.

Furthermore, most opponents were owners (90%) of less than \$150,000 houses, living close or very close to manufactured homes (70%), residing in relatively socially - and physically - homogeneous neighborhoods outside town limits or in the country. They lived in small-size communities of less than 10,000 people (82%), and had resided in their neighborhoods from 10 to 20 years. In fact, most opponents lived in single-family houses (96%) in neighborhoods composed mostly of single-family houses (84%) that had a low percentage of existing manufactured homes.

In addition, most opponents (79%) have never resided in a manufactured home but knew someone living in one (84%). Moreover, most opponents (85%) had visited a manufactured home within the last five years (72%); particularly within a year (45%) of responding to this survey. They indicated that the manufactured home visited was mostly in good condition and they also considered themselves to have average knowledge about manufactured housing.



**Table 29. Frequency Distribution of Sample Group by Perceived Neighborhood Characteristics**

Variable Name	Manufactured Home Sample Groups					
	Total		Rated Single-Section Homes		Rated Double-Section Homes	
	Number	Percent	Number	Percent	Number	Percent
<b>Neighborhood Composition</b>						
Houses	401	73.8	204	75.3	197	72.4
Apartments	8	1.5	5	1.8	3	1.1
Mobile homes	7	1.3	4	1.5	3	1.1
House/Manufactured homes	88	16.2	40	14.8	48	17.6
All housing types	39	7.2	18	6.6	21	7.7
Total	543	100.0	271	100.0	272	100.0
			X <sup>2</sup> =1.72	DF=4	N.S.	
<b>Neighborhood Location</b>						
Within town limits	99	18.1	47	17.2	52	18.9
Right outside town	126	23.0	67	24.5	59	21.5
Out in the country	323	58.9	159	58.2	164	59.6
Total	548	100.0	273	100.0	275	100.0
			X <sup>2</sup> =0.83	DF=2	N.S.	
<b>Community Size (people)</b>						
Less than 1,000	247	46.1	123	45.7	124	46.4
1,000 to 10,000	188	35.1	103	38.3	85	31.8
10,001 to 20,000	81	15.1	30	11.2	51	19.1
20,001 to 50,000	17	3.2	11	4.1	6	2.2
More than 50,000	3	.6	2	.7	1	.4
Total	536	100.0	269	100.0	267	100.0
			X <sup>2</sup> =8.99	DF=4	N.S.	
<b>Length of Residence</b>						
Less than 1 year	5	.9	2	.7	3	1.1
1 to 5 years	83	15.1	36	13.2	47	17.1
6 to 10 years	79	14.4	46	16.8	33	12.0
11 to 20 years	114	20.8	63	23.1	51	18.5
21 to 30 years	92	16.8	40	14.7	52	18.9
More than 30 years	175	31.9	86	31.5	89	32.4
Total	548	100.0	273	100.0	275	100.0
			X <sup>2</sup> =6.67	DF=5	N.S.	
<b>Physical Homogeneity</b>						
Strongly agree	42	7.8	26	9.7	16	6.0
Agree	284	53.0	145	53.9	139	52.1
Disagree	186	34.7	91	33.8	95	35.6
Strong disagree	24	4.5	7	2.6	17	6.4
Total	536	100.0	269	100.0	267	100.0
			X <sup>2</sup> =6.75	DF=3	N.S.	

(Table continues)

**Table 29 (continued). Frequency Distribution of Sample Group by Perceived Neighborhood Characteristics**

Variable Name	Manufactured Home Sample Group					
	Total		Rated Single-Section Homes		Rated Double-Section Homes	
	Number	Percent	Number	Percent	Number	Percent
<b>Social Homogeneity</b>						
Strongly agree	55	10.3	30	11.2	25	9.4
Agree	313	58.4	161	59.9	152	56.9
Disagree	143	26.7	66	24.5	77	28.8
Strongly disagree	25	4.7	12	4.5	13	4.9
Total	536	100.0	269	100.0	267	100.0
		$X^2=1.59$		DF=3		N.S.

**Table 30. Means Scores for Perceived Manufactured Housing Impacts in the Neighborhood**

Variable Name	Mean	SD	N	T-Value
Increase property values	3.11	.67	530	T= 3.91 P=.0001
Increase traffic	2.29	.68	531	T=- 4.60 P= .000
Increase neighborhood satisfaction	3.06	.69	517	T= 3.53 P=.0005
Move out and sell home	2.46	.77	524	T= - 4.27 P= .000
Create a better social image	3.09	.62	523	T= 3.01 P=.0027
Create more noise	2.30	.73	527	T= - 5.26 P= .000
Better neighborhood quality	3.10	.61	526	T= 3.60 P= .000
Stronger neighborhood character	3.00	.66	519	T= 2.53 P= .0118
Attract undesirable	2.90	.69	511	T= 3.05 P= .0004
Create a safer living environment	2.91	.67	510	T= 3.16 P= .0016
Lower property taxes	2.82	.70	511	N.S.
A more attractive neighborhood	3.00	.69	517	T= 6.14 P= .0001
Good social & physical fit	2.91	.77	528	T= 4.22 P= .000

Note. Measurement of variables ranged as follows: 1 = Strongly agree, 2 = Agree, 3 = Disagree, and 4 = Strongly disagree

### ***Respondents' Comments About Manufactured Housing***

Respondents were given an opportunity to make comments on the back page of the questionnaire, and over 30% took advantage of that opportunity. These comments are evidence of the sentiments held by people in rural areas of Virginia. Specifically, 83 respondents commented on single-section units and 85 respondents commented on double-section units. Many respondents supported manufactured homes for young or retired couples; others did not support manufactured homes at all. Comments were particularly negative when referring to single-section models and were more positive when discussing double-section models.

Many comments suggested that the general public in rural Virginia still has reservations regarding the soundness of the materials, structural design, and features of manufactured homes. This fact indicates that despite the technological advances of the manufactured home industry, an educational process is needed to inform the public about the advantages and improved features of the new product.

### **CONCLUSIONS**

Double-section units were more accepted than single-section units by the respondents. Based on these findings, it is not surprising that there was also a significant difference in levels of acceptance of manufactured homes between the subsamples. The conditions and appearance of newer double-section units in these areas suggested more positive perceptions from the respondents about the behavior of double-section manufactured home occupants.

Results also lead to the conclusion that the higher the percentage of manufactured homes in a county, the higher the probability that non-manufactured home residents would accept manufactured home units, particularly, single-

section units. This may be explained by the fact that the respondents indicated a high level of

familiarity with and proximity to single-section manufactured homes in "OK" condition. This idea is supported by Dear's (1991) conclusion about proximity to mental health facilities and its association with acceptance levels. The relative high presence of single-section units in an area appears to increase their acceptance because residents of the area would be more acquainted with the characteristics of the units and their occupants. Moreover, a high presence of manufactured homes may be an indicator of higher acceptance by local public officials and residents.

Consequently, manufactured home producers and dealers could educate the general public about the various types of households that may reside in these units. To broaden acceptability, producers could also offer and market manufactured home models that appeal to middle- and upper-middle class families. At a minimum, manufacturers will need to deal with two problems simultaneously. That is, they need to continue to improve the appearance of their products and also work to alleviate the prejudice against manufactured home consumers.

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**Table 31. Frequency distribution of Sample Group by Acceptance Levels**

Variable Name	Manufactured Home Sample Group					
	Total		Rated Single-Section Homes		Rated Double-Section Homes	
	Number	Percent	Number	Percent	Number	Percent
<b>Acceptance</b>						
Strongly oppose	164	30.3	103	37.9	61	22.7
Mildly oppose	88	16.3	50	18.4	38	14.1
Neither oppose nor favor	213	39.4	93	34.2	120	44.6
Mildly favor	40	7.4	15	5.5	2	9.3
Strongly favor	36	6.7	11	4.0	2	9.3
Total	541	100.0	272	100.0	269	100.0
			X <sup>2</sup> =23.74	DF=4	P = .000	

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## V. COMPARISON OF RESIDENT AND NON-RESIDENT PERCEPTIONS OF MANUFACTURED HOUSING

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### INTRODUCTION

The varied perceptions that people have of manufactured housing depend upon personal experience and observations of community, reflect their knowledge and opinions, and influence their acceptance of manufactured housing. Acceptance of manufactured housing occurs among two groups: the consumer who purchases the home and the community residents who can oppose the placement of manufactured housing in their neighborhood.

Few studies have examined both resident and non-resident perceptions of manufactured housing. The previous chapters of this report have summarized literature related to the perceptions of these groups separately. The focus group study conducted in Georgia (Focus Group Study, 1994) did include both residents of manufactured housing and residents of site-built housing. Both groups had been confused about the term "manufactured housing," and many were not sure of the types of foundations that were available for this housing type. Residents of manufactured housing were more familiar with newer and larger manufactured houses, while non-residents were most familiar with older single-section homes. Both groups perceived that the main advantage of manufactured housing was its affordability. They did not perceive that manufactured housing was of high quality, and they were concerned about the safety of the homes.

In a survey of manufactured home buyers and non-buyers in Kentucky, Hayes (1996) found that quality and proper set up were the most important factors in their purchase decisions. The buyers were more frequently seeking a single-section home, while the non-buyers were most often shopping for a double-section home. Sixty-four percent of buyers and 52% of non-

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buyers would recommend buying a manufactured home.

The previous chapters in this report presented information about who the residents of manufactured housing are and what their housing is like. Their perceptions of other residents of single-section and double-section homes were also presented. Perceptions of manufactured housing by people not residing in them, but living in the same counties as the manufactured housing residents, were reported separately. This chapter will compare the perceptions of those residing in manufactured housing (residents) and those not residing in manufactured housing (non-residents).

### PROCEDURES

The two questionnaires for the opinion surveys about manufactured homes included several items that were identical so that comparisons could be made between the perceptions of those living in manufactured housing (residents) and those not living in manufactured housing (non-residents). The residents were asked perceptions about both single-section and double-section homes, not just the type of home in which they currently resided. The methodologies for conducting the surveys in the eight selected counties are presented in Chapters III. and IV. The data from the comparable questions were combined into two data sets, one for single-section and one for double-section. Chi square and t-test analysis were conducted to report the comparisons.

The manufactured home residents' perceptions of single-section homes (n=228) were compared with the single-section non-resident subsamples' perceptions (n=274). The manufactured home residents' perceptions of double-section homes

**Table 32. Comparison of Perception of Manufactured Housing Foundation Type for MH Residents and Non-residents**

Manufactured Housing Type	Foundation Type	Total		Residents		Non-residents	
		Number	Percent	Number	Percent	Number	Percent
Single-section	Provisional	29	6.1	13	5.9	16	6.3
	Blocks/skirted	337	70.7	166	74.8	171	67.1
	Permanent	64	13.4	28	12.6	36	14.1
	Do not know	47	9.8	15	6.8	32	12.5
	Total	447	100	222	100	255	100
		$\chi^2=5.28$		DF=3		N.S.	
Double-section	Provisional	8	1.7	1	0.5	7	2.8
	Blocks/skirted	169	35.9	67	30.6	102	40.5
	Permanent	226	48	133	60.7	93	36.9
	Do not know	68	14.4	18	8.2	50	19.8
	Total	471	100	219	100	252	100
		$\chi^2=31.73$		DF=3		P=.000	

(n=220) were compared with double-section non-resident subsamples's perceptions (n=278).

### FINDINGS

#### *Perceptions of Manufactured Housing Foundation Type*

Residents and non-residents both perceived that single-section manufactured homes were primarily on blocks and skirted (75% and 67% respectively) (Table 32). Most of the resident group perceived that most double-section homes were on a permanent foundation (61%), while only 37% of the non-residents perceived that they were on a permanent foundation. Slightly more of the non-residents (40%) thought that they were blocked and skirted, and a sizable proportion (20%) did not know what type of foundation double-section homes had.

#### **Appearance and Condition**

More residents perceived that both single-section and double – section homes had good

appearance and condition (48% and 63%, respectively), than did non-residents who reported a neutral rating for this question (55% and 41%, respectively) (Table 33). A large proportion of non-residents did report that the double-section homes had a good appearance (41%), but this was not nearly as strong as the residents' perception that these homes had a good or very good appearance (86% total).

#### **Location**

More non-residents than residents perceived that single-section homes were located in mobile home parks (67% vs. 55%) (Table 34). A significant proportion of residents thought that single-section homes were located in residential neighborhoods (34%). Residents also perceived that double-section homes were primarily located in residential neighborhoods (76%). While more non-residents thought that double-section homes were located in this type of neighborhood (41%), significant proportions also thought that they were located on farmland (29%) and in mobile home parks (22%).

**Table 33. Comparison of Perception of Manufactured Housing Appearance and Condition for MH**

<b>Residents and Non-residents</b>							
Manufactured Housing Type	Appearance and Condition	Total		Residents		Non-residents	
		Number	Percent	Number	Percent	Number	Percent
Single-section	Very bad	7	1.4	0	0	7	2.6
	Bad	60	12.1	19	8.4	41	15
	Neutral	241	48.4	91	40.4	150	54.9
	Good	172	34.5	107	47.6	65	23.8
	Very good	18	3.6	8	3.6	10	3.7
	Total	498	100	225	100	273	100
		$X^2=35.69$		DF=4	P=.000		
Double-section	Very bad	7	1.4	0	0	7	2.6
	Bad	21	4.3	0	0	21	7.8
	Neutral	141	28.5	31	13.8	110	40.7
	Good	251	50.8	140	62.5	111	41.1
	Very good	74	15	53	23.7	21	7.8
	Total	494	100	224	100	270	100
		$X^2=85.91$		DF=4	P=.000		

**Table 34. Comparison of Perception of Manufactured Housing Location for MH Residents and Non-residents**

Manufactured Housing Type	Manufactured Housing Location	Total		Residents		Non-residents	
		Number	Percent	Number	Percent	Number	Percent
Single-section	Mobile home parks	297	61.6	119	54.6	178	67.4
	MH Subdivisions	18	3.7	4	1.8	14	5.3
	Res. Neighborhoods	118	24.5	73	33.5	45	17.1
	Farmland	49	10.2	22	10.1	27	10.2
	Total	482	100	218	100	264	100
		$X^2=20.23$		DF=3	P=.000		
Double-section	Mobile home parks	62	12.9	4	1.9	58	21.8
	MH Subdivisions	28	5.8	7	3.3	21	7.9
	Res. Neighborhoods	272	56.7	162	75.7	110	41.4
	Farmland	118	24.6	41	19.1	77	28.9
	Total	480	100	214	100	266	100
		$X^2=70.15$		DF=3	P=.000		

**Age of Structure**

Although both residents and non-residents perceived that single-section homes were about 10 years old (56% and 54% respectively), significantly more residents than non-residents perceived that single-section homes were new or 5 years old (17% and 23% respectively) (Table 35). More residents than non-residents perceived that double-section homes were new or five years old (55% vs. 40%); however, more non-residents indicated that they did not know or have an opinion (24% vs. 14%).

**Perceived Characteristics Of Manufactured Home Occupants**

**Occupants' Origin**

Significantly more residents than non-residents perceived that occupants of both single-section homes and double-section homes were local people (87% vs. 70% and 82% vs. 68%)(Table36). Non-residents more frequently reported that the occupants of both house types were outsiders or that they did not know.

**Social Behavior**

Residents were more likely to indicate that the social behavior of single-section and double-section occupants was good (51% and 58% respectively), while non-residents were more likely to indicate a neutral response (60% for single-section and 46% for double-section) (Table 37). A large portion of non-residents indicated that the social behavior of double-section occupants was good (38%).

**Tenure Status**

Residents were fairly evenly split in their perception of the tenure status of single-section homes' occupants: 43% thought they owned the home and the land and 42% thought they owned the home and rented the land (Table 38). While a large portion of non-residents perceived that occupants owned the home and rented the land (48%), about one fourth perceived that they owned the home and the land (25%), and one fourth perceived that they rented the home and the land (27%).

**Table 35. Comparison of Perception of Manufactured Housing Age of Structure for MH Residents and Non-residents**

Manufactured Housing Type	Age of Structure	Total		Residents		Non-residents	
		Number	Percent	Number	Percent	Number	Percent
Single-section	Older than 20 years	61	12.4	24	10.8	37	13.7
	About 10 years old	272	55.2	125	56.3	147	54.2
	New or 5 years old	61	12.4	36	16.2	25	9.2
	Do not know	99	20	37	16.7	62	22.9
	Total	493	100	222	100	271	100
		$\chi^2=8.06$		DF=3		P=.045	
Double-section	Older than 20 years	16	3.2	2	0.9	14	5.1
	About 10 years old	150	30.4	66	30	84	30.7
	New or 5 years old	231	46.8	121	55	110	40.1
	Do not know	97	19.6	31	14.1	66	24.1
	Total	494	100	220	100	274	100
		$\chi^2=18.63$		DF=3		P=.000	



**Table 36. Comparison of Perception of Manufactured Housing Occupants' Origin for MH Residents and Non-residents**

Manufactured Housing Type	Occupants' Origin	Total		Residents		Non-Residents	
		Number	Percent	Number	Percent	Number	Percent
Single-section	Local people	385	77.6	196	87.1	189	69.7
	Outsiders	38	7.7	7	3.1	31	11.5
	Do not know	73	14.7	22	9.8	51	18.8
	Total	496	100	225	100	271	100
			$X^2=22.74$		DF=2	P=.000	
Double-section	Local people	369	74.4	182	82.4	187	68
	Outsiders	45	9.1	17	7.7	28	10.2
	Do not know	82	16.5	22	9.9	60	21.8
	Total	496	100	221	100	275	100
			$X^2=14.66$		DF=2	P=.001	

**Table 37. Comparison of Perception of Manufactured Housing Social Behavior for MH Residents and Non-residents**

Manufactured Housing Type	Social Behavior	Total		Residents		Non-residents	
		Number	Percent	Number	Percent	Number	Percent
Single-section	Very bad	13	2.7	3	1.4	10	3.8
	Bad	48	9.9	16	7.3	32	11.9
	Neutral	230	47.4	70	32.1	160	59.9
	Good	166	34.2	111	50.9	55	20.6
	Very good	28	5.8	18	8.3	10	3.8
	Total	485	100	218	100	267	100
		$X^2=61.17$		DF=4	P=.000		
Double-section	Very bad	5	1	1	0.5	4	1.5
	Bad	28	5.8	2	0.9	26	9.7
	Neutral	168	34.7	45	20.8	123	45.9
	Good	227	46.9	125	57.9	102	38.1
	Very good	56	11.6	43	19.9	13	4.8
	Total	484	100	216	100	268	100
		$X^2=72.24$		DF=4	P=.000		

The vast majority of residents perceived that double-section home occupants owned the home and the land (94%). While most non-residents also thought this was true (74%), several also thought they rent both the house and the land (12%), or own the home and rent the land (13%).

**Socio-economic Status**

Most residents and non-residents perceived that single-section occupants were low-income (62% and 74% respectively) (Table 39). However, significantly more residents perceived that single-section residents were middle class (33% vs. 19%). The vast majority of residents also perceived that double-section occupants were middle class (84%), while only about half of the non-residents thought that they were in this socio-economic group (49%). Almost as many non-residents perceived that double-section residents were low - income (46%).

**Education Level**

Residents and non-residents were in agreement in their perceptions that single-section occupants had high school degrees (51% and 52% respectively) or some high school (30% and 38% respectively) (Table 40). The majority of residents and non-residents perceived that double-section occupants had high school degrees (51% and 58% respectively). However, significantly more residents than non - residents perceived that double-section occupants had some college education (25% and 12% respectively).

**Employment Status**

Both residents and non-residents perceived that occupants of single-section and double-section homes were employed full-time (Table 41). The two samples were in agreement about the employment status of single-section

**Table 38. Comparison of Perception of Manufactured Housing Tenure Status for MH Residents and Non-residents**

Manufactured Housing Type	Tenure Status	Total		Residents		Non-residents	
		Number	Percent	Number	Percent	Number	Percent
Single-section	Own home and land	160	33.2	93	43	67	25.2
	Rent home and land	104	21.6	33	15.3	71	26.7
	Own home / rent land	218	45.2	90	41.7	128	48.1
	Total	482	100	216	100	266	100
		$X^2=19.76$		DF=2		P=.000	
Double-section	Own home and land	389	83.1	200	93.5	189	74.4
	Rent home and land	37	7.9	6	2.8	31	12.2
	Own home / rent land	42	9	8	3.7	34	13.4
	Total	468	100	214	100	254	100
		$X^2=30.10$		DF=2		P=.000	

**Table 39. Comparison of Perception of Manufactured Housing Socio-economic Status for MH Residents and Non-residents**

Manufactured Housing Type	Socio-economic Status	Total		Residents		Non-residents	
		Number	Percent	Number	Percent	Number	Percent
Single-section	Rich/middle class	122	25.4	71	33.2	51	19.1
	Low income	330	68.6	133	62.1	197	73.8
	Poor	29	6	10	4.7	19	7.1
	Total	481	100	214	100	267	100
				$X^2=12.80$	DF=2	P=.002	
Double-section	Rich middle class	312	64.7	182	83.9	130	49.1
	Low income	158	32.8	35	16.1	123	46.4
	Poor	12	2.5	0	0	12	4.5
	Total	482	100	217	100	265	100
				$X^2=65.55$	DF=2	P=.000	

occupants, but more residents than non-residents perceived that double-section occupants were retired (9% vs. 2%).

**Racial Composition**

Residents and non-residents were in agreement in their perception that both single-section and double-section homes were occupied primarily by whites (79% and 78%) (Table 42). They both perceived that a small portion of these occupants would be black (10% and 9%) or other (11% and 13%).

***Impacts of Manufactured Housing on Neighborhood***

Residents and non-residents were asked a series of questions about the impact of placing manufactured housing in a neighborhood. The questions did not discriminate between single-section and double-section homes, but asked about manufactured housing in general. Non-residents were consistently and significantly more negative about the impact than were residents (Table 43). Non-residents disagreed

that placing a manufactured home in the neighborhood would increase property values (mean = 3.11), improve neighborhood quality (mean = 3.10), create a better social image (mean=3.09), increase neighborhood satisfaction (mean = 3.06), make the neighborhood more attractive (mean = 3.00), and develop a stronger neighborhood character (mean = 3.00). Residents tended to be more neutral on these and other items in the series. They both disagreed that the placement of manufactured homes in a neighborhood would lower property taxes (resident mean = 2.90 and non-resident mean = 2.82).

**CONCLUSIONS**

Residents with more exposure and experience with manufactured housing were more positive in their perceptions about appearance, conditions, and ages of units. They were also more likely to perceive that both single- and double-section homes were located in residential areas, although the majority of both groups perceived that single-section manufactured homes were located

**Table 40. Comparison of Perception of Manufactured Housing Education Level for MH Residents and Non-residents**

Manufactured Housing Type	Education Level	Total		Residents		Non-residents	
		Number	Percent	Number	Percent	Number	Percent
Single-section	None/grade school	4	3.1	8	4	6	2.4
	Some high school	156	34.4	61	30.4	95	37.7
	High school / GED	234	51.7	103	51.2	131	52
	Some college	39	8.6	23	11.4	16	6.3
	Vocational / 2-year college / graduate degree	10	2.2	6	3	4	1.6
	Total	453	100	201	100	252	100
		$\chi^2=7.05$		DF=4		N.S.	
Double-section	None/grade school	16	3.5	4	2	12	4.8
	Some high school	78	17.3	28	14	50	20
	High school / GED	246	54.7	102	51	144	57.6
	Some college	79	17.6	49	24.5	30	12
	Vocational / 2-year college / graduate degree	31	6.9	17	8.5	14	5.6
	Total	450	100	200	100	250	100
		$\chi^2=16.89$		DF=4		P=.002	

In mobile home parks. Residents were generally more positive about the people who lived in manufactured housing, indicating more frequently that they were local, had good social behavior, owned their home and their land, and were more likely middle class with high school degrees. Non-residents responded to questions about the impact of placing manufactured housing in their community in a more negative manner than residents did. The study by Gruber, Shelton, and Hiatt (1988) indicates that the placement of a manufactured home may not have a negative impact on property values. Because these questions did not distinguish between single-section and double-section homes on the

basis of impact on the neighborhood, these results should be viewed with caution. The results of the comparison are predictable. However, they suggest that non-residents may not be adequately informed about double-section homes in particular. Perceptions of foundation and condition and appearance of double-section units were not favorable and did not seem to be based on adequate observation or experience. Since many double-section homes are similar to modular housing in appearance, perhaps community residents are not truly aware of the double-section homes that are placed in their community, especially if the foundation and siting are done well. It is ironic the homes

**Table 41. Comparison of Perception of Manufactured Housing Employment Status for MH Residents and Non-residents**

Manufactured Housing Type	Employment Status	Total		Residents		Non-residents	
		Number	Percent	Number	Percent	Number	Percent
Single-section	Full-time	374	79.2	169	79.3	205	79.1
	Part-time	60	12.7	22	10.3	38	14.7
	Retired	15	3.2	8	3.8	7	2.7
	Homemaker	10	2.1	8	3.8	2	0.8
	Unemployed / Students	13	2.8	6	2.8	7	2.7
	Total	472	100	213	100	259	100
		$X^2=7.06$		DF=4		N.S.	
Double-section	Full-time	406	86.2	181	86.2	225	86.2
	Part-time	24	5.1	5	2.4	19	7.3
	Retired	23	4.9	18	8.5	5	1.9
	Homemaker	12	2.5	5	2.4	7	2.7
	Unemployed / Students	6	1.3	1	0.5	5	1.9
	Total	471	100	210	100	261	100
		$X^2=17.97$		DF=4		P=.001	

**Table 42. Comparison of Perception of Manufactured Housing Racial Composition for MH Residents and Non-residents**

Manufactured Housing Type	Racial Composition	Total		Residents		Non-residents	
		Number	Percent	Number	Percent	Number	Percent
Single-section	Blacks	48	10.1	24	11.1	24	9.3
	Whites	374	78.7	162	74.6	212	82.2
	Others	53	11.2	31	14.3	22	8.5
	Total	475	100	217	100	258	100
		$X^2=4.71$		DF=2		N.S.	
Double-section	Blacks	41	8.7	17	7.9	24	9.3
	Whites	369	78.3	174	81.3	195	75.9
	Others	61	13	23	10.8	38	14.8
	Total	471	100	214	100	257	100
		$X^2=2.17$		DF=2		N.S.	

**Table 43. Comparison of Perception of Manufactured Housing Impacts for MH Residents and Non-residents**

Manufactured Housing Impacts	Residents			Non-residents			T Value
	Mean	SD	N	Mean	SD	N	
Increase property value	2.72	0.64	220	3.11	0.67	530	T=-7.37 P=.0000
Increase traffic	2.4	0.69	219	2.29	0.68	531	T=1.96 P=.0000
Increase neighborhood satisfaction	2.53	0.67	218	3.06	0.69	517	T=-9.50 P=.0000
Move out and sell home	2.77	0.78	222	2.46	0.77	524	T=5.17 P=.0000
Create better social image	2.65	0.63	216	3.09	0.62	523	T=-8.65 P=.0000
Create more noise	2.6	0.77	222	2.3	0.73	527	T=5.10 P=.0000
Better neighborhood quality	2.67	0.6	212	3.1	0.61	526	T=-8.69 P=.0000
Stronger neighborhood character	2.6	0.57	213	3	0.66	519	T=-7.70 P=.0000
Attract desirables	2.57	0.62	212	2.9	0.69	511	T=-6.17 P=.0000
Create safer environment	2.46	0.65	217	2.91	0.67	510	T=-8.29 P=.0000
Lower property tax	2.9	0.67	218	2.82	0.7	511	N.S.
More attractive neighborhood	2.54	0.64	215	3	0.69	517	T=-8.42 P=.0000
Good social and physical fit	2.24	0.61	220	2.91	0.77	528	T=11.46 P=.0000
Social homogeneity	1.36	0.48	220	3.01	2	552	T=12.09 P=.0000
Physical homogeneity	2.17	0.69	226	2.26	0.7	536	N.S.

Note. Measurement of variables ranged as follows: 1 = Strongly agree, 2 = Agree, 3 = Disagree and 4 = Strongly disagree. N.S. = Not significant.

that could improve the image of manufactured housing may blend into the community so well that their positive influence on perception is ineffective because people do not recognize them for what they are.

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## **VI. CHALLENGES FOR THE FUTURE OF MANUFACTURED HOUSING: CHANGES FOR INDUSTRY AND POLICY**

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### **SUMMARY**

Manufactured homes are highly affordable alternatives to both site-built single-family houses and to apartments. Because of zoning restrictions and land costs, mobile homes are mostly restricted to the rural areas of the state. Reflective of their affordability, the bulk of the demand for manufactured housing comes from low- to moderate-income families who are otherwise a close cross-section of households in Virginia in terms of age, household size, family type, and mobility (length of occupancy in the same residence).

Zoning regulations have been the greatest constraint to manufactured housing's ability to accommodate affordable housing needs in many communities. The study of zoning restrictions in Virginia reported in this document found that, at the time the survey was conducted, some communities still prohibited manufactured homes in agricultural districts even though state legislation had mandated that double-section manufactured homes must be permitted in these districts.

Permitting was used as a way to increase the inclusion of manufactured homes in residential neighborhoods. Although manufactured home advocates would argue that stipulations often required to obtain a permit such as permanent foundations, size, and specific roof pitches are cost prohibitive, others would argue that it is a compromise that would increase availability.

Many local community officials and residents have viewed manufactured homes and the people who reside in them as homogeneous, but different from other types of housing and households. A consistent finding throughout the research reported here is that single-section and

*Julia O. Beamish, Rosemary C. Goss, C. Theodore Koebel* double-section manufactured homes are viewed differently by both those residing in manufactured homes (residents) and by those not living in manufactured homes (non-residents).

When attitudes of non-residents about manufactured housing were assessed, double-section units were more accepted than single-section ones. Additionally, this research found that residents of manufactured housing were generally more positive about the people who live in manufactured housing, indicating more frequently that they were local, had good social behavior, owned their home and their land, and were more likely middle class with high school degrees.

Non-residents responded to questions about the impact of placing manufactured housing in their community in a more negative manner than residents did. For this research question, single-section and double-section homes were not separated. Since many double-section homes are similar to modular housing in appearance, perhaps community residents are not truly aware of the double-section homes that are placed in their community, especially if the foundation and siting are done well. It is ironic that the homes that could improve the image of manufactured housing may blend into the community so well that their positive influence on perception is ineffective because people do not recognize these units as manufactured.

Comparing residents of single-section homes and residents of double-section homes, the research findings showed respondents in double-section homes reported greater satisfaction with their housing than did residents of single-section manufactured homes. Respondents from double-section manufactured homes were



better satisfied with storage, widths of hallways and doors, size, layout and design, appearance, and safety .

### **CHALLENGES FOR CONSUMERS AND COMMUNITIES**

The research that has been conducted in Virginia points to several problems that exist in the use of manufactured housing as a solution to affordable housing concerns. One of the major issues that causes confusion among the public, the industry, and policy makers is terminology. While the industry prefers their product to be called manufactured housing, consumers still refer to the units as mobile homes and trailers. Other types of factory-built housing - such as modular, panelized, or prefabricated components - are considered by many lay people and professionals to be manufactured housing. This confusion may lead consumers to be distrustful and confused by the industry and communities that treat manufactured housing (mobile homes) differently from other types of factory-built housing. The utilization of the HUD code certainly distinguishes the manufactured home from other types of housing, but it may also be creating a barrier to acceptance of this type of housing.

The residents of manufactured housing in the studies conducted in Virginia were younger and had less education than the non-residents in the studies. Often these are newly formed families who are not very experienced with financial decisions. Educational information and programming needs to be available to consumers who may be choosing to buy a manufactured home. General information on housing finance, insurance, energy conservation, and housing selection could encourage choices that are beneficial to these consumers. Further information should be provided relevant to the long term value and costs associated with manufactured housing. Spending more at the outset may reduce some of the life-cycle costs in energy consumption, as well as maintain or enhance the value of the house. Consumers should understand the use of equity in their home

and how that can be used in creating wealth and long-term security.

Manufactured housing is one of the most affordable options for low-income households. The low cost of the housing appears to be helpful for low-income consumers. However, its acceptance in that market division stereotypes the housing as a place where low-income people live. When communities restrict the placement and acceptance of manufactured housing, are they concerned about placing the housing only in certain areas, or are they concerned about placing low-income people only in certain areas? Design requirements can enhance the acceptance of manufactured housing by having it look more house-like; however, these requirements often increase the cost of the unit and raise the income required to live in the housing. Thus, the lowest income households no longer have this option available to them. Communities may have made the mobile home more acceptable, but they might also have restricted their ability to house low-income families.

Another problem that should be addressed in the use of manufactured housing to provide affordable housing solutions is its longevity. All houses age, need repair and upkeep, go out of style, and reflect neighborhood changes. Since manufactured housing is a product of the late 20<sup>th</sup> century, it is only recently that families and communities are facing the renovation or disposal of old units. Plans to remodel, renovate, or refurbish manufactured housing are not readily available to consumers. Contractors and homeowners are probably not knowledgeable about how rooms might be added, or about how wiring, plumbing, and structural components could be changed.

For many consumers, the manufactured house is a solution to a shelter need. It provides housing and is used or consumed while the household resides there. More of these consumers are not paying rent but are paying for something they will eventually own (although they may be renting a park space). However,

manufactured housing typically does not appreciate in value at the rate that conventionally built housing does, if at all. While owners of conventional housing are investing in their housing and view it as an asset, owners of manufactured housing are more likely to view their housing for its immediate use. This fact may help explain the low initial costs of the units and it may also explain the problems associated with repair and renovations to older units. Owners may choose not to make repairs or renovations, because they do not anticipate selling for a profit large enough to justify the costs of these activities.

Old manufactured housing units can be eyesores for communities and fuel the negative impression that the public may have of manufactured housing. If the owner decides to replace the older unit with a new unit rather than repair and renovate, how and where will the older units be disposed? Many units that were put into service during the 1960s and 1970s soon will be 30-40 years old. This is an age when most homes need attention, but many manufactured homes may need to be removed or substantially upgraded. What will communities do with discarded units?

#### **INDUSTRY ISSUES**

The manufactured housing industry has an opportunity to capture a significant portion of the low-income housing market. However, the industry faces some stiff obstacles including design and construction issues, as well as public relations with consumers, community officials, and non-profit housing groups.

One major issue that must be addressed by manufacturers is that of layout and design. Anything manufacturers can do to make manufactured housing more "house-like" will improve its acceptability with consumers and community residents. Exterior appearance can be improved by higher roof pitches, more use of "wood-like" siding, shutters, entryways, and larger windows. Interior finishes such as replacing paneling with drywall and better selection of finishing materials that do not appear

"cheap" would improve acceptability. Manufacturers should take every opportunity available to increase storage such as double rods in closets, storage above washers and dryers, and in any unused corners.

Non-profit housing corporations that provide low-income housing frequently have a very negative attitude toward manufactured housing. This is a specific example of the need for education, and is an opportunity for the industry to inform the non-profits about the advantages of manufactured housing. Questions the industry must address with this audience, in addition to design and appearance, are energy efficiency, maintenance and upkeep, and safety. This education process must be on-going as manufactured housing continues to improve.

A major challenge to the acceptance of manufactured housing is the view by both residents and non-residents of manufactured home parks. Too many parks are poorly managed and present an unkempt appearance. Residents who reside there are often viewed as "trailer trash." Local communities must set standards for density, appearance, and level of maintenance that help to make these parks more desirable places to live. Too often, the poor management of these manufactured home communities, like that of some apartment communities, leads to the reputation of a place to live for the underclass.

#### **PUBLIC POLICY RESPONSES**

Public policies affecting mobile homes fall into four general categories: building codes, zoning and subdivision controls, taxation, and preservation/upgrading. In addition, mobile homes can be instrumental in public policies promoting affordable housing and homeownership.

The regulation of mobile homes under a national building code establishes a nationwide standard that can be monitored and improved more easily than a variety of local codes. The national code benefits both industry and consumer. Industry can achieve economies of

scale; production can be located to maximize efficiency; new technology is introduced with industry-wide standards; and regulatory costs are constant. The consumer can rely on national quality controls and on national research and expertise in the approval of new technologies. The system is by no means perfect, but a pastiche of local controls would likely be more costly and result in a product with more variable and less certain quality. Regional variations, for example in seismic and wind hazard exposure, can be accommodated in a national building code while maintaining the efficiency and expertise advantages of a national code. Additionally, as building and product technologies have become more complex, state and local building codes regulating the rest of residential construction have moved in the direction of following a single national code. If this code encompassed manufactured housing it would better serve manufactured housing consumers who would be assured that their housing was of equal minimal quality to conventionally built housing.

As the industry develops new technologies and construction practices, the national HUD code will have to adjust accordingly. Code changes facilitating design flexibility and product diversification will directly benefit the industry and the consumer. Changes promoting product diversification (moving away from the single-section box as the basic building unit) will promote broader acceptance of manufactured housing by communities. The industry has already developed techniques to allow greater roof pitch and to reduce the trans-axle space, allowing two-story construction and a "site-built" appearance. The national HUD code should help promote such innovation.

Local regulations of mobile homes fall primarily into zoning and subdivision controls. These controls typically exclude mobile homes from communities, particularly urban communities, or limit their use to approved mobile-home subdivisions (parks). The exclusionary effect of mobile-home zoning has pushed some state legislatures, including the Virginia General Assembly, to require approval

of mobile homes as a right in certain zoning classifications (e.g., agricultural districts in Virginia). Reforms specifying performance or design standards (roof pitch, anchorage, minimum size), rather than product type, would allow the industry to use manufactured housing when it meets the performance requirements and would be supported by the consumer. Such changes would seriously erode the stereotyping of mobile homes and allow more production of affordable housing where land prices and market conditions permit.

Public policy on taxation of mobile homes often requires a foundation as evidence of permanent placement and classification as real rather than personal property. Different anchoring systems should also be considered sufficient to classify manufactured housing as real property. Ideally, rather than having to prove that manufactured housing is real estate, it should be treated as such unless proven otherwise.

Public policies to preserve or upgrade older manufactured housing reflect its real property nature. Rather than depreciating, discarding, and replacing mobile homes, officials and the public should recognize that manufactured housing is a much more permanent feature of our built environment. Depreciation may occur, depending on use and market characteristics, but it should not be accelerated by public policy. Increasingly, communities are realizing that the older stock of manufactured homes needs to be addressed with public policies to encourage preservation and upgrading. State governments can provide much needed leadership in the development of these policies and in using federal housing assistance to promote the maintenance of manufactured housing. Urban governments often see the loss of manufactured housing through conversion of mobile home parks to other uses as a loss in affordable housing. Land ownership strategies and incentives for upgrading individual units can become important elements of local housing policy. Local and state governments also need to address the removal and replacement of obsolete units.

Public policies that enhance the acceptance and maintenance of manufactured housing can contribute to increased homeownership among the working poor. State and federal agencies involved in housing finance should continually review their lending practices to make sure that purchasers of manufactured housing have adequate access to mortgage markets. Local governments and the nonprofit housing sector should look to approaches that make manufactured housing an accepted "affordable housing" product.

Manufactured housing poses many challenges to public policy at the local, state, and national levels. Exclusionary policies are shortsighted and potentially counterproductive. Policy makers should look toward integrating the manufactured product line into the mainstream of America's housing, rather than impeding the progress of the industry as it moves toward a more acceptable and highly affordable housing choice.