

COMMUNITY ATTITUDES TOWARD MANUFACTURED HOUSING IN VIRGINIA

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Abstract

This study surveyed the opinions and characteristics of 552 residents of eight rural counties in Virginia regarding acceptance of either single- or double-section manufactured homes. A theoretical model was adapted from M. J. Dear and S. M. Taylor's (1982) model for community attitudes toward mental-health-care facilities. Using multiple regression techniques, this study tested the hypothesis that there is a significant relationship between acceptance of manufactured homes and 13 variables representing respondents' perceptions of manufactured housing, respondents' characteristics, county characteristics, and type of manufactured home. Only six variables (perceived manufactured-home occupant behavior, proportion of manufactured homes in the county, perceived manufactured-home condition, manufactured home type, respondents' gender, and manufactured-home knowledge) emerged as significant predictors of manufactured home acceptance ($R^2 = .3541$). Results suggested respondents' socioeconomic and demographic characteristics were not important in predicting manufactured-home acceptance. Instead, acceptance mostly resulted from perceptions about occupants' behavior. In general, double-section models were more accepted than single-section models.

Introduction

Manufactured housing (commonly known as mobile homes) is defined in this study as any single-family factory-built residential structure that rests on a permanent chassis, is transported fully assembled to a provisional or permanent foundation on a rented or owned site, and bears a Housing and Urban Development (HUD) approval label for

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its construction. Manufactured homes are currently one popular low-cost housing alternative, and O'Hare and O'Hare (1993) argue that during times of economic stagnation more Americans will view factory-built housing as their only chance to attain homeownership. Mobile homes in the rural South became more readily available to families during the seventies. In fact, according to Weber, Beamish, and McCray (1989), from 1970 to 1980 the number of mobile home units increased by 137.98% in the southern region and by 112.03% in Virginia. Currently, six percent of Americans live in manufactured housing. The state of Virginia ranked 33rd in the nation in the number of households living in manufactured housing in 1990; manufactured homes represented 6.4% of all housing units in the state (O'Hare & O'Hare, 1993).

At present, many researchers agree that manufactured housing is a relatively low-cost alternative to conventional stick-built housing and can play a major role in providing affordable, safe, and adequate single-family housing to limited-income homebuyers and renters (Collin & Cowan, 1990; Goss, Parrott, & Engele-Eigles, 1992; Manufactured Housing Institute, 1985; O'Hare & O'Hare, 1993; White, 1992; U.S. Department of Housing and Urban Development [HUD], 1991; Virginia Department of Housing and Community Development, 1988). 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" or NIMBY syndrome.

Placing manufactured housing in most communities becomes a difficult task to perform partly due to the development of NIMBY attitudes, which translate into community opposition. Because some communities find ways to use local zoning laws to control the placement of manufactured homes (particularly single-section units), many limited-income homebuyers are excluded from residential developments and are further restricted to mobile home parks or subdivisions, or to isolated rural areas. Restrictive and exclusionary zoning, lack of sufficient financial mechanisms, and inadequate taxation laws and local building codes that do not address manufactured homes are examples of the type of barriers affecting manufactured housing throughout the years (HUD, 1991). Many years of regulatory changes, housing needs research, and redesign of manufactured housing units have created a new housing product that addresses many of the perception problems of the past. Despite these improvements, negative perceptions about manufactured housing continue to prevail.

A clear understanding of the reasons why people oppose manufactured homes is not readily available. Thus, this study sought to identify the most relevant factors affecting the opposition to or acceptance of manufactured housing.

Theoretical Framework

The conceptual framework for this study was partially based on the Fishbein-Ajzen (1975) Theory of Reasoned Action for understanding the formation of community attitudes. This theory explains a causal model where beliefs precede attitudes, attitudes

condition behavioral intentions, which may turn into actual behavior and result in outcomes. Thus NIMBY as an outcome may be the result of negative attitudes toward manufactured housing (Ajzen & Fishbein, 1980).

Dear and Taylor's (1982) theoretical model of community attitudes to mental health care facilities (Figure 1), adapted from Fishbein and Ajzen's (1975) model, added external variables (or factors giving rise to perceptions or beliefs). Dear and Taylor (1982) found the strongest relationship between beliefs or perceptions and attitudes to be coming from perceptions about the facility users (i.e., the mentally ill). The more negative their attitudes are, the higher the degree of commitment to individual action in opposition. This model was reduced and adapted to perceptions and attitudes toward manufactured homes and their occupants.

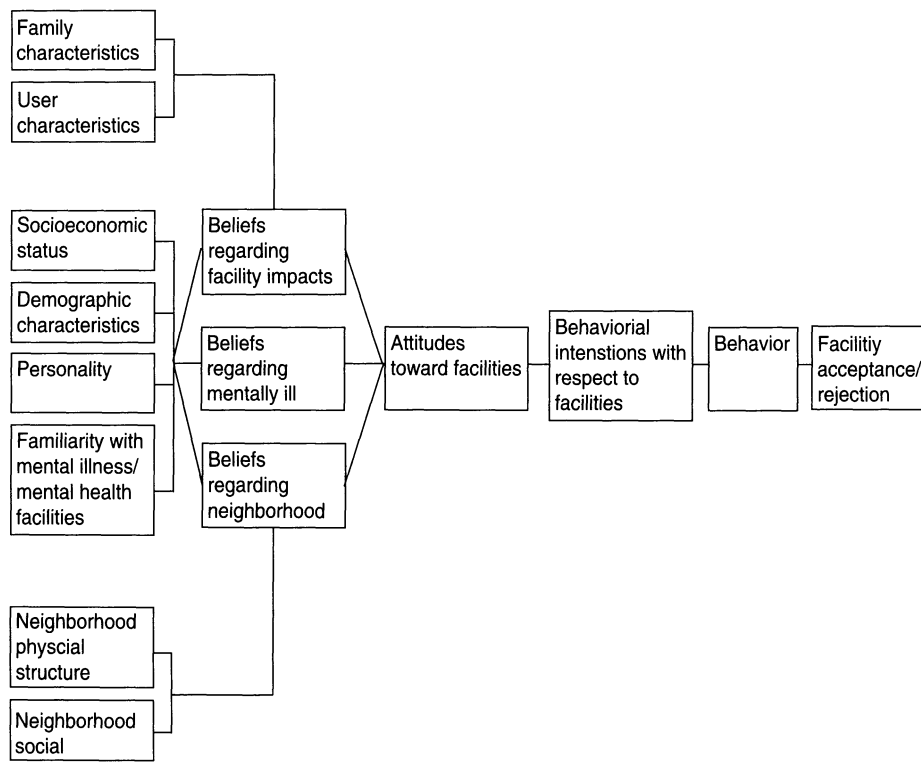


Figure 1. Dear and Taylor's (1982) Model for Community Attitudes to Mental Health Care Facilities.

The theoretical model developed for this study (Figure 2) incorporated the type of manufactured home (single- or double-section), the manufactured home-related characteristics of the area or county, the selected characteristics of conventional housing residents (i.e., demographics, innovativeness, socioeconomic status, and knowledge about manufactured homes), their perceptions about manufactured homes, about their occupants, and about the physical and social structure of their neighborhoods.

External Characteristics. In the proposed theoretical model, the county characteristics and the type of manufactured home give rise to individual salient perceptions regarding manufactured home characteristics, manufactured home occupants, and the neighborhood's social and physical characteristics or overall suitability for manufactured homes.

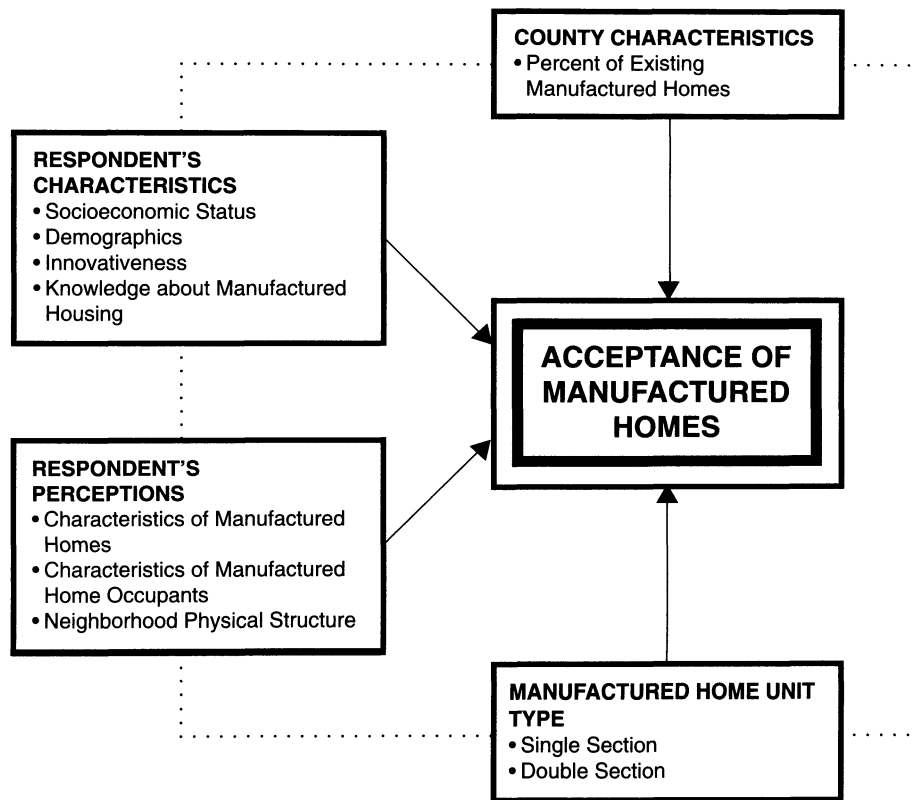


Figure 2. Theoretical Model: Acceptance of Manufactured Homes (MH).

Perceptions. Salient perceptions are expected to be close determinants of acceptance levels or attitude formation (Fishbein & Ajzen, 1975; Taylor & Dear, 1982). Figure 2 illustrates one set of salient perceptions from the neighborhood residents (i.e., respondents' perceptions) about manufactured home units and their occupants, and the respondents' levels of neighborhood homogeneity. This set is subdivided into perceptions regarding manufactured home characteristics, perceptions regarding manufactured home households, perceptions about neighborhood physical structure or characteristics, and perceptions about neighborhood social structure or characteristics.

Outcome: *Manufactured home acceptance.* Outcomes in the theoretical model (Figure 2) were based on perceptions held by neighborhood residents about an object (i.e., manufactured housing and its occupants) and not about undertaking a specific behavior. People in this model may develop negative or positive attitudes, which translate into levels of acceptance or rejection of manufactured homes. Attitudes represented the level of acceptance or rejection of manufactured homes and their occupants. The variables from the Dear and Taylor's (1982) model that were not included in the theoretical model were behavioral intentions, behavior, and outcome.

This study tested the hypothesis that there is a significant relationship between acceptance of manufactured homes and: perceived appearance and condition of manufactured homes, perceived social behavior of manufactured home occupants, perceived neighborhood physical homogeneity level, perceived neighborhood social homogeneity level, housing value, gender, age, household size and composition, race, innovativeness, knowledge about manufactured homes, county's percentage of existing manufactured homes, and manufactured home type.

Review of Literature

Little research is found related to NIMBY and community opposition to lower-income or affordable housing alternatives. Exceptions to this are the work completed by the Advisory Commission on Regulatory Barriers to Affordable Housing (HUD, 1991) and the work completed by the Housing Assistance Council (HAC) on overcoming NIMBY in rural communities (Stover, Cloud, Garner, Phillips, & Strauss, 1994). Other studies (Dear, 1991; Gruber, Shelton, & Hiatt, 1988; Hicks 1982; Nutt-Powell, Hoaglin, & Layzer, 1986; State of California Department of Housing & Community Development, 1990; Warner & Scheuer, 1993;) addressed research on declining property values due to proximity to low-income housing and "noxious" structures. Overall, studies dealing with NIMBY do not explore in depth the attitudes and opinions held by community residents about alternative forms of housing, in particular, manufactured housing.

Perceptions About Manufactured Housing and Its Occupants

Manufactured homes' predecessors were the travel trailer of the 1920s and the mobile home of the 1950s and 1960s. Since the 1920s, this type of transportable housing and its occupants have been subjected to opposition from various sectors of the American society (Brown & Sellman, 1987; Wallis, 1991).

During the 1930s and 1940s, the impoverishment resulting from the Great Depression era forced poor families into trailers for permanent housing (Brown & Sellman, 1987). Trailer camps thus acquired the image of “shantytowns on wheels” and the cycle of negative perceptions began to set in the minds of conventional housing residents. This was the beginning of negative perceptions about trailer residents, mainly due to their unfortunate condition of poverty.

The size of the travel trailer increased to a width of 10' in 1954 and thus gained its new terminology as a “mobile home” even though the general public still called it a trailer and perceived it as a structure inadequately designed for permanent housing (Wallis, 1991). Brown and Sellman (1987) argued that these homes were thought to attract undesirable transient people with unconventional lifestyles. Traditional homeowners anticipated the worst from these undesirable mobile homes (e.g., fire hazards, diminution of property values, and a burden for municipal services) and brought pressure on local governments to ban mobile homes from residential neighborhoods.

Social class prejudice based on stereotypes about the “kind of people” who reside in mobile homes and manufactured housing also contribute to the development of NIMBY, particularly when the perception of mobility of the manufactured home causes people to form attitudes towards the kind of people who reside in “transient” housing (Brown & Sellman, 1987).

O'Hare and O'Hare (1993) indicate that, in 1990, mobile home households, when compared to all housing residents, were more likely to be headed by a non-minority young adult and have occupants with less education and lower incomes than those of residents of conventional housing. Thus, in general, there are socioeconomic differences (i.e., income, education, and race) between these two groups.

In the 1980s, Congress officially recognized mobile homes that met the 1974 National Manufactured Home Construction and Safety Standard code (a preemptive code regulated by HUD) as “Manufactured Homes” or “HUD-Code Homes” (Brown & Sellman, 1987). Since then, manufactured homes have escalated in quality, design, consumer appeal, energy efficiency, and size. In addition, financing and recognition from federal mortgage agencies is readily available (Wallis, 1991). Despite all these improvements, the general public still considers manufactured housing as inferior housing that does not belong in conventional residential communities (HUD, 1991; Brown & Sellman, 1987). Evidence of the consequences of such community opposition to mobile homes can be found in exclusionary practices employed by various communities throughout the nation.

Perceived Neighborhood Physical and Social Characteristics

Goss, Parrott, and Engelen-Eigles (1992) found in their study of mobile homes in Appalachia that community residents were aware of prejudice against mobile homes. Much of this prejudice was due to a dislike of all forms of low-income housing, crowded and poorly maintained mobile home parks, and the “box on wheels” appearance of the units, among other arguments.

Fear of declining property values is argued to be the main force behind NIMBY (Fletcher, 1990). Opposition arguments often are reduced to three main concerns: property or housing values, personal safety, and neighborhood amenity (Dear, 1991; Stover et al., 1994).

County's Presence of Manufactured Housing

Insufficient exposure to “different” also makes people more apprehensive and prejudiced about unconventional “types” of people and residential facilities (Takahashi, 1992). Very homogeneous counties and neighborhoods where manufactured homes may not be highly represented will most likely oppose their placement. Conversely, counties with high proportions of and proximity to manufactured homes show a relatively easier environment for accepting them in their communities.

Research conducted in North Carolina also indicates that “proximity to manufactured housing is not associated with lower property values, at least with respect to selling price relative to appraised tax value of the property” (Gruber, Shelton, & Hiatt, 1988, p. 44). In other words, physical proximity to manufactured housing does not necessarily decrease the property tax value assigned by a local tax department, but it may have an effect on the expected resale value or asking price at the time of sale in the market. Likewise, Nutt-Powell, Hoaglin, and Layzer (1986) concluded in their study that mobile/manufactured housing did not affect the property values of abutting, conventionally site-built, single-family dwellings in Belmont, New Hampshire. In addition, Hicks (1982) concluded that manufactured housing developments do not depreciate the property values of conventional adjacent neighborhoods. Warner and Scheuer (1993) also obtained similar results with regard to rental manufactured home communities.

At present, most manufactured housing (particularly, single-section units) is restricted to parks or subdivisions. Most arguments against mixing manufactured housing with conventional housing are based on the concept of neighborhood suitability or “fit.” Thus, it is argued in this study that people’s opinions about manufactured housing siting include not only the unit’s physical structure or appearance and its residents, but also the social and physical structure of the neighborhood.

Characteristics of Conventional Housing Residents

A description of the typical opponent to manufactured housing was not found in the literature. However, based on the housing-related neighborhood norms described by Morris and Winter (1978) and the results from the Yankelovich Group (1989) study, one can infer that families with children, homeowners, and households with high incomes, high social status, and high-cost housing could be among those who would oppose manufactured homes. Moreover, O’Hare and O’Hare (1993) argued that many Americans are very concerned about “status” and that these socioeconomic status concerns limit the market for manufactured homes.

Research studies (Johnson & Beamish, 1993; Kwon, 1991;) suggest that acceptance of alternative forms of housing (e.g., manufactured homes) could be partially

explained by several demographic characteristics associated with a person's level of innovativeness toward housing. These studies identified the following characteristics: income, education, marital status, age, gender, housing type, tenure status, and race. In addition, results from the S-194 regional research project on "Barriers and Incentives to Affordable Housing" show that persons who were found to be highly innovative showed a higher acceptance level of housing other than site-built housing when compared to those with low scores (Day, Goss, Gruber, Hanna, Lentner, & McCray, 1991).

Methods

Data Collection

In order to test the theoretical model depicted here and accomplish the purpose of this study, the researchers limited the data collection to the Commonwealth of Virginia, specifically, eight non-metropolitan counties [non-MSA] that exemplified rural and suburban communities from the Urban Crescent, Southwest, Southside, and Central regions of Virginia. Each region included one county with a high proportion of manufactured homes and another with a low proportion of manufactured homes according to the 1990 Census of Population and Housing (Bureau of the Census, 1993a; Bureau of the Census, 1993b) were selected. This selection considered that the respondents' exposure to the physical presence of occupied and vacant mobile homes could have a significant impact on the development of opinions about this type of housing and its potential impact on the neighborhood.

A random proportionate sample of 2,000 conventional housing households listed in the white pages of the 1995 Virginia phone book for each selected county was surveyed. A listing of names and addresses was provided by Sampling Survey, Inc. A total mail list of 2,000 records was arbitrarily selected based on the expectation that only 85% of these records would correspond to the target population (non-mobile home residents) and that there would be a low-response rate of 25%-30% — half the usual expected response rate using Dillman's (1978) Total Design Method — to give a total workable sample of 425 to 510 respondents. Half the sample was asked to answer questions regarding single-section manufactured homes and the other half was asked to answer questions about double-section manufactured homes. Only those respondents who did not reside in a manufactured or mobile home were selected for analysis.

Unfortunately, a large number of records that were provided by the sampling agency did not include a full address. From the 1,413 deliverable questionnaires mailed, there were 64 unusable, 66 disqualified, 3 late arrivals, and 552 usable surveys, resulting in a total response rate of 48.5%.

Following Dillman's (1978) Total Design Method (TDM), parallel mailed questionnaires were developed and pre-tested for single- and double-section manufactured housing as a residential alternative in rural neighborhoods. These questionnaires included one picture that exemplified the type of manufactured home in question. The questions on the questionnaires were exactly the same except for their focus on either single-section or double-section homes.

The variables from the questionnaire that were used in the study are presented in Tables 1-3, which also indicate the coding that was used in regression analysis. Race, gender, and manufactured home type were dummy coded in this analysis: 1-white, 0-non-white; 1-female, 0-male, 1-double-section, 0-single-section. The variable Social Homogeneity reflects the statement, "The majority of the residents in my neighborhood are socially alike and have similar social characteristics." The variable Physical Homogeneity reflects the statement, "The majority of the houses in my neighborhood are similar in terms of physical appearance, size, and price range." Innovativeness was measured using 13 items that had been part of the Innovativeness Toward Housing Scale developed by Gruber, Beamish, Carter, Shelton and, Weber (1990) and adapted by Johnson and Beamish (1993).

Sample Description

The sample consisted of 552 individuals (1.3% of total household population in the eight counties) 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. The single-section subsample group included 274 subjects, while the double-section subsample group consisted of 278 subjects. In general, descriptive results suggested a high level of homogeneity between the single- and the double-section survey subsamples. Tables 1-3 explain the overall and subsample responses to the variables used in this study.

The sample was consistent with the overall characteristics of the population. Both the sample and general population had high proportions of white persons, median levels of education above high school, high homeownership rates, similar household composition, real estate values, and proportion of single-family dwellings.

In terms of the opponents, these 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 (93.9%), 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 (61.4%) or retired (26.9%), relatively high on the innovativeness scale ($M=70.49$), mostly married with no children, and with household incomes between \$30,000 and \$45,000 dollars. Furthermore, most opponents were owners (90.0%) of mostly less than \$150,000 houses, lived close or very close to manufactured homes (69.8%), resided in relatively socially- and physically-homogeneous neighborhoods composed mostly of single-family houses (84.4%) that had a low percentage of existing mobile homes.

Respondent's innovativeness was assessed through the use of Gruber, Beamish, Carter, Shelton and Weber's (1990) adapted Innovativeness Toward Housing instrument on a four-point Likert-type scale. Mean scores for the total sample indicated a relatively high ($M = 70.45$, $SD = 7.07$) level of innovativeness (scores ranged from 36 to 93 points). Furthermore, a t test for independent samples indicated that mean scores between single- ($n = 228$, $M = 71.30$, $SD = 7.354$) and double-section ($n = 222$, $M =$

Table 1. Frequency Distribution of Respondents by Selected Characteristics.

Variable	Manufactured Home Survey Type					
	Total Sample		Single-Section		Double-Section	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Gender						
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
Race						
Black	28	5.2	16	5.9	12	4.5
White	497	92.4	251	93.3	246	91.4
Other	13	2.4	2	0.8	11	4.2
Total	538	100.0	269	100.0	269	100.0
Age (years)						
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
Household Composition						
Singles	97	18.0	49	18.2	48	17.7
Couples	201	37.2	90	33.5	111	41.0
Small SPF	38	7.0	20	7.4	18	6.6
Small TPF	161	29.8	87	32.3	74	27.3
Large SPF	6	1.1	5	1.9	1	0.4
Large TPF	37	6.9	18	6.7	19	7.0
Total	540	100.0	269	100.0	271	100.0

Note. Other = Latinos, Native Americans, Asian/Pacific Islander, and Mixed race; Small = 2 to 4 members; Large = 5 or more members; SPF = Single-parent family; TPF = Two-parent family.

Table 2. Frequency Distributions of Respondents by Selected Characteristics.

Variable	Manufactured Home Survey Type					
	Total Sample		Single-Section		Double-Section	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Housing Value (\$)						
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
100,001-150,000	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	31	7.8	29	10.8
Total	538	100.0	269	100.0	269	100.0
Knowledge about MH						
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
Physical Homogeneity						
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
Strongly Disagree	24	4.5	7	2.6	17	6.4
Total	536	100.0	269	100.0	267	100.0
Social Homogeneity						
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

Note. Does not apply = Respondents who were not homeowners.

Table 3. Frequency Distributions of Respondents by Selected Characteristics.

Variable	Manufactured Home Survey Type					
	Total Sample		Single-Section		Double-Section	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Appearance/Condition						
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	<u>31</u>	<u>5.7</u>	<u>10</u>	<u>3.7</u>	<u>21</u>	<u>7.8</u>
Total	543	100.0	273	100.0	270	100.0
Social Behavior						
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	<u>23</u>	<u>4.3</u>	<u>10</u>	<u>3.7</u>	<u>13</u>	<u>4.9</u>
Total	535	100.0	267	100.0	260	100.0
Acceptance levels						
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	25	9.3
Strongly favor	<u>36</u>	<u>6.7</u>	<u>11</u>	<u>4.0</u>	<u>25</u>	<u>9.3</u>
Total	541	100.0	272	100.0	269	100.0
Presence of MH in Counties						
High % of MH	370	67.0	186	67.9	184	66.2
Low % of MH	<u>182</u>	<u>33.0</u>	<u>88</u>	<u>32.1</u>	<u>94</u>	<u>33.8</u>
Total	552	100.0	274	100.0	278	100.0

69.59, $SD = 6.67$) survey subsamples were significantly different ($t = 2.59, p = .010$). Thus, it appears respondents to the single-section survey were more innovative than respondents to the double-section survey.

Results

The researchers hypothesized that high levels of acceptance of manufactured homes would be related to perceptions of good manufactured home appearance and condition, perceptions of good behavior from the manufactured home occupants, perceptions of low neighborhood physical and social homogeneity levels, respondent's low socioeconomic status, respondents who were young, white, female, in small-sized households, highly innovative, and with "above average" knowledge of manufactured homes, counties with high percentage of manufactured homes, and double-section manufactured home unit type.

Pearson Product-Moment Correlations were performed to determine the level of relationship among the independent variables and with the dependent variable. Multiple regressions were performed to test the hypotheses of this study. Missing values were handled through the SPSS listwise deletion option. In addition to the full-sample regression analysis, regression equations were computed for the single- and double-section survey subsample groups.

Correlations

Correlations (see Table 4) among the independent variables of the total sample indicated a very strong association at the $p < .001$ level between perceived manufactured home occupants' behavior and perceived manufactured home condition and appearance. Correlations among the independent variables and the dependent variable indicated an association at the $p < .001$ level from perceived manufactured home occupants' behavior, perceived manufactured home condition and appearance, percent of manufactured homes in a county, and the type of manufactured home. Correlations at the $p < .01$ were also noted between manufactured home acceptance and respondent's manufactured home knowledge and respondent's gender.

Multiple Regression Analysis

Acceptance of Manufactured Homes. Multiple regression analyses on the total sample were conducted to test the main hypothesis of this study. Table 5 shows the results of the initial regression analysis.

This Total Sample Model predicted 36.2% of the acceptance of manufactured homes ($N = 416$). Only six variables were significant predictors of the dependent variable at $p < .05$ with "respondent's gender," being marginally significant at $p = .0554$. The overall portion of variance in acceptance levels accounted for by the statistically significant independent variables was $R^2 = .3541$. In fact, the associated coefficient of determination for the full model changed very little after statistically insignificant variables ($R^2 = .3616; \Delta R^2 = .0075$) were included.

Table 4. Correlations among Dependent and Independent Variables.

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Respondents (n = 416)													
1. MH behavior	—	.70**	.00	-.01	.06	.02	.08	-.04	-.01	.13*	-.04	.09	.19**	.50**
2. MH condition		—	-.00	-.03	.06	.04	.01	-.09	-.06	.11*	-.07	.12*	.19**	.49**
3. Age			—	-.38**	.07	.01	-.26**	-.08	-.28**	-.01	.02	-.06	-.00	-.09
4. Household type				—	-.02	-.00	.24**	-.01	.14*	.05	-.02	-.15*	-.05	-.00
5. Social homog.					—	.46**	.01	.00	-.01	.05	.03	-.12*	.00	.04
6. Phys. homog.						—	-.03	-.02	.01	-.10	.03	-.07	-.04	-.03
7. MH knowledge							—	-.09	.38**	.09	.03	-.16**	-.15*	.12*
8. House Value								—	-.06	-.13*	.00	.03	.11	-.02
9. Innovativeness									—	-.08	-.02	-.10	-.10	-.01
10. MH Percent										—	.07	.04	-.01	.18**
11. Race											—	-.09	-.05	-.06
12. Gender												—	.02	.13*
13. MH type													—	.27**
14. MH accept.														—

Note. One-tailed significance levels: * $p = .01$. ** $p = .001$. MH = Manufactured home.

Table 5. Regression Analysis for the Prediction of MH Acceptance.

Variable Name	<i>B</i>	<i>SE B</i>	<i>β</i>	ΔR^2
(INTERCEPT)	-.182	.756		
Perceived MH occupant behavior	.384	.087	.253*	.2516
Perceived MH condition	.355	.082	.247*	.0381
Manufactured home type	.435	.099	.184*	.0260
Respondent's MH knowledge	.132	.047	.130*	.0159
Percent of MH in county	.279	.107	.108*	.0134
Respondent's gender	.200	.104	.081*	.0088
Respondent's age	-.006	.003	-.076	.0028
Respondent's household type	-.032	.036	-.038	.0011
Respondent's race	-.152	.187	-.033	.0010
Perceived neighborhood physical homogeneity	-.081	.081	-.045	.0006
Perceived neighborhood social homogeneity	.078	.082	.043	.0014
Respondent's Innovativeness	-.003	.007	-.022	.0004
Respondent's house value	3.315E-04	.023	5.869E-04	.0000

Note. $R^2 = .3616$. * $p < .05$. MH = Manufactured home.

Acceptance of single-section manufactured homes. The regression analysis (Table 6) for the single-section survey subsample ($N = 215$) resulted in an $R^2 = .2934$ that included all 12 variables while controlling for manufactured home type. The variables perceived behavior, percent of manufactured homes in county, and perceived manufactured home condition explained 25.2% of the total variance in the acceptance level of single-section manufactured homes.

Acceptance of double-section manufactured homes. In the regression analysis (Table 7) on the total double-section subsample ($N = 201$), the variables perceived double-section manufactured home conditions, perceived double-section manufactured home occupants' behavior, respondent's manufactured housing knowledge, and perceived neighborhood physical homogeneity level explained 35.7% of the total variance in the acceptance level of double-section manufactured homes for all double-section survey respondents.

Comparison of Regression Models

The models for each type of manufactured home shared a few similarities. They both included perceived manufactured home appearance and condition and perceived manufactured home occupants' behavior. The regression coefficients on all three models were very stable in terms of perceived manufactured home occupants' behavior.

Table 6. Regression Analysis for the Prediction of Single-Section MH Acceptance.

Variable Name	<i>B</i>	<i>SE B</i>	<i>β</i>	ΔR^2
(INTERCEPT)	-.249	1.098		
Perceived MH occupant behavior	.348	.116	.228*	.1600
Percent of MH in county	.623	.147	.265*	.0671
Perceived MH condition	.273	.111	.189*	.0250
Respondent's age	-.006	.005	-.088	.0142
Respondent's race	-.500	.293	-.105	.0096
Respondent's MH knowledge	.117	.067	.123	.0078
Respondent's gender	.179	.147	.078	.0061
Perceived neighborhood physical homogeneity	.089	.113	.052	.0020
Respondent's household type	-.026	.051	-.035	.0009
Perceived neighborhood social homogeneity	-.028	.112	-.016	.0002
Respondent's house value	-.003	.036	-.005	.0000
Respondent's Innovativeness	-8.5211E-04	.010	-.005	.0000

Note. $R^2 = .2934$. * $p < .05$. MH = Manufactured home.

Table 7. Regression Analysis for the prediction of Double-Section MH Acceptance.

Variable Name	<i>B</i>	<i>SE B</i>	<i>β</i>	ΔR^2
(INTERCEPT)	1.410	1.096		
Perceived MH condition	.509	.124	.370*	.3121
Perceived MH occupant's behavior	.347	.133	.237*	.0294
Respondent's MH knowledge	.141	.067	.136*	.0102
Respondent's gender	.241	.148	.098	.0103
Perceived neighborhood physical homogeneity	-.242	.116	-.140*	.0056
Perceived neighborhood social homogeneity	.195	.121	.111	.0080
Respondent's Innovativeness	-.019	.012	-.100	.0035
Respondent's age	-.006	.004	-.088	.0025
Respondent's household type	-.070	.054	-.081	.0045
Percent of manufactured homes in county	-.134	.158	-.051	.0015
Respondent's race	.187	.247	.044	.0018
Respondent's house value	-.015	.030	-.031	.0009

Note. $R^2 = .3911$. * $p < .05$. MH = Manufactured home.

This finding suggests that acceptance is affected by a socioeconomic class issue that surrounds manufactured homes regardless of their types. Additionally, perceived manufactured home condition and appearance was very important in the acceptance of double-section units but not in the case of single-section units. This finding suggests that once a respondent disassociates the negative perceptions about the manufactured home occupant, double-section units may be house-like enough to be acceptable, but that is not the case with single-section units.

When compared to the double-section model, the single-section model included one additional variable: percentage of manufactured homes in a county. This additional variable more than doubled the value of its regression coefficient (see Tables 6 and 7) when compared with the full-sample model. Therefore, it appears that acceptance of single-section units was significantly increased in areas where there is a high proportion of manufactured homes. High presence of manufactured homes could be the result of a rural community's high reliance on manufactured homes for housing. However, this variable did not appear to be important in the acceptance of double-section units.

In contrast, the double-section model included respondent's manufactured housing knowledge and neighborhood physical homogeneity level. The regression coefficients for respondent's manufactured housing knowledge were very stable in both subsample models. However, manufactured housing knowledge appeared to be very important only in the case of double-section units. In the case of physical homogeneity levels, the regression coefficients varied among subsample models in terms of direction and size. In the double-section model, the coefficient tripled in size when compared to the full-sample and single-section models. This variable was only important to the acceptance of double-section units.

In summary, the inclusion of percentage of manufactured homes did not help the single-section model ($R^2 = .2522$) surpass the prediction power of the double-section model ($R^2 = .3574$). However, the double-section subsample model produced a coefficient of determination close to that of the full sample model ($R^2 = .3541$). When accounting for all independent variables, however, the full-sample model appeared to be more efficient than the single- and double-section models in the prediction of acceptance levels. However, this result could be attributed to the larger size of the full sample when compared with the size of the subsamples.

The differences between the single- and double-section regression models appeared to be associated with the type of manufactured home unit and the respective respondents' perceptions regarding occupants and condition. In other words, respondents reacted more negatively towards single-section units due to their common association with lower-income persons. The assumption that double-section unit occupants are better behaved than single-section unit occupants may explain why perceived behavior was not at the top of the significant contributors to the prediction of acceptance levels.

In general, all models showed that the characteristics of the respondents seemed to have little effect on manufactured home acceptance. Instead, perceived characteristics of manufactured home occupants were more important in the model.

Discussion

The original hypothesis of this study was partially supported by the results. In fact, the Total Sample Model supports Dear and Taylor's (1982) theory on attitudes toward mental health facilities. That is, perceived negative occupants' behavior is predictive of low acceptance levels and NIMBY attitudes. Further, the importance of this variable indicates that the rejection of manufactured homes can be partially explained by socioeconomic class issues that associate improper or socially unacceptable behavior with lower-income persons. Additionally, when the condition and appearance of manufactured homes are perceived positively, the acceptance levels are likely to be higher.

In terms of acceptance of the two types of manufactured homes, double-section manufactured homes were more likely to be accepted than single-section manufactured homes. However, regardless of manufactured home type, condition or appearance, perceptions about occupants and their behavior were most predictive of the respondent's acceptance levels for manufactured homes. Nonetheless, respondents were more likely to accept double-section units even after controlling for these other characteristics. The condition and appearance of newer double-section units in these non-MSA areas suggested more positive perceptions from the respondents about the behavior of double-section manufactured-home occupants.

Furthermore, the more knowledgeable a person is about manufactured housing, the more likely he or she would be to accept it, but this impact is slight. Similarly, a high presence of manufactured homes helped predict their acceptance and also suggests a community with relatively permissible regulations regarding the placement of manufactured homes. In terms of gender, its relatively significant contribution to the model lies in the fact that female respondents were more likely than male respondents to accept manufactured homes in their neighborhoods.

Consequently, except for respondent's gender, other demographic and socioeconomic characteristics such as age, race, household composition, innovativeness, and housing value did not appear to have a relationship with the dependent variable. Similarly, the social and physical homogeneity of the respondents' neighborhoods did not add much explanation to the model.

The subsample groups differed in terms of their overall knowledge about manufactured housing. Double-section survey respondents scored higher than did single-section survey respondents in their perceived knowledge about manufactured homes. Additionally, most respondents to the single-section model survey believed that single-section units were in bad conditions, while respondents to the double-section model survey believed that double-section units were in good conditions. Likewise, double-section manufactured home occupants were perceived by the double-section survey subsample as displaying good behavior, while the single section survey subsample perceived occupants of single-section units as displaying bad behavior. In general most respondents indicated that manufactured homes would have a negative impact and would not fit well in their neighborhoods. This perception was stronger in relation to single-section manufactured homes.

Neighborhood social and physical homogeneity levels did not have a significant effect upon manufactured home acceptance. The rural character of the sample and the fact that most respondents were either older couples with no children or were very small two-parent families could explain this result. As Morris and Winter (1978) suggested, perceived neighborhood social homogeneity is highly important for families with children. However, in this study, respondents believed that most manufactured home households were composed of white, small two-parent families who owned their units, worked full-time, and had education levels similar to theirs. Therefore the perception of social homogeneity met Morris and Winter's (1978) neighborhood norms, which dictate that neighboring residents have similar socioeconomic characteristics (i.e., social class, life-cycle stage, education, age, race, and sometimes ethnic background). The only differing characteristic observed between respondents and manufactured home occupants was perceived household income. That is, respondents perceived manufactured home occupants to have lower incomes than they had.

Neighborhood physical homogeneity in terms of actual architectural appearance may have been met by the similarity in size of double-section units with stick-built houses, perhaps because there was a significant difference between the physical homogeneity levels reported by single- and double-section survey respondents. The single-section subsample indicated a higher level of physical homogeneity in their neighborhoods than that reported by the double-section survey respondents. Although not statistically significant, this independent variable could theoretically explain why manufactured home acceptance levels stayed within "mildly oppose" to "neither oppose nor favor" categories.

Results 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. Dear's (1991) conclusion about proximity to mental health facilities and its association with acceptance levels supports this idea. The relatively 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.

Implications

This study served to illustrate how community attitudes and NIMBY can result from mostly negative perceptions about manufactured home occupants. However, it is unclear which came first, prejudice against manufactured home units as a product or prejudice against low-income households living in manufactured homes. This research showed how the type of manufactured home unit can reduce or increase its acceptability, but this relative effect is minimal compared to that of negatively perceived occupants' behavior.

The findings suggest that, at a minimum, manufacturers will need to deal with two problems at the same time. That is, they will need not only to continue to improve the appearance of their products but also to try alleviate the prejudice against manufactured home consumers. Legislators and local planning officials in charge of zoning

and regulations regarding manufactured homes should look at measures to improve the design, durability, and appearance of manufactured homes without making the product unaffordable. This challenge may be addressed by looking at and understanding public perceptions about the product's appearance, value, and occupants. Statistics show there is a consumer market for manufactured homes, but that local regulations stand in the way. It remains unclear, however, what would happen if said regulations or exclusionary practices were lifted. Would more people buy the product? If so, this study suggests that it would be double-section units that would most likely be accepted, at least socially, in rural neighborhoods of Virginia.

The limited amount of variance explained by the 13 independent variables included in the statistical model suggests that there are other factors that could help predict manufactured home acceptance. The theoretical framework used in this study proved to be useful in the prediction of acceptance levels; however, further studies could help refine its prediction power.

Future Research

This study has begun to explore a theoretical framework for understanding acceptance of controversial housing in community settings. It has also presented a framework for exploring manufactured homes as two different types of housing that may be perceived and accepted differently. Single-section and double-section manufactured housing should continue to be a distinction made in research involving mobile/manufactured housing. The sampling framework for this study was designed to gather a great deal of information about the two types of manufactured housing; therefore the two subsamples were asked about different types of manufactured housing. This procedure may have produced a limitation in the comparisons of the samples and the subsequent regression models. Further research studies should use one sample to determine if there are any differences in the perceptions between the two types of manufactured housing and to verify the findings of these models.

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