

ORIGINAL

STRUCTURE, OPERATION, PERFORMANCE,
AND DEVELOPMENT TRENDS OF THE MOBILE HOME INDUSTRY

Volume III

THE MOBILE HOME DISTRIBUTION SYSTEM

July 15, 1976

by

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NOTE TO READER**FILE COPY**

This report is organized into five volumes, with each volume containing several sections. Following is a complete listing of all volumes and sections, with asterisks in the left-hand column identifying the volume you are now reading:

- VOLUME I: THE BUILDING INDUSTRY TOMORROW:
 THE CASE OF THE MOBILE HOME INDUSTRY
 Sections: Introduction
 The Mobile Home Industry: An Overview
 The Mobile Home Industry's Product:
 Today and Tomorrow
- VOLUME II: THE MOBILE HOME PRODUCTION SYSTEM
 Sections: Supply Sector Influence
 Industrial Organization
 Manufacturing
 Cost/Price Analysis
 Manufacturer Financing
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- *** VOLUME III: THE MOBILE HOME DISTRIBUTION SYSTEM
 Sections: Industrial Organization
 Distribution
 Cost/Price Analysis
 Dealer Financing
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- VOLUME IV: THE MOBILE HOME PARK SYSTEM
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 Park Development and Operation
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 Sections: Land Use Controls
 Taxation
 Building Code Regulation
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 Appendix

In each volume, roman numerals are used to designate the title page and the subsequent pages before the beginning of the first section. Each section is organized

as an independent entity, and has its own page numbering system and its own Table of Contents. Each section starts with page number 1 and ends with a page number determined by the section's length. All pages of each section show the title of that section in the upper left-hand corner of the page, so the reader can quickly find the first page of each section by flipping the pages of the volume.

Therefore, bibliographical references need list only report authors and report title, volume number, section title, and page number: i.e., Bernhardt, Arthur D., et. al., Structure, Operation, Performance and Development Trends of the Mobile Home Industry, Volume II, Section "Manufacturing," page 19 (or, Volume II, page vii).

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INDUSTRIAL ORGANIZATION

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A.

INTRODUCTION

Distribution and marketing are of greater importance in the building industry than in many other sectors of the economy. The building industry operates within a complex support, regulatory, and political environment. Therefore, a view of marketing must include a reliable understanding and strategic manipulation of those very environmental forces and interests.

A strong emphasis on distribution and marketing is especially important for the two off-site segments of the building industry -- the manufactured building industry and the mobile home industry. Off-site production of shelter is more capital-intensive than on-site construction. This makes a close synchronization of production and sales functions imperative. Furthermore, off-site shelter production is perceived as a threat by many vested economic and political interests in, or affiliated with, the on-site building industry. The various forces that these interests can mobilize against the intrusion of off-site built shelter pose an even greater challenge for distribution and marketing. Making them is easy, selling them...

The history of the manufactured building industry (the mobile home industry's "sister") reveals the heavy penalties which inevitably result from an underestimation of the post-production functions. Perhaps the major cause of bankruptcy in the building manufacturing business has been negligence in the areas of distribution, marketing and sales. (On-site builders and developers have recognized the significance of these functions for many years -- building manufacturers had to learn it the hard way). Two of the most ambitious attempts at building industrialization in this country were Lustron in the early 50's and Alside in the early 60's (both featured

highly automated, single-plant capacities in excess of 30,000 housing units per year). Both failed miserably due to fascination with technological and production gimmicks which led to an utter neglect of the much more important task of "getting rid of them." The latest newcomer to the Lustron/Alside, etc. list includes an entire industry -- the modular housing business (one segment of the manufactured building industry). This segment was a favorite of Wall Street and Washington in the late 60's and early 70's and was nourished by both. Despite this, it went into an industry-wide bankruptcy and disappeared because this "industry" did not understand the "making them is easy,..." concept. This realization came only after then mass of business failures that buried this entire industry.

It is safe to generalize that a viable distribution system and effective marketing have not been high-priority objectives of the manufactured building industry. Only in the recent past has this industry begun to slowly shift its emphasis from obsession with production to a marketing orientation.

Lustron, Alside and the modular housing business are long gone. The mobile home industry not only still exists, but is the most successful "industrialized" building industry in any country. Is it because this industry realized the importance of what comes after "making them"? Is it because this industry developed an effective distribution system?

Mobile home manufacturers, surely, do not think so. During the period from 1969 to 1976, we interviewed key personnel of many mobile home producers. Roughly 80% of the 110 interviewed (more or less openly) indicated

that they feel they must deal with a pretty "lousy" distribution system. A distribution system which, in their perception, is not only inefficient, but detrimental to the overall industry image and performance. Over the years, we also met a large number of dealers -- and most of them proved to be astute, reliable business people. The dealers were usually equally critical of the manufacturers, stating that the producers displayed immature distribution and marketing practices.

Manufacturers blame dealers, and dealers blame manufacturers. What is significant, however, are the reactions of both groups, which suggest that the distribution system has not yet evolved into an "ideal" state.

After extensive field work, we came to the conclusion that the manufacturing end of the industry is much more sophisticated and mature than the distribution end. But we did realize that by definition, the manufacturing arm of an industry can "afford" to attain maturity at an earlier stage. We also realized that our "samples" were seriously biased by resource constraints -- most of our interviews had to be conducted in regional production centers. Obviously, spending a couple of days in an area in which many producers and dealers are clustered (e.g., the Birmingham, Alabama region or the Los Angeles area) is more cost-efficient than attempting to visit a statistically representative sample of both manufacturers and dealers in the Great Plains. In short, our field work led to the suspicion that the industry's distribution system is capable of achieving improvements in performance. At the same time, we realized that more rigorously designed surveys were needed to arrive at any reliable assessment. We decided on a more rigorous, scientific approach -- not to substitute for,

but rather to supplement, the field-work-generated experience.

The following industrial organization analysis of the mobile home distribution system attempts to answer the following questions: 1) What are the salient structural and operational characteristics of this system, and what are implications for its performance?; and 2) What realistic potentials, if any, exist for the distribution system to achieve improved economic performance?

The more detailed questions and hypotheses underlying the analysis in this section are essentially the same as those set forth in the "Introduction" to the section in Volume II on "Industrial Organization" of the mobile home production system.

Project Mobile Home Industry's national survey of mobile home dealers (PMHI/DS) was used as the major data base in the analysis and discussion of the evolution and emerging trends in the structure, operation, and performance of the distribution system. Other primary sources which we could identify were used to provide the most thorough and conclusive analysis possible. Qualitative data has been further obtained through field research and interviews conducted by the PMHI staff which are used to interpret various phenomena on which no quantitative data are available.

The section introduced here has turned out overly academic. Perhaps we bowed too much to the requirements (and limitations) of an academic inquiry. Perhaps we should have emphasized our field-work-induced conviction more -- namely, that the distribution system can make a stronger contribution towards improving overall industry performance. If this suspicion is

correct, then a joint task for dealers and manufacturers is implied.

B.

THE PRESENT SITUATION
AND EMERGING TRENDS

1.
Evolution

1.1 ORIGINS OF THE MOBILE HOME DISTRIBUTION SYSTEM

The discussion of the origins of the distribution system will center around two issues: its evolution from the automobile dealership system, and the backgrounds of the owners and managers in the system.

1.1.1 Origin of the System

The ancestors of the contemporary mobile homes and recreational vehicles were the "trailers" (or "trailer coaches") of the 1920's and 1930's. These were distributed by automobile dealers rather than by firms dealing in manufactured housing. By the early 1950's, "trailers" had developed into two distinct products, mobile homes and recreational vehicles, and their distribution system had gained its autonomy from the distribution network of the auto industry.

By the late 1950's, both mobile homes and recreational vehicles were still sold through the same dealer network. Soon, however, a specialization developed between mobile home dealers and recreational vehicle dealers. Today the two distribution systems have become independent networks, even though they still overlap to a certain extent, with

more than a quarter of all dealers selling both products.¹

Historically, the mobile home distribution system developed independently from the distribution systems of other forms of manufactured shelter, which include componentized and modular housing. These were introduced as improvements on the traditional methods of on-site residential construction, whereas mobile homes emerged as alternatives to on-site construction. The distribution system of "non-mobile," factory-built housing relies largely on local builder-dealers who are involved both in on-site erection and "retail" sale of the finished product.

1.1.2 Background of Owners and Managers

The entrepreneurial talent in the mobile home distribution system comes from various fields, most of which are related to the system through both functional and historical development patterns. This can be observed from the results of the PMHI/DS inquiry into the background of dealers. (Figure 1).

Roughly one-third (32.9%) of all dealers who responded to the questionnaire came from either the recreational vehicle or the auto dealer industry. This is largely the result of three factors. First, the structures of these sectors of origin are similar to the mobile home distribution system's present-day organization. Second, both product and sales technique in the three industries are similar. Third, an overlap exists between the organizations distributing mobile homes and recreational vehicles. These factors make it possible for

	<u>Percentage</u>	<u>Cumulative Percentage</u>
Recreational Vehicle Industry	12.9%	12.9%
Automobile Industry	20.0%	32.9%
Mobile Home Manufacturing	7.1%	40.0%
Mobile Home Park System	34.3%	74.3%
Land Development	7.1%	81.4%
Real Estate	11.4%	92.8%
Others	<u>7.2%</u>	100.0%
	100.0%	

Source: PMHI Survey of Mobile Home Dealers (PMHI/DS)

Figure 1: ORIGINS OF THE DEALERS IN THE MOBILE HOME INDUSTRY

managerial talent to move among the industries in response to differentials in actual or potential profit margins.

Another 41.4% of all respondents came from other subsystems of the mobile home industry: 7.1% from mobile home manufacturing and 34.3% from the park system. The "know-how" requirements of these systems, while different from those of mobile home dealerships, are nevertheless relevant to the distribution system. 18.5% of the dealers were in either real estate or land development prior to entering the mobile home distribution system, representing a movement of managerial talent from the broadly defined housing sector to mobile home distribution. Again, a functional affinity can be detected. Finally, 7.2% of the dealers came from fields unrelated to either the mobile home industry or the "housing" sector.

In total, almost three-fourths (74.3%) of all dealers began in either the mobile home industry or in one of the industries closely related to it. When the number of those dealers whose origins are in or related to the housing sector are added, the origins of 92.8% of the dealer population is accounted for. Based on data from the PMHI Dealer Survey, and field experience of our staff, it is apparent that the distribution system of the mobile home industry draws its managerial talent either from the industry itself or from closely related fields.

1.2 DISTRIBUTION VOLUME

This chapter will give a statistical overview of the retail sales volume of the mobile home industry on a national, regional, and state-by-state basis. A more detailed analysis and explanation of these figures will appear in subsequent chapters of this section dealing with particular aspects of the industrial organization of the mobile home distribution network.

1.2.1 National Distribution Volume

Figure 2 shows the behavior of mobile home retail sales for the period from 1947 to 1975. During those years, mobile home shipments to dealers show a strong, overall growth trend. However the growth record is not absolutely consistent. Factors which are exogenous to the industry, such as the declines in general economic activity in 1969, and in 1973, 1974 and 1975, as well as endogenous factors, such as product design changes (discussed in Volumes I, II and V of this report) played a part in the fluctuations in shipments.

<u>Years</u>	<u>Units Shipped</u>	<u>Retail Sales (thousands \$)</u>
1947	60,000	146,000
1948	85,500	204,000
1949	46,200	122,000
1950	63,100	216,000
1951	67,300	248,000
1952	83,000	320,000
1953	76,900	322,000
1954	76,000	325,000
1955	111,900	462,000
1956	124,330	622,000
1957	119,300	596,000
1958	102,000	510,000
1959	120,500	602,000
1960	103,700	518,000
1961	90,200	505,000
1962	118,000	661,000
1963	150,840	862,064
1964	191,320	1,071,392
1965	216,470	1,212,232
1966	217,300	1,238,610
1967	240,360	1,370,052
1968	317,950	1,907,700
1969	412,690	2,496,775
1970	401,190	2,451,271
1971	496,570	3,297,225
1972	575,940	4,002,783
1973	566,920	4,406,382
1974	329,300	3,213,681
1975	209,000(est.)	2,361,700(est.)
1976	335,000(est.)	4,164,050(est.)

Source: Compiled from data supplied by: The Mobile Homes Manufacturers Association

Figure 2: ANNUAL MOBILE HOME SHIPMENTS TO DEALERS AND TOTAL RETAIL SALES IN THE UNITED STATES, 1947 TO 1976.

1.2.2 Regional Distribution Volume

The regional distribution of shipments to dealers is shown in Figures 3 and 4 which give the volume of shipments received by dealers and the relative regional growth patterns.

These figures show that half of the shipments to dealers are concentrated in three regions: South Atlantic, East North Central, and West South Central. During the last eight years, the shares of shipment distribution in the South Atlantic, West South Central, East South Central, and Mountain regions have slightly risen, while the shares in the other regions have fallen. However, at present we do not have enough information to definitively state that this shows a long-term trend toward a regional polarization of the mobile home market.

1.2.3 State-by-State Distribution Volume

Figure 5 gives the distribution of shipments on a statewide basis for the years 1973 and 1974.

1.2.4 Causality

Offered below are a number of hypotheses on cause and effect relationships concerning the volume of shipments to dealers over time.

REGION	1967	1968	1969	1970	1971	1972	1973	1974
	SHIPMENTS OF SHIP RECEIVED -MENTS	SHIPMENTS OF SHIP RECEIVED -MENTS	SHIPMENTS OF SHIP RECEIVED -MENTS	SHIPMENTS OF SHIP RECEIVED -MENTS	SHIPMENTS OF SHIP RECEIVED -MENTS	SHIPMENTS OF SHIP RECEIVED -MENTS	SHIPMENTS OF SHIP RECEIVED -MENTS	SHIPMENTS OF SHIP RECEIVED -MENTS
South Atlantic	58,929 25%	90,740 27%	111,003 27%	114,443 28%	138,590 28%	175,720 28%	176,624 29%	110,476 28%
East North Central	38,275 16%	48,093 15%	65,669 16%	65,012 16%	69,926 14%	74,021 12%	80,436 13%	47,971 12%
West North Central	22,677 10%	27,910 9%	34,157 8%	33,135 8%	40,492 8%	50,881 8%	48,398 8%	37,338 9%
West South Central	20,543 10%	33,164 10%	44,103 11%	50,220 12%	61,678 12%	87,205 14%	76,563 12%	45,976 12%
East South Central	22,890 9%	27,854 8%	33,701 8%	33,163 8%	51,403 10%	68,430 11%	70,574 11%	43,957 11%
Mid Atlantic	7,839 10%	28,926 9%	36,080 9%	32,783 8%	36,368 7%	46,152 7%	45,889 7%	24,402 6%
New England	20,225 3%	9,600 3%	11,814 3%	11,140 3%	10,915 2%	10,954 2%	10,669 2%	6,385 2%
Pacific	15,261 9%	38,132 12%	44,147 11%	37,186 9%	49,989 10%	54,201 9%	55,900 9%	41,948 11%
Mountain	1,099 7%	21,883 7%	29,041 7%	32,632 8%	43,564 9%	53,181 9%	52,721 9%	35,127 9%
Alaska	2,829 1%	1,157 0%	1,454 0%	1,621 0%	932 0%	737 0%	928 0%	2,222 0%
TOTAL	232,237	327,459	411,169	411,351	503,947	621,472	618,721	395,803

Source: Compiled by PMHI from "A Marketing Review of Monthly Mobile Home Shipments," 1967-1974.
Published by Mobile-Modular Housing Dealer Magazine, Chicago, Illinois.

FIGURE 3: SHIPMENTS TO DEALERS 1967-1974, BY REGION

REGION	1968	1969	1970	1971	1972	1973	1974
SOUTH ATLANTIC	53.9%	22.3%	3.0%	21.0%	26.7%	.5%	-37.4%
EAST NORTH CENTRAL	25.6%	36.5%	-1.0%	7.5%	5.8%	8.6%	-40.3%
WEST NORTH CENTRAL	23.0%	22.3%	-2.9%	22.2%	25.6%	-4.8%	-22.8%
EAST SOUTH CENTRAL	21.6%	20.9%	-1.5%	55.0%	33.1%	3.1%	-37.7%
WEST SOUTH CENTRAL	61.4%	32.9%	13.8%	22.7%	41.3%	-12.2%	-39.9%
MID-ATLANTIC	269.0%	24.7%	-9.0%	10.9%	26.9%	-5.7%	-46.8%
NEW ENGLAND	-52.5%	23.0%	-5.6%	-2.0%	.3%	2.6%	-40.1%
PACIFIC	149.8%	15.7%	-15.7%	34.4%	8.4%	3.1%	-24.9%
MOUNTAIN	1891.1%	32.7%	12.3%	33.5%	22.0%	-.8%	-33.3%
ALASKA	-59.1%	25.6%	11.4%	-42.5%	-20.9%	25.9%	140.1%

Source: Compiled by PMHI from "A Marketing Review of Monthly Mobile Home Shipments, 1967-1974,"
Published by Mobile Modular Housing Dealer Magazine, Chicago, Illinois.

FIGURE 4: PERCENTAGE CHANGE IN UNIT SHIPMENTS TO DEALERS BETWEEN 1967 AND 1974, BY REGION

REGION	UNIT SHIPMENTS RECEIVED BY DEALERS	
	1973	1974
SOUTH ATLANTIC		
DELAWARE	2,676	1,870
WASHINGTON D.C.	15	14
FLORIDA	62,647	33,243
GEORGIA	31,510	16,304
MARYLAND	3,397	2,727
NORTH CAROLINA	32,667	27,014
SOUTH CAROLINA	23,345	15,081
VIRGINIA	12,950	9,863
WEST VIRGINIA	7,417	4,351
EAST NORTH CENTRAL		
ILLINOIS	14,582	9,114
INDIANA	13,497	7,588
MICHIGAN	23,462	12,313
OHIO	17,979	10,575
WISCONSIN	10,916	8,381
WEST NORTH CENTRAL		
IOWA	4,965	4,704
KANSAS	7,698	5,394
MINNESOTA	10,653	9,596
MISSOURI	14,054	8,355
NEBRASKA	4,439	3,331
NORTH DAKOTA	2,917	3,030
SOUTH DAKOTA	3,672	2,928
WEST SOUTH CENTRAL		
ARKANSAS	10,847	5,451
LOUISIANA	13,784	10,000
OKLAHOMA	10,015	5,724
TEXAS	41,917	24,801
EAST SOUTH CENTRAL		
ALABAMA	22,054	12,393
KENTUCKY	14,774	10,735
MISSISSIPPI	14,891	8,908
TENNESSEE	18,855	11,831
MID-ATLANTIC		
NEW JERSEY	2,343	1,736
NEW YORK	16,699	8,132
PENNSYLVANIA	26,847	14,534
NEW ENGLAND		
CONNECTICUT	721	572
MAINE	4,112	2,496
MASSACHUSETTS	1,654	1,133
NEW HAMPSHIRE	2,634	1,296
RHODE ISLAND	290	237
VERMONT	1,258	651
PACIFIC		
CALIFORNIA	31,682	21,706
HAWAII	48	75
OREGON	12,807	9,182
WASHINGTON	11,363	10,985
MOUNTAIN		
ARIZONA	13,392	8,207
COLORADO	7,877	4,092
IDAHO	6,136	4,507
MONTANA	6,286	4,562
NEVADA	4,141	2,708
NEW MEXICO	8,276	5,622
UTAH	3,998	2,511
WYOMING	2,625	2,828
ALASKA	928	2,279

Source: The Monthly Market Letter on Mobile Home Shipments,
published by Mobile-Modular Housing Dealer Magazine

FIGURE 5: UNIT SHIPMENTS RECEIVED BY DEALERS LOCATED IN EACH STATE

National Distribution Volume

As was seen from the data presented in 1.2.1 and Figure 2, the national volume and the retail sales value of shipments to dealers have risen steadily in a fluctuating manner since 1947, the first year for which the data is available. Some possible reasons for this were mentioned at the end of 1.2.1. Furthermore, in only a third of the observations was the change in quantities bought and sold matched by equivalent changes in dealer revenue.

Figure 6 shows that between 1947 and 1975, the general direction of fluctuations in both sales and quantity of shipments was the same. That is to say, when shipments fell, so did the total outlays. It can be hypothesized that the demand curve for mobile homes has a certain amount of elasticity with respect to price.

The changes occurring in retail sales and shipments from 1947 to 1972 can be divided into three categories (see Figure 7):

- 1) The percentage change in units shipped to dealers was equal to the percentage change in retail sales. This occurred in 1947/48, 1956/59, 1961/62, 1966/67, and 1968/69. In these periods, the relevant portions of the demand curve facing the industry can be said to be unit elastic.
- 2) The percentage change in units shipped to dealers was greater than the percentage change in retail sales. This appeared in the

YEAR	PERCENT CHANGE IN:	
	UNITS RECEIVED	RETAIL SALES
1948 change from 1947	+29.8%	+28.4%
1949 change from 1948	-85.7%	-67.2%
1950 change from 1949	+26.8%	+43.5%
1951 change from 1950	+ 6.2%	+12.9%
1952 change from 1951	+18.9%	+22.5%
1953 change from 1952	- 7.6%	+ 0.6%
1954 change from 1953	- 1.2%	+ 0.9%
1955 change from 1954	+32.7%	+29.6%
1956 change from 1955	+10.0%	+25.7%
1957 change from 1956	- 4.2%	- 4.3%
1958 change from 1957	-16.7%	-16.9%
1959 change from 1958	+15.4%	+15.3%
1960 change from 1959	-16.2%	-13.9%
1961 change from 1960	-15.0%	- 2.6%
1962 change from 1961	+23.6%	+23.6%
1963 change from 1962	+21.8%	+23.3%
1964 change from 1963	+21.2%	+19.5%
1965 change from 1964	+13.1%	+11.6%
1966 change from 1965	+ 0.4%	+ 2.1%
1967 change from 1966	+ 9.6%	+ 9.6%
1968 change from 1967	+24.4%	+28.2%
1969 change from 1968	+22.7%	+23.6%
1970 change from 1969	- 2.9%	- 1.9%
1971 change from 1970	+19.7%	+25.6%
1972 change from 1971	+16.0%	+21.4%
1973 change from 1972	- 1.6%	
1974 change from 1973	-33.0%*	
1975 change from 1974	+14.7%*	

* Estimates obtained from Elrick & Lavidge, January 1975

Source: Compiled from Flash Facts, June 1973

FIGURE 6: CHANGE IN MOBILE HOME SHIPMENTS RECEIVED BY DEALERS
BETWEEN 1948 AND 1975

Number of periods in which revenue fluctuations are:				
EQUAL TO QUANTITY FLUCTUATIONS	MORE THAN QUANTITY FLUCTUATIONS	LESS THAN QUANTITY FLUCTUATIONS	INVERSE TO QUANTITY FLUCTUATIONS	TOTAL NUMBER OF PERIODS
7	9	9	0	25
Ocurring during:				
QUANTITY FALLS	0	6	0	
QUANTITY RISES	<u>9</u>	<u>3</u>	0	
	9	9		19

Source: FIGURE 6

FIGURE 7: FLUCTUATIONS IN THE VOLUME OF SHIPMENTS AND THE AVERAGE REVENUES FROM SALES OF MOBILE HOMES 1948 AND 1972

following cases: 1948/49, 1952/55, 1959/61, 1963/65, and finally 1969/70. With the exception of the periods 1954/55 and 1963/65, all years showed a decline in industry shipments and sales. As the total revenues of the dealers also fell, or remained constant, it can be concluded that the relevant portion of the industry demand curve was elastic.

3) The percentage change in units shipped to dealers was smaller than the percentage change in retail sales. The years 1949/52, 1955/56, 1962/63, 1965/66, 1967/68, 1970/72 fall in this category. During these years, the demand function facing the industry was relatively less elastic than in the second category noted, although still within the elastic range.

As incomes, attitudes toward mobile homes (the taste variable), and prices of alternative forms of housing changed during the time period considered, it can be further hypothesized that changes in the elasticity of the demand curve facing the industry occurred due to an outward move of the demand curve, rather than to movement along the same curve.

An immediate factor in the changes of equilibrium prices/unit was the shifts in supply. These shifts had two major causes. First, the production costs per square foot of mobile homes fell relative to other forms of housing. Thus the change in relative prices influenced the increase of demand. Second, as production costs per square foot fell, the

consequent shift in the cost curves of the suppliers resulted in an outward shift of the supply curve.

However, the fall in production costs per square foot was not reflected in the prices per unit. This may be due to several reasons.

On the supply side, the quality of the product was improved, total floor space increased, and various amenities added. These changes in quality made it possible for the product to attract a larger number of consumers with different tastes, thus leading to an increase in the market demand for the product. It can be further hypothesized that some of the cost reductions were not passed along to the consumers as price decreases but were retained by the producer as "excess" profits, made possible by market imperfections. One important point is that the design changes (that led to changes in the product mix) were introduced after the quantity of shipments to dealers fell, and seem to be a major part of the reaction of suppliers to drops in demand.

Regional and State-by-State Distribution Volume

The distribution of shipments on regional and state basis shows a bias toward a number of regions (Figure 8). Figure 3 shows that these percentages have remained remarkably stable over the eight periods for which data is presently available.

REGION	SHIPMENTS RECEIVED AS A PERCENT OF TOTAL SHIPMENTS	CUMULATIVE PERCENTAGE
SOUTH ATLANTIC	27.50	27.50
EAST NORTH CENTRAL	14.25	41.75
WEST SOUTH CENTRAL	11.62	53.37
PACIFIC	10.00	63.37
EAST SOUTH CENTRAL	9.50	72.87
WEST NORTH CENTRAL	8.50	81.37
MID- ATLANTIC	7.87	89.24
MOUNTAIN	8.12	97.36
NEW ENGLAND	2.50	99.86
ALASKA	0.12	99.98
TOTAL	99.98	

Source: Figure 3

FIGURE 8: REGIONAL DISTRIBUTION OF MOBILE HOME SHIPMENTS TO
DEALERS, 1967/1974 AVERAGES, RANKED IN DECREASING
ORDER OF IMPORTANCE

REGION	STATE	PRODUCTION (UNITS)	TOTAL SHIP- MENTS TO DEALERS (UNITS)	NET DIFFERENCE
SOUTH ATLANTIC	DELAWARE	0	2,291	- 2,291
	WASHINGTON, DC	0	198	- 198
	FLORIDA	42,977	65,097	- 22,120
	GEORGIA	70,730	31,170	39,560
	MARYLAND	1,383	3,420	- 2,037
	N. CAROLINA	32,945	32,619	326
	S. CAROLINA	7,553	20,097	- 12,544
	VIRGINIA	8,512	13,433	- 4,921
	W. VIRGINIA	-	7,395	- 7,395
	TOTALS	164,100	175,720	- 11,620
EAST NORTH CENTRAL	ILLINOIS	2,007	12,292	- 10,285
	INDIANA	63,884	11,336	52,584
	MICHIGAN	14,665	21,957	- 7,292
	OHIO	12,206	16,896	- 4,690
	WISCONSIN	11,186	11,540	- 354
	TOTALS	103,948	74,021	29,963
WEST NORTH CENTRAL	IOWA	2,084	5,101	- 3,017
	KANSAS	22,242	7,457	14,785
	MINNESOTA	7,800	9,012	- 1,212
	MISSOURI	7,551	16,998	- 9,477
	NEBRASKA	13,896	4,467	9,429
	N. DAKOTA	-	2,934	- 2,934
	S. DAKOTA	-	4,912	- 4,912
	TOTALS	53,573	50,881	2,662
WEST SOUTH CENTRAL	ARKANSAS	13,545	11,069	2,476
	LOUISIANA	11,548	15,124	- 3,576
	OKLAHOMA	5,360	12,114	- 6,754
	TEXAS	54,220	48,898	5,322
	TOTALS	84,673	87,205	- 2,532
EAST SOUTH CENTRAL	ALABAMA	45,048	21,003	24,045
	KENTUCKY	4,192	13,211	- 9,019
	MISSISSIPPI	13,390	15,495	- 2,105
	TENNESSEE	9,243	18,721	- 9,478
	TOTALS	71,873	68,430	3,443

Source: Compiled by PMHI Staff from same source as Figure 5

FIGURE 9: REGIONAL DISTRIBUTION OF MOBILE HOME SHIPMENTS COMPARED TO REGIONAL PRODUCTION FIGURES - 1972.

MID-ATLANTIC	NEW JERSEY	-	1,899	-	1,899
	NEW YORK	2,330	18,053	-	15,723
	PENNSYLVANIA	46,603	26,200	-	20,403
	TOTALS	48,933	46,152	-	2,781
NEW ENGLAND	CONNECTICUT	0	586	-	586
	MAINE	1461	3,876	-	2,410
	MASSACHUSETTS	-	1,667	-	1,667
	NEW HAMPSHIRE	-	2,585	-	2,585
	RHODE ISLAND	0	343	-	343
	VERMONT	-	1,920	-	1,920
	TOTALS	1,461	10,954	-	9,389
PACIFIC	CALIFORNIA	48,205	34,786	-	13,419
	HAWAII	-	330	-	330
	OREGON	9,683	11,370	-	1,687
	WASHINGTON	4,546	7,715	-	3,169
	TOTALS	62,434	54,201	-	8,233
MOUNTAIN	ARIZONA	7,689	13,681	-	5,992
	COLORADO	5,209	11,449	-	6,240
	IDAHO	15,528	5,112	-	10,416
	MONTANA	2,383	5,418	-	3,035
	NEVADA	0	4,446	-	4,446
	NEW MEXICO	-	7,044	-	7,044
	UTAH	-	4,048	-	4,048
	WYOMING	-	1,983	-	1,983
	TOTALS	30,809	53,181	-	22,372
	ALASKA	-	737	-	737

Source: Compiled by PMHI Staff from same source as Figure 5

FIGURE 9: REGIONAL DISTRIBUTION OF MOBILE HOME SHIPMENTS COMPARED TO
(cont.) REGIONAL PRODUCTION FIGURES - 1972.

Some possible reasons for these interregional differences in shipments stem from differences in patterns of taste, income and public regulations concerning mobile homes, all of which can lead to variations in the elasticities of regional demand and supply schedules.

Comparing the information in Figure 8 with the production data in Figure 9 leads to some observations. The South Atlantic region, which has the highest production volume and the largest number of distribution outlets on an absolute and percentage basis, is also a net importer of the product. The same is true of the West South Central, Mountain, New England regions, and Alaska. An excess demand for the product exists (apart from New England and Alaska where the production capacity is minimal). This supports the previous hypothesis concerning the interregional differences in demand, if possible factors concerning the supply are disregarded.

1.2.5 Emerging Trends

Past and present conditions indicate that the industry will continue to grow without running into serious bottlenecks in the supply function of the distribution system. The increase in shipments, and in the number of dealerships through which these shipments are sold, demonstrates that no substantial exogenous or endogenous problems have arisen as of 1973 to limit, on a national basis, either the production capabilities

of the industry or the establishment of new dealerships.

Will the industry continue to exhibit differential rates of growth in the future? Or are the present differentials in interregional growth rates a residue of the past mobile home boom in the regions now showing the highest concentration in terms of shipments to dealers? These are questions which require an in-depth analysis with the help of time series.

2.

Structure

2.1 OUTLET DISTRIBUTION

2.1.1 Analysis

National Outlet Distribution

As of 1974, there were 16,511 distribution outlets for mobile homes and recreational vehicles in the United States. Using estimates developed by PMHI, the following breakdown of the dealerships was obtained: 9,129 sell only mobile homes, 2,998 sell only recreational vehicles, and the remaining 4,384 dealers sell both products.

Figure 10 shows the structural breakdown of the dealerships among these three categories between 1970, the earliest year for which such information is available, and 1974.

The table shows that the number of dealerships selling both products as well as the number of dealerships selling only mobile homes has increased while the number of dealers selling only recreational vehicles has decreased. However, no definite conclusions concerning a trend in this direction can be made from the available data.

Year	Total Number of Outlets.	Mobile Homes Only.	Recreational Vehicles Only.	Both Mobile Homes and Recreational Vehicles.
1970	12743	6253	4401	2089
1971	14204	6915	4963	2326
1972	14808	7505	3034	4296
1973	15959	8376	3062	4521
1974	16511	9129	2998	4384

Source: Compiled by PMHI Staff from: The Automotive Credit Service, Directory of Mobile Home and Recreational Vehicle Dealers in the United States and Canada, 1970-1974.

Figure 10: NATIONAL DISTRIBUTION OF OUTLETS SELLING MOBILE HOMES ONLY, RECREATIONAL VEHICLES ONLY, AND BOTH MOBILE HOMES AND RECREATIONAL VEHICLES

Regional Outlet Distribution

This discussion parallels the one on the regional distribution of shipments. Figures 11 and 12 give a breakdown of the dealerships in the mobile home and recreational vehicle industries according to the categories noted in 2.1.1 (dealers selling mobile homes only, dealers selling recreational vehicles only and dealers selling both products) for the years between 1970 and 1974.

This regional breakdown of dealerships according to category brings to light certain factors which are lost in the national figures. First, the number of dealers selling only recreational vehicles has fallen in the South Atlantic, West South Central and East South Central regions during the sample period, while the number remains steady or rises everywhere else. Second, the number of dealers selling both products has decreased in the East North Central, East South Central, Atlantic and New England regions. Figure 11 shows that the sharpest changes among the different categories in each region occurred in 1971. As can be seen from Figure 2, this was the year in which shipments to dealers rose from the 1970 slump which was caused by exogenous, macroeconomic factors. This change in the specialization patterns of dealerships during the recovery from a slump in mobile home shipments to dealers suggests that dealers often react to overall market factors

REGION	TOTAL NUMBER OF DEALERS				MOBILE HOME DEALERS ONLY				RECREATIONAL VEHICLE DEALERS ONLY				MOBILE HOME AND RECREATIONAL DEALERS			
	1970	1971	1972	1973	1974	1970	1971	1972	1973	1974	1970	1971	1972	1973	1974	1974
South Atlantic	2427	2714	2835	3181	3283	1246	1380	1800	2049	2188	958	1072	362	374	367	728
East North Central	2995	3262	3284	3377	3344	1409	1510	1591	1691	1768	968	1095	828	798	780	846
West North Central	1202	1411	1404	1499	1426	622	723	669	768	770	416	498	230	232	210	446
West South Central	1055	1252	1395	1418	1572	533	626	759	782	925	374	440	255	252	256	391
East South Central	945	1057	1080	1188	1396	460	530	646	740	434	399	430	139	153	151	306
Mid Atlantic	1559	1680	1688	1768	1833	687	699	843	911	993	568	632	457	454	450	390
New England	548	604	595	610	606	254	269	245	249	262	181	200	183	187	176	168
Pacific	1217	1372	1527	1729	1680	602	708	587	701	702	324	358	417	449	423	555
Mountain	750	796	946	1137	1271	411	437	345	468	557	200	219	158	158	179	535
Alaska	45	56	54	52	50	29	33	20	17	25	13	19	5	5	6	19
TOTAL	12743	14204	14808	15959	16511	6253	6915	7505	8376	9129	4401	4963	3034	3062	3998	4364
											2089	2326	4269	4521	4364	

Source: Compiled by the PMHI staff from: The Directory of Mobile Home and Recreational Vehicles in the United States and Canada, 1970-1974 issues. Published by: Automotive Credit Service, New York, New York.

FIGURE 11: REGIONAL DISTRIBUTION OF MOBILE HOME AND RECREATIONAL VEHICLE DEALERS IN THE UNITED STATES: 1970-1974

Region	MOBILE HOME DEALERS ONLY					RECREATIONAL VEHICLE DEALERS ONLY					DEALERS SELLING BOTH MOBILE HOMES AND RECREATIONAL VEHICLES				
	1970	1971	1972	1973	1974	1970	1971	1972	1973	1974	1970	1971	1972	1973	1974
South Atlantic	19.9%	20.0%	24.0%	24.4%	24.6%	21.8%	21.6%	11.0%	12.2%	12.2%	10.7%	11.3%	15.3%	16.8%	16.6%
East North Central	22.5	21.8	21.2	20.2	19.1	22.0	22.1	27.3	26.1	26.0	29.6	28.2	20.3	19.6	19.3
West North Central	9.9	10.5	8.9	9.2	8.4	9.4	10.0	7.6	7.5	7.0	7.8	8.2	11.8	11.0	10.2
West South Central	8.5	9.1	10.1	9.3	10.1	8.5	8.9	8.4	8.2	8.5	7.1	8.0	8.9	8.5	8.9
East South Central	7.4	7.7	8.6	9.8	10.3	9.1	8.7	4.6	5.0	5.0	4.1	4.2	6.9	6.5	7.0
Mid-Atlantic	11.0	11.0	11.2	10.9	10.9	12.9	12.7	15.1	14.3	15.0	14.6	15.0	9.1	8.9	8.9
New England	4.1	3.8	3.3	3.0	2.9	4.1	4.0	6.0	6.1	5.9	5.4	5.8	3.9	3.9	3.3
Pacific	9.6	10.2	7.8	8.4	7.7	7.4	7.2	13.7	14.7	14.1	13.9	13.1	12.2	12.3	12.7
Mountain	6.6	6.3	4.6	5.6	6.1	4.5	4.4	5.2	5.2	6.0	6.7	6.0	10.4	11.3	12.2
Alaska	0.5	0.5	0.3	0.2	2.7	0.3	0.4	0.2	0.2	0.2	0.1	0.2	0.7	0.7	0.4

Source: Compiled by the PHII staff from The Directory of Mobile Homes and Recreational Vehicles in the United States and Canada, 1970-1974.
Published by: Automotive Credit Service, New York, New York.

FIGURE 12: PERCENTAGE DISTRIBUTION OF DEALERSHIPS SELLING MOBILE HOMES ONLY, AND THOSE DEALERSHIPS SELLING BOTH MOBILE HOMES AND RECREATIONAL VEHICLES, ON A REGIONAL BASIS, 1970-1974

with diversification, and that the dealers' planning period may be a year. Assuming that the required know-how and technology varies for dealers changing their specialization, the time lag may be a learning lag as well as being the period in which the decision for diversification is made, orders placed, and actual shipments sent. Hence, it can be hypothesized that market pressures play a role in determining the patterns of specialization in the mobile home distribution system as well as the recreational vehicle distribution system.

State-by-State Outlet Distribution

The number of outlets selling mobile homes, recreational vehicles or both products is given in a state-by-state breakdown in Figure 13.

2.1.2 Causality

The figures in 2.1.1 show the same kind of interregional differentials in mobile home distribution outlets as in shipments.

The demand and supply considerations which determine the volume of interregional shipments also affect the distribution of outlets. The larger the market for mobile homes in a region, the greater the profit possibilities for individual outlets, and therefore the number of shipments to that region will be greater.

STATE	1974 DEALER TOTALS	1973 DEALER TOTALS	% MH DEALER	ADJ. MH DEALERS	% RV DEALERS	ADJ. RV DEALERS	% BOTH DEALERS	ADJ. BOTH DEALERS
ALABAMA	370	320	69	255	8	30	23	85
ALASKA	50	52	50	25	12.5	6	37.5	19
ARIZONA	283	287	47	133	15	42	38	108
ARKANSAS	207	167	67	138	9	19	24	50
CALIFORNIA	1171	1238	43	504	27	316	30	351
COLORADO	231	240	55	128	12	28	33	75
CONNECTICUT	97	100	39	37.5	39	37.5	22	22
DELAWARE	73	72	62	45	18	13	20	15
WASH., D.C.	2	2	0	0	50	1	50	1
FLORIDA	1159	1191	67	773	9	104	24	282
GEORGIA	512	501	76	389	7	35	17	88
HAWAII	2	3	0	0	0	0	100	6
IDAH0	104	104	30.6	32	10.6	11	58.6	61
ILLINOIS	657	658	48	89	26	48.5	26	48.5
INDIANA	608	615	54	326	20	126	26	159
IOWA	256	251	46	117	22	56	32	83
KANSAS	232	223	50	117	17	39	33	76
KENTUCKY	401	357	62	249	11	45	27	107
LOUISIANA	232	212	60	140	21	49	19	43
MAINE	104	100	60	62	10	11	30	31
MARYLAND	147	149	45	67	24	35	31	45
MASSACHUSETTS	185	187	32	60	40	73	28	52
MICHIGAN	810	805	52	422.5	27	217.5	21	170
MINNESOTA	321	321	58	186	13	41	29	94
MISSISSIPPI	218	164	71	156	10	21	19	41
MISSOURI	469	440	60	280	11	52	29	137
MONTANA	111	103	39	43	11	13	50	55
NEBRASKA	124	117	45	56	20	24	35	44
NEVADA	83	80	34	28	19	16	47	39
NEW HAMPSHIRE	120	119	51	61	24	29	25	30
NEW JERSEY	218	215	45.3	99	33.3	73	21.3	46
NEW MEXICO	169	161	44	74	11	19	45	76
NEW YORK	728	712	57	413	24	177	19	138
N. CAROLINA	573	537	71	407	9	50	20	116
N. DAKOTA	72	70	42	30	15	11	43	31
OHIO	973	967	55	538	22	212	23	223
OKLAHOMA	276	263	54	149	16	44	30	83
OREGON	254	246	40	101	17	44	43	109
PENNSYLVANIA	887	841	54	481	22	197	24	209
RHODE ISLAND	34	35	14	5	41	14	45	15
S. CAROLINA	277	241	71	197	8	23	21	57
S. DAKOTA	76	77	57	43	9	7	34	26
TENNESSEE	407	347	69	282	13	52	18	73
TEXAS	857	776	58	498	17	146	25	213
UTAH	103	99	35	36	19	20	46	47
VERMONT	66	69	55	37	17	11	27	18
VIRGINIA	303	273	58	175	22	67	20	61
WASHINGTON	253	242	38	96	25	64	37	93
WEST VIRGINIA	237	217	60	143	14	33	16	61
WISCONSIN	346	332	48	167	17	58	35	121
WYOMING	63	63	35	22	13	8	52	33
TOTAL	16,511	15,961	55	9,086	18	3,010	27	4,415

Source: Compiled by a PMHI Task Force from the Automotive Credit Service's Mobile Home and Recreational Vehicle Dealers of the United States and Canada, 1974.

FIGURE 13. MOBILE HOME AND RECREATIONAL VEHICLE DEALERSHIPS, 1974, BY STATE

2.1.3 Emerging Trends

Besides the issue of regional polarization of the industry, the fall in the shipments per outlet in the mobile home distribution system since 1970 should be noted. Figures 14 and 15 show shipments per outlet on a national and regional basis for the years between 1970 and 1973. In all areas except the East North Central, shipments per outlet fell in 1973. While a slight rise in shipments from 1972 occurred in the East North Central region, the number of shipments was still below the figure for 1970.

A reduction in shipments per outlet at a time when both total shipments and the number of total outlets are rising may be due to a number of factors. First, new outlets being built may be considerably smaller than older ones, and as these rise in number, the shipment per outlet figure is declining. However, this seems unlikely since external evidence shows that the size of the new outlets is at least constant and may be increasing. The other possibility is that the entrepreneurs in the field overreacted to changes in demand, and that excess capacity is built into the distribution system. There is some evidence to this effect. All the respondents to the structured industry interviews conducted by PMHI in early 1975 noted that at the present time dealers are operating at less than full capacity.

Excess capacity may be caused by the unrealized demand expectations

YEAR	NUMBER OF OUTLETS SELLING EITHER MOBILE HOMES OR BOTH MOBILE HOMES AND RECREATIONAL VEHICLES	UNITS SHIPPED	SHIPMENTS PER OUTLET
1970	8,342	401.190	48.0
1971	9,241	496.570	53.7
1972	11,774	575.940	48.9
1973	12,897	618,665	47.96

Source: Compiled by PMHI Staff from Figure 2 and 11.

FIGURE 14: MOBILE HOME SHIPMENTS PER OUTLET ON A NATIONAL BASIS
1970-1973

YEAR	REGION	NUMBER OF OUTLETS SELLING EITHER MOBILE HOMES OR MOBILE HOMES AND RECREATIONAL VEHICLES	UNITS SHIPPED	SHIPMENTS PER OUTLET
1970	SOUTH	1469	114.443	77.9
1971	ATLANTIC	1642	138.590	84.4
1972		2473	175.720	71.0
1973		2807	176.624	62.9
AVERAGE 1970/1973		2097.7	151.344,2	74.05
1970	EAST	2027	65.012	32.0
1971	NORTH	2167	69.926	32.2
1972	CENTRAL	2456	74.021	30.0
1973		2579	80.436	31.1
AVERAGE 1970/1973		2307.2	72.348,7	31.3
1970	WEST	786	33.135	42.1
1971	NORTH	913	40.492	44.3
1972	CENTRAL	1174	50.881	43.3
1973		1267	48.398	38.1
AVERAGE 1970/1973		1035	43.226,5	41.9
1970	WEST	681	50.228	73.7
1971	SOUTH	812	61.678	75.9
1972	CENTRAL	1140	87.205	76.4
1973		1166	76.536	65.6
AVERAGE 1970/1973		950	68.911,7	72.9
1970	EAST	546	33.163	60.7
1971	SOUTH	627	51.403	81.9
1972	CENTRAL	941	68.430	72.7
1973		1035	70.574	68.1
AVERAGE 1970/1973		787.2	55.892,5	70.85
1970	MID-	991	32.783	33.0
1971	ATLANTIC	1048	36.368	34.7
1972		1231	46.152	37.4
1973		1314	45.889	34.9
AVERAGE 1970/1973		1146	40.298	35.0

Source: Compiled by PMHI Staff from Figures 3 and 11.

FIGURE 15: MOBILE HOME SHIPMENTS PER OUTLET ON A REGIONAL BASIS,
1970-1973

1970	NEW	367	11.148	30.3
1971	ENGLAND	404	10.915	27.0
1972		412	10.954	26.5
1973		423	10.669	25.2
AVERAGE 1970/1973		401.5	10.921,5	27.25
1970	PACIFIC	893	37.186	41.6
1971		1014	49.989	49.2
1972		1110	54.201	48.8
1973		1280	55.900	43.6
AVERAGE 1970/1973		1074.2	49.319	45.8
1970	MOUNTAIN	550	32.632	59.3
1971		577	43.564	75.5
1972		788	53.181	67.4
1973		979	52.721	53.8
AVERAGE 1970/1973		498.5	45.524,5	64.0
1970	ALASKA	32	1621	50.6
1971		37	932	25.1
1972		49	737	15.0
1973		82	928	11.3
AVERAGE 1970/1973		48.7	1054.7	19.32

Source: Compiled by PMHI Staff from Figures 3 and 11.

FIGURE 15: MOBILE HOME SHIPMENTS PER OUTLET ON A REGIONAL BASIS
(cont.) 1970-1973

of the various agents on the supply side of the industry, and can play a role in raising the overall industry costs through lowering the industry's cost efficiency. Further discussion of this is found in chapter 4 in relation to industry performance.

2.2 CONCENTRATION

Concentration in the mobile home distribution system will be evaluated along two parameters. The first is the concentration of ownership in the distribution system. The basic question which this part of the discussion will try to answer is whether a small number of horizontally integrated firms (i.e., mobile home dealership chains) are able to control a high proportion of outlets and subsequently, of shipments. The significance of this question is due to the fact that integration of this sort can possibly lead to distortions in the pricing structure and a reduction in the welfare of the consumers. The second parameter to be evaluated is the spatial concentration of outlets. This is mainly a geographic determinant for the existence of a market in the mobile home distribution system. Due to the high cost of transportation caused by the physical characteristics of the product, the mobile home distribution system is particularly susceptible to the formation of local or regional oligopolies with a limited number of outlets (which may or may not be horizontally integrated) possibly acquiring substantial market power. The study of spatial concentration analyzes the existence of this possibility. A discussion of these two parameters will enable

the reader to draw some conclusions concerning the performance of the distribution function in the mobile home industry.

2.21 Economic Concentration

Since a minimal amount of information on the number of chains in the mobile home distribution system is currently available, the following analysis is based on the estimates obtained through structured correspondence with industry experts in the mobile home distribution system conducted by PMHI during the summer of 1974.

The study of the concentration of ownership and its possible effects on the market forms in the mobile home distribution system is carried on along two lines. First, the proportion of outlets which are controlled by chains as compared to the total number of outlets is estimated. In this part of the analysis, estimates developed independently by PMHI from industry statistics are used in cross-checking the results.²

In Figure 16, the PMHI "expert correspondence" results which contain a high estimate(H), a low estimate(L), and the arithmetic mean of the high and low estimates (M), (as the sample was small, no attempt at weighing was made in calculating (M)) are tabulated along with the information given in "ACS Directory". The figure

<u>NUMBER OF CHAIN OPERATIONS</u>				
PMHI estimates:			ACS figures:	
H	M	L	:	
844	434	118	549	

<u>GENERAL CHAIN STRUCTURE</u> <u>NUMBERS OF OUTLETS IN CHAINS</u>				
PMHI estimates:			ACS figures:	
Group	H	M	L	
A	19,100	10,250	3,150	1,058
B	10,250	5,625	1,825	
C	3,044	1,834	718	

Source: PMHI Survey and ACS "Directory"

FIGURE 16: NUMBER OF DEALERSHIP CHAINS AND THE TOTAL NUMBER OF OUTLETS BELONGING TO A CHAIN IN THE MOBILE HOME DISTRIBUTION SYSTEM, 1973

gives the estimates for the number of chains, which is identical with the number of headquarters in the ACS directory, and the total number of outlets which operate as a member of a chain. A chain can consist of two to 200 outlets. As PMHI has only general estimates on the number of units in a chain, the following hypothetical categories were used in classifying various chains.

Group A. The chain structure in the mobile home distribution system consists of various chains made up of 200 outlets, 100 outlets, 50 outlets and 20 outlets. In other words, a number of chains which have 200 outlets exist side by side with some chains with 20 outlets.

Group B. The largest chain in this group has 150 outlets, then a number of chains have 75 outlets, 35 outlets, and 10 outlets.

Group C. Comprised of chains of 101, 51, 21 and 2 outlets each.

Although this schema may seem unrealistic since it excludes a chain structure made up of some 200-unit chains existing side by side with 2-unit chains, it is the only (yet a reasonably reliable) means available to PMHI to estimate the concentration of ownership in the mobile home distribution system.

As the estimated number of chains compiled from the ACS directory, 549, is comparable with the PMHI mean estimate, 434, the conclusion is that the number of chains in the mobile home distribution system is in the 400-600 range. The average chain size is 4

outlets (PMHI estimate) or 3 outlets (ACS figures).

The possible distribution of the various sized chains in the system was tentatively explored by comparing the various estimates obtained by PMHI with the ACS figure. This comparison shows that the (M) estimate for the Group C chain structure and the (L) estimate for the Group B structure closely approximate the figures derived from the ACS directory. Figure 17 reproduces these.

It is well known in the mobile home industry that one chain with at least 150 outlets, Mobile Homes Industries, exists. It is also known that there are many 2-outlet operations. The number of outlets controlled by a chain is 1744 based on ACS. This fact plus Figure 17 provide some information concerning the existence of horizontal integration in the mobile home distribution system. Figure 18 gives the percentage of total dealerships controlled by chain operations in 1973.

The high estimate is that horizontally integrated dealers control roughly 13% of the outlets. Hence, from a national perspective, there is no evidence for the existence of oligopolistic imperfections in the structure of the mobile home distribution system.

Number of outlets in a chain	Number of existing chains.	
	Estimate 1 (III-M)	Estimate 2 (II-L)
150 outlets	--	1 chain
101 outlets	1 chain	--
75 outlets	--	2 chains
51 outlets	8 chains	--
35 outlets	--	15 chains
21 outlets	25 chains	--
10 outlets	--	100 chains
2 outlets	400 chains	--
Number of outlets belonging to chains:	1834 outlets	1825 outlets

Source: PMHI correspondence with industry experts, 1974.

FIGURE 17: POSSIBLE CHAIN STRUCTURE IN THE MOBILE HOME DISTRIBUTION
SYSTEM PMHI ESTIMATES

Number of Outlets controlled by chains (C)		Total number of Outlets (O)	Percent controlled by chains (C/O%)*
PMHI estimate 1	1834	13,513	13.5%
PMHI estimate 2	1825		13.5%
ACS Figure	1058		7.7%
*percentage figures rounded to nearest tenth			

Source: PMHI Survey and ACS Directory.

FIGURE 18: CHAINS CONTROL OF DISTRIBUTION OUTLETS IN THE MOBILE
HOME DISTRIBUTION SYSTEM 1974

National Control of Retail Sales

In spite of intensive efforts, it proved impossible for PMHI to obtain data for estimating the regional distribution of chains. Hence, the following analysis will concentrate on national figures.

In the analysis of ownership concentration in the distribution system of the mobile home industry, an estimated 13% of all distribution outlets are controlled by chain operations. If the sales volume of outlets follows the national patterns, then 13% of all shipments are controlled by chains. Alternatively, if the sales volume of an average outlet in a chain were double the national average, then we would expect the percentage of shipments controlled by chains to be 26%. Certainly this latter estimate has an upward bias. Although outlets which are a part of chain operations may be on the average slightly larger than independents due to possible scale economies, there is no data available to PMHI that would indicate that the average size of sales outlets belonging to a chain operation might be as high as twice the national average.

Figures 19 and 20 estimate the market shares of the chain operations under the two assumptions. Figure 19 shows the percentage of sales (shipments to dealers) controlled by chains of differing sizes, with two estimates E1 and E2, of chain structuring, given the assumption that outlets in chains follow the national patterns. Figure 20

Number of Outlets in a Chain	E_1	% of shipments controlled	Cumulative Percentage	E_2	% of shipments controlled	Cumulative Percentage
150 outlets				1	1.1%	1.1%
101 outlets	1	.7%	.7%			
75 outlets				2	1.1%	2.2%
51 outlets	8	3.0%	3.7%			
35 outlets				15	3.9%	6.1%
21 outlets	25	3.9%	7.6%			
10 outlets				100	7.4%	13.5%
2 outlets	400	5.9%	13.5%			
Number of outlets selling either mobile homes only or both mobile homes and recreational vehicles in 1974: 13513.						

Source: Figure 14 and Figure 17.

FIGURE 19: CONTROL OF SHIPMENTS TO DEALERS BY CHAIN OPERATIONS IN THE MOBILE HOME DISTRIBUTION SYSTEM, 1974. ASSUMPTION 1.

Number of outlets in a chain	E_1	% of shipments controlled	Cumulative Percentage	E_2	% of shipments controlled	Cumulative Percentage
150 outlets				1	2.2%	2.2%
101 outlets	1	1.4%	1.4%			
75 outlets				2	2.2%	4.4%
51 outlets	8	6.0%	7.4%			
35 outlets				15	7.8%	12.2%
21 outlets	25	7.8%	15.2%			
10 outlets				100	14.8%	27.0%
2 outlets	400	11.8%	27.0%			
Number of outlets selling either mobile homes only or both mobile homes and recreational vehicles in 1974: 13513						

Source: Figure 14 and Figure 17.

FIGURE 20: CONTROL OF SHIPMENTS TO DEALERS BY CHAIN OPERATIONS IN THE MOBILE HOME DISTRIBUTION SYSTEM, 1974. ASSUMPTION 2.

repeats the same analysis for the alternative assumption which states that the size of an outlet in a chain operation is double the national average.

It must again be noted that these figures are the best estimates with the available data and will have to be revised as concrete information on patterns of ownership and size become available. With the above proviso in mind, it can be stated that a relatively low degree of concentration prevails in the mobile home distribution system on the national level. As noted before, regional differentials with respect to shipments and the numbers of outlets make any inferences from the national to the regional or state level difficult. Although chains might find it more profitable to operate in regions where the industry is more developed, there is no firm evidence that this is so. A situation of chains exerting oligopolistic powers in some regions where the industry is not fully developed is theoretically feasible. Another possibility which is mutually exclusive with the previous one is that chains control shipments in a select few areas where the industry is fully developed leaving the rest of the national market to the independents.

2.2.2 Spatial Concentration

The following analysis is focused on the geographic and demographic distribution of mobile home outlets. The two sets of indices covered by this heading measure the degree of reaction of the mobile home distribution system to demand factors. The first set of measures which will be used are related to area, specifically distribution outlets per square mile. Such measures are based on a rather limited definition of a market which emphasizes physical dimensions and uses them as a proxy for other economic variables. The main reason for taking such an approach with respect to the distribution outlets of the mobile home industry is the physical characteristics of the product. They give a major role to transportation costs, which in turn play a large part in the structuring of the distribution system.

The second set of measures which will be developed emphasizes a demographic variable: the size of the population in various regional markets. Disregarding the income variable, population alone is not a sufficient measure of market size. The present study, however, is mainly concerned with the analysis of problems of supply, and only the geographic and demographic variables are directly relevant. An analysis of the many different determinants of demand for mobile homes and their effects on the structure of the distribution system will be left to a future study.

Transport Costs and the Structure of the Mobile Home Distribution System

Unlike many goods, mobile homes cannot be transported in bulk across long distances without transport costs becoming prohibitive. This has been an important factor in the relative decentralization of production facilities and of the dealer network.

Transport costs impose certain limits on the geographical distance among the agents in the channels of distribution, for if these agents are more than a given distance from each other, their operations become unprofitable. The optimum distance between the agents has been empirically determined to be around 300 miles for each step in distribution. A national survey made by Chido, Lorimer and Associates for the State of Minnesota shows that 56 percent of the manufacturer's market for mobile homes is located within 250 miles of the manufacturing plant, while the remaining 44 percent is within 500 miles.⁴ This has certain implications for the location of dealers and manufacturers. According to the same survey, 69.3% of the dealers are within 250 miles of the plant while only 17% of the final market is within this radius. 24% of the dealers are within 250 - 500 miles of the plant within which 83% of the final market is concentrated. Hence, it can be concluded that transport costs lead to a concentration of dealers within a radius of 250 - 300 miles of the plant and that this in turn leads to a concentration of the market to within 250 miles of the dealers.⁵

This situation, which directly results from the physical characteristics of the product, has helped decentralize both the production and the distribution systems of the mobile home industry. A producer or dealer who knows that his market is limited to a radius of roughly 500 miles economically cannot expand his operations beyond a certain limit. Especially at the plant level, the scale economies associated with large-scale mass production cannot be fully exploited. This may lead to oligopolistic formations, a situation which will be discussed in 3.1..

In the following analysis, interregional differences in transportation costs are not considered.

Analysis

As noted, two sets of variables are used in the analysis of the spatial concentration of outlets.⁶ First is the number of outlets and unit shipments per square mile. Given uniform transport costs on a national basis, interregional differences in these variables may be taken as an indication of interregional differentials in market size. Taken separately, the number of outlets per square mile (O_{mi}) is an indicator of past demand as well as future expectations. As the time span covered by the life of an outlet is more than a year, the basic time period of analysis, it is concluded that this variable is an indicator of the market size over the intermediate

period (in the Marshallian sense of the term), covering more than a year. Shipments per square mile (S_m) cover a single period, a year, and assuming constant inventory levels, is an indicator of the market size in the short run. As was discussed in other parts of the study, the assumption of constant inventories is not as limiting in the mobile home industry as it may be in other industries.

Second, two demographic variables are used: outlets per household and shipments per household. Outlets per household (O_h) is a measure of the market in terms of population. It was noted in the discussion on transportation costs that the mobile home market does have demographic as well as physical characteristics in the sense of covering a limited geographic area. This variable had the characteristic noted in the case of the O_{mi} variable. The last variable estimated was shipments per household (S_h) which is the demographic analogue of the O_m variable. Also, two hybrid variables were calculated. One is outlets per household per square mile (O_{hm}). This is a measure of market concentration, in the intermediate period, when expressed on a regional basis. Similarly, a short run variable (S_{hm}) was also calculated. In the following, for reasons which will become apparent to the reader as the argument develops, the usual order followed in this study (presenting national figures and following them with regional ones) will be reversed.

Regional Distribution of Mobile Home Shipments and
Outlets on a Geographic and Demographic Basis

Figures 21 and 22 give the values of the variables, shipments received by dealers and outlets on a per square mile and per household basis, (Sh, Sm) and (Oh, Om) . Figure 23 gives the number of shipments per household and per square mile (Ohm) . Finally, this information is ranked on an interregional basis in Figure 24.

In the evaluation of the ranked data, three basic yardsticks were used. First was the ranking of the region on a national scale. Second was the ranking difference between the short-term variables concerning outlets (Oh, Om, Ohm) . For optimal performance these should match. If some short-run variables are of lesser rank than others, some excess capacity problems may be assumed and vice versa. Third, rank differences in the set of short-run variables concerning shipments (Sh, Sm, Shm) were used.

It was noted in 1.2.2 and in 2.1.1 that some regions dominate the national market in terms of total shipments and total number of outlets. The picture changes considerably when these figures are adjusted on a geographic and demographic basis. The nine regions, and Alaska, will be discussed individually in terms of the adjusted figures.

REGION	AREA (SQ. MILES)	1973 TOT. SHIPMENTS	HOUSEHOLDS (10,000's)	SHIPMENTS PER 10,000 HOUSEHOLDS	SHIPMENTS PER 10,000 SQ. MILES
SOUTH ATLANTIC	278,776	176,624	94.39	187.12	6335.6
EAST NORTH CENTRAL	248,284	80,436	123.82	64.96	3239.6
WEST NORTH CENTRAL	517,247	48,398	51.55	93.88	935.6
WEST SOUTH CENTRAL	438,884	76,563	59.52	128.36	1744.4
EAST SOUTH CENTRAL	181,964	70,574	38.68	182.45	3873.4
MID- ATLANTIC	102,745	45,859	118.37	38.76	4466.3
NEW ENGLAND	66,608	10,669	36.45	29.27	1601.7
PACIFIC	91,672	55,900	85.75	65.18	6097.8
MOUNTAIN	863,887	52,721	25.18	209.37	610.2
ALASKA	586,412	928	.79	117.46	15.8
U.S. TOTAL	3,615,122	618,702	634.50	97.51	1711.4

Source: Compiled by PMHI Task Force from Statistical Abstract of the United States, 1973, and "Mobile-Modular Housing Dealer Magazine's Monthly Market Letter."

FIGURE 21: REGIONAL UNIT SHIPMENT CONCENTRATION FOR THE UNITED STATES, 1973

REGION	AREA (SQ MILES)	1973 TOTAL MH ONLY & MH&RV OTLTS	HOUSEHOLDS (10,000's)	DISTN. OUT. PER 10,000 HOUSEHOLDS	DISTRIBUT'N OUTLETS PER 10,000 SQMI
SOUTH ATLANTIC	278,776	2916	94.39	3.09	104.6
EAST NORTH CENTRAL	248,284	2614	123.82	2.11	105.2
WEST NORTH CENTRAL	517,247	1216	51.55	2.36	23.5
WEST SOUTH CENTRAL	438,884	1316	59.52	2.21	29.9
EAST SOUTH CENTRAL	181,964	1245	38.68	3.22	68.4
MID- ATLANTIC	102,745	1383	118.37	1.17	134.6
NEW ENGLAND	66,608	430	36.45	1.18	64.5
PACIFIC	916,728	1257	85.75	1.46	13.7
MOUNTAIN	863,887	1092	25.18	4.34	12.6
ALASKA	586,412	44	.79	5.57	.7
U.S. TOTAL	3,615,122	13,513	634.50	2.13	37.3

Source: Compiled by PMHI Task Force from Statistical Abstract of the United States, 1973, and The Automotive Credit Service's Directory of Mobile Home and Recreational Vehicle Dealers in the United States and Canada

FIGURE 22: REGIONAL DEALER SPATIAL CONCENTRATION RATIOS FOR THE UNITED STATES, 1973.

REGION	SHIPMENTS PER 10,000 HOUSEHOLDS PER SQUARE MILE	OUTLETS PER 10,000 HOUSEHOLDS PER SQUARE MILE
SOUTH ATLANTIC	13.90	.238
EAST NORTH CENTRAL	4.46	.145
WEST NORTH CENTRAL	13.43	.337
WEST SOUTH CENTRAL	15.58	.268
EAST SOUTH CENTRAL	9.18	.162
MID-ATLANTIC	1.10	.033
NEW ENGLAND	0.54	.022
PACIFIC	1.66	.372
MOUNTAIN	50.00	1.031
ALASKA	0.002	.090

Source: Figures 21 and 22.

FIGURE 23: CONCENTRATION OF OUTLETS OF MOBILE HOMES AND SHIPMENTS
TO DEALERS PER 10,000 HOUSEHOLDS PER SQUARE MILE IN 1973.
REGIONAL BREAKDOWN.

REGION	SHIPMENTS					OUTLETS			
	UN- ADJUSTED	PER 10,000 HOUSEHOLDS	PER 10,000 SQ. MILES	PER 10,000 HOUSEHOLDS PER SQ MI	UN- ADJUSTED	PER 10,000 HOUSEHOLDS	PER 10,000 SQ. MILES	PER 10,000 HOUSEHOLDS PER SQ MI	
SOUTH ATLANTIC	1	2	1	2	1	4	3	5	
E. NORTH CENTRAL	2	8	5	6	2	7	2	7	
W. NORTH CENTRAL	5	6	8	4	5	5	7	3	
W. SOUTH CENTRAL	3	4	6	3	6	6	6	4	
E. SOUTH CENTRAL	4	3	4	5	7	3	4	6	
MID- ATLANTIC	7	9	3	8	3	10	1	8	
NEW ENGLAND	8	10	7	9	9	9	5	9	
PACIFIC	6	7	2	7	4	8	8	2	
MOUNTAIN	6	1	9	1	8	2	9	1	
ALASKA	9	5	10	10	10	1	10	10	

Source: Figures 17-19

FIGURE 24: REGIONAL RANKINGS IN THE UNITED STATES ACCORDING TO SOME INDICES OF SPATIAL CONCENTRATION. 1973.

South Atlantic. This region is the highest ranking in terms of total number of shipments and total number of outlets. It ranks after the Mountain region when the total number of shipments is adjusted on a household basis (Sh) and on a household per square mile basis (Shm). However, in terms of geographic and demographic concentration of outlets, its rank falls on a national scale. This leads to the conclusion that outlets in this region are rather dispersed geographically and that shipments per outlet are larger than the national average. It can be said that this region still may have some undeveloped market potential, as seen by its rank on the Sh and Shm variables.

East North Central. This region ranks second in terms of unadjusted figures for shipments and outlets. This rank also holds true for the geographic dispersion of outlets (Om). However, this ranking rapidly falls when these variables are adjusted on a geographic and demographic basis. In 1973, this region performed below the national norm in terms of the variables relating to shipments (Sh, Sm, Shm). The same holds for the set of variables concerning outlets (Oh, Om, Ohm). When Ohm and Shm are taken in a pair, it is seen that the Shm variable ranks higher (6 versus 7). This leads to the hypothesis that on a regional basis the outlet size is above the norm. However, when Sh and Sm are compared directly with Oh and Om, the comparison between Sh and Sm shows that as far as the demand conditions in 1973 are concerned, the existing outlets did not do very well. When Sm and Om are taken as a pair, it is seen

that the region was oversaturated with outlets. It can be hypothesized that the geographic dispersion of outlets in this region is less than optimal.

West North Central. This region ranks third on the national scale in terms of outlets per household per square mile (Ohm). However, its ranking in terms of all other variables is lower. It appears that this is another region in which there are too many outlets for optimal operation. When the Ohm variable is compared with the Shm (Ohm:3, Shm:4), it can be observed that the existing outlets did not do too well in 1973. In this region all the adjusted intermediate period variables rank higher than the adjusted short period variables. It can be concluded on that basis that in 1973, problems of excess capacity occurred and that if these continue, a fall in the number of outlets can be expected.

West South Central. The ranking of this region in 1973, in terms of short-run variables, is at least equal to or higher than its ranking in terms of the intermediate run variables. This gives the impression that the outlets in this region did rather well.

East South Central. The same observations that were made with respect to the West South Central region also hold here.

Mid-Atlantic. This region has a characteristic which makes it anomalous. It ranks highest in terms of outlets per square mile,

but its ranking falls drastically when this is adjusted on a household basis. This leads to the hypothesis that this region may still have an unexploited potential in terms of markets. The relatively low ranking in terms of unadjusted value of shipments in 1973 may have been due to this. Also, the similar ranking in the Shm and Ohm variables leads to the conclusion that outlets did an average business during 1973.

New England. This is one of the regions which ranks very low on a national scale. However, there are no major discrepancies among the values of the short-run and intermediate-run variables. Hence, it appears that a situation of low level equilibrium prevails.

Pacific. This region ranks next to the mountain region in terms of the Ohm variable. However, in 1973 the corresponding Shm variable ranked rather low. Hence, the existing outlets seem to have performed poorly in terms of sales during 1973. As far as the market conditions in that year go, excess sales capacity existed and the outlets were too closely concentrated for optimal efficiency. The regional performance somewhat improves when other intermediate-run and short-run variables are compared, which leads to the conclusion that the regional performance may not have been so problematic as seen at first glance.

Mountain. In national rankings this region dominates all regions except the South Atlantic. Shm and Ohm variables rank together

showing that the distribution of outlets is rather efficient. As there are no large differences between the intermediate-run and short-run variables, it can be concluded that the region operated rather efficiently in 1973.

Alaska. This state ranks in the bottom of the national scale in many of the indices except in the number of outlets per household where it ranks first. This leads to the conclusion that overcapacity problems may exist.

This discussion of Alaska concludes this sketch of the geographic and demographic dispersion of the mobile home outlets and shipments on a regional basis. The main weakness of the analysis is the possible instability in the rankings over time. Hence, it should be taken as no more than an X-ray picture of the distribution system. The picture obtained buttresses the hypothesis made previously concerning interregional differentials in demand and supply of mobile homes. One surprising result is the ranking of the Mountain region, which shares the top national ranking with the South Atlantic region in any indices.

The discussion of national dispersion of outlets and shipments on a geographical, i.e., square mile, basis is carried on with the help of a correlation matrix developed from Figure 24.

National Distribution of Mobile Home Shipments and Outlets
On a Geographic and Demographic Basis

Figure 25 summarizes the information on the geographic and demographic dispersion of shipments on a national basis.

These are rough national figures. The next step is an analysis of the structure of the dispersion of outlets on a spatial and demographic basis. Figure 25 shows the degree of correlation between the different variables developed for the analysis of the regional figures.

To the right of Figure 25 is a list of variables (r^2 s) showing a high degree of correlation. In the case of the starred variables, because the second variable is obtained from the first through an arithmetic transformation, a high degree of correlation could be expected by definition. Hence, only the correlation shown in unstarred cases is of any interest.

First, on a national basis, the unadjusted numbers of shipments and outlets show a degree of correlation (ShOu: $r^2_s = 0.71$). This has some implications which were touched on before. These two, almost by definition, should move together barring any extremely large scale differentials in the interregional size distribution of outlets. As we can assume that no such differentials exist on

--NATIONAL FIGURES--

	SU	SH	SM	SHM	OU	OH	OM	OHM
SU	1	0.40	0.30	0.62	0.71	0.08	0.43	0.37
SH		1	-0.42	0.20	0.71	0.80	0.85	0.47
SM			1	0.03	0.76	-0.62	0.62	0.03
SHM				1	0.24	0.24	-0.16	0.74
OU					1	-0.39	0.64	0.24
OH						1	0.70	0.15
OM							1	0.76
OHM								1

$$r^2_s: Su Shm = 0.62^*$$

$$Su Ou = 0.71^{**}$$

$$Sh Ou = 0.71$$

$$Sh Oh = 0.80$$

$$Sh Om = 0.85$$

$$Sm Ou = 0.76^{**}$$

$$Sm Oh = -0.62^{**}$$

$$Sm Om = 0.62$$

$$Shm Ohm = 0.74$$

$$Ou Om = 0.64^*$$

$$Oh Om = 0.70^*$$

$$Om Ohm = 0.76^*$$

Su: Shipments unadjusted.

Sh: Shipments per 10,000 households

Sm: Shipments per 10,000 square miles

Shm: Shipments per 10,000 square miles per household

Ou: Outlets unadjusted

Oh: Outlets per 10,000 households

Om: Outlets per 10,000 square miles

Ohm: Outlets per 10,000 households per square mile

FIGURE 25: MATRIX OF CORRELATION COEFFICIENTS (SPEARMAN'S r^2_s) FOR VARIOUS INDICES SHOWING THE GEOGRAPHIC AND DEMOGRAPHIC DISPERSION OF OUTLETS AND SHIPMENTS OF MOBILE HOMES. 1973.

a large scale, a significantly positive correlation coefficient is acceptable. It was noted that the number of outlets is a variable which shows less variation over the short run than does the number of shipments; hence, the $.29 = (1 - 0.71)$ deviation is probably caused by the fluctuations in shipments. The direction of deviation cannot be told from this data, but it may be safe to say that some capacity problems do exist. As noted in 2.1.1 this is confirmed by other factors for later periods. (Otherwise, the variables, given the size distribution of outlets, could be expected to give $r^2_s = 1.00$.)

The problem diminishes somewhat when the correlation between the shipments and outlets on a per household basis is considered (ShOh: $r^2_s = 0.80$). The deviation from 1 is reduced to 0.20. Hence, it can be said that the mobile home distribution system performed effectively in 1973 in meeting market demand expressed in demographic terms, though some problems of capacity existed. It may be said that this was in the direction of excess capacity. The correlation coefficients between shipments and outlets, on a square mile or household per square mile basis are:

$$\text{SmOm: } r^2_s = 0.62 \text{ and ShmOhm: } r^2_s = 0.74.$$

The former shows that physical area, of course, is not a very good indicator of market size; r^2_s falls by 0.08% when it is estimated on a per square mile rather than on a per household basis. The final correlation is ShmOhm: $r^2_s = 0.74$, a good indicator of the overall effectiveness of the mobile home distribution system on

a national basis when both demographic and spatial factors are taken into consideration. The main factor which reduces the $ShmSohm$: $r^2_s = 0.7$ from 1 is excess capacity and the fact that distribution of households per square miles varies across the board. This can also be seen from the fact that the correlation coefficient between shipments per household and outlets per square mile ($ShOm$) is less than 1, $ShOh$: $r^2_s = 0.85$. The remaining coefficients, which are marked by (**) on Figure 25, show the degree of correlation between an adjusted and an unadjusted variable, e.g., $ShOu$, and can be disregarded here.

In conclusion, the following points can be made concerning the distribution of outlets and of shipments on a national and regional basis.

1. The national figures show that the mobile home distribution sector is dispersed in a relatively efficient manner in its demographic and spatial dimensions.
2. There existed a number of problems relating to excess capacity in the industry in 1973.
3. The national figures tend to hide many regional problems. Interregional differences in the numbers of shipments and outlets are indicators of wide ranging series of problems having to do with all aspects of the

mobile home industry, from taste differentials to zoning laws to problems of park space supply. Since the distribution system, made up of some 13,000 sales outlets, serves the purpose of a transmission belt bringing the producer and the consumer together, it is influenced by specific problems in different regions and states.

2.2.3 Causality

A number of factors play a role in the emergence of mobile home dealership chains, i.e., the concentration of ownership. First is possible cuts in operating expenses and administrative overhead. Second is the ability of relatively large chains to operate across regional boundaries, thus minimizing the effects of seasonality in sales. There are few of these chains at present. Third is the fact that large chains could exert a degree of leverage with respect to producers and even to park operators, which might raise their profit margins as compared to the smaller chains or independents.

These reasons relate to the reduction of marginal costs per unit sold. A horizontally integrated operation does have certain advantages in this respect. In the mobile home case, however, the factors mentioned previously which limit the firm's size also have

some affect on the growth of chains. Differentials between various markets in terms of taste and income, plus the difficulty of purchases in bulk from a producer, make chain operations less profitable than they are in other consumer goods industries.

The supply and demand factors which were mentioned previously (see 1.2.4 and 2.1.2) are the main determinants of the present degree of dispersion of outlets on demographic and geographic bases.

2.2 4 Emerging Trends

The preceding discussion of concentration in the mobile home distribution system is entirely on a cross-sectional basis and does not give a great deal of information about trends. For that, the main source of information is PMHI's correspondence with industry experts. All the respondents unanimously agree that within the next five years, chains are going to play a major role in the system and both national and regional chains will exist.

However, some sharp differences of opinion on this point exist between the results of PMHI's correspondence with industry experts and PMHI's industry interviews of 1975. The latter group was unanimous in their view that the number of horizontally integrated chains is either constant or decreasing. It is possible that the

differences of opinion were caused by the timing of the "surveys." The PMHI expert correspondence was conducted in early 1974; the PMHI interviews in early 1975. The changes in economic climate between the two periods possibly influenced the responses.

PMHI estimates that the degree of horizontal integration in the mobile home industry's distribution system will increase rather slowly, and that a national chain encompassing both Hawaii and Alaska will never exist. Chains in regions with similar market patterns may be expected to increase in number as well as in unit volume per chain. But, beyond a certain point, diminishing returns will set in. A large chain may easily become top-heavy and lead to diseconomies of scale. PMHI estimates that, by and large, this will be before large scale national chains come into operation. Whether this is also true with respect to trends in spatial concentration depends on forecasting regional demand patterns. As outlets in the "oversaturated" regions close, and as the dealers move into more profitable ventures, the degree of efficiency of the system on a geographic and demographic basis may be expected to increase, i.e., the coefficient $r^2_s = 0.74$ may be expected to rise over time.

2.3 INTEGRATION

In the mobile home distribution system, integration can take one of the following three forms.

1. Integration between the agents in the production and in the distribution systems, i.e., integration between manufacturers and dealers.
2. Integration between the agents in the distribution and in the park systems, i.e., integration between dealers and park owners.
3. Integration between agents in the distribution system and their suppliers, i.e., the movement of some mobile home dealers into consumer financing.

The data on which analysis of these forms of integration is based (the PMHI Survey of Dealers and Annual Reports) does not distinguish between forward or backward integration-except for "planned" integration for which the direction can be determined. Hence, a full exploration of the direction of integration is not undertaken.

2.3.1 Analysis

Integration between Mobile Home Manufacturers and Dealers

In the PMHI's survey of mobile home dealers, 7.1% of the respondents stated that they evolved from the mobile home manufacturing system. The relatively small figure can be explained by the different requirements of the two sectors. Since the technology of production differs from the technology of the dealers with regard to sale, the know-how requirements vary. The annual reports of publicly held companies were also analyzed, and the number of companies operating both in mobile home manufacturing and in dealerships was found to be very low. However, only the annual reports, 10Ks and prospectuses of the forty leading firms engaged in mobile home manufacturing were used, therefore no exact percentages are presented. Some reasons for the presence of integration in this area follow. First, if a manufacturer owns or partially controls a number of outlets, he can exert the same power in his pricing policies over the market as does a horizontally integrated firm. Second, he can reduce selling expenses and general and administrative expenses and thus increase his profits. Finally, a manufacturer who operates through controlled dealerships can schedule his production and shipments so as to minimize the effects of seasonality. The number of manufacturers integrating into distribution is much greater than the number of dealers going into manufacturing partially because the amount of capital required to open a dealership is less than the amount required to start a manufacturing

plant. In addition, large sums of capital may be more readily available to manufacturers because of their greater financial capabilities. Given comparatively small resources, horizontal expansion or integration into parks is probably both easier and more profitable for dealers. Also, it probably is not feasible for a single dealer or for a small sized chain of dealers to absorb all of the sales output of an economically efficient manufacturer without losing some sales to dealers with a more diversified product line.

Integration between Mobile Home Dealerships and Parks

62.7% of the respondents to the PMHI survey of mobile home dealers stated that they were involved in park operations at the time of their replies in 1973; another 5.9% stated that they planned to enter the field. 34% of the dealer respondents were involved in park development and another 12% planned to enter that field. This implies that a high percentage of dealers in the distribution system "start from scratch" when entering park operations rather than through buying their way into the system. It may be inferred that park development may be a negligible factor in their calculations since the returns earned are relatively high.

A number of different reasons exist for the high frequency of integration into the mobile home park system. First, although there are differences in know-how required for sales and park operations, the required skill differentials are not enough to be prohibitive. Second, a small

dealer obtains a useful income supplement from parks which, unlike sales revenue, is not subject to seasonal fluctuations. Also, in localities where park space is relatively scarce, integration of this type gives the dealer additional leverage with respect to the market. Finally, a large dealer as a chain can exert some market power over both his suppliers and his consumers because of park ownership.

Integration of Mobile Home Dealerships into Consumer Financing

Only 14% of the respondents to PMHI's survey of mobile home dealers stated that they were also involved in consumer financing.

The responding dealers presently involved in consumer financing operations do not have any marked characteristics of origin or size expressed in terms of sales. None stated any plans for integration in this direction.

The reason for this relatively low degree of integration may be the differences in skill requirements. The degree of financial know-how required in consumer financing may not be available to the dealer. Integrating into consumer financing may be advantageous only to the larger dealer with a high sales volume. A small dealer may find it more profitable, in terms of effort required

and costs, to work in an informal relationship with an independent agency.

2.3.2 Causality

The reasons for vertical integration are primarily economic. Firms at a given stage of the over-all production or sales process integrate forward or backward if they can reduce their imputed costs of purchase below the market price. In integrating either with manufacturers or parks, dealers can expect to reduce both wholesale costs of the product and other administrative or site location costs. Dealers with prior experience in the target areas for integration are more likely to integrate than dealers without such familiarity. Certain cross-tabulations, run on the responses to PMHI's Survey of Mobile Home Dealers tend to substantiate this observation. 39.2% of the responding dealers who also operate mobile home parks had their origins in the mobile home industry. 26% of the dealers involved in park development originated in the industry. However, these percentages fall when the following two other areas of integration, consumer financing and manufacturing, are concerned. Since only a minor percentage of all the respondents are integrated into consumer financing, no well-founded generalization can be made about the characteristics of dealers who have integrated into this area. However, it can be logically expected that the larger dealers enter.

In summary, incentives to both reduce the risk in production and distribution of mobile homes, and to guarantee a degree of security in net returns, push firms toward integration.

2.3.3 Emerging Trends

In the PMHI surveys of the mobile home industry, trend factors are not explicitly considered; the following observations are based on information concerning "plans." The PMHI's survey of mobile home manufacturers and the PMHI's survey of mobile home dealers reveal that 7.1% of the responding manufacturers planned to integrate into dealerships. No respondents to PMHI's survey of mobile home dealers indicated a plan to move into manufacturing which is not surprising considering the factors given in 2.3.1. Presently in 1975, there is, of course, question as to whether the manufacturers' plans as of 1973 to integrate into dealerships will be realized. The responses to PMHI's 1975 industry interviews indicate that integration may in fact be decreasing. Only ten percent of the respondents stated that the number of manufacturers integrating into dealerships was constant. The remaining respondents stated that manufacturers were either moving into integrative activities less than before or not at all.

With respect to integration originating in the distribution system, the following observations may be made. None of the dealers who

AREAS OF INTEGRATION	PERCENT OF ALL RESPONDENTS *	PERCENT OF RESPONDENTS WHICH ORIGINATED IN THE MOBILE HOME INDUSTRY
MANUFACTURING	6.0%	6.0%
CONSUMER FINANCING	14.0%	6.0%
MOBILE HOME PARK OPERATION	62.7%	39.2%
MOBILE HOME PARK DEVELOPMENT	34.0%	26.0%

* Percentages add up to more than 100 as some dealers are integrated into more than one area.

Source: Compiled by PMHI staff from PMHI's Survey of Mobile Home Dealers

FIGURE 26: INTEGRATION OF MOBILE HOME DEALERSHIPS

responded to the survey indicated any plans toward integration into the area of consumer financing. Slightly less than 6% of the responding dealers indicated plans toward movement into park operations. This relatively small percentage compared to past dealer movement into park operations may indicate that integration initiated from the distribution system may be slowing down.

Again, due to the changes in the behavior of the macroeconomic variables in late 1973 and 1974, it is possible that some of the plans for integration were not realized.

The fall in shipments to dealers, due in part to macroeconomic changes, could very well lead to a move toward entrenchment in the industry in the short run. A strong statement about long run activity cannot be made because relative cost figures of integrated versus unintegrated firms are not available to PMHI. However, beyond short run problems, and given stable growth in macroeconomic variables, integration of the park system and of the dealership organization in the mobile home industry can be expected to continue.

2.4 DIVERSIFICATION

The discussion of diversification will be divided into two headings:

1. Diversification into activities indirectly related to the mobile home industry, specifically recreational vehicle dealerships.
2. Diversification into activities unrelated to the mobile home industry; particularly the distribution of building supplies, the distribution of factory produced non-mobile housing and shelter, and on-site construction.

In the PMHI survey of mobile home dealers, both groups of activities cover 96% of all responses concerning diversification. The remaining 4% indicated that their diversification activities were directed elsewhere.

The data on diversification generated by the PMHI dealer survey permits only indirect conclusions on the direction of diversification. It is not known whether dealers are expanding into other areas or whether firms in other areas are expanding into mobile home dealerships. A comparison between the capital requirements for diversifying into a particular area and the likely availability of such funds to dealers has been used as a rough indicator of the direction of diversification.

2.4.1 Diversification into Activities Indirectly Related
to Mobile Home Industry: Recreational Vehicle
Dealerships

Sixteen percent of the respondents to PMHI's survey of mobile home dealers indicated that they were diversified into recreational vehicle dealerships. Two percent indicated that they planned to move in this direction. However, these figures conflict with the ACS data used in 2.1, that approximately 25% of all dealers in the mobile home distribution system sell both products. Hence, the following conclusions derived from the PMHI survey have a sample bias and must be judged as underestimates.

Diversification into this area may be due either to industry origin of the dealer (relevant know-how), or to factors related to sales performance. Both of these possibilities were explored in cross-tabulations based on the PMHI/DS data.

Industry Origins

The vertical axis on the first cross-tab (Figure 27) gives the industry origins of the dealer who is presently working with both mobile homes and recreational vehicles; the horizontal axis gives his present relationship to the recreational vehicle industry.

DIV11

	COUNT	ROW PCT	INOT IN,	NOW IN	PLAN TO	RCW
	I	INOT PLAN	ENTER		TOTAL	
Q.2	TOT PCT I	0.0 I	1.00I	2.00I		
	1.00	3 I	2 I	0 I	5	
RECREATIONAL	I	60.0 I	40.0 I	0.0 I	10.0	
VEHICLE	I	7.3 I	25.0 I	0.0 I		
DEALERS	I	6.0 I	4.0 I	0.0 I		
	-I-	-I-	-I-	-I-		
	2.00	21 I	4 I	1 I	26	
INDUSTRY RELATED	I	80.8 I	15.4 I	3.8 I	52.0	
TO MOBILE HOME	I	51.2 I	50.0 I	100.0 I		
INDUSTRY	I	42.0 I	8.0 I	2.0 I		
	-I-	-I-	-I-	-I-		
	3.00	17 I	2 I	0 I	19	
OTHER	I	89.5 I	10.5 I	0.0 I	38.0	
	I	41.5 I	25.0 I	0.0 I		
	I	34.0 I	4.0 I	0.0 I		
	-I-	-I-	-I-	-I-		
	COLUMN	41	8	1	50	
	TOTAL	82.0	16.0	2.0	100.0	

CHI SQUARE = 3.51436 WITH 4 DEGREES OF FREEDOM SIGNIFICANCE = 0.4757
 CRAMER'S V = 0.18747
 CONTINGENCY COEFFICIENT = 0.25626
 KENDALL'S TAU B = -0.18823 SIGNIFICANCE = 0.0243
 KENDALL'S TAU C = -0.11760 SIGNIFICANCE = 0.1090
 GAMMA = -0.42982
 SOMER'S D = -0.25995

NUMBER OF MISSING OBSERVATIONS = 21

Source: PMHI/DS

FIGURE 27: DIVERSIFICATION FROM THE MOBILE HOME DISTRIBUTION SYSTEM INTO RECREATIONAL VEHICLE DEALERSHIPS, ACCORDING TO INDUSTRY ORIGINS OF DEALER, 1972

The cross-tabs show that the industry background of the owner-manager does not play a part in the present relationship of the dealer to the recreational vehicle industry. Only 40% of all dealers who started in recreational vehicles are still involved; furthermore, they make up only one quarter of the dealers who are presently involved in recreational vehicles. Half of the dealers who diversified into recreational vehicle dealerships originated within the mobile home distribution system itself. Another quarter of the dealers began in other areas. "Know-how" requirements do not seem to present a barrier for diversification from mobile home dealerships into recreational vehicle dealerships.

Sales Factors

Possible increase in sales could also lead to diversification into the recreational vehicle industry. The responses to PMHI's survey of mobile home dealers were cross-tabulated (with sales volume in the vertical axis and the present relationship of the mobile home dealer to recreational vehicle sales-- not in/not plan to enter, now in, plan to enter-- in the horizontal axis). The results indicated that 31.3% of the respondents who have annual

sales of more than 1 million dollars are also in recreational vehicles. This group also comprises 71.4% of all respondents who are presently involved with recreational vehicles. The only dealer who is planning to diversify into recreational vehicles has sales above 1 million dollars annually (see Figure 28).

These figures do not indicate whether the dealer's sales rose before or after the diversification.⁷ Concluding from the results of the PMHI survey of mobile home dealers, diversification into the recreational vehicle industry seems to be more a function of both sales factors and size than of "know-how."

2.4.2 Diversification into Activities Unrelated to the Mobile Home Industry: Distribution of Building Supplies, Distribution of Factory Produced Non-Mobile Housing and Shelter, and On-Site Construction

While all three of the above areas are related to the building industry, they have no direct functional connection with the mobile home dealership organization. 15% of the respondents to the PMHI survey of mobile home dealers indicated involvement in one or more of these areas. However, due to the size of the sample and to the lack of data which would enable cross-checking of the information, firm conclusions about the characteristics of the total dealer population cannot be drawn.

DIV11									
COUNT	ROW PCT	INOT IN,	NOW IN	PLAN TO	FOR				
	COL PCT	INOT PLAN		ENTER	TOTAL				
TOTAL ANNUAL	TOT PCT	I	I	I	I				
SALES, 1972		0.0	1.00I	2.00I					
0-75K	1.00	I	7	I	0	I	0	I	7
	I	100.0	I	0.0	I	0.0	I	14.9	
	I	17.9	I	0.0	I	0.0	I		
	I	14.9	I	0.0	I	0.0	I		
	-I-	-I-	-I-	-I-	-I-	-I-	-I-	-I-	-I-
75K-1M	2.00	I	22	I	2	I	0	I	24
	I	91.7	I	8.3	I	0.0	I	51.1	
	I	56.4	I	28.6	I	0.0	I		
	I	46.8	I	4.3	I	0.0	I		
	-I-	-I-	-I-	-I-	-I-	-I-	-I-	-I-	-I-
>1M	3.00	I	10	I	5	I	1	I	16
	I	62.5	I	31.3	I	6.3	I	34.0	
	I	25.6	I	71.4	I	100.0	I		
	I	21.3	I	10.6	I	2.1	I		
	-I-	-I-	-I-	-I-	-I-	-I-	-I-	-I-	-I-
	COLUMN	39	7	1	1	47			
	TOTAL	83.0	14.9	2.1	100.0				

CHI SQUARE = 7.81898 WITH 4 DEGREES OF FREEDOM SIGNIFICANCE = 0.0984
 CRAMER'S V = 0.28841
 CONTINGENCY COEFFICIENT = 0.37767
 KENDALL'S TAU B = 0.36938 SIGNIFICANCE = 0.0001
 KENDALL'S TAU C = 0.23087 SIGNIFICANCE = 0.0096
 GAMMA = 0.80952
 SOMER'S D = 0.53292

NUMBER OF MISSING OBSERVATIONS = 24

Source: PMHI/DS

FIGURE 28: DIVERSIFICATION FROM THE MOBILE HOME DISTRIBUTION SYSTEM INTO THE RECREATIONAL VEHICLE DEALERSHIPS ACCORDING TO TOTAL ANNUAL SALES, 1972

Distribution of Building Supplies

Only one respondent is presently involved in the distribution of building supplies and his origins lie in the mobile home distribution system itself. A single case of diversification from the mobile home industry to an unrelated field can say nothing about the dealer population at large.

Distribution of Factory-Produced Non-Mobile Housing and Shelter

Eight percent of the respondents are presently involved in the distribution of factory-produced, non-mobile housing and shelter. Six percent originated in the mobile home distribution system itself, while 2% originated in fields unrelated to the mobile home industry. The sample results show that the main direction of diversification is from the mobile home industry rather than to it.

On-Site Residential Construction

Ten percent of the respondents are presently involved in on-site residential construction. Forty percent of these originated in the mobile home industry itself while the remainder came from sectors outside of the mobile home industry. No correlation was found with the size of the dealerships in terms of sales. A number of firms are diversified into both distribu-

tion of factory-produced non-mobile housing and shelter and on-site residential construction. This may be seen as a case of diversification into the mobile home industry by larger builder-dealers representing building manufacturers.

2.4.3 Causality

Basic rationales for diversification include the profit motive, and the desire to spread risk. Diversification into the mobile home distribution system from the rest of the building and construction industry is the result of complementarity between the output of the rest of the building industry and the mobile home. In other words, a firm which defines its product as "residential" can add mobile homes to its line without any changes in self-image. As the information given in the preceding pages shows, there is some indication that this occurred during the "growth period" of the mobile home industry as some firms diversified into the system. Regarding diversification from the system, a similar logic prevails. A factor working against the explanation of diversification as an attempt to spread risk is that seasonality is severe, both in the mobile home distribution system and in the sectors to or from which diversification occurs.

Diversification to and from the system is also affected somewhat by the requirements of "know-how" and "capital". At present, however, there is too little evidence to conclude that these two factors play a major role.

2.4.4 Emerging Trends

There is presently no available information concerning trends in diversification. Less than 5% of the respondents stated that they planned to diversify into any one of the areas noted. Given the prevailing macro-economic situation, a process of entrenchment rather than diversification has taken place.

2.5 ECONOMIES OF SCALE

2.5.1 Analysis

The primary question regarding economies of scale concerns the behavior of the average total costs as the size of the outlet increases. In order to gauge this, the following assumptions were made. First, differentials in retail price of mobile homes are invariant with respect to the size of the outlet, i.e., larger dealers do not enter into price competition with smaller ones. Second, the F.O.B. factory price of a unit is invariant with respect to the size of the dealer, i.e., the larger dealers do not exert any leverage with respect to the price at which they receive the units.⁸

If total sales volume in dollars per annum is used as a measure of the size of the dealership, the following results are obtained:

- a. Small dealerships (annual sales at or below \$50,000)
In these cases the F.O.B. factory price was over 70% of the retail selling price.
- b. Medium-sized dealerships (annual sales \$51,000 to

\$200,000): Essentially the same results were obtained; dealers stated that their factory prices were more than 70% of their retail selling price.

Large dealerships (annual sales between \$200,000 to over \$1,000,000): These were divided into three subcategories:

- i) Sales volume between \$201,000 and \$500,000
- ii) Sales volume between \$501,000 and \$1,000,000
- iii) Sales volume greater than \$1,000,000

In these categories, again, the median response was that the F.O.B. factory price comprised more than 70% of the sales price. Above the median, a number of firms responded that their F.O.B. factory price was 50% to 70% of their sales price.

Roughly 30% of the retail price of a unit is sales costs. Since this average holds for firms of different size, excepting the largest category mentioned above, the industry by-and-large exhibits constant returns to scale. With respect to the firms which deviate from this norm, the following is observed: If the first assumption concerning retail sales price is removed, diseconomies of scale exist and these firms are bound to price themselves out of the

competitive market. However, if the second assumption is removed, these firms exert a degree of leverage with respect to the manufacturer and realize some savings in input costs as their size increases.⁹ In a service sector like the one under consideration, finished goods can be treated as inputs. The existence of a small number of larger chains was noted previously. It is probable that these firms belong to chains, thus enabling this form of leverage.

In the case of large dealerships, it is more logical to remove the assumption concerning the F.O.B. factory price than that of the relative lack of differentials in the retail sale price. Although these firms may sell at slightly lower prices, a part of the differential between their F.O.B. factory price and sales price most likely covers excess profits, or excess sales costs.

In conclusion, constant returns to scale prevail throughout most of the mobile home distribution system. Given the available information, it is unclear whether the largest firms are operating under increasing or decreasing returns to scale.

A number of areas in which economies or diseconomies of scale can exist are:

Transportation -- Possible scale economies exist in this area for the firms which own their carrier fleets. As the number of units

shipped rises, shipping costs per unit may fall.

Managerial and Administrative Costs -- Economies of scale may exist in this area depending on the optimum size of the managerial staff with respect to sales volume. Certain administrative costs, such as auditing and legal fees, can be expected to fall in relative terms as the size of the enterprise grows. The relationship of these costs with respect to output in firms of different sizes needs further study.

Advertising -- Almost per definition, advertising costs per unit sold fall as sales increase, and economies of large scale then exist in this area. However, as advertising does not play a major role in the mobile home distribution system, it is not certain how large a part it plays in the cost structures of firms.

Service and Set-Up Costs -- In both cases the larger dealers may expect cuts in costs on a per unit basis. This is probably more important in the case of service costs, as a larger outlet can have its own servicing facilities rather than use those of another firm.

2.5.2 Causality

The production function of the outlets in the distribution system of the mobile home industry shows some characteristics of constant

returns to scale. This conclusion can be defended by the following series of observations. The size of an individual outlet in the mobile home distribution system is rather limited. The largest units probably sell no more than 250 homes per annum, less than four per week, and most selling far fewer. Larger outlets would be established if substantial economies were present. As noted, the constraints imposed by the size of the market for a single firm are a major factor in determining the size of a firm. Given this constraint, large firms can exist only if the reduction in costs associated with scale more than compensates for the limitations imposed by transport costs. However, this is not the case. Cost savings noted in the few areas mentioned above do not necessarily offset increases in transportation costs. Hence, the possible case of increasing returns to scale can be ruled out. Regarding decreasing returns to scale, it should be noted that the size distribution of firms is skewed slightly towards larger firms selling more than 75 units per annum. This rules out the case of decreasing returns, with the slant being explained by market factors; it is more apparent in the regions where the industry is more developed, while it is nonexistent in regions such as New England.

The relationships which determine a constant return to scale production function are not too difficult to see. Mobile home distribution outlets basically perform a service function. They bring consumers and producers together, and cannot take advantage of any major technological innovations if the size of their operations in-

creases. There may be cost reductions in some areas, but increases in other areas (e.g., wage costs) will probably offset them as the size of operations increases.

2.5.3 Emerging Trends

The degree of scale economies in any industry is a function of technological innovation. In the mobile home distribution system, as long as no major technological breakthroughs occur (none are expected as of 1976), the characteristics of the production function are expected to remain stable.

2.6 PRODUCT DIFFERENTIATION

2.6.1 Analysis

Are dealers selling certain brand names different from other dealers, for example, in terms of size or degree of vertical or horizontal integration? While no data is presently available for PMHI to do a thorough analysis of this question, there is neither a theoretical nor a practical reason for such a differentiation of outlets to exist. Since, by all estimates, franchised dealers are only about 1.0% of the total dealer population, and since the rest of the dealers sell more than one brand name, such a development would be highly surprising.

Another question concerns possible structural differentials within the mobile home distribution system, as determined by the product's price rather than by its quality. Do dealers selling lower-priced units (whatever the brand name) tend to differ in overall characteristics (such as size, customer servicing, etc.) from dealers selling higher-priced units? This question will be thoroughly discussed in the next section on "Distribution." As will be seen in that analysis, a great deal of differentiation exists between dealers along two dimensions: first, the number of outlets a dealer has positively correlated with the price range of the products he sells, i.e., larger dealers sell

higher-priced units; and second, dealers who sell higher-priced units also offer longer warranties and better servicing.

Two further points concerning product differentiation, loyalty to brand names and dealer preference, should also be noted. A preference for brand name products can only develop slowly in the mobile home industry. This is due in part to the extensive duplication of brand names by different manufacturers in different geographical areas. However, even if two different manufacturers use the same brand name, a loyalty toward that name may develop. This is true though the name stands for two different products in two different regions. The dealers who responded to the PMHI survey of mobile home dealers stated that some brand name loyalty had developed in the market, but no dealer emphasized that point.

In relation to dealer preference, the market area of each individual outlet is rather small and dealership chains do not yet play a major role in the distribution of the product. Hence, dealer preference above a local level has yet to develop in the mobile home industry.

2.6.2 Causality

Each manufacturer's market area is limited geographically. Hence, the same brand names could be used by different manufacturers with some degree of confidence. The same factors also affect the relative lack of dealer recognition beyond a local level. Product differentiation in terms of warranty scope and length, or in terms of service quality,

are the main methods of competition between different outlets. These forms of differentiation are more prevalent with higher-priced models than lower-priced units. This is probably because the profit margins to the dealers differ, and the cross elasticity of demand is higher between larger, more expensive units and on-site housing. In higher price brackets, mobile home dealers compete with real-estate agents as well as with each other; at lower prices this does not occur.

2.6.3 Emerging Trends

As noted, PMHI's survey of mobile home dealers yields some evidence that a preference for brand names is increasing among consumers. Whether this is part of a trend that will result in brand preference comparable to, say, the automobile industry, remains to be seen. The best estimate is that it will not.

Whether product differentiation by dealers in the way of warranties and services will increase depends on at least three factors. Of major influence will be the extent to which the Federal Trade Commission will succeed in imposing upon the industry its presently contemplated, extremely demanding, warranty performance requirements. Related developments in the on-site housing market will have some impact. Finally, since warranties and services are the main means of competition for firms in the industry, their future significance will depend, to a degree, on the amount of future competitiveness in the system and on whether concentration and vertical integration will increase or decrease.

2.7 ENTRY AND EXIT

Under this heading are two issues concerning the structure of the distribution system of the mobile home industry. Both issues have implications for the potential competitive structure of the system. First, do the various costs associated with entry to the field (search costs, legal expenses, initial required outlays) form a barrier to the prospective dealer? The second issue concerns entries into and exits from the system. No data are available to PMHI concerning the total number of entries and exits. The information used in the following are net figures (net entries) obtained as the difference of the number of firms in the system between any two years.

2.7.1 Entry Barriers and Net Entries

At present, PMHI has no evidence to indicate that entry barriers, i.e., economies of scale, product differentiation, etc., play a substantive part in the organization of the system. The only barrier which may influence the organization of the mobile home dealership system is entry cost. This will be discussed at some length in the following pages.

The costs of entry have to be analyzed in both absolute and relative terms. In absolute terms, the question is: Are the initial outlays required for entry into mobile home distribution prohibitive for most individuals? In relative terms, the question is reduced to the relative cost differentials between entry costs to the mobile home distribution system and alternative sources of investment that yield a similar rate of return. In other words, what are the opportunity costs of entry?

There are no substantial data available concerning the behavior of entry costs over time in this system. The best informed estimates show that entry costs were approximately \$15,000 to \$16,000 in the late 1950's or early 1960's, and are in the range of \$25,000 to \$50,000 now in 1975. The general rise in the price level during this time period indicates that the entry costs have risen about threefold in real terms in the decade. Most of this increase can be attributed to factors endogenous to the system, e.g., the growth in the starting size of the average dealership (although, again, no hard data are available), possible increases in land values beyond those reflected in the general cost of living index, etc.

Briefly, the total entry costs to the system can be subdivided into costs associated with operation and with search.

Costs of operation (which are in the nature of fixed costs) must be incurred before the outlet can start operations. Such costs include land, buildings, vehicles and other equipment.

Naturally, these vary to some extent by location, size of the dealership, etc. The purchase or lease price of these items is the basic element in entry cost.

Search costs are mainly in the nature of opportunity costs. Thus their part as a barrier to entry is not precisely quantifiable. The search for a location, manufacturers and, perhaps, park locations for prospective consumers, etc., are all included in search costs.

No series is presently available to PMHI giving the net rate of return on investment in the mobile home distribution system, therefore it is impossible to estimate the opportunity costs. However, the net entry/exit figures in Figure 29 (national basis) do not present entry costs as prohibitive.¹⁰

The table shows that during the period 1970 to 1974, the total number of dealers selling only mobile homes has consistently increased. This increase has more than offset the fall in the number of dealers selling both mobile homes and recreational vehicles in the period 1973 to 1974. (Possible reasons for this will be discussed in 3.4.) Assuming that the entrepreneurial talents entering this system act as rational profit maximizers, there is no reason to believe that various costs associated with entry to this system are prohibitive.

	DEALERS SELLING MOBILE HOMES ONLY (CHANGE FROM PREVIOUS YEAR)	DEALERS SELLING MOBILE HOMES AND RECREATIONAL VEHICLES (CHANGE FROM PREVIOUS YEAR)	TOTAL DEALERS (CHANGE FROM PREVIOUS YEAR)
<u>YEAR</u>			
1970/1971	662	237	899
1971/1972	590	1943	2533
1972/1973	871	252	1153
1973/1974	753	(-137)	616

Source: Compiled by PMHI staff from Figure 11.

FIGURE 29: NET ENTRY/EXIT FIGURES FOR THE MOBILE HOME DISTRIBUTION SYSTEM, 1970-1974. NATIONAL FIGURES.

It was mentioned that entry and exit figures can be used to indicate the degree of competition. If exits outweigh entries (aside from any related questions concerning sectoral growth), the degree of competition in the system is probably decreasing. High entry costs, relative to other systems and in absolute terms, characterize imperfectly competitive markets. This does not seem to be true of the mobile home distribution system now, in 1976.

2.7.2 Causality

The causes of this relatively low cost of entry are traceable to the nature of the product itself. As noted earlier, the bulkiness of mobile homes and the transport costs associated with their distribution on the supply side lead to the physical deconcentration of the distribution system. This effectively reduces the market area of each individual outlet to a radius of 500 miles which constrains the size of any one firm. Given these factors, mobile home distribution outlets are small businesses and have low entry costs relative to other systems in the economy where no such constraints on size exist.

2.7.3 Emerging Trends

Given the factors discussed in 2.7.2, and unless a major change (which is not expected) alters these relationships, the barriers to entry in the mobile home distribution system can be expected to remain low. Thus it appears that the distribution system will remain open to new entrepreneurial talents and innovation.

2.8 SEASONALITY

2.8.1 Definition of Terms

Movements of an economic time series can be divided into four components: (1) the trend; (2) cyclical fluctuations, (3) seasonal variations, and (4) random fluctuations. The trend represents long-term movements in a time series. Cyclical fluctuations are fluctuations brought about by the business cycle. Seasonal variations are periodic fluctuations since they occur regularly and predictably within a year. Random fluctuations are fluctuations that cannot be explained by systematic causes.

Significance

In the volume on the production system, it was found that seasonality adversely affects manufacturers' performance measured in terms of both company profit rate and capacity utilization. Seasonality can also be expected to produce similar results for the dealers. The relative harshness of seasonality in the production and distribution system may differ - one question with which this chapter is concerned.

Discussion of the Data Bases

Two data sources were used in the analysis of seasonality at the dealership level. The first source is the PMHI Dealer Survey which is used principally in the discussion of seasonality at the national level. The second source is several years of back issues of the Monthly Market Letter on Mobile Home Shipments published by the Mobile-Modular Housing Dealer Magazine. The second data source was used primarily for the analysis of seasonality at the regional level. It is to be noted, however, that the two data sources are not strictly comparable, since the PMHI figures concern dealers' sales to customers, whereas those from the second data source concern shipments to dealers. Since shipments precede final sales, it is to be expected that the peak and trough of the shipments will precede those of the sales series.

2.8.2 Analysis

Seasonality at the National Level

From the PMHI/DS questionnaire items (29.b.1) and (29.b.2), Figure 30 was constructed to identify the months of highest and lowest sales at the dealership level. It is readily noted that for the month of their highest sales, the number of dealers were not overly concentrated in any given month. In contrast, approximately one third of the dealers

Month	Highest		Lowest	
	# of Firms	%	# of Firms	%
JAN	1	1.7	17	32.7
FEB	2	3.4	8	15.4
MAR	6	10.3	1	1.9
APR	2	3.4	2	3.8
MAY	12	20.7	2	3.8
JUN	6	10.7	4	7.7
JUL	4	6.9	2	3.8
AUG	9	15.5	0	0
SEP	6	10.3	1	1.9
OCT	3	5.2	0	0
NOV	1	1.7	3	5.8
DEC	4	6.9	9	17.3
Missing Observations				
		14		19

Source: PMHI/DS

FIGURE 30: DEALERS' MONTHS OF HIGHEST AND LOWEST SALES

had their lowest monthly sales in January, and half of the dealers in December and January.

The ratio of dealer's lowest to highest monthly sales is given in Figure 31. The mean of this ratio is 0.222 for the dealers as compared with 0.37 and 0.46 (based on similar PMHI surveys) for suppliers and manufacturers, respectively. This would indicate that seasonal fluctuations at the dealership level are more severe than they are at the production system level.

Seasonality at the Regional Level

Monthly shipments to dealers by regions covering the 1968-1974 period are graphically presented in Figures 32-41. In addition, the average monthly shipments to dealers are given in Figure 42. As shown in Figure 42, shipments to dealers were generally lowest during the winter months of December and January. In contrast, the month of seasonal peak shipments was somewhat diverse for different regions. Shipments to the South Atlantic region, by far the largest recipient of mobile homes, on the average peaked in May. The peak in shipments occurred in June for the West North Central, East South Central and New England regions. For the Mid-Atlantic and Pacific regions, seasonal peak shipments to dealers took place in July. For the remaining regions, highest monthly shipments were either in March, September or October.

Ratio	# of Firms	%
0 - 0.09	11	23.9
0.10 - 0.19	10	21.8
0.20 - 0.29	9	19.6
0.30 - 0.39	8	17.5
0.40 - 0.49	3	6.6
0.50 - 0.59	2	4.4
0.60 or above	2	4.4
Missing Observations	26	

Source: PMHI/DS

FIGURE 31: DEALERS' RATIOS OF LOWEST TO HIGHEST MONTHLY SALES

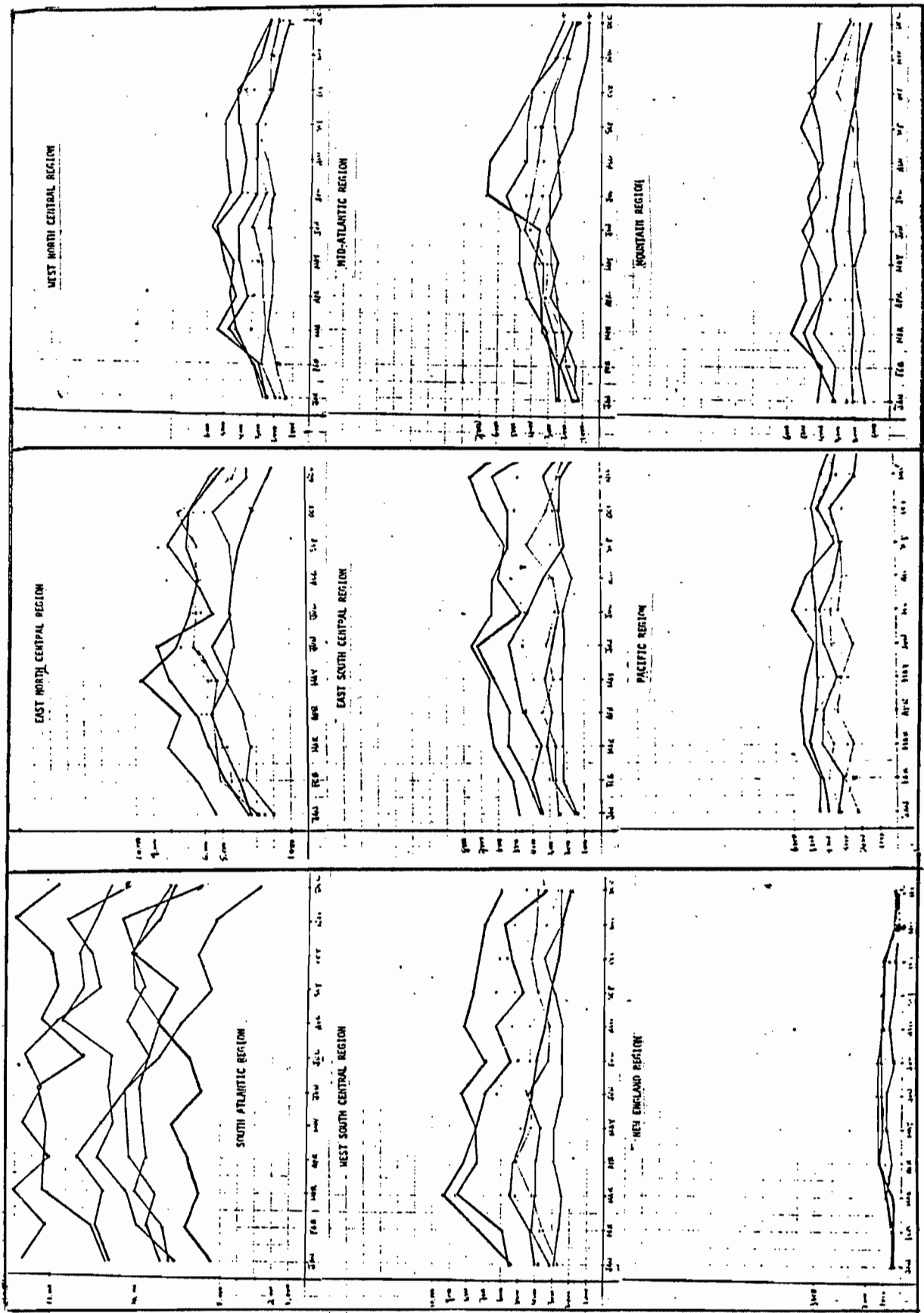
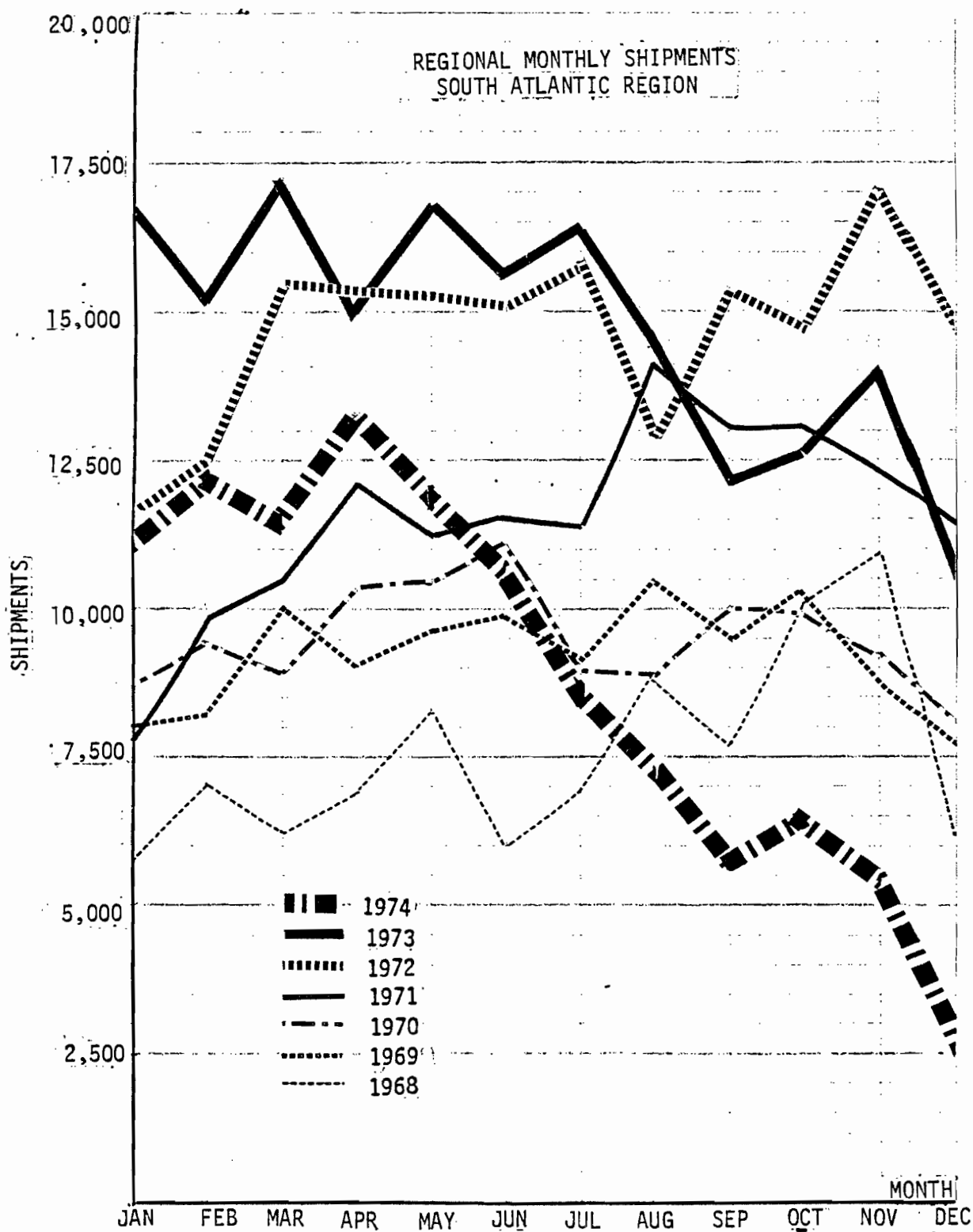


FIGURE 32: REGIONAL MONTHLY SHIPMENTS BY SUBREGIONS

FIGURE 33: REGIONAL MONTHLY SHIPMENTS: SOUTH ATLANTIC REGION

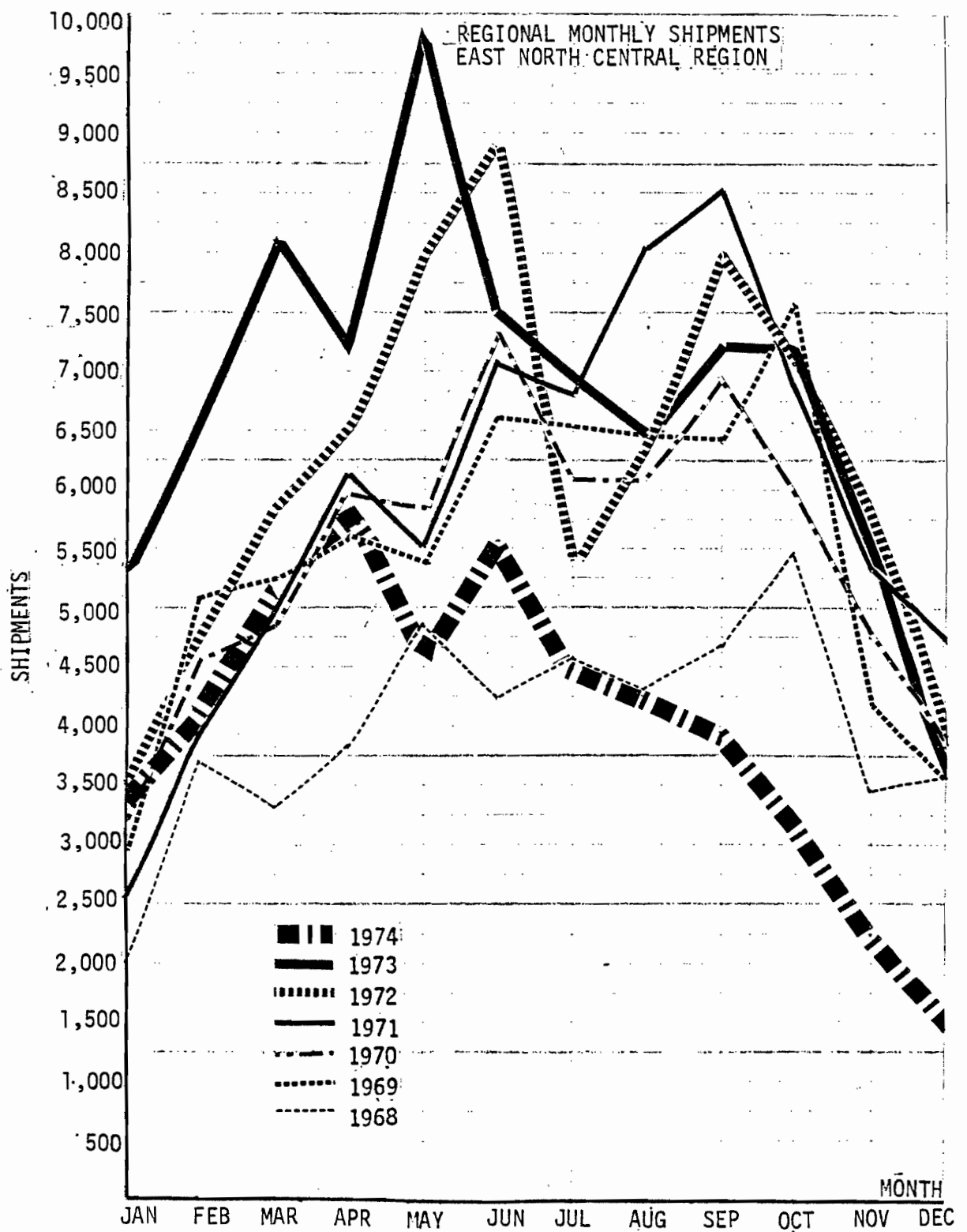


FIGURE 34: REGIONAL MONTHLY SHIPMENTS: EAST NORTH CENTRAL REGION

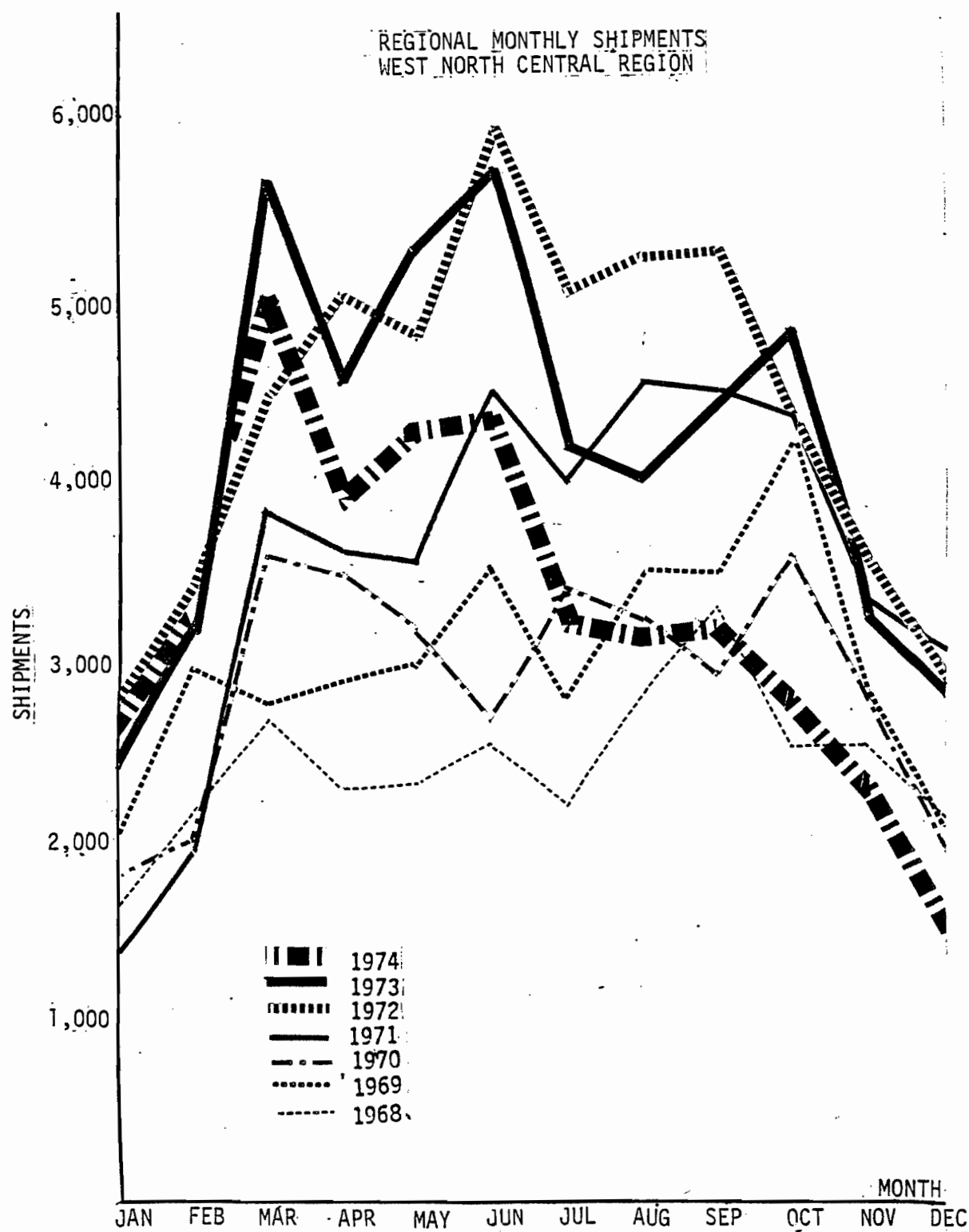


FIGURE 35: REGIONAL MONTHLY SHIPMENTS: WEST NORTH CENTRAL REGION

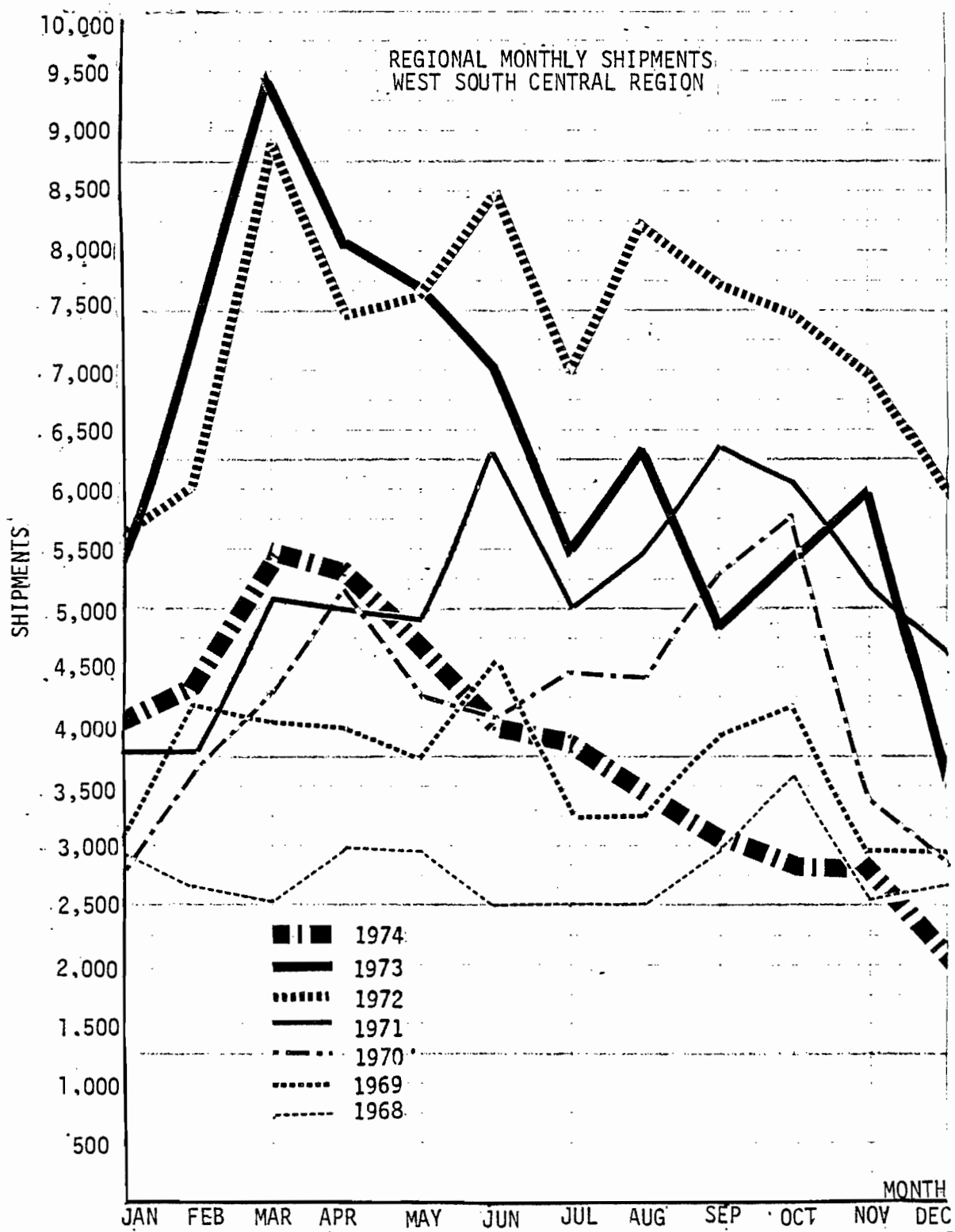


FIGURE 36: REGIONAL MONTHLY SHIPMENTS: WEST SOUTH CENTRAL REGION

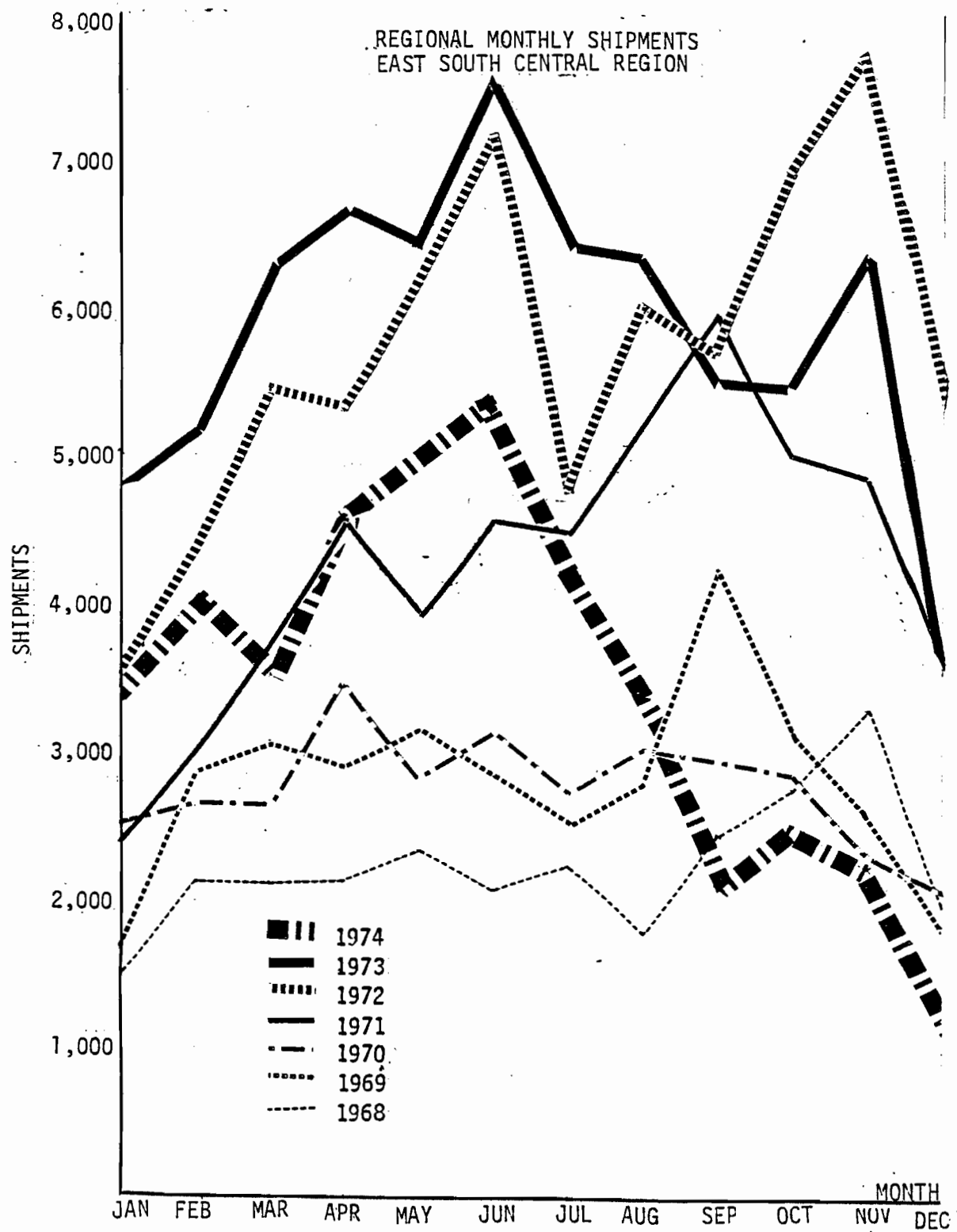


FIGURE 37: REGIONAL MONTHLY SHIPMENTS: EAST SOUTH CENTRAL REGION

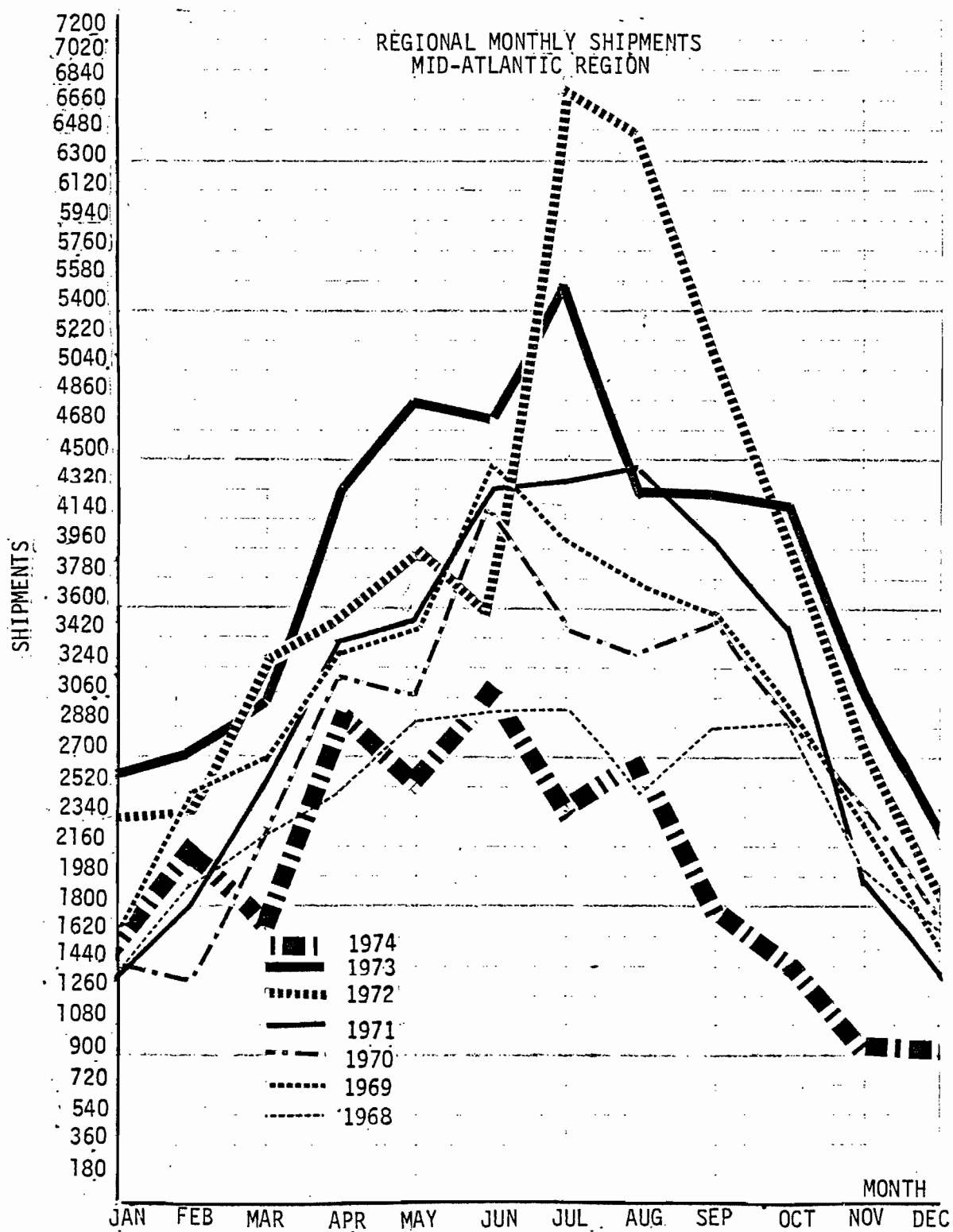


FIGURE 38: REGIONAL MONTHLY SHIPMENTS: MID-ATLANTIC REGION

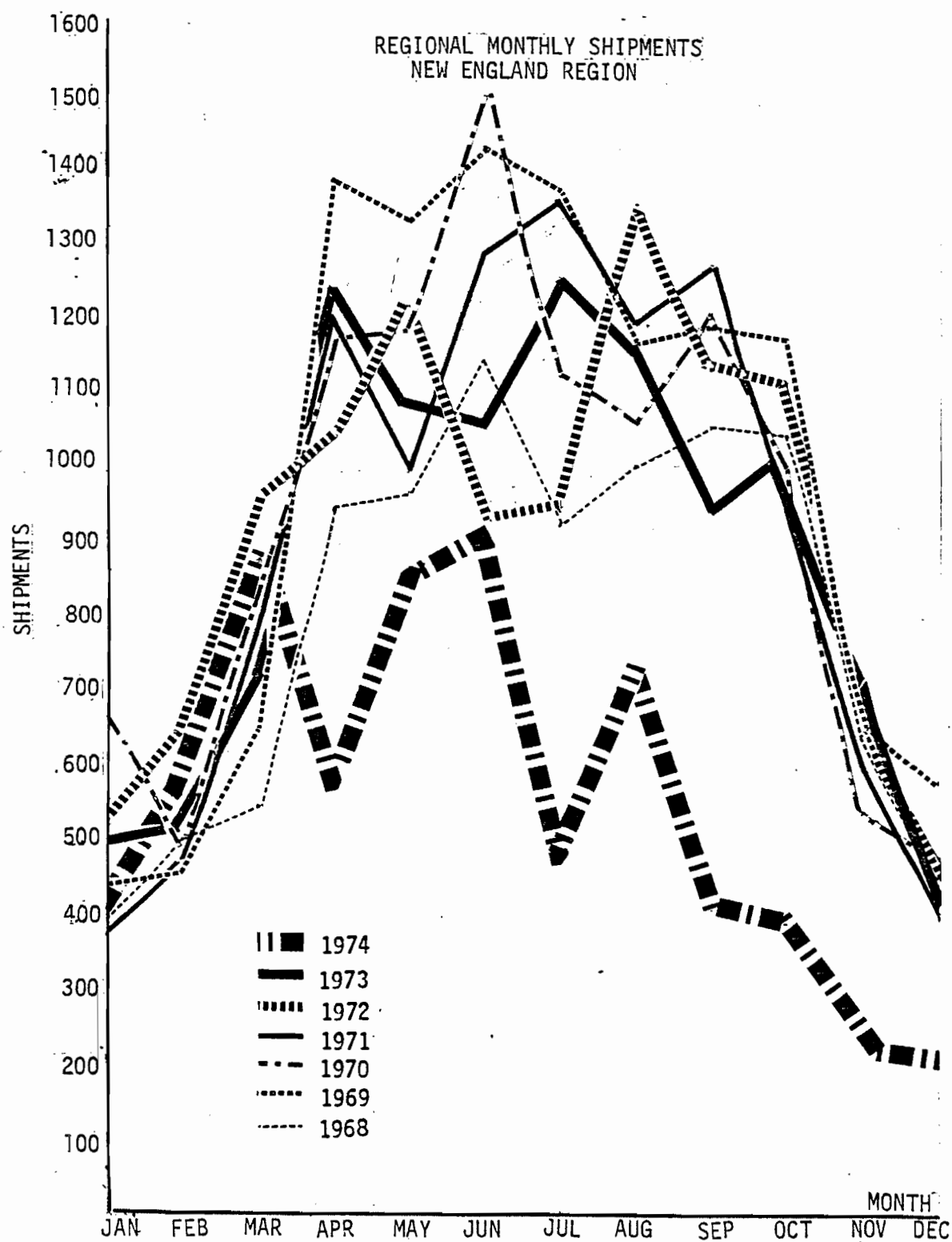


FIGURE 39: REGIONAL MONTHLY SHIPMENTS: NEW ENGLAND REGION

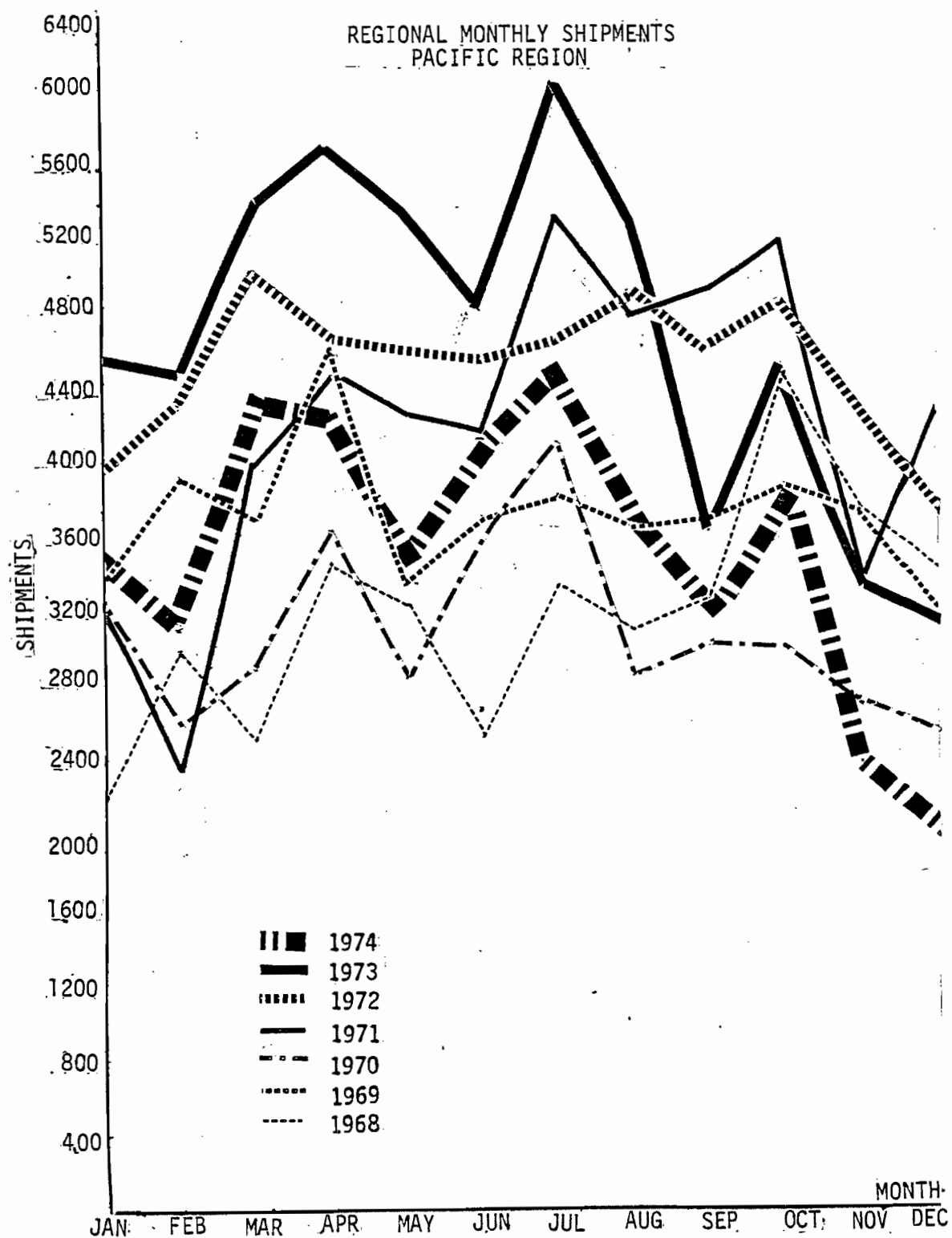


FIGURE 40: REGIONAL MONTHLY SHIPMENTS: PACIFIC REGION

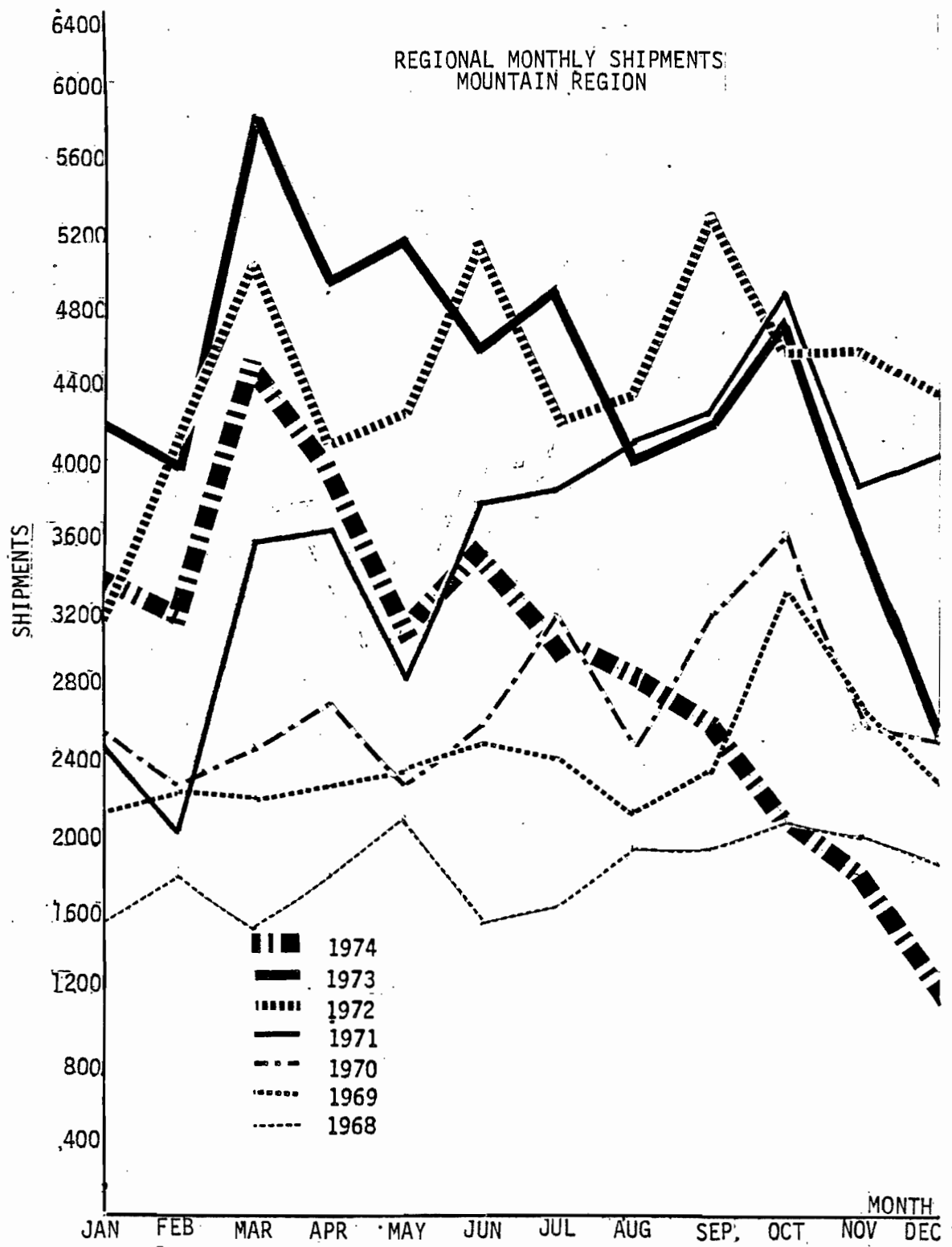


FIGURE 41: REGIONAL MONTHLY SHIPMENTS: MOUNTAIN REGION

MONTH	REGION				
	SOUTH ATLANTIC	EAST NORTH CENTRAL	WEST NORTH CENTRAL	WEST SOUTH CENTRAL	EAST SOUTH CENTRAL
JAN	10,045	<u>3,243</u>	<u>2,030</u>	3,942	<u>2,846</u>
FEB	10,475	4,685	2,602	4,587	3,445
MAR	11,454	5,322	3,841	<u>5,634</u>	3,837
APR	11,801	5,710	3,544	5,496	4,242
MAY	<u>11,901</u>	6,211	3,621	5,136	4,270
JUN	11,544	5,789	<u>4,037</u>	5,302	<u>4,673</u>
JUL	10,668	6,022	3,423	4,512	3,912
AUG	11,360	5,914	3,918	4,797	4,076
SEP	10,286	<u>6,467</u>	3,680	4,860	4,116
OCT	11,210	6,061	3,634	5,063	4,106
NOV	11,118	4,405	2,719	4,256	4,216
DEC	<u>8,788</u>	3,484	2,257	<u>3,532</u>	2,876
$\frac{L}{H}$	0.738	0.501	0.503	0.627	0.609

____: Highest Shipments

====: Lowest Shipments

$\frac{L}{H}$: Ratio of Highest to
Lowest Monthly Ship-
ments

Source: Mobile-Modular Housing Dealer Magazine, Monthly Market Letter on Mobile Home Shipments

FIGURE 42: (1968-1974) MONTHLY SHIPMENTS TO DEALERS BY CENSUS REGIONS

MONTH	REGION			
	MID-ATLANTIC	NEW ENGLAND	PACIFIC	MOUNTAIN
JAN	1,774	475	3,347	2,778
FEB	2,123	519	3,375	2,795
MAR	2,370	781	3,946	<u>3,606</u>
APR	3,324	1,076	4,383	3,350
MAY	3,453	1,088	3,869	3,188
JUN	3,922	<u>1,179</u>	3,919	3,401
JUL	<u>4,229</u>	1,061	<u>4,480</u>	3,333
AUG	3,916	1,099	3,975	3,156
SEP	3,599	1,026	3,737	3,421
OCT	3,114	955	4,212	3,455
NOV	2,307	571	3,360	3,012
DEC	<u>1,513</u>	<u>441</u>	<u>3,188</u>	<u>2,695</u>
$\frac{L}{H}$	0.358	0.374	0.711	0.747

_____: Highest Shipments

====_: Lowest Shipments

$\frac{L}{H}$: Ratio of Highest to
Lowest Monthly Ship-
ments

Source: Mobile-Modular Housing Dealer Magazine, Monthly Market Letter on Mobile Home Shipments

FIGURE 42: (1968-1974) MONTHLY SHIPMENTS TO DEALERS BY CENSUS REGIONS (Cont.)

In the last row of Figure 42, the ratio of lowest to highest monthly shipments was computed. It is clear that the New England and Mid-Atlantic regions had the lowest ratios. These two ratios were doubled or nearly doubled by the Pacific, South Atlantic and Mountain Regions. The severity of seasonal fluctuations varied from one region to another.

2.8.3 Causality

What factors account for (census) regional differences in the ratio of lowest to highest monthly shipments to dealers? From cursory inspection of Figure 42, it would seem that regions such as New England, which are characterized by cold winter months, tend to be associated with a low ratio. But states within a census region may not have the same climatic conditions. For instance, on a 1-5 rating given to seasonal conditions in each state (where "1" means a long hot summer and "5" means no summer, long winter), Florida would have a rating of 1 and West Virginia a rating of 3; yet both states belong to the South Atlantic region. (For a complete seasonal rating of each state, the reader is referred to: Visher, Steven, Climatic Atlas of the U.S., Harvard University Press: Cambridge, 1954, page 362.

In an effort to find out whether climatic conditions influence seasonality, each state within a region was assigned a seasonal rating of 1-5. Then, the ratio of lowest to highest monthly shipments was

regressed on the average seasonal rating of the states within a region. The estimated relationship is as follows:

$$\text{LSMS} = 0.7944 - 0.0686 S$$

(0.0666)

$$R^2 = 0.1326$$

where LSMS is the ratio of lowest to highest shipments to dealers, and S, the regional seasonal rating (constructed by averaging the seasonal ratings of states within a region). It is to be noted that the standard error is located directly below the estimated coefficient of S. The coefficient of S is negative in sign, indicating that warmer climate (i.e., low seasonal rating) is associated with high LSMS. Nevertheless, the coefficient of S is not significant and the R^2 value is also very low.

2.8.4 Emerging Trends

The yearly ratio of lowest to highest monthly shipments to dealers was regressed on time, T, in order to find out whether dealers in these regions have succeeded in reducing the seasonality of demand. A positive coefficient of T would indicate some success in reducing seasonality, and a negative coefficient would indicate a worsening in seasonal variations.

Figure 43 contains 9 estimated trend lines corresponding to the nine

<u>REGION</u>	<u>CONSTANT</u>	<u>TIME</u>	<u>R²</u>
SOUTH ATLANTIC	0.5827	-0.0433 (0.0321)	0.2666
EAST NORTH CENTRAL	0.3556	-0.0131 (0.0097)	0.2695
WEST NORTH CENTRAL	0.4380	-0.0193 (0.0141)	0.2722
EAST SOUTH CENTRAL	0.4341	-0.0210 (0.0196)	0.1869
WEST SOUTH CENTRAL	0.5479	-0.0456* (0.0180)	0.5637
MID-ATLANTIC	0.3439	-0.0174 (0.0119)	0.2969
NEW ENGLAND	0.3184	-0.0060 (0.0092)	0.0799
PACIFIC	0.5720	-0.0140 (0.0222)	0.0731
MOUNTAIN	0.5732	-0.0610* (0.0146)	0.7785

* significant at the 5% level.

FIGURE 43: ESTIMATED TRENDS IN LSMS, 1968-1974 SAMPLE PERIOD

census regions based on the 1968-1974 observations. As before, the standard error is located directly under the coefficient of T. The sign of the coefficient of T is negative in all of the nine estimated equations. But among the nine regions, the coefficient of T is significant only in the Mountain and West South Central regions. Moreover, with the exception of the above two regions, the R^2 values are extremely low.

Apart from the smallness of the sample, one other important factor accounting for the negative sign of the T coefficient could be the inclusion of the 1974 observation. It should be noted that the great contraction in both the conventional housing and mobile home industries started in 1974; hence, the computed LSMS would be abnormally low. The trend lines were re-computed without the 1974 observation and the results are shown in Figure 44. The omission of the 1974 observation leads to a switch in the sign of the coefficient of T from negative to positive in equations for the South Atlantic, East South Central and the New England regions. Moreover, the only coefficient of T that remained significant is in the Mountain region's equation. The R^2 value in all of these re-computed equations declined considerably.

2.8.5 Conclusions

The examination of seasonality in the distribution system determined that

<u>REGION</u>	<u>CONSTANT</u>	<u>TIME</u>	<u>R²</u>
SOUTH ATLANTIC	0.6453	0.0037 (0.0243)	0.0057
EAST NORTH CENTRAL	0.3708	-0.0017 (0.0100)	0.0073
WEST NORTH CENTRAL	0.4445	-0.0144 (0.0195)	0.1199
EAST SOUTH CENTRAL	0.4656	0.0026 (0.0200)	0.0041
WEST SOUTH CENTRAL	0.5561	-0.0395 (0.0249)	0.3858
MID-ATLANTIC	0.3446	-0.0168 (0.0169)	0.1983
NEW ENGLAND	0.3342	0.0058 (0.0086)	0.1029
PACIFIC	0.5915	0.0007 (0.0291)	0.0000
MOUNTAIN	0.5425	-0.0529* (0.0195)	0.6482

* significant at the 5% level.

FIGURE 44 : ESTIMATED TRENDS IN LSMS, 1968-1973 SAMPLE PERIOD

seasonal variations are more severe at the dealership level than at the production level. This probably means that the distribution system has served the important function of shielding the production system from direct exposure to seasonality on the demand side.

Differences in seasonality among census regions were observed.

Because of the low value of various test statistics, it is concluded that the relationship between climatic conditions and seasonality is rather tenuous. The question of whether seasonality has diminished over time was also examined. It was found that the inclusion of the 1974 observation produced negative coefficients in the time variable. Nevertheless, with the exception of the Mountain State and West South Central regions, no trend was observed in seasonality. When the 1974 observation was omitted, the sign of the coefficient of the time variable turned positive in three of the nine cases, and the R^2 value declined considerably. Thus, without the 1974 observation, no trend was observed except in the Mountain region.

3.

Operation

3.1 INTRODUCTION

In the following chapters, a number of factors which have bearing on the operation and performance of the mobile home distribution system will be discussed.

Assuming economic rationality, a dealer must consider two major variables in determining his location: First is the present and potential demand for mobile homes within the dealer's market radius. The second variable is the present and potential degree of competition within the dealer's market radius, which is affected by the relative rate of return on investable funds in the area.

There is a close connection between these two variables. A high rate of return in a mobile home dealership compared to alternate investment opportunities implies a relatively high demand schedule for an individual dealer in the region. This will in turn attract new entries, thus lowering the individual firm's demand schedule and increasing the degree of competition in the market.

On the supply side, the basic factors affecting a firm's decision are its fixed and variable costs. The cost of land rental and utilities, plus whatever wages and salaries the dealer pays, are his major

costs. Large differences in this area probably do not exist between mobile home dealerships and other businesses of the same size. In other words, in a given locality, differences in fixed and variable costs may be determined by the size of the operation, not by its nature. However, mobile home dealerships are affected by another major factor, transport costs. The mobile home dealer must minimize these costs from the producer as well as to the consumer to maximize profits. For profit maximization, the price per unit charged by a dealer should cover his marginal cost of production plus unit transport costs. As was seen in 2.1, this effectively limits the market radii of dealerships to between two and three hundred miles.¹¹

Hence, the dealerships in a given location operate under conditions of imperfect competition with other dealers who are within a given distance from the market. These dealers then do not compete with dealers beyond this radius. This has implications for the price and the product policies of an individual dealer, as well as for the micro-dynamics of an individual firm. Each of these will be discussed in turn.

3.2 PRICE POLICY

The basic issues concerning the pricing policies of an individual firm are the methods of pricing used, and the price differentiation as a competitive tool.

3.2.1 Analysis

Theoretically, a firm can set its prices either by equating its marginal costs and marginal revenues, or by adding a markup to its average costs. The former method, apart from theoretical neatness, has the advantage of leading to automatic profit maximization. However, this form of pricing is not common practice due to various practical problems of cost allocation which would be magnified in the case of mobile homes because of the product's relative bulkiness. Though no firm data on the subject is available to PMHI on the methods of pricing practiced by different firms, indirect evidence indicates that firms in the distribution system of the mobile home industry set prices by adding a cost-markup to the F.O.B. prices of the units. Prices set in this manner can approximate the profit maximizing position reached by marginal cost pricing. The dealer's fixed and variable costs plus conception of a "fair return" would be the basic factor in determining this mark-up.

The next concern is the dealer's cutting into this margin to gain a competitive edge. In other words, does price competition exist in the mobile home distribution system?

At first glance, there is supportive evidence, indicated by the PMHI/DS, that the markups varied greatly between dealers. However, the available responses came from dealers whose market radii did not overlap. Therefore the differences may be taken to reflect the different equilibria reached by distributors in different locations. As noted in 3.1, in a given location, a situation of imperfect competition prevails. If the number of dealers serving a given market is small, the situation approximates an oligopolistic formation. Because the resources of any single firm are limited (see 2.2.1), large chains play a relatively small part in the system. It is therefore logical to assume that no single firm would be willing to take the consequences of a price war. Hence, relatively little price competition between dealers in a given locality exists. Most of the competition would be with respect to cost minimization and services to the consumer.

3.2.2 Emerging Trends

The pricing policies followed by the distribution system of the mobile home industry are determined by the competitive characteristics of the firm's market as well as by the amount of resources available to a firm.

If a major change, such as a sudden increase in the dominance of major chains, does not occur, then it can reasonably be expected that the prevailing pricing policies will not change.

3.3 PRODUCT POLICY

3.3.1 Analysis

Product policies can be defined as all the measures taken by a dealer which make the purchase of a mobile home desirable to the consumer. These policies can be separated into two categories: policies which pertain to the sale itself and, policies which define the relationship between the dealer and the consumer after the sale. In an imperfectly competitive market, where entrepreneurs sell only slightly differentiated products with little open price competition, these policies are the main tools of competition. Both internal factors, such as the financial position of the firm in question, and external factors, such as the degree of competition in the market determine the nature and the extent of these policies.

Policies concerning the sale of the product range from advertising and lot decoration to various methods of financing the sale. The dealer's basic aim is twofold: getting the consumer to the lot and making the sale. Advertising in this system (as will be discussed in the section on "Distribution") is geared more towards getting the consumer to the lot rather than publicizing specific brand names. The next

step, as will be discussed in the consumer financing section, is geared toward making the purchase as painless as possible for the consumer by arranging credit terms. Policies defining the post-sale relationship with the consumer range from various long-term guarantees for the consumer e.g., the dealer warranty supplementing the manufacturer's warranty services, to the provision of a wide facet of services.

Competition due to product differentiation in terms of policy differences seems to be the major way competitive pressures are exerted in the distribution system. Several factors determine the extent of competition along these lines: First is the nature of the firm's market. In a good market, with relatively high demand for mobile homes, the competitive pressures on each individual firm is less than in a weak market with the same number of firms. In the latter case, the expenditures related to the above mentioned items will play a relatively minor part in the firm's budget. However, if the number of firms in the market increase or if the demand falls, competitive pressures will probably increase to augment these expenditures. Hence, a second factor influencing extent of product policy-related expenditures is the number of firms in the market. A third factor is the size of the funds available for this purpose; this variable is dependent on the size of the firm and whether or not it is a part of a major chain with a large amount of available resources.

Since no data are presently available to PMHI concerning the degree of competition in the markets in which survey respondents operated, analysis concerning the price and product policies is another area which demands further research.

3.3.2 Emerging Trends

Since product policies of mobile home dealers are a function of competitive market pressures, they will change as the degree of competition intensifies. As the number of firms in the system have increased (see 2.1), generally, the product policies which are a main competitive tool have gained increased attention. Dealers have integrated (diversified) into consumer financing and have offered their own warranties and other services. However, as has been emphasized repeatedly, the localized nature of the distribution system plus its regional polarization make specific predictions impossible. Generally, this issue hinges on whether the number of firms in the system will continue to increase or stabilize. This question will be discussed in 3.4.

3.4 DYNAMICS OF OUTLET AND FIRM GROWTH

The dynamics of firm growth can be better understood by considering the following aspects: first, the change in the average size of the business unit over time; second, the change in the ownership relations within the industry, i.e., increase in horizontal integration resulting from mergers or acquisitions; and, third, yearly entry and exits to and from the system, plus the size of new entries. Estimates concerning these points shall follow.

Size of the Firm

The size of the average mobile home dealer has increased over time. The earlier dealers were a part of the automobile dealership organization, and the splitting up process was probably simultaneous with a rise both in mobile home sales and in the size of the dealerships. Due to the favorable market conditions in the late sixties and early seventies, the number of dealerships in the market increased. The size of the dealerships most likely also increased during this period, and new entries were of a larger size than older outlets.

Mergers and Acquisitions

As mentioned in 2.2, estimates elicited in early 1974 by PMHI from experts in the industry predicted that the degree of horizontal integration in the system would increase. As a large chain operation has more financial resources available than an individual firm, this may imply that the size of the firm will also increase. However, these observations are contradicted by the responses to PMHI's 1975 Industry Interviews where the respondents were evenly divided in stating that mergers and acquisitions can be expected to remain constant or decrease. The discrepancy in the two sets of responses can probably be accounted for by the worsening economic climate between early 1974 and early 1975. PMHI's estimate is that, in the long run, horizontal integration in the system will increase, but only slowly.

Entries and Terminations

No immediate information concerning the characteristics (size, chain membership, etc.) of new entries and exits to the system are available. The following conclusions are based on the information given in Figure 29. For the years between 1970 and 1974, the total number of net entries to the mobile home distribution system ranged from a high of 2,533 for the period 1971/1972 to a low of 616 for 1973/74. However, in the period

1973/74, the number of outlets selling both mobile homes and recreational vehicles, which showed the largest number of new entries between 1971 and 1972, showed a net decrease in number. The tables also show that the number of new entries declined dramatically after the high in 1971/1972.

These observations lead to the following hypotheses concerning the reasons for entry and exit patterns. First, as the number of net entries is positive the rates of return on a sectoral basis still show a favorable picture when compared to alternatives. Second, the overall fall in the number of new dealerships selling both mobile homes and recreational vehicles, after the dramatic rise in 1971/72, may be due to the fact that joint outlets may be becoming relatively unprofitable. This may be due, first, to an increase in various services required by recreational vehicles which can best be supplied by specialized outlets. Second, and probably more important, this may be because of the decline of the demand for recreational vehicles in the recent past.

Due to the problem of excess capacity, plus the recessionary conditions in 1974, 1975 and 1976, both the size and the number of new entries can be expected to stabilize at a relatively low level. After the traumatic shake-out during the period 1974 through 1976, (PMHI estimates that the number of outlets has declined about 40% between 1974 and early 1976), a positive net entry figure on a national or regional basis can again be expected as the economy recovers. The results of PMHI's 1975 Industry Interviews strengthen these conclusions. All the respondents were unanimous in stating that the number of dealerships in this system is decreasing

due to a fall in demand; around half of the respondents saw this fall in demand to be transitory, and related it to the overall performance of the economy.

4.

Performance

This chapter, dealing with the economic performance of the distribution system at large, centers on four issues: Spatial Concentration, Capacity Utilization, Efficiency, and Seasonality. The social performance of the distribution system will be addressed in the next section, "Distribution."

Spatial Outlet Distribution

Comparisons of the indices of spatial distribution of outlets and shipments developed in 2.2.2 can provide rough indications of the system's overall degree of responsiveness to consumer demand. At the present time, some discrepancy exists between the distribution of outlets and the distribution of markets, as measured by outlets per households per square mile and by shipments per households per square mile, respectively. This discrepancy, illustrated in the figures of 2.2.2, suggests that some inefficiency may exist within the overall system regarding satisfaction of consumer needs. That is in some localities there seem to be fewer firms than the market size warrants, while other localities seem to be oversaturated. The distribution of firms does not appear to conform exactly to the distribution of the market. However, as was noted in 2.2.4, the spatial distribution of the firms can be expected to improve over time.

Capacity Utilization

The results of the PMHI 1975 Industry Interviews indicate the excess

capacity in the mobile home distribution system, even in season. This conclusion is buttressed by references to Figures 14 and 15. Between 1971 and 1973, shipments per outlet fell both on a national and regional basis. If it is assumed that new entries did not differ appreciably in size from old firms, then some degree of excess capacity and resource under utilization within the mobile home distribution system seem to exist and may have existed for some time. Some ordinal indices of size and performance support this hypothesis. These indices are from data of the 1972 Census of Retail Trades, published by the U.S. Department of Commerce in 1974/75 (Figure 45).

Efficiency

Figure 45 ranks 24 states in terms of average sales per employee, average sales per outlet and average number of employees per outlet. (The data cover only establishments with payroll which is 79% of all establishments, on the average, with a high of 88% and a low of 68%.) Sales per employee can be taken as a measure of the efficiency of the outlet, with the qualification that a dealer with a relatively low ratio of sales per employee may give much better services to the consumer and hence may be more effective. The average sales per outlet and the average number of employees per outlet are both indicators of an establishment's size.

A discrepancy exists between the relative rankings of states in terms

STATE	SALES/ EMPLOYEE (000's \$)	RANK	PERCENT DIFFERENCE FROM FIRST RANK	AVERAGE SALES PER OUTLET (000's \$) S_r	RANK	EMPLOYEES/ OUTLET E_r	RANK
WYOMING	120.0	1	-	385.2	12	4.1	16
MAINE	117.8	2	1.8%	339.9	17	3.3	21
IDAHO	115.0	3	4.2%	398.5	10	4.3	15
VERMONT	112.0	4	6.7%	327.8	18	3.7	20
MONTANA	111.0	5	7.5%	572.7	2	6.4	4
COLORADO	109.2	6	9.0%	523.0	3	6.0	7
WASHINGTON	106.8	7	11.0%	393.6	11	4.4	14
NEW MEXICO	103.1	8	14.1%	368.4	14	4.7	12
PENNSYLVANIA	99.6	9	17.0%	313.5	20	4.0	17
NEVADA	98.8	10	17.7%	637.0	1	7.9	1
OREGON	98.6	11	17.8%	506.9	4	6.3	5
FLORIDA	98.3	12	18.1%	433.0	8	5.5	8
NEW HAMPSHIRE	96.4	13	19.6%	281.3	21	3.9	18
SOUTH CAROLINA	95.4	14	20.5%	349.5	15	4.1	16
CALIFORNIA	94.8	15	21.0%	472.3	6	7.1	3
MASSACHUSETTS	94.0	16	21.7%	215.4	22	2.9	22
VIRGINIA	94.0	17	21.7%	409.9	9	5.2	10
UTAH	88.5	18	26.3%	479.8	5	6.1	6
NORTH CAROLINA	84.1	19	29.9%	384.7	13	5.3	9
MARYLAND	77.5	20	35.4%	315.6	19	5.0	11
ARIZONA	76.8	21	36.0%	465.2	7	7.3	2
GEORGIA	76.0	22	36.7%	342.0	16	4.5	13
CONNECTICUT	54.6	23	54.5%	204.6	23	3.8	19
RHODE ISLAND	46.1	24	61.6%	161.9	24	4.4	14

Source:

Compiled from: 1972 Census of Retail Trade, Area Statistics. Published by: U.S. Department of Commerce, Bureau of the Census, 1974

FIGURE 45: INTERSTATE DIFFERENTIALS IN PERFORMANCE IN THE MOBILE HOME DISTRIBUTION SYSTEM ESTABLISHMENTS WITH PAYROLL (24 STATES)

of average sales per outlet (S), and employees per outlet (E), as summarized in Figure 46.

With few exceptions, the S_r rank is smaller than the E_r rank in the top third of the states where sales per employee are the highest. In other words, in these states the emphasis is on increasing sales performance of the available labor force. When the available states are ranked in terms of sales per employee, a wide discrepancy cuts across all regional generalizations. There is a 61.6% difference between sales per employee of the top ranking and that of the bottom ranking state, while these two states are clearly similar in terms of number of employees per outlet. Some of this difference results from differences in average size of the outlet; whether all of the rest is due to differentials in services provided cannot yet be determined.

Two reasons may underlie performance differences as measured by interstate differences in sales per employee. First, a minimum optimal size of the enterprise in the mobile home distribution system may exist. The series of Figure 45 shows that in 2/3 of the sample (16 states), mobile home dealers have between three to five employees per outlet. No state has less than three. The number of employees may thus be determined by such facts as upkeep of the lot, administration, services, as well as sales. It can be hypothesized that whatever the demand relations are, a mobile home dealership has a minimum of employees. In other words, minimum size (number of employees) is a function of the enterprise itself as well as of the market conditions. Even when market conditions differ

	<u>NUMBER OF STATES</u>
$S_r = E_r$	2
$S_r > E_r$	11
$S_r < E_r$	<u>11</u>
TOTAL	24

WHERE: S_r = RANK OF STATES IN TERMS
OF SALES/OUTLET

E_r = RANK OF STATE IN TERMS
OF EMPLOYEES/OUTLET

Source: Compiled from Figure 45

FIGURE 46: INTERSTATE DIFFERENCES IN RANK BETWEEN AVERAGE SALES/OUTLET (S) AND EMPLOYEES/OUTLET (S)

markedly from state to state, the minimum size of the outlet cannot easily be reduced below a certain limit. This leads to interstate differentials in the sales efficiency of the firms. If this hypothesis is tentatively accented, some degree of resource underutilization may be built into the system, unless the labor force available is fully used to perform additional functions, i.e., servicing, etc.

A second possible reason for this state in the industry is the possible inefficiencies due to the existing degree of competition in the market. The dealers are selling similar products with only a minor amount of differentiation along horizontal lines. Only minor differences exist between mobile home in the same price range. As the firms' effective radii of operations is rather small, a new entry to the market pushes down the profit margins and creates excess capacity, without driving out any firm. This form of Chamberlinian imperfect competition probably does exist to a degree in at least some regions, thus contributing to inefficiencies in the overall performance.

Seasonality

Seasonal variations are more severe at the dealership level than at the production level. This means that the distribution system shields the production system from direct exposure to seasonality on the demand side. This is an extremely significant function for the distribution system considering the adverse effects of seasonal fluctuations on profitability

and capacity utilization of firms in the production system. With regard to this indispensable support function for the production system, the mobile home distribution system's performance is outstanding.

C.

POTENTIALS OF THE DISTRIBUTION SYSTEM

1.

Potentials for Performance Improvement

The areas in which the mobile home distribution system can improve its performance include the following:

1. The spatial distribution of distribution outlets. On a geographic basis, the present distribution diverges somewhat from the distribution of the market.
2. The degree of capacity utilization. Certain evidence shows that there is some excess capacity in the mobile home distribution system.
3. The degree of seasonality. Seasonal fluctuations are harsh in the distribution system and adversely affect firm performance.

Spatial Distribution

The present spatial distribution of the distribution outlets is less than optimal in terms of resource allocation on the supply side, and consumer satisfaction on the demand side. More accurate and detailed forecasts (i.e., county-by-county, SMSA-by-SMSA, etc.) of the effective demand for the present and probable future products distributed by the system might, if widely disseminated, lead to an automatic correction of this problem.

Capacity Utilization

In Chapter B.4, the possible existence of excess capacity in the system was mentioned. Evidence showed a fall in sales per outlet while the

number of outlets rose. Interstate differentials in sales per employee also suggest that excess capacity may exist on an absolute and a relative interstate basis. In other words, excess capacity seems to exist in all states whose sales per outlet are falling and whose number of outlets is rising; however, interstate differentials also exist when the degree of capacity utilization is measured by sales per employee. This situation is problematic, mainly in terms of supply, since excess capacity indicates some resource underutilization. From the consumer's standpoint, some advantages may accrue since competition is based on quality, and service may improve.

Seasonality

Seasonality has been found to be more severe at the dealership, than at the production level. Seasonality, undoubtedly, affects dealers' performances adversely. An attempt was made to explain seasonality by climatic conditions, but this attempt failed. Thus, further research is needed to identify the principal cause or causes of seasonality. This must be done before recommendations can be made on the type of measures necessary to reduce seasonal demand fluctuations. Nevertheless, there are possibilities of at least alleviating the symptoms. From the detailed field interviews conducted with top management personnel from the industry in early 1975, it is clear that there are potential steps that dealers can undertake immediately to alleviate seasonality. Most frequently suggested are aggressive (and at the same time more sophisticated) advertising and sales efforts during the slack period.

2.

Factors Conducive to and Factors
Resisting Change With Potential
for Improving Performance

One factor which may lead to a change in the over-all structure of the distribution system and an improvement in its performance is a change in the industry's self-image. A recent issue of the Mobile-Modular Housing Dealer states:

(In the minds of the public,) the mobile home is in a period of transition. The transition is from the image of temporary housing, to be used only until other accommodations are available, or affordable, to an image of permanent housing...

(This) will chart new courses for distribution.

Forward-looking dealers may have to become either land developers or make business connections with a real estate developer... ¹²

Promising progress has been made. After decades of intra-industry politics, the various dealer-supported state and regional associations have formally joined forces with the MHMA -- at a time when the MHMA itself and the other manufacturer-and supplier-supported associations (TCA, SEMHI, etc.) decided to merge into a single, national association: The Manufactured Housing Institute (MHI). Now (as of June, 1976) MHI seems well off the ground. For the first time in the mobile home industry's history, a unified, national voice exists, representing suppliers, manufacturers, and dealers alike. Already, MHI has proven that it understands what is probably the industry's most serious problem -- to establish a more accurate public image. Despite the negative impact of the recession on the funds available to MHI, it has recently committed sizable resources and efforts to major public relations campaigns directed toward this very problem. If

successful, this change in the industry's self-image, even if unaccompanied by technological and other quality changes, could open new markets for the product and could substantially further the implementation of the potentials mentioned.

Another factor which may aid the industry in activating latent potentials is the level and composition of the demand for the product. Increases in the effective demand, by affecting the level of sales, will have a large beneficial impact in the three areas where potentials were noted. A change in the composition of demand (e.g., by attracting consumers who are in the market for new housing but refuse to consider mobile housing as a viable alternative), apart from changing the structure of the system, will most probably raise the overall level of effective demand.

Three factors will resist change in the mobile home distribution system: First, are transport costs which bear on the industrial organization of the distribution system. These were discussed at some length in this section. Unless a major technological breakthrough in this area occurs, the present degree of decentralization in the industry will continue, along with its inherent problems.

A second factor restraining change may be a certain minimum size of a dealership. Unless the level of demand is above a certain minimum, capacity problems may be expected. This is also related to the issue of the competitive structuring of local markets; unless the demand for the product rises above a certain level, firms can operate at excess capacity though they show positive profits. Although excess capacity exists, the existence of

net profits in the system will impede the spatial restructuring of the firms and will perpetuate the problems noted earlier.

The final factor which may impede progress is the present composition of demand; the present mobile home "image" of an "inferior" good (in strictly economic terms) affects the present structure of the distribution system, with respect to both the numbers and the distribution of outlets.

D.

SUMMARY

The objective of this section is the analysis of structure, operation and performance of the mobile home distribution system.

Both the manufacturers' shipments to mobile home dealers and the number of dealers which constitute the mobile home distribution system have risen dramatically since the late 1960's. A highly decentralized dealership organization (13,513 dealers in 1974) has evolved for the distribution of the product. Regional differentials in the numbers of outlets are substantial. The degree of decentralization in the present system is a direct result of product characteristics as well as regional differences in taste and income patterns.

At the present time, the system shows a low degree of horizontal integration; the number of chains is small and the best estimate of PMHI is that these chains do not exert a great deal of control over the market. The spatial distribution and concentration of the dealerships is less than optimal.

A relatively high degree of vertical integration exists between the dealers and the park system, while integration between dealers and manufacturers, as well as consumer financing operations, is small. While some members of the dealership population have diversified into the sales of recreational vehicles, the degree of diversification from the system into other areas is relatively small.

The system as presently constituted seems to exhibit a constant return to scale production function. Also, there is some evidence of the exis-

tence of excess capacity.

As of 1974 the net entry rate into the system was still positive, although there was some evidence that it was declining. This trend will probably continue into the early eighties, not least because of the dramatic shake-out that the system experienced in 1975 and 1976.

The basic areas where an improvement is feasible are: suboptimal spatial distribution of the existing outlets, excess capacity, and serious seasonal fluctuations. The origins of the first two problems may lie in the existence of imperfectly competitive formations at the local level, where the individual firms operate.

E.

FOOTNOTES

1. See Figure 1 in Appendix for a schematic representation of the mobile home distribution system.
2. The directory of Mobile Home and Recreational Vehicle Dealers in the U.S. and Canada, published by the Automotive Credit Service. Hereafter referred to as "ACS Directory."
3. These figures were obtained by multiplying the estimates of the existing number of chains in that category (H,M or L) by the number of outlets and then summing across Groups A, B, and C. For example, the H estimate for Group A was: 2 chains with 200 outlets each, 12 chains with 100 outlets each, 30 chains with 50 outlets each, and 800 chains with 20 outlets each. Hence: $80 \times 20 + 30 \times 50 + 12 \times 100 + 2 \times 200 = 19,100$.
4. "Automated Total Housing Systems in the U.S., 1970, As Applied to the State of Minnesota," by Chido, Lorimer and Assoc., Inc., Minneapolis, Minnesota.
5. Ibid.
6. Estimated by PMHI staff from: "Statistical Abstract of the U.S., 1973," "The Mobile-Modular Housing Dealer Monthly Market Letters" and The Directory of Mobile Home and Recreational Vehicle Dealers in U.S. and Canada, published by ACS.

7. The number of observations on which these conclusions are based is relatively small. The question of their representativeness is discussed in the Appendix.
8. The analysis is based on responses to the PMHI survey of mobile home dealers.
9. This fact also implies that integration may prove to be more profitable to large outlets.
10. As the information in this table will be fully analyzed in 3.4 under Entries and Terminations, they will only be briefly discussed here as an indicator of the importance of various barriers to entry.
11. This can be shown as follows:

P = Total profits

Q = Number of units sold

t_1 = Transport costs per mile per unit, from manufacturer to dealer

t_2 = Transport costs per mile per unit, from dealer to the market

$V(Q)$ = Total variable costs, these change with the quantity sold

F = Total fixed costs, these do not vary with the quantity sold but remain constant as long as the firm's size does not change

S = Market price per unit

Hence, total profits are:

$$P = SQ - V(Q) - (t_1 + t_2)Q - F$$

The first order condition for maximization gives:

$$\frac{dP}{dQ} = S - V'(Q) - (t_1 + t_2) = 0 \quad \text{or,}$$

$$S = V'(Q) + (t_1 + t_2)$$

Second order condition:

$$\frac{d^2P}{dQ^2} = -V''(Q) < 0$$

Q.E.D.

This means that given the profit maximizing assumption, the firm sets the market price to cover its variable costs plus its transport costs. In the case of the mobile home industry, the market price is determined by the interaction of the supply schedules and of the demand conditions of a number of imperfectly competitive firms, and is, by and large, beyond the control of any one firm.

Hence, if we assume that individual firms are price takers, then we can conclude that given the present technology of transportation and its costs, the market radius of any one individual firm is limited. This in turn limits the firm's size.

DISTRIBUTION

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DISTRIBUTION

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A.

INTRODUCTION

The preceeding section, "Industrial Organization," explains the business organization of the mobile home distribution system at large. The next section, entitled "Distribution," will present a more detailed analysis of the function and operations of dealers in the mobile home industry. By its very nature, such a description necessitates a statistically oriented study of the various factors that influence the economic performance of mobile home dealerships. Implicit too, is the need for at least a qualitative examination of the social performance of the distribution process. Hence, the data and information compiled in this section comprise the results of a combined quantitative and qualitative analysis of dealer operations, their relationships with manufacturers, park developers and operators, and finally, with the consumer.

The data bases that have been drawn upon constitute a varied array of sources. Major information is based upon the aggregate experience of PMHI participants recruited from the mobile home industry along with other information aquired by PMHI staff members from nationwide fieldwork. Several PMHI surveys also provided a great deal of material. Specifically, the national PMHI Dealer Survey became instrumental as a data base for dealership operations. Published surveys, notably the Owens/Corning Surveys, have been used in collaboration with PMHI data to provide additional information and to lend another quantitative dimension to the data aquired by the PMHI staff. PMHI's extensive collection

of trade journals, along with other previously published articles and studies generated by exhaustive literature searches, provided data that helped substantiate first hand material.

B.

THE PRESENT SITUATION AND EMERGING TRENDS

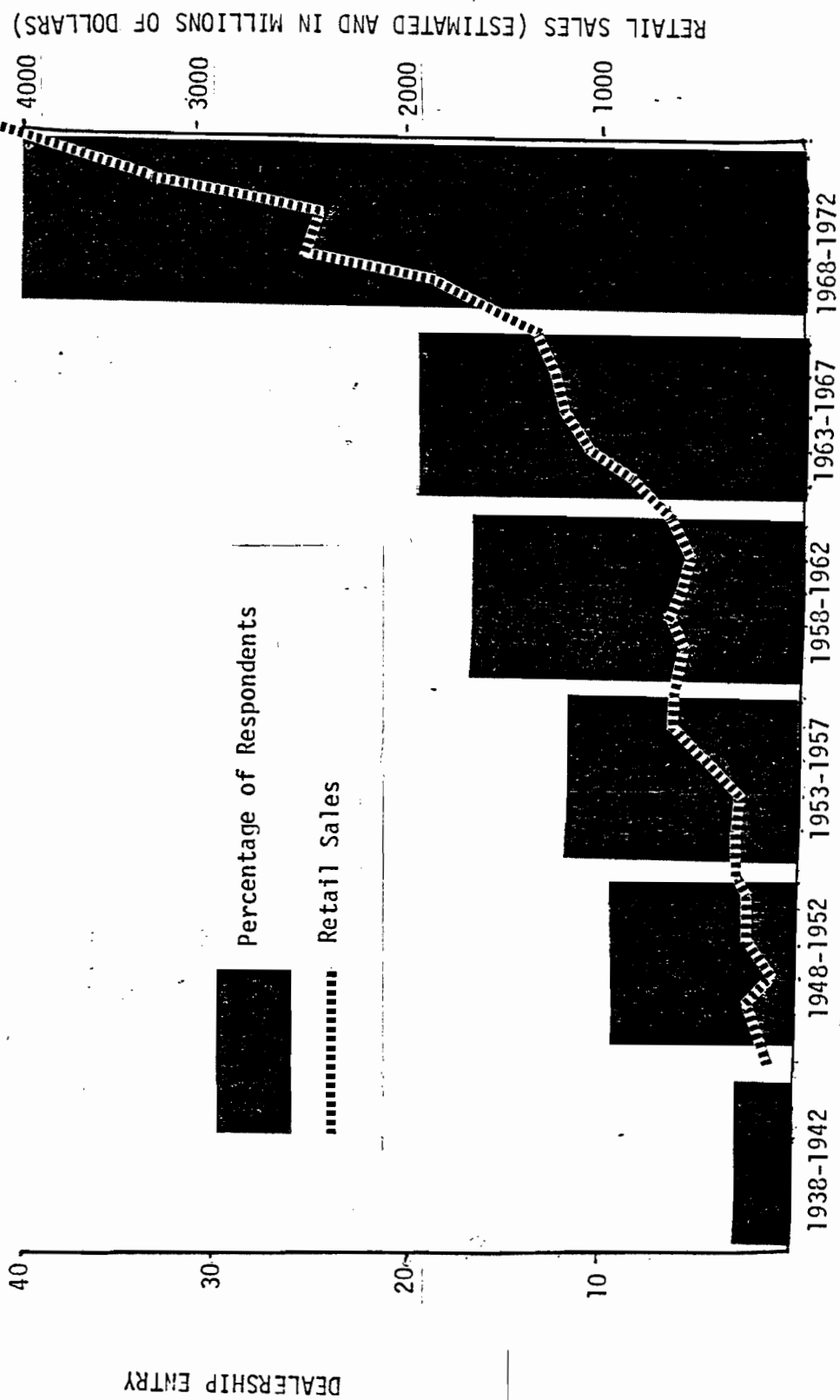
1.

Profile of Dealership Operations

1.1 BACKGROUNDS OF DEALERSHIP OWNERS

Mobile home dealership operations usually developed out of one or a few types of other businesses whose activities were in some way similar or related to those undertaken in the mobile home industry. Chapter B.1.1.2 of the Industrial Organization section has already mentioned the major backgrounds of mobile home dealers while presenting a general overview of the origins of the mobile home distribution function. For the purposes of this section, it is necessary to discuss these backgrounds in greater detail.

The mobile home dealership entry rate paralleled industry growth patterns, particularly during the years 1968-1972. Figure 1 shows the correlation between the number of companies started within specific time periods and annual mobile home sales volumes. While the companies of nearly two thirds of all dealer-respondents began in the ten year period between 1963 and 1972, it can be seen that the companies of most respondents (40%) were started during a period of dramatic industrial growth between 1968 and 1972. Thus, it is apparent that the mobile home industry's market expansion has induced a proportional acceleration in the entry rate of new dealerships which, in turn, has further stimulated



Source: PMH/DS

FIGURE 1: BREAKDOWN OF YEARS IN WHICH DEALERSHIP COMPANIES FIRST ENTERED THE MOBILE HOME DEALERSHIP BUSINESS

growth in sales volume. The entry rate increase of the recent past, however, led to increasing excess capacity within the distribution system. This has contributed to the abnormally high frequency of firm exits in 1974 and 1975.

Upon entering the dealership business, about one third of all founders had previously been engaged in recreational vehicle or automobile dealerships. The founders of 41.4% of all PMHI/DS responding companies had originally been involved in activities of other subsectors of the mobile home industry; 7.1% in mobile home manufacturing, and 34.3% in mobile home park development activities. 18.5% had been involved either in real estate or land development prior to operating dealerships (Figure 2). As discussed in the Industrial Organization section, all of these backgrounds of dealer-respondents' founders represent relevant preparation for mobile home distribution.

Similarly, most of the 7.2% of all dealer-respondents who stated that their company founders had formerly been involved in various "other" industries not specified on the PMHI/DS questionnaire, listed significant fields. Some of these areas of employment, such as mobile home sales, mobile home servicing, mobile home supplies sales, pre-built housing sales, home building, and the sales of furniture and appliances, involve work directly related to the mobile home industry at large. In general, it appears that the largest portion of mobile home dealership owners had formerly been

INDUSTRY BACKGROUNDS	PERCENTAGES OF DEALER-RESPONDENTS
Mobile Home Park Development/Operation	34.3
Automobile Dealerships	20.0
Recreational Vehicle Dealerships	12.9
Real Estate Sales	11.4
Mobile Home Manufacturing	7.1
Other Types of Land Development	7.1
Other Backgrounds (*)	7.2
<ul style="list-style-type: none"> * Mobile Home Salesman * Mobile Home Serviceman * Mobile Home Supplies Sales * Pre-built Housing Sales * Home Building * Furniture Sales * Appliance Sales * Wholesale Lumber Sales * Paint Sales * Plumbing Contracting * Farm Equipment Sales * Electrical Engineering * Accounting, Purchasing, Financial Management * Teaching * Grocery Store Ownership 	

Source: PMHI/DS

FIGURE 2: BACKGROUND FIELDS OF THE FOUNDERS OF DEALERSHIP COMPANIES

involved in a business activity within the industry or closely related to the industry.

Most of the 24% of the individuals who started mobile home dealerships within the years 1938-1957 had formerly been involved (in order of frequency) in mobile home park development/operations, recreational vehicle dealerships, or automobile dealerships. Most of the owners of the 16.5% dealerships started within the years 1958-1962 had formerly engaged in automobile dealerships or mobile home park development/operations. The majority of owners of the 19.5% of the dealerships founded within the years 1963-1967 had been mobile home manufacturers or had been engaged in park development/operations. The greatest number by far of the 40.3% of dealerships that were founded within the years 1968-1972 had evolved from park development operations. The predominant industrial backgrounds of other company founders within the years 1968-1972 were in the areas of automobile dealerships or in types of land development other than mobile home park development/operations. Thus, it appears that the predominant former occupation of individuals who founded dealerships was mobile home park development/operations. This does not necessarily indicate a movement of individuals away from the park system into distribution. Rather, many of the dealership founders with park background establish small dealerships to complement the parks that they presently operate.

Responses seem to indicate that many modern dealerships are started by relatively younger individuals who were not formerly engaged in operating a business of their own. For example, many present dealers were once employed by other dealers in some position, usually a salesman. A few dealer-respondents to the PMHI/DS specifically stated that their founders had been college students before entering into the dealership business.

Most of the individuals whose initial business venture was in the form of a mobile home dealership began these operations within the years 1968-1972. These findings clearly indicate the opportunities afforded to, and the willingness on the part of, many new owners of mobile home dealerships to begin companies without having gained prior experience from owning a business in a related field.

1.2 LEGAL FORM OF BUSINESS ENTERPRISE

The type of company or legal form of business enterprise that is formed by the owners of mobile home dealerships is dependent upon a particular dealership's amount of capital requirements, and upon the intended business volume of the operation. In the past, typical mobile home dealerships were usually small "ma and pa" family owned operations. Today however, small dealerships that sell only a few mobile homes per year and that have access to only limited working capital, are usually not profitable enough for owners to maintain

Working capital for most dealerships is obtained by the sale of securities to a few individuals as opposed to the public at large. Of all PMHI/DS respondents, only one was publicly traded. The majority (69%) of the companies were incorporated but privately held. However, a significant 26% of the respondents managed dealership companies which were not incorporated. Thus, although many companies have been incorporated, almost all have remained privately held.

Of the dealerships started within the years 1938-1962, 27% are incorporated but privately held, while 10% are not incorporated. Of all dealerships that began within the years 1963-1972, 37% are incorporated but privately held and 19% are not incorporated.

More companies in this latter time period are probably not yet incorporated because it often takes a few years before companies can decide, or have the means, to incorporate. The PMHI data indicates that a trend has developed in recent years in which more owners will be operating dealerships that are incorporated although remaining privately held.

Information from a PMHI crosstabulation represented in Figure 3 indicates that dealerships which are not incorporated are more likely to be involved in both park operation and park development activities. This most probably reflects the many small dealerships established by park developers/operators primarily to sell units to be located in their own parks. These moves, although usually on a minor scale, represent up-stream integration by park developers or operators. Down-stream integration by dealers into park development/operations, requiring extensive resources, is more likely to be undertaken by larger, incorporated companies. The data in Figure 3 supports this hypothesis as not one of the unincorporated companies, with little working capital, plans to enter park development/operations while some incorporated dealerships do plan to integrate into this field.

It is expected that as dealer operations become more sophisticated, the distribution of mobile homes will be largely dominated by privately held, incorporated dealership companies. A slow evolvement of more publicly held firms is also anticipated. In either case, expansion of dealership firms and integration into phases of the production and delivery process will typically involve incorporated dealership companies.

LEGAL FORM OF OWNERSHIP	PERCENTAGES OF DEALER-RESPONDENTS		
	NOT IN; ENTRY NOT PLANNED	NOW IN	PLAN TO ENTER
<hr/> <hr/> PARK OPERATION <hr/> <hr/>			
UNINCORPORATED	14.3	85.7	0
INCORPORATED BUT PRIVATELY HELD	37.8	54.1	8.1
<hr/> <hr/> PARK DEVELOPMENT <hr/> <hr/>			
UNINCORPORATED	50.0	50.0	0
INCORPORATED BUT PRIVATELY HELD	55.6	27.8	16.7

Source: Crosstabulation from PMHI/DS

FIGURE 3: BREAKDOWN OF DEALERSHIP COMPANIES INVOLVED IN PARK OPERATION
AND PARK DEVELOPMENT ACCORDING TO LEGAL FORM OF COMPANY
OWNERSHIP

1.3 MULTI-LOT CHAINS

The desire on the part of dealers to cover more than one market area, as well as the expanded sales output of mobile home dealerships during the 1960's and the 1970's has led to the formation of multi-lot chain operations. These include a number of sales lots in several states owned and operated by one dealership company.

The number of sales lots managed by a particular company for four years--1963, 1967, 1972, and 1974 (projected)--are shown in Figure 4. It appears that the marketing purposes of the majority of dealer-respondents are accomplished by the management of one sales lot. However, two lot operations seem to be emerging as a trend as well as possibly indicating the optimal number of sales lots that dealerships prefer to own and operate.

Problems related to financial considerations were cited by nearly two thirds of the manufacturers interviewed in 1975 as being the major factor retarding the future development of dealership chain operations. Other problems were attributed to a lack of well quali-

NUMBERS OF LOTS	PERCENTAGES OF DEALER-RESPONDENTS			
	1963	1967	1972	1974 (estimate)
1	81.1	72.8	70.7	59.4
2	6.4	13.0	13.8	21.6
3	12.5	4.6	6.2	8.1
4	0.0	0.0	3.1	2.7
5 (or more)	0.0	9.0	6.2	8.1

Source: PMHI/DS

FIGURE 4: NUMBER OF LOTS PER DEALERSHIP IN YEARS 1963, 1967, 1972, AND 1974 (estimate).

fied personnel and a lack of sophistication in the management of many lots spread out over a large area.

As previously stated in Chapter B.2.2.4 of the Industrial Organization section, the manufacturers questioned in both the 1973 and the 1975 PMHI Industry Interviews expressed varying opinions concerning the emergence of multi-lot chains. In 1973, respondents unanimously agreed that within the following five years, both national and regional chains will exist and will play a major role in the distribution system. According to the 1975 replies, half of the manufacturers believed that the number of dealership chains was decreasing although one fourth stated that the number was remaining constant. However, it is almost certain that these differences of opinion resulted in the discouraging changes in economic conditions between the years both groups of manufacturers were questioned. PMHI concludes that in the long run a trend will emerge in which many dealerships will gradually expand their operations into large interstate chains.

1.4 LOT ORGANIZATION

Before deciding on the location for a mobile home sales lot, company managers examine factors related to the overall market demand for mobile homes in the area considered for operating a dealership. It is important to investigate the general environment; determining the number of other mobile home dealerships in the vicinity, the availability of park space, zoning laws pertaining to the site location of mobile homes, taxation methods, and the financial terms offered by lenders in the area.

The prime location for a mobile home sales lot is an area bordering a main thoroughfare that prospective customers will find accessible and recognizable. Mobile home sales lots are often located on "trailer rows" that house several dealerships and that afford consumers the opportunity to compare the price and quality of several product lines. It is particularly advantageous for new dealerships to be located near the lots of well-established dealerships with whom the public has become familiar. Some lots are located next to mobile home parks or in sales malls that are designed to recreate a mobile home park atmosphere.

The importance of the accessibility of a particular lot along with its exposure is pointed out in the responses to a question asked by the 1975 Owens/Corning survey. According to this study, 51% of all mobile home owner-respondents revealed that they had just learned about the dealer from whom they purchased their home by "driving around". 27% of the respondents had heard about their dealer from a friend or relative.

Several techniques are being employed to attract potential buyers to sales lots. An important feature of any lot set-up is the company sign. A sign that is well-lighted and tall enough to be visible from both directions on a highway adjacent to the lot alerts the attention of customers. Other visual techniques and "gimmicks" are employed to attract buyers. For instance, some dealers stack trailers or other small mobile units on top of each other and utilize the bottom unit for an office.

The physical layout and design of most mobile home lots do not vary significantly from lot to lot. Mobile home lots have one to several buildings (often, in the case of small operations, actual mobile units). The most important building is the office in which the final sales transactions are conducted. Other structures are often constructed to store various materials such as parts and supplies, decorator kits, accessories, or cleaning equipment. Larger companies often have housing for servicing

and maintenance. Due to the high costs of providing covered exhibition space, almost all dealers set up mobile homes for display and sales on gravel or macadam surfaces outside.

Mindful of consumer choice and preferences, dealers usually display many models on their individual sales lots. As can be seen in Figure 5, from less than 10 to over 60 mobile home units are displayed on an individual lot. In 1974, the average number of units shown on one lot was approximately 14. In comparison with 1969 findings (19 units per lot), it is evident that dealers are generally displaying less units. Dealers find it advantageous to present units in a manner that is both attractive and affords potential customers maximum inspection ability. Most display mobile homes complete with interior furnishings and accessories such as dishwashers and garbage disposals. Many dealers show at least one model in a landscaped setting with add-on features such as awnings to present a more convincing appearance of what a mobile product will look like once set upon a park site. Lot space limitations and set-up costs of certain models prevent many dealers from adequately displaying larger units such as doublewides or expandables. Used mobile homes are usually arranged on a special area set aside from the display location on the lot.

Other factors related to sales lot organization are similar for all dealerships. Generally, dealers do not post prices on the

NUMBER OF NEW HOMES DIPLAYED AT ONE LOT LOCATION	PERCENTAGES OF ALL DEALER- RESPONDENTS	
	1969	1974
10 OR LESS	31	40
11-20	38	40
21-30	17	11
31-40	10	6
41-50	1	1
51-60	3	--
MEAN	18.7	13.8

Source: The Owens/Corning Fiberglas, Inc., A Research Study: Focus on the Mobile Home Market (1970, 1975)

FIGURE 5: THE NUMBER OF NEW MOBILE HOMES DISPLAYED AT ONE LOT LOCATION

mobile homes displayed on their lots. Many dealerships are kept open seven days a week. In fact, several dealerships find that Sundays are their best selling days. Where state and local laws prohibit commercial operations to be open on Sundays, dealers feel that their sales volume is greatly reduced.

Market risks related to physical deterioration and destruction of units affect all mobile home dealerships. Since units are stored outside, dealers often experience potential sales losses from units that develop a weathered appearance. The open nature of sales lots leaves them prone to vandalism and theft, even while usually fenced in and provided with automatic lighting.

Because of the large number of consumers who end up purchasing a mobile home by "driving around", the location and the appearance of a sales lot is an essential marketing tool for the distribution system in the industry. Those dealers who maintain an attractive, highly visible, as well as organized lot find that this alone provides the consumer with much non-verbal information about the dealership and the mobile homes for sale.

1.5 DEALERSHIP PERSONNEL

Mobile home dealerships may be operated by only one or two individuals, or may be staffed with a number of employees. In the first case, the owner of the dealership, who is also known as the "dealer" or "operator", usually serves as both sales manager and lot salesman, performing various job duties simultaneously.

Large dealership operations, particularly those involved in multi-lot operation, are typically staffed with several persons, each performing specialized functions. The owners of these dealerships often double as salesmen also. A sales manager directs the staff of sales representatives and trains new salesmen as well as acting as a salesman himself. Sales managers and representatives usually have the responsibility of developing leads on potential buyers and conducting follow-up communications with consumers who have expressed an interest in mobile home ownership. In addition, the sales representatives often accompany the owner/sales manager on trips to view and select new product models displayed at mobile home shows sponsored by the various industry associations.

There are a number of ways in which a mobile home salesman may receive compensation. Most work on a straight commission basis, while a small number of dealerships allow their salesmen to receive an advance on pay in anticipation of commissions to be received.

Others pay their salesmen on straight salary basis, or combine a salary with commission. Usually, owners offer bonuses, trips, incentive programs and awards to encourage good salesmanship. In fact, one company offers a bonus to the salesman who sells the oldest, and/or least attractive unit on the lot.

Knowledge of mobile home technology, as well as developed sales skills are of primary importance in determining ability to maximize sales. Of course, it is essential for a salesman to strive for profit. The Senior-Vice President and General Sales Manager for a large mobile home company stated it aptly: "We evaluate the individual manager's attitude and performance. After all, it's the human factor at the sales location that makes it happen. It's the lot manager's personal attitude, his personal determination, his appearance, and his methods of doing business that really is the key. You have to have the right person, you have to have a man that's interested in making money--a man that takes pride in his work."

Several dealer-respondents to the PMHI/DS supplied comments that substantiate this opinion concerning the knowledge, methods, determination, and attitude of a salesman. Examples of specific problems relating to inadequate merchandising stemmed from situations in which salesmen often were unaware of potential financing techniques, were not in close enough contact with customers, did not work hard enough at selling a mobile home product, or utilized the wrong selling approach with a prospective buyer.

Large dealerships often hire a person to serve as a home installation and consumer service manager. This person is in charge of delivering a mobile unit to a customer's park site or individual lot location, and placing the unit on the site, ready for hook-up to utilities. He installs accessories including awnings, skirting, carpets, or steps, that have been purchased with the mobile home. To insure proper functioning of the unit once it is established on a site, the consumer service manager is also in charge of handling various service calls for the owners of units purchased from the dealership.

Another important employee of many large dealership operations is the advertising and marketing manager or the public relations manager. This person is responsible for collecting statistical data concerning information affecting the level of sales of the dealership. Considered is the overall growth of the industry, the number and types of housing starts, population trends in the area, the formation of families and households by sex, age, and occupation, and the extent of mobile home park developments. This employee also decides upon the company's public relations activities. Further discussion of marketing is found in chapter 5.

Dealership companies also employ people skilled in a variety of duties. They include "set crews" who place the mobile homes on buyers' sites and "after set crews" who exclusively perform post-sale service work and repairs. Also hired are individuals to serve as warehouse managers, furniture men, maintenance workers,

decorators, tow truck operators, and employees for parts and accessories stores.

As in most organized businesses, the office administration of larger mobile home dealerships is comprised of a few or several people, depending on the size of the company. Accountants are in charge of the payroll, accounts receivable, accounts payable, insurance, tax reports, and financial statements. An employee serving as a purchasing agent orders the units and buys all necessary supplies. An office personnel manager is responsible for hiring, training, and supervising office employees.

2.

Dealer-Manufacturer Relations

2.1 DEALERSHIP REPRESENTATION OF MANUFACTURERS

In order to expose consumers to a broad range of unit types and prices, most mobile home dealers represent a number of manufacturers. It is commonly held amongst most dealers that maximizing the array of brand names, sizes, prices, and floor plans on the sales lots will insure consumer choice and therefore, increase profits.

The number of manufacturers represented by dealerships as recorded by the PMHI/DS and the Owens/Corning Survey are shown in Figure 6. Dealers have come to regard it necessary that their dealerships should represent 3 or more manufacturers. Although almost half of the dealer-respondents represented 3 or 4 manufacturers, 41% represented over 5 manufacturers. It is worth noting that large dealerships are more inclined to represent numerous manufacturers than are small dealerships for reasons stated below in addition to the simple fact that they possess more lot space on which a greater diversity of models can be displayed.

Reasons given by dealer-respondents to the PMHI/DS as to why they plan to either increase, decrease, or keep the number of manufacturers

NUMBER OF MANUFACTURERS REPRESENTED	PERCENTAGES OF DEALER-RESPONDENTS		
	Owens/Corning (1969-1970)	PMH/DS (1972)	Owens/Corning (1974)
1	9	2.9	8
2	30	8.6	8
3	11	21.4	24
4	12	24.3	20
5 +	53	41.3	41

Source: Owens/Corning Fiberglas, Inc., A Research Study: Focus
On the Mobile Home Market (1970, 1975); PMH/DS

FIGURE 6: NUMBER OF MANUFACTURERS THAT DEALERSHIPS REPRESENT

represented constant provides insight into both the advantages and disadvantages of each strategy.

About 10% of the dealer-respondents stated that they intended to expand representation beyond the average level of 4 or 5 manufacturers. Reasons for this increase stemmed from the desire to provide customers with a greater selection of mobile homes. This strategy is also somewhat experimental: dealers wish to discover which models or brands tend to have the greatest consumer acceptance. Also, products not obtainable from their present manufacturer could be offered through expansion. Mention was made of the fact that greater representation tended to decrease the likelihood of brand name loyalty.

21% of the dealer-respondents planned to decrease the number of manufacturers for many reasons. This group expressed an intention to stay only with the best lines, to reduce consumer confusion and to concentrate upon volume purchases from a few companies. Consolidation in regard to buying volume discounts was also considered. These dealers felt that working with only a small number of manufacturers eliminated duplication of supplies in their inventories. Finally, the opinion was expressed that it is better to represent fewer manufacturers because the locations of some producers' plants are too distant from dealers' lots, encumbering the dealer's ability to obtain fast delivery of service and parts.

The majority (57.7%) of the dealer-respondents who wished to remain with their present arrangement concerning representation had an average of 4.7 manufacturers' names on their sales lots. Reasons given for contentment with this number were that they were able to maintain a variety in price, size, and floor plans. These dealers added that while they did not intend to change the number involved they were nonetheless always on the "lookout" for new manufacturers.

2.2 FRANCHISE AGREEMENTS WITH MANUFACTURERS

Franchise agreements enable mobile home manufacturers to delegate exclusive rights to individual dealers to market the mobile homes of that manufacturer in a particular area or within a given radius of the dealers' lots. According to Figure 7, the majority of PMHI/DS respondents (56.5%) stated that they did not have any franchise agreements with manufacturers. However, a significant number of dealers (43%) did utilize franchises and there has been a trend in more recent years towards increased dealer willingness to enter into franchise agreements with manufacturers.

Concerning cases in which franchise agreements are contracted between manufacturers and dealers, the manufacturer provides the contract. Usually, if not cancelled by either party within a period of thirty days after it is mutually agreed upon and signed, a franchise agreement becomes effective for a period of one year. The Dealer Relations Committee of the MHMA has devised a 26-point model "Standard Franchise" code in order to designate the features necessary for a workable contract in manufacturer-dealer agreements.

It should be noted that dealers with franchise agreements do not necessarily refrain from representing other manufacturers on a non-franchise basis. Figure 8 indicates that franchise sales may

NUMBER OF MANUFACTURERS	PERCENTAGES OF DEALER-RESPONDENTS
0	56.5
1-3	20.3
4-6	15.9
7-9	1.4
10-12	5.7
MEAN: 2	

Source: PMHI/DS

FIGURE 7: NUMBER OF MANUFACTURERS WITH WHOM DEALER-RESPONDENTS HAVE FRANCHISE AGREEMENTS

NUMBERS OF ALL DEALER- RESPONDENTS HAVING FRANCHISE AGREEMENTS	PERCENTAGES OF TOTAL SALES REPRESENTED BY FRANCHISE SALES
17	100
3	90-99
1	80-89
2	70-79
0	60-69
1	50-59
1	40-49
0	30-39
3	20-29
1	10-19
4	1-9
MEAN: 38.5	

Source: PMHI/DS

FIGURE 8: PERCENT OF TOTAL SALES REPRESENTED BY FRANCHISE SALES
BY THOSE DEALERS HAVING FRANCHISE AGREEMENTS

represent less than one half of a dealership's total sales.

Although most manufacturers produce several brand name products, many dealers feel that they can obtain a greater product line differentiation by not limiting the selection of manufacturers represented on their lots. In order to serve a diverse community, these dealers desire to be the middlemen between a number of manufacturers and the ultimate consumers. This desire is intended to extend the potential markets to which they have access. Therefore, they do not engage in franchise agreements.

Manufacturers questioned for the PMHI 1973 interviews made comments to the effect that the industry's use of franchise agreements as a marketing tool is somewhat premature. The presence of so many manufacturers in the industry makes it difficult for any one manufacturer to interest dealerships to market only the manufacturer's products. The utility of franchise agreements to dealers is not great, particularly in light of the fact that brand name identity is not yet strong in the mobile home market. Manufacturers cannot compel dealers to engage in exclusive franchise agreements. Since so many manufacturers are competing for good dealers, dealers do not have to bow to those manufacturers who would like them to enter into franchise contracts.

Despite the aforementioned difficulties related to securing franchise agreements with dealers, many manufacturers have, over the years, indicated to PMHI that they are attempting to enter into franchise agreements on a more frequent basis. Again,

this intention was suggested in response to a question asked in the 1975 PMHI Industry Interviews concerning what changes manufacturers would like to see occurring in the mobile home distribution system. Nearly one third of all manufacturers questioned mentioned that they would like to see contractual agreements such as franchises existing with dealers. A few responded that they favored the formation of exclusive dealerships while others focused on the importance of the overall need to secure closer and more formal dealer-manufacturer relationships. Thus, it appears that some manufacturers may consider the contracting of franchise agreements not only as a way to assure the marketing of their mobile home products by a competent dealer in a particular area, but also as a means by which to secure closer relations with their dealers.

Presently, franchise agreements are increasingly becoming a topic of interest within governmental regulatory agencies as well as within the mobile home industry itself. The overall relationship of manufacturers and dealers lacks structure and communication. Problems and potential areas of improvement are discussed in the following chapter.

2.3 DEALER-MANUFACTURER RELATIONS: GENERAL OBSERVATIONS

Although some small mobile home manufacturing companies sell their products, usually in the form of custom orders, directly to consumers, the majority utilize independent dealers to distribute the units produced in their factories. The structural as well as dynamic relationship between the manufacturer and dealer of mobile homes can bear a significant impact on the organization and efficiency of the distribution process.

A small portion of mobile home manufacturing companies control the distribution of their products by managing their own dealerships. However, 84.8% of the respondents to the PMHI Manufacturing Survey indicated that neither their company nor any subsidiary of their parent company owned dealerships. Most of the manufacturers responding to the PMHI 1975 Industry Interviews stated that they did not foresee any increased integration of manufacturers into mobile home distribution.

In general, manufacturers seem content with marketing their mobile home products through independent dealers. One reason for manufacturers not extending their activities to include distribution

is that they are satisfied with producer-dealer liaisons as they presently exist in terms of maintaining separate entities to handle the different aspects of mobile home manufacturing and distribution activities. Another reason for manufacturers' hesitation to expand into the area of mobile home dealerships is that quite a few have tried but failed to do so profitably. In addition, many manufacturers consider integration into dealership operations as a conflict of interests or they fear possible retaliatory boycotts by other dealers.

Very few dealers are engaged in mobile home production activities. Only 6% of the respondents to the PMHI/DS indicated that their company or a subsidiary of their parent company was involved in manufacturing. No dealers indicated an intention to extend their future business to include production. Most dealers appear satisfied with operating their businesses separate from manufacturer control or ownership. Due to the large amount of capital demanded for investment, they are less inclined to integrate production and distribution operations than are manufacturers.

The low degree of integration between manufacturers and dealers, while potentially enhancing the competitive nature of distribution, indicates a need for viably structured business relationships. This is a challenge that has yet to be fully met by many manufacturers and dealers.

In recent years, manufacturers increasingly have adopted more rigorous screening and evaluation schemes in selecting dealers. They consider the most important requirement in the selection process to be an individual dealer's possession of the working capital and credit necessary to purchase the product from the manufacturer. Many manufacturers observe the dealer's credit reports or information compiled by sales representatives that concern the lot(s) of the prospective dealer. Some only select dealers who are willing or able to immediately request a minimum order for a certain number of units. An increasing amount of mature manufacturers select dealers on the basis of a proven trade record in mobile home distribution or in another business.

Three factors, however, often compromise the rigor of the dealer evaluation and selection process. First, the large number of dealerships which any one manufacturer employs puts a practical limit on the amount of attention that can be economically devoted to the examination of an individual dealer. Manufacturers responding to the PMHI Manufacturer Survey lent some insight into the complexity of manufacturer-dealer relations. Some manufacturers utilize more than 1,000 non-company owned outlets, necessitating a complex network of communications for distribution (Figure 9). While some commented that the companies keep close rein on the dealers distributing their mobile homes, at least one manufacturer was clearly uncertain of the number of dealerships representing his company.

NUMBER OF NON-COMPANY OWNED OUTLETS USED	PERCENT OF MANUFACTURERS
6-99	49.2
101-199	9.3
200-299	9.2
300-399	3.1
400-499	4.6
500-599	3.1
600-699	7.7
700-799	3.0
800-899	0.0
900-999	1.5
1000 and over	9.2
MEAN: 405	

Source: PMHI/MS

FIGURE 9: RANGES OF NUMBERS OF NON-COMPANY OWNED OUTLETS
USED BY MANUFACTURERS

Second, the dramatic growth of many producers in the late '60's and early '70's as well as the more recent cut-throat competition induced by the recession, has often tempted manufacturers to overlook a weak or discredited dealer if a potential sale was at stake.

Third, dealers generally exhibit little loyalty toward manufacturers. With short or no advanced notice, many dealerships can terminate a business relationship unilaterally. This factor alone forces manufacturers to continually seek new dealers--a fluctuating need not conducive to the careful structuring of a sound business relation.

Another problem arises from an often vaguely defined contract between both parties. For example, aside from franchise agreements, many manufacturers establish agreements with one or a few dealers to delineate certain marketing areas in which sales will not be made between the manufacturer and other dealers. These agreements, however, are usually oral and do not provide a concrete business planning base for neither manufacturer nor dealer. In general, the typical lack of the existence of formal agreements of responsibility between both parties often causes difficulties that may become manifested in manufacturers' delays in delivery or failure to perform servicing.

Finally, the day-to-day routine relations often cannot be considered sound business practice. While some manufacturers seek to establish

improved relations through direct mail programs, personal calls by sales representatives, and trade advertising, other manufacturers may avoid contact with dealers. Once making the initial contact with a dealer, quite a few manufacturers carry through with the actual selling of the units only by use of the telephone. It appears that by not sending road men out to visit dealerships periodically, some manufacturers can avoid being pressured "face-to-face" to attend to difficulties which later may develop into major problems.

Maintaining a separation of the economic control of production and distribution within the mobile home industry provides a competitive and efficient marketing process. However, while some business relationships between manufacturers and dealers are workable and profitable, others become problematic due, for the most part, to scarce communication between the two parties. Industry trade journals have initiated the process of solving particular differences by alerting both manufacturer and dealer to difficulties and complaints common to all. Manufacturers hope to offer further assistance to dealers with respect to training programs and advising dealers on business problems along with offering more informative literature concerning manufacturer operations and marketing programs. The most needed element is greater communication and cooperation to enable manufacturer-dealer relationships to function as workably and profitably as they already do for many companies engaged in production and the

distribution of various products. In summary, it is PMHI's assessment that improvement of this relationship can substantially increase the efficiency and effectiveness of dealers' and manufacturers' operations.

3.

Sales of Mobile Homes

3.1 ANNUAL VOLUME

The PMHI/DS found that the total annual sales volumes of mobile home dealerships vary widely. The total sales for dealer-respondents in 1972 ranged from \$16,000 to \$5,811,000 for a high-low ratio of 363:1. This tremendous range in the volume of annual sales is due to the fact that many of these dealerships are multi-lot operations in comparison with small, one lot businesses. It can be seen in Figure 10 that the majority of dealership operations had a total annual sales volume of between one-half million and two million dollars in 1972. Very few exceeded a total sales volume of two million dollars. PMHI determined that for the year 1972, the average sales volume per dealership was approximately \$895,000 and the average annual sales volume per lot was approximately \$450,000.

Figure 11 shows the average total sales volumes per dealership accrued from all of the sales lots operated by respondents to the PMHI/DS for the years 1963, 1967, and 1972, as well as the projected volume for 1974. Of all categories of units listed, singlewide and expandable units represented by far the greatest share of the total sales volume. Double and triple wide units provided the second largest source of income. Sales of these

ANNUAL SALES VOLUME (dollars)	PERCENTAGE OF DEALER-RESPONDENTS
0-200,000	20.8
200,000-500,000	20.8
500,000-1,000,000	26.4
1,000,000-2,000,000	26.4
Over 2,000,000	5.7
MEAN SALES VOLUME: \$895,000	

Source: PMHI/DS

FIGURE 10: ANNUAL SALES VOLUME OF DEALERSHIP OPERATIONS

PRODUCT CATEGORIES	AVERAGE SALES VOLUME						
	1963	1967	1972	1974 (estimate)	1963-1967	1967-1972	1972-1974
SINGLEWIDES & EXPANDABLES	\$114,550	\$185,600	\$619,700	\$1,027,340	62%	228.5%	69.7%
DOUBLE & TRIPLE WIDES	13,320	19,200	168,530	324,880	44.9%	77.8%	92.7%
USED UNITS	56,530	53,630	58,150	117,660	-5.1%	8.4%	101.9%
RECREATIONAL VEHICLES	4,100	6,920	33,180	25,820	68.8%	37.9%	-22.2%
ACCESSORIES	3,140	3,560	14,620	18,620	13.3%	31.1%	27.9%
SPECIAL UNITS	180	--	770	660	--	--	-14.3%
TOTAL ANNUAL SALES	\$191,820	\$268,910	\$895,050	\$1,515,030			

Source: PMHI/DS

FIGURE 11: THE BREAKDOWN OF DEALERSHIP ANNUAL SALES VOLUME BY UNIT TYPE

units in the years 1963 and 1967 were comparatively low due to low demand and production at that time. The sales volume for double and triple wides during these two years, if compared with 1972, gives an indication of the rapid increase in the marketability of these units in the early 70's.

Overall sales of used mobile homes ranked third as a major source of income. The figures for the average volume of sales of used units in 1963, 1967, and 1972 indicate less variation in comparison with the figures for sales of new units in these years. The estimated increase of over 100% for the sale of used mobile homes in 1974 indicates dealers' expectations of a greater occurrence of trade-ins and increased demand for used units.

The proceeds from the sales of recreational vehicles represented the fourth highest average income for the sale of any particular item in the years focused on. The 1974 estimates for the sales of recreational vehicles seem to denote a growing trend in which dealers are cutting back on the numbers of recreational vehicles kept in their inventories.

The sale of accessories accounts for the fifth highest overall volume for items retailed by all dealer-respondents. There appears to be a growing desire on the part of mobile home buyers to partake in the availability of extra amenities such as add-on features for mobile units. The figures indicated for the sales of special units, i.e., non-residential units, were minimal.

Several dealer-respondents did not report any sales in this category, the reason being that special units are often, if not exclusively, ordered directly from the manufacturer.

It should be noted that the dealers' estimated sales volumes for 1974 indicate the 1973 speculations of a growing market and increased profitability in the sales of mobile homes. However, given the economic conditions of 1974, these estimates predicted a greater volume than what actually materialized.

Several external factors influence the ability of individual dealerships to make mobile home sales. These include the availability of park space, constraints placed on consumer financing, the competitiveness of the market, and government imposed regulations that govern the sale and location of mobile homes.

It is informative to view the results of one question included in the 1970 Owens/Corning Survey. According to this study, 59% of all dealers questioned mentioned major problems were related to park space, 55% had difficulty with local zoning ordinances, 25% found consumer financing to be problematic, 17% had to contend with poor quality in mobile home products, 14% suffered setbacks due to the image of the industry, 13% faced problems related to price competition, 11% had difficulties with franchising policies, 7% experienced difficulties related to their having no national advertising, and 5% faced complications stemming from long delivery times. 2% of all dealers surveyed experienced none of these problems.

Four years following the Owens/Corning Survey, the PMHI/DS found that consumer financing had superceeded park space as the major obstacle to potential sales. About two thirds of all dealer-respondents commented that their inability to sell mobile homes at the time of the survey was due to factors associated with either the cost of financing the purchase of a mobile home or price competition. More specifically, these difficulties included the fact that the potential customers were not able to make adequate downpayments or did not have enough established credit and hence, could not qualify for the payment arrangements offered by dealers. The economic factors also mentioned by dealers included the general market conditions and the existence of price cutting and discounts on units offered by other dealers.

Almost one third of all dealer-respondents expressed the belief that a lack of sales resulted from a situation in which they could not offer a customer the particular model they desired from those existing in their inventories and stocks. In these cases, potential customers often find the precise style or line of model they are looking for on the lot of another dealer in the area. Several dealers appeared to emphasise the fact that their stocks lacked a sufficient variety of models as a reason for losing potential customers: prospective mobile home buyers who visit dealers' lots are often not ready to purchase a mobile home, or are indecisive about living in a mobile home.

One fifth of all dealer-respondents specified that their failure to make a potential sale often stemmed from factors related to poor salesmanship techniques or a lack of follow-up on prospective customers. Other dealer-respondents regarded the lack of available park space or site locations, and laws regulating the sales and the taxation of mobile homes as factors hindering their total sales.

PMHI's major finding that in recent years, the high cost of financing has overtaken the lack of sufficient park space as the major barrier to mobile home sales was confirmed by the most recent Owens/Corning Survey (1975). Whereas in 1969, 59% of the dealers felt that park space was a major problem, only 21% felt so in 1974; 63% of the dealers found that consumer financial restraints was the major problem--up 25% since 1969 (Figure 12). The marked decrease in mobile homes sold during 1974 and 1975, a period of inadequate credit supply and increasing finance rates, largely substantiates this trend.

PROBLEM	1974	1969
Consumer financial	63%	25%
Local zoning	43%	55%
Industry image	26%	14%
Park space	21%	59%
No national advertising	19%	7%
Poor quality products	15%	17%
Long delivery time	1%	5%
None	1%	2%

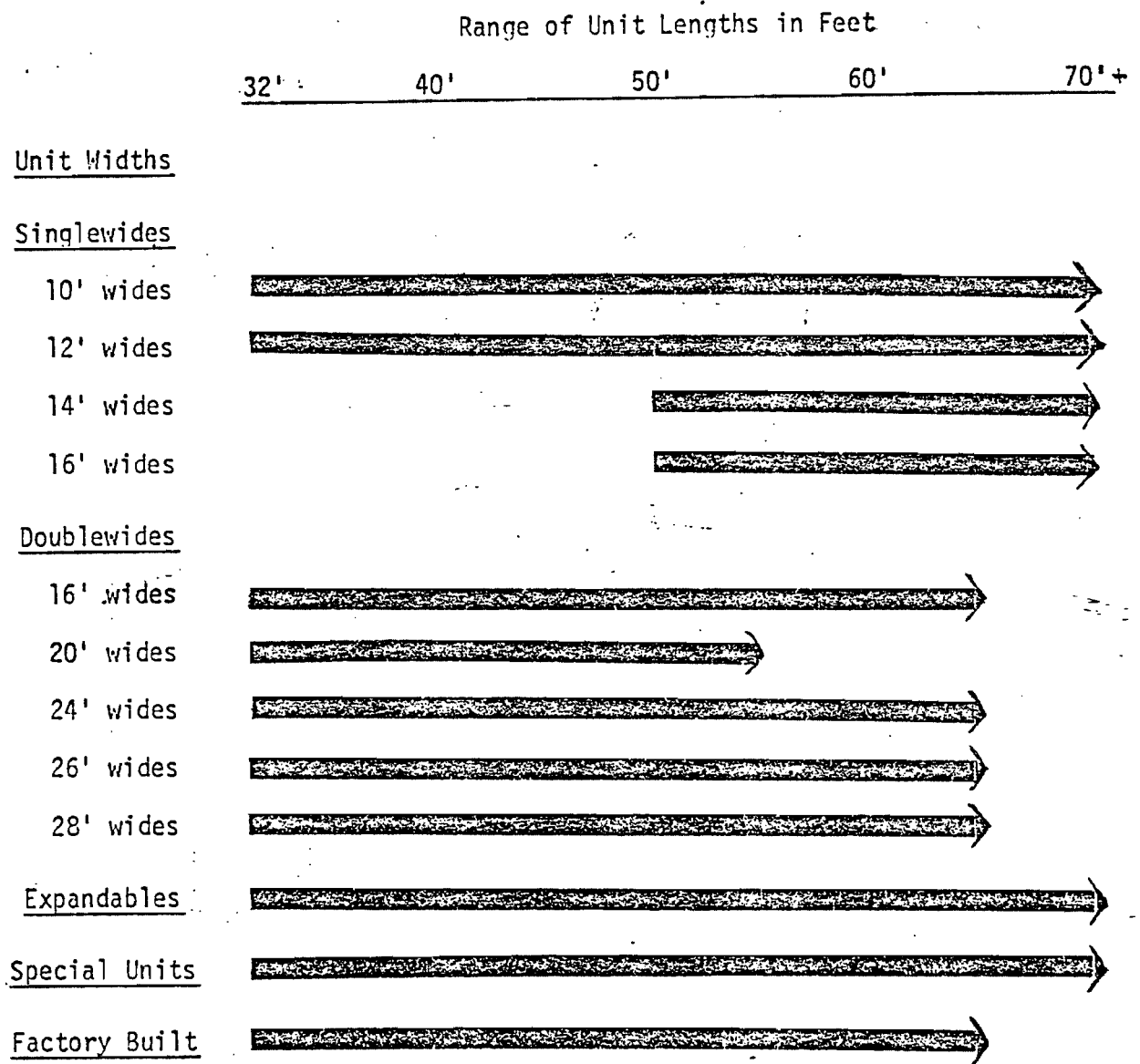
Source: Owens/Corning Fiberglas, Inc., A Research Study: Focus on the Mobile Home Market. (1970, 1975).

FIGURE 12: PROBLEMS AFFECTING DEALERSHIP BUSINESS

3.2 PRODUCT MIX

The exact product mix maintained within the inventory of any given mobile home dealership lot depends on a number of variables including consumer preferences for unit types, access to manufacturers' plants, franchise agreements with manufacturers, and the sizes, brands, and prices of products that are available on the lots of local competitors. In order to provide consumers with a number of units from which to select, most mobile home dealers will stock the largest possible variety of models that vary in size and price as well as style. The number of different models has greatly increased over time to the point where it is virtually impossible for any one dealership to market all available models.

Size variation alone has contributed to the proliferation of new mobile home models. The range of different model sizes incorporates 10' wides, 12' wides, 14' wides, 16' wides, expandables, doublewides, and triplewides. Models of these widths can be obtained in various lengths ranging from 32' to more than 70'. Figure 13 lists the widths and lengths of mobile homes produced by the industry in 1975.



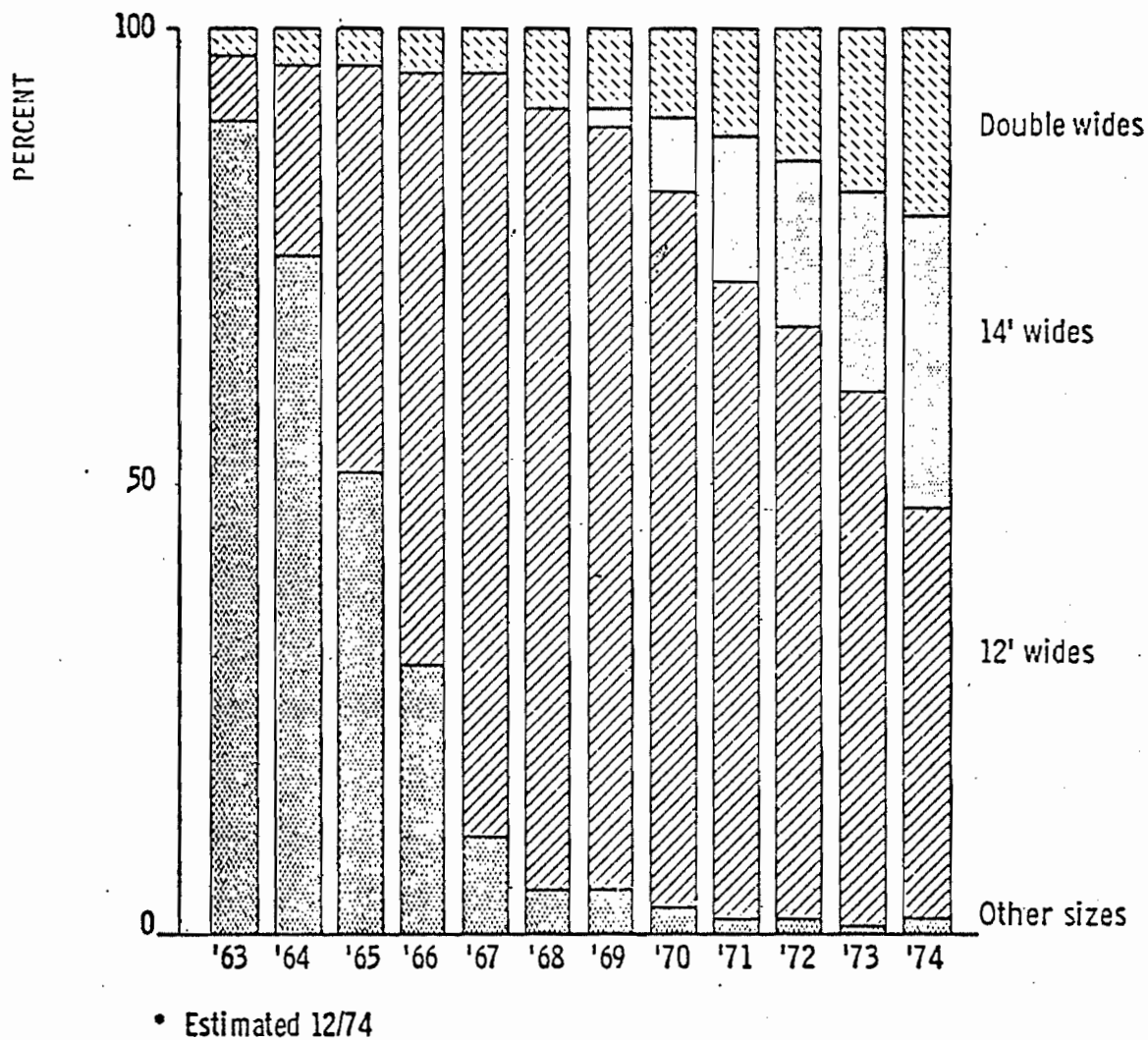
Source: Mobile/Modular Housing Dealer Magazine,
Monthly Market Letter, March 1975.

FIGURE 13: PRODUCT MIX BY UNIT TYPES ACCORDING TO WIDTH AND
LENGTH SPECIFICATIONS, 1975.

Although 12' wides continue to be the most popular of all mobile homes marketed, this product's share of the market has been rapidly diminishing over time. Both the 14' wide and double-wide models have consistently increased their share, particularly from 1970 to the present (see Figures 14 and 15). The increasing availability of these wider models has strongly contributed to the decrease of shipments of 12' wides and units of other sizes. Nevertheless, well over three fourths of all units sold by dealer-respondents in 1972 were singlewides. Of all unit types shown in Figure 16, moderately priced models were the most popular. For many buyers, moderately priced mobile homes serve two essential purposes: they provide adequate living space and are not exceedingly difficult to finance.

Consumer preferences for inexpensive, smaller unit types, are reflected in the marked popularity of 12' and 14' wide units (Figure 16). Also, Figures 15 and 16 indicate that those consumers who wish a larger unit tend to prefer doublewide models over the intermediary expandable type units. As more middle income groups come to regard mobile housing as an acceptable substitute for other forms of housing, the product mix will shift towards an increased share of double and triple wides, and higher priced units in general.

The 1975 Owens/Corning Survey found that since 1969, the average mobile home unit bought has increased in price from \$6,850 to \$10,420 and in size from 684 square feet to 960 square feet.



Source: The Management of Change in MHI Financing, MHMA Proceedings of the Finance Forum, Louisville, Ky. January 16, 1975

FIGURE 14: ANNUAL MOBILE HOME SHIPMENTS BY SIZE 1963-1974

UNIT TYPE	PERCENTAGE OF SHIPMENTS						
	1970	1971	1972	1973	1974	1975 (Feb.)	
8' WIDES	.13	.02	--	.03	.06	.02	
10' WIDES	.19	.14	.03	.08	.12	.02	
12' WIDES	80.60	71.77	66.74	58.06	46.70	37.62	
14' WIDES	7.66	15.51	19.66	24.46	32.13	34.07	
16' WIDES	.07	.07	.08	.03	.11	.26	
DOUBLEWIDES	8.30	10.29	11.86	15.65	18.89	25.37	
TRIPLEWIDES	--	--	--	--	.01	.01	
EXPANDABLES	1.74	1.33	.66	.44	.49	.75	
MANUFACTURED HOUSING	.84	.66	.84	.98	1.19	.89	
SPECIAL UNITS	.47	.41	.11	.27	.30	.99	

Source: Mobile/Modular Housing Dealer Magazine; Monthly
Market Letter, March, 1975

FIGURE 15: PERCENT OF MOBILE HOME SHIPMENTS FROM MANUFACTURERS BY UNIT TYPES

RETAIL PRICES OF UNITS (IN DOLLARS)	PERCENTAGES OF UNITS SOLD				PERCENTAGES OF ALL UNITS SOLD IN SPEC- IFIED PRICE RANGES
	12' WIDES	14' WIDES	EXPANDABLES	DOUBLEWIDES	
UNDER \$4,000	6.2	.3	--	--	6.5
\$4,000-\$5,999	22.5	1.5	---	---	24.0
\$6,000-\$7,999	20.1	6.9	.2	.19	27.2
\$8,000-\$9,999	8.8	3.8	.4	1.5	14.5
\$10,000-\$11,999	2.2	3.8	.4	8.5	14.9
\$12,000-\$13,999	.9	1.9	2.3	2.7	7.8
\$14,000 AND OVER	--	.3	.1	4.6	5.0
	60.7	18.5	3.4	17.4	100.00

Source: PMHI/DS

FIGURE 16: PERCENT OF TYPES OF MOBILE HOMES SOLD BY DEALERS IN SPECIFIED PRICE RANGES

Manufacturers questioned for the PMHI 1975 Industry Interviews tended to project that this trend will continue through 1979. Although medium and lower priced units will continue to be widely sought, the volume of trade of lower cost lines will decrease, single wide units will become longer, and more conventional materials will be used in the interiors and exteriors of mobile units. PMHI expects that changes in product design will further attract persons in the middle income market who could otherwise afford a condominium or apartment. Sectional units (i.e., double-wides conforming to factory-built housing codes) will be popular and may be used primarily in urban areas, while doublewides conforming to ANSI A119.1 will be situated in rural areas.

Although singlewides will continue to occupy a major portion of the mobile home market, trends indicating the increasing popularity of more expensive, higher quality units will have a marked effect on dealer operations. Lot size may increase or the number of units displayed may decrease in order to accommodate the demand for larger models. Dealers with small lot area may have to rely more on sales from custom orders than display and inventory stock. The sale of sectional units implies greater dealer familiarity with local regulations and more sophisticated set-up procedures. Finally, in anticipation of the sale of more expensive units increasingly designed for urban situations, dealer marketing orientation and servicing procedures may expand to include a more diversified and demanding consumer market.

3.3 RENTING AND LEASING OF MOBILE HOME UNITS

In general, dealers do not rent or lease mobile homes on a frequent basis. According to the PMHI/DS, 68% of the dealer-respondents indicated that none of the units they distributed to consumers were rented or leased. The dealers who did engage in renting or leasing activities (33% of all respondents) noted that 87% of those units were utilized for residential purposes, while 13% were used for non-residential purposes. It can be inferred from this sampling that by and large, dealers are interested in obtaining the immediate benefits of direct sales as opposed to the forestalled cash benefits derived from short-term rental and leasing activities.

Although renting and leasing activities may detract from potential sales, increased renting on the part of the dealer could bring about positive results. Mobile home rentals allow dealers and the industry at large to tap new housing markets. The rental of mobile home units could attract persons who otherwise usually prefer renting apartments, particularly in areas where vacancy rates are high. In situations in which the existing rental housing stock is scarce, rental mobile homes may provide a viable housing alternative. Mobile home rentals could also make mobile home living possible for individuals who envision

mobile home living desirable, but who are unable to qualify for financing the purchase of a unit. The greatest benefit to the industry from increased renting activities, however, would be to attract and/or orient new households to this form of housing as future buyers of new units.

3.4 THE USED MOBILE HOME MARKET

According to the PMHI/DS, only 6.7% of the total sales revenue obtained by the respondents in 1972 was derived from the sale of used mobile homes. This figure may be a misleading indicator of the importance of used mobile homes in dealership operations as one to two thirds of all dealership sales transactions involve trade-ins. A survey during the years 1968-1972 was conducted by the Mobile Home and Recreational Vehicle Magazine. It indicated that 74% of the sample population of dealers resold used units. There is a growing market for used mobile homes: a report in the Mobile-Modular Housing Dealer Magazine (June, 1975) estimated that the sale of used mobile homes will occupy 50% of dealers' future business operations.

The sale of used mobile homes is profitable for both dealer and consumer. Low price, coupled with a predominantly low downpayment, is appealing to buyers seeking the least costly yet comfortable housing possible. Many dealers sell used units for as little as \$1500 with a downpayment of \$500 or less. Another person to benefit from the increasing marketing of used units is the former mobile home owner who can readily trade in his old unit for a new model.

Some dealers claim up to 100% profit on the sales of used units. The advantages of such sales are two-fold for the dealer: profit from the sale of new units generated by trade-ins, and further profit in the sale of the used unit. Furthermore, a dealer may expect a satisfied customer to return to his lot in the future for the purchase of a new unit.

Dealers either sell used units "as is" or refurbish them considerably. Investment of a fair amount of time and money is required of those who do recondition units, although the returns on such investments are generally high. Some large dealerships have an indoor area specifically constructed for "cleaning up" used mobile homes for future sale on their lots. The procedures for preparing a used unit for merchandising are uniform amongst most dealers. First, the interior and the exterior of the unit is thoroughly cleaned. Then, all worn furniture and draperies are removed and the carpeting or vinyl flooring is replaced. A dealer then draws upon his stock of parts and accessories for suitable replacement of the removed items. Units are often redecorated in a different decor than the original.

The item most carefully selected for a refurbished unit is the furniture. It is commonly felt by dealers that if the furniture is attractive, the entire unit will be appealing to the prospective buyer. Furniture is often taken out of new mobile homes displayed on the lot and installed into used units. Those

dealers who do not carry a stock of furnishings often obtain these items informally or have some sort of prior arrangement with retail furniture stores or warehouses. The costs to the dealer of completely refurbishing a used unit can range from a few hundred dollars to \$2000, depending on the type and quality of the furnishings.

As tabulated in Figure 17, the largest number of dealers pay between either \$1501-2500 or \$2801-3000 for used units. The most frequently reported resale prices are \$2001-2500 or \$3001-3500. Most dealers utilize a mark-up rate in pricing a used unit. The rate is determined by the age and condition of the unit, the extent of refurbishing, and the amount of warranty coverage (many dealers offer a 30-day warranty on used mobile homes). The average mark-up on a used unit is about \$400. The 24 dealers questioned for the Mobile Home and Recreational Vehicle Magazine Survey (1969-1972) resold used mobile homes with mark-up rates that varied from 6% to 25% of the price they had paid to obtain the home. Some dealers used fixed mark-up rates which ranged from \$150 to \$900. A survey conducted by this same magazine in 1973 indicated that dealers were selling units whose mark-up rates were between 10% and 33%. The increased rate probably reflects dealers' recognition of the growing demand for used mobile homes as well as more extensive and costly refurbishing.

Although providing a small share of dealers' total sales revenue,

DOLLAR AMOUNT	PERCENTAGES OF ALL DEALERS	
	AVERAGE TRADE-IN PRICE	AVERAGE SALES PRICE
0-1000	6.8	3.7
1001-1500	5.1	0.0
1501-2000	22.0	7.5
2001-2500	22.0	26.1
2501-2600	1.7	0.0
2601-2800	3.4	7.5
2801-3000	22.0	16.7
3001-3500	10.2	24.2
3501-4000	5.1	9.3
4001-5000	1.7	3.8
5001-6500	0.0	1.9
MEAN	\$2529.66	\$2960.46

Source: PMHI/DS

FIGURE 17: AVERAGE TRADE-IN PRICES PAID BY DEALERS FOR USED MOBILE HOMES AND AVERAGE SELLING PRICES OF TRADE-INS FOR ALL DEALERS

the sale of used mobile homes has a substantial impact on dealer profits for both new and used mobile homes. An increased marketing of the new larger and more expensive units is anticipated to further increase dealer activity regarding trade-ins and the sale of used mobile homes. Further discussion of dealer trade-in policies can be found in chapter B.4.4.

4.

Retail Policies and Practices

4.1 RETAIL PRICING POLICIES

To satisfy the various tastes and preferences of mobile home buyers, manufacturers produce a large assortment of homes which are retailed for prices that generally range from \$4,000 to \$15,000. The primary factors influencing dealer pricing policies include overall supply and demand conditions, the costs incurred for operational expenses, and the desired rate of return on investment.

In order to determine how a dealer arrives at final retail prices, the PMHI/DS asked dealers to indicate, by percentage breakdowns, all costs and expenses incurred in selling a typical, average-priced model. A detailed examination of the information acquired, concerning the fixed and variable costs along with company and plant characteristics and other factors that determine variations in dealership distribution costs, can be found in the following section, "Cost-Price Analysis."

Most manufacturers offer dealers a suggested retail price for the mobile homes they produce. Following surveys of local acceptable price levels and the prices of other dealers in the area, dealers most often set prices by a percentage mark-up from the wholesale price of the unit. The resulting price may or may not correspond to the retail price suggested by manufacturers. The PMHI/DS asked dealers to indicate whether or not they followed the suggested retail prices of their

manufacturers. 77.4% did not, either because the manufacturers did not suggest any retail prices, or because dealers chose to set their own retail price. Of this 77.4% of dealers who did sell their mobile homes at prices other than those suggested by manufacturers, 42.6% lowered their retail prices while 34% increased retail prices above those set by the manufacturer. In addition, 90.2% of these dealers who did change retail prices from the manufacturers' suggested price did so by a margin of 1%-25% while 7.3% raised or lowered manufacturers' suggested prices by a margin of 26%-50%. Thus, the adjusted selling price usually does not vary more than 25% from the suggested retail selling price.

According to manufacturers questioned for the PMHI 1973 Industry Interviews, dealers employ mark-ups from wholesale prices which range anywhere from 10% to 40%. In an area that can realistically support higher prices, mark-ups may be higher than 40%. The manufacturers noted two major conditions which are conducive to high mark-up rates. First, the mark-up percentage for doublewides and more expensive models are considerably greater than those for standard 12' and 14' wides. This rate, however, may be reduced in time as the sale of larger, more expensive mobile homes increases. Second, mark-ups are usually higher in states where either there is strict zoning regulation or where closed park situations exist. When land is prime, as with strict zoning regulations or park space shortages, sales are often inhibited, forcing dealers to raise prices in order to achieve an adequate profit. Closed park situations often enable dealers to exert price leverage because of enjoying a pure or semi-monopoly status.

They may insist on more expensive models, utilize high mark-up percentages, and thus, receive larger returns on investment.

In addition to this information supplied by manufacturers, PMHI asked dealers to state reasons that influence their pricing policies. The primary reason stated by most dealers was the status of the local market. In areas where competition is low, dealers are able to employ high mark-up rates. However, recent tight economic conditions and the increased entry of new dealerships have resulted in greater competition, especially in the southern and western regions. This, in turn, has required dealers to lower prices, often offering substantial discounts to local consumers. Furthermore, it cannot be assumed that all dealers are profit maximizers. Instead, many dealerships choose to maximize sales in order to acquire a larger share of the market. Selling at prices lower than manufacturers' suggested retail prices and with low mark-up rates allow such dealers to maximize their total sales volume, and consequently, increase total sales revenue and total profits.

Another reason that dealer-respondents attributed to variations from manufacturers' suggested retail prices was the fact that manufacturers often cannot accurately account for added expenses or circumstances that are assumed by dealers. Added costs include overhead and sales commissions, hauling and delivering the mobile home, setting up the unit, installing additional furnishings, and providing the services specified by the terms of the dealer's warranty. Also, for those units whose outward appearances have become less attractive due to weathering effects or, for units whose suggested retail prices are set

too high for a particular trading area, the actual selling price may be reduced.

Both manufacturers and dealers mentioned seasonality as a condition that influences dealership pricing policies. In the winter months, when the marketing of mobile homes is slower, some manufacturers offer bonuses, promotions, rebates or lower prices on units to those dealers who can reach a specified quota during this time. According to the manufacturers questioned for the PMHI 1973 Industry Interviews, some dealers "pocket" the difference received from buying the units and thus the price reductions offered by manufacturers are not passed on to consumers. On the other hand, in trying to fulfill manufacturers' quotas, some dealers are found with an abundance of units in their inventories and hence, have to lower profit margins by cutting retail prices in order to sell these excess units. In situations where manufacturers do not offer off-season bonuses, dealers may have to lower retail prices on mobile homes in order to match the competitive prices of those dealers who do receive units at off-season price reductions.

For the most part, dealership retail pricing policies are extremely individual, depending on the local market structure, unit type, and external factors which influence sales volume or profit per unit. Although a manufacturers' suggested retail price may provide a basis for comparison for other lines of mobile homes, it is not an accurate indicator of a dealer's actual selling price. The occurrence of

unusually high mark-up rates (over 40%) can be generally attributed to situations where dealerships have monopoly control, particularly where closed parks exist. However, it is anticipated that as zoning regulations become more favorable for mobile home developments and the number of closed parks decreases, local dealer competition will regulate price policy.

4.2 DEALER ORGANIZATION OF RETAIL SALES

Depending on the size, the location, and the markets available to a dealer, mobile home sales are either directly from inventory, or purely from custom orders, or a combination of the two. Most buyers will visit a dealer's lot and purchase what is available in the inventory stock. However, it is unlikely that any dealership is able to maintain so large and diverse an inventory as to please all of its customers. Hence, direct factory custom orders through dealers can satisfy individual buyer preferences as well as provide additional sales for the dealer. The following two sections detail the dealership operations concerning inventory and custom order sales.

4.2.1 Sales from Inventory

According to Figure 18, a mean of 68% of units sold by PMHI/DS respondents in 1972 came directly from lot inventory. The variation in preferences of consumers with respect to the sizes and prices of various units are the major factors that control the inventory level maintained by individual dealership organizations. Other key influences include the availability of wholesale financing, the credit terms available from manufacturers, the past rates of inventory turnover, local demand conditions, seasonal variations in demand, the extent of local competition, the size of the dealer's lot, and

PERCENTAGES OF NEW UNITS SOLD IN 1972 FROM INVENTORIES ON LOTS	PERCENTAGES OF DEALER- RESPONDENTS
0-20	8.6
21-40	8.6
41-60	20.0
61-80	28.6
81-100	34.3
MEAN: 68%	

Source: PMHI/DS

FIGURE 18: SHARE OF NEW UNITS SOLD FROM DEALERS' EXISTING INVENTORIES

the delivery time of units from a manufacturer. Responses to the PMHI/DS revealed that the dollar value of the average inventory level for the year 1972 was between \$100,000 and \$500,000. Dealers estimated an increase in inventory value to occur in 1974 because of expected higher demand for more expensive units (Figure 19).

In maintaining a sufficient inventory level, mobile home dealers offer an adequate selection of homes to potential buyers. Dealers generally keep up to four months of potential sales in their stock. The average turnover of merchandise for most dealerships ranges from once every two months to ten times annually. The average inventory turnover time for the lots of the dealers questioned for the Mobile Home and Recreational Vehicle Dealer Magazine Survey, 1969-1972, was five times annually, while the average turnover time for the lots of dealers questioned for the Mobile Home and Recreational Vehicle Dealer Magazine Survey, 1973, was about three times annually. The projected average turnover time of merchandise for 1975 is about four to five times annually.

The units placed in dealers' inventories are ordered from manufacturers by phone or by mail. Dealers order homes after seeing them displayed at mobile home shows, or as a result of seeing advertisements in national dealer or consumer magazines, or upon being contacted by manufacturers' sales representatives. The manufacturer usually delivers the mobile homes directly to the dealer's lot. Almost three-fourths of the PMHI/DS respondents stated that once units are ordered, it takes manufacturers an average of 30 days to make a delivery (Figure 20). However, any relatively long delivery time for orders does not appear to present a significant disadvantage to dealers.

MOBILE HOME INVENTORY (in thousand dollars)	PERCENTAGES OF DEALER-RESPONDENTS	
	1972	1974 (estimate)
0-20	13.3	25.0
21-50	16.7	12.5
51-100	16.7	15.0
101-250	30.0	20.0
251-500	13.3	15.0
501-1000	5.0	7.5
1001-1700	5.1	0.0
1701-2700	0.0	5.0
MEAN INVENTORIES		
236 (1972)		
294 (1974 estimate)		

Source: PMHI/DS

FIGURE 19: MOBILE HOME INVENTORY LEVELS FOR DEALERSHIPS IN 1972 AND A 1974 ESTIMATE.

DELIVERY TIME FOR ORDERS FROM MANUFACTURERS (IN DAYS)	PERCENTAGES OF DEALER- RESPONDENTS
0-6	0.0
7-15	15.5
16-30	50.7
31-50	25.4
51-60	8.5
MEAN: 30.3	

Source: PMHI/DS

FIGURE 20: DELIVERY TIME FOR ORDERS FROM MANUFACTURER

4.2.2 Sales From Custom Orders

While some dealers attempt to keep custom orders to a minimum, others profit primarily from retailing custom-built units or special orders. Those who engage in the sale of custom orders either offer manufacturers' products that are custom built, or they add various options to a basic model. Customizing and rearranging may involve various structural changes, such as moving the interior walls of a unit. The added cost of custom work done by the dealer is figured into the total purchase price of the product.

It is interesting to note that one manufacturer responding to the PMHI 1973 Industry Interviews allows customers to design their own units through special "design aids" obtainable from dealers. These materials include floor plan diagrams for designing interior space, and information concerning available decors and colors.

The PMHI/DS asked dealers to specify how the normal delivery time after orders from their manufacturers is lengthened by custom orders. For 49.2% of all dealer-respondents, the delivery time is not lengthened at all by custom orders (Figure 21). 23.7% report that it does take custom orders six to ten days longer to deliver than for standard orders. In any case, the delivery times for customized units rarely exceed 30 additional days.

DELIVERY TIME LENGTHENED BY CUSTOM ORDERS (IN DAYS)	PERCENTAGES OF DEALER-RESPONDENTS
0	49.2
1-5	11.9
6-10	23.7
11-30	11.7
31-45	1.7

Source: PMHI/DS

FIGURE 21: DELIVERY TIME DELAY ON CUSTOM ORDERS

Variations in the length of delivery times due to the customization of units depends primarily upon the degree of the manufacturers' capacity utilization at the time the order is placed. The extent of the customization work needed, replacement of parts, and major structural changes are also taken into account. More expensive custom orders may require more delays in delivery than orders for units needing only slight changes. However, the ordering of custom units does not necessarily deter consumers from receiving their mobile home products from a dealer within a reasonable amount of time.

4.3 SALES OF ACCESSORIES

Practically all dealerships sell accessories, and many maintain accessory stores on their lots. Mobile home buyers often desire extra mobile home features which, if not ordered in the initial sales transaction, can be purchased from a dealer at a later time.

Features that mobile home owners most often order with their initial purchase are listed here in order of their frequency: central air conditioning, full skirting, automatic clothes washer and dryer, carpeting throughout, extra insulation and a patio or carport. While most of these items represent factory-installed standard options, many of them can be supplied and installed by the dealer. The major items purchased after the sale of the home by many owners include (again, in order of frequency): automatic clothes washer and dryer, steps, full skirting, patio or carport, awnings, and a window air conditioner. (Figure 22). Some items that are later added to a unit by the dealer are difficult to install. This is especially true of features such as central air conditioning, carpeting, extra-sized water heaters, and plumbing for washing machines.

Figure 23 illustrates mobile home owners' preferences for particular items. Many of these can be supplied by dealers. Considering the broad

THIS PAGE REPRESENTS PAGES 253 and 254, WHICH HAD THE
FOLLOWING COPYRIGHTED MATERIAL:

FIGURE 22: 1974 DEMAND FOR SPECIAL ORDER FEATURES

FIGURE 23: PURCHASE PROBABILITY OF ACCESSORIES

Owens/Corning Fiberglas, Inc., The New Mobile Home
Market, (1975).

range of extra features that mobile home owners desire, dealers consider it an advantage to maintain as wide a stock of accessories as possible in order to offer consumers additional features for purchase both at the initial sale of the unit, or at a later time as the consumer's need for them arises. Not only can dealerships that provide a wide variety of accessories serve the consumer by offering them the convenience of one-stop shopping; they can also substantially contribute to the retailing of the mobile homes by making the units look more attractive.

Only an average of 1.6% of the total revenue obtained in 1972 by PMHI/DS respondents was derived from the sale of accessories.

Thus, dealers do not provide the time consuming and difficult accessory installation services solely for profit. By responding to the wants of users, a dealer generates sales, and aids the consumer who may later prove to be a repeat customer, or who may recommend the dealer to friends.

4.4 TRADE-IN POLICIES

After owning a mobile home for one to twelve years, many mobile home owners, desiring a larger as well as newer unit, often decide to offer their present unit in trade to a dealer. 36% of the respondents to the PMHI/DS accepted units as trade-ins which were five to six years old. Many dealers accepted units up to ten years old (Figure 24).

Although the sale of used units resulting from trade-ins represents only a small portion of the total sales revenue for most dealers, these sales are indirectly very profitable. The percentage mark-up on trade-ins is generally lower than the mark-up on new units yet dealers are able to save on expenditures by avoiding some of the costs inherent in the sale of a new unit (such as warranty servicing). As a result, a dealer's profit margin on used units is often parallel to the profits on new units. If, as is usually the case, a dealer buys a used unit from a customer in the form of credit towards the purchase of a new unit, the dealer often nets a profit on the sales of both new and used units. However, when competition for new unit sales is strong, a dealer may forego any profit on the traded unit in order to sustain the level of new unit sales.

AVERAGE AGE OF TRADE-IN UNIT (years)	PERCENTAGE OF DEALER-RESPONDENTS
0-2	4.9
3-4	11.5
5-6	36.0
7-8	26.3
9-10	19.7
>10	1.6

Source: PMHI/DS

FIGURE 24: AGE OF UNITS ACCEPTED FOR TRADE-IN BY ALL DEALERS

From a crosstabulation conducted by PMHI, it appears that the sales of newer dealerships involve a greater volume of trade-ins than those dealerships that have been in operation for some time. (Figure 25). Newer dealerships seem more amenable towards chancing the risks that are inherent in accepting trade-ins. Those dealers who do not readily accept trade-ins are, in most cases, concerned with the future marketability of a used product.

The PMHI/DS encouraged dealers to explain what items other than mobile homes are acceptable as trade-ins. Although about 20% of all respondents indicated that they accepted no other items as trade-ins, several dealers did. In fact, some accepted almost anything as a trade-in. As listed in Figure 26, dealers accept a varied array of trade-in items which ranged from automobiles to horses and pigs. Some dealers who did not specify particular items remarked that they accepted anything with a cash value, that can be resold, or that can be brought to their lots. One dealer noted that he will accept anything "that doesn't eat," while another indicated that he will accept anything "that doesn't have to be fenced in or fed."

In accepting trade-in items other than mobile homes, dealers enable people who do not have access to cash resources, to support the cost of purchasing a mobile home by trading in durable goods of value. These wide-ranging trade-in policies are particularly important to the two major populations of mobile home buyers: the young, married couples who have a minimum of cash assets and

PERCENTAGE OF ALL RETAIL SALES INVOLVING TRADE-INS	AGE OF DEALERSHIP OPERATIONS (years)				
	0-5	6-10	11-15	16-25	>25
0-5	21.2	3.0	1.5	4.5	1.5
6-10	6.1	7.6	1.5	4.5	0.0
11-20	10.6	4.5	1.5	6.1	1.5
21-30	3.0	1.5	6.1	1.5	0.0
31-50	3.0	1.5	3.0	3.0	0.0
> 50	0.0	0.0	1.5	0.0	0.0

Source: Crosstabulation from PMHI/DS

FIGURE 25: PERCENTAGES OF ALL RETAIL SALES INVOLVING TRADE-INS
COMPARED WITH AGE OF DEALERSHIP OPERATIONS IN YEARS

ITEMS ACCEPTED AS TRADE-INS	NUMBER OF DEALERS
automobile	23
furniture	10
travel trailer	8
boat	8
motorcycle	6
real estate	5
camper	4
truck	3
vehicles	2
recreational vehicles	2
appliances	2
livestock	2
pickups	2
airplanes	1
real property	1
motor homes	1
tools	1
farm machinery	1
houses (conventional)	1
snowmobiles	1
automotive vehicles	1
horses	1
pigs	1

Source: PMHI/DS

FIGURE 26: ITEMS ACCEPTED AS TRADE-INS BY DEALERS

the elderly who, in time, may have acquired several durable items of cash value.

The predominantly low downpayment requirements for new mobile homes along with an overall willingness on the part of dealerships to accept used units and other items as trade-ins makes mobile homeownership possible for a wide range of individuals. The general flexibility of present trade-in policies illustrates a highly significant service function that is performed by dealers. The competitive position of dealerships will, in all likelihood, further the practice of flexible trade-in policies which have socially beneficial externalities.

5.

Sales Promotion and Marketing Research

5.1 MARKET PROFILE

In order for advertising to be an effective marketing tool, dealers must ascertain what particular consumers are most likely to be interested in mobile home living and what may influence their decision to buy a mobile home. Various marketing techniques, including professional marketing research, are available to dealers to give an overview of the local buyer potentials and particular consumer preferences. A market profile will not only suggest advertising themes and the optimal type of media to be used, but also may provide information concerning selling approaches and techniques to be used once the consumer is at the sales lot.

Nationally, the mobile home market is distinguished from the traditional housing population primarily because of the age and income level of the average mobile home consumer. In general, mobile home consumers tend to be younger, married, and have low to middle average yearly income. According to the 1975 survey taken by Owens/Corning Fiberglas, 50% of mobile home heads of households were 34 years old or younger, 23% being younger than 25. A substantial portion of the 1974 mobile home population was older than 55, especially in the Southeast and Western regions where mobile home retirement parks are popular. Finally, 83% of

AGE OF HEAD OF HOUSEHOLD

Under 25	23%
25-34	27%
35-44	12%
45-54	14%
55 and over	23%
Average	39.4

MARITAL STATUS OF HEAD OF HOUSEHOLD

Married	83%
Single	6%
Widowed	4%
Divorced	8%

TOTAL FAMILY INCOME

Under \$4,000	5%
\$4,000-\$5,999	12%
\$6,000-\$8,999	23%
\$9,000-\$10,999	17%
\$11,000-\$12,999	13%
\$13,000-\$14,999	10%
\$15,000-\$19,999	10%
\$20,000 and over	6%
Average	\$10,850

Source: Owens/Corning Fiberglas, Inc., The New Mobile Home Market (1975).

FIGURE 27: PROFILE OF THE MOBILE HOME CONSUMER

the mobile home owners questioned by Owens/Corning were married and 91% comprised of families with four or less members (Figure 27). The same survey revealed that the average family income of most mobile home owners tends to be distributed in the lower and middle income levels. 57% of the owners made less than \$11,000 annually while only 6% made over \$20,000 (Figure 27). When surveyed in 1969, only 3% of the population sample had family incomes over \$15,000. Taking into account a rise in average wages and salaries since then, there nevertheless seems to be an increase in the income of the average mobile home owner. However, limited means of financing a home continues to be a dominant factor that attracts consumers to mobile home living.

After accounting for demographic and economic characteristics of the local potential mobile home buyer, a market profile often determines the needs and desires of a consumer. From this information, a dealer may thrust advertising and sales promotion towards the particular assets in the mobile homes on his lot. When asking for reasons for purchasing a particular brand, the Owens/Corning Survey found that 73% of the mobile home owners were influenced by the floor plan of a particular unit. In addition, a majority indicated that price was a major factor in considering a purchase. Interior design, construction and exterior appearance were also important consumer preferences (Figure 28).

Thus, the national profile of the average potential mobile home consumer is one who typically demands less expensive yet comfortable

alternatives to single-family housing or apartments. Knowledge gained from surveys, in addition to the insight of old consumers, will suggest the means a dealer may utilize to attract buyers in terms of his particular, sometimes unique, local market.

REASON FOR BUYING A BRAND

Floor plan layout	73%
Price	51%
Interior Design and Decor	46%
Construction	36%
Exterior Appearance	22%
Approved by U/L or other test agency	13%
Dealer's Warranty	9%
Manufacturer's Warranty	7%
Other	4%

Source: Owens/Corning Fiberglas, Inc., The New Mobile Home Market (1975).

FIGURE 28: REASONS THAT CONSUMERS BOUGHT A PARTICULAR MOBILE HOME

5.2 ADVERTISING

Marketing any product involves the use of mass media to attract the public attention to the product and to the particular retailer. Advertising assumes two forms in the mobile home industry: that utilized by manufacturers and suppliers in trade magazines, and the advertising of dealers in their local markets. Although this section will focus on the latter, it is necessary to observe manufacturer advertising methods, for they influence dealer purchasing decisions and inform dealers of new products available for retail.

Manufacturer advertising may either be cooperative or competitive. Cooperative advertising is the predominant form of national, consumer oriented marketing utilized by the mobile home industry due to its decentralized nature and small individual advertising budgets. Manufacturers and/or suppliers cooperatively pool funds for expensive and more sophisticated national or regional media in expectation of overall increased product demand and industry sales. Competitive advertising is found in most trade journals and is geared toward readers who are already familiar with mobile homes, specifically, dealers and park developers. Stress is on the selling points and features of a particular product and it introduces product innovation. Manufacturer advertising in trade journals is probably the only

area in mobile home marketing where brand names are considered important.

In accordance with their size and the limited geographic boundaries of their market, dealers tend to pursue local competitive advertising. For the most part, ads are directed toward those population sectors most likely to be attracted to mobile home living (most often, young couples and retired people). For marketing purposes, dealers establish a certain percentage of the net earnings accrued from their total sales. This then becomes the advertising budget to be invested in one or many forms of local media including newspapers, radio, T.V. and displays.

Taking into account seasonal variations, dealers generally set aside between two and four per cent of net earnings from total sales for advertising expenditures. In order to determine the relationship between a dealership's total annual sales and how much of the earnings accrued from these sales are allotted to three forms of advertising (newspaper, radio, and T.V.), PMHI conducted a crosstabulation of the respondents' information. It is shown in Figure 29 that 56.3% of all respondents allowed 2% of their total annual sales earnings for advertising while 28.1% set aside 1% for advertising purposes. Significant in this figure is the fact that dealerships which sell fewer units set aside a larger portion, sometimes 5%, of their earnings from total sales for advertising. This is not to say that these smaller dealerships spend more on advertising. On the

% OF NET EARNINGS ALLOTTED TO ADVERTISING	TOTAL ANNUAL SALES (UNITS)						% OF RESPONDENTS
	0-200	201-500	501-1000	1001-2000	2000+		
1	50.0	30.0	18.8	23.5	0.0		28.1
2	0.0	46.2	81.3	76.5	100.0		56.3
3	21.4	7.7	0.0	0.0	0.0		6.3
4	21.4	15.4	0.0	0.0	0.0		7.8
5	7.1	0.0	0.0	0.0	0.0		1.6
% OF RESPONDENTS	21.9	20.3	25.0	26.6	6.3		

Source: Crosstabulation from PMHI/DS

FIGURE 29: PERCENT SIZE OF ADVERTISING BUDGETS: BREAKDOWN BY AMOUNTS OF UNITS SOLD IN 1972 BY DEALER-RESPONDENTS

contrary, small dealerships, having less total sales, must allot a greater portion of their earnings to advertising in order to meet the costs of advertising and remain in a competitive position with other dealers in the area. Thus, most larger dealerships allot a smaller per cent of total net earnings for an advertising budget. Yet, considering the volume of their sales, this advertising budget is usually substantially larger than that of small dealerships and may provide for more sophisticated media and greater geographic coverage.

The size of the advertising budget may fluctuate. When retail sales fail to produce a desired profit margin, dealers may undertake extensive promotion campaigns, investing large sums of money, in order to quickly increase sales volume. Although sales volume may fall off during seasonal periods of slower sales and decreased competition, it is generally held advisable by dealers to maintain normal advertising budgets in anticipation of attracting greater sales during peak selling periods.

A dealer may utilize all advertising media or choose to concentrate in one particular medium. Most favor advertising in local newspapers (Figure 30). Of the 86% of PMHI/DS respondents who advertised in newspapers, almost a third allowed 91-100% of their budgets for this purpose. Another 16.9% designated 71-80% of advertising budgets for newspaper ads. These classified ads are usually found in the real estate section and due to expense, are more frequently found

MEDIUM	% OF DEALER-RESPONDENTS WHO ADVERTISE IN THIS MEDIA TYPE
Newspapers	86
Yellow Pages	82
Radio	73
Television	50
Mobile Home Shows	27

Source: PMHI/DS

FIGURE 30: MEDIA UTILIZATION BY MOBILE HOME DEALERS

in weekday issues rather than Sunday papers.

73% of the dealer-respondents bought radio time while 50% advertised on television. Most of these dealers spent between 0 and 30% of their advertising budgets for such purposes. Only a few use television and/or radio advertising exclusively. Dealers buy anywhere from five to fifty weekly spots whose duration may last from ten to thirty seconds during prime-time viewing. April, May, June, September, and October are the preferred months for T.V. advertising of mobile homes. Most of the dealers who employ television and/or radio advertising have sales lots distributed over several counties, therefore maximizing the geographic coverage of a broadcast signal. The advantages are apparent in T.V. advertising in that it offers a greater number of people a more complete visual and audio presentation of the mobile home product than do "stationary" ads. Because a large and diverse population is exposed to such advertising, it also creates a consumer consciousness and product orientation to those unfamiliar with mobile home living.

The remainder of the advertising budget is usually spent on ads in the Yellow Pages, mail campaigns, billboards, handbills, and displays in shopping centers. These are relatively inexpensive yet often highly effective advertising methods especially when a dealer wishes to reach a specific consumer-type.

Dealers feel that it is advantageous to pursue general themes in advertising. They may be identified by a particular printed logo or

an unusual song or voice. Often, dealers hire advertising agencies to prepare ad presentations. The 1975 Owens/Corning Survey asked dealers to indicate the dominant themes used in their presentation. 76% used the dealer's name, 17% mentioned the manufacturer's name, and 12% indicated the name of a park. Due to the lack of public familiarity with individual firms in the mobile home industry, brand names are seldom stressed. In order to attract buyers to the sales lot, dealers often advertise the most popular or the most attractive unit even though it may not be the most profitable selling item for the retailer. Commercial radio and television spots are generally worded simply and repeat important basic information in a variety of ways. Finally, dealers use advertising to inform the public of new product design and innovation. Emphasis is placed on the product's similarity yet cost savings compared to conventional housing. This attracts old as well as new mobile home consumers. "Image" advertising may further sell the mobile home concept as convenient, comfortable, and economical.

5.3 PUBLIC RELATIONS

A major obstacle to the growth and improvement of the mobile home industry today is its poor public image. This is the result of many internal and external factors during the history and development of mobile homes as described throughout this report.

A primary figure holding the key to uplifting the image and reputation of the mobile home industry is the dealer, for he has the greatest public access and exposure and stands as the communication link between consumers and manufacturers.

Dealers may undertake public relations programs on their own or carry out programs funded by manufacturers or suppliers. Some large dealerships hire their own public relations man to maintain full-time community relations. An informative and substantive public relations program is a profitable investment as it not only presents an attractive mobile home image to the community but also may directly increase sales. According to the 1975 Owens/Corning Survey, 15% of mobile home owners bought from a particular dealer because of his reputation. Mobile home consumers have become more critical and demanding, looking for quality and good construction in homes. "Fast-sell" is no longer a viable marketing technique. Replacing it are consumer awareness and assistance programs conducted by dealers with the help of state and regional trade associations. Thus, not only are dealers responsible for selling the mobile home

product but also much responsibility is given to them to sell the concept of mobile home living in general.

In order to have a good reputation within a given community, dealers often stress the importance of maintaining communication with former customers. They employ various follow-up methods including making periodic telephone calls, personal visits, informative mailings, and sending out Christmas cards. In order to contact new customers, dealers use direct mailings which appeal especially to newlyweds, retired people, young professionals, and military personnel.

Public relations programs can successfully communicate product improvement. Often these programs are initiated by manufacturers and implemented at the retail level. Some dealers send out literature prepared by their manufacturers concerning various models of mobile homes. The MHMA has prepared pamphlets that describe mobile home living. The consumer responses to this type of material are often passed on to manufacturers or suppliers for production and marketing information.

Most of the general public, industry and government is unfamiliar with the mobile home product as it is today and its potentials in the future housing industry. A policy of public education is a

necessary step to inform not only potential customers, but the public at large, of the improvements and growth of the mobile home industry. The Consumer Education division of the MHMA offers dealers a package of multi-media material that was originally prepared for college courses on mobile homes and the mobile home industry for present use in schools, shopping centers, and sales lots. Manufacturers and suppliers also produce films for these purposes and for showing at dealer "open houses."

Recognizing the "trailer-park" image of mobile homes, the MHMA has recently launched a series of nationwide seminars intended for the media, government, and housing officials. The program is to convince the public that today's homes are safer and larger and look more like conventional housing. These public relations programs are aimed at informing the government officials and consumers alike that mobile homes are a growing, comfortable and cost-saving way of life for many citizens.

6.

Service to Consumers

6.1 PRE-SALE CONDITIONING OF UNITS

Before being sent to a dealer's sales lot, mobile homes are outfitted with interior furnishings at the last main assembly line stations of a manufacturer's factory. Manufacturers design the interior styles of mobile units to recreate a variety of the design patterns utilized in the interiors of middle to upper income non-mobile housing (for example, Early American, French Provincial, Oriental, Mediterranean, Traditional, and Contemporary). Most units are equipped with furniture, carpeting, draperies, curtains, bedspreads, mirrors, and occasionally reproductions of paintings. The basic appliances placed in all units are refrigerators and ranges. Higher priced models often include luxury items such as dishwashers, laundry units, air conditioners, special partitioning, garbage disposals, and other added amenities and features.

Once receiving a completely finished and furnished mobile home unit from a manufacturer, an individual dealer decides if the interior furnishings or the decor in general should or could be improved. Since the unit is totally factory-finished, there is little a dealer can do to actually change the overall appearance. However, dealers

do change the more minute particulars of the interior by recognizing that a substitution or change of one piece of furniture could make the home more appealing to prospective customers. Dealers often take particular accessories from their stock to add to new units prior to sale, or use in place of factory-supplied furnishings. Sometimes a customer may request additional furnishings which the dealer can install himself. The costs of redecorating a new unit can range from a few dollars to a few hundred dollars (Figure 31).

Dealers who carefully inspect a mobile home before it is sold to a buyer encounter fewer service problems once the home is occupied. Once mobile units are received on their lots from manufacturers' plants, dealers clean the homes and check them for any possible defects not found by the manufacturers' quality control inspectors. Testing the operations of electrical and heating/cooling systems along with the operations of all appliances is especially important. In order to determine whether plumbing features are functioning properly, most dealers test the system by connecting water to the fixtures. Similarly, dealers check the operation of the heating system by supplying the stove with the appropriate fuel. According to the 1970 Owens/Corning Survey, 84% of all dealers questioned conducted an electrical test, 78% tested the water-plumbing mechanisms, and 67% performed a test in which the heating system was started and run. There are also several pre-sale service problems that usually require the immediate attention of dealers. Malfunctioning of the heating system, plumbing and gas leaks, roof and window leaks, loose electrical connections, or minor damage to the

COST (DOLLARS)	PERCENTAGES OF DEALER-RESPONDENTS
0-25	21.2
26-50	21.2
51-75	18.2
76-100	24.3
100+	15.1
HIGH: \$1500 LOW: \$0	

Source: PMHI/DS

FIGURE 31: COSTS OF DECORATING A NEW UNIT PRIOR TO SALE

interior of the home are among the most common problems encountered.

In light of possible defects in product durability, it is extremely important for dealers to invest the time in thoroughly checking all parts and systems of each mobile unit recieved on their lots from manufacturers' plants. Pre-sale inspections alert dealers to malfunctions which later may be costly under warranty provisions. Those who check units carefully will market products that meet all safety and durability standards. In this manner, dealers offer units that will live up to consumers' expectations of product efficiency.

6.2 PRE-SALE AID TO CONSUMERS

The purchase of a mobile home is often the most costly investment ever made by many mobile home buyers. Therefore, before deciding to buy a particular unit, prospective buyers spend a fair amount of time viewing homes on dealers' lots and discussing with salesmen all of the possible products and special features that are available within their budget.

Customers generally take the time to look for certain qualities when buying a mobile home. The 1975 Owens/Corning Survey found that people visited an average of 4.21 dealerships and considered an average of 2.61 brands before reaching a purchasing decision. The survey also found that the two major concerns of the buyer were the floor plan layout and the price. Interior design and decor, and construction also heavily influenced the buyer's decision.

Once a consumer decides to buy a mobile home, a reliable dealer will explain all of the particulars related to mobile home ownership and any special aspects of the home selected by his customer. It is necessary for mobile home dealers to regard their customers as consumers not only purchasing a durable product but also a home and in

most cases, their first owned home (according to the Owens/Corning Survey, 73% of the mobile home owner-respondents owned no other primary residence before buying a mobile home).

The explanation of financing plans offered by the dealership to the buyer is perhaps the single most important factor involved in transacting a sale. The Consumer Protection Act (Truth-in-Lending) requires that the mobile home dealer specify the cost of financing the home to the consumer. If a mobile home sale involves financing (many consumers pay the full amount in cash), a specific percentage of the sales price has to be paid immediately as a downpayment. The size of the downpayment varies from a minimum of 5% under VA and FHA regulations to 10-15% of the selling price. It is considered helpful if the dealer carefully explains to the consumer the insurance plans offered. They should also know how to assist those eligible to obtain VA or FHA loans. In addition, most dealers explain to buyers the methods and types of taxation levied on mobile home owners by state and local governments. Financing plans are covered in detail in the section entitled "Consumer Financing."

If the mobile home is to be located on a park site and if the buyer has not already located one, some dealers detail the expenses for monthly rentals of park sites in the area. It is also important for a dealer to alert those buyers unfamiliar with mobile home parks to the regulations pertaining to parks along with the laws governing mobile home use and occupancy. Most dealers are familiar with these regulations as many are at least somewhat involved in park ownership/operations. Finally,

dealers explain the services offered by the dealership or by local specialists for setting up the mobile home, for maintenance and repairs, and for replacement of parts.

Finalizing a mobile home sales transaction entails the signing of a sales contract by both the dealer and the consumer. In each state, as required by either the Uniform Sales Act or the Statute of Frauds, every purchase of over \$500 is to be evidenced by a sales contract. It is the dealer's responsibility to discuss the details of the sales contract and the warranty agreements with his buyers prior to the actual signing of the agreement.

6.3 REFERRAL OF PARK SITES

In response to the PMHI/DS question, "Do you help prospective buyers find park sites other than those in parks owned by you?", 86% of the dealer-respondents indicated that they did not. It thus appears that most dealers believe that it is the buyer's responsibility to locate a mobile home park site. The 10% of those dealers surveyed who did provide the service of park referral (some dealers did not answer this question) did so primarily because they thought it was a good sales policy and that it helped to firm up a sale.

Different methods are utilized in referring customers to park sites. Some dealers attempt to locate park sites by contacting local park managers either by phone or personal visits to their parks. Other dealers rent lots in mobile home parks in anticipation of potential sales. It is common for dealers to rely on listings of park operators and "good parks", along with listings of parks having vacancies. Dealer and park associations distribute updated maps that list parks which dealers use extensively to locate sites for their customers. Those who personally keep in touch with park owners and managers find them a valuable source of information concerning available park space in particular areas.

Although the severe lack of park space has been alleviated somewhat in recent years, it continues to be a major problem in the mobile home distribution system. Mobile home sales are often thwarted by the continual deficiencies of park space supply. The acquisition of park space is sometimes so difficult that dealers, anxious to make sales, offer financial incentives to the park managers who agree to place that dealer's mobile homes on their sites.

According to the 1975 Owens/Corning Survey, the majority of dealers indicated that at least some of their sales were dependent on the amount of park space available. The PMHI/DS found that dealer-respondents claimed that they could have sold an average of 49% more homes had more park space been available. One respondent believed that he could have sold an additional 700% more units.

Integration into park ownership or into other park activities can be a profitable investment when coupled with the retailing of mobile homes. The continuing shortage of park space enables those dealers who have an ownership interest in mobile home parks to locate sites for more customers than dealers who do not maintain any park interests. In regards to the above PMHI information, it appears that integration into park ownership or park activities (thus, having greater access to park space) could enhance dealer sales. However, the greatest obstacle limiting dealer location of park sites is unfavorable zoning regulations which are further discussed in "Land-Use Controls" in Volume V.

Participation in park development activities or operations also provides a dealer with a year-round income that subsequently allows him to sustain the sharp sales declines during the slow winter months. It is not surprising therefore, that 62.7% of all PMHI/DS respondents are presently involved in park operations while 34% are involved in park development. There is a growing desire on the part of many dealers to become active in park management, especially in more recent years with slower sales activity.

Only 1% of the PMHI/DS respondents who had a partial or total ownership interest in mobile home parks indicated that they generally accept as tenants only those who purchased units directly from them. This should not be construed to imply however, that dealers do not reserve at least a certain portion of their park's capacity for their own customers. It appears that on the whole, the majority of parks in which dealers have an ownership interest do not discriminate between tenants on the basis of the particular dealership from which they bought their unit. However, it is possible that those dealers who have an interest in park ownership and subsequent total control of park policy may more frequently tend to restrict entrance into their parks to those tenants who purchased their units exclusively from them. This is known as a closed park situation. When zoning restricts mobile homes to parks and a dealer owns the only park in the vicinity, closed park policies give the dealer pure monopoly power yet may have adverse social and economic effects on the consumer and the growth of the industry.

6.4 DELIVERY OF UNITS TO SITES

The dealer is usually responsible for the delivery of the sold mobile home to the buyer's park site or private lot. Trucks are utilized to tow the unit on its own chassis to its respective site. While most dealerships maintain at least one company truck for this purpose, some hire outside companies or use "other means" for most or all towing work. 74% of the dealers surveyed by PMHI relied on their own truck(s) to make all or part of their deliveries.

Not all dealerships use their own trucks for delivery on an exclusive basis. Because larger amounts of mobile homes sold during peak seasons often exceed the delivery capacity of a dealership's own fleet of trucks, outside help is often contracted. Although 54% of the dealers surveyed by PMHI did manage to make all deliveries by means of their own trucks, 20% had to partially rely on other means of delivery in addition to their own trucks.

Almost one-third of all dealer-respondents utilized outside towing companies. However, only 13% utilized them exclusively. It is highly probable that the return on investment for most of these dealerships does not justify the added costs of the purchase and maintenance of a company truck for towing purposes.

Although the considerations that enter into a dealership's calculations of average shipping costs per mile differ for each operation, it is interesting to note the variances in delivery costs between a company using its own truck(s), hiring local service companies, and employing other means of transportation to deliver a unit (Figure 32). As expected, self-delivery as opposed to delivery by other alternatives is the least expensive method of delivery. On the whole, it appears that delivery by a company owned truck is almost half as expensive as delivery by a hired trucking firm. "Other means" of delivery, which may include the renting of trucks, is, on the average, somewhat more expensive than self-delivery but significantly less expensive than hiring the services of a trucking firm.

Small dealers who must rely on local trucking firms to deliver their units are at a disadvantage in comparison to the larger firms whose scale of operations enable them to purchase or lease their own trucking fleet. The higher costs in delivery by local carriers are most likely to be passed on to the consumer.

COST/MILE (IN CENTS)	DELIVERED BY OWN TRUCK	HIRED LOCAL SERVICE CO.	OTHER MEANS
1-25	13.3	0.0	0.0
26-50	50.0	7.0	37.5
51-75	23.3	13.6	37.5
76-100	10.0	50.0	25.0
101+	3.4	25.0	0.0
HIGH	\$0.10	\$0.50	\$0.50
LOW	3.00	5.00	1.00
AVG.	0.62	1.26	0.68

Source: PMHI/DS

FIGURE 32: SHIPPING COSTS PER MILE FOR THE DIFFERENT MEANS OF
DELIVERY OF UNITS FROM DEALER'S LOT TO SITE LOCATION

6.5 SITE INSTALLATION

Clauses in the sales contracts for all mobile homes sold by dealers guarantee that dealers will themselves either set up the unit on its chosen site or they will hire mobile home movers or other professional installers to carry out the set-up. The home is set upon concrete blocks or jacks on a site that has been evaluated to make certain that undue settling of the ground will not occur.

Dealers who invest the time and money in assuring that the unit is properly blocked and leveled will have fewer service requests for corrections from buyers. Incorrect blocking and leveling can cause buckling and loosening of parts of the unit. Improper closing, binding, sagging of the windows, doors and cabinets, as well as malfunctions of plumbing and electrical systems are other possible consequences of a poor installation.

Once properly blocked and leveled, a mobile home is then connected to all utilities. It is the responsibility of the dealer or of the installing technician to test the utility systems: the water and drainage systems, the gas or oil hook-up, and the electrical system.

Most dealers can set up a mobile home in one day. The time varies with the type of unit to be installed, the number of installers assigned to the task, and the complexities that are encountered at each unique site. About half of the PMHI/DS respondents indicated that they required an average of only six man-hours to install a unit. No dealer surveyed by PMHI took longer than forty man-hours for a mobile home set-up (Figure 33).

State or local building codes usually require the inspection and approval of the set-up and hook-up of mobile homes. After the on-site installation of a home is approved by a local building inspector, a conscientious dealer makes certain that a customer understands the set-up and will obtain written approval from the buyer before turning over ownership of the home. Some dealers contact the owners of the homes within a specified period of time after initial occupancy of the home in order to determine if the unit has remained level and if the utility systems function reliably.

Post-sale inspections of the set-up and hook-up of mobile homes has become a topic of interest within the industry. Since as many as 70% of warranty claims are due to improper setting-up and leveling, the Federal Trade Commission has proposed regulations to require inspection of the unit during and 90 days following installation. Since dealers have traditionally assumed these activities, such requirements would call for a restructuring of manufacturer and dealer activities and could prove to be costly to the manufacturers

NUMBER OF MAN-HOURS.	PERCENTAGES OF DEALER-RESPONDENTS
6	50.9
15	29.8
20	17.5
40	1.8

Source: PMHI/DS

FIGURE 33: DEALERS' ESTIMATES OF THE NUMBER OF MAN-HOURS
REQUIRED FOR THE INSTALLATION AND HOOK-UP OF
A MOBILE HOME

of mobile homes. If all dealers could guarantee full inspection of the home upon installation, the time and cost consuming FTC regulations would be unnecessary as would many of the present warranty claims.

6.6 POST-SALES OPERATIONS

A mobile home dealer's obligation to a customer does not end once a unit has been delivered to and set up on a buyer's site. Mobile home customers frequently encounter problems upon moving into their units and contact dealers from whom the unit was purchased to perform necessary repairs and adjustments. Hence, the bulk of responsibility for "working out the bugs" falls upon the dealer. They have traditionally assumed this responsibility for one or both of the following reasons: they regard it as proper sales policy through which the customers' good will can be retained and/or they are obligated under dealer warranties.

6.6.1 Post-Sales Maintenance and Servicing

Dealers who carefully inspect a mobile home before it is delivered to a customer's site and who conduct a careful on-site hook-up and retesting of the unit encounter less post-sales maintenance difficulties than those who are negligent in these activities. However, many of the faults that do arise are the result of damages that occur during the transportation of the unit from the dealer's lot to the buyer's site. In 1972, the Mobile Home

Manufacturers Association reported that between 50 and 70 percent of all warranty claims were attributed to improper set-up, leveling, or insufficient preparation prior to delivery.

Poor initial workmanship on the interior and exterior of mobile homes, along with defective parts, installed at the manufacturer's plants, are also a cause of the problems that require servicing. Defective appliances supplied by brand name manufacturers cause yet another realm of difficulties which dealers are expected to service. The question of who must assume liability for these defects is discussed in the following chapter, "Warranty Coverage." This chapter will identify the service problems that a dealer faces and it will focus on how dealerships manage their service and maintenance activities.

Figures 34 and 35 list the service problems which respondents to the PMHI/DS specified as being most commonly handled by their own dealerships along with the problems reported by mobile home owners questioned by the 1975 Owens/Corning Survey. Over a third of all PMHI dealer-respondents stated that they often had to attend to defects related to leaks in various parts and systems of the mobile homes. Almost one-third of all respondents mentioned that they had to service problems related to the overall functioning of the electrical systems, electric water heaters, and heating/cooling systems. The problems most frequently encountered by Owens/Corning owner-respondents were related to plumbing systems and furnace/heating systems.

Tasks in various parts and systems of units:

roofs, ceilings, vents, around edge of home, around doors,
plumbing, water lines and water drain, gas lines.

Electrical systems:

electric water heaters, heating/cooling systems.

Roof:

leaks, rumbles, roof noise

Floor:

buckling, inadequate fitting

Window:

sealing and adjustments

Door:

sticking doors

Furniture and furnishings:

loose wall cabinets

Miscellaneous structural problems:

poorly installed trim, bowed plywood, poor wiring, faulty
metal work.

Source: PMHI/DS

FIGURE 34: SERVICE PROBLEMS MOST FREQUENTLY HANDLED BY DEALERS

What problems did you have? (right after you moved into your new home).

	<u>1969</u>	<u>1974</u>
Plumbing	38%	21%
Furnace/heating	25%	11%
Doors didn't close/stick	15%	22%
Electrical	11%	15%
Roof leaked	10%	14%
Oven	10%	10%
Hot water tank	8%	12%
Interior fixtures	6%	3%
Leveling	6%	8%
Carpet	5%	9%
Windows leaked	5%	9%
Window problems	4%	12%
Air conditioning	4%	5%
Doors leaked	4%	6%

Source: Owens/Corning Fiberglas, Inc., The New Mobile Home Market (1975).

FIGURE 35: PROBLEMS REPORTED BY MOBILE HOME OWNERS UPON MOVING INTO NEW UNITS

In most cases, dealers or manufacturers attend to mobile home maintenance problems within one week after the problem is reported (Figure 36). Many dealers employ trained repair personnel to perform post-sales maintenance. These employees include carpenters, plumbers, electricians, and other individuals who are skilled in the handling of maintenance problems. According to the 1973 Mobile Home and Recreational Vehicle Dealer Magazine Survey, dealers may employ up to eight of such servicemen but more commonly between two and four. Dealers without their own servicing agents contract commercial repairmen. For circumstances in which customers have problems with the appliances installed in their homes, efficient dealerships which are not equipped to handle these repairs are able to direct customers to local service centers for repair of each appliance. In addition to a staff of servicemen, approximately half of all dealerships maintain one or several repair trucks that are sent to consumers' home sites when a malfunction of a major system or part of the mobile home needs attention.

Several dealerships maintain service, supplies, and parts centers which are often also stocked with furniture, appliances, and accessories. Some dealers carry wood panelling and wood mouldings that can be utilized for repair work. Rather than contracting commercial help, some dealers have the machinery for cutting panelling and for shaping metal for mobile homes. Others have equipment used to paint the interiors of homes. Dealers offer their purchasers a

Did you have a maintenance problem right after moving into your new home?

Yes	51%
No	35%
Not Specified	14%

Source: Owens/Corning Fiberglas, Inc., A Research Study: Focus on the Mobile Home Market (1970).

How long did it take to get the maintenance problem fixed?

Within a week	25%
1 week to 1 month	10%
More than one month	20%
Has not been fixed	40%

Who took care of your maintenance problem?

Dealer	72%
Manufacturer	21%
Self	25%
Hired someone	7%

Source: Owens/Corning Fiberglas, Inc., The New Mobile Home Market, (1975).

FIGURE 36: RESPONSES OF MOBILE HOME OWNERS WITH REGARD TO MAINTENANCE PROBLEMS IN THEIR MOBILE HOME UNITS.

discount towards the cost of parts and supplies that may be needed once the warranty has expired.

According to PMHI's correspondence with industry experts, dealers can occasionally send faulty parts to their manufacturers' factories for repair or replacement. Upon receiving the new or repaired parts from manufacturers, dealers in turn service the units. Some manufacturers will dispatch repairmen to perform service work on major repairs, while others pay for the repairs that dealers have made.

Problems arise for dealers when the dealership lot operations are located at distances far away from manufacturers' plants. This may cause delays in the obtainment of servicing from manufacturers as well as additional costs. Similarly, problems often arise between mobile home dealers and brand-name appliance manufacturers/suppliers due to lack of direct buy-sell connection. Appliance suppliers usually have no means of identifying dealers who sell units equipped with their appliances. Dealers often experience difficulties in contacting the appliance suppliers if service outlets are not readily located in the area of the dealership operations.

The 1970 Owens/Corning Survey found that the majority (85%) of dealerships regard maintenance and servicing as a "necessary but not always profitable" activity. Thus, most dealers will restrict their setting up and servicing activities to those mobile homes which

were purchased from them. Only 11% of the respondents would service any home. Once a warranty has expired, only 53% of the respondents continued to provide servicing (Figure 37).

However "unprofitable" servicing may be to dealerships, the fact that nearly half of all mobile home owners experience maintenance problems upon moving into their new homes (Figure 37) indicates the important role that proper post-sale servicing plays in the distribution function. An efficient dealer who does provide continuous service will reap the "profits" of maintaining a reputable business in a reputable industry which, in turn, will increase sales.

Communication between dealer and buyer is essential to effective post-sales operations (some dealers send their customers postcards requesting feedback concerning the quality of their new homes). Communication not only maintains a proper relationship with the consumer market, but also gives dealers an indication of common defects occurring in production or transportation. Some of these defects may then be remedied by alerting the respective manufacturer or appliance supplier for correction in future production. The dealer may also be more alert to these specific problems which could be fixed prior to the sale of the units thus, avoiding the added costs of post-sales servicing. In any case, close consumer-dealer-manufacturer contact helps alleviate the maintenance and servicing problems of the mobile home industry at large.

As a final note with regard to mobile home dealers' responsibility to conduct and follow-through on post-sales maintenance, it is

Which of these statements comes closest to describing your attitude toward maintenance servicing?

It's a necessary part of our dealership	14%
It's a necessary part of our dealership but not always profitable	85%

Which of these statements describes your service operations?

Set up and service only own units	80%
Provide continuing service	53%
Maintain equiped service truck	46%
Provide service under warranty only	30%
Provide service during business hours only	28%
Provide 24 hour emergency service	26%
Service homes in own shop	17%
Service any home	11%

Source: Owens/Corning Fiberglas, Inc., A Research Study: Focus on the Mobile Home Market (1970).

FIGURE 37: DEALERS' ATTITUDES TOWARDS MAINTENANCE SERVICING; THE NATURE AND EXTENT OF DEALERSHIP SERVICE OPERATIONS

interesting to observe the opinions of another major group of individuals who are instrumental in the mobile home industry: mobile home park owners, developers, and managers. Respondents to PMHI's Park Operator/Owner Survey were asked to provide suggestions for changes in mobile home dealerships. Two-thirds of all of the individuals who responded to this question stated that dealers could and/or should provide better services during and after sales. About one-fourth of the park manager-respondents stressed the need for honesty and dependability in dealership operations. Although discussed in more detail in the below section, it should be mentioned here that park manager-respondents also indicated that dealers should insist on product perfection from their manufacturers and that manufacturers should also perform more service work on the mobile home units. Many times, dealers, who are not involved in park activities, request the opinions of park managers concerning the service work performed on the mobile homes that are placed on sites in their parks. This sort of intervention and influence on the part of park managers provides encouragement for more dealers to maintain improving levels of servicing and repair operations.

6.6.2 Warranty Coverage

Most of the mobile homes sold by dealers carry warranties from the dealer as well as the manufacturer supplying the unit to the dealer. Due to inefficient warranty coverage and irresponsible

post-sales operations on the part of both manufacturers and dealers, the mobile home industry and government agencies have devoted a great deal of attention to the improvement and clarification of warranty coverage performance. Those who guarantee products must assume costs of providing service for repairs and maintenance yet, these costs may be substantially reduced if product perfection is stressed in production and if dealers make careful examinations before the sale of a unit. Warranties are essential to assure the consumer of good product performance, and the extent that manufacturers and dealers provide service on warranties will reflect the future image of the mobile home industry at large.

Manufacturer Liability

Manufacturer warranties on mobile homes certify that the product will be free from defects in workmanship and materials. Should any problems resulting from such defects occur under normal use of the mobile home, the manufacturer is obligated to repair the defective parts within a specified period after the delivery of the home to the original owner. According to the PMHI/DS, 98% of the manufacturers represented by dealer-respondents, offered warranties. The length of the warranty coverage ranged from 90 days to over two years. The majority of manufacturers (59%) provided warranties of one year. 23% of the manufacturers guaranteed service for a period of at least 90 days, while 12% provided coverage from 90 days to one year. Homes that are financed under VA or FHA programs require warranties of a full year. A few

manufacturers offered warranty coverage extending beyond one year.

The extent of coverage authorized by manufacturers' warranties varies. Generally, manufacturers guarantee the durability of materials used in the structural body and frame construction of the mobile home such as side walls, ceiling, floor frames, roof coverings, and devices for anchoring the home to the ground. In addition, manufacturers' warranties usually cover interior-exterior parts (doors and windows) and interior features (flooring, ceiling, wood panelling, shelving, and cabinetry). The manufacturers' warranty will usually also cover the function of the major systems of a mobile home (plumbing, ventilation, air conditioning and electrical systems).

Separate warranties for the various appliances are normally supplied by the respective appliance manufacturer/supplier. Upon occupancy of a mobile home, a buyer usually fills out and mails back cards enclosed with each appliance to validate these guarantees.

Dealerships depend on the quality of the manufacturers' products and rely on service offered by manufacturers' warranties. Only one dealer questioned by the PMHI/DS was not certain of information concerning warranty provision by his manufacturers. 43% of the dealer-respondents mentioned that their manufacturers' warranties extended into broad areas of and/or causes for possible product defectiveness such as factory defects, faults in workmanship or poor quality construction, structural defects, and shipping damage. One dealer went so far as to say that the manufacturers' warranties

covered almost everything.

Some manufacturers' warranties are vague. 16% of the PMHI/DS respondents answered that their manufacturers guaranteed only "materials" and/or "construction". Another 11% could not specify the particular items of manufacturer warranty coverage, but answered in a general manner that their manufacturers covered only what they build: the complete mobile home. Finally, some dealers questioned responded that their manufacturers provided as little as possible, very little, or nothing at all in terms of guarantee of the mobile home. These warranties which do not assume liability for specified items often create difficulties for the consumer and dealer when determining the responsibility for repairs.

Dealer Liability

According to the PMHI/DS, 70% of the dealer-respondents offered warranties over and above those provided by the manufacturer. The duration of the dealers' warranties ranged from one month free service to an indefinite amount of time. Almost 50% of the dealers who provided warranties offered free service for a period of one year while 15% service mobile homes for a period up to 90 days. Some dealers indicated that they offered free service for a period of time over one year or that the length of their warranty is variable or indefinite. Finally, some dealers responded that their warranties are designed to cover whatever pleased the customer.

With respect to the duration of dealer warranties, it is useful to view data compiled in a chronological manner. According to Mobile Home and Recreational Vehicle Dealer Magazine, 39% of the dealers surveyed between 1969 and 1972 offered one year's free service after delivery while another 39% offered 90 days service. The results on interviews conducted in 1973 by the Mobile-Modular Housing Dealer Magazine revealed that almost 60% of the dealers offered one year's free service while 32% offered service for 90 days. Notwithstanding the smallness of these samples, it appears that more dealers are offering warranty coverage and/or that there has been a trend demonstrated by mobile home dealers toward lengthening the term of warranty coverage.

The extent of dealer warranty coverage may vary from dealer to dealer. Two-fifths of the PMHI/DS respondents stated that their warranties covered almost anything that can happen to a mobile home; all items within the completed unit or any reasonable request for servicing. Several dealers mentioned that specific items which were covered included minor defects relating to the roof, plumbing, electrical and gas lines, materials, workmanship, scratches, loose panelling, or leaks. Some dealers said that their warranties covered service problems that were not provided in manufacturers' warranties or problems which they considered to be the dealer's responsibility to service. These problems were often related to dealer workmanship or arose from setting up and hooking up the home. A few dealers did not provide written or oral warranty agreements but, as a matter of protection and sales policy, provided customers with many

of the above mentioned services. Some dealer-respondents mentioned that they will go beyond what is considered normal service if it is necessary and if requested by a customer. This, however, is rare.

6.6.3 Federal Regulation of Warranties and Servicing

The 1975 Owens/Corning Survey revealed that of the mobile home owners who received repair service for defects, 72% had the repair work performed by dealers while 21% were serviced by manufacturers. Thus, it is evident that dealers are better equipped, or at least more accessible to handle warranty related problems. However, conflicts regarding responsibility for costly repairs do arise and many times the defect or problem is never fixed or the owner must hire outside repair service. As a result, the consumer must often bear unnecessary costs and inconveniences. An additional "victim" of these disputes is the dealer who is exposed to the multiplicity of warranties and the resulting confusion over their context and scope.

Recently federal and state regulatory agencies have recognized the necessity that warranty provisions be readily interpreted by manufacturers, dealers, and consumers alike and adhered to by the appropriate warrantor. Based upon its belief that existing performance levels for warranty service are insufficient, the Federal Trade Commission has initiated proceedings for a proposed Trade Regulation Rule (16 CFR 441, Mobile Home Sales and Service). The proposed Trade Regulation Rule (TRR) would regulate warranty performance in three general ways. First, the TRR would specify time

frames within which various classes of warranty service must be initiated or completed. Second, the TRR would require specific actions by warrantors which would formalize the inspection and defect reporting processes and provide records of services undertaken. Third, the TRR would regulate the relationships between warrantors and their designated service agents if such agents were utilized.

Mobile home manufacturers, suppliers, and dealers have in general recognized the legitimacy of a majority of the complaints associated with warranty performance. Industry representatives, however, maintain that the proposed TRR unduly restricts the ability of warrantors to define their warranty structure with respect to variable market conditions, and further that these restrictions may be to the ultimate detriment of consumers.

Of the three areas covered by the proposed TRR, only the first directly associates inferior performance with higher costs to the manufacturer. One basic concept of sound regulatory practice is to reward favorable actions and to penalize unfavorable actions. Those sections of the proposed TRR which deal with specific required actions by the warrantor and with the relationship between the warrantor and its designated representatives do not make such a distinction and therefore do not encourage favorable action. Thus, warrantors who are presently in substantial compliance with the objectives of the TRR will be penalized along with warrantors who are less inclined to adequate levels of performance.

Since (as of May, 1976) no detailed studies of the probable implications of the proposed TRR have yet been made it is impossible to detail specific results of the regulation. It is possible, however, to suggest three possible changes which would result from the adoption of the TRR. First, there may be a tendency to decrease the number of low-priced units produced. This effect would be especially pronounced if warranty problems are inversely correlated with price. Second, since the TRR would impose significant costs even on firms with no warranty problems, it is reasonable to predict a decrease in the number of firms in the industry due to the exit of smaller firms and the presence of a disincentive to enter the industry. Finally, the nature of the manufacturer-dealer relationship will be changed by the TRR. The impact of the expected changes is presently a subject of debate, but it is clear that the impact upon the industry will be important.

C.

SUMMARY

Economic Performance of Dealerships

In response to the escalating demand for mobile homes since the early 1960's, average annual mobile home dealership sales volumes have risen sharply: from about \$192,000 in 1963 to \$269,000 in 1967 to \$895,000 by 1972. In the late 1970's the average volume per dealership should break the one million dollar mark--not least because of the anticipated growth in the sale of doublewides and increased marketing of used units.

Paralleling the growth in sales volume has been the evolution of the distribution system from small, family-owned operations to large, incorporated dealerships. This, in turn, has restructured dealership operations considerably. As dealership sales of recreational vehicles have substantially decreased, most dealers have become more sophisticated in the sales and servicing of mobile homes as "permanent" residential units. Many operations have expanded to large, interstate chains and more are expected to do so in the future. Although present economic conditions have hindered expansion, large scale operations, along with well-qualified personnel, can distribute mass-produced mobile housing in a cost-efficient and profitable manner. Those dealerships whose scale allows them to sell, deliver and service mobile homes independent of sub-contractors are likely to be more profitable than smaller dealerships and may be able to pass cost-savings on to consumers. In addition, many dealerships are expanding operations to include accessory outlets, yielding not

only profit from the sale of accessories, but also providing a stock of materials to draw upon for improving the appearance of new units and to service sold units.

Still today, a relatively small amount of working capital is required to start a workable dealership. This factor alone has encouraged the entry of many dealerships. Although ease of entry can contribute to a healthy, competitive market, this has also led to the existence of many undercapitalized dealerships and/or cutthroat local competition. The results are many small dealerships which are incapable of handling sophisticated distribution activities and are financially restrained from expansion. These undercapitalized dealers must often rely on subcontractors or outside commercial help for setting up and servicing homes--subcontracting is often more expensive than performing these functions "in-house" and the added expense is usually passed on in the retail price of the units. Small dealerships also must invest a larger portion of net earnings for an adequate advertising budget. Furthermore, with little resources for expansion into park development and/or operations, these dealerships must bear the losses during "down" seasonal selling periods with no additional revenue from park rentals to supplement their incomes. This however, is not to say that large dealerships are always superior and more profitable operations. Many small dealerships are started by park owners/operators to complement their parks and operate on a profitable small scale, staffed with qualified personnel.

While there are many conflicts regarding warranty liability for servicing mobile homes, improvement is especially needed in the dealer pre-sale and set-up inspection of units. Dealers face high costs of servicing units after they are occupied. If dealers were more careful in checking all systems of the homes after set-up these costs could be drastically cut.

Another problem limiting the economic growth of dealership operations is pronounced seasonality of demand. Renting of mobile homes and ownership interest in mobile home parks can only partially alleviate the economic impacts of seasonality on the dealer.

Many times, dealers mention the lack of park space or restrictive zoning regulations as major problems limiting sales and the growth of their businesses. One way that dealers combat the shortage of available land for mobile homes is down-stream integration into park development and operation. This enables the dealer to readily offer his buyers sites for their homes, thus, solving a major marketing problem. There may be negative social and cost externalities if dealer park interests lead to closed park situations. However, closed parks and a shortage of park space exist today only for one reason: land use control practices that restrict mobile homes to parks and that limit the location, size, and number of mobile home parks in a given area.

A great deal of attention is currently being paid to dealer-manufacturer relations in the mobile home industry. Improvement on these relations

could help improve on existing dealership operations. Most relations are loosely drawn, causing numerous delivery and service problems. However, there is a positive movement of dealer willingness to enter into more formal relations with manufacturers. Over half of all dealerships have franchise agreements with manufacturers and more are expected to enter into such contracts in the future. Although these agreements are not without problems and improvement in these relations is needed, formal ties do allow manufacturers greater scrutiny in choosing "good" dealers. They also improve upon the badly needed communications between dealers and manufacturers. In addition, franchise agreements, which restrict manufacturer sales to one dealer in a particular area, help to substantially reduce the excess capacity and local cutthroat competition among dealers prevailing in many local markets. Dealers and manufacturers alike wish to remain separate entities and existing franchise agreements usually do not limit dealers to selling the products of only one manufacturer. Thus, dealers are still able to dictate their own operations and policies within their local market.

Probably the greatest barrier to the development of sophisticated dealerships (and to the development of the entire mobile home industry) is the public image of mobile homes. Many firms do not improve on this image--often presenting a shoddy appearance of mobile home living and undeveloped marketing efforts. Very few dealerships possess the capital needed for employing regional and sophisticated advertising media. As a result, the public image

of mobile homes is still that of "second-class" living, hindering sales and reinforcing restrictive land use controls. Sound marketing techniques desperately need to be applied to improve the overall image of mobile home living and mobile home dealerships.

Social Performance of Dealerships

The many thousands of relatively small dealerships provide a liaison between the few hundred manufacturers and the millions of consumers. This structure allows manufacturers to concentrate on centralized, mass-produced housing while dealers tend to local sales and servicing. In this manner, the manufacturer's product is delivered to the mobile home consumer in a complete package: product and service.

The expansion of dealership activities has extended mobile home products to diverse markets. Renting units gives people an opportunity to become acquainted with mobile home living and provides non-seasonal revenue for the dealer. An important expansion by dealers has been the movement into low-income markets through the sale of used units and flexible trade-in policies. Used units sell for as little as \$1500, becoming even more economical if the unit is paid for in cash, thus by-passing financing. Dealer flexibility on trade-in items increases the marketing of mobile homes to those people who do not have the available cash or credit necessary to purchase a home.

The decentralized nature of mobile home dealerships has enabled them to have personal contact with consumers and evolve a greater responsiveness to consumer needs. A dealer can sell a mass-produced unit, yet suit it to a buyer's individual tastes and preferences. Physically, dealers can change the appearance of the unit or the accessories of a mobile home--virtually being able to create a custom-built home for each consumer with little additional cost or time delay. Financially, dealers take care of arranging financing, and also usually know and advise about local taxation. Dealers can help mobile home buyers locate sites for their homes, especially if the dealer has access to park space himself. Finally, one of the greatest time and cost saving benefits that dealers offer consumers is in setting up a mobile home. The set-up can be completed within two days after purchase, enabling occupancy in a relatively short period of time after the purchase of a new home.

According to the 1975 Owens/Corning Survey, only 48% of mobile home buyers definitely or probably would buy from the same dealer again. The remaining 52% expressed hesitation or definite dissatisfaction with the dealer from whom they purchased their unit. Apparently, from both PMHI and Owens/Corning data, most of the consumer disillusionment with dealers arises from poor post-sale servicing of mobile homes. Defects do occur in both the manufacturing and delivery of the homes and dealers have traditionally been in the position to service them. However, due mostly to undercapitalized operations, there are still quite a few "fast-sell" oriented outfits which do not provide qualified personnel nor adequate servicing

for maintenance.

As instrumental as the independent position of dealers is for service to consumers, park-site locations and, ideally, maintenance, this structure does develop problems. As already mentioned, poor manufacturer-dealer relations can cause warranty confusion, and little manufacturer supervision of dealer operations exists. In order to obtain the most efficient means of marketing mobile homes, stronger communications and mutual support between dealers and manufacturers is needed.

Two other factors hinder the social performance of dealerships and are mostly due to rigid land use controls. The first is closed parks, where dealers can exert monopoly strength in ownership of both local dealerships and local parks. With little or no competition, closed park situations can permit higher prices for both homes and park space, provide lesser incentive for quality servicing, and may in some cases be discriminatory against certain categories of tenants. The second factor attributed to restrictive zoning laws is the simple lack of park space. This shortage allows dealers who can "refer" home sites to utilize high mark-up rates, often retailing units for prices over 40% of the wholesale price.

Where negative aspects exist in dealership operations, they can be attributed largely to unorganized, undercapitalized business operations. Closer dealer-manufacturer relations, expansion of operations, clarification of warranty responsibilities, better servicing, and

more reasonable zoning regulations will have a positive effect on dealer performance. Upgrading or eliminating still existing "fly-by-night" operations is necessary in order for dealers to remain in a competitive, reputable position in the housing industry and for further development of the mobile home industry as an important sector of the housing industry.

Potentials

Clearly evolving changes in the mobile home industry's product mix toward an ever-increasing share of doublewides as well as of "factory-built housing" (i.e., the so-called "code-conforming sectionals") will influence the nature of the distribution activities conducted by individual dealerships. (Traditional doublewides are built in accordance with the ANSI A 119.1 code and usually have wheels, while sectionals usually conform to state-wide, factory-built housing codes and are always placed on a foundation.) With more favorable zoning and the taxation of manufactured housing as real property, manufacturers are increasingly producing fixed-site housing, expanding marketing into medium and higher density areas. This requires more sophisticated set-up and servicing procedures and is usually tied in directly with development activities. Already, manufacturers deal directly with developers for sectionals, and for mobile homes, they often deal with large mobile home park developers, thus by-passing the traditional intermediary, the dealer. Ultimately, these changes will detract from the sale of

12' and 14' wide models, creating a situation where many dealers will either face obsolescence or have to find ways of participating in distribution of, and developments for, fixed-site, manufactured housing.

In March of 1975, 25 individuals, who represented 16 manufacturers, attended a seminar sponsored by Robert Sage and Associates. The purpose of the seminar was to discuss the transition of traditional mobile home distribution to the marketing of code-conforming double-wide, sectional units. The intention was expressed that doublewide sectionals should, for the most part, be retailed by those dealers who presently sell packaged, pre-cut, pre-fab or panelized housing units--that is, by the builder-dealer network established by the mobile home industry's rival: the manufactured building industry. Reasons for seeking these dealers included their knowledge of the real estate market and building ordinances, and their familiarity with handling products shipped by truck. It was also felt that on-site operations should be set up on lots that are scattered in small cities, in rural locations, or in small subdivisions (25 units) as opposed to larger tracts.

In order to remain in a competitive position, one alternative open to dealers is to handle both mobile home distribution and the sale of fixed-site units. They could act as brokers for the latter but would not be involved in actual land development. Individual dealerships which are relying on profits obtained primarily through

the sales of 12' and 14' wide models, and to a lesser extent upon the sale of doublewides, will need to become prepared to include larger models in their lot inventories. Larger dealership operations, having greater lot areas and access to more working capital, will be better equipped to accomodate the increasing number of model variations. Small dealers, with less capital, may forfeit participation in fixed-site unit sales totally and specialize in "mobile" products only (mobile homes and recreational vehicles).

Another option for dealers will be to integrate into actual development activities in addition to selling usual mobile home models. Or, they may slowly evolve into developers only, as is the case with the "builder-dealer" relationship in the present manufactured building industry. As code-conforming doublewides become increasingly popular in the market, more dealers will have to at least mature into quasi-developers. Once sectionals are marketed on a wider basis, those few dealers already involved in land development may have a distinct advantage in terms of having already acquired experience through these activities. The few mobile home dealerships chosen by manufacturers of sectional units will also have to become more skilled in other aspects of the distribution of mobile homes, including site installation and servicing of units placed on permanent foundations.

The transition of the mobile home industry into the "fixed-site, manufactured housing industry" will have the greatest impact on those dealerships capable of extending operations to development. Such a

COST/PRICE ANALYSIS

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A.

INTRODUCTION

The mobile home distribution system constitutes a significant element of the total mobile home production and delivery system. The average value added for dealers responding to PMHI/DS represents 25% of the final purchase price of a typical mobile home. This relatively high value added is indicative of the important role dealers play in the production of a finished mobile home which is ready for occupancy. Two major steps in the delivery of the finished product, transportation from manufacturers to dealers and from dealers to lots, and set-up at the lot, account for 6.4% of the final purchase price and for 26% of total dealer value added. An accurate evaluation of the performance of the distribution system must, therefore, include an assessment of the transportation and on-site set-up functions.

In order to assess the performance of the distribution system and to identify areas in which potential for cost reduction exists, this study considered two basic areas of inquiry relative to the overall structure of dealer costs. First, since the system is composed of independent dealers who are generally free to explore varying combinations of services which are provided to the retail customer, the basic cost compositions for individual dealers are compared. A broad pattern of significant differences in the cost structures would indicate either that the distribution system has not achieved a consensus concerning the most efficient and most profitable method of delivering the final product or that demand differentiation in specific markets requires highly individualized approaches to the problem of dealer strategy while stability of cost structures among dealers would support the conclusion

that there exists one basic pattern of dealer behavior which is only slightly modified to suit regional market differences. If the former condition is found, it could indicate that there exists substantial potential for improvement in performance through transfer of information and soft technologies among individual dealers, while the latter condition would tend to indicate that dealers have approached an optimal strategy within the context of existing industry structure and therefore that the most likely source for improved performance would lie in modifications to the general structure of the industry.

Second, in order to isolate areas of potential improvement in dealers' cost performance, it is desirable to understand the principal determinants of variations in those costs. An analysis of such causal relationships serves a dual purpose. With respect to the existing dealer system it permits testing of hypothesized explanations of observed cost variations. As stressed repeatedly in the design of this study, "armchair" explanations of observed variations often misstate the significance of true relationships. Detailed empirical evaluation of available data is a crucial step in evaluating the true significance of common explanations. Such an analysis is also the important first step toward the development of reliable predictions about changes in performance which would be associated with major structural modifications in the mobile home industry. While it is not possible to predict with perfect accuracy future events, and while the predictive ability of quantitative analyses based upon existing conditions must decrease as the length of the desired prediction and the divergence of the assumed conditions from existing conditions both increase, valid understanding of existing relationships tends to decrease the probability of poor predictions

arising from misspecified predictive models, whether those models are quantitative or qualitative.

B.

COMPARATIVE DEALER COST STRUCTURES

The use of efficient production technologies has enabled the mobile home industry to deliver a finished home for a mean retail selling price of \$9.33 per square foot. This price is the mean value of the retail selling prices for a standardized model, as reported by dealers responding to the Project Mobile Home Industry Dealers Survey (PMHI/DS). The distribution of reported selling prices is shown in Figure 1. Regionally, the mean reported value ranges from a low of \$8.45 per square foot in the East and West South Central states to a high value of \$10.84 in the New England and Middle Atlantic states, as shown in Figure 2.

While retail price is the ultimate test of the efficiency of the mobile home industry, the more relevant measure for understanding the composition of dealer costs is the value added by each dealer to the final value of the mobile home. Value added is defined as the difference between retail selling price and F.O.B. factory price, and represents those costs over which the dealer is assumed to have greatest control.¹ As shown in Figure 3, reported values added range from a low of \$1.00 per square foot to a high above \$5.00 per square foot, with a majority of values in the \$1.00 to \$3.00 range.

The averages and ranges for the percentage breakdown of model selling price as reported by respondents to the PMHI/DS are shown in Figure 4. The costs include the variable costs associated with F.O.B. factory price, salesman's commission, advertising, and floor planning, and the fixed costs associated with transportation, set-up expenses, general and administrative expenses, and overhead, as well as the residual

profit and taxes. The averages of these values are shown the pie diagram in Figure 5.

It is important to note that mobile home dealers, like mobile home producers, are characterized by low fixed costs. The ranges of reported values for fixed and variable costs are shown in Figures 6 and 7. The average variable cost is \$7.30 per square foot with 72% of the respondents in the \$6.00 to \$9.00 range, while average fixed costs are \$1.01 per square foot. Low fixed costs enable firms to maintain a high degree of flexibility in an industry which is characterized by significant seasonal and cyclical variation in demand. The importance of the flexibility provided is diminished somewhat by the recognition that the largest single component of variable cost is F.O.B. factory price. Once a unit arrives at the dealer's lot, this cost is no longer variable. Therefore, dealers who maintain large inventories will face high fixed costs during periods of decreased demand until they are able to reduce inventory levels.

The previous simple descriptive statistics, while providing a valid overview of the structure of the dealer system, does not permit analysis of variations in dealer costs. In order to test for the existence of patterns in cost variations, the twelve elements of cost data previously defined were crosstabulated with six indices related to individual dealer characteristics.²

TOTAL RETAIL SELLING PRICE PER SQUARE FOOT	NUMBER OF FIRMS	PERCENT OF RESPONDENTS TO SURVEY	PERCENT OF RESPONDENTS TO QUESTION
\$ 6.00-7.00	3	4.2	5.3
7.01-8.00	7	9.9	12.3
8.01-9.00	20	28.2	35.1
9.01-10.00	9	12.7	15.8
10.01-11.00	8	11.3	14.0
11.01-12.00	6	8.5	10.5
12.01 and Over	4	5.6	7.0
Missing Observations	14	19.6	--
Mean: 9.33			

Source: PMHI/DS

FIGURE 1: RANGE OF VALUES, TOTAL RETAIL SELLING PRICE PER SQUARE FOOT
FOR STANDARDIZED MODEL

REGION	TOTAL RETAIL SELLING PRICE	TOTAL RETAIL SELLING PRICE/SQUARE FOOT
New England & Mid- Atlantic	\$ 7982.500	\$ 10.840
East South Central & West South Central	5857.750	8.453
South Atlantic	6866.426	10.092
East North Central	6426.426	8.653
West North Central	6881.000	9.022
Mountain	6298.332	9.122
Pacific	6342.500	9.148
Mean	6613.4883	9.326

Source: PMHI/DS

FIGURE 2: RANGE OF VALUES, MEAN RETAIL SELLING PRICE OF STANDARDIZED
MODEL FOR EACH REGION

Value Added Per Sq. Ft.	Number of Firms	% of Respondents to Survey	% of Respondents to Question
\$ 0 to 1.00	3	4.2	7.7
1.01 to 2.00	17	23.9	43.6
2.01 to 3.00	11	15.5	27.2
3.01 to 4.00	3	4.2	10.8
4.01 to 5.00	3	4.2	10.8
Above 5.01	2	2.8	5.3
Missing Observations	32	45.1	

Source: PMHI/DS

FIGURE 3: RANGE OF VALUES, VALUE ADDED PER SQ. FT.

F.O.B. FACTORY PRICE AVERAGE OF ALL COMPANIES REPORTING:73.92%

- 2 show F.O.B. cost 40% or less
- 2 show F.O.B. cost 41% to 60%
- 23 show F.O.B. cost 61% to 80%
- 10 show F.O.B. cost 81% to 100%

SALESMAN'S COMMISSION AVERAGE OF ALL COMPANIES REPORTING:2.54%

- 14 show commission expense 1% or less
- 15 show commission expense 2% to 3%
- 6 show commission expense 4% to 5%
- 2 show commission expense 6% and over

ADVERTISING COSTS AVERAGE OF ALL COMPANIES REPORTING:.76%

- 29 show advertising expense 1% or less
- 8 show advertising expense 2% to 3%

FLOOR PLANNING COSTS AVERAGE OF ALL COMPANIES REPORTING:1.56%

- 24 show floor planning expense 1% or less
- 9 show floor planning expense 2% to 3%
- 2 show floor planning expense 4% to 7%
- 1 show floor planning expense 8% to 10%

TRANSPORTATION TO DEALER AVERAGE OF ALL COMPANIES REPORTING:2.27%

- 17 show transportation cost 1% or less
- 15 show transportation cost 2% to 4%
- 4 show transportation cost 5% to 6%
- 1 show transportation cost 7% and over

TRANSPORTATION TO LOT AVERAGE OF ALL COMPANIES REPORTING:1.81%

- 30 show transportation cost 1% or less
- 5 show transportation cost 2% to 3%
- 2 show transportation cost 4% and over

SET-UP COSTS AVERAGE OF ALL COMPANIES REPORTING:2.30%

- 11 show set-up cost 1% or less
- 19 show set-up cost 2% to 3%
- 5 show set-up cost 4% to 5%
- 2 show set-up cost 6% to 7%

GENERAL AND ADMINISTRATIVE EXPENSE AVERAGE OF ALL COMPANIES REPORTING:1.69%

- 22 show general and administrative expense 1% or less
- 11 show general and administrative expense 2% to 3%
- 2 show general and administrative expense 4% to 8%
- 1 show general and administrative expense 9% and over

OVERHEAD COSTS AVERAGE OF ALL COMPANIES REPORTING:2.56%

- 14 show overhead cost 1% or less
- 14 show overhead cost 2% to 3%
- 6 show overhead cost 4% to 7%
- 2 show overhead cost 8% to 11%

PROFIT AND TAXES AVERAGE OF ALL COMPANIES REPORTING:8.1%

- 10 show profit 4% or less
- 14 show profit 5% to 8%
- 5 show profit 9% to 12%
- 6 show profit 13% to 16%
- 4 show profit 17% to 20%

Source: PMHI/MS

FIGURE 4: BREAKDOWN OF RETAIL SELLING PRICE OF STANDARDIZED MODEL INTO CONSTITUENT CASES

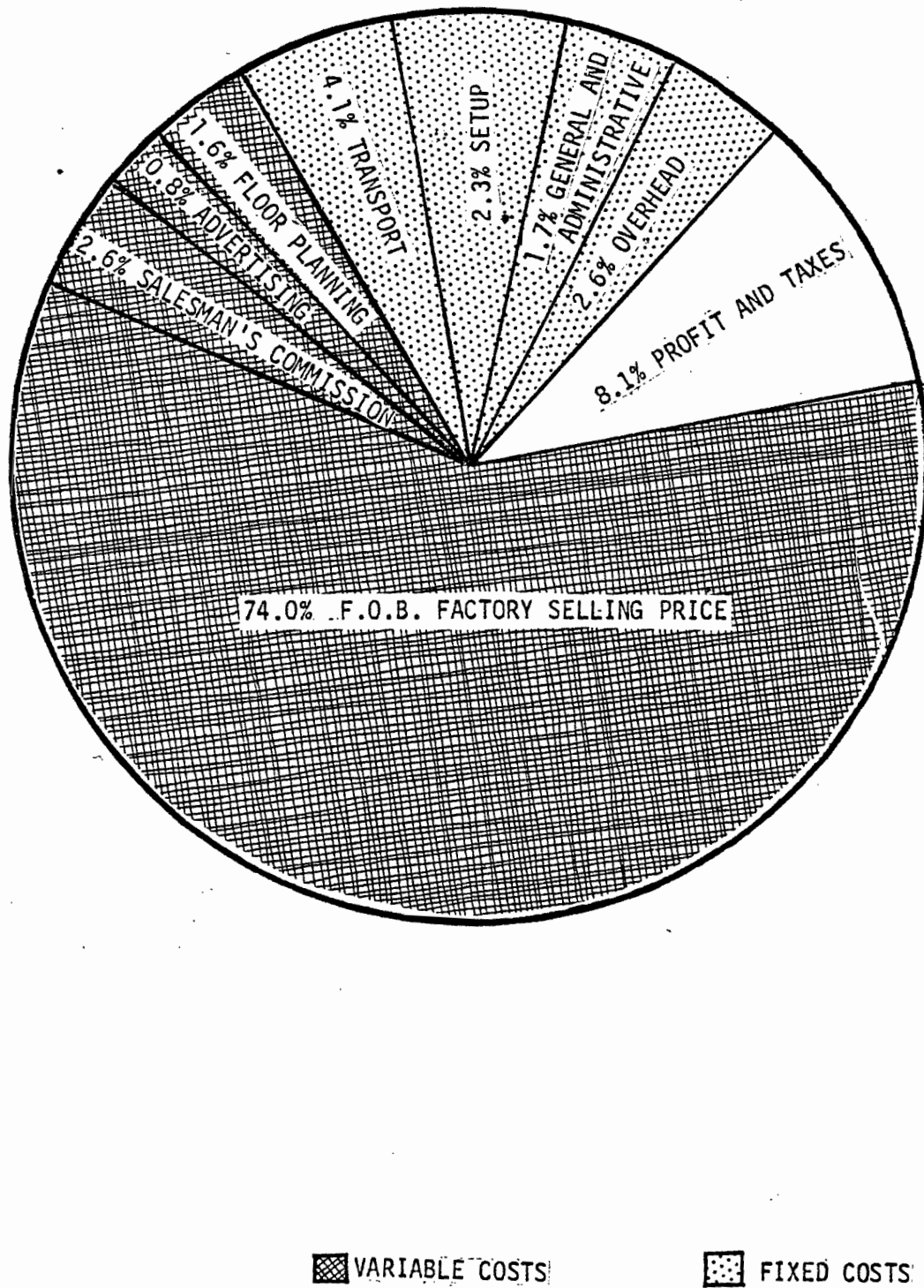


FIGURE 5:

PERCENTAGE BREAKDOWN OF STANDARDIZED MODEL'S
RETAIL SELLING PRICE

VARIABLE COSTS PER SQUARE FOOT	NUMBER OF FIRMS	PERCENT RESPONDENTS TO SURVEY	PERCENT RESPONDENTS TO QUESTION
Below \$5.00	1	1.5	2.8
\$5.01-6.00	4	5.7	11.1
6.01-7.00	9	12.9	25.1
7.01-8.00	12	17.1	33.4
8.01-9.00	5	7.1	13.9
9.01-10.00	4	5.7	11.1
10.01 and Over	2	2.9	5.6
Missing Observations	33	47.1	
Mean: 7.30			

Source: PMHI/DS

FIGURE 6: RANGE OF VALUES, DEALER'S AVERAGE VARIABLE COSTS PER
SQUARE FOOT FOR STANDARDIZED MODEL

FIXED COSTS PER SQUARE FOOT	NUMBER OF FIRMS	PERCENT OF RESPONDENTS TO SURVEY	PERCENT OF RESPONDENTS TO QUESTION
\$.00-.20	4	5.6	10.5
.21-.40	4	5.6	10.5
.41-.60	5	7.0	13.2
.61-.80	6	8.5	15.8
.81-1.00	4	5.6	10.5
1.01-1.20	4	5.6	10.5
1.21-1.40	4	5.6	10.5
1.40-2.00	3	4.3	8.0
2.01 and above	4	5.6	10.5
Missing Observations	33	46.6	

Source: PMHI/DS

FIGURE 7: RANGE OF VALUES, DEALER'S AVERAGE FIXED COST PER SQUARE
FOOT FOR STANDARDIZED MODEL

Total Annual Sales

Dealers are grouped by total dollar volume of annual sales into five categories. More than 37.4% of the dealers responding had sales between \$200,000 and \$500,000. Only one dealer had sales greater than \$2,000,000.

Number of Lots

Four categories are used to group dealers by the number of lots operated by individual dealers. Dealers with one lot dominate, comprising 71.8% of the sample, while dealers with four or more lots constitute only 7.7%.

Seasonality

As emphasized throughout this report, the mobile home industry in general is characterized by a highly seasonal sales pattern. The seasonality index used here is the ratio of highest to lowest monthly sales. Responding dealers indicated ratios which were fairly evenly distributed throughout the range of possible values.

Sales Composition

The sales composition variable is constructed to indicate the breadth of the dealer sales effort. It is a linear combination of variables measuring the number of brand names which are normally handled, the number of manufacturers the dealer represents, and the ratio of single and double wide units sold to the number of single wide units sold. Higher values of the sales composition variable indicate that the dealer is attempting to satisfy a greater number of submarkets or to provide greater choice within one submarket of the total market for mobile homes. Dealers tended to group on either the highest or lowest extremes of the observed range of the variable.

Customer Service

The customer service variable is an index of the extent of services offered by the dealer. It is a linear combination of variables indicating the availability of extended warranties and of park spaces provided by the dealer.

Selling Advantages

Selling advantages is another composite variable which is used to measure specific advantages a dealer might enjoy as a result of particular market conditions. These advantages might, for example, include the availability of park spaces reserved for customers purchasing mobile homes from one specific dealer.

The cross-tabulations provide two statistical measures which indicate the presence or absence of specific patterns within the data. The first statistic, Chi Square, tests for the existence of a pattern within the data which would not be predicted by the marginal frequency distributions of the individual variables. The second statistic, Kendall's Tau, analyzes the relationship between pairs of observed variables for individual respondents. In general, Chi Square measures the possible existence of dependencies within the data, while Kendall's Tau indicates the presence or absence of trends among individual firms. For either statistic, the possibility of the existence of a dependency or of a trend is not rejected when the significance level of the statistic is less than, or equal to, 0.10.

The two statistics yield somewhat contradictory results. Chi Square statistics tended to yield significance levels sufficiently high that the hypothesis of the absence of dependencies could not be rejected, while the significance levels associated with the Kendall Tau

statistics were generally lower and in many cases the hypothesis of the existence of significant trends could not be rejected. The complete set of cross-tabulations are included in Figure 8 to make possible consideration of specific relationships.

The contradictory nature of statistics compiled from simple comparisons of two variables selected from the large number of possible variables associated with a highly complex structure such as the mobile home dealer system is not unexpected. These cross-tabulations do not permit consideration of interrelationships between more than two variables. The results do lend some support to the hypothesis that dealers are tending toward a reasonably consistent market strategy. This tendency, however, has not eliminated dealers with differing marketing strategies and experimentation continues. In the next part, the variations in dealer cost structures are analyzed with methods which permit more sophisticated consideration of interrelationships between dealer characteristics.

NUMBER OF LOTS	VARIABLE COST: F.O.B. PRICE						ROW TOTAL
	COUNT	PERCENTAGE					
	ROW PCT						
	COL PCT IN						
	TOT PCT	0-60%	61-70%	71-80%	81-90%	91-100%	
0	1	0	0	0	1	0	1
	1	0.0	0.0	0.0	100.0	0.0	2.6
	1	0.0	0.0	0.0	12.5	0.0	
	1	0.0	0.0	0.0	2.6	0.0	
1	1	2	5	14	5	2	29
	1	7.1	17.9	50.0	17.9	7.1	71.8
	1	50.0	83.3	73.7	62.5	100.0	
	1	5.1	12.5	35.9	12.8	5.1	
2-3	1	1	1	4	2	0	8
	1	12.5	12.5	50.0	25.0	0.0	20.5
	1	25.0	16.7	21.1	25.0	0.0	
	1	2.6	2.6	10.3	5.1	0.0	
4+	1	1	0	1	0	0	2
	1	50.0	0.0	50.0	0.0	0.0	5.1
	1	25.0	0.0	5.3	0.0	0.0	
	1	2.6	0.0	2.6	0.0	0.0	
COLUMN TOTAL		4	6	19	8	2	39
		10.3	15.4	48.7	20.5	5.1	100.0

CHI SQUARE = 9.25356 WITH 12 DEGREES OF FREEDOM SIGNIFICANCE = 0.6963

FIGURE 8: CROSSTABULATION RESULTS

	VARIABLE COST: F.O.B. PRICE						ROW TOTAL
	PERCENTAGE						
	COUNT	PCT	CCL	PCT	IN	TOT	
	PCT	0-60%	61-70%	71-80%	81-90%	91-100%	
TOTAL ANNUAL SALES	0-200K	0	0	3	2	2	7
		0.0	0.0	42.9	28.6	28.6	19.4
		0.0	0.0	16.7	25.0	100.0	
		0.0	0.0	8.3	5.6	5.6	
	201-500K	1	2	4	3	0	10
		10.0	20.0	40.0	30.0	0.0	27.8
		33.3	40.0	22.2	17.5	0.0	
		2.8	5.6	11.1	8.3	0.0	
	501-1000K	1	1	6	2	0	10
		10.0	10.0	60.0	20.0	0.0	27.8
		33.3	20.0	33.3	25.0	0.0	
		2.8	2.8	16.7	5.6	0.0	
1001-2000K	1	2	4	1	0	8	
	12.5	25.0	50.0	12.5	0.0	22.2	
	33.3	40.0	22.2	12.5	0.0		
	2.8	5.6	11.1	2.8	0.0		
2001K+	0	0	1	0	0	1	
	0.0	0.0	100.0	0.0	0.0	2.8	
	0.0	0.0	5.6	0.0	0.0		
	0.0	0.0	2.8	0.0	0.0		
COLUMN	3	5	18	8	2	36	
TOTAL	8.3	13.9	50.0	22.2	5.6	100.0	

CHI SQUARE = 13.34106 WITH 16 DEGREES OF FREEDOM SIGNIFICANCE = 0.6477

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

TOTAL NUMBER OF SALES PER LOT	VARIABLE COST: F.O.B. PRICE						ROW TOTAL
	PERCENTAGE						
	0-60%	61-70%	71-80%	81-90%	91-100%		
	COUNT	COUNT	COUNT	COUNT	COUNT	COUNT	
ROW PCT	COL PCT	IN					
TOT PCT							
0-30	1	0	0	1	1	3	
	33.3	0.0	0.0	33.3	33.3	8.3	
	33.3	0.0	0.0	12.5	50.0		
	2.8	0.0	0.0	2.8	2.8		
31-60	0	0	1	0	0	1	
	0.0	0.0	100.0	0.0	0.0	2.8	
	0.0	0.0	5.6	0.0	0.0		
	0.0	0.0	2.8	0.0	0.0		
101-150	0	0	1	2	0	3	
	0.0	0.0	33.3	66.7	0.0	8.3	
	0.0	0.0	5.6	25.0	0.0		
	0.0	0.0	2.8	5.6	0.0		
151-200	0	0	1	0	1	2	
	0.0	0.0	50.0	0.0	50.0	5.6	
	0.0	0.0	5.6	0.0	50.0		
	0.0	0.0	2.8	0.0	2.8		
201-300	0	1	2	2	0	5	
	0.0	20.0	40.0	40.0	0.0	13.9	
	0.0	20.0	11.1	25.0	0.0		
	0.0	2.8	5.6	5.6	0.0		
301+	2	4	13	3	0	22	
	9.1	18.2	59.1	11.6	0.0	61.1	
	66.7	80.0	72.2	37.5	0.0		
	5.6	11.1	36.1	9.3	0.0		
COLUMN TOTAL	3	5	13	8	2	36	
	8.3	13.9	50.0	22.2	5.6	100.0	

CHI SQUARE = 25.42931 WITH 20 DEGREES OF FREEDOM SIGNIFICANCE = 0.1855

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

		VARIABLE COST: F.O.B. PRICE										ROW TOTAL	
		PERCENTAGE											
COUNT	I												
ROW PCT	I												
COL PCT	IN												
TOT PCT	I	0-60%	61-70%	71-80%	81-90%	91-100%							
0-3	I	0	0	1	3	1							
	I	0.0	0.0	20.0	60.0	20.0							
	I	0.0	0.0	6.7	42.9	100.0							
	I	0.0	0.0	3.3	10.0	3.3							
4-5	I	1	2	8	0	0							
	I	9.1	18.2	72.7	0.0	0.0							
	I	33.3	50.0	53.3	0.0	0.0							
	I	3.3	6.7	26.7	0.0	0.0							
6-	I	0	1	2	2	0							
	I	0.0	20.0	40.0	40.0	0.0							
	I	0.0	25.0	13.3	28.6	0.0							
	I	0.0	3.3	6.7	6.7	0.0							
8-12	I	0	1	4	2	0							
	I	0.0	14.3	57.1	28.6	0.0							
	I	0.0	25.0	26.7	28.6	0.0							
	I	0.0	3.3	13.3	6.7	0.0							
13+	I	2	0	0	0	0							
	I	100.0	0.0	0.0	0.0	0.0							
	I	66.7	0.0	0.0	0.0	0.0							
	I	6.7	0.0	0.0	0.0	0.0							
COLUMN TOTAL		3	4	15	7	1							
		10.0	13.3	50.0	23.3	3.3							

CHI SQUARE = 34.00739 WITH 16 DEGREES OF FREEDOM SIGNIFICANCE = 0.0054

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

CUSTOMER SERVICES	VARIABLE COST: F.O.B. PRICE					ROW TOTAL
	PERCENTAGE					
	COUNT					
	NEW PCT					
	CCL PCT					
	TOT PCT	61-70%	71-80%	81-90%	91-100%	
0.0-0.75	1	0	1	0	0	1
	1	0.0	100.0	0.0	0.0	4.5
	1	0.0	7.7	0.0	0.0	
	1	0.0	4.5	0.0	0.0	
.76-1.5	1	1	3	0	0	4
	1	25.0	75.0	0.0	0.0	18.2
	1	20.0	23.1	0.0	0.0	
	1	4.5	13.6	0.0	0.0	
1.51-2.0	1	1	3	1	0	5
	1	20.0	66.7	20.0	0.0	22.7
	1	20.0	23.1	33.3	0.0	
	1	4.5	13.6	4.5	0.0	
2.01-2.5	1	1	1	0	0	2
	1	50.0	50.0	0.0	0.0	9.1
	1	20.0	7.7	0.0	0.0	
	1	4.5	4.5	0.0	0.0	
2.51-3.0	1	0	2	2	0	4
	1	0.0	50.0	50.0	0.0	18.2
	1	0.0	15.4	66.7	0.0	
	1	0.0	9.1	9.1	0.0	
3.01-3.5	1	1	2	0	0	3
	1	33.3	66.7	0.0	0.0	13.6
	1	20.0	15.4	0.0	0.0	
	1	4.5	9.1	0.0	0.0	
3.51-4.5	1	1	1	0	1	3
	1	33.3	33.3	0.0	33.3	13.6
	1	20.0	7.7	0.0	100.0	
	1	4.5	4.5	0.0	4.5	
COLUMN TOTAL		5	13	3	1	22
TOTAL		22.7	59.1	13.6	4.5	100.0

CHI SQUARE = 15.19170 WITH 18 DEGREES OF FREEDOM SIGNIFICANCE = 0.6515

FIGURE 2: CROSSTABULATION RESULTS
(cont.)

		VARIABLE COST: F.O.B. PRICE					
		PERCENTAGE					
COUNT	I						ROW
ROW PCT	I						TOTAL
CCL PCT	IN						
TOT PCT	I	0-60%	61-70%	71-80%	81-90%	91-100%	
SELLING ADVANTAGES	0-2.0	1	1	10	1	1	14
	7.1	7.1	71.4	7.1	7.1	36.8	
	25.0	16.7	52.6	14.3	50.0		
	2.6	2.6	26.3	2.6	2.6		
	2.01-4.0	1	0	1	0	0	2
	50.0	0.0	50.0	0.0	0.0	5.3	
	25.0	0.0	5.3	0.0	0.0		
	2.6	0.0	2.6	0.0	0.0		
	4.01-7.0	0	4	0	1	0	5
	0.0	80.0	0.0	20.0	0.0	13.2	
0.0	66.7	0.0	14.3	0.0			
0.0	10.5	0.0	2.6	0.0			
7.01-16.0	0	1	5	3	1	10	
0.0	10.0	50.0	30.0	10.0	26.3		
0.0	16.7	26.3	42.9	50.0			
0.0	2.6	13.2	7.9	2.6			
16.01-20.0	0	0	1	1	0	2	
0.0	0.0	50.0	50.0	0.0	5.3		
0.0	0.0	5.3	14.3	0.0			
0.0	0.0	2.6	2.6	0.0			
20.01-24.0	2	0	2	1	0	5	
40.0	0.0	40.0	20.0	0.0	13.2		
50.0	0.0	10.5	14.3	0.0			
5.3	0.0	5.3	2.6	0.0			
COLUMN TOTAL	4	6	19	7	2	38	
	10.5	15.8	50.0	18.4	5.3	100.0	

CHI SQUARE = 32.68269 WITH 20 DEGREES OF FREEDOM SIGNIFICANCE = 0.0365

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SEASONALITY	COUNT	VARIABLE COST: F.O.B. PRICE				ROW
	RCW PCT	PERCENTAGE				TOTAL
	COL PCT					
	TOT PCT	0-60%	61-70%	71-80%	81-90%	
1.0-2.0	2	1	1	1	0	4
	50.0	25.0	25.0	25.0	0.0	20.0
	100.0	25.0	11.1	0.0	0.0	
	10.0	5.0	5.0	0.0	0.0	
2.01-3.0	0	0	2	2	0	4
	0.0	0.0	50.0	50.0	0.0	20.0
	0.0	0.0	22.2	40.0	0.0	
	0.0	0.0	10.0	10.0	0.0	
3.01-4.0	0	1	3	1	0	5
	0.0	20.0	60.0	20.0	0.0	25.0
	0.0	25.0	33.3	20.0	0.0	
	0.0	5.0	15.0	5.0	0.0	
4.01-6.0	0	1	2	1	0	4
	0.0	25.0	50.0	25.0	0.0	20.0
	0.0	25.0	22.2	20.0	0.0	
	0.0	5.0	10.0	5.0	0.0	
8.0	0	0	1	0	0	1
	0.0	0.0	100.0	0.0	0.0	5.0
	0.0	0.0	11.1	0.0	0.0	
	0.0	0.0	5.0	0.0	0.0	
9.5	0	1	0	0	0	1
	0.0	100.0	0.0	0.0	0.0	5.0
	0.0	25.0	0.0	0.0	0.0	
	0.0	5.0	0.0	0.0	0.0	
37.0	0	0	0	1	0	1
	0.0	0.0	0.0	100.0	0.0	5.0
	0.0	0.0	0.0	20.0	0.0	
	0.0	0.0	0.0	5.0	0.0	
COLUMN TOTAL	2	4	9	5	20	
	10.0	20.0	45.0	25.0	100.0	

CHI SQUARE = 12.52219 WITH 18 DEGREES OF FREEDOM SIGNIFICANCE = 0.3604

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

NUMBER OF LOTS	VARIABLE COST: SALES COMMISSIONS										ROW TOTAL	
	COUNT	PERCENTAGE										
	ROW PCT											
	COL PCT											
	TOT PCT	0%	1%	2%	3%	4%	5%+					
0	I	0	0	0	0	0	1				1	
	I	0.0	0.0	0.0	0.0	0.0	100.0				2.5	
	I	0.0	0.0	0.0	0.0	0.0	14.3					
	I	0.0	0.0	0.0	0.0	0.0	2.5					
1	I	9	2	7	4	1	6				29	
	I	31.0	6.9	24.1	13.8	3.4	20.7				72.5	
	I	100.0	40.0	77.8	50.0	50.0	85.7				-	
	I	22.5	5.0	17.5	10.0	2.5	15.0					
2-3	I	0	2	1	4	1	0				8	
	I	0.0	25.0	12.5	50.0	12.5	0.0				20.0	
	I	0.0	40.0	11.1	50.0	50.0	0.0					
	I	0.0	5.0	2.5	10.0	2.5	0.0					
4+	I	0	1	1	0	0	0				2	
	I	0.0	50.0	50.0	0.0	0.0	0.0				5.0	
	I	0.0	20.0	11.1	0.0	0.0	0.0					
	I	0.0	2.5	2.5	0.0	0.0	0.0					
COLUMN TOTAL		9	5	9	8	2	7				40	
		22.5	12.5	22.5	20.0	5.0	17.5				100.0	

CHI SQUARE = 20.56070 WITH 15 DEGREES OF FREEDOM SIGNIFICANCE = 0.1515

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

TOTAL ANNUAL SALES	VARIABLE COST: SALES COMMISSIONS										ROW TOTAL	
	COUNT	PERCENTAGE										
	ROW PCT											
	TOT PCT	0%	1%	2%	3%	4%	5%+					
0-200K	4	0	2	0	0	0	2					8
	50.0	0.0	25.0	0.0	0.0	25.0	21.6					
	50.0	0.0	22.2	0.0	0.0	28.6						
	10.8	0.0	5.4	0.0	0.0	5.4						
201-500K	3	2	1	3	1	0	10					
	30.0	20.0	10.0	30.0	10.0	0.0	27.0					
	37.5	50.0	11.1	37.5	100.0	0.0						
	8.1	5.4	2.7	8.1	2.7	0.0						
501-1000K	1	2	4	1	0	2	10					
	10.0	20.0	40.0	10.0	0.0	20.0	27.0					
	12.5	50.0	44.4	12.5	0.0	28.6						
	2.7	5.4	10.8	2.7	0.0	5.4						
1001-2000K	0	0	1	4	0	3	8					
	0.0	0.0	12.5	50.0	0.0	37.5	21.6					
	0.0	0.0	11.1	50.0	0.0	42.9						
	0.0	0.0	2.7	10.8	0.0	8.1						
2001K+	0	0	1	0	0	0	1					
	0.0	0.0	100.0	0.0	0.0	0.0	2.7					
	0.0	0.0	11.1	0.0	0.0	0.0						
	0.0	0.0	2.7	0.0	0.0	0.0						
COLUMN TOTAL	8	4	9	8	1	7	37					
TOTAL	21.6	10.8	24.3	21.6	2.7	18.9	100.0					

CHI SQUARE = 26.22287 WITH 20 DEGREES OF FREEDOM SIGNIFICANCE = 0.1526

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

TOTAL NUMBER OF SALES PER LOT	VARIABLE COST: SALES COMMISSIONS PERCENTAGE										ROW TOTAL	
	COUNT											
	ROW PCT											
	COL PCT											
	TOT PCT	0%	1%	2%	3%	4%	5%+					
0-30	1	1	1	0	0	0	1					3
	1	33.3	33.3	0.0	0.0	0.0	33.3					8.1
	1	12.5	25.0	0.0	0.0	0.0	14.3					
	1	2.7	2.7	0.0	0.0	0.0	2.7					
31-60	1	1	0	0	0	0	0					1
	1	100.0	0.0	0.0	0.0	0.0	0.0					2.7
	1	12.5	0.0	0.0	0.0	0.0	0.0					
	1	2.7	0.0	0.0	0.0	0.0	0.0					
101-150	1	1	0	1	1	0	0					3
	1	33.3	0.0	33.3	33.3	0.0	0.0					8.1
	1	12.5	0.0	11.1	12.5	0.0	0.0					
	1	2.7	0.0	2.7	2.7	0.0	0.0					
151-200	1	1	0	1	0	0	1					3
	1	33.3	0.0	33.3	0.0	0.0	33.3					8.1
	1	12.5	0.0	11.1	0.0	0.0	14.3					
	1	2.7	0.0	2.7	0.0	0.0	2.7					
201-300	1	1	2	0	2	0	0					5
	1	20.0	40.0	0.0	40.0	0.0	0.0					13.5
	1	12.5	50.0	0.0	25.0	0.0	0.0					
	1	2.7	5.4	0.0	5.4	0.0	0.0					
301+	1	3	1	7	5	1	5					22
	1	13.6	4.5	31.8	22.7	4.5	22.7					50.5
	1	37.5	25.0	77.8	62.5	100.0	71.4					
	1	8.1	2.7	13.9	13.5	2.7	13.5					
COLUMN TOTAL		8	4	9	8	1	7					37
		21.6	10.8	24.3	21.6	2.7	18.9					100.0

CHI SQUARE = 19.57753 WITH 25 DEGREES OF FREEDOM SIGNIFICANCE = 0.7686

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SALES COMPOSITION	VARIABLE COST: SALES COMMISSIONS PERCENTAGE							ROW TOTAL
	COUNT	1	2	3	4	5	6	
	ROW PCT	1	2	3	4	5	6	
	TOT PCT	0%	1%	2%	3%	4%	5%+	
0-3	1	2	1	0	1	0	1	5
	1	40.0	20.0	0.0	20.0	0.0	20.0	16.7
	1	40.0	25.0	0.0	14.3	0.0	20.0	
	1	6.7	3.3	0.0	3.3	0.0	3.3	
4-5	1	3	1	2	2	1	2	11
	1	27.3	9.1	13.2	13.2	9.1	18.2	36.7
	1	60.0	25.0	25.0	28.6	100.0	40.0	
	1	10.0	3.3	6.7	6.7	3.3	6.7	
6-7	1	0	1	3	1	0	0	5
	1	0.0	20.0	60.0	20.0	0.0	0.0	16.7
	1	0.0	25.0	37.5	14.3	0.0	0.0	
	1	0.0	3.3	10.0	3.3	0.0	0.0	
8-12	1	0	0	3	2	0	2	7
	1	0.0	0.0	42.9	28.6	0.0	28.6	23.3
	1	0.0	0.0	37.5	28.6	0.0	40.0	
	1	0.0	0.0	10.0	6.7	0.0	6.7	
13+	1	0	1	0	1	0	0	2
	1	0.0	50.0	0.0	50.0	0.0	0.0	6.7
	1	0.0	25.0	0.0	14.3	0.0	0.0	
	1	0.0	3.3	0.0	3.3	0.0	3.0	
COLUMN TOTAL	5	16.7	13.3	26.7	23.3	3.3	16.7	100.0

CHI SQUARE = 17.47816 WITH 20 DEGREES OF FREEDOM SIGNIFICANCE = 0.6217

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

	VARIABLE COST: SALES COMMISSIONS										ROW TOTAL
	PERCENTAGE										
	COUNT ROW PCT COL PCT TOT PCT	0%	1%	2%	3%	4%	5%+				
CUSTOMER SERVICES	0.0-0.75	0	0	0	0	0	1			1	
		0.0	0.0	0.0	0.0	0.0	100.0			4.3	
		0.0	0.0	0.0	0.0	0.0	20.0				
		0.0	0.0	0.0	0.0	0.0	4.3				
	.76-1.5	0	0	3	0	0	1			4	
		0.0	0.0	75.0	0.0	0.0	25.0			17.4	
		0.0	0.0	42.9	0.0	0.0	20.0				
		0.0	0.0	13.0	0.0	0.0	4.3				
	1.51-2.0	1	0	1	2	0	1			5	
		20.0	0.0	20.0	40.0	0.0	20.0			21.7	
		25.0	0.0	14.3	50.0	0.0	20.0				
		4.3	0.0	4.3	8.7	0.0	4.3				
	2.01-2.5	1	0	0	0	1	0			2	
		50.0	0.0	0.0	0.0	50.0	0.0			8.7	
		25.0	0.0	0.0	0.0	50.0	0.0				
		4.3	0.0	0.0	0.0	4.3	0.0				
	2.51-3.0	1	0	0	1	0	2			4	
		25.0	0.0	0.0	25.0	0.0	50.0			17.4	
		25.0	0.0	0.0	25.0	0.0	40.0				
		4.3	0.0	0.0	4.3	0.0	8.7				
	3.01-3.5	0	1	2	0	1	0			4	
		0.0	25.0	50.0	0.0	25.0	0.0			17.4	
		0.0	100.0	28.6	0.0	50.0	0.0				
		0.0	4.3	8.7	0.0	4.3	0.0				
	3.51-4.5	1	0	1	1	0	0			3	
		33.3	0.0	33.3	33.3	0.0	0.0			13.0	
		25.0	0.0	14.3	25.0	0.0	0.0				
		4.3	0.0	4.3	4.3	0.0	0.0				
COLUMN TOTAL		4	1	7	4	2	5	23			
		17.4	4.3	30.4	17.4	8.7	21.7	100.0			

CHI SQUARE = 30.40913 WITH 30 DEGREES OF FREEDOM SIGNIFICANCE = 0.4448

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

	VARIABLE COST: SALES COMMISSIONS											ROW TOTAL
	PERCENTAGE											
	COUNT	ROW PCT	COL PCT	TGT PCT	0%	1%	2%	3%	4%	5%		
	ROW PCT	COL PCT	TGT PCT	0%	1%	2%	3%	4%	5%			
SELLING ADVANTAGES	0-2.0	6	0	4	3	1	1	1	1	15		
	40.0	0.0	26.7	20.0	6.7	6.7	6.7	6.7	6.7	39.5		
	66.7	0.0	50.0	37.5	50.0	14.3	14.3	14.3	14.3			
	15.4	0.0	10.3	7.7	2.6	2.6	2.6	2.6	2.6			
	2.01-4.0	0	1	0	0	0	0	0	1	2		
	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	5.1		
	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3			
	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	2.6			
	4.01-7.0	0	0	1	1	1	1	1	2	5		
	0.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0	40.0	12.8		
	0.0	0.0	12.5	12.5	50.0	28.6	28.6	28.6	28.6			
	0.0	0.0	2.6	2.6	2.6	5.1	5.1	5.1	5.1			
	7.01-16.0	1	2	3	2	0	0	0	2	10		
	10.0	20.0	30.0	20.0	0.0	20.0	28.6	28.6	28.6	25.6		
	11.1	40.0	37.5	25.0	0.0	0.0	0.0	0.0	0.0			
	2.6	5.1	7.7	5.1	0.0	5.1	5.1	5.1	5.1			
	16.01-20.0	0	1	0	0	0	0	0	1	2		
	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	5.1		
	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3			
	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	2.6			
	20.01-24.0	2	1	0	2	0	0	0	0	5		
	40.0	20.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	12.8		
	22.2	20.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0			
	5.1	2.6	0.0	5.1	0.0	0.0	0.0	0.0	0.0			
COLUMN TOTAL	9	5	8	8	2	7	39					
TOTAL	23.1	12.8	20.5	20.5	5.1	17.9	100.0					

CHI SQUARE = 23.92094 WITH 25 DEGREES OF FREEDOM SIGNIFICANCE = 0.4118

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SEASONALITY	VARIABLE COST: SALES COMMISSIONS PERCENTAGE							ROW TOTAL
	COUNT	0%	1%	2%	3%	4%	5%+	
	ROW PCT							
	TOT PCT							
1.0-2.0	1	0	0	2	0	1		4
	25.0	0.0	0.0	50.0	0.0	25.0		20.0
	25.0	0.0	0.0	40.0	0.0	25.0		
	5.0	0.0	0.0	10.0	0.0	5.0		
2.01-3.0	2	0	0	1	0	1		4
	50.0	0.0	0.0	25.0	0.0	25.0		20.0
	50.0	0.0	0.0	20.0	0.0	25.0		
	10.0	0.0	0.0	5.0	0.0	5.0		
3.01-4.0	1	2	0	0	1	1		5
	20.0	40.0	0.0	0.0	20.0	20.0		25.0
	25.0	66.7	0.0	0.0	100.0	25.0		
	5.0	10.0	0.0	0.0	5.0	5.0		
4.01-6.0	0	1	2	1	0	0		4
	0.0	25.0	50.0	25.0	0.0	0.0		20.0
	0.0	33.3	66.7	20.0	0.0	0.0		
	0.0	5.0	10.0	5.0	0.0	0.0		
8.0	0	0	0	1	0	0		1
	0.0	0.0	0.0	100.0	0.0	0.0		5.0
	0.0	0.0	0.0	20.0	0.0	0.0		
	0.0	0.0	0.0	5.0	0.0	0.0		
9.5	0	0	0	0	0	1		1
	0.0	0.0	0.0	0.0	0.0	100.0		5.0
	0.0	0.0	0.0	0.0	0.0	25.0		
	0.0	0.0	0.0	0.0	0.0	5.0		
37.0	0	1	0	0	0	0		1
	0.0	0.0	100.0	0.0	0.0	0.0		5.0
	0.0	0.0	33.3	0.0	0.0	0.0		
	0.0	0.0	5.0	0.0	0.0	0.0		
COLUMN TOTAL	4	3	3	5	1	4	20	
	20.0	15.0	15.0	25.0	5.0	20.0	100.0	

CHI SQUARE = 30.08322 WITH 30 DEGREES OF FREEDOM SIGNIFICANCE = 0.4614

FIGURE 2: CROSSTABULATION RESULTS
(cont.)

NUMBER OF LOTS	COUNT	VARIABLE COST: ADVERTISING								ROW
	ROW PCT	PERCENTAGE								TOTAL
	COL PCT									
	TOT PCT	0%	1%	2%	3%+					
0	1	1	0	0	0					1
	100.0	0.0	0.0	0.0					2.6	
	5.3	0.0	0.0	0.0						
	2.6	0.0	0.0	0.0						
1	15	6	4	1					28	
	53.6	28.6	14.3	3.6					71.3	
	78.9	66.7	66.7	50.0						
	38.5	20.5	10.3	2.6						
2-3	3	3	1	1					8	
	37.5	37.5	12.5	12.5					20.5	
	15.8	25.0	16.7	50.0						
	7.7	7.7	2.6	2.6						
4+	0	1	1	0					2	
	0.0	50.0	50.0	0.0					5.1	
	0.0	8.3	16.7	0.0						
	0.0	2.6	2.6	0.0						
COLUMN TOTAL		19	12	6	2					39
TOTAL		48.7	30.8	15.4	5.1					100.0

CHI SQUARE = 5.47673 WITH 9 DEGREES OF FREEDOM SIGNIFICANCE = 0.7909

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

TOTAL ANNUAL SALES	COUNT	VARIABLE COST: ADVERTISING				ROW TOTAL
	ROW PCT	PERCENTAGE				
	COL PCT	0%	1%	2%	3%+	
	YCT PCT					
0-200K	5	2	0	0	7	
	71.4	28.6	0.0	0.0	19.4	
	31.3	16.7	0.0	0.0		
	13.9	5.6	0.0	0.0		
201-500K	4	4	2	0	10	
	40.0	40.0	20.0	0.0	27.3	
	25.0	33.3	33.3	0.0		
	11.1	11.1	5.6	0.0		
501-1000K	7	2	0	1	10	
	70.0	20.0	0.0	10.0	27.8	
	43.8	16.7	0.0	50.0		
	19.4	5.6	0.0	2.8		
1001-2000K	0	3	4	1	8	
	0.0	37.5	50.0	12.5	22.2	
	0.0	25.0	66.7	50.0		
	0.0	8.3	11.1	2.8		
2001K+	0	1	0	0	1	
	0.0	100.0	0.0	0.0	2.8	
	0.0	8.3	0.0	0.0		
	0.0	2.8	0.0	0.0		
COLUMN TOTAL		16	12	6	2	36
		44.4	33.3	16.7	5.6	100.0

CHI SQUARE = 19.19995 WITH 12 DEGREES OF FREEDOM SIGNIFICANCE = 0.0838

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

TOTAL NUMBER OF SALES PER LOT	COUNT		VARIABLE COST: ADVERTISING				ROW TOTAL
	ROW PCT	COL PCT	PERCENTAGE				
	TOT PCT	0%	1%	2%	3%+		
0-30	1	2	0	1	0	3	
	1	66.7	0.0	33.3	0.0	8.3	
	1	12.5	0.0	16.7	0.0		
	1	5.6	0.0	2.8	0.0		
31-60	1	1	0	0	0	1	
	1	100.0	0.0	0.0	0.0	2.8	
	1	6.3	0.0	0.0	0.0		
	1	2.8	0.0	0.0	0.0		
101-150	1	1	2	0	0	3	
	1	33.3	66.7	0.0	0.0	8.3	
	1	6.3	16.7	0.0	0.0		
	1	2.8	5.6	0.0	0.0		
151-200	1	1	1	0	0	2	
	1	50.0	50.0	0.0	0.0	5.6	
	1	6.3	8.3	0.0	0.0		
	1	2.8	2.8	0.0	0.0		
201-300	1	3	1	1	0	5	
	1	60.0	20.0	20.0	0.0	13.9	
	1	18.8	8.3	16.7	0.0		
	1	8.3	2.8	2.8	0.0		
301+	1	8	8	4	2	22	
	1	36.4	36.4	18.2	9.1	61.1	
	1	50.0	66.7	66.7	100.0		
	1	22.2	22.2	11.1	5.6		
COLUMN TOTAL	16	12	6	2	36		
	44.4	33.3	16.7	5.6	100.0		

CHI SQUARE = 7.38408 WITH 15 DEGREES OF FREEDOM SIGNIFICANCE = 0.9461

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SALES COMPOSITION	COUNT	VARIABLE COST: ADVERTISING								ROW
	ROW PCT	PERCENTAGE								TOTAL
	COL PCT	0%	1%	2%	3%+					
	TOT PCT									
0-3	I	5	0	0	0				5	
	I	100.0	0.0	0.0	0.0				16.7	
	I	32.5	0.0	0.0	0.0					
	I	16.7	0.0	0.0	0.0					
4-5	I	6	4	1	0				11	
	I	54.5	36.4	9.1	0.0				36.7	
	I	46.2	36.4	25.0	0.0					
	I	20.0	13.3	3.3	0.0					
6-7	I	1	3	1	0				5	
	I	20.0	60.0	20.0	0.0				16.7	
	I	7.7	27.3	25.0	0.0					
	I	3.3	10.0	3.3	0.0					
8-12	I	1	4	1	1				7	
	I	14.3	57.1	14.3	14.3				23.3	
	I	7.7	36.4	25.0	50.0					
	I	3.3	13.3	3.3	3.3					
13+	I	0	0	1	1				2	
	I	0.0	0.0	50.0	50.0				6.7	
	I	0.0	0.0	25.0	50.0					
	I	0.0	0.0	3.3	3.3					
COLUMN TOTAL	13	11	4	2				30		
	43.3	36.7	13.3	6.7				100.0		

CHI SQUARE = 21.63800 WITH 12 DEGREES OF FREEDOM SIGNIFICANCE = 0.0418

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

CUSTOMER SERVICES

COUNT		VARIABLE COST: ADVERTISING				ROW
ROW	PCT	PERCENTAGE				TOTAL
COL	PCT	0%	1%	2%	3%+	
TOT	PCT					
0.0-0.75	0	0	1	0		1
	0.0	0.0	100.0	0.0		4.5
	0.0	0.0	20.0	0.0		
	0.0	0.0	4.5	0.0		
.76-1.5	1	3	0	0		4
	25.0	75.0	0.0	0.0		18.2
	11.1	42.9	0.0	0.0		
	4.5	13.6	0.0	0.0		
1.51-2.0	0	1	4	0		5
	0.0	20.0	80.0	0.0		22.7
	0.0	14.3	85.0	0.0		
	0.0	4.5	19.2	0.0		
2.01-2.5	1	1	0	0		2
	50.0	50.0	0.0	0.0		9.1
	11.1	14.3	0.0	0.0		
	4.5	4.5	0.0	0.0		
2.51-3.0	4	0	0	0		4
	100.0	0.0	0.0	0.0		18.2
	44.4	0.0	0.0	0.0		
	18.2	0.0	0.0	0.0		
3.01-3.5	2	1	3	0		3
	66.7	33.3	0.0	0.0		13.6
	27.2	14.3	0.0	0.0		
	9.1	4.5	0.0	0.0		
3.51-4.5	1	1	0	1		3
	33.3	33.3	0.0	33.3		13.6
	11.1	14.3	0.0	100.0		
	4.5	4.5	0.0	4.5		
COLUMN	9	7	5	1		22
TOTAL	40.9	31.8	22.7	4.5		100.0

CHI SQUARE = 30.86504 WITH 18 DEGREES OF FREEDOM SIGNIFICANCE = .00299

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SELLING ADVANTAGES	COUNT	VARIABLE COST: ADVERTISING				RCM
	RCM PCT	PERCENTAGE				TOTAL
	CCL PCT	0%	1%	2%	3%+	
	TOT PCT					
	0-2.0	6	4	3	1	14
		42.9	28.6	21.4	7.1	36.8
		31.6	33.3	60.0	50.0	
		15.8	10.5	7.9	2.6	
	2.01-4.0	1	0	1	0	2
		50.0	0.0	50.0	0.0	5.3
	5.3	0.0	20.0	0.0		
	2.6	0.0	2.6	0.0		
4.01-7.0	3	1	1	0	5	
	60.0	20.0	20.0	0.0	13.2	
	15.8	8.3	20.0	0.0		
	7.9	2.6	2.6	0.0		
7.01-16.0	5	5	0	0	10	
	50.0	50.0	0.0	0.0	26.3	
	26.3	41.7	0.0	0.0		
	13.2	13.2	0.0	0.0		
16.01-20.0	1	1	0	0	2	
	50.0	50.0	0.0	0.0	5.3	
	5.3	8.3	0.0	0.0		
	2.6	2.6	0.0	0.0		
20.01-24.0	3	1	0	1	5	
	60.0	20.0	0.0	20.0	13.2	
	15.8	3.3	0.0	50.0		
	7.9	2.6	0.0	2.6		
COLUMN TOTAL	19	12	5	2	38	
TOTAL	50.0	31.6	13.2	5.3	100.0	

CHI SQUARE = 11.09142 WITH 15 DEGREES OF FREEDOM SIGNIFICANCE = 0.7461

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SEASONALITY	COUNT		VARIABLE COST: ADVERTISING				ROW
	ROW	PCT	PERCENTAGE				TOTAL
	CCL	PCT					
	TOT	PCT	0%	1%	2%	3%+	
1.0-2.0	1	1	0	2	1	4	
	25.0	0.0	50.0	25.0	20.0		
	14.3	0.0	40.0	100.0			
	5.0	0.0	10.0	5.0			
2.01-3.0	2	1	1	0	4		
	50.0	25.0	25.0	0.0	20.0		
	28.6	14.3	20.0	0.0			
	10.0	5.0	5.0	0.0			
3.01-4.0	3	1	1	0	5		
	60.0	20.0	20.0	0.0	25.0		
	47.9	14.3	20.0	0.0			
	15.0	5.0	5.0	0.0			
4.01-6.0	1	3	0	0	4		
	25.0	75.0	0.0	0.0	20.0		
	14.3	42.9	0.0	0.0			
	5.0	15.0	0.0	0.0			
8.0	0	1	0	0	1		
	0.0	100.0	0.0	0.0	5.0		
	0.0	14.3	0.0	0.0			
	0.0	5.0	0.0	0.0			
9.5	0	1	0	0	1		
	0.0	100.0	0.0	0.0	5.0		
	0.0	14.3	0.0	0.0			
	0.0	5.0	0.0	0.0			
37.0	0	0	1	0	1		
	0.0	0.0	100.0	0.0	5.0		
	0.0	0.0	20.0	0.0			
	0.0	0.0	5.0	0.0			
COLUMN TOTAL	7	7	5	1	23		
	35.0	35.0	25.0	5.0	100.0		

CHI SQUARE = 17.45712 WITH 18 DEGREES OF FREEDOM. SIGNIFICANCE = 0.4724

FIGURE 3: CROSSTABULATION RESULTS
(cont.)

NUMBER OF LOTS	VARIABLE COST: FLOOR PLANNING										ROW	
	COUNT	PERCENTAGE										TOTAL
	ROW PCT	10										
	COL PCT	1										
	TOT PCT	0%	1%	2%	3%	4-7%	8%+					
0	1	1	0	0	0	0	0			1		
	1	100.0	0.0	0.0	0.0	0.0	0.0			2.6		
	1	8.3	0.0	0.0	0.0	0.0	0.0					
	1	2.6	0.0	0.0	0.0	0.0	0.0					
1	1	8	12	4	1	3	0			28		
	1	28.6	42.9	14.3	3.6	10.7	0.0			71.8		
	1	66.7	95.7	57.1	50.0	100.0	0.0					
	1	20.5	30.3	10.3	2.6	7.7	0.0					
2-3	1	3	1	3	1	0	0			8		
	1	37.5	12.5	37.5	12.5	0.0	0.0			20.5		
	1	25.0	7.1	42.9	50.0	0.0	0.0					
	1	7.7	2.6	7.7	2.6	0.0	0.0					
4+	1	0	1	0	0	0	1			2		
	1	0.0	50.0	0.0	0.0	0.0	50.0			5.1		
	1	0.0	7.1	0.0	0.0	0.0	100.0					
	1	0.0	2.6	0.0	0.0	0.0	2.6					
COLUMN TOTAL		12	14	7	2	3	1			39		
TOTAL		30.8	35.9	17.9	5.1	7.7	2.6			100.0		

CHI SQUARE = 27.66643 WITH 15 DEGREES OF FREEDOM SIGNIFICANCE = 0.0238

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

	VARIABLE COST: FLOOR PLANNING							ROW TOTAL
	PERCENTAGE							
	COUNT	0%	1%	2%	3%	4-7%	8%+	
	ROW PCT COL PCT TOT PCT							
TOTAL ANNUAL SALES	0-200K	3	3	1	0	1	0	8
		37.5	37.5	12.5	0.0	12.5	0.0	27.2
		30.0	21.4	14.3	0.0	50.0	0.0	
		8.3	8.3	2.8	0.0	2.8	0.0	
	201-500K	2	6	1	0	0	1	10
		20.0	60.0	10.0	0.0	0.0	10.0	27.8
		20.0	42.9	14.3	0.0	0.0	100.0	-
		5.6	16.7	2.8	0.0	0.0	2.8	
	501-1000K	5	3	0	2	0	0	10
		50.0	30.0	0.0	20.0	0.0	0.0	27.8
		50.0	21.4	0.0	100.0	0.0	0.0	
		13.9	8.3	0.0	5.6	0.0	0.0	
	1001-2000K	0	1	5	0	1	0	7
		0.0	14.3	71.4	0.0	14.3	0.0	19.4
		0.0	7.1	71.4	0.0	50.0	0.0	
		0.0	2.8	13.9	0.0	2.8	0.0	
	2001K+	0	1	0	0	0	0	1
		0.0	100.0	0.0	0.0	0.0	0.0	2.8
		0.0	7.1	0.0	0.0	0.0	0.0	
		0.0	2.8	0.0	0.0	0.0	0.0	
COLUMN TOTAL		10	14	7	2	2	1	36
		27.8	38.9	19.4	5.6	5.6	2.8	100.0

CHI SQUARE = 31.03888 WITH 20 DEGREES OF FREEDOM SIGNIFICANCE = 0.0547

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

TOTAL NUMBER OF SALES PER LOT	VARIABLE COST: FLOOR PLANNING PERCENTAGE								ROW TOTAL
	COUNT	1	1	1	1	1	1	1	
	ROW PCT	1	1	1	1	1	1	1	
	COL PCT	1	1	1	1	1	1	1	
	TOT PCT	0%	1%	2%	3%	4-7%	8%+		
0-30	1	1	1	0	0	0	1	3	3
	1	33.3	33.3	0.0	0.0	0.0	33.3	8.3	
	1	10.0	7.1	0.0	0.0	0.0	100.0		
	1	2.8	2.8	0.0	0.0	0.0	2.3		
31-60	1	1	0	0	0	0	0	1	1
	1	100.0	0.0	0.0	0.0	0.0	0.0	2.8	
	1	10.0	0.0	0.0	0.0	0.0	0.0		
	1	2.8	0.0	0.0	0.0	0.0	0.0		
101-150	1	0	2	1	0	0	0	3	
	1	0.0	66.7	33.3	0.0	0.0	0.0	8.3	
	1	0.0	14.3	14.3	0.0	0.0	0.0		
	1	0.0	5.6	2.8	0.0	0.0	0.0		
151-200	1	1	1	0	0	1	0	3	
	1	33.3	33.3	0.0	0.0	33.3	0.0	8.3	
	1	10.0	7.1	0.0	0.0	50.0	0.0		
	1	2.8	2.8	0.0	0.0	2.8	0.0		
201-300	1	2	2	1	2	0	0	5	
	1	40.0	40.0	20.0	0.0	0.0	0.0	13.9	
	1	20.0	14.3	14.3	0.0	0.0	0.0		
	1	5.6	5.6	2.8	0.0	0.0	0.0		
301+	1	5	3	5	2	1	0	21	
	1	23.8	38.1	23.8	9.5	4.8	0.0	58.3	
	1	50.0	57.1	71.4	100.0	50.0	0.0		
	1	17.9	22.2	13.9	5.6	2.8	0.0		
COLUMN TOTAL	10	14	7	2	2	1		36	
	27.8	38.9	19.4	5.6	5.6	2.8	100.0		

CHI SQUARE = 23.35335 WITH 25 DEGREES OF FREEDOM SIGNIFICANCE = 0.5569

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SALES COMPOSITION	COUNT	VARIABLE COST: FLOOR PLANNING						ROW TOTAL
	RCW PCT	PERCENTAGE						
	COL PCT							
	TOT PCT	0%	1%	2%	3%	8%+		
0-3	1	3	2	5	0	0	5	
	1	60.0	40.0	0.0	0.0	0.0	16.7	
	1	33.3	15.4	0.0	0.0	0.0		
	1	10.0	6.7	0.0	0.0	0.0		
4-5	1	4	6	1	0	0	11	
	1	36.4	54.5	9.1	0.0	0.0	36.7	
	1	44.4	46.2	20.0	0.0	0.0		
	1	13.3	20.0	3.3	0.0	0.0		
6-7	1	1	1	2	1	0	5	
	1	20.0	20.0	40.0	20.0	0.0	16.7	
	1	11.1	7.7	40.0	50.0	0.0		
	1	3.3	3.3	6.7	3.3	0.0		
8-12	1	1	4	1	1	0	7	
	1	14.3	57.1	14.3	14.3	0.0	23.3	
	1	11.1	30.8	20.0	50.0	0.0		
	1	3.3	13.3	3.3	3.3	0.0		
13+	1	0	0	1	0	1	2	
	1	0.0	0.0	50.0	0.0	50.0	6.7	
	1	0.0	0.0	20.0	0.0	100.0		
	1	0.0	0.0	3.3	0.0	3.3		
COLUMN TOTAL		9	13	5	2	1	30	
		30.0	43.3	16.7	6.7	3.3	100.0	

CHI SQUARE = 26.47163 WITH 15 DEGREES OF FREEDOM SIGNIFICANCE = 0.0477

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

CUSTOMER SERVICES	COUNT	RCW PCT	COL PCT	TOT PCT	VARIABLE COST: FLOOR PLANNING						ROW TOTAL
					PERCENTAGE						
		0%	1%	1.5%	2%	3%	4-7%				
	0.0-0.75	0	0	1	0	0	1	1			
	C.0	C.0	100.0	0.0	0.0	0.0	4.3	4.3			
	0.0	0.0	16.7	0.0	0.0	0.0					
	C.0	C.0	4.3	0.0	0.0	0.0					
	.76-1.5	1	2	0	1	0	1	4			
	25.0	50.0	0.0	25.0	0.0	0.0	17.4				
14.3	33.3	0.0	50.0	0.0	0.0						
4.3	8.7	0.0	4.3	0.0	0.0						
1.51-2.0	0	1	3	0	1	1	5				
0.0	20.0	60.0	0.0	20.0	0.0	21.7					
C.0	16.7	50.0	0.0	50.0	0.0						
C.0	4.3	13.0	0.0	4.3	0.0						
2.01-2.5	2	0	0	0	0	0	2				
100.0	0.0	0.0	0.0	0.0	0.0	8.7					
28.6	0.0	0.0	0.0	0.0	0.0						
8.7	0.0	0.0	0.0	0.0	0.0						
2.51-3.0	2	1	1	0	0	0	4				
50.0	25.0	25.0	0.0	0.0	0.0	17.4					
28.6	16.7	16.7	0.0	0.0	0.0						
8.7	4.3	4.3	0.0	0.0	0.0						
3.01-3.5	2	1	0	0	0	1	4				
50.0	25.0	0.0	0.0	25.0	50.0	17.4					
28.6	16.7	0.0	0.0	50.0	0.0						
8.7	4.3	0.0	0.0	4.3	0.0						
3.51-4.5	0	1	1	1	0	0	3				
0.0	33.3	33.3	33.3	0.0	0.0	13.0					
0.0	16.7	16.7	50.0	0.0	0.0						
0.0	4.3	4.3	4.3	0.0	0.0						
COLUMNS	7	6	6	2	2	23					
TOTAL	30.4	26.1	26.1	8.7	8.7	100.0					

CHI SQUARE = 23.61140 WITH 24 DEGREES OF FREEDOM SIGNIFICANCE = 0.4840

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SELLING ADVANTAGES	COUNT	VARIABLE COST: FLOOR PLANNING							ROW
	PCT	PERCENTAGE							TOTAL
	COL	0%	1%	2%	3%	4-7%	8%+		
	PCT								
	TOT								
0-2.0		4	4	4	2	1	0	15	
		26.7	26.7	26.7	13.3	6.7	0.0	39.5	
		33.3	28.6	66.7	100.0	33.3	0.0		
		10.5	10.5	10.5	5.3	2.6	0.0		
2.01-4.0		0	1	0	0	0	1	2	
		0.0	50.0	0.0	0.0	0.0	50.0	5.3	
		0.0	7.1	0.0	0.0	0.0	100.0		
		0.0	2.6	0.0	0.0	0.0	2.6		
4.01-7.0		3	0	1	0	1	0	5	
		60.0	0.0	20.0	0.0	20.0	0.0	13.2	
		25.0	0.0	16.7	0.0	33.3	0.0		
		7.9	0.0	2.6	0.0	2.6	0.0		
7.01-16.0		4	5	0	0	1	0	10	
		40.0	50.0	0.0	0.0	10.0	0.0	26.3	
		33.3	35.7	0.0	0.0	33.3	0.0		
		10.5	13.2	0.0	0.0	2.6	0.0		
16.01-20.0		0	2	0	0	0	0	2	
		0.0	100.0	0.0	0.0	0.0	0.0	5.3	
		0.0	14.3	0.0	0.0	0.0	0.0		
		0.0	5.3	0.0	0.0	0.0	0.0		
20.01-24.0		1	2	1	0	0	0	4	
		25.0	50.0	25.0	0.0	0.0	0.0	10.5	
		8.3	14.3	16.7	0.0	0.0	0.0		
		2.6	5.3	2.6	0.0	0.0	0.0		
COLUMN TOTAL		12	14	6	2	3	1	38	
		31.6	36.8	15.8	5.3	7.9	2.6	100.0	

CHI SQUARE = 34.43355 WITH 25 DEGREES OF FREEDOM SIGNIFICANCE = 0.0990

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SEASONALITY	COUNT	VARIABLE COST: FLOOR PLANNING					ROW
	RCW PCT	PERCENTAGE					TOTAL
	CCL PCT	0%	1%	2%	3%	4-7%	
	TGT PCT						
1.0-2.0	0	1	2	0	1	4	
	0.0	25.0	50.0	0.0	25.0	20.0	
	0.0	12.5	25.0	0.0	100.0		
	0.0	5.0	10.0	0.0	5.0		
2.01-3.0	0	3	1	0	0	4	
	0.0	75.0	25.0	0.0	0.0	20.0	
	0.0	37.5	14.3	0.0	0.0		
	0.0	15.0	5.0	0.0	0.0		
3.01-4.0	3	1	1	0	0	5	
	60.0	20.0	20.0	0.0	0.0	25.0	
	100.0	12.5	14.3	0.0	0.0		
	15.0	5.0	5.0	0.0	0.0		
4.01-6.0	0	2	1	1	0	4	
	0.0	50.0	25.0	25.0	0.0	20.0	
	0.0	25.0	14.3	100.0	0.0		
	0.0	10.0	5.0	5.0	0.0		
8.0	0	0	1	0	0	1	
	0.0	0.0	100.0	0.0	0.0	5.0	
	0.0	0.0	14.3	0.0	0.0		
	0.0	0.0	5.0	0.0	0.0		
9.5	0	1	0	0	0	1	
	0.0	100.0	0.0	0.0	0.0	5.0	
	0.0	12.5	0.0	0.0	0.0		
	0.0	5.0	0.0	0.0	0.0		
37.0	0	0	1	0	0	1	
	0.0	0.0	100.0	0.0	0.0	5.0	
	0.0	0.0	14.3	0.0	0.0		
	0.0	0.0	5.0	0.0	0.0		
COLUMN TOTAL	3	8	7	1	1	20	
	15.0	40.0	35.0	5.0	5.0	100.0	

CHI SQUARE = 24.32127 WITH 24 DEGREES OF FREEDOM SIGNIFICANCE = 0.4434

FIGURE 2: CROSSTABULATION RESULTS
(cont.)

NUMBER OF LOTS	TOTAL VARIABLE COSTS										ROW TOTAL
	COUNT	PERCENTAGE									
	ROW PCT										
	CCL PCT										
	TCT PCT	0-30%	30.01-70%	70.01-80%	80.01-90%	90.01-100%					
0	I	0	0	0	0	1				1	
	I	0.0	0.0	0.0	0.0	100.0				2.6	
	I	0.0	0.0	0.0	0.0	33.3					
	I	0.0	0.0	0.0	0.0	2.6					
1	I	1	3	10	12	2				28	
	I	3.6	10.7	35.7	42.9	7.1				71.8	
	I	100.0	50.0	83.3	70.6	66.7					
	I	2.6	7.7	25.6	30.3	5.1					
2-3	I	0	2	1	5	0				8	
	I	0.0	25.0	12.5	62.5	0.0				20.5	
	I	0.0	33.3	8.3	29.4	0.0					
	I	0.0	5.1	2.6	12.8	0.0					
4+	I	3	1	1	0	0				2	
	I	0.0	50.0	50.0	0.0	0.0				5.1	
	I	0.0	16.7	8.3	0.0	0.0					
	I	0.0	2.6	2.6	0.0	0.0					
COLUMN TOTAL		1	6	12	17	3				39	
		2.6	15.4	30.8	43.6	7.7				100.0	

CHI SQUARE = 19.44507 WITH 12 DEGREES OF FREEDOM SIGNIFICANCE = 0.1028

FIGURE 2: CROSSTABULATION RESULTS
(cont.)

	COUNT		TOTAL VARIABLE COSTS				ROW TOTAL
	ROW PCT		PERCENTAGE				
	COL PCT						
	ICI PCT						
			30.01-70%	70.01-80%	80.01-90%	90.01-100%	
TOTAL ANNUAL SALES	0-200K	I	0	2	2	3	7
		I	0.0	28.6	28.6	42.9	19.4
		I	0.0	16.7	12.5	100.0	
		I	0.0	5.6	5.6	8.3	
	201-500K	I	2	3	5	0	10
		I	20.0	30.0	50.0	0.0	27.8
		I	40.0	25.0	31.3	0.0	
		I	5.6	8.3	13.9	0.0	
	501-1000K	I	2	3	5	0	10
		I	20.0	30.0	50.0	0.0	27.8
		I	40.0	25.0	31.3	0.0	
		I	5.6	8.3	13.9	0.0	
	1001-2000K	I	1	3	4	0	8
		I	12.5	37.5	50.0	0.0	22.2
		I	20.0	25.0	25.0	0.0	
		I	2.8	8.3	11.1	0.0	
	2001K+	I	0	1	0	0	1
		I	0.0	100.0	0.0	0.0	2.8
		I	0.0	8.3	0.0	0.0	
		I	0.0	2.8	0.0	0.0	
COLUMN		5	12	16	3	36	
TOTAL		13.9	33.3	44.4	8.3	100.0	

CHI SQUARE = 16.61354 WITH 12 DEGREES OF FREEDOM SIGNIFICANCE = 0.1647

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

TOTAL NUMBER OF SALES PER LOT	TOTAL VARIABLE COSTS						ROW TOTAL
	PERCENTAGE						
	COUNT						
	ROW PCT						
	COL PCT						
	TOT PCT	30.01-70%	70.01-80%	80.01-90%	90.01-100%		
0-30	1	1	0	0	2	3	
	1	33.3	0.0	0.0	66.7	8.3	
	1	26.0	0.0	0.0	66.7		
	1	2.8	0.0	0.0	5.6		
31-60	1	0	1	0	0	1	
	1	0.0	100.0	0.0	0.0	2.8	
	1	0.0	8.3	0.0	0.0		
	1	0.0	2.8	0.0	0.0		
61-100	1	0	1	2	0	3	
	1	0.0	33.3	66.7	0.0	8.3	
	1	0.0	8.3	12.5	0.0		
	1	0.0	2.8	5.6	0.0		
151-200	1	0	0	1	1	2	
	1	0.0	0.0	50.0	50.0	5.6	
	1	0.0	0.0	6.3	33.3		
	1	0.0	0.0	2.8	2.8		
201-300	1	1	0	4	0	5	
	1	26.0	0.0	80.0	0.0	13.9	
	1	20.0	0.0	25.0	0.0		
	1	7.8	0.0	11.1	0.0		
301+	1	3	10	9	0	22	
	1	13.6	45.5	40.9	0.0	61.1	
	1	60.0	83.3	56.3	0.0		
	1	8.3	27.8	25.0	0.0		
COLUMN TOTAL		5	12	16	3	36	
		13.9	33.3	44.4	8.3	100.0	

CHI SQUARE = 30.03073 WITH 15 DEGREES OF FREEDOM SIGNIFICANCE = 0.0118

FIGURE 2: CROSSTABULATION RESULTS
(cont.)

		TOTAL VARIABLES COSTS PERCENTAGE				ROW TOTAL
COUNT	I					
ROW PCT	I					
COL PCT	I					
TOT PCT	I	30.01-70%	70.01-80%	80.01-90%	90.01-100%	
0-3	I	0	1	2	2	5
	I	0.0	20.0	40.0	40.0	16.7
	I	0.0	11.1	14.3	100.0	
	I	0.0	3.3	6.7	6.7	
4-5	I	2	4	5	0	11
	I	18.2	36.4	45.5	0.0	36.7
	I	40.0	44.4	35.7	0.0	
	I	6.7	13.3	16.7	0.0	
6-7	I	1	1	3	0	5
	I	20.0	20.0	60.0	0.0	16.7
	I	20.0	11.1	21.4	0.0	
	I	3.3	3.3	10.0	0.0	
8-12	I	0	3	4	0	7
	I	0.0	42.9	57.1	0.0	23.3
	I	0.0	33.3	28.6	0.0	
	I	0.0	10.0	13.3	0.0	
13+	I	2	0	0	0	2
	I	100.0	0.0	0.0	0.0	6.7
	I	40.0	0.0	0.0	0.0	
	I	6.7	0.0	0.0	0.0	
COLUMN TOTAL		5 16.7	9 30.0	14 46.7	2 6.7	30 100.0

SALES COMPOSITION

CHI SQUARE = 23.1881 WITH 12 DEGREES OF FREEDOM SIGNIFICANCE = 0.0262

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

	TOTAL VARIABLE COSTS					ROW TOTAL	
	PERCENTAGE						
	COUNT	PCT	COUNT	PCT	COUNT		
	ROW	PCT	COL	PCT	COL		
	TOT	PCT	30.01-70%	70.01-80%	80.01-90%	90.01-100%	
CUSTOMER SERVICES	0.0-0.75	1	0	0	1	0	1
			0.0	0.0	100.0	0.0	4.5
			0.0	0.0	10.0	0.0	
			0.0	0.0	4.5	0.0	
	.76-1.5	1	1	1	2	0	4
			25.0	25.0	50.0	0.0	18.2
			33.3	14.3	20.0	0.0	
			4.5	4.5	9.1	0.0	
	1.51-2.0	1	1	1	4	0	5
			0.0	20.0	80.0	0.0	22.7
			0.0	14.3	40.0	0.0	
			0.0	4.5	18.2	0.0	
	2.01-2.5	1	2	1	0	0	2
			0.0	100.0	0.0	0.0	9.1
			0.0	28.6	0.0	0.0	
			0.0	9.1	0.0	0.0	
	2.51-3.0	1	1	1	2	1	4
			0.0	25.0	50.0	25.0	18.2
			0.0	14.3	20.0	50.0	
			0.0	4.5	9.1	4.5	
	3.01-3.5	1	2	1	0	0	3
			33.3	66.7	0.0	0.0	13.6
			33.3	28.6	0.0	0.0	
			4.5	9.1	0.0	0.0	
3.51-4.5	1	0	1	1	1	3	
		33.3	0.0	33.3	33.3	13.6	
		33.3	0.0	10.0	50.0		
		4.5	0.0	4.5	4.5		
COLUMNS		3	7	10	2	22	
TOTAL		13.6	31.8	45.5	9.1	100.0	

CHI SQUARE = 18.18837 WITH 18 DEGREES OF FREEDOM SIGNIFICANCE = 0.4433

FIGURE 2: CROSSTABULATION RESULTS
(cont.)

SELLING ADVANTAGES	COUNT		TOTAL VARIABLE COSTS					ROW TOTAL
	ROW PCT		PERCENTAGE					
	COL PCT							
	YCT PCT		0-30%	30.01-70%	70.01-80%	80.01-90%	90.01-100%	
0-2.0		1	0	4	8	1	14	
		7.1	0.0	28.6	57.1	7.1	36.8	
		100.0	0.0	33.3	50.0	33.3		
		2.6	0.0	10.5	21.1	2.6		
2.01-4.0		0	1	1	0	0	2	
		0.0	50.0	50.0	0.0	0.0	5.3	
		0.0	16.7	3.3	0.0	0.0		
		0.0	2.6	2.6	0.0	0.0		
4.01-7.0		3	1	0	0	1	5	
		0.0	60.0	20.0	0.0	20.0	13.2	
		0.0	50.0	8.3	0.0	33.3		
		0.0	7.9	2.6	0.0	2.6		
7.01-16.0		0	0	4	5	1	10	
		0.0	0.0	40.0	50.0	10.0	26.3	
		0.0	0.0	33.3	31.3	33.3		
		0.0	0.0	10.5	13.2	2.6		
16.01-20.0		0	0	0	2	0	2	
		0.0	0.0	0.0	100.0	0.0	5.3	
		0.0	0.0	0.0	17.3	0.0		
		0.0	0.0	0.0	5.3	0.0		
20.01-24.0		0	2	2	1	0	5	
		0.0	40.0	40.0	20.0	0.0	13.2	
		0.0	33.3	16.7	5.3	0.0		
		0.0	5.3	5.3	2.6	0.0		
COLUMN TOTAL		1	6	12	16	3	38	
		2.6	15.8	31.6	42.1	7.9	100.0	

CHI SQUARE = 24.50761 WITH 20 DEGREES OF FREEDOM SIGNIFICANCE = 0.2209

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SEASONALITY	TOTAL VARIABLE COSTS						
	COUNT	PERCENTAGE					ROW
	ROW PCT						TOTAL
	CGL PCT						
	TOT PCT	30.01-70%	70.01-80%	80.01-90%			
1.0-2.0	2	1	1			4	
	50.0	25.0	25.0			20.0	
	66.7	14.3	10.0				
	10.0	5.0	5.0				

2.01-3.0	0	1	3			4	
	0.0	25.0	75.0			20.0	
	0.0	14.3	30.0				
	0.0	5.0	15.0				

3.01-4.0	0	3	2			5	
	0.0	60.0	40.0			25.0	
	0.0	42.9	20.0				
	0.0	15.0	10.0				

4.01-6.0	1	1	2			4	
	25.0	25.0	50.0			20.0	
	33.3	14.3	20.0				
	5.0	5.0	10.0				

8.0	0	0	1			1	
	0.0	0.0	100.0			5.0	
	0.0	0.0	10.0				
	0.0	0.0	5.0				

9.5	0	1	0			1	
	0.0	100.0	0.0			5.0	
	0.0	14.3	0.0				
	0.0	5.0	0.0				

37.0	0	0	1			1	
	0.0	0.0	100.0			5.0	
	0.0	0.0	10.0				
	0.0	0.0	5.0				

COLUMN TOTAL	3	7	10			20	
	15.0	35.0	50.0			100.0	

CHI SQUARE = 11.07612 WITH 12 DEGREES OF FREEDOM SIGNIFICANCE = 0.5224

FIGURE 2: CROSSTABULATION RESULTS
(cont.)

NUMBER OF LOTS	COUNT	FIXED COST: TRANSPORTATION TO DEALER							ROW TOTAL
	ROW PCT	PERCENTAGE							
	COL PCT	0%	1%	2%	3%	4%	5%+		
	TOT PCT								
0		0	1	0	0	0	0	1	
		0.0	100.0	0.0	0.0	0.0	0.0	2.6	
		0.0	14.3	0.0	0.0	0.0	0.0		
		0.0	2.6	0.0	0.0	0.0	0.0		
1		8	6	6	4	0	4	28	
		28.6	21.4	21.4	14.3	0.0	14.3	71.8	
		80.0	85.7	50.0	66.7	0.0	80.0		
		20.5	15.4	15.4	10.3	0.0	10.3		
2-3		2	0	3	1	1	1	8	
		25.0	0.0	37.5	12.5	12.5	12.5	20.5	
		20.0	0.0	30.0	16.7	100.0	20.0		
		5.1	0.0	7.7	2.6	2.6	2.6		
4+		0	0	1	1	0	0	2	
		0.0	0.0	50.0	50.0	0.0	0.0	5.1	
		0.0	0.0	10.0	16.7	0.0	0.0		
		0.0	0.0	2.6	2.6	0.0	0.0		
COLUMN TOTAL		10	7	10	6	1	5	39	
		25.6	17.9	25.6	15.4	2.6	12.8	100.0	

CHI SQUARE = 14.03468 WITH 15 DEGREES OF FREEDOM SIGNIFICANCE = 0.5229

FIGURE 2: CROSSTABULATION RESULTS
(cont.)

TOTAL ANNUAL SALES	COUNT	FIXED COST: TRANSPORTATION TO DEALER						ROW
	ROW PCT	PERCENTAGE						TOTAL
	COL PCT	0%	1%	2%	3%	4%	5%+	
	TOT PCT	0%	1%	2%	3%	4%	5%+	
		0%	1%	2%	3%	4%	5%+	
0-200K	2	1	2	2	0	0	7	
	23.6	14.3	28.6	28.6	0.0	0.0	19.4	
	28.6	14.3	20.0	33.3	0.0	0.0		
	5.6	2.8	5.6	5.6	0.0	0.0		
201-500K	1	4	4	0	0	1	10	
	10.0	40.0	40.0	0.0	0.0	10.0	27.8	
	14.3	57.1	40.0	0.0	0.0	20.0		
	2.8	11.1	11.1	0.0	0.0	2.8		
501-1000K	3	1	2	2	1	1	10	
	30.0	10.0	20.0	20.0	10.0	10.0	27.8	
	42.9	14.3	20.0	33.3	100.0	20.0		
	9.3	2.8	5.6	5.6	2.8	2.8		
1001-2000K	1	1	2	1	0	3	3	
	12.5	12.5	25.0	12.5	0.0	37.5	22.2	
	14.3	14.3	20.0	16.7	0.0	60.0		
	2.8	2.8	5.6	2.8	0.0	8.3		
2001K+	0	0	0	1	0	0	1	
	0.0	0.0	0.0	100.0	0.0	0.0	2.8	
	0.0	0.0	0.0	16.7	0.0	0.0		
	0.0	0.0	0.0	2.8	0.0	0.0		
COLUMN TOTAL	7	7	10	6	1	5	36	
	19.4	19.4	27.8	16.7	2.8	13.9	100.0	

CHI SQUARE = 19.62059 WITH 20 DEGREES OF FREEDOM SIGNIFICANCE = 0.4919

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

TOTAL NUMBER OF SALES PER LOT	COUNT	FIXED COST: TRANSPORTATION TO DEALER						ROW
	ROW PCT	PERCENTAGE						TOTAL
	COL PCT	0%	1%	2%	3%	4%	5%+	
	TOT PCT							
0-30	I	I	I	I	I	I	I	I
	I	1	1	1	0	0	0	3
	I	33.3	33.3	33.3	0.0	0.0	0.0	8.3
	I	14.3	14.3	10.0	0.0	0.0	0.0	I
31-60	I	2.8	2.8	2.8	0.0	0.0	0.0	I
	I	I	I	I	I	I	I	I
	I	0	0	0	1	9	0	1
	I	0.0	0.0	0.0	100.0	0.0	0.0	2.8
101-150	I	0.0	0.0	0.0	16.7	0.0	0.0	I
	I	0.0	0.0	0.0	2.8	0.0	0.0	I
	I	I	I	I	I	I	I	I
	I	1	0	2	0	0	0	3
151-200	I	33.3	0.0	66.7	0.0	0.0	0.0	8.3
	I	14.3	0.0	20.0	0.0	0.0	0.0	I
	I	2.8	0.0	5.6	0.0	0.0	0.0	I
	I	I	I	I	I	I	I	I
201-300	I	0	0	1	1	0	0	2
	I	0.0	0.0	50.0	50.0	0.0	0.0	5.6
	I	0.0	0.0	10.0	16.7	0.0	0.0	I
	I	0.0	0.0	2.8	2.8	0.0	0.0	I
301+	I	I	I	I	I	I	I	I
	I	0	2	2	0	0	1	5
	I	0.0	40.0	40.0	0.0	0.0	20.0	13.9
	I	0.0	28.6	20.0	0.0	0.0	20.0	I
COLUMNS	I	0.0	5.6	5.6	0.0	0.0	2.8	I
	I	I	I	I	I	I	I	I
	I	5	4	4	4	1	4	22
	I	22.7	18.2	18.2	16.2	4.5	18.2	61.1
TOTAL	I	71.4	57.1	40.0	66.7	100.0	80.0	I
	I	13.9	11.1	11.1	11.1	2.8	11.1	I
	I	I	I	I	I	I	I	I
	I	7	7	10	6	1	5	36
TOTAL		19.4	19.4	27.8	16.7	2.8	13.9	100.0

CHI SQUARE = 17.81602 WITH 25 DEGREES OF FREEDOM SIGNIFICANCE = 0.8501

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SALES COMPOSITION

COUNT	RCW PCT	COL PCT	TOT PCT	FIXED COST: TRANSPORTATION TO DEALER							ROW TOTAL									
				PERCENTAGE																
				0%	1%	2%	3%	4%	5%+											
				1	1	1	2	0	0											
0-3	1	1	1	1	1	1	1	1	1	5										
	20.0	20.0	20.0	40.0	0.0	0.0	16.7	16.7	14.3	33.3	0.0	0.0	0.0	3.3	3.3	6.7	0.0	0.0	0.0	16.7
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
4-5	1	2	4	1	1	1	1	0	3	11										
	18.2	36.4	9.1	9.1	0.0	27.3	36.7	33.3	66.7	14.3	16.7	0.0	75.0	6.7	13.3	3.3	0.0	10.0	36.7	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
6-7	1	1	1	2	0	1	0	1	0	5										
	20.0	20.0	40.0	0.0	20.0	0.0	16.7	16.7	28.6	0.0	100.0	0.0	0.0	3.3	3.3	0.0	0.0	16.7		
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
8-12	1	2	0	2	2	0	1	1	7											
	28.6	0.0	28.6	28.6	0.0	14.3	33.3	0.0	28.6	33.3	0.0	25.0	6.7	0.0	6.7	0.0	3.3	23.3		
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
13+	1	0	0	1	1	0	0	2												
	0.0	0.0	50.0	50.0	0.0	0.0	0.0	0.0	0.0	14.3	16.7	0.0	0.0	0.0	0.0	3.3	3.3	0.0	0.0	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
COLUMN TOTAL				6	6	7	6	1	4	30										
				20.0	20.0	23.3	20.0	3.3	13.3	100.0										

CHI SQUARE = 18.23465 WITH 20 DEGREES OF FREEDOM SIGNIFICANCE = 0.5720

FIGURE 2: CROSSTABULATION RESULTS
(cont.)

	COUNT	ROW PCT	COL PCT	TOT PCT	FIXED COST PERCENTAGE						TRANSPORTATION TO DEALER	ROW TOTAL
					0%	1%	2%	3%	4%	5%+		
CUSTOMER SERVICES	0.0-0.75	0	0	0	0	0	0	0	0	1	1	
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	4.5	
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0		
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5		
	.76-1.5	0	0	1	1	1	1	1	1	1	4	
		0.0	0.0	25.0	25.0	25.0	25.0	25.0	25.0	19.2		
		0.0	0.0	50.0	25.0	100.0	25.0					
		0.0	0.0	4.5	4.5	4.5	4.5	4.5	4.5			
	1.51-2.0	1	2	1	0	0	0	0	1	1	5	
		20.0	40.0	20.0	0.0	0.0	0.0	0.0	20.0	22.7		
		16.7	40.0	50.0	0.0	0.0	0.0	0.0	25.0			
		4.5	9.1	4.5	0.0	0.0	0.0	0.0	4.5			
	2.01-2.5	0	1	0	1	0	1	0	0	0	2	
		0.0	50.0	0.0	50.0	0.0	0.0	0.0	0.0	9.1		
		0.0	20.0	0.0	25.0	0.0	0.0	0.0	0.0			
		0.0	4.5	0.0	4.5	0.0	0.0	0.0	0.0			
	2.51-3.0	2	1	0	0	0	0	0	1	4		
		50.0	25.0	0.0	0.0	0.0	0.0	0.0	25.0	18.2		
		33.3	20.0	0.0	0.0	0.0	0.0	0.0	25.0			
		9.1	4.5	0.0	0.0	0.0	0.0	0.0	4.5			
	3.01-3.5	2	0	0	1	0	0	0	0	3		
	66.7	0.0	0.0	33.3	0.0	0.0	0.0	0.0	13.6			
	33.3	0.0	0.0	25.0	0.0	0.0	0.0	0.0				
	9.1	0.0	0.0	4.5	0.0	0.0	0.0	0.0				
3.51-4.5	1	1	0	1	0	0	0	0	3			
	33.3	33.3	0.0	33.3	0.0	0.0	0.0	0.0	13.6			
	16.7	20.0	0.0	25.0	0.0	0.0	0.0	0.0				
	4.5	4.5	0.0	4.5	0.0	0.0	0.0	0.0				
COLUMN TOTAL		6	5	2	4	1	4		22			
		27.3	22.7	9.1	12.2	4.5	19.2		100.0			

CHI SQUARE = 24.38925 WITH 30 DEGREES OF FREEDOM SIGNIFICANCE = 0.7541

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SELLING ADVANTAGES

COUNT	ROW PCT	FIXED COST: TRANSPORTATION TO DEALER						ROW TOTAL
COL PCT	TOT PCT	PERCENTAGE						
		0%	1%	2%	3%	4%	5%+	
0-2.0		3	3	1	3	1	3	14
		21.4	21.4	7.1	21.4	7.1	21.4	36.8
		33.3	42.9	10.0	50.0	100.0	60.0	
		7.9	7.9	2.6	7.9	2.6	7.9	
2.01-4.0		1	0	1	0	0	0	2
		50.0	0.0	50.0	0.0	0.0	0.0	5.3
		11.1	0.0	10.0	0.0	0.0	0.0	
		2.6	0.0	2.6	0.0	0.0	0.0	
4.01-7.0		1	3	0	0	0	1	5
		20.0	60.0	0.0	0.0	0.0	20.0	13.2
		11.1	42.9	0.0	0.0	0.0	20.0	
		2.6	7.9	0.0	0.0	0.0	2.6	
7.01-16.0		4	0	4	1	0	1	10
		40.0	0.0	40.0	10.0	0.0	10.0	26.3
		44.4	0.0	40.0	16.7	0.0	20.0	
		10.5	0.0	10.5	2.6	0.0	2.6	
16.01-20.0		0	0	1	1	0	0	2
		0.0	0.0	50.0	50.0	0.0	0.0	5.3
		0.0	0.0	10.0	16.7	0.0	0.0	
		0.0	0.0	2.6	2.6	0.0	0.0	
20.01-24.0		0	1	3	1	0	0	5
		0.0	20.0	60.0	20.0	0.0	0.0	13.2
		0.0	14.3	30.0	16.7	0.0	0.0	
		0.0	2.6	7.9	2.6	0.0	0.0	
COLUMN TOTAL		9	7	10	6	1	5	38
TOTAL		23.7	19.4	26.3	15.8	2.6	13.2	100.0

CHI SQUARE = 24.78174 WITH 25 DEGREES OF FREEDOM SIGNIFICANCE = 0.4747

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SEASONALITY	COUNT	FIXED COST, TRANSPORTATION TO DEALER							ROW
	ROW PCT	PERCENTAGE							TOTAL
	COL PCT								
	TOT PCT	0%	1%	2%	3%	4%	5%+		
1.0-2.0	1	0	2	1	1	0	0	4	
	1	0.0	50.0	25.0	25.0	0.0	0.0	20.0	
	1	0.0	33.3	25.0	50.0	0.0	0.0		
	1	0.0	10.0	5.0	5.0	0.0	0.0		
2.01-3.0	1	2	1	1	0	0	0	4	
	1	50.0	25.0	25.0	0.0	0.0	0.0	20.0	
	1	50.0	16.7	25.0	0.0	0.0	0.0		
	1	10.0	5.0	5.0	0.0	0.0	0.0		
3.01-4.0	1	1	2	1	0	0	1	5	
	1	20.0	40.0	20.0	0.0	0.0	20.0	25.0	
	1	25.0	33.3	25.0	0.0	0.0	33.3		
	1	5.0	10.0	5.0	0.0	0.0	5.0		
4.01-6.0	1	0	1	1	1	1	0	4	
	1	0.0	25.0	25.0	25.0	25.0	0.0	20.0	
	1	0.0	16.7	25.0	50.0	100.0	0.0		
	1	0.0	5.0	5.0	5.0	5.0	0.0		
8.0	1	0	0	0	0	0	1	1	
	1	0.0	0.0	0.0	0.0	0.0	100.0	5.0	
	1	0.0	0.0	0.0	0.0	0.0	33.3		
	1	0.0	0.0	0.0	0.0	0.0	5.0		
9.5	1	0	0	0	0	0	1	1	
	1	0.0	0.0	0.0	0.0	0.0	100.0	5.0	
	1	0.0	0.0	0.0	0.0	0.0	33.3		
	1	0.0	0.0	0.0	0.0	0.0	5.0		
37.0	1	1	0	0	0	0	0	1	
	1	100.0	0.0	0.0	0.0	0.0	0.0	5.0	
	1	25.0	0.0	0.0	0.0	0.0	0.0		
	1	5.0	0.0	0.0	0.0	0.0	0.0		
COLUMN	4	6	4	2	1	3	20		
TOTAL	20.0	30.0	20.0	10.0	5.0	15.0	100.0		

CHI SQUARE = 28.05322 WITH 30 DEGREES OF FREEDOM SIGNIFICANCE = 0.5460

FIGURE 2: CROSSTABULATION RESULTS
(cont.)

NUMBER OF LOTS	COUNT	FIXED COST: TRANSPORTATION TO LOT					ROW
	ROW PCT	PERCENTAGE					TOTAL
	CUL PCT	0%	1%	2%	3%	5%+	
	TOT PCT	0%	1%	2%	3%	5%+	
	TOT PCT	0%	1%	2%	3%	5%+	
0	1	1	0	0	0	0	1
	100.0	0.0	0.0	0.0	0.0	0.0	2.6
	5.0	0.0	0.0	0.0	0.0	0.0	
	2.6	0.0	0.0	0.0	0.0	0.0	
1	1	17	7	3	0	1	28
	60.7	25.0	10.7	0.0	3.6		71.8
	85.0	58.3	75.0	0.0	50.0		
	43.6	17.9	7.7	0.0	2.6		
2-3	1	2	4	0	1	1	8
	25.0	50.0	0.0	17.5	12.5		20.5
	10.0	33.3	0.0	100.0	50.0		
	5.1	10.3	0.0	2.6	2.6		
4+	1	0	1	1	0	0	2
	0.0	50.0	50.0	0.0	0.0		5.1
	0.0	8.3	25.0	0.0	0.0		
	0.0	2.6	2.6	0.0	0.0		
COLUMN TOTAL		20	12	4	1	2	39
		51.3	30.8	10.3	2.6	5.1	100.0

CHI SQUARE = 13.08213 WITH 12 DEGREES OF FREEDOM SIGNIFICANCE = 0.3083

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

TOTAL ANNUAL SALES	COUNT	FIXED COST: TRANSPORTATION TO LOT					ROW
	ROW PCT	PERCENTAGE					TOTAL
	COL PCT	0%	1%	2%	3%	5%+	
	TOT PCT						
0-200K	5	2	0	0	0	7	
	71.4	28.6	0.0	0.0	0.0	19.4	
	27.8	16.7	0.0	0.0	0.0		
	13.9	5.6	0.0	0.0	0.0		
201-500K	5	2	3	0	0	10	
	50.0	20.0	30.0	0.0	0.0	27.8	
	27.8	16.7	75.0	0.0	0.0		
	13.9	5.6	3.3	0.0	0.0		
501-1000K	4	4	1	0	1	10	
	40.0	40.0	10.0	0.0	10.0	27.3	
	22.2	33.3	25.0	0.0	100.0		
	11.1	11.1	2.8	0.0	2.8		
1001-2000K	4	3	0	1	0	8	
	50.0	37.5	0.0	17.5	0.0	22.2	
	22.2	25.0	0.0	100.0	0.0		
	11.1	8.3	0.0	2.8	0.0		
2001K+	0	1	0	0	0	1	
	0.0	100.0	0.0	0.0	0.0	2.8	
	0.0	8.3	0.0	0.0	0.0		
	0.0	2.8	0.0	0.0	0.0		
COLUMN TOTAL	18	12	4	1	1	36	
	50.0	33.3	11.1	2.8	2.8	100.0	

CHI SQUARE = 14.53214 WITH 16 DEGREES OF FREEDOM SIGNIFICANCE = 0.5591

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

TOTAL NUMBER OF SALES PER LOT	FIXED COST: TRANSPORTATION TO LOT							ROW TOTAL
	PERCENTAGE							
	0%	1%	2%	3%	5%+			
	COUNT	COUNT	COUNT	COUNT	COUNT	COUNT	COUNT	
0-30	1	1	1	0	0		3	
	33.3	33.3	33.3	0.0	0.0		8.3	
	5.6	8.3	25.0	0.0	0.0			
	2.8	2.8	2.8	0.0	0.0			
31-60	1	0	0	0	0		1	
	100.0	0.0	0.0	0.0	0.0		2.8	
	5.6	0.0	0.0	0.0	0.0			
	2.8	0.0	0.0	0.0	0.0			
101-150	1	2	0	0	0		3	
	33.3	66.7	0.0	0.0	0.0		8.3	
	5.6	16.7	0.0	0.0	0.0			
	2.8	5.6	0.0	0.0	0.0			
151-200	2	0	0	0	0		2	
	100.0	0.0	0.0	0.0	0.0		5.6	
	11.1	0.0	0.0	0.0	0.0			
	5.6	0.0	0.0	0.0	0.0			
201-300	3	0	2	0	0		5	
	60.0	0.0	40.0	0.0	0.0		13.9	
	16.7	0.0	50.0	0.0	0.0			
	8.3	0.0	5.6	0.0	0.0			
301+	10	9	1	1	1		22	
	45.5	40.9	4.5	4.5	4.5		61.1	
	55.6	75.0	25.0	100.0	100.0			
	27.3	25.0	2.8	2.8	2.8			
COLUMN TOTAL	18	12	4	1	1		36	
	50.0	33.3	11.1	2.8	2.8		100.0	

CHI SQUARE = 13.95150 WITH 20 DEGREES OF FREEDOM SIGNIFICANCE = 0.8329

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SALES COMPOSITION	COUNT		FIXED COST: TRANSPORTATION TO LOT					ROW TOTAL
	ROW PCT	COL PCT	PERCENTAGE					
	TOT PCT	0%	1%	2%	3%	5%+		
0-3	4	1	0	0	0		5	
	90.0	20.0	0.0	0.0	0.0		16.7	
	30.8	9.1	0.0	0.0	0.0			
	13.3	3.3	0.0	0.0	0.0			
4-5	5	3	2	0	1		11	
	45.5	27.3	18.2	0.0	9.1		36.7	
	38.5	27.3	50.0	0.0	100.0			
	16.7	10.0	6.7	0.0	3.3			
6-7	2	3	0	0	0		5	
	40.0	60.0	0.0	0.0	0.0		16.7	
	15.4	27.3	0.0	0.0	0.0			
	6.7	10.0	0.0	0.0	0.0			
8-12	2	4	1	0	0		7	
	28.6	57.1	14.3	0.0	0.0		23.3	
	15.4	36.4	25.0	0.0	0.0			
	6.7	13.3	3.3	0.0	0.0			
13+	0	0	1	1	0		2	
	0.0	0.0	50.0	50.0	0.0		6.7	
	0.0	0.0	25.0	100.0	0.0			
	0.0	0.0	3.3	3.3	0.0			
COLUMN TOTAL	13	11	4	1	1		30	
	43.3	36.7	13.3	3.3	3.3		100.0	

CHI SQUARE = 24.98987 WITH 16 DEGREES OF FREEDOM SIGNIFICANCE = 0.0700

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

	COUNT		FIXED COST: TRANSPORTATION TO LOT				ROW TOTAL	
	ROW PCT	COL PCT	PERCENTAGE					
	0%	1%	2%	5%+				
	0%	1%	2%	5%+				
CUSTOMER SERVICES	0.0-0.75	1	0	0	0	1	4.5	
	100.0	0.0	0.0	0.0	0.0	1		
		11.1	0.0	0.0	0.0	1		
		4.5	0.0	0.0	0.0	1		

	.76-1.5	1	3	0	0	4	18.2	
		25.0	75.0	0.0	0.0	0.0	1	
		11.1	30.0	0.0	0.0	0.0	1	
		4.5	13.6	0.0	0.0	0.0	1	

	1.51-2.0	1	3	1	0	5	22.7	
		20.0	60.0	20.0	0.0	0.0	1	
		11.1	30.0	50.0	0.0	0.0	1	
		4.5	13.6	4.5	0.0	0.0	1	

	2.01-2.5	2	0	0	0	2	9.1	
		100.0	0.0	0.0	0.0	0.0	1	
		22.2	0.0	0.0	0.0	0.0	1	
		9.1	0.0	0.0	0.0	0.0	1	

	2.51-3.0	2	1	1	0	4	18.2	
		50.0	25.0	25.0	0.0	0.0	1	
		22.2	10.0	50.0	0.0	0.0	1	
		9.1	4.5	4.5	0.0	0.0	1	

	3.01-3.5	0	2	0	1	3	13.6	
		0.0	66.7	0.0	33.3	0.0	1	
		0.0	20.0	0.0	100.0	0.0	1	
	0.0	9.1	0.0	4.5	0.0	1		

3.51-4.5	2	1	0	0	3	11.6		
	66.7	33.3	0.0	0.0	0.0	1		
	22.2	10.0	0.0	0.0	0.0	1		
	9.1	4.5	0.0	0.0	0.0	1		

COLUMN TOTAL	9	10	2	1	22	100.0		
	40.9	45.5	9.1	4.5				

CHI SQUARE = 17.54698 WITH 18 DEGREES OF FREEDOM SIGNIFICANCE = 0.4858

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SELLING ADVANTAGES	COUNT	FIXED COST: TRANSPORTATION TO LOT					ROW
	ROW PCT	PERCENTAGE					TOTAL
	COL PCT	0%	1%	2%	3%	5%+	
	TOT PCT						
0-2.0	8	4	2	0	0	14	
	57.1	28.6	14.3	0.0	0.0	36.8	
	40.0	36.4	50.0	0.0	0.0		
	21.1	10.5	5.3	0.0	0.0		
2.01-4.0	0	1	1	0	0	2	
	0.0	50.0	50.0	0.0	0.0	5.3	
	0.0	9.1	25.0	0.0	0.0		
	0.0	2.6	2.6	0.0	0.0		
4.01-7.0	7	2	0	0	1	5	
	40.0	40.0	0.0	0.0	20.0	13.2	
	10.0	19.2	0.0	0.0	50.0		
	5.3	5.3	0.0	0.0	2.6		
7.01-16.0	5	4	1	0	0	10	
	50.0	40.0	10.0	0.0	0.0	26.3	
	25.0	36.4	25.0	0.0	0.0		
	12.2	10.5	2.6	0.0	0.0		
16.01-20.0	2	0	0	0	0	2	
	100.0	0.0	0.0	0.0	0.0	5.3	
	10.0	0.0	0.0	0.0	0.0		
	5.3	0.0	0.0	0.0	0.0		
20.01-24.0	3	0	0	1	1	5	
	60.0	0.0	0.0	20.0	20.0	13.2	
	15.0	0.0	0.0	100.0	50.0		
	7.9	0.0	0.0	2.6	2.6		
COLUMN TOTAL		20	11	4	1	2	38
		52.5	28.9	10.5	2.6	5.3	100.0

CHI SQUARE = 21.75621 WITH 20 DEGREES OF FREEDOM SIGNIFICANCE = 0.3539

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

FIXED COST:
TRANSPORTATION
TO LOT

SEASONALITY	COUNT	FIXED COST: TRANSPORTATION TO LOT						ROW
	ROW PCT	PERCENTAGE						TOTAL
	CGL PCT							
	TOT PCT	0%	1%	2%	3%	5%+		
1.0-2.0	1	0	2	0	1	1	4	
	I	0.0	50.0	0.0	25.0	25.0	20.0	
	I	0.0	25.0	0.0	100.0	100.0		
	I	0.0	10.0	0.0	5.0	5.0		
2.01-3.0	1	1	2	1	0	0	4	
	I	25.0	50.0	25.0	0.0	0.0	20.0	
	I	11.1	25.0	100.0	0.0	0.0		
	I	5.0	10.0	5.0	0.0	0.0		
3.01-4.0	1	4	1	0	0	0	5	
	I	80.0	20.0	0.0	0.0	0.0	25.0	
	I	44.4	12.5	0.0	0.0	0.0		
	I	20.0	5.0	0.0	0.0	0.0		
4.01-6.0	1	2	2	0	0	0	4	
	I	50.0	50.0	0.0	0.0	0.0	20.0	
	I	22.2	25.0	0.0	0.0	0.0		
	I	10.0	10.0	0.0	0.0	0.0		
8.0	1	1	0	0	0	0	1	
	I	100.0	0.0	0.0	0.0	0.0	5.0	
	I	11.1	0.0	0.0	0.0	0.0		
	I	5.0	0.0	0.0	0.0	0.0		
9.5	1	1	0	0	0	0	1	
	I	100.0	0.0	0.0	0.0	0.0	5.0	
	I	11.1	0.0	0.0	0.0	0.0		
	I	5.0	0.0	0.0	0.0	0.0		
37.0	1	0	1	0	0	0	1	
	I	0.0	100.0	0.0	0.0	0.0	5.0	
	I	0.0	12.5	0.0	0.0	0.0		
	I	0.0	5.0	0.0	0.0	0.0		
COLUMN		9	8	1	1	1	20	
TOTAL		45.0	40.0	5.0	5.0	5.0	100.0	

CHI SQUARE = 19.83318 WITH 24 DEGREES OF FREEDOM SIGNIFICANCE = 0.7362

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

NUMBER OF LOTS	COUNT	FIXED COST: SET-UP				ROW TOTAL
	ROW PCT	PERCENTAGE				
	COL PCT					
	TOT PCT					
		0-1%	2-3%	4-5%	6%+	
0	1	1	0	0	0	1
	100.0	0.0	0.0	0.0	0.0	2.6
	8.3	0.0	0.0	0.0	0.0	
	2.6	0.0	0.0	0.0	0.0	
1	9	13	4	2		28
	32.1	46.4	14.3	7.1		71.8
	75.0	65.0	80.0	100.0		
	23.1	33.3	10.3	5.1		
2-3	2	5	1	0		8
	25.0	62.5	12.5	0.0		20.5
	16.7	25.0	20.0	0.0		
	5.1	12.6	2.6	0.0		
4+	0	2	0	0		2
	0.0	100.0	0.0	0.0		5.1
	0.0	10.0	0.0	0.0		
	0.0	5.1	0.0	0.0		
COLUMN TOTAL		12	20	5	2	39
		30.8	51.3	12.8	5.1	100.0

CHI SQUARE = 5.25823 WITH 9 DEGREES OF FREEDOM, SIGNIFICANCE = 0.8113

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

TOTAL ANNUAL SALES	COUNT	FIXED COST: SET-UP				ROW
	PCT	PERCENTAGE				TOTAL
		0-1%	2-3%	4-5%	6%+	
0-200K	4	3	0	0	7	
	57.1	42.9	0.0	0.0	19.4	
	36.4	15.4	0.0	0.0		
	11.1	8.3	0.0	0.0		
201-500K	3	6	1	0	10	
	30.0	60.0	10.0	0.0	27.8	
	27.3	31.6	20.0	0.0		
	9.3	16.7	2.8	0.0		
501-1000K	3	5	1	1	10	
	30.0	50.0	10.0	10.0	27.8	
	27.3	26.3	20.0	100.0		
	8.3	13.9	2.8	7.8		
1001-2000K	1	4	3	0	8	
	12.5	50.0	37.5	0.0	22.2	
	9.1	21.1	60.0	0.0		
	2.8	11.1	8.3	0.0		
2001K+	0	1	0	0	1	
	0.0	100.0	0.0	0.0	2.8	
	0.0	5.3	0.0	0.0		
	0.0	2.8	0.0	0.0		
COLUMN TOTAL	11	19	5	1	36	
	30.6	52.8	13.9	2.8	100.0	

CHI SQUARE = 10.59971 WITH 12 DEGREES OF FREEDOM SIGNIFICANCE = 0.5636

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

TOTAL NUMBER OF SALES PER LOT	COUNT	FIXED COST: SET-UP PERCENTAGE				ROW TOTAL
	POW PCT					
	COL PCT					
	TOT PCT	0-1%	2-3%	4-5%	6%+	
0-30		2	1	0	0	3
		66.7	33.3	0.0	0.0	8.3
		18.2	5.3	0.0	0.0	
		5.6	2.8	0.0	0.0	
31-60		0	1	0	0	1
		0.0	100.0	0.0	0.0	2.8
		0.0	5.3	0.0	0.0	
		0.0	2.8	0.0	0.0	
101-150		1	2	0	0	3
		33.3	66.7	0.0	0.0	8.3
		9.1	10.5	0.0	0.0	
		2.8	5.6	0.0	0.0	
151-200		2	0	0	0	2
		100.0	0.0	0.0	0.0	5.6
		18.2	0.0	0.0	0.0	
		5.6	0.0	0.0	0.0	
201-300		1	3	1	0	5
		20.0	60.0	20.0	0.0	13.9
		9.1	15.8	23.0	0.0	
		2.3	8.3	2.8	0.0	
301+		5	12	4	1	22
		22.7	54.5	18.2	4.5	61.1
		45.5	63.2	20.0	100.0	
		13.9	33.3	11.1	2.8	
COLUMN TOTAL		11	19	5	1	36
		36.6	52.8	13.9	2.8	100.0

CHI SQUARE = 9.55133 WITH 15 DEGREES OF FREEDOM SIGNIFICANCE = 0.8470

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SALES COMPOSITION	COUNT	FIXED COST: SET-UP				ROW TOTAL
	ROW PCT	PERCENTAGE				
	COL PCT					
	TOT PCT	0-1%	2-3%	4-5%	6%+	
0-3	1	4	1	0	0	5
	1	80.0	20.0	0.0	0.0	16.7
	1	40.0	5.6	0.0	0.0	
	1	13.3	3.3	0.0	0.0	
4-5	1	2	8	0	1	11
	1	18.2	72.7	0.0	9.1	36.7
	1	20.0	44.4	0.0	10.0	
	1	6.7	26.7	0.0	3.3	
6-7	1	2	2	1	0	5
	1	40.0	40.0	20.0	0.0	16.7
	1	20.0	11.1	100.0	0.0	
	1	6.7	6.7	3.3	0.0	
8-12	1	2	5	0	0	7
	1	28.6	71.4	0.0	0.0	23.3
	1	20.0	27.8	0.0	3.0	
	1	6.7	16.7	0.0	0.0	
13+	1	0	2	0	0	2
	1	0.0	100.0	0.0	0.0	6.7
	1	0.0	11.1	0.0	0.0	
	1	0.0	6.7	0.0	0.0	
COLUMN TOTAL		10	18	1	1	30
		33.3	60.0	3.3	3.3	100.0

CHI SQUARE = 14.10181 WITH 12 DEGREES OF FREEDOM SIGNIFICANCE = 0.2892

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

	COUNT					ROW TOTAL
	ROW PCT	FIXED COST: SET-UP				
	COL PCT	PERCENTAGE				
	TOT PCT	0-1%	2-3%	4-5%	6%+	
CUSTOMER SERVICES	0.0-0.75	0	0	1	0	1
		0.0	0.0	100.0	0.0	4.5
		0.0	0.0	50.0	0.0	
		0.0	0.0	4.5	0.0	
	.76-1.5	2	1	0	1	4
		50.0	25.0	0.0	25.0	18.2
		33.3	7.7	0.0	100.0	
		9.1	4.5	0.0	4.5	
	1.51-2.0	1	3	1	0	5
		20.0	60.0	20.0	0.0	22.7
		16.7	23.1	50.0	0.0	
		4.5	13.6	4.5	0.0	
	2.01-2.5	0	2	0	0	2
		0.0	100.0	0.0	0.0	9.1
		0.0	15.4	0.0	0.0	
		0.0	9.1	0.0	0.0	
	2.51-3.0	2	2	0	0	4
		50.0	50.0	0.0	0.0	18.2
		33.3	15.4	0.0	0.0	
		9.1	9.1	0.0	0.0	
	3.01-3.5	0	3	0	0	3
		0.0	100.0	0.0	0.0	13.6
		0.0	23.1	0.0	0.0	
		0.0	13.6	0.0	0.0	
	3.51-4.5	1	2	0	0	3
		33.3	66.7	0.0	0.0	13.6
		16.7	15.4	0.0	0.0	
		4.5	9.1	0.0	0.0	
COLUMN TOTAL		6	13	2	1	22
		27.3	59.1	9.1	4.5	100.0

CHI SQUARE = 21.86821 WITH 18 DEGREES OF FREEDOM SIGNIFICANCE = 0.2379

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

	COUNT						ROW PCT	COL PCT	TOT PCT	POW TOTAL
	FIXED COST: SET-UP									
	PERCENTAGE									
	0-1%	2-3%	4-5%	6%+						
SELLING ADVANTAGES	0-2.0	3	10	1	0				14	
		21.4	71.4	7.1	0.0				36.8	
		27.3	50.0	20.0	0.0					
		7.9	26.3	2.6	0.0					
	2.01-4.0	1	1	0	0				2	
		50.0	50.0	0.0	0.0				5.3	
		9.1	5.0	0.0	0.0					
		2.6	2.6	0.0	0.0					
	4.01-7.0	1	2	1	1				5	
		20.0	40.0	20.0	20.0				13.2	
		9.1	10.0	20.0	50.0					
		2.6	5.3	2.6	2.6					
	7.01-16.0	4	5	0	1				10	
		40.0	50.0	0.0	10.0				26.3	
		36.4	25.0	0.0	50.0					
		10.5	13.2	0.0	2.6					
	16.01-20.0	2	0	0	0				2	
		100.0	0.0	0.0	0.0				5.3	
		18.2	0.0	0.0	0.0					
		5.3	0.0	0.0	0.0					
	20.01-24.0	0	2	3	0				5	
		0.0	40.0	60.0	0.0				13.2	
		0.0	10.0	60.0	3.0					
		0.0	5.3	7.9	0.0					
COLUMN TOTAL		11	20	5	2				38	
TOTAL		23.4	52.6	13.2	5.3				100.0	

CHI SQUARE = 22.82357 WITH 15 DEGREES OF FREEDOM SIGNIFICANCE = 0.0878

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SEASONALITY	COUNT	FIXED COST: SET-UP			ROW
	ROW PCT	PERCENTAGE			TOTAL
	CUL PCT	0-1%	2-3%	4-5%	
	TOT PCT				
1.0-2.0		0	3	1	4
		0.0	75.0	25.0	20.0
		0.0	25.0	33.3	
		0.0	15.0	5.0	
2.01-3.0		2	2	0	4
		50.0	50.0	0.0	20.0
		40.0	16.7	0.0	
		10.0	10.0	0.0	
3.01-4.0		0	3	2	5
		0.0	60.0	40.0	25.0
		0.0	25.0	66.7	
		0.0	15.0	10.0	
4.01-6.0		2	2	0	4
		50.0	50.0	0.0	20.0
		40.0	16.7	0.0	
		10.0	10.0	0.0	
8.0		0	1	0	1
		0.0	100.0	0.0	5.0
		0.0	3.3	0.0	
		0.0	5.0	0.0	
9.5		0	1	0	1
		0.0	100.0	0.0	5.0
		0.0	8.3	0.0	
		0.0	5.0	0.0	
37.0		1	0	0	1
		100.0	0.0	0.0	5.0
		20.0	0.0	0.0	
		5.0	0.0	0.0	
COLUMN TOTAL		5	12	3	20
		25.0	60.0	15.0	100.0

CHI SQUARE = 12.41666 WITH 12 DEGREES OF FREEDOM SIGNIFICANCE = 0.4128

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

NUMBER OF LOTS	COUNT	FIXED COST: GENERAL AND ADMINISTRATIVE							ROW
	ROW PCT	PERCENTAGE							TOTAL
	COL PCT	0%	1%	2%	3%	4-8%	9%+		
	TOT PCT								
0	1	1	0	0	0	0	0	1	
	100.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	
	7.7	0.0	0.0	0.0	0.0	0.0	0.0		
	2.6	0.0	0.0	0.0	0.0	0.0	0.0		
1	11	7	5	1	2	1		27	
	40.7	25.9	19.5	3.7	7.4	3.7		71.1	
	84.6	70.0	62.5	33.3	100.0	50.0		-	
	28.9	18.4	13.2	2.6	5.3	2.6			
2-3	1	3	1	2	0	1		8	
	12.5	37.5	12.5	25.0	0.0	12.5		21.1	
	7.7	30.0	12.5	65.7	0.0	50.0			
	2.6	7.9	2.6	5.3	0.0	2.6			
4+	0	0	2	0	0	0		2	
	0.0	0.0	100.0	0.0	0.0	0.0		5.3	
	0.0	0.0	25.0	0.0	0.0	0.0			
	0.0	0.0	5.3	0.0	0.0	0.0			
COLUMN TOTAL		13	10	9	3	2	2	38	
		34.2	26.3	21.1	7.9	5.3	5.3	100.0	

CHI SQUARE = 16.74731 WITH 15 DEGREES OF FREEDOM SIGNIFICANCE = 0.3342

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

TOTAL ANNUAL SALES	COUNT	FIXED COST: GENERAL AND ADMINISTRATIVE						ROW TOTAL
	ROW PCT	PERCENTAGE						
	CCL PCT							
	TOT PCT	0%	1%	2%	3%	4-8%	9%+	
0-200K	5	1	0	0	0	1	7	
	71.4	14.3	0.0	0.0	0.0	14.3	20.0	
	45.5	10.0	0.0	0.0	0.0	100.0		
	14.3	2.9	0.0	0.0	0.0	2.9		
201-500K	1	4	3	2	0	0	10	
	10.0	40.0	30.0	20.0	0.0	0.0	28.6	
	9.1	40.0	37.5	66.7	0.0	0.0		
	2.9	11.4	8.6	5.7	0.0	0.0		
501-1000K	4	2	2	0	2	0	10	
	40.0	20.0	20.0	0.0	20.0	0.0	28.6	
	36.4	20.0	25.0	0.0	100.0	0.0		
	11.4	5.7	5.7	0.0	5.7	0.0		
1001-2000K	1	3	2	1	0	0	7	
	14.3	42.9	28.6	14.3	0.0	0.0	20.0	
	9.1	30.0	25.0	33.3	0.0	0.0		
	2.9	8.6	5.7	2.9	0.0	0.0		
2001K+	0	0	1	0	0	0	1	
	0.0	0.0	100.0	0.0	0.0	0.0	2.9	
	0.0	0.0	12.5	0.0	0.0	0.0		
	0.0	0.0	2.9	0.0	0.0	0.0		
COLUMN TOTAL	11	10	8	3	2	1	35	
	31.4	28.6	22.9	8.6	5.7	2.9	100.0	

CHI SQUARE = 25.12300 WITH 20 DEGREES OF FREEDOM SIGNIFICANCE = 0.1768

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

TOTAL NUMBER OF SALES PER LOT	FIXED COST: GENERAL AND ADMINISTRATIVE							ROW TOTAL	
	PERCENTAGE								
	COUNT	COUNT	COUNT	COUNT	COUNT	COUNT	COUNT		
	PCW PCT	CEL PCT	TOT PCT	0%	1%	2%	3%	4-8%	9%+
0-30	2	0	1	0	0	0	0	0	3
	66.7	0.0	33.3	0.0	0.0	0.0	0.0	0.0	8.6
	13.2	0.0	12.5	0.0	0.0	0.0	0.0	0.0	
	5.7	0.0	2.9	0.0	0.0	0.0	0.0	0.0	
31-60	1	0	0	0	0	0	0	0	1
	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
101-150	1	0	0	1	0	1	0	1	3
	33.3	0.0	0.0	33.3	0.0	0.0	0.0	33.3	8.6
	9.1	0.0	0.0	33.3	0.0	0.0	100.0		
	2.9	0.0	0.0	2.9	0.0	0.0	2.9		
151-200	1	1	0	0	0	0	0	0	2
	50.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7
	9.1	10.0	0.0	0.0	0.0	0.0	0.0	0.0	
	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	
201-300	0	3	2	0	0	0	0	0	5
	0.0	60.0	40.0	0.0	0.0	0.0	0.0	0.0	14.3
	0.0	30.0	25.0	0.0	0.0	0.0	0.0	0.0	
	0.0	8.6	5.7	0.0	0.0	0.0	0.0	0.0	
301+	6	6	5	2	2	2	0	0	21
	28.6	28.6	23.8	9.5	9.5	9.5	0.0	0.0	60.0
	54.5	60.0	62.5	66.7	100.0	100.0	0.0	0.0	
	17.1	17.1	14.3	5.7	5.7	5.7	0.0	0.0	
COLUMN TOTAL	11	10	8	3	2	1		35	
	31.4	28.6	22.9	8.6	5.7	2.9		100.0	

CHI SQUARE = 25.85793 WITH 25 DEGREES OF FREEDOM SIGNIFICANCE = 0.4152

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SALES COMPOSITION	COUNT	ROW PCT	COL PCT	TOT PCT	FIXED COST: GENERAL AND ADMINISTRATIVE						ROW TOTAL
					PERCENTAGE						
		0%	1%	2%	3%	4-8%	9%+				
0-3	3	1	0	0	1	0		5			
	60.0	20.0	0.0	0.0	20.0	0.0	16.7				
	37.5	12.5	0.0	0.0	50.0	0.0					
	10.0	3.3	0.0	0.0	3.3	0.0					
4-5	4	3	2	1	1	0	11				
	36.4	27.3	18.2	9.1	9.1	0.0	36.7				
	50.0	37.5	25.0	33.3	50.0	0.0					
	13.3	10.0	6.7	3.3	3.3	0.0					
6-7	0	2	2	0	0	1	5				
	0.0	40.0	40.0	0.0	0.0	20.0	16.7				
	0.0	25.0	25.0	0.0	0.0	100.0					
	0.0	6.7	6.7	0.0	0.0	3.3					
8-12	1	2	3	1	0	0	7				
	14.3	28.6	42.9	14.3	0.0	0.0	23.3				
	12.5	25.0	37.5	33.3	0.0	0.0					
	3.3	6.7	10.0	3.3	0.0	0.0					
13+	0	0	1	1	0	0	2				
	0.0	0.0	50.0	50.0	0.0	0.0	6.7				
	0.0	0.0	12.5	33.3	0.0	0.0					
	0.0	0.0	3.3	3.3	0.0	0.0					
COLUMN TOTAL	6	6	8	3	2	1	30				
	26.7	26.7	26.7	10.0	6.7	3.3	100.0				

CHI SQUARE = 20.46262 WITH 20 DEGREES OF FREEDOM SIGNIFICANCE = 0.4293

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

	COUNT	ROW PCT	FIXED COST: GENERAL AND ADMINISTRATIVE							ROW TOTAL
	CCL PCT	PERCENTAGE								
	TOT PCT	0%	1%	2%	3%	4-8%	9%+			
CUSTOMER SERVICES	0.0-0.75	1	0	0	0	0	0	0	1	
	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	
		14.3	0.0	0.0	0.0	0.0	0.0	0.0		
		4.5	0.0	0.0	0.0	0.0	0.0	0.0		
	.76-1.5	1	1	1	0	0	1	1	4	
	25.0	25.0	25.0	0.0	0.0	25.0	15.2			
	14.3	20.0	16.7	0.0	0.0	50.0				
	4.5	4.5	4.5	0.0	0.0	4.5				
	1.51-2.0	0	3	2	0	0	0	5		
	0.0	60.0	40.0	0.0	0.0	0.0	22.7			
	0.0	60.0	33.3	0.0	0.0	0.0				
	0.0	13.6	9.1	0.0	0.0	0.0				
	2.01-2.5	1	0	0	1	0	0	2		
	50.0	0.0	0.0	50.0	0.0	0.0	9.1			
	14.3	0.0	0.0	100.0	0.0	0.0				
	4.5	0.0	0.0	4.5	0.0	0.0				
	2.51-3.0	2	0	1	0	1	0	4		
	50.0	0.0	25.0	0.0	25.0	0.0	18.2			
	28.6	0.0	16.7	0.0	100.0	0.0				
	9.1	0.0	4.5	0.0	4.5	0.0				
	3.01-3.5	1	0	1	0	0	1	3		
	33.3	0.0	33.3	0.0	0.0	33.3	13.6			
	14.3	0.0	16.7	0.0	0.0	50.0				
4.5	0.0	4.5	0.0	0.0	4.5					
3.51-4.5	1	1	1	0	0	0	3			
33.3	33.3	33.3	0.0	0.0	0.0	13.6				
14.3	20.0	16.7	0.0	0.0	0.0					
4.5	4.5	4.5	0.0	0.0	0.0					
	COLUMN TOTAL	7	5	6	1	1	2	22		
		31.8	22.7	27.3	4.5	4.5	9.1	100.0		

CHI SQUARE = 29.35234 WITH 30 DEGREES OF FREEDOM SIGNIFICANCE = 0.4991

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

	FIXED COST: GENERAL AND ADMINISTRATIVE-							ROW TOTAL	
	COUNT	PERCENTAGE							
	ROW PCT								
	COL PCT								
SELLING ADVANTAGES	TGT PCT	0%	1%	2%	3%	4-8%	9%+		
0-2.0		6	2	5	1	0	0	14	
		42.9	14.3	35.7	7.1	0.0	0.0	37.8	
		46.2	20.0	71.4	31.3	0.0	0.0		
		16.2	5.4	13.5	2.7	0.0	0.0		
2.01-4.0		0	0	1	0	1	0	2	
		0.0	0.0	50.0	0.0	50.0	0.0	5.4	
		0.0	0.0	14.3	0.0	50.0	0.0	-	
		0.0	0.0	2.7	0.0	2.7	0.0		
4.01-7.0		2	2	0	0	0	1	5	
		40.0	40.0	0.0	0.0	0.0	20.0	13.5	
		15.4	20.0	0.0	0.0	0.0	50.0		
		5.4	5.4	0.0	0.0	0.0	2.7		
7.01-16.0		5	1	1	1	1	1	10	
		50.0	10.0	10.0	10.0	10.0	10.0	27.0	
		38.5	10.0	14.3	31.3	50.0	50.0		
		13.5	2.7	2.7	2.7	2.7	2.7		
16.01-20.0		0	2	0	0	0	0	2	
		0.0	100.0	0.0	0.0	0.0	0.0	5.4	
		0.0	20.0	0.0	0.0	0.0	0.0		
		0.0	5.4	0.0	0.0	0.0	0.0		
20.01-24.0		0	3	0	1	0	0	4	
		0.0	75.0	0.0	25.0	0.0	0.0	10.8	
		0.0	30.0	0.0	31.3	0.0	0.0		
		0.0	9.1	0.0	2.7	0.0	0.0		
COLUMN TOTAL		13	10	7	3	2	2	37	
TOTAL		35.1	27.0	18.9	8.1	5.4	5.4	100.0	

CHI SQUARE = 34.28078 WITH 25 DEGREES OF FREEDOM SIGNIFICANCE = 0.1020

FIGURE 2: CROSSTABULATION RESULTS
(cont.)

SEASONALITY	FIXED COST: GENERAL AND ADMINISTRATIVE									
	COUNT	PERCENTAGE								ROW TOTAL
	ROW PCT	0%	1%	2%	4-8%	9%+				
	COL PCT									
	TOT PCT									
1.0-2.0	I	0	3	0	1	0				
	I	0.0	75.0	0.0	25.0	0.0				
	I	0.0	42.9	0.0	33.3	0.0				
	I	0.0	15.0	0.0	5.0	0.0				
2.01-3.0	I	1	0	1	1	1				
	I	25.0	0.0	25.0	25.0	25.0				
	I	25.0	0.0	20.0	33.3	100.0				
	I	5.0	0.0	5.0	5.0	5.0				
3.01-4.0	I	3	1	0	1	0				
	I	60.0	20.0	0.0	20.0	0.0				
	I	75.0	14.3	0.0	33.3	0.0				
	I	15.0	5.0	0.0	5.0	0.0				
4.01-6.0	I	0	2	2	0	0				
	I	0.0	50.0	50.0	0.0	0.0				
	I	0.0	23.6	40.0	0.0	0.0				
	I	0.0	10.0	10.0	0.0	0.0				
8.0	I	0	1	0	0	0				
	I	0.0	100.0	0.0	0.0	0.0				
	I	0.0	14.3	0.0	0.0	0.0				
	I	0.0	5.0	0.0	0.0	0.0				
9.5	I	0	0	1	0	0				
	I	0.0	0.0	100.0	0.0	0.0				
	I	0.0	0.0	20.0	0.0	0.0				
	I	0.0	0.0	5.0	0.0	0.0				
37.0	I	0	0	1	0	0				
	I	0.0	0.0	100.0	0.0	0.0				
	I	0.0	0.0	20.0	0.0	0.0				
	I	0.0	0.0	5.0	0.0	0.0				
COLUMN TOTAL		4	7	5	3	1				
		20.0	35.0	25.0	15.0	5.0				

CHI SQUARE = 25.63084 WITH 24 DEGREES OF FREEDOM SIGNIFICANCE = 0.3722

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

NUMBER OF LOTS	COUNT	FIXED COST: OVERHEAD				ROW TOTAL
	PW PCT	PERCENTAGE				
	CCL PCT					
	TOT PCT	0-1%	2-3%	4-7%	7%+	
0	1	0	0	0	0	1
	100.0	0.0	0.0	0.0	0.0	2.6
	6.7	0.0	0.0	0.0	0.0	
	2.6	0.0	0.0	0.0	0.0	
1	12	10	3	2		27
	44.4	37.0	11.1	7.4		71.1
	80.0	66.7	50.0	100.0		
	31.6	26.3	7.9	5.3		
2-3	2	5	1	0		8
	25.0	62.5	12.5	0.0		21.1
	13.3	33.3	16.7	0.0		
	5.3	13.2	2.6	0.0		
4+	0	0	2	0		2
	0.0	0.0	100.0	0.0		5.3
	0.0	0.0	33.3	0.0		
	0.0	0.0	5.3	0.0		
COLUMN TOTAL		15	15	6	2	38
		39.5	39.5	15.8	5.3	100.0

CHI SQUARE = 14.99474 WITH 9 DEGREES OF FREEDOM SIGNIFICANCE = 0.0911

FIGURE 8: CROSSTAPULATION RESULTS
(cont.)

TOTAL ANNUAL SALES	COUNT	FIXED COST: OVERHEAD				ROW
	ROW PCT	PERCENTAGE				TOTAL
	COL PCT					
	TOT PCT	0-1%	2-3%	4-7%	7%+	
0-200K		6	1	0	0	7
		85.7	14.3	0.0	0.0	20.0
		50.0	6.7	0.0	0.0	
		17.1	2.9	0.0	0.0	
201-500K		2	5	2	1	10
		20.0	50.0	20.0	10.0	28.6
		16.7	33.3	33.3	50.0	
		5.7	14.3	5.7	2.9	
501-1000K		4	5	1	0	10
		40.0	50.0	10.0	0.0	28.6
		33.3	33.3	16.7	0.0	
		11.4	14.3	2.9	0.0	
1001-2000K		0	4	2	1	7
		0.0	57.1	28.6	14.3	20.0
		0.0	26.7	33.3	50.0	
		0.0	11.4	5.7	2.9	
2001K+		0	0	1	0	1
		0.0	0.0	100.0	0.0	2.9
		0.0	0.0	16.7	0.0	
		0.0	0.0	2.9	0.0	
COLUMN TOTAL	12	15	6	2	35	
	34.3	42.9	17.1	5.7	100.0	

CHI SQUARE = 19.49997 WITH 12 DEGREES OF FREEDOM SIGNIFICANCE = 0.0772

FIGURE 8: CROSSTAPULATION RESULTS
(cont.)

TOTAL NUMBER OF SALES PER LOT	COUNT	FIXED COST: OVERHEAD				ROW TOTAL
	ROW PCT	PERCENTAGE				
	CCL PCT					
	TOT PCT	0-1%	2-3%	4-7%	7%+	
0-30	2	0	1	0	3	
	66.7	0.0	33.3	0.0	8.6	
	16.7	0.0	16.7	0.0		
	5.7	0.0	2.9	0.0		
31-60	1	0	0	0	1	
	100.0	0.0	0.0	0.0	2.9	
	8.3	0.0	0.0	0.0		
	7.9	0.0	0.0	0.0		
101-150	1	2	0	0	3	
	33.3	66.7	0.0	0.0	8.6	
	8.3	13.3	0.0	0.0		
	2.9	5.7	0.0	0.0		
151-200	2	0	0	0	2	
	100.0	0.0	0.0	0.0	5.7	
	16.7	0.0	0.0	0.0		
	5.7	0.0	0.0	0.0		
201-300	1	3	0	1	5	
	20.0	60.0	0.0	20.0	14.3	
	8.3	20.0	0.0	50.0		
	2.9	8.6	0.0	7.9		
301+	5	10	5	1	21	
	23.8	47.6	23.8	4.8	60.0	
	41.7	35.7	83.3	50.0		
	14.3	28.6	14.3	7.9		
COLUMN TOTAL	12	15	6	2	35	
	34.3	42.9	17.1	5.7	100.0	

CHI SQUARE = 14.31110 WITH 15 DEGREES OF FREEDOM SIGNIFICANCE = 0.5021

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SALES COMPOSITION	COUNT	FIXED COST: OVERHEAD				ROW
	RCW PCT	PERCENTAGE				TOTAL
	CCL PCT	0-1%	2-3%	4-7%	7%+	
	TCT PCT	0-1%	2-3%	4-7%	7%+	
0-3	5	0	0	0	5	
	100.0	0.0	0.0	0.0	16.7	
	50.0	0.0	0.0	0.0		
	16.7	0.0	0.0	0.0		
4-5	4	4	3	0	11	
	36.4	36.4	27.3	0.0	36.7	
	40.0	30.8	60.0	0.0		
	13.3	13.3	10.0	0.0		
6-7	0	4	0	1	5	
	0.0	40.0	0.0	20.0	16.7	
	0.0	30.8	0.0	50.0		
	0.0	13.3	0.0	3.3		
8-12	1	4	1	1	7	
	14.3	57.1	14.3	14.3	23.3	
	10.0	30.8	20.0	50.0		
	3.3	13.3	3.3	3.3		
13+	0	1	1	0	2	
	0.0	50.0	50.0	0.0	6.7	
	0.0	7.7	20.0	0.0		
	0.0	3.3	3.3	0.0		
COLUMN TOTAL	10	13	5	2	30	
	33.3	43.3	16.7	6.7	100.0	

CHI SQUARE = 20.87106 WITH 12 DEGREES OF FREEDOM SIGNIFICANCE = 0.0523

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

CUSTOMER SERVICES	OUNT	FIXED COST: OVERHEAD				ROW
	ROW PCT	PERCENTAGE				TOTAL
	COL PCT					
	TOT PCT	0-1%	2-3%	4-7%	7%+	
	0.0-0.75	0	0	1	0	1
		0.0	0.0	100.0	0.0	4.5
		0.0	0.0	20.0	0.0	
		0.0	0.0	4.5	0.0	
	.76-1.5	1	3	0	0	4
		25.0	75.0	0.0	0.0	18.2
		14.3	33.3	0.0	0.0	
		4.5	13.6	0.0	0.0	
	1.51-2.0	0	4	1	0	5
		0.0	30.0	20.0	0.0	22.7
		0.0	44.4	20.0	0.0	
		0.0	18.2	4.5	0.0	
	2.01-2.5	1	0	1	0	2
		50.0	0.0	50.0	0.0	9.1
		14.3	0.0	20.0	0.0	
		4.5	0.0	4.5	0.0	
	2.51-3.0	2	1	1	0	4
		50.0	25.0	25.0	0.0	18.2
		28.6	11.1	20.0	0.0	
		9.1	4.5	4.5	0.0	
	3.01-3.5	2	0	1	0	3
		66.7	0.0	33.3	0.0	13.6
		28.6	0.0	20.0	0.0	
		9.1	0.0	4.5	0.0	
	3.51-4.5	1	1	0	1	3
		33.3	33.3	0.0	33.3	13.6
		14.3	11.1	0.0	100.0	
		4.5	4.5	0.0	4.5	
	COLUMN TOTAL	7	9	5	1	22
		31.8	40.9	22.7	4.5	100.0

CHI SQUARE = 20.86623 WITH 18 DEGREES OF FREEDOM. SIGNIFICANCE = 0.2862

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

	COUNT		PERCENTAGE				ROW TOTAL
	ROW	PCT	FIXED COST: OVERHEAD				
	CCL	PCT					
	IGT	PCT	0-1%	2-3%	4-7%	7%+	
SELLING ADVANTAGES	0-2.0	5	5	4	0	14	
		35.7	35.7	28.6	0.0	37.8	
		33.3	35.7	66.7	0.0		
		13.5	13.5	10.8	0.0		
	2.01-4.0	0	0	2	0	2	
		0.0	0.0	100.0	0.0	5.4	
		0.0	0.0	33.3	0.0		
		0.0	0.0	5.4	0.0		
	4.01-7.0	2	2	0	1	5	
		40.0	40.0	0.0	20.0	13.5	
		13.3	14.3	0.0	50.0		
		5.4	5.4	0.0	2.7		
	7.01-16.0	5	4	0	1	10	
		50.0	40.0	0.0	10.0	27.0	
		33.3	28.6	0.0	50.0		
		13.5	10.8	0.0	2.7		
	16.01-20.0	2	0	0	0	2	
		100.0	0.0	0.0	0.0	5.4	
		13.3	0.0	0.0	0.0		
		5.4	0.0	0.0	0.0		
	20.01-24.0	1	3	0	0	4	
		25.0	75.0	0.0	0.0	10.8	
		6.7	21.4	0.0	0.0		
		2.7	8.1	0.0	0.0		
COLUMN TOTAL		15	14	6	2	37	
		40.5	37.8	16.2	5.4	100.0	

CHI SQUARE = 23.03427 WITH 15 DEGREES OF FREEDOM SIGNIFICANCE = 0.0834

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SEASONALITY	COUNT	FIXED COST: OVERHEAD				ROW TOTAL
	ROW PCT	PERCENTAGE				
	COL PCT					
	TOT PCT	0-1%	2-3%	4-7%	7%+	
1.0-2.0	1	3	0	0	4	
	25.0	75.0	0.0	0.0	20.0	
	20.0	37.5	0.0	0.0		
	5.0	15.0	0.0	0.0		
2.01-3.0	1	2	1	0	4	
	25.0	50.0	25.0	0.0	20.0	
	20.0	25.0	20.0	0.0		
	5.0	10.0	5.0	0.0		
3.01-4.0	2	1	2	0	5	
	40.0	20.0	40.0	0.0	25.0	
	40.0	12.5	40.0	0.0		
	10.0	5.0	10.0	0.0		
4.01-6.0	1	1	1	1	4	
	25.0	25.0	25.0	25.0	20.0	
	20.0	12.5	20.0	50.0		
	5.0	5.0	5.0	5.0		
8.0	0	0	1	0	1	
	0.0	0.0	100.0	0.0	5.0	
	0.0	0.0	20.0	0.0		
	0.0	0.0	5.0	0.0		
9.5	0	0	0	1	1	
	0.0	0.0	0.0	100.0	5.0	
	0.0	0.0	0.0	50.0		
	0.0	0.0	0.0	5.0		
37.0	0	1	0	0	1	
	0.0	100.0	0.0	0.0	5.0	
	0.0	12.5	0.0	0.0		
	0.0	5.0	0.0	0.0		
COLUMN TOTAL		5	8	5	2	20
		25.0	40.0	25.0	10.0	100.0

CHI SQUARE = 19.64998 WITH 18 DEGREES OF FREEDOM SIGNIFICANCE = 0.3529

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

NUMBER OF LOTS	COUNT		TOTAL FIXED COSTS							ROW TOTAL
	ROW	PCT	PERCENTAGE							
	CCL	PCT								
	IGT	PCT	0-5%	5.01-10%	10.01-15%	15.01-20%	20.01-25%	27.0%		
0	1	1	0	0	0	0	0	0	1	
	1	100.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	
	1	11.1	0.0	0.0	0.0	0.0	0.0	0.0		
	1	2.6	0.0	0.0	0.0	0.0	0.0	0.0		
1	1	7	9	4	4	2	1	1	27	
	1	25.9	33.3	14.8	14.8	7.4	3.7	1	71.1	
	1	77.3	75.0	50.0	50.0	66.7	100.0	1	-	
	1	18.4	23.7	10.5	10.5	5.3	2.6	1		
2-3	1	1	3	3	1	0	0	0	8	
	1	12.5	37.5	37.5	12.5	0.0	0.0	0	21.1	
	1	11.1	25.0	37.5	20.0	0.0	0.0	0		
	1	2.6	7.9	7.9	2.6	0.0	0.0	0		
4+	1	0	0	1	0	1	0	0	2	
	1	0.0	0.0	50.0	0.0	50.0	0.0	0	5.3	
	1	0.0	0.0	12.5	0.0	33.3	0.0	0		
	1	0.0	0.0	2.6	0.0	2.6	0.0	0		
COLUMN TOTAL		9	12	8	5	3	1	38		
TOTAL		23.7	31.6	21.1	13.2	7.9	2.6	100.0		

CHI SQUARE = 13.07959 WITH 15 DEGREES OF FREEDOM SIGNIFICANCE = 0.5262

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

TOTAL ANNUAL SALES	COUNT	TOTAL FIXED COSTS PERCENTAGE						ROW TOTAL
	ROW PCT							
	CCL PCT							
	TOT PCT	0-5%	5.01-10%	10.01-15%	15.01-20%	20.01-25%	27.0%	
0-200K	4	2	0	0	1	0	7	
	57.1	28.6	0.0	0.0	14.3	0.0	20.0	
	50.0	16.7	0.0	0.0	33.3	0.0		
	11.4	5.7	0.0	0.0	2.9	0.0		
201-501K	2	4	2	1	1	0	10	
	20.0	40.0	20.0	10.0	10.0	0.0	28.6	
	25.0	33.3	28.6	25.0	33.3	0.0		
	5.7	11.4	5.7	2.9	2.9	0.0		
501-1000K	2	4	2	1	0	1	10	
	20.0	40.0	20.0	10.0	0.0	10.0	29.6	
	25.0	33.3	28.6	25.0	0.0	100.0		
	5.7	11.4	5.7	2.9	0.0	2.9		
1001-2000K	0	2	2	2	1	0	7	
	0.0	28.6	28.6	28.6	14.3	0.0	20.0	
	0.0	16.7	28.6	50.0	33.3	0.0		
	0.0	5.7	5.7	5.7	2.9	0.0		
2001K+	0	0	1	0	0	0	1	
	0.0	0.0	100.0	0.0	0.0	0.0	2.9	
	0.0	0.0	14.3	0.0	0.0	0.0		
	0.0	0.0	2.9	0.0	0.0	0.0		
COLUMN TOTAL	8	12	7	4	3	1	35	
	22.9	34.3	20.0	11.4	8.6	2.9	100.0	

CHI SQUARE = 17.77377 WITH 20 DEGREES OF FREEDOM SIGNIFICANCE = 0.6023

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

TOTAL NUMBER OF SALES PER LOT	COUNT		TOTAL FIXED COSTS							ROW TOTAL
	ROW	PCT	PERCENTAGE							
	COL	PCT								
	TCT	PCT								
			0-5%	15.01-10%	10.01-15%	15.01-20%	20.01-25%	27.0%		
0-30	1	2	0	0	0	1	0	3		
	1	66.7	0.0	0.0	0.0	33.3	0.0	8.6		
	1	25.0	0.0	0.0	0.0	33.3	0.0			
	1	5.7	0.0	0.0	0.0	2.9	0.0			
31-60	1	0	1	0	0	0	0	1		
	1	0.0	100.0	0.0	0.0	0.0	0.0	2.9		
	1	0.0	8.3	0.0	0.0	0.0	0.0			
	1	0.0	2.9	0.0	0.0	0.0	0.0			
61-100	1	1	1	0	0	1	0	3		
	1	33.3	33.3	0.0	0.0	33.3	0.0	8.6		
	1	12.5	8.3	0.0	0.0	33.3	0.0			
	1	2.9	2.9	0.0	0.0	2.9	0.0			
151-200	1	1	1	0	0	0	0	2		
	1	50.0	50.0	0.0	0.0	0.0	0.0	5.7		
	1	12.5	8.3	0.0	0.0	0.0	0.0			
	1	2.9	2.9	0.0	0.0	0.0	0.0			
201-300	1	0	3	1	1	0	0	5		
	1	0.0	60.0	20.0	20.0	0.0	0.0	14.3		
	1	0.0	25.0	14.3	25.0	0.0	0.0			
	1	0.0	8.6	2.9	2.9	0.0	0.0			
301+	1	4	6	6	3	1	1	21		
	1	19.0	28.6	28.6	14.3	4.9	4.8	60.0		
	1	50.0	50.0	85.7	75.0	33.3	100.0			
	1	11.4	17.1	17.1	8.6	2.9	2.9			
COLUMN TOTAL		8	12	7	4	3	1	35		
TOTAL		22.9	34.3	20.0	11.4	8.6	2.9	100.0		

CHI SQUARE = 18.48108 WITH 25 DEGREES OF FREEDOM SIGNIFICANCE = 0.8213

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SALES COMPOSITION	TOTAL FIXED COSTS PERCENTAGE								ROW TOTAL
	COUNT	1	2	3	4	5	6	7	
	NGW PCT	1	2	3	4	5	6	7	
	COL PCT	1	2	3	4	5	6	7	
	TCT PCT	1	2	3	4	5	6	7	
		0-5%	5.01-10%	10.01-15%	15.01-20%	20.01-25%	27.0%		
0-3		2	3	0	0	0	0	5	
		40.0	60.0	0.0	0.0	0.0	0.0	16.7	
		33.3	27.3	0.0	0.0	0.0	0.0		
		6.7	10.0	0.0	0.0	0.0	0.0		
4-5		2	4	3	1	0	1	11	
		18.2	36.4	27.3	9.1	0.0	9.1	36.7	
		33.3	36.4	42.9	50.0	0.0	100.0		
		6.7	13.3	10.0	1.3	0.0	3.3		
6-7		0	2	1	1	1	0	5	
		0.0	40.0	20.0	20.0	20.0	0.0	16.7	
		0.0	18.2	14.3	50.0	33.3	0.0		
		0.0	6.7	3.3	3.3	3.3	0.0		
8-12		2	2	2	0	1	0	7	
		28.6	28.6	28.6	0.0	14.3	0.0	23.3	
		31.3	18.2	28.6	0.0	33.3	0.0		
		6.7	6.7	6.7	0.0	3.3	0.0		
13+		0	0	1	0	1	0	2	
		0.0	0.0	50.0	0.0	50.0	0.0	6.7	
		0.0	0.0	14.3	0.0	33.3	0.0		
		0.0	0.0	3.3	0.0	3.3	0.0		
COLUMN TOTAL		6	11	7	2	3	1	30	
		20.0	36.7	23.3	6.7	10.0	3.3	100.0	

CHI SQUARE = 15.76656 WITH 20 DEGREES OF FREEDOM SIGNIFICANCE = 0.7310

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

	TOTAL FIXED COSTS								ROW TOTAL		
	PERCENTAGE										
	COUNT	POW PCT	CGL PCT	TGT PCT	0-5%	5.01-10%	10.01-15%	15.01-20%		20.01-25%	27.0%
	POW PCT	CGL PCT	TGT PCT	0-5%	5.01-10%	10.01-15%	15.01-20%	20.01-25%		27.0%	
CUSTOMER SERVICES	0.0-0.75	0	0	0	1	0	0	0	0	1	4.5
	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0
	.76-1.5	0	1	1	0	1	1	1	1	4	18.2
	0.0	25.0	25.0	0.0	75.0	25.0	25.0	25.0	25.0	25.0	100.0
	0.0	20.0	16.7	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	0.0	4.5	4.5	0.0	4.5	4.5	4.5	4.5	4.5	4.5	4.5
	1.51-2.0	0	3	1	1	0	0	0	0	5	22.7
	0.0	60.0	20.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	60.0	16.7	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	13.6	4.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2.01-2.5	0	1	1	0	0	0	0	0	2	9.1
	0.0	50.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	20.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	4.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2.51-3.0	2	0	1	1	0	0	0	0	4	18.2
	50.0	0.0	25.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	50.0	0.0	16.7	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	9.1	0.0	4.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	3.01-3.5	1	0	1	1	0	0	0	0	3	13.6
	33.3	0.0	33.3	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	25.0	0.0	16.7	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	4.5	0.0	4.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	3.51-4.5	1	0	1	1	0	0	0	0	3	13.6
	33.3	0.0	33.3	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	25.0	0.0	16.7	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	4.5	0.0	4.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	COLUMN TOTAL	4	5	6	5	1	1	1	1	22	100.0
	TOTAL	18.2	22.7	27.3	22.7	4.5	4.5	4.5	4.5	100.0	100.0

CHI SQUARE = 25.54420 WITH 30 DEGREES OF FREEDOM SIGNIFICANCE = 0.6982

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SELLING ADVANTAGES

COUNT	ROW PCT	COL PCT	TOT PCT	TOTAL FIXED COSTS PERCENTAGE							ROW TOTAL
				0-5%	5.01-10%	10.01-15%	15.01-20%	20.01-25%	27.0%		
0-2.0	4	3	6	1	0	0				14	
	28.6	21.4	42.9	7.1	0.0	0.0				37.8	
	44.4	27.3	75.0	20.0	0.0	0.0					
	16.8	3.1	16.2	2.7	0.0	0.0					
2.01-4.0	0	0	0	1	1	0				2	
	0.0	0.0	0.0	50.0	50.0	0.0				5.4	
	0.0	0.0	0.0	20.0	33.3	0.0					
	0.0	0.0	0.0	2.7	2.7	0.0					
4.01-7.0	1	0	0	3	0	1				5	
	20.0	0.0	0.0	60.0	0.0	20.0				13.5	
	11.1	0.0	0.0	60.0	0.0	100.0					
	2.7	0.0	0.0	8.1	0.0	2.7					
7.01-16.0	4	3	1	0	2	0				10	
	40.0	30.0	10.0	0.0	20.0	0.0				27.0	
	44.4	27.3	12.5	0.0	66.7	0.0					
	10.9	8.1	2.7	0.0	5.4	0.0					
16.01-20.0	0	2	0	0	0	0				2	
	0.0	100.0	0.0	0.0	0.0	0.0				5.4	
	0.0	16.2	0.0	0.0	0.0	0.0					
	0.0	5.4	0.0	0.0	0.0	0.0					
20.01-24.0	0	3	1	0	0	0				4	
	0.0	75.0	25.0	0.0	0.0	0.0				10.8	
	0.0	27.3	12.5	0.0	0.0	0.0					
	0.0	8.1	2.7	0.0	0.0	0.0					
COLUMN TOTAL	9	11	8	5	3	1				37	
	24.3	29.7	21.6	11.5	9.1	2.7				100.0	

CHI SQUARE = 44.14346 WITH 25 DEGREES OF FREEDOM SIGNIFICANCE = 0.0105

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SEASONALITY	COUNT	TOTAL FIXED COSTS					ROW TOTAL
	ROW PCT	PERCENTAGE					
	COL PCT						
	YCT PCT	0-5%	5.01-10%	10.01-15%	15.01-20%	20.01-25%	
1.0-2.0		0	2	1	1	0	4
		0.0	50.0	25.0	25.0	0.0	20.0
		0.0	28.6	20.0	25.0	0.0	
		0.0	10.0	5.0	5.0	0.0	
2.01-3.0		1	2	0	1	0	4
		25.0	50.0	0.0	25.0	0.0	20.0
		33.3	28.6	0.0	25.0	0.0	
		5.0	10.0	0.0	5.0	0.0	
3.01-4.0		2	1	1	1	0	5
		40.0	20.0	20.0	20.0	0.0	25.0
		66.7	14.3	20.0	25.0	0.0	
		10.0	5.0	5.0	5.0	0.0	
4.01-6.0		0	1	2	1	0	4
		0.0	25.0	50.0	25.0	0.0	20.0
		0.0	14.3	40.0	25.0	0.0	
		0.0	5.0	10.0	5.0	0.0	
8.0		0	0	1	0	0	1
		0.0	0.0	100.0	0.0	0.0	5.0
		0.0	0.0	20.0	0.0	0.0	
		0.0	0.0	5.0	0.0	0.0	
9.5		0	0	0	0	1	1
		0.0	0.0	0.0	0.0	100.0	5.0
		0.0	0.0	0.0	0.0	100.0	
		0.0	0.0	0.0	0.0	5.0	
37.0		0	1	0	0	0	1
		0.0	100.0	0.0	0.0	0.0	5.0
		0.0	14.3	0.0	0.0	0.0	
		0.0	5.0	0.0	0.0	0.0	
COLUMN TOTAL		3	7	5	4	1	20
		15.0	35.0	25.0	20.0	5.0	100.0

CHI SQUARE = 31.40709 WITH 24 DEGREES OF FREEDOM SIGNIFICANCE = 0.1424

FIGURE 8: CROSSTAPULATION RESULTS
(cont.)

NUMBER OF LOTS	COUNT	PROFIT									ROW TOTAL
	ROW PCT	PERCENTAGE									
	COL PCT	0%	2%	3%	4%	5-7%	8-10%	11-14%	14%+		
	TOT PCT										
0	1	0	0	0	0	0	0	0	0	1	
	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	
	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
1	3	3	0	0	10	5	3	4		28	
	10.7	10.7	0.0	0.0	35.7	17.9	10.7	14.3		71.3	
	75.0	75.0	0.0	0.0	83.3	100.0	60.0	66.7			
	7.7	7.7	0.0	0.0	25.6	12.3	7.7	10.3			
2-3	0	1	2	1	1	0	2	1		8	
	0.0	12.5	25.0	17.5	12.5	0.0	25.0	12.5		20.5	
	0.0	25.0	100.0	100.0	8.3	0.0	40.0	16.7			
	0.0	2.6	5.1	2.6	2.6	0.0	5.1	2.6			
4+	0	0	0	0	1	0	0	1		2	
	0.0	0.0	0.0	0.0	50.0	0.0	0.0	50.0		5.1	
	0.0	0.0	0.0	0.0	8.3	0.0	0.0	16.7			
	0.0	0.0	0.0	0.0	2.6	0.0	0.0	2.6			
COLUMN TOTAL		4	4	2	1	12	5	5	6	39	
		10.3	10.3	5.1	2.6	30.8	12.8	12.3	15.4	100.0	

CHI SQUARE = 27.64810 WITH 21 DEGREES OF FREEDOM SIGNIFICANCE = 0.1504

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

TOTAL ANNUAL SALES	COUNT		PROFIT PERCENTAGE								ROW TOTAL
	ROW PCT										
	COL PCT										
	TOT PCT		0%	2%	3%	4%	5-7%	8-10%	11-14%	14%+	
0-200K	2	1	0	0	1	1	2	0	7		
	28.6	14.3	0.0	0.0	14.3	14.3	28.6	0.0	19.4		
	66.7	25.0	0.0	0.0	9.1	20.0	50.0	0.0			
	5.6	2.8	0.0	0.0	2.8	2.8	5.6	0.0			
201-500K	0	2	0	0	2	2	1	3	10		
	0.0	20.0	0.0	0.0	20.0	20.0	10.0	30.0	27.8		
	0.0	50.0	0.0	0.0	18.2	40.0	25.0	50.0			
	0.0	5.6	0.0	0.0	5.6	5.6	7.8	8.3			
501-1000K	0	1	1	0	3	2	1	2	10		
	0.0	10.0	10.0	0.0	30.0	20.0	10.0	20.0	27.8		
	0.0	25.0	50.0	0.0	27.3	40.0	25.0	33.3			
	0.0	2.8	2.8	0.0	8.3	5.6	7.8	5.6			
1001-2000K	1	0	1	1	4	0	0	1	8		
	12.5	0.0	12.5	12.5	50.0	0.0	0.0	12.5	22.2		
	33.3	0.0	50.0	100.0	36.4	0.0	0.0	16.7			
	2.8	0.0	2.8	2.8	11.1	0.0	0.0	2.8			
2001K+	0	0	0	0	1	0	0	0	1		
	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	2.8		
	0.0	0.0	0.0	0.0	9.1	0.0	0.0	0.0			
	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.0			
COLUMN TOTAL		3	4	2	1	11	5	4	36		
		8.3	11.1	5.6	2.8	30.6	13.9	11.1	16.7	100.0	

CHI SQUARE = 23.51443 WITH 28 DEGREES OF FREEDOM SIGNIFICANCE = 0.7069

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

TOTAL NUMBER OF SALES PER LOT	PROFIT PERCENTAGE												ROW TOTAL
	COUNT	ROW PCT	COL PCT	TOT PCT	0%	2%	3%	4%	5-7%	8-10%	11-14%	14%+	
	1	1	1	1	1	1	1	1	1	1	1	1	
	1	1	1	1	1	1	1	1	1	1	1	1	
	1	1	1	1	1	1	1	1	1	1	1	1	
0-30	1	1	1	1	0	0	0	0	1	0	0	1	3
	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	33.3	8.3
	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	0.0	16.7	
	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	2.8	
31-60	1	1	1	1	0	0	0	0	0	0	1	0	1
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	2.8
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	
101-150	1	1	1	1	0	2	0	0	0	0	1	0	3
	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	8.3
	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	
	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	
151-200	1	1	1	1	0	0	0	0	0	1	0	0	2
	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	5.6
	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	
	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	
201-300	1	1	1	1	0	1	1	0	1	1	0	1	5
	0.0	20.0	20.0	0.0	0.0	0.0	0.0	0.0	20.0	20.0	0.0	20.0	13.9
	0.0	25.0	50.0	0.0	0.0	0.0	0.0	9.1	20.0	0.0	0.0	16.7	
	0.0	2.8	2.8	0.0	0.0	0.0	0.0	2.8	2.8	0.0	0.0	2.8	
301+	1	1	1	1	1	1	1	1	9	3	2	4	22
	4.5	4.5	4.5	4.5	4.5	4.5	4.5	40.9	13.6	9.1	18.2	61.1	
	33.3	25.0	50.0	100.0	81.8	60.0	50.0	66.7	60.0	50.0	66.7		
	2.8	2.8	2.8	2.8	2.8	2.8	2.8	25.0	8.3	5.6	11.1		
COLUMN TOTAL	3	4	2	1	11	5	4	6	36				
	8.3	11.1	5.6	2.8	30.6	13.9	11.1	16.7	100.0				

CHI SQUARE = 37.73932 WITH 35 DEGREES OF FREEDOM SIGNIFICANCE = 0.3430

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SALES COMPOSITION	COUNT	PROFIT										ROW TOTAL
	ROW PCT	PERCENTAGE										
	COL PCT	0%	2%	3%	4%	5-7%	8-10%	11-14%	14%+			
	TOT PCT											
0-3	1	0	0	0	0	2	1	1	0	5		
	20.0	0.0	0.0	0.0	40.0	20.0	20.0	0.0	16.7			
	100.0	0.0	0.0	0.0	22.2	25.0	33.3	0.0				
	3.3	0.0	0.0	0.0	6.7	3.3	3.3	0.0				
4-5	0	2	1	0	1	3	2	2	11			
	0.0	18.2	9.1	0.0	9.1	27.3	18.2	18.2	36.7			
	0.0	50.0	50.0	0.0	11.1	75.0	66.7	33.3				
	0.0	6.7	3.3	0.0	3.3	10.0	6.7	6.7				
6-7	0	1	1	0	2	0	0	1	5			
	0.0	20.0	20.0	0.0	40.0	0.0	0.0	20.0	16.7			
	0.0	25.0	50.0	0.0	22.2	0.0	0.0	16.7				
	0.0	3.3	3.3	0.0	6.7	0.0	0.0	3.3				
8-12	0	1	0	1	4	0	0	1	7			
	0.0	14.3	0.0	14.3	57.1	0.0	0.0	14.3	23.3			
	0.0	25.0	0.0	100.0	44.4	0.0	0.0	16.7				
	0.0	3.3	0.0	4.3	13.3	0.0	0.0	3.3				
13+	0	0	0	0	0	0	0	2	2			
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	6.7			
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3				
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7				
COLUMN TOTAL		1	4	2	1	9	4	3	6	30		
		3.3	13.3	6.7	3.3	30.0	13.3	10.0	20.0	100.0		

CHI SQUARE = 30.00856 WITH 28 DEGREES OF FREEDOM SIGNIFICANCE = 0.3628

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

	COUNT		PROFIT PERCENTAGE									ROW TOTAL
	ROW PCT											
	COL PCT											
	TOT PCT		0%	2%	3%	4%	5-7%	8-10%	11-14%	14%+		
CUSTOMER SERVICES	0.0-0.75	1	0	0	0	0	0	0	0	0	1	
		100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	
		50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
		4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	.76-1.5	0	1	0	0	2	1	0	1	5		
		0.0	20.0	0.0	0.0	40.0	20.0	0.0	20.0	21.7		
		0.0	33.3	0.0	0.0	28.6	50.0	0.0	50.0			
		0.0	4.3	0.0	0.0	8.7	4.3	0.0	4.3			
	1.51-2.0	0	0	1	1	2	1	0	0	5		
		0.0	0.0	20.0	20.0	40.0	20.0	0.0	0.0	21.7		
		0.0	0.0	100.0	100.0	28.6	50.0	0.0	0.0			
		0.0	0.0	4.3	4.3	8.7	4.3	0.0	0.0			
	2.01-2.5	0	0	0	0	0	0	2	0	2		
		0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	8.7		
		0.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0			
		0.0	0.0	0.0	0.0	0.0	0.0	8.7	0.0			
	2.51-3.0	1	2	0	0	0	0	1	0	4		
		25.0	50.0	0.0	0.0	0.0	0.0	25.0	0.0	17.4		
		50.0	66.7	0.0	0.0	0.0	0.0	20.0	0.0			
		4.3	8.7	0.0	0.0	0.0	0.0	4.3	0.0			
	3.01-3.5	0	0	0	0	1	0	2	0	3		
		0.0	0.0	0.0	0.0	33.3	0.0	66.7	0.0	13.0		
		0.0	0.0	0.0	0.0	14.3	0.0	40.0	0.0			
		0.0	0.0	0.0	0.0	4.3	0.0	8.7	0.0			
	3.51-4.5	0	0	0	0	2	0	0	1	3		
		0.0	0.0	0.0	0.0	66.7	0.0	0.0	33.3	13.0		
		0.0	0.0	0.0	0.0	28.6	0.0	0.0	50.0			
		0.0	0.0	0.0	0.0	8.7	0.0	0.0	4.3			
COLUMN TOTAL		2	3	1	1	7	2	5	2	23		
		8.7	13.0	4.3	4.3	30.4	8.7	21.7	8.7	100.0		

CHI SQUARE = 47.72469 WITH 42 DEGREES OF FREEDOM SIGNIFICANCE = 0.2513

FIGURE 2: CROSSTABULATION RESULTS
(cont.)

SELLING ADVANTAGES	COUNT	PROFIT PERCENTAGE								ROW TOTAL
	ROW PCT									
	COL PCT									
	TOT PCT	0%	2%	3%	4%	5-7%	8-10%	11-14%	14%+	
0-2.0	2	1	1	1	1	4	1	3	1	14
	14.3	7.1	7.1	7.1	7.1	28.6	7.1	21.4	7.1	35.9
	50.0	25.0	50.0	100.0	33.3	20.0	60.0	16.7		
	5.1	2.6	2.6	2.6	2.6	10.3	2.6	7.7	2.6	
2.01-4.0	0	1	0	0	0	0	0	0	1	2
	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	5.1
	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	
	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	2.6	
4.01-7.0	1	0	0	0	0	2	0	1	1	5
	20.0	0.0	0.0	0.0	0.0	40.0	0.0	20.0	20.0	12.8
	25.0	0.0	0.0	0.0	0.0	16.7	0.0	20.0	16.7	
	2.6	0.0	0.0	0.0	0.0	5.1	0.0	2.6	2.6	
7.01-16.0	1	2	0	0	0	3	2	1	1	10
	10.0	20.0	0.0	0.0	0.0	30.0	20.0	10.0	10.0	25.6
	25.0	50.0	0.0	0.0	0.0	25.0	40.0	20.0	16.7	
	2.6	5.1	0.0	0.0	0.0	7.7	5.1	2.6	2.6	
16.01-20.0	0	0	0	0	0	2	1	0	0	3
	0.0	0.0	0.0	0.0	0.0	66.7	33.3	0.0	0.0	7.7
	0.0	0.0	0.0	0.0	0.0	16.7	20.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	5.1	2.6	0.0	0.0	
20.01-24.0	0	0	1	0	0	1	1	0	2	5
	0.0	0.0	20.0	0.0	0.0	20.0	20.0	0.0	40.0	12.8
	0.0	0.0	50.0	0.0	0.0	8.3	20.0	0.0	33.3	
	0.0	0.0	2.6	0.0	0.0	2.6	2.6	0.0	5.1	
COLUMN TOTAL	4	4	2	1	12	5	5	6	39	
TOTAL	10.3	10.3	5.1	2.6	10.8	12.8	12.8	15.4	100.0	

CHI SQUARE = 24.53896 WITH 35 DEGREES OF FREEDOM SIGNIFICANCE = 0.9067

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

SEASONALITY	PROFIT PERCENTAGE										ROW TOTAL	
	COUNT											
	ROW PCT											
	COL PCT											
	TOT PCT	0%	2%	3%	4%	5-7%	8-10%	11-14%	14%+			
1.0-2.0	1	0	0	0	1	2	0	0	2	5		
	1	0.0	0.0	0.0	20.0	40.0	0.0	0.0	40.0	23.8		
	1	0.0	0.0	0.0	100.0	28.6	0.0	0.0	50.0			
	1	0.0	0.0	0.0	4.8	9.5	0.0	0.0	9.5			
2.01-3.0	1	0	2	0	0	0	1	1	0	4		
	1	0.0	50.0	0.0	0.0	0.0	25.0	25.0	0.0	19.0		
	1	0.0	100.0	0.0	0.0	0.0	100.0	33.3	0.0			
	1	0.0	9.5	0.0	0.0	0.0	4.8	4.8	0.0			
3.01-4.0	1	1	0	1	0	0	0	2	1	5		
	1	20.0	0.0	20.0	0.0	0.0	0.0	40.0	20.0	23.8		
	1	100.0	0.0	50.0	0.0	0.0	0.0	66.7	25.0			
	1	4.8	0.0	4.8	0.0	0.0	0.0	9.5	4.8			
4.01-6.0	1	0	0	0	0	3	0	0	1	4		
	1	0.0	0.0	0.0	0.0	75.0	0.0	0.0	25.0	19.0		
	1	0.0	0.0	0.0	0.0	42.9	0.0	0.0	25.0			
	1	0.0	0.0	0.0	0.0	14.3	0.0	0.0	4.8			
8.0	1	0	0	1	0	0	0	0	0	1		
	1	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	4.8		
	1	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0			
	1	0.0	0.0	4.8	0.0	0.0	0.0	0.0	0.0			
9.5	1	0	0	0	0	1	0	0	0	1		
	1	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	4.8		
	1	0.0	0.0	0.0	0.0	14.3	0.0	0.0	0.0			
	1	0.0	0.0	0.0	0.0	4.9	0.0	0.0	0.0			
37.0	1	0	0	0	0	1	0	0	0	1		
	1	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	4.8		
	1	0.0	0.0	0.0	0.0	14.3	0.0	0.0	0.0			
	1	0.0	0.0	0.0	0.0	4.9	0.0	0.0	0.0			
COLUMN TOTAL		1	2	2	1	7	1	3	4	21		
		4.8	9.5	9.5	4.8	33.3	4.8	14.3	19.0	100.0		

CHI SQUARE = 44.81221 WITH 42 DEGREES OF FREEDOM SIGNIFICANCE = 0.3547

FIGURE 8: CROSSTABULATION RESULTS
(cont.)

C.

DETERMINANTS OF DEALER COST STRUCTURES

3.1 GENERAL DETERMINANTS OF COST VARIATIONS

As stated in the previous chapter, the mobile home industry is complex with interdependencies among many variables. Cross-tabulation, though a useful tool, is limited in that it cannot account for these interdependencies. Multivariate regression analysis will permit the effect of several variables to be considered independently.

The PMHI/DS questionnaire is the source of data for the regression analysis. Determinants of two cost categories, variable and fixed for the standardized model, is sought by this method of analysis. The numbers in parenthesis in this chapter refer to the questions on the survey questionnaire from which the information is drawn.³ A regression was run with each of the model cost categories as dependent variables: F.O.B. factory price, salesman's commission, advertising, floor planning, transportation, set-up, general and administrative expense, and overhead. The regressions for salesman's commission, advertising, floor planning, transportation, general and administrative expense and overhead were significant.

The following factors were significant determinants in at least one equation:

Economies of scale: Economies of scale were approximated by TASLOT, total number of sales per lot; AIL72, average inventory level; TAS72, total annual sales; and LOTS72, the number of sale lots.

Composition of sales: Composition of sales was measured by MANLOT, the number of manufacturers represented per lot; NBRN, the number of brands sold; and MANR, the number of manufacturers represented on all lots.

Seasonality: Seasonality was approximated through seasonal fluctuations, using the variable HMSLMS, the ratio of highest monthly sales volume to lowest monthly sales volume.

Brand Loyalty: BRNP, the percentage of customers requesting a product by brand name, was used to measure brand loyalty.

Services: Availability of customer services was approached through the variables EWRT, the dealer's extra warranty; by SPS, the percentage of sales to customers with lots in the dealer's park; and ACT, the acceptance into the park of only those tenants buying from the dealer.

Regional Variations: Regional variations were approximated by the dummy variable, WAGER, reflecting variations in natural resources, capital and labor markets.

A summary of the variables included in the regression analysis follows:

<u>Variable</u>	<u>Explanation</u>	<u>PMHI/DS Question No.</u>
TASLOT	Total Number of Sales per Lot	6b, 6a
AIL72	1972 Monthly Inventory Level	6c
TAS72	Total Annual Sales for 1972	6b
LOTS72	Number of Sale Lots in 1972	6a
SUDZ	Percentage of Sales Other than Single-Wides	$\sum_{n=1}^N n^2 / \sum_{n=1}^N n = i \dots d$
NBRN	Maximum Number of Brands Sold	29a
MANLOT	Manufacturers per Lot	8, 6a
MANR	Number of Manufacturers	8
HMSLMS	High Monthly Sales Volume/Low Monthly Sales Volume	29b1, 29b2
BRNP	Percent of Customers Requesting Product by Brand Name	25f

<u>Variable</u>	<u>Explanation</u>	<u>PMHI/DS Question No.</u>
SPS	Percent Sales to Customers with Lots in Dealers Parks	19e
ACT	Do you Accept Tenants Only if They Bought from your Dealership?	19f
EWRT	Are Extra Warranties Offered:	17d
WAGER	Regional Wage Rate	Company Questionnaire Address
YRST	First Year of Business	1

In chapters 3.2 to 3.5, the specific justifications for inclusion of variables in individual cost equations are explained and results for each cost regression are considered in greater detail.

3.2 AVERAGE VARIABLE COSTS

Among the factors considered in this analysis as likely to influence dealer variable costs are scale economies, composition of sales, the number of brands and the number of manufacturers represented, seasonality, consumer services, and regional variations.

Scale economies are related to total annual sales per sales lot (6a, 6b), total sales (6b), and the dealer's inventory level (6c). -

Three product related variables are considered which might affect variable costs. Composition of sales (6a through 6h) is used to consider the percentage of non-single-wide sales, which may affect costs because of the capital investment and decreased standardization required to keep a larger variety of units available. The number of brands (29a) and the number of manufacturers (8) could also affect costs by increasing capital investment and decreasing standardization as greater variety is offered.

Utilization rates of capital and labor may also affect variable costs. Mobile home sales are very seasonal, therefore an index of sales fluctuation, highest monthly sales divided by lowest monthly sales (29b1, 29b2) is included. One expects that large seasonal fluctuations

will result in inefficient use of capital and labor leading to higher costs.

Consumer-oriented factors can also affect variable costs. A customer who requests a product by brand name (25f) may pay a higher price.

Services, in particular mobile home park services, offered by the dealer may result in higher costs. The service of renting a dealer's park space is associated with the percentage of mobile home sales to customers with sites in dealers' parks (19e) and dealers' acceptance of tenants in his park only if they buy units from him (19f).

A final factor studied for its effect on average variable costs is the degree of difference due to regional variations. This could result from differing labor costs, capital costs, and natural resources in each region, as well as from structural differences in each region's distribution system.

The influence of these factors on average variable costs is studied by regression analysis for the following four categories: F.O.B. factory price, salesman's commission, advertising, and floor planning.

3.3 DETERMINANTS OF DEALER VARIABLE COSTS

Regressions for the variable cost categories are shown in Figure 9. Four regressions were run, with F.O.B. factory price of the standardized model, salesman's commissions, advertising expenses, and floor planning costs as dependent variables. All regressions except for F.O.B. factory price were significant.

The significant determinant of the salesman's commission was:

Services: The variable SPS ($t = 3.19$) demonstrated that a salesman increased his commission as he sold more units to be located in the dealer's park. This was probably due to incentives that dealers offered salesmen for renting park space.

The significant determinant of the advertising regression was:

Composition of sales: NBRN ($t = 4.14$) showed that an increase in the number of brands a dealer carried increased advertising expenses.

The significant determinants of the floor planning regression were:

VARIABLE	PRICE F.O.B.	SALESMAN'S COMMISSION	ADVERTISING	FLOOR PLANNING
TASLOT		.00291 (.00222)		-.00189 (.00145)
AIL72	-.01973 (.01594)			
TAS72	.00082 (.00500)	-.00128 (.00157)	.00033 (.00024)	.00113 (.00108)
LOTS72			-.05256 (.04345)	
SUDZ	-10.94550 (11.03657)			
NBRN	.37466 (1.63475)		.11959* (.02886)	
MANLOT				
MANR	.61044 (1.41879)			
HMSLMS	.09016 (.67882)	-.08358 (.20559)		
BRNP		-.02416 (.02239)		.05695* (.01624)
SPS		.06746* (.02117)		.00953 (.01734)
ACT				-3.03668* (1.43167)
EWRT				
WAGER	5.10148 (7.72431)	-1.69573 (1.84128)	.06725 (.37589)	-1.91309 1.18482
YRST				
R ²	.23883	.47354	.54001	.49228
F	.58272	2.69849**	7.33734**	2.90878**
T-K	13	18	25	18

* t significant at 0.05

** F significant at 0.05

Source: PMHI/DS

FIGURE 9: DEALERS VARIABLE COST REGRESSION TABLE

Brand loyalty: BRNP ($t = 3.5$) indicated that floor planning costs increased as the percentage of customers requesting products by brand names increased. One reason for this could be that well known brand names were priced higher resulting in a higher financing charge.

Services: The variable ACT ($t = 2.12$) indicated that floor planning costs will decrease if a dealer accepts as tenants in his park only those who buy units from him. It was not expected to find customer-oriented policies affecting floor planning costs, which should be determined by the financial market and the company's financial position. One explanation may have been that this policy allowed the dealer to buy the unit from the manufacturer either after the sale or with minimum financing time.

3.4 AVERAGE FIXED COSTS

The factors influencing differences in average fixed costs are also diverse. They include economies of scale, composition of sales, number of manufacturers represented, seasonality, services, regional variations and company age.

Again, economies of scale are of major interest. The effects of these variables are considered: average inventory level (6c), total annual sales per lot (6b, 6a) and total annual sales (6b).

Some product related factors which may affect fixed costs are composition of sales (i.e., the percentage of non-single-wide sales, (6a through 6h) and the number of manufacturers represented per lot (8, 6a). These factors can affect fixed costs in the same way they affect variable cost.

Utilization rates of capital and labor, influenced by seasonality, might affect fixed costs. Sales fluctuations, highest monthly sales divided by lowest monthly sales (29b1, 29b2), are used to estimate the degree of capital and labor utilization.

Customer oriented factors, especially services, might affect fixed costs. In particular, warranty service offered by the dealer (17d)

might increase fixed costs. Special tools, skilled workers, and additional paperwork are needed to service units.

Since there are variations in labor force quality and available technology, as well as natural resources with company location, regional variations are looked at as a possible cause for fixed cost variations.

The effect of dealer age (1) is included because experience should lead to greater efficiency (e.g., paper work, improved management techniques).

Regression analysis for the fixed cost categories of transportation, set-up, general and administrative expense, and overhead is performed.

3.5

DETERMINANTS OF DEALER FIXED COST VARIATIONS

Regressions for the fixed cost categories are shown in Figure 10. Four regressions were run, with transportation costs, set-up expense, general and administrative expense, and overhead as dependent variables. Results were significant for general and administrative expense and for overhead.

The significant determinants of general and administrative costs were:

Economies of scale: TASLOT ($t = 2.86$) showed that increasing sales per lot increased general and administrative costs. Increased sales, clerical and maintenance personnel and paper work could have caused the result.

The variable AIL72 ($t = 3.75$) indicated that a large inventory level decreased costs. If a large inventory meant a large dealer, then the reduced costs might have resulted from consolidation of activities and efficient management.

Services: EWRT ($c = 2.67$) demonstrated that an extra dealer's warranty increased costs substantially. This was expected since warranties increase paper work and labor

VARIABLE	TRANS. COST	SET-UP	GEN. & ADMIN.	OVERHEAD
TASLOT	.01279 (.01675)	-.00086 (.00168)	.00672* (.00235)	.00607* (.00140)
AIL72	.01756 (.04503)		-.02218* (.00591)	-.00152 (.00351)
TAS72	-.01045 (.01438)	.00057 (.00108)		
LOTS72				
SUDZ	6.40775 (15.19170)	-.28636 (1.53678)	-2.84204 (2.94246)	-1.83772 (1.90598)
NBRN				
MANLOT	-1.29737 (1.42414)	.12895 (.15025)	.47768 (.26770)	-.20393 (.15169)
MANR				
HMSLMS	-.33975 (.75206)	-.03182 (.08487)	-.20497 (.14342)	-.22951* (.09163)
BRNP				
SPS				
ACT				
EWRT	4.86731 (9.90649)		5.09317* (1.90681)	
WAGER	-3.20875 (9.29543)	.22096 (1.11458)	8.47411* (1.77792)	2.89238* (1.21162)
YRST	.31700 (.42236)		.04115 (.07696)	-.07699 (.04881)
R ²	.14363	.03820	.74528	.76576
F	.16772	.24184	3.65733**	5.13713**
T-K	9	15	10	11

* t significant at 0.05

** F significant at 0.05

Source: PMHI/DS

FIGURE 10: DEALERS FIXED COSTS REGRESSION TABLE

requirements.

Regional variations: WAGER ($t = 4.77$) showed that the Northeast, East and West North Central regions experienced higher general and administrative costs than the South and West North Central. Higher personnel costs were probably the reason for this result.

The determinants of overhead costs were:

Economies of scale: The variable TASLOT ($t = 4.34$) showed that the higher the number of sales per lot, the higher overhead costs. This was expected since the bigger dealer must make a larger capital investment.

Regional variations: WAGER ($t = 2.39$) showed that the Northeast, East and West North Central regions experienced higher overhead lots. This was more than likely associated with the higher cost of land and construction in these areas, since distribution is a land-intensive industry.

Seasonality: Seasonality fluctuation variable HMSLMS ($t = 2.50$) showed a reduction in overhead expenses. There were no a priori grounds for this result. It was thought that seasonality would cause inefficient operation and increased cost. Thus this result was questionable.

D.

POTENTIALS

What characteristics of mobile home distributors (dealers) are responsible for their low value added per square foot? Can these characteristics help lower distribution costs for other home distributors?

Three distinct observations can be made about the mobile home dealer.

- 1) Since the production system is so highly specialized the distribution system has developed as an independent sector. This allows dealers to develop the most efficient and economic means of distribution.
- 2) Even though variable costs are 81.2% of the retail selling price, the largest portion, 74% is the cost of the home (F.O.B. factory price). Salesman's commission and profit consist of only 10.7% of retail selling price.
- 3) Dealers have very low fixed costs. Only 10.7% of retail selling price is attributed to fixed costs. This is the main factor in keeping overhead costs of distribution very low. Regression analysis has shown some minor determinants of fixed costs, with dealer size and increased customer services both being positively correlated with increased costs.

Regression analysis associated most of the determinants of variable costs to customer services or preferences. This suggests that the price of a mobile home is affected somewhat by the customer's tastes and the services he requires. All the determinants have only minor influences on all cost categories. It is the interaction of all these factors at once in the market place that produces the variations in the value added statistic that is observed.

E.

SUMMARY

The mobile home distribution system represents a major component of the total industry, with dealer costs constituting 25% of the total delivered price of an average mobile home. Since the major market advantage of the mobile home industry is its price differential relative to conventional housing, a highly efficient distribution system is crucial to the continued growth of the industry.

In order to determine the potential for improvement in the distribution system, data from the PMHI/DS questionnaire were analyzed to provide information concerning two major points of interest. First, descriptive data and crosstabulations of that data were analyzed to isolate any existing trends or dependencies within the system. The data were then subjected to more powerful statistical analysis techniques in order to explore any observable interdependencies related to interfirm variations in cost.

The basic descriptive data provided two important measures of the structure of the distribution system. First, if variable costs are defined to include F.O.B. factory selling price as well as sales commissions, advertising expense, and floor planning costs, then variable costs constitute 79% of total retail selling price. This would indicate that dealers' cost structures are characterized by a high degree of flexibility. Second, if attention is focused upon the variable component of dealers' value added, these variable costs reduce to 24% of dealers' value added exclusive of profit. Dealers' value added, therefore, is dominated by its fixed cost component and dealer flexibility becomes less apparent. This latter condition becomes crucial during periods of low demand, since it indicates that there is little room for reduction in the cost of the

delivery system when it is being underutilized.

The crosstabulation analysis does not indicate the existence of significant trends within the distribution system. While the ranges of values for various costs were reasonably consistent, it is impossible to reject the hypothesis that variation within the ranges is totally random. This finding is consistent with the results of regression analysis which was utilized to isolate specific determinants if they existed, and which failed in general to provide significant explanation of inter-firm cost variations. Based upon the results of these two forms of statistical analysis, it is reasonable to state that the distribution system is still in the process of development, with random variations in cost structures which would be associated with a group of individual firms in the early stages of seeking an optimal operating structure.

FOOTNOTES

1. Value added is defined as the difference between F.O.B. price and retail selling price. Conceptually, value added represents the increase in the value of the final good attributable to dealer activities.
2. Since the cross tabulation is only a qualitative analysis, composite measures are used for company structure, output differentiation, and seasonality.

The form of the composite measure used is a weighted sum. This form was chosen because of the special properties that result from a linear function. To understand how these composite measures are calculated one must first look at the data.

The data appears in matrix form (shown below), where a column is a collection of observations for one factor, called a vector. A factor is a variable in the composite sum.

$$\begin{bmatrix} a_{11} & a_{12} & \cdot & \cdot & \cdot & a_{1k} \\ a_{21} & & & & & \\ \cdot & & & & & \\ \cdot & & & & & \\ a_{t1} & a_{t2} & \cdot & \cdot & \cdot & a_{tk} \end{bmatrix}$$

A subgroup of these k factors might measure the same trend. For instance the number of brands and percentage of non-single-wide units both measure some form of output diversification. The composite measure transforms

these subgroups into one variable. In performing this transformation three things are needed:

- 1) The units of each vector must be transformed so they can be added.
- 2) Vectors must be of the same length so they won't bias the composite measure
- 3) The relative weights used in the sum must be determined.

To add the different vectors they must be converted into the same units. This is done by dividing each vector by its mean thus giving a unitless quantity. For instance all the observations for number of brands are divided by the sample mean for number of brands. This gives a matrix of unitless vectors so any combination of vectors can be added. If we let A_s equal the s^{th} vector mean, the new matrix of observations is:

$$\begin{bmatrix} a_{11}/A_1 & a_{12}/A_2 & \cdot & \cdot & \cdot & \cdot & a_{1k}/A_k \\ a_{21}/A_1 & & & & & & \cdot \\ \cdot & & & & & & \cdot \\ \cdot & & & & & & \cdot \\ \cdot & & & & & & \cdot \\ a_{T1}/A_1 & \cdot & \cdot & \cdot & \cdot & \cdot & a_{Tk}/A_k \end{bmatrix} = [\delta_1 \delta_2 \cdot \cdot \cdot \delta_k]$$

Where δ_i is a vector of T observations divided by the mean for Factor i.

Preventing the different vector lengths from biasing the composite measure could be done in 2 ways:

- 1) Incorporating the different scales into the respective weights.
- 2) Normalizing the vectors so they are all the same length.

Two is used because it is easier to do and it allows the relative weights to only reflect how each factor should affect the composite factor. The normalized (vectors divided by their length) vector matrix is shown below. Each vector in this matrix has a length of 1.

$$[|\delta_1|/|\delta_1| \quad |\delta_2|/|\delta_2| \quad \dots \quad |\delta_k|/|\delta_k|]$$

Now the vectors can be added.

$$\begin{aligned} \text{The composite measure is of the form} \\ Y &= \alpha_1 |\delta_1| + \alpha_2 |\delta_2| + \dots + \alpha_n |\delta_n| \\ &= \sum_{i=1}^n \alpha_i |\delta_i| \end{aligned}$$

Where n is the number of vectors in the composite measure

δ_i = the weight for the i vector

The problem is choosing the weights for each factor. Some of the methods considered were taking the correlation coefficients for each factor with a specific group of costs. These were rejected because they would bias the composite measure due to correlation between the weights and the cost categories. So an educated guess is used to assign the weights to the composite measures. This is based on consultation with an experienced person in the industry. All the weights are valued between 0 and 1 and many factors are given equal importance. The following figure lists the weights assigned to each factor.

Sales Composition= 1 (Number of brands) + (Number of manufacturers)
+ 1 (% single wides sold)

Customer Service= 1 (Are extra warranties offered) + 1 (% Sales to
customers with lots in dealer parks)

Selling Advantages= 1 (% customers request product by brand name)
+ 1 (Do you accept tenants only if they bought
from your dealership)

3. Statistical results for cost variations were based on regression analysis of the responses of 71 Mobile Home Dealers to the PMHI/DS questionnaire. Even though this sample was large, some regressions are run on as few as 19 data points due to incomplete answers. This loss of observations could reduce the number of significant factors and the precision with which they can be estimated.

Costs are broken down into the following two categories: Dealer's average variable costs per square foot= Retail selling price of the model times the share of model costs attributable to F.O.B. factory price, salesman's commission, advertising and floor planning: divided by square footage of the model.

Dealer's average fixed costs per square foot= Retail selling price of the model times the share of the model costs attributable to transportation, set-up, general and administrative expense and overhead, divided by the square footage of the model.

Retail selling price is adjusted to meet the specifications of our standardized model. It is assumed that retail selling price changes in the same proportion as F.O.B. factory price (F.O.B. factory price

Regionality is determined by entering the average wage value for each region in a dummy variable (wager). The sample is divided into the following regions with their wages indicated.

1. New England and Mid-Atlantic	\$3.03/hr.
2. East South Central and West South Central	2.56
3. South Atlantic	2.65
4. East North Central	4.04
5. West North Central	2.93
6. Mountain	3.05
7. Pacific	3.10

These mean values are obtained using data from the 1973 "Mobile Housing Cost and Profit Survey", conducted by Mobile-Modular Housing Dealer Magazine and referred to as the MMHDM Survey.

DEALER FINANCING

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pt. 2

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A.

INTRODUCTION

Although there are many relevant aspects of a mobile home dealership that must be considered before a total picture can be obtained, the major concerns of this section are description and analysis of the specific mechanisms of dealer financing. Whenever possible, the analysis will identify trends and problem areas, and quantify observations based upon data obtained from the Project Mobile Home Industry Dealer Survey, (PMHI/DS), a copy of which appears in Appendix D at the end of this volume. This Appendix gives a more thorough description of the survey, including an analysis of some of the problems encountered.

Dealer financing is chiefly concerned with the financial transactions that enable a mobile home dealer to obtain funds for working capital and inventory. The primary method by which dealers obtain such financing is termed "floor planning" or "flooring". Additionally, dealer financing extends to interactions among the dealer, lender, and consumer in securing financing for the consumer's purchase of a mobile home.

Even though industry practices have intimately linked dealer financing to consumer financing, this section of the report does not deal with consumer financing per se. The concern for consumer financing here is largely limited to the dealer's role in arranging financing for customers. For a detailed analysis of the consumer financing area, the reader is referred to the section on Consumer Financing.

In this section dealer financing is explained utilizing a funds flow analysis. This is followed by descriptions of wholesale and retail financing. Finally, based upon an analysis of current practices, emerging industry

trends are suggested.

B.

ANALYSIS OF THE
PRESENT SITUATION

1.

Funds Flow Analysis

In this chapter, the flow of funds of mobile home dealers is analyzed. The analysis presents specific sources and uses of funds, as illustrated by relevant data from PMHI/DS. Where possible, the analysis attempts to identify those sources and uses of funds that represent problem areas or are indicative of a trend in dealer financing.

Figure 1 is a typical operating statement for a mobile home dealership with annual gross sales between \$500,000 and \$2 million. Note that a dealer in this range makes most of his net profit not from mobile home sales but from "other income" sources such as insurance commissions and participation arrangements with lending institutions.

This has frequently been rationalized by arguing that the mobile home dealer is in business not so much to sell mobile homes as to provide a "package" of mobile home services tailored to the needs of the consumer. Nevertheless, it would seem that a more efficient division of responsibilities requires the major sectors of the industry to concentrate primarily on their specific, and separate, functions. Thus, it is logical that manufacturers "produce", dealers "sell", and lenders "finance".

It is true that dealers must sell mobile homes in order to generate profits in terms of insurance commissions and participating reserve arrangements. However, a large profit opportunity in peripheral ser-

OPERATING STATEMENT

	<u>LOW</u>	<u>RANGE</u>	<u>HIGH</u>
Sales		100%	
Cost of Sales (incl. freight, services, etc.)	83	-	87%
Gross Profit	13	-	17%
Expenses			
Advertising and Promotion	.5	-	1.0
Interest	1.0	-	1.5
Other	<u>7.5</u>	-	<u>12.5</u>
Total Expense	9.0	-	15.0
Net Profit on Sales	2.0	-	4.0
Other Income			
Insurance Commissions	.2	-	.5
Dealer Reserve	<u>2.0</u>	-	<u>3.0</u>
Total Other Income	2.2	-	3.5
Total Net Profit	4.2	-	7.5

Source: Adapted from Small Business Reporter, Vol. 9, No. 11, 1970, The Bank of America. Note that the figures indicated in the table represent ranges for the respective categories, and as such do not sum down the columns.

FIGURE 1: DEALER OPERATING STATEMENT.

vices creates a danger that the best interests of the consumer, and perhaps the dealer, are not being served.

1.1 SOURCES OF FUNDS

This analysis concentrates on those sources listed under the heading "other income" in the sample operating statement of Figure 1. These include:

- (1) Dealer "spread," or participation.
- (2) Insurance commissions.
- (3) Mark-up on sale of used mobile homes.
- (4) Income from sale of accessories.
- (5) Participation in operation of parks.
- (6) Mark-up on sale of new mobile homes.

1.1.1 Dealer Spread

In describing the financial arrangement of floor planning (see item 2.1.2) it is pointed out that the lender providing inventory

financing usually receives most of the retail financing generated by the dealer's sales. In arranging financing for his customer, the dealer quotes the customer an interest rate that is higher than that at which the lending institution would normally discount the paper. This difference between the rate of interest charged the consumer and the discount rate offered the dealer is known as dealer "spread".

The income from dealer spread is known as the dealer reserve. The reserve account sometimes is divided into a special reserve and a regular reserve. Usually the lender stipulates that the special reserve must contain from four to six percent of the aggregate amount of retail paper outstanding before the dealer can be advanced any money. However, one bank in Michigan customarily gives a dealer with a good credit rating up to half of the total dealer reserve when he enters into contract with the bank to obtain retail financing for a customer. Receiving this money at such an early stage in the contract ostensibly allows the dealer to give better deals and service to his customers. The remainder of the total reserve is transferred to the dealer when half the consumer loan payments are paid. In this case the bank is willing to pay out the dealer reserve quickly in order to obtain a large volume of retail paper from dealers who have good credit ratings.

1.1.2 Insurance Commissions

Another source of dealer income results from the dealer's activities as agent to an insurance company. Actually, this practice is consistent

with the dealer's involvement in retail financing of his products, since a purchaser financing a mobile home is required by the lender to carry credit life insurance and in some cases credit risk insurance, for the duration of the contract. In addition, since dealers are often required to endorse financial contracts through such mechanisms as full recourse endorsements and repurchase agreements, they have a vested interest in obtaining proper insurance protection for their customers. Accordingly, most dealers are agents for all types of mobile home insurance. As agent to an insurance company, the dealer receives a commission which may run as high as 35 to 50 percent of annual premiums. In some cases, this amounts to 0.2 to 0.5 percent of gross annual sales.

A detailed presentation of the various types of insurance available is beyond the scope of the section. For such an analysis, the reader is referred to the Consumer Financing section.

1.1.3 Income from Used Mobile Home Sales

Used mobile homes are becoming an increasingly significant portion of the mobile home market. The eight-and ten-wides have proven to be exceptionally versatile, adapting to such uses as mountain, beach, and desert hide-aways, and fishing or vacation cabins, as well as the more standard, low-cost single-family shelter for those who cannot afford or do not desire a new mobile home.

Figure 2 shows that 87.1 percent of the dealerships surveyed in PMHI/DS accept trade-ins on at least some sales. PMHI/DS also disclosed that:

- (1) On average, approximately 16 percent of new mobile homes sales involve trade-ins. This conflicts with some industry sources, however, which indicate that roughly one-quarter of total sales involve trade-ins.
- (2) The average age of trade-ins is between six and seven years.
- (3) The "average" dealership (total yearly sales volume: \$500,000), sold between thirteen and sixteen used mobile home units in 1972, resulting in an average sales volume for used units of \$40-50,000. This amounted to roughly ten percent of total sales.¹

The dealer normally bases his allowance for the used unit accepted as a trade-in on his appraisal and the value quoted in the Official Mobile Home Market Report (the "Blue Book"). Industry publications tend to estimate a 20 to 25 percent dealer mark-up on used mobile homes. This is confirmed by PMHI/DS which found that the average trade-in value allowed by dealers is roughly \$2,500, while the average sales price of used units is almost \$3,000.²

However, since the dealer's average cost to refurnish a used unit is \$220, the dealer is left with a gross profit (excluding sales commis-

% OF SALES INVOLVING TRADE-INS	DEALERSHIPS	
	NUMBER	PERCENTAGE
0	9	12.9%
1 - 5%	13	18.6%
6 - 10%	14	20.0%
11 - 20%	16	22.9%
21 - 30%	8	11.4%
31 - 40%	5	7.1%
41 - 50%	5	7.1%
TOTALS:	70	100.0%

Source: PMHI/DS (Question #26)

FIGURE 2: PERCENTAGE OF SALES INVOLVING USED MOBILE HOMES
AS TRADE - INS

sion, overhead expenses, transport costs, etc.) of about \$250 or ten percent.^{3,4} Thus, it is apparent that the average dealer regards trade-ins as more than just a necessary service to the consumer.

1.1.4 Income from Sale of Accessories

Dealers generally sell new mobile homes at about a 20 to 30 percent markup, but when selling accessories, the markup is normally 30 to 50 percent above wholesale. This higher markup compares favorably with the 100 percent (or higher) markup on the accessories sold by automobile dealers.

Although the markup is rather substantial, revenue generated from selling accessories is only a very small portion of the total revenue received by mobile home dealers. According to PMHI/DS, 29 percent of the respondents sold accessories valued from \$50 to \$150 per unit in 1972. This figure appears to be somewhat low probably due to the fact that some dealers consider accessories as part of the retail price of the mobile home. However, even with \$200 of accessories sold per unit, this represents a gross profit of only \$60 to \$100 per mobile home. Thus, it is apparent that dealers do not rely on the sale of accessories as a major source of income.

1.1.5 Dealer Participation in Operation of Parks

Some dealers obtain additional income from ownership interests in mobile home parks. PMHI/DS revealed that a little over half of the dealers sampled had some ownership interest in at least one park, with a mean total park capacity of 316 units.⁵ Of this group, half had connections with only one park. Additionally, nearly half of the dealers who had some ownership interest in at least one park reported that more than 20 percent of 1972 sales went to customers with sites in the dealer's park(s). Indeed, roughly 12 percent of these dealers reported that more than 90 percent of total sales went to dealer-owned park sites (see Figure 3).

Many industry people believe that there is a shortage of mobile home parks, and that this shortage reduces sales.⁶ Accordingly, PMHI/DS specifically addressed this point. In the survey, dealers were asked, "How many additional mobile home sales could you have made in 1972 had there been sufficient space available either in your own or other parks?"⁷ Results indicate that dealers could have sold, on average, 15 additional units. With a median value exceeding \$7,000 per unit, this represents a rather staggering "foregone sales revenue" opportunity cost to the dealer of at least \$100,000. This figure does not include such important profit items as lost insurance commissions and lost reserves.

Thus, it appears that mobile home dealers should have a strong inclination toward participation in the construction and operation of mobile home parks.

% OF 1972 SALES TO DEALER-OWNED PARKS	MOBILE HOME DEALERSHIPS WITH OWNERSHIP INTERESTS IN AT LEAST ONE PARK	
	NUMBER	PERCENTAGE
0 - 10%	14	33.3%
11 - 20%	8	19.1%
21 - 30%	5	11.9%
31 - 40%	3	7.1%
41 - 50%	1	2.4%
51 - 60%	1	2.4%
61 - 70%	1	2.4%
71 - 80%	3	7.1%
81 - 90%	1	2.4%
91 -100%	5	11.9%
TOTALS:	42	100.0%

Source: PMHI/DS (Question #19)

FIGURE 3: PERCENT OF MOBILE HOME SALES TO SITES IN
DEALER-OPERATED PARKS.

1.1.6 Mark up on Sale of New Mobile Homes

PMHI/DS attempted to address the question of dealer mark up by analyzing the percentage breakdown of the total selling price of a typical mobile home with furnishings (see Figure 4).⁸ Percentages shown in the figure represent averages of the responses given by surveyed dealers. From the figure it can be seen that the F.O.B. factory invoice price accounts for, on average, roughly 75 percent of the total sales price of the typical mobile home, with various other cost items totaling about 16 percent. This leaves an average pre-tax profit for the dealer of eight percent, resulting in an after-tax profit averaging about four percent. This correlates well with the independent figures presented in Figure 1.

Thus it is obvious that, while selling is the dealer's primary activity, direct profits from sales are not the only major source of income.

Item:

1. F.O.B. Factory Price	76.1
2. Transportation:	
Mfg. to Dealer	2.3
Dealer to Lot	1.7
3. Set-up Costs	2.3
4. Salesman's Commission	2.6
5. Advertising Costs	.8
6. General and Administrative Expenses	2.0
7. Other Overhead Expenses	2.5
8. Floor Planning Cost	1.7
9. Profit (pretax)	8.0
<hr/>	
TOTAL SELLING PRICE	100.0%

Source: PMHI/DS, Question 48

FIGURE 4: PERCENTAGE BREAKDOWN OF MOBILE HOME RETAIL SELLING PRICE.

1.2. USES OF FUNDS

At one time a couple with \$5,000 in the bank and a bit of land could seriously consider going into the mobile home dealership business. Today things are quite different because of two major factors: -

(1) Mobile home display has become an expensive and important outlay for the dealer. The sales lot must be attractively landscaped, and roads within the lot should be paved. Mobile homes displayed for sale must approximate the actual use situation as closely as possible. For instance, utilities must be connected, appliances in working order, and accessories neatly placed to give the customer a view of how the mobile home will look in actual use. In addition, there must be personnel on hand to take care of the display units. Finally, the sales lot must have an attractive office in which to finalize a sale and complete the attendant paperwork.

(2) There is a growing trend toward multi-lot operations. PMHI/DS shows that almost 30 percent of the dealers surveyed operate from more than one sales lot (see Figure 5), with one third of this group employing three or more lots. Some dealers rotate mobile homes (especially slow moving units) around various lots.

NUMBER OF SALES LOTS	DEALERSHIPS	
	NUMBER	PERCENTAGE
1	46	70.8%
2	9	13.7%
3	4	6.2%
4	2	3.1%
5 or more	4	6.2%
TOTALS:	65	100.0%

Source: PMHI/DS (Question #6)

FIGURE 5: NUMBER OF SALES LOTS, MOBILE HOME DEALERSHIPS

These and other current business practices have pushed the minimum starting investment in a dealership to over \$37,000, and the ante is increasing rapidly with the passage of each succeeding year.⁹

1.2.1 Display and Set-up Costs

Certain finishing touches to a mobile home can only be accomplished at the dealer's lot. Since units are shipped to the dealer with furnishings partially assembled, crated, and strapped down within the unit, these furnishings must be assembled and installed so that model units intended for display on the dealer's lot appear ready for occupancy. Such set-up costs become increasingly important in the case of "double-wides", which are shipped as individual components and then assembled at the dealer's lot, only to be dismantled after sale for transportation to the purchaser's site.

Although the actual amount of set-up costs incurred by the dealer depends on both the type of unit and the manner of transportation, PMHI/DS indicates that it costs about \$150 per unit (amounting to 2.2 percent, on average, of the total sales price of a unit, from Figure 4) for a dealer to set up his units for display. In addition to the more direct expenditures for labor and transportation mentioned above, set-up costs can and often do include such indirect items as the installation of utility hookups so that display homes may be heated during the winter months. As a convenience and selling point during home inspections, customers often like to turn on the lights, the stove, fans, water

faucets, etc. Therefore, these appliances must be kept in good working order.

1.2.2 Advertising and Sales Promotion

Unlike their counterparts in the automobile industry, who rely to a large extent upon the automobile manufacturing giants for thorough media exposure of their products, dealerships undertake most of the advertising in the mobile home industry. Of course, while advertising expense is more properly measured as a percentage of gross sales (a percentage which can be roughly approximated as 0.8 percent from Figure 4), Figure 6 is presented to indicate the magnitudes of the annual advertising budgets of the dealerships responding to PMHI/DS.

In the sample operating statement of Figure 1, advertising expense ranges from one half to one percent of total sales for dealerships in the sales category listed. According to PMHI/DS, dealers spend their advertising dollar according to the following general breakdown by medium:

Newspapers	65%
Television	10%
Radio	15%
Other	10%
	<hr/>
	100%

SIZE OF ADVERTISING BUDGET (\$)	DEALERSHIPS	
	NUMBER	PERCENTAGE
< 500	12	16.9%
500 - 1000	5	7.0%
1000 - 2000	6	8.5%
2000 - 5000	15	21.1%
5000 - 10000	15	21.1%
10000 - 20000	10	14.2%
20000 - 50000	4	5.6%
>50000	4	5.6%
TOTALS:	71	100.0%

Source: PMHI/DS (Question #24)

FIGURE 6: DEALER ANNUAL ADVERTISING BUDGETS

Thus, it is evident that newspapers are easily the most popular medium for mobile home dealers.¹⁰ Advertising media in the "other" category include such items as: displays at mobile home fairs, billboard advertising, and direct mailings.

Sales promotion in the form of trade shows sponsored by the industry or local dealer associations is becoming an increasingly important expense for mobile home dealers. The Small Business Reporter claims that mobile home dealers spend between \$600 and \$1000 per unit per show, with added costs when double wides are displayed.¹¹ Usually transportation to and from the shows, and set-up and take-down costs account for most of these expenses. In addition, the dealer is required to pay an entry fee and must rent the spaces on which mobile homes are displayed. Smaller regional shows cost the dealer less. These shows attract local residents, and thus afford an excellent opportunity for dealers to establish contacts among potential customers.

Many manufacturers give their dealers an advertising allowance, which takes the form of a deduction from factory invoice when tear sheets or other proof of insertion are submitted. Those manufacturers large enough to employ advertising managers supply their dealers with materials that range from newspaper ad copy (or "mats") to sales brochures, signs, and banners. One company, for example, furnishes scripts and tapes for radio advertising as well as slides, scripts, and films for those dealers that can afford television advertising.

1.2.3 After-sale Expenses

Once a sale has been consummated, the dealer must unhook the unit from the sales lot, perform whatever repacking/securing of appliances and equipment is necessary, and provide for transportation to the purchaser's site. Normally all transportation costs within 25 to 50 miles are absorbed by the dealer as part of the sales package. When the unit arrives on site, it must then be re-installed (to include concrete foundation blocks, entrance steps, and sewer pipe connection, in some cases) and thoroughly checked for serviceability.

In addition, dealer-to-dealer competition has forced the group as a whole to assume responsibility for the manufacturer's warranty. In fact, PMHI/DS shows that over 70 percent of the dealers surveyed offer warranties over and above those provided by manufacturers.¹² Generally, such additional dealer warranties range up to a year in duration. Under the manufacturer's warranty any necessary repairs and/or services must be promptly made by the dealer, and then settled with the manufacturer at some future date. In some cases, however, manufacturers subsidize warranty assumption by the dealer through a system of rebates or discounts from factory invoice, in effect issuing prepayment to the dealer for the expenses expected to accrue as a result of dealer assumption of the manufacturer's warranty.

While after-sale expenses might at first glance appear to be mere formalities to complete a sale, the progressive, reputable dealer keeps a close eye on all required repairs and services under the warranty. Failure to

do so can lead to ill-will between dealer and homeowner, perhaps involving the lending institution that provides the dealer with inventory capital.

Given cause, homeowners are not averse to taking extreme action, such as suspending installment payments until all repairs covered under the warranty are satisfactorily completed. This tactic, although aimed at the dealer, only indirectly affects him; more directly it is the lending institution which suffers most from such a situation. Thus it is clearly in the best interests of the lender to deal only with reputable dealers, and to exert whatever pressure is necessary to ensure that all required services are faithfully performed.

Recently, some lenders have completely avoided the mobile home industry in an effort to reduce the losses derived from financing non-reputable dealers. South Carolina and Colorado have moved to remedy the situation by enforcing statutes which require mobile home dealerships to be bonded and licensed.

1.2.4 Other Uses

So far, the analysis of uses of funds has been directed toward those items that are peripheral to the actual sale of a mobile home.

As illustrated in Figure 4, however, there are other important expense categories which deserve mention:

- (1) Transportation costs (four percent of total sales).

- (2) Salesmen's commissions (2.6 percent of sales).
- (3) General and administrative costs (two percent of sales).
- (4) Other overhead (2.5 percent of sales).¹³

Together with the costs previously mentioned (i.e., display and set-up, advertising, and after-sale expenses), these costs constitute 12 to 15 percent of total sales, on average, for the dealerships surveyed in PMHI/DS.¹⁴

2.

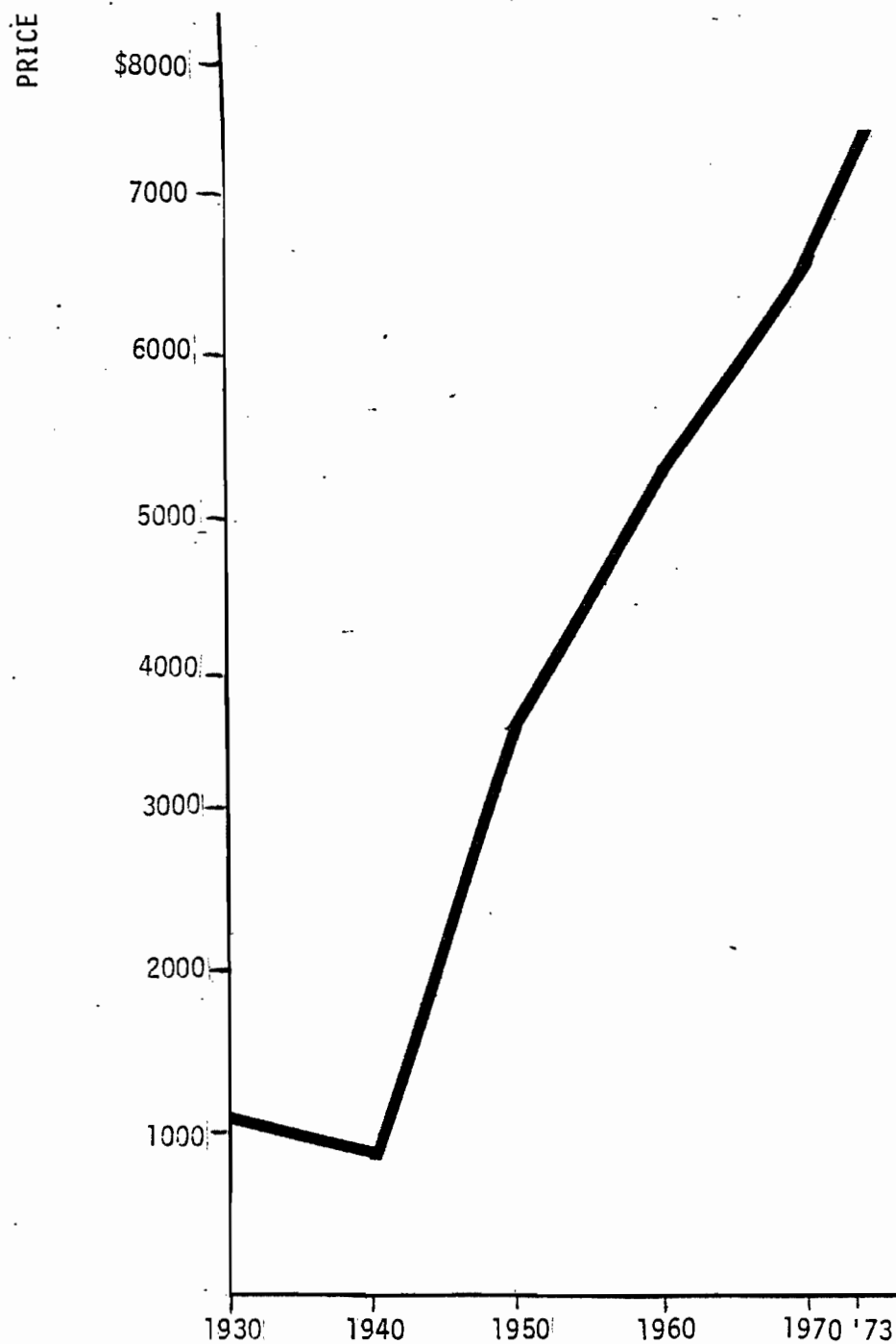
Wholesale Financing

Since the mobile home has high unit value (see Figure 7), one would not expect a dealer to carry his own inventory. Ordinarily, a dealer seeks intermediate financing, which allows him possession of inventory until such time as the units can be sold. This practice, called "floor planning" or "flooring," enables the dealer to carry an adequate supply of mobile homes and accessories for display and sales purposes.

In the mobile home industry, floor planning and retail financing are closely related. Floor planning is an accommodation granted by a financial institution to a mobile home dealer for two basic reasons:

- (1) To secure from the dealer the majority of lucrative retail paper resulting from the sale of mobile homes.
- (2) To gain other dealer business, such as facilities improvement and expansion loans, and general banking accounts.

Were it not for these two considerations, a lender would have little interest in extending floor plan financing; prevailing interest rates for floor planning are low, and difficulties encountered in the administration and control of such credit are substantial. Consequently, at least from the standpoint of the lender, floor planning should not be considered in isolation, but rather as an integral part of a financing package that includes retail financing.



Source : Mobile Homes Industry in California and the Nation,
Research & Planning Division, United California Bank.

FIGURE 7: AVERAGE PRICE PER UNIT

2.1 FLOOR PLANNING

2.1.1 Trust Receipt

A dealer typically turns to a commercial bank, finance company, or savings and loan association to finance inventory. The lender usually advances 100 percent of the dealer's inventory costs including freight, taxes, and extras, and pays the manufacturer directly for units shipped to the dealer. The dealer, in turn, repays debts to the lending institution as sales are effected and inventory is depleted.

The lien instrument used for the flooring of inventory is the "trust receipt", which represents a three-way transaction involving the manufacturer, dealer, and lender. The lender derives title from the manufacturer to the mobile home inventory that it floors. Thus, because title to the merchandise passes directly from the manufacturer to the lender, the possibility of an intervening lien is eliminated.¹⁵

A trust receipt also is a written contract between the lender and the dealer, whereby the lender agrees to release to the dealer certain specified property (i.e., mobile homes and accessories, itemized by serial number); in turn, the dealer agrees to hold the property "in trust" for the lender, and to use such property in a specified manner. The dealer is granted the right to sell his inventory (usually for not less than a specified "release price"), and is obligated to promptly remit the proceeds to the lender. Since this arrangement

allows the dealer to maintain possession of mobile homes "owned" by the lender, the lending institution must be prepared to do the following to protect itself against losses:

(1) Demand that certificates of origin and invoices for the units be mailed directly to the lender when the manufacturer ships units to the dealer.

(2) Make periodic checks at the dealership in order to ascertain that all sales have been reported and every mobile home unit is accounted for. This check normally includes reconciling units sold and inventory on hand with the lender's own statements. Discrepancies may indicate that some sales are not reported to the floor planner. These commonly are known as "sales out of trust".

(3) Determine that adequate insurance protection is provided, and that the lending institution retains the policy with a loss-payable clause in its favor.

(4) Investigate a dealer whose billings for interest, curtailment (to be explained later), and other charges are not paid within ten days of the due date.

(5) Notify an endorser or guarantor on a floor-plan note of any irregularities, even those which may appear to be minor.

2.1.2 Financial Arrangements

For its services the lender usually charges a small percentage (approximately one percent) above the prime lending rate, although the specific rate varies among dealers and states.¹⁶ In addition to the interest charge, some floor planners may levy a small servicing fee of approximately two dollars per unit. As previously mentioned, these financial charges are rather low because the lending institution providing a dealer's floor planning does so to secure most of the profitable retail financing business generated by dealer sales. Typically, a dealer must convert 60 to 70 percent of sales into retail paper for his floor-planner, in order to keep the lender satisfied.¹⁷

Income from the combination of wholesale and retail mobile home paper can be lucrative for a lending institution. Naturally, the profitability depends upon many factors, among which are:

- (1) The financial position of the dealer, including such factors as the dealership's liquidity, profit history, and reputation.
- (2) Prevailing economic conditions, which in many instances are beyond the control of both the dealer and the financial institution.
- (3) The track record of dealership management.

(4) The turnover rate of dealer inventory, which on the average is about five times per year.¹⁸

(5) The experience and efficiency of the mobile home department (or its equivalent) within the financial institution itself. This factor, although extremely important in influencing the overall profitability of an indirect financing arrangement, is often overlooked by the financial institution. There has been a tendency to place the blame for unsatisfactory lender-dealer relationships upon bad management practices of the dealer, without searching for areas of improvement in the control mechanisms the lender must exercise over dealer operations.

2.1.3 Dealer Obligations

In order to protect itself against losses due to dealer failure, the lending institution commonly requires some form of dealer endorsement on both wholesale and retail paper. The two basic types of endorsement employed in the industry are repurchase agreements and full recourse endorsements. These arrangements will be explained more fully in item 3.1.

In addition to the dealer's endorsement, principals of the dealership are sometimes required to execute personal and continuing guarantees on both wholesale and retail paper. The personal guarantee eliminates pro-

tection afforded the principals due to the legal nature of the corporate structure. The continuing guarantee ensures that the principals remain liable until such time as all endorsed paper has been liquidated.¹⁹

As a further security measure, most lenders require that the manufacturer enter into a repurchase agreement to cover all units of his manufacture under a wholesale line of credit. In the event of dealer failure, the manufacturer is required to buy back those floor planned units on the dealer's lot which have not been sold. Consequently, it is not uncommon for lenders to inspect a manufacturer's operation and periodic financial statements. It should be noted, however, that since the average manufacturer is small and undercapitalized, lenders cannot realistically expect manufacturers to honor repurchase agreements on a large scale. Thus, lenders must rely primarily upon the credit of the dealer for repayment.

As a reciprocal arrangement under the repurchase agreement, the lender generally is required to protect the manufacturer by collecting from the dealer reductions of the outstanding balance on wholesale units, a process known as "curtailment". A common curtailment provision requires the dealer to reduce the outstanding wholesale balance on each unit by ten percent after 90 days, with an additional ten percent reduction every 30 days until the unit is either sold or paid off completely.

A curtailment provision, of course, may be part of any wholesale financing package between a dealer and a lender, whether or not the lender

requires a repurchase agreement from the manufacturer. Thus, curtailment serves to protect the interests of both the lender and, if applicable, the manufacturer in the event of dealer failure. In addition, curtailment offers the following advantages to the lender:²⁰

- (1) Curtailment decreases the lender's investment in floored inventory, and enhances the bank's collateral position.
- (2) Curtailment encourages the dealer to exert greater sales efforts, particularly on slow-moving items.
- (3) When a dealer is unable to meet a required curtailment payment, the lender is alerted that the dealer's financial condition may have deteriorated, possibly to the point where no further floor planning credit should be extended.

Throughout the life of a loan, the lender providing wholesale financing generally requires the dealer to maintain a reserve account. This reserve account usually is divided into two parts, a special reserve and a regular reserve. When utilized, the special reserve must contain anywhere from four to six percent of the value of retail stock outstanding. Funds in excess of this amount are available to the dealer in his regular reserve account, which may be drawn upon at any time. Thus, the purpose of the special reserve is to protect both the dealer and the lending institution against possible further losses.

As a final obligation to the lender, the dealer is required to promptly

report all sales and provide the floor planner with periodic financial statements.

2.2 SPLIT FLOOR PLANNING

Since wholesale floor plan financing is a marginally profitable operation for the lender, it is one of the first areas to be affected during a tight money period. During 1966, 1967, and 1970, for example, many dealers found that their primary lender was unable to provide them necessary inventory capital. With fewer homes on their lots, dealers generally found that retail sales declined. However, the repressed sales picture during these years was also attributable to prevailing economic conditions and a concomitant lack of consumer funds.

To help ensure against this loss of credit, many dealers now utilize a system of split floor planning, whereby the dealer has available several sources of wholesale financing. Under this plan, each source supplies funds for a part of the dealer's inventory. A split floor plan can be especially effective in rural areas where intermediation and disintermediation are slower processes than in more financially sophisticated cities. Thus, a dealer might find, for example, that although two of his sources do not have enough funds to lend him money, a third source has the necessary funds available.

Split floor planning may also give the dealer a better negotiating position, because it compels lenders to compete for the dealer's business. If the dealer is shrewd, he may be able to obtain financing at a lower

interest cost and on better terms than one source could, or would, provide.

Although there are distinct advantages, some of the criticisms levied against split floor planning include the following:

- (1) It increases the possibility of sales out of trust.
- (2) If the lenders are not careful, a dealer could conceivably finance the same mobile home with more than one lender.
- (3) During tight money situations, lenders often ration loans to favored customers. A dealer who has a split floor plan probably would not be in the same favored position as a dealer who conducts his financial affairs with only one lender.

Basically, (1) and (2) above represent control problems for the financial institutions themselves. It is the responsibility of the financial institutions to provide the proper control procedures to ensure that inventory is not sold out of trust and that individual units are not multiply-financed. Thus, dealers should concentrate on obtaining loans at the best terms possible, and financial institutions should be concerned with protecting their own interests against possible losses.

As an additional observation, while split floor planning may be a temporary solution to an individual dealer's problem with one local lender, it does not represent an industry solution to a national economic

condition of tight money. In such a situation, all lenders normally cut back their wholesale loans in relation to each dealer's status as a customer.

Where split floor planning fails as a solution to wholesale finance shortages, manufacturers may be able to provide some help in the future. Franchising or consignments to dealers could ease dealer credit vulnerability. This, however, brings up the question of whether or not manufacturers could afford to fund dealers when their own lines of credit may be under strain.

2.3 CONSIGNMENT

Consignment entails the shipment of mobile homes directly from the manufacturer to the dealer on credit. Title, however, remains with the manufacturer. Thus, floor planning by the lending institution is by-passed, and the dealer is given a certain period of time (usually, from 90 to 120 days) in which to sell the unit before the face amount of the F.O.B. factory invoice becomes due. This arrangement is called "deferred billing" and commonly has terms of no payment or finance charges during the specified time allotment.

If a unit remains unsold when the consignment term has expired, the dealer is not always required to pay for it. There are cases where the manufacturer may give the dealer a special price on the unit or he may simply repossess it.

Shipping on consignment is not popular in the industry. As Figure 8 illustrates, fully 93 percent of the dealerships sampled had less than five percent of their inventory on consignment. In fact, over 90 percent had no units at all on consignment.

Although unpopular in the industry, it should nonetheless be noted that shipping on consignment has the following advantages:

% INVENTORY ON CONSIGNMENT	DEALERSHIPS	
	NUMBER	PERCENTAGE
0 - 5%	66	93.0%
6 - 10%	4	5.6%
11 - 20%	0	0
21% or more	1	1.4%
TOTALS:	71	100.0%

Source: PMHI/DS (Question #34)

FIGURE 8: PERCENT OF DEALER INVENTORY ON CONSIGNMENT
FROM MANUFACTURERS

(1) If practiced on a large scale, it might serve to make dealers more independent of their sources of wholesale financing. This could lower the costs to the consumer by weakening the relationship between a dealer and the particular lender that provides the dealer funds for floor planning.

(2) During periods of tight money, sources of inventory financing, which are usually among the first areas to be affected, might not be so critical.

Unfortunately, the problems of undercapitalization and recurring tight-money periods prevent most manufacturers from engaging in extensive consignment practices. Perhaps the best way to improve efficiency for the entire mobile home industry is to strengthen the financial condition of manufacturers, thereby increasing the potential for franchising and shipping on consignment.

2.4 INDUSTRY PRACTICES

Until a few years ago Grand Rapids, Michigan was the finance capital of the mobile home industry. A few commercial banks there controlled a substantial percentage of the total mobile home paper. Today every major segment of the financial world -- banks, finance companies, and savings and loan associations -- provides inventory financing for the dealer. This has happened because most lenders regard wholesale financing as a stepping stone to the profitable retail business generated by dealer sales.

How common is wholesale financing in the mobile home industry? Figure 9 displays the results obtained in PMHI/DS. It is evident from the figure that 76.1 percent of dealers had more than half of their units floor-planned in 1972. Interestingly, however, half of the total observations fell at the two extremes. Thus, roughly 17 percent of the dealerships surveyed floor-planned less than ten percent of units sold, while 33 percent of the dealerships carried greater than 90 percent of total inventory under a wholesale financing arrangement.

Figure 10 shows a breakdown of the sources of dealer wholesale and retail financing as obtained from PMHI/DS. The figure indicates that over half (55.2 percent) of all dealerships use only one lender for floor-planning; of these, 41.9 percent channel retail paper only to the lending institu-

% INVENTORY "FLOOR-PLANNED"	DEALERSHIPS	
	NUMBER	PERCENTAGE
0 - 10%	12	16.9%
11 - 20%	0	0
21 - 30%	0	0
31 - 40%	1	1.4%
41 - 50%	4	5.6%
51 - 60%	4	5.6%
61 - 70%	0	0
71 - 80%	11	15.5%
81 - 90%	16	22.5%
91 -100%	23	32.5%
TOTALS:	71	100.0%

Source: PMHI/DS (Question #36)

FIGURE 9: PERCENT OF DEALER INVENTORY "FLOOR-PLANNED"

NO. OF LENDERS DEALT WITH:	NUMBER (%) OF DEALERSHIPS DEALING WITH LENDERS		
	PROVIDING:		
	WHOLESALE FINANCING	BOTH WHOLESALE AND RETAIL FINANCING	RETAIL FINANCING ONLY
0	10 (14.9%)	8 (12.9%)	18 (27.7%)
1	37 (55.2%)	26 (41.9%)	14 (21.5%)
2	15 (22.4%)	15 (24.2%)	16 (24.6%)
3	4 (6.0%)	7 (11.3%)	7 (10.8%)
4	1 (1.5%)	4 (6.5%)	3 (4.6%)
5	0	2 (3.2%)	3 (4.6%)
5	0	0	4 (6.2%)
MISSING OBSERVATIONS	4	9	6
TOTALS:	71 (100%)	71 (100%)	71 (100%)

Source: PMHI/DS (Questions 38,39)

FIGURE 10: SOURCES OF DEALER WHOLESALE/RETAIL FINANCING

tion providing floor planning. Additionally, 72.3 percent of all dealerships surveyed provide retail paper to lenders other than those providing wholesale financing. While it is not entirely clear from the figure, these findings may indicate that there is not as absolute a link between floor planning and retail financing as is normally assumed in the industry literature.

3.

Retail Financing

It has been widely acknowledged in the industry that retail financing is the most profitable segment of mobile home financing. This is supported by data obtained in PMHI/DS. Although cash sales are by no means uncommon, fully 75 to 80 percent of mobile home sales must be financed. The standard financing instrument is a conditional sales installment credit contract, with interest usually computed on an add-on basis (See Appendix E).

Nearly all mobile home retail paper outstanding is held by banks, finance companies, and savings and loan associations. Banks hold the greatest share of total paper outstanding. They are followed by finance companies and savings and loan associations, respectively.

From 1971 through 1973 there was a tremendous growth in mobile home retail paper outstanding. It is ironic that this period of expansion has been followed almost immediately by the current financial turmoil in the industry. This has resulted in a very perplexing, and indeed critical, situation -- one which should have important repercussions for the future condition and performance of the industry.

As a manifestation of the rapid and haphazard growth which has sorely afflicted the industry, the trend in mobile home delinquencies and repossessions rose at an alarming rate during the years 1972 through 1973. In 1974 it was estimated that the repossession and delinquency rate was ten percent or more of all units sold, despite industry-quoted rates in the

three to four percent range.²¹

Until 1972 mobile home paper was regarded by lending institutions as relatively safe. In fact, the American Bankers Association Credit Survey in 1967 reported that mobile home paper had the lowest average dollar amount of losses, computed on the basis of liquidations, of all forms of installment credit loans. The alarming upsurge in delinquencies and repossessions is raising very serious questions in the minds of lenders. It has also caused an influx into the industry of dealers specializing solely in repossessed units. Presently, however, the upward trend in delinquency and repossession rates shows signs of slackening.

Perhaps the current delinquency situation is the result of imprudent lending and rapid expansion during the peak sales years of 1970-72. During this period, lending institutions may have been lulled into a false sense of security over the low delinquency rates at the time. Perhaps they underestimated the severity of the general economic recession. Whatever the reason, retail financing will continue to play an increasingly important role, and the industry must restore lenders' confidence.

In this chapter, the complexities of retail financing will be presented and analyzed, first from the standpoint of indirect financing, that which is dealer-endorsed, and then from the standpoint of direct financing. Finally, the role of the service company will be introduced.

3.1 INDIRECT FINANCING

Since there usually is an unwritten agreement that a dealer provide his floor planner with retail paper, roughly 90 percent of the retail financing business that goes to lending institutions is channeled through dealers. A dealer may or may not guarantee (endorse) payments on the retail paper he generates. Financing of dealer-endorsed paper is known as "indirect financing" since the customer does not go directly to the bank for a loan, but through the dealer. With dealer endorsement comes dealer income and responsibilities. The interrelationship between dealer-lender responsibilities and expectations provides the basis for indirect financing arrangements. Some common agreements between dealer and lender for the sale and repossession of mobile homes are explained below.

3.1.1 Repurchase Agreements

As indicated in the wholesale financing chapter, a lender sometimes requires a repurchase agreement from the manufacturer in order to reduce the risk of possible dealer failure. In retail financing however, repurchase agreements take a somewhat different form. Whereas wholesale financing repurchase agreements are negotiated by the lender with the manufacturer, retail financing repurchase agreements represent an endorsement of the ultimate purchaser by the dealer to the lender. Throughout

the remainder of this section, the term "repurchase agreement" will be understood to apply only to the retail financing situation.

Basically, a repurchase agreement requires that the lender must locate the mobile home and obtain any necessary releases in case of consumer default. After ascertaining that the mobile home has been vacated, the lender advises the dealer to move the unit back to his lot at his own expense. Under this type of arrangement, the dealer attempts to resell the unit based upon the "Blue Book" value and the condition of the unit. If the sales price is greater than or equal to the outstanding balance of the defaulted contract, the lender is repaid in full and the dealer keeps whatever is left over. If the sales price is less than the unpaid balance outstanding, the lender absorbs the loss. Given this situation, the dealer also loses to the extent that he is unable to recoup transportation, set-up, and overhead costs incurred in reclaiming and reselling the unit. Finally, in the event that the lender cannot repossess the unit, the dealer is not responsible for the loss.

3.1.2 Full Recourse Endorsements

Full recourse endorsement places the entire burden of collection activity upon the dealer; thus the dealer is required to locate the unit, obtain necessary releases, and transport the unit back to his lot if the consumer defaults. Under full recourse endorsement, the lender may require the dealer to repay the outstanding balance of the defaulted conditional sales contract at any time, whether or not the unit has been repossessed or even

located. In exercising this provision, the lender passes to the dealer all title rights to the mobile home representing security for the defaulted contract. Of course, the dealer may exercise his right to renegotiate with the original purchaser, or he may try to resell the unit. In any case, the dealer acquires title to the unit (even if it cannot be located) and the lender calls for repayment.

It should be noted that, although in theory the lender is fully protected against any loss, indiscriminate exercise of the recourse provision could actually force a dealer into bankruptcy. Should that situation occur, the lender would be left with virtually no protection for the unpaid balance of any other paper originated by that particular dealer.²² Thus the lender must carefully choose when and how to exercise provisions of a full recourse endorsement agreement.

3.1.3 Non-Recourse Financing

A recent development, non-recourse financing releases the dealer from any legal obligation for repayment of delinquent accounts. Of course, there is nothing to prevent the lending institution from seeking such guarantees from other sources, such as service companies.

While non-recourse financing imposes no legal obligation upon the dealer if his customers default, the dealer must still be concerned about delinquencies and repossessions. Continued dealer referral of poor credit risks results in losses for the lender. When that happens, wholesale financing

of dealer inventory is jeopardized. The danger of losing floor-planning, coupled with the fact that few dealers have the financial liquidity to honor full recourse endorsements on a large scale, implies that non-recourse financing is not as risky for the lender as it might, at first glance, appear to be.

3.1.4 Recourse vs. Non-Recourse — Interaction analysis

One interesting and controversial aspect of indirect financing involves interactions between the type of dealer endorsement of retail paper, be it in the form of full recourse endorsement or non-recourse financing, and the dealer reserve. Since the reserve account is an important source of income for the dealer, it is useful to clarify these interactions and make some general observations.

The dealer's "contingent liability reserve," a portion of the contract value of each individual transaction, is partially paid to the dealer by the lender at periodic intervals, contingent upon repayment of the loan over the scheduled life of the contract. Under the terms of a signed reserve agreement between the dealer and lender, the specific reserve percentage is determined on a "per-contract" basis (normally five percent of the contract value of any given transaction) and/or an "overall" basis (such as four to six percent of the aggregate unpaid balance of all contracts outstanding).

Before illustrating with a simple numerical example, it should be pointed out that there is a bit of unnecessary confusion generated in the liter-

ature on this point. Many publications erroneously assert that the dealer reserve is a portion of the total finance charge on a given transaction. More correctly, dealer reserve is computed as a percentage of the contract value, which includes the finance charge. Although subtle, the distinction is nevertheless very real, as the following example should help clarify. For purposes of further discussion, the amount credited to the dealer's reserve account as a result of any given transaction will equal a percentage (usually five percent) of the contract value, which includes principal, interest, and in some cases, a small premium for credit-life insurance.

Under a recourse endorsement financing agreement, the lender holds out a reserve against a dealer's retail sales. Of course, lenders utilize different methods of determining the amount to be held in reserve. One common method is illustrated below.

Example.²³ Wheeler-Dealer Mobiles, Inc., contracts to sell a mobile home to a prospective buyer at a sales price of \$10,000. The down payment is 20 percent. Interest is computed at eight percent add-on. The term of the contract is seven years. If, under the terms of the recourse endorsement, the dealer reserve is computed as five percent of the contract value, the reserve is determined as follows:

$$\begin{aligned}\text{Contract Value} &= \text{Principal} + \text{Finance Charges} \\ &= (\text{Sales Price} - \text{Down Payment}) + \text{Finance Charges}\end{aligned}$$

$$\text{Since the down payment} = .20 \times \$10,000 = \$2,000$$

$$\text{then Contract Value} = (\$10,000 - \$2,000) + \frac{(.08)(\$8,000)(7 \text{ years})}{(\text{year})}$$

$$= \$8,000 + \$4,480$$

$$= \$12,480.$$

Thus \$12,480 is the total amount of the contract, and monthly payments for the life of the contract are: $\$12,480 \div 84 = \148.57 .

The dealer reserve is then

$$\begin{aligned}\text{Dealer Reserve} &= .05 \times \text{Contract Value} \\ &= .05(\$12,480) \\ &= \underline{\underline{\$624.}}\end{aligned}$$

What does this \$624 represent? Normally, it includes a "finder's fee" or commission due the dealer for channeling the retail paper to the lender. Although the formula for computing this fee varies with the lender, one common arrangement is payment of an eight percent commission on the finance charges. Thus, $\text{commission} = .08 \times \text{Finance Charges}$.

Continuing the example, the finance charge has already been computed to be \$4,480. Thus the commission due the dealer is

$$.08 \times (\$4,480) = \underline{\underline{\$358.40}}$$

(NOTE: This simple example serves to illustrate the point mentioned earlier; namely, the importance of distinguishing between "contract value" and "finance charges." Specifically, $\text{CONTRACT VALUE} = \text{PRINCIPAL} + \text{FINANCE CHARGES}$).

How does the type of financing influence the dealer's income from the

above transaction ? The dealer participating in recourse financing might conceivably realize the entire \$624. On the other hand, the dealer utilizing non-recourse financing probably will receive only the \$358.40 commission. However, the recourse dealer may not realize the entire \$624 until the seven year loan period has ended, whereas the non-recourse dealer will receive the full amount of his \$358.40 commission within 30 days after the transaction has been finalized.

Assuming that Wheeler-Dealer has signed a full recourse endorsement with his lender, he becomes eligible for a draw on his reserve account every six months, although it is not uncommon for recourse financing agreements to stipulate reserve payments to dealers on a once-yearly basis. Six months after the sale, then, the customer has made six payments of \$148.57, reducing his outstanding balance by one-fourteenth since the term of the contract was seven years. Assuming the financial relationship between the dealer and lender to be in order, the dealer is eligible to receive one-fourteenth of his reserve of \$624, or about \$45.

This procedure is repeated every six months until maturity, at which time the dealer receives his last \$45 payment, thus completing payment of the full \$624 reserve. If the dealer made a profit of \$1,000 on the original sale, after seven years his profit has increased to \$1,624. It should be noted, however, that inclusion of factors such as the time value of money tend to improve the attractiveness of non-recourse financing for the dealer.

The above example illustrates two other points. First, the \$624, once

credited to the dealer's reserve account, represents income and as such is taxable. In other words, the lender is able to "shield" \$624 of assets while shifting the burden of taxes to the dealer. Ostensibly, this is part of the cost levied on the dealer by the lender for assuming the risk of financing the dealer's sales and inventory. However, a typical medium-sized dealer with total annual sales of \$500,000 is involved in about 60 to 75 such transactions annually, and costs to the dealer of such a system in terms of lost interest and inability to defer taxes may be significant.

The second point concerns the effect of prepayment upon the dealer's reserve income. Since the dealer is forced to pay taxes on the entire amount of the reserve credited to his account by the lender, he is in effect building up a tax-paid stream of future income. To the established dealer that accumulated a large number of solid recourse accounts over the years, this tax-paid income can be substantial.

Experience has shown that the typical mobile home contract is paid off in five years. Returning to the example, prepayment of the loan two years early implies that the dealer, who has already paid taxes on the full reserve amount of \$624, has now earned only five-sevenths of the original reserve. Thus, although he has paid taxes on the full \$624, he receives only $\frac{5}{7} \times \$624$, or approximately \$445. There is no way in which the lost taxes can be immediately recouped. They will have to be credited against future tax expenses. However, the lender will pay the dealer the balance of the reserve minus the fraction of the balance representing lost finance charges on the loan. As a result of the above factors, coupled with increased competition among lending institutions interested in acquiring

mobile home retail paper, non-recourse financing is becoming more popular. Under a typical non-recourse financing agreement, the lender withholds a reserve which represents one percent of the dealer's retail accounts or \$1,000, whichever is larger.²⁴ As each transaction is completed the dealer receives his commission, \$358.40, in the above example, as soon as it is earned. However, the dealer may be required at a later date to return a portion of this commission to the lender should the loan be paid off early.

Additionally, the dealer is not entirely free from the effects of repossessions, even under a non-recourse arrangement. Since the lender still retains the one percent (or \$1000) reserve credited to the dealer, any expense which the lender incurs due to repossessions comes out of this amount, to be replenished by future commissions earned by the dealer. Thus, most reputable dealers take care of repossessions themselves, irrespective of whether their financial arrangements are recourse or non-recourse.

The above analysis has explored the effects of both recourse and non-recourse financing upon the dealership in terms of income flows from reserves. These two financial arrangements have differing implications should a dealer decide to sell his interest or liquidate the dealership entirely. Consider the following example, adapted from Marley Cole in the March, 1974 edition of Mobile-Modular Housing Dealer.²⁵

Example. Confronted with a decision to purchase one of two dealerships, a prospective buyer considers the following. Both dealers have been in business for ten years, and have established sound reputations as hard-

working, reputable businessmen.

Both dealers have good locations, and have averaged roughly 100 sales per year of average-priced units. However, Dealer A has operated under a recourse financing arrangement, while Dealer B operates on a non-recourse basis.

Assume further that Dealer A has built up a contingent liability reserve of \$200,000, representing retail paper on 400 mobile home units, and that all taxes have been paid. Since Dealer B is under non-recourse financing, he of course has virtually no reserve to speak of. Which dealership is the better buy?

At first glance, it might seem that the recourse dealership, with the \$200,000 reserve, is the logical choice if the price is right. Unfortunately, the problem is more complex. The relevant question to be answered is whether the \$200,000 reserve represents an asset or liability.

Depending upon the specific circumstances of the dealership in question, there are veteran mobile home financial people who would rationally argue that the \$200,000 is a liability. Since it represents 400 accounts, what would happen, for example, if ten percent of these accounts became delinquent (admittedly this is a fairly high percentage)? Most dealers do not have sufficient liquidity to pay off loans on 40 mobile homes and attempt to resell them. The point to be made here is that the gross value of accounts outstanding should be noted against the dealer on a recourse program as a contingency factor.

The non-recourse dealer, on the other hand, is not affected by gross loans outstanding. However, he has earned substantially less than Dealer A in book earnings over the course of ten years, perhaps as much as \$10,000 per year less, and he now has no reserve account. Thus any decision to purchase one dealer over the other must be carefully weighed and all relevant factors considered before a logical choice can be made. Additionally, the dealer should give thorough consideration to the question of which type of financing — recourse or non-recourse — is right for his business.

3.1.5 Industry Practice

The relative popularity of full recourse endorsements, repurchase agreements, and non-recourse financing as determined by PMHI/DS (for 1972) are shown in Figures 11 through 13.

Figure 11 indicates that, of the dealerships surveyed, nearly 75 percent fell at one of the two extremes in terms of percent of contracts under non-recourse financing. Thus, for 37.3 percent of the dealers fewer than ten percent of all contracts were non-recourse, while for 35.7 percent of the dealers more than 90 percent were non-recourse.

Figure 12 illustrates the percentage of dealer sales contracts financed under a full recourse endorsement program. The figure shows that over half of the dealers surveyed had virtually no contracts financed with this type of arrangement.

% CONTRACTS, NON-RECOURSE	DEALERSHIPS	
	NUMBER	PERCENTAGE
0 - 10%	25	37.3%
11 - 20%	4	6.0%
21 - 30%	1	1.5%
31 - 40%	0	0
41 - 50%	2	3.0%
51 - 60%	0	0
61 - 70%	4	6.0%
71 - 80%	2	3.0%
81 - 90%	5	7.5%
91 -100%	24	35.7%
TOTALS:	67	100.0%

Source: PMHI/DS (Question #40)

FIGURE 11: PERCENTAGE OF CONTRACTS, NON-RECOURSE
FINANCING

% CONTRACTS, RECOURSE	DEALERSHIPS	
	NUMBER	PERCENTAGE
0 - 10%	36	55.4%
11 - 20%	1	1.5%
21 - 30%	5	7.7%
31 - 40%	0	0
41 - 50%	3	4.6%
51 - 60%	1	1.5%
61 - 70%	0	0
71 - 80%	3	4.6%
81 - 90%	6	9.3%
91 - 100%	10	15.4%
TOTALS:	65	100.0%

Source: - PMHI/DS (Question #40)

FIGURE 12: PERCENTAGE OF CONTRACTS, FULL RECOURSE
ENDORSEMENTS

Finally, Figure 13 indicates the extent of repurchase agreements among the dealers surveyed. More than two-thirds of the dealers surveyed had virtually no repurchase agreements with lending institutions, while about one-sixth financed almost all contracts with this type of arrangement.

3.1.6 Indirect Financing in Perspective

It is doubtful that most dealers can honor full recourse endorsement contracts. A 1970 survey of dealers shows that they were not carrying adequate reserves, and the ten percent curtailment policy in floor planning was difficult to enforce.²⁶ Dealers in this condition can hardly be expected to honor full recourse endorsements. However, these agreements are necessary to maintain some sort of order in the retail financing of mobile homes, as the recent chaos in retail financing has served to illustrate.

The majority of lenders shy away from full recourse endorsement. This may be a result of the realistic assumption that such agreements do nothing to reduce the actual risk of doing business, since dealers cannot honor them in the first place. A second reason may relate to the emergence of service companies in the retail financing of mobile homes. The dealer who remains on a repurchase program is continually solicited by service companies representing lenders offering non-recourse programs. Consequently, it becomes only a matter of time before the dealer decides to end his contingent liability program of recourse or repurchase, and accept a non-recourse program.

% CONTRACTS, REPURCHASE	DEALERSHIPS	
	NUMBER	PERCENTAGE
0 - 10%	42	68.9%
11 - 20%	2	3.3%
21 - 30%	3	4.9%
31 - 40%	0	0
41 - 50%	0	0
51 - 60%	1	1.6%
61 - 70%	0	0
71 - 80%	1	1.6%
81 - 90%	2	3.3%
91 -100%	10	16.4%
TOTALS:	61	100.0%

Source: PMHI/DS (Question #40)

FIGURE 13: PERCENTAGE OF CONTRACTS, REPURCHASE AGREEMENTS

While many lending institutions agree that dealers are an excellent source of business, some have been quick to point out some of the pitfalls.

Indirect financing entails floor planning, which provides a low interest yield. Also, because of dealer spread, the customer pays a higher interest charge than he would otherwise have to pay.

Perhaps the most serious disadvantage of indirect financing is that the lender becomes involved in problems between the dealer and customer. As previously mentioned, if the dealer fails to meet the terms of a warranty agreement, the customer may inform the bank that he will discontinue installment payments until such time as the warranty problems have been resolved. This could result in adverse publicity for the lender, or even delinquency and repossession.

3.2 DIRECT FINANCING

Direct financing is simply a face-to-face transaction between the customer and the lending institution, thus eliminating the dealer link in the financial chain. Since direct financing is rarely encountered (in practice, more than 90 percent of mobile home loans originate with dealers), it will only be briefly touched upon here.

One moderate-sized California bank reports very successful implementation of a "direct loan only" policy in acquiring mobile home paper for its installment loan portfolio.²⁷ From its experience, the bank has identified the following advantages to this type of financing arrangement:

- (1) Dealer problems are eliminated. The bank is not required to maintain elaborate and expensive reporting procedures in its mobile home department with respect to dealer credit ratings and financial practices, sales out of trust, etc.
- (2) It has proved to be an invaluable means of attracting new customers with the possibility of securing all their banking business. This advantage is lost when the financial institution merely processes dealer-originated applications, since the applicant never deals directly with the lending institution.

- (3) Surprisingly, advertising and promotional costs are very small since the bank relies primarily upon word-of-mouth transmission of its services.
- (4) Finally, since credit screening procedures are employed much more carefully than under dealer-referred financing, the bank has been able to earn a fair profit and at the same time hold losses to low levels. From the standpoint of consumer welfare, the bank is able to offer flexible, tailor-made financing packages to individual customers. Although a 20 percent down payment is usual, the bank has been willing to advance as much as 100 percent of the purchase price to some customers and has loaned as much as \$20,000 (although the average loan is only \$5,000).

In all fairness, however, certain disadvantages to direct financing should be mentioned:

- (1) The bank probably loses an opportunity to provide business account services for dealers.
- (2) Automatic referral of customers is eliminated.

A financial institution desiring mobile home paper in its installment loan portfolio should perform a cost-benefit analysis before deciding upon the proper mix between direct and indirect financing.

3.3 SERVICE COMPANIES

Service companies have emerged in the retail segment of the mobile home industry as a response to the intricacies involved in acquiring a portfolio of mobile home paper. These firms, which specialize in the solicitation and origination of mobile home paper, have experienced rapid growth. In 1969 there were only approximately ten such companies, increasing to an estimated 400 by 1973.²⁸ Basically, this rapid growth can be attributed to two factors:

(1) Banks that were doing business with high volume dealers have found that these dealers had five figure net worths and six figure contingent liabilities. Since these dealers would find it difficult to redeem many repossessions, recourse agreements expose the lender to undue risk. Hence, service companies, which guarantee loans, represent a real service to lenders.

(2) Service companies are uniquely equipped to handle all phases of mobile home financing that require highly specialized and experienced personal supervision.

It could be costly for bankers to maintain a knowledgeable and sophisticated mobile home department. Through intimate experience in a wide variety of services, service company personnel can handle most problems

that arise, and provide equivalent services to lenders at lower cost than lenders can themselves. In effect, the service company acts as a mobile home department for the lender, thus enabling both large and small lending institutions to participate in the market for mobile home paper.

3.3.1 Lender/Service Company Relationships

The lending institution normally decides what volume of activity it wishes to handle. The service company then attempts to secure the desired number of loans. Service companies send out their new-business development personnel to call on mobile home dealers. In this way, they meet the desired volume of mobile home paper designated by their clients, participating lending institutions. Subsequent to obtaining agreements from mobile home dealers, the service company establishes channels of communication between the lending institution and the mobile home dealers.

Most service companies make regular visits to the lending institution in order to alleviate any problems that arise. The service company's collection personnel work with the lenders to keep delinquencies at a minimum. If an account becomes 45 to 60 days delinquent, the service company normally assumes complete collection activity until the account is either current or in satisfactory condition.

If the debtor defaults on the loan, the repossession department of the service company repossesses the mobile home and has it refurbished. The unit is given to the sales department, which merchandises the used

units through regional outlets. Insurance specialists employed by service companies write credit, life, physical damage, and vendors single interest (VSI) insurance.

In their relationship with the service company, lending institutions normally retain a certain degree of independence. Thus the lender may object to a customer's application for credit, or disengage from the working agreement with the service company, providing the service company is given 30 days' notice. Such notice allows the service company time to place its participating mobile home dealers with another lending institution.

3.3.2 The Role of the Service Company

The service companies provide a wide range of services to lenders and dealers, including the following:

- (1) Advising dealers on legal requirements for perfecting a security interest in collateral and on procedures for compliance with the Truth in Lending Act, the Federal Consumer Protection Act, and similar legislation.
- (2) Insuring the lender against credit losses on chattel paper purchased by the lender through the service company, and insuring direct loan chattel paper that the lender wishes to bring into the service company's plan.

(3) Procuring physical damage insurance, including fire and theft, embezzlement, and conversion, which covers the full insurable value of the mobile home with the lending institution. The lender is listed as the loss payee.

(4) Checking the inventory and floor plan on new and used mobile home sales volume, and making retail commodity checks with customers at the lender's request. Reports are periodically furnished covering these items.

(5) Providing personal appraisal services to lenders on used mobile homes.

(6) Soliciting, investigating, and screening the credit position of potential participating mobile home dealers.

(7) Physically repossessing mobile homes as necessary due to defaulted contracts.

(8) Providing for the disposal of repossessed homes and full recovery of funds.

(9) Investigating customer complaints on services performed under warranty.

Service companies perform another important function, in that they help lenders diversify their portfolios over a broad geographical area. As

pointed out in Bankers Research (June 15, 1973), diversification is necessary if a lender is to avoid losses when a key industry in an area shuts down or institutes heavy layoffs.²⁹ Doing business over a sufficiently wide area also reduces the lender's dependence on local park development.

3.3.3 Insurance Services

One important aspect of service company operations is insurance. They offer a wide range of coverage to protect lenders, dealers, and consumers.

Primary coverages provided are physical damage insurance, credit life insurance, and credit risk insurance. Physical damage insurance protects the collateral against casualty losses such as fire and windstorm. Credit life insurance generally provides decreasing term life insurance protection to the estate of the debtor and to the lender in case of the debtor's death. Credit risk insurance protects the lender from loss as a result of a loan default and ultimate repossession and resale.

In addition, the service company's agencies provide a variety of specialty coverages, such as physical damage insurance on dealer inventory, dealer fraud insurance, non-filing insurance, personal effects insurance, personal liability insurance, vendor's single interest insurance (V.S.I.), and other coverages of relevance to the lender, the dealer, and the con-

sumer. Non-filing protection safeguards first lien rights on retail contracts, regardless of the location of the mobile home or whether registration has been properly completed. VSI, covering the lender only (and not the borrower/owner), provides indemnification for damage or loss resulting from collision, conversion, embezzlement, and secretion.

3.3.4 Financial Arrangements

Generally, there are two methods of payment for service company benefits. One method is a flat fee on each contract purchased by the lender, with the amount of the fee based upon the size and the term of the contract, and the retail amount. The second method of compensation takes the form of an agreement, whereby the service company delivers contracts to the lender at a specified net return to the lender.

The flat fees that service companies charge are based on an add-on rate of 1.5 to 1.75 percent, depending on the size of the loan. For example, retail financing at an add-on rate of seven percent would leave the lender with a minimum 5.25 percent gross add-on profit, which would approximate ten percent simple interest depending on the term of the loan. Thus, the lending institution has a guaranteed gross profit of ten percent with overhead being its only expense.

The service company, for its part, pays .75 percent add-on for the credit insurance policy. When service companies are not involved, the lender

normally pays this fee. The service company receives the remaining one percent but must pay the dealer reserve participation, which amounts to approximately five percent of the total financing charge. The company also maintains as a reserve a portion of its service fee to return to the lender in the event a contract is terminated prior to maturity, a condition commonly known as prepayment. In the event of prepayment, the dealer must also refund to the lending institution the unearned portion of his participation. This is maintained in the dealer's special reserve account.

3.3.5 Selection of a Service Company

In the selection of a service company, the following should be considered by the financial institution:

(1) The operation and performance of the service company.

Consult with other financial institutions to determine the extent and quality of their experience with the particular service company in question.

(2) The management and personnel of the service company.

Are they competent, experienced, and knowledgeable enough to handle the complexities of mobile home financing?

(3) The capital structure and financial condition of the firm.

Will it be able to honor its commitments?

Until a few years ago there were only a handful of service companies, each staffed with veteran mobile home men capable of providing the expertise required. Recently, however, tremendous growth in the service company business has brought on intense competition to attract a steady volume of business. This rapid expansion has greatly watered down the stock of experienced field personnel.

While the above considerations may seem rudimentary, in light of the recent expansion of the service company field, it behooves the individual financial institution to be selective in its choice of a company.

C.

EMERGING TRENDS AND SUGGESTIONS
FOR FURTHER RESEARCH

Dealer Financing

--
535

1.

Emerging Trends

1.1 CHANGES IN DEALERSHIP REQUIREMENTS

It has become increasingly difficult to establish a dealership, due to a tremendous rise in the cost of doing business and a growing trend toward multi-lot operations. Business costs are rising as the dealer's responsibilities have become more complex and competition more intense. A successful dealer today must have ample capital and business acumen to survive.

Multi-lot operations intensify the need for capital and organization. - With more than one sales lot, units that move slowly on one lot may be transferred to others. Also, higher volume may permit lower margin while increasing absolute profits, if the dealer takes advantage of available economies of scale. The trend toward multi-lot operations implies that an increasing number of dealers is sophisticated enough to identify and effectively utilize such economies.

1.2 INCREASED LABOR-INTENSIVENESS

Although, dealership operations are capital-intensive, PMHI/DS has revealed an emerging trend toward increased labor-intensiveness. Specifically, PMHI/DS showed that, of the dealerships surveyed, an average of ten man-nours are required to hook-up, display and service a mobile home before and after sale. Given the increasing size and complexity of the product, this figure is expected to become higher in the future. Although it is unlikely that mobile home dealerships will approach the situation typified by the construction industry, in which on-site labor may approach half of the total cost, it is expected that labor costs will represent an increasingly large fraction of total sales.

1.3 USED MOBILE HOMES

With current prices of conventional housing, and even the more expensive mobile home models, rising beyond the reach of many families, used mobile home sales are expected to increase rapidly in the future.

The scope of a mobile home dealership is expanded by introduction of used mobile homes. As business lines are increased, so is the investment needed to maintain them. These include not only direct investments for product, but also indirect investments to support such items as the increase in general overhead expenses and set-up costs.

1.4 FINANCING

Although not specifically quantified by PMHI, the following areas appear to be ripe for a systematic analysis and evaluation.

1.4.1 Long-term Financing

In view of high interest rates prevalent in the consumer financing market, steps must be taken to maintain monthly payments that are feasible for potential buyers. This can be accomplished by increasing the down-payment or lengthening the loan term.

Composition of the mobile home market dictates against reliance upon increased down payments to reduce monthly financing charges. Most purchasers simply do not have the funds for a large initial cash outlay.

Longer financing terms, on the other hand, have been gradually promoted by lenders, partly in response to improved mobile home quality. In fact, the growing popularity of "no-down" sales promotions and terms of up to 15 years has at least partly contributed to the present financing difficulty in which the industry finds itself. Repossession and delinquency rates have more than doubled in the span of two years. Some steps which can be taken to improve the present situation include:

(1) Tightening credit restrictions to ensure that lending institutions do not subsidize poor credit risks. In the past, lenders generally have not been thorough enough in their screening of "automatic referrals" by dealers. This results partly from the increased use of credit risk and credit life insurance, which reduce the lending institution's perception of the potential loss to the system due to fraud or defaulted payments.

(2) Eliminate the long-term financing of furniture and appliances as part of the mobile home package. No lending institution would finance a living room set for 15 years. Yet, as part of a mobile home package, furniture is covered by terms that apply to the mobile home. In reality, units are rarely repossessed with the furniture and appliances intact; usually these items must be written off as a total loss. Therefore, separate loans should be required for items of personal property, so that the mobile home itself might be financed at lower cost.

1.4.2 Reserve and Commissions

A typical dealer receives much of his net profit from dealer reserve, commissions, and other payments made by lending institutions and insurance companies. While it is fashionable among industry critics to find fault with this system, the fact remains that some viable compensating

mechanism must be developed to supply the dealer these revenues before the system can be changed. After all, it is not equitable to require the dealer alone to pay the price of eliminating inefficiencies in the system. Some possible compensating mechanisms might include:

- (1) Increased profit margins on sales.
- (2) Special tax incentives for dealers, or some other form of government subsidy.
- (3) Increased industry use of franchising and/or consignment arrangements to lower the dealer's inventory carrying costs.

2.

Suggestions for Further Research

One fruitful area for further research may be an investigation of the effects reserve and commission payments have on overall dealer profits. It is suggested that this be accomplished by:

- (1) Formulating a comprehensive list of possible alternative systems.
- (2) Quantifying the descriptive financial model presented at the beginning of the Consumer Financing Section. This could be accomplished with the aid of comprehensive interviews and questionnaires, submitted to a broad sampling of people within the industry. This procedure would establish bounds for the relevant variables identified in the descriptive financial model.
- (3) Performing a System Dynamics type of analysis to identify the specific effects upon general variables (such as "dealer profits"), of alterations in other variables, (such as "dealer reserve"), under the alternatives developed in Step 1.

Admittedly, this procedure would entail a great deal of additional information-gathering and high level alternative-generation beyond the limited scope of PMHI/DS. However, it is felt that such analysis represents a logical extension of the work that has been accomplished to date.

As a secondary area of exploration, it would be informative to quantify the financial condition of mobile home dealerships by developing data on such financial measures as liquidity, solvency, and profitability. Although a relatively easy task from a conceptual standpoint, one of the lessons learned from PMHI/DS concerned the natural reluctance of all but a handful of dealers to enclose copies of their balance sheets and income statements, despite assurances of strictest confidentiality. Therefore, a reliable data base would be difficult to obtain.

D.

SUMMARY

From the preceding analysis, it seems that the future of the mobile home industry will be determined, to a large extent, by changes in financing -- both wholesale and retail. At present, these two traditionally distinct areas of financing are very much entangled in this industry. Industry literature generally assumes this entanglement to result from expectations of lenders that, by providing wholesale financing, they will obtain the lucrative retail financing generated by dealer sales. Other types of wholesale financing, such as consignment, which eliminate this lender-dealer dependence, must be explored to provide financing alternatives when credit is tight.

Typically, the dealer benefits greatly from an involvement in retail financing. He earns a good share of his profits by acting as intermediary for lenders and insurance companies in their consumer financing deals.

In such "indirect financing" arrangements, the lender and dealer enter into agreements that delineate dealer compensation and responsibility in the event of consumer default. The size and timing of a dealer's income can vary significantly, depending upon whether or not he endorses the retail paper channeled through him.

On balance, indirect financing is more expensive to the consumer than direct financing, because the dealer is compensated for referring loans. Indirect financing also has a disadvantage from the lender's point of view, in that he is drawn into problems between consumers and dealers.

Despite these pitfalls, indirect financing remains the most popular financing arrangement in the industry. Dealers are able to exploit legitimate profit opportunities represented by commissions and reserves. Lenders enjoy the opportunity of providing dealers with total banking services, and benefit from an automatic referral of customers.

In the existing system, finance charges for mobile homes are high relative to those for conventional housing. Nonetheless, the mobile home industry has been able to increase its share of the housing market in light of rising interest rates, primarily by lengthening loan maturities to maintain low monthly payments. These low payments are a key competitive advantage of mobile homes, and to protect its position the industry may have to consider alternate, less expensive consumer financing arrangements.

In the event that a detailed examination reveals indirect financing to be inefficient, care must be taken in correcting the situation. Dealers will not voluntarily give up income derived from indirect financing without receiving additional compensation from other sources. Therefore, elimination of inefficiencies in the system may not benefit the consumer in the long-run.

E.

FOOTNOTES

FOOTNOTES

¹PMHI/DS, Question 6.

²PMHI/DS, Question 26.

³PMHI/DS, Question 9.

⁴IBID.

⁵PMHI/DS, Question 19.

⁶For an opposing view, see Appraisal Journal, July 1972, pp. 403-7.

⁷PMHI/DS, Question 22.

⁸PMHI/DS, Question 48.

⁹Bank of America, Small Business Reporter, Vol. 9, No. 11, 1970, p. 7.

¹⁰PMHI/DS, Question 24.

¹¹Bank of America, op. cit., Vol. 7, No. 11, 1970, p. 15.

¹²PMHI/DS, Question 17.

¹³PMHI/DS, Question 43.

¹⁴IBID.

¹⁵The American Institute of Banking, Installment Credit, pp. 101-3.

¹⁶H.H. Breeze and W.T. Altman, "Mobile Home Financing," Journal of Commercial Bank Lending, February 1970, p. 34.

¹⁷K.D. Pool, Mobile and Recreational Housing Merchandiser, May 1971, p. 41.

¹⁸ Mobile-Modular Housing Dealer, Jan. 5, 1973, p. 84.

¹⁹ Breeze and Altman, op. cit., p. 40.

²⁰ American Institute of Banking, op. cit., p. 106.

²¹ John Leiter, "The Finance Chain," Mobile Home Merchandiser, July 1974, p. 37.

²² Federal Home Loan Bank Board, A Study of the Mobile Home Industry, May 1969, p.20.

²³ This example-adapted with modifications from Marley Cole, "Retail Financing," Mobile-Modular Housing Dealer, March 1974, p. 138.

²⁴ IBID., p. 139.

²⁵ IBID., pp. 142-3.

²⁶ J.J. O'Rourke, "Direct Lending to the Mobile Home Market," Burroughs Clearing House, September 1972.

²⁷ IBID., p. 39.

²⁸ John Leiter, "The Finance Chain," Mobile Home Merchandiser, July 1974, p. 36.

²⁹ Bankers Research, June 15, 1973.

CONSUMER FINANCING

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A.

INTRODUCTION

The purpose of the Project Mobile Home Industry (PMHI) study of the consumer financing sector was to uncover the structure and function of financing in the mobile home industry, and to analyze the performance of this sector with respect to both efficient operation and the realization of the objectives held by interested parties. In order to simplify the diverse elements of the consumer financing sector, only the most widespread method of retail financing is discussed and analyzed in this report. This financing method is discussed in detail in Part B of this section.

This section is composed of four principal parts, each serving an important function:

Analysis of the Present Situation portrays a precise view of the consumer financing sector of the mobile home industry as it exists today.

Determination and Analysis of Emerging Trends derives a dynamic understanding of the changing structure of the consumer financing sector.

Overall Performance of the Consumer Financing Sector combines information from the above two parts, and considers objectives of the interested parties (lender, dealer, consumer, government) in evaluating the performance of this sector.

Potentials for Improving Performance suggests areas of potential improvement in the performance of the consumer financing sector.

One of the developments of this undertaking has been the creation of a pictorial model of the structure of the conventional consumer financing sector. It is presented here in order to aid the reader in understanding the structure of the financing sector, and to clarify later description and analysis.

Figure 1 depicts the normal flow of mobile home units and funds during the typical distribution of the units from manufacturer to consumer. The wide arrows indicate the normal flow of mobile home units or the materials from which they are made. The line arrows indicate flow of money during the various phases of the mobile home's journey to the consumer. The dashed lines indicate payments which are contingent upon special unpredictable circumstances.

The important parties that are usually involved directly with consumer (or retail) financing are the dealer, lender, insurance company, service company (if one is used), and consumer.

The Dealer In return for selling the mobile home unit to the consumer, the dealer generally realizes as monetary inflows: a commission from the insurance company for selling an insurance policy to the consumer, a "dealer reserve" (a percentage of the finance charge) and the unpaid balance of the mobile home sales price from the lender, and a cash down payment from the customer. He must pay out freight costs and other expenses to independent contractors for transporting the unit from his lot to the customer's residence site. He must also repay the lender for the wholesale financing on the unit. In addition, the dealer's recourse agreement can be viewed as

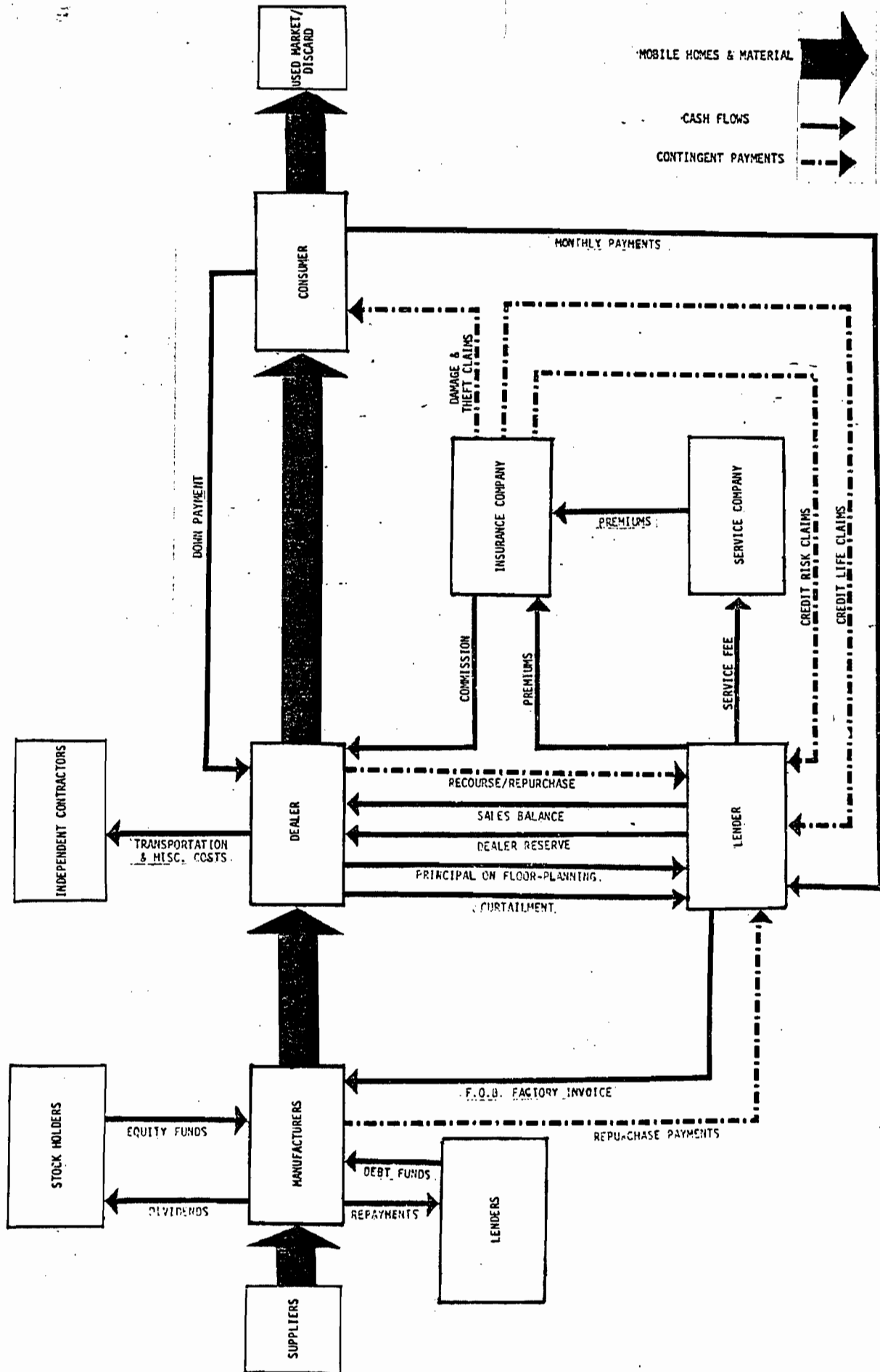


FIGURE 1: THE DEALER/CONSUMER FINANCING MODEL

a contingent payment to the lender.

The Consumer The consumer pays a cash down payment at the time of purchase and makes monthly payments during the term of the contract. He receives a mobile home unit and a certain amount of insurance coverage for the contingencies of damage or death. He also receives maintenance services from the dealer or the manufacturer during the warranty period. - -

The Insurance Company Premiums for insurance coverage are paid through the lender, and may cover both the lender and the customer. The customer collects claims for physical damage and the lender collects claims for credit risk and credit life insurance (protection against consumer default and consumer death, respectively). All of the insurance coverage, except for credit risk, is paid for by the customer through his monthly payments to the lender. If a service company is used, the lender deals with the insurance company through the service company. The dealer often receives an insurance commission.

The Lender The lender receives a flow of monthly payments from the consumer. These are made fairly steady and reliable by the contingent inflows from dealer recourse, credit-risk insurance, and credit-life insurance. Cash outflows from the lender include payments to the dealer and the insurance company, as outlined above, and to the service company if one is used.

The Service Company When a service company takes part in mobile home transactions, its basic output is that of services supplied. These services are rendered primarily to the lender and include soliciting mobile home

wholesale and retail business, auditing the dealer's inventory, and repossessing and reselling mobile homes when the customer defaults on contract. Cash inflow to service companies is from the lender for services performed, and generally is a fixed percentage of the finance charge. Another common function of the service company is to supply insurance. In such a case, the flows also include those listed above for the insurance company.

B.

ANALYSIS OF THE
PRESENT SITUATION

1.

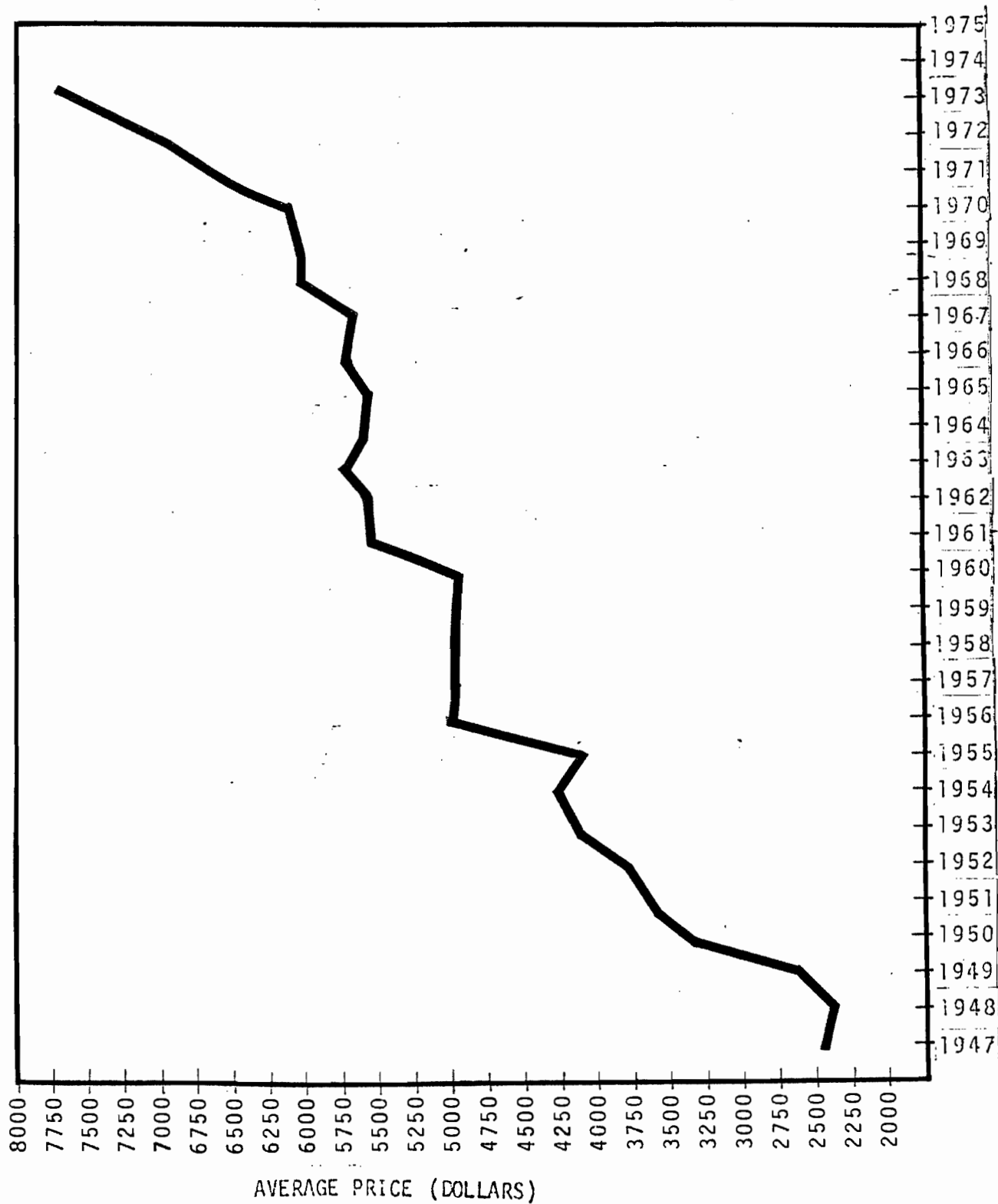
The Average Transaction

1.1 PRICE

Utilizing estimated retail-sales figures of manufacturers' shipments to dealers, a historical graph can be prepared showing the average price of mobile homes since 1947 (See Figure 2).

The relevance of the average mobile home price can be questioned. This figure indicates the arithmetic mean of the prices of mobile homes sold. The range of prices should be used to determine if the mean price is a realistic measure. In fact, the price of a new mobile home may range from \$6,000 to \$25,000 and even higher.¹ With such a large range, analysts often differ in their estimations of average price.

The large price range and the discrepancy in average price estimates must be attributed to a number of factors. The first is the size of the home. Mobile homes can range in width from eight to 14 feet and larger if they are expandable or double-wide units rather than single-wides.² The price of singles generally ranges from \$6,000 to \$17,000, expandables from \$9,000 to \$17,000, and doubles from \$9,500 to \$25,000.³ Secondly, a given home may be purchased with expensive options and may be of various styles. The third factor influencing price is the brand name. Different brands are associated with different levels of quality. Finally, the region of the country in which the mobile home is purchased



Source: Derived from several issues of Flash Facts, MHMA.

FIGURE 2: AVERAGE PRICES OF MOBILE HOMES SINCE 1947

can be important. In general, the prices of mobile homes increase as one moves from the West to the East.⁴

The dealer has an important influence on price. There is some agreement that the dealer's markup over manufacturer's invoice is 20 to 30 percent plus transportation costs.^{5,6} The exact markup is determined by the dealer's bargaining power and the influence of such conditions as "closed parks", which contain only the mobile homes sold by a particular dealer. Additionally, prices are in part determined by the customer himself. The customer's bargaining ability and the amount of shopping done before buying the mobile home can affect the final price.

In short, there is no typical price in a mobile home transaction. Too many factors apply. When the prices of all mobile homes are averaged for a given year, the figure which results should only be used as a guide line. However, each specification of a factor narrows the possible price range and adds a degree of confidence to a price approximation. As will be seen in the analysis, the question of price level is very important both to the consumer and to the financial institution providing retail financing. The lender is affected because increased prices often cause the term on mobile home loans to increase. The term increases in this case because consumers often cannot afford the monthly payments that would result from the old term and the higher price.

1.2 DOWN PAYMENT

Traditionally, the down payment required by a lending institution for mobile home financing has paralleled that of other installment credit financing, approximately 25 to 33 1/3 percent of the purchase price.⁷

As the risks of mobile home financing decreased (at least until 1971) and the image of the mobile home owners improved, the required down payment has declined. Today it is generally ten to 15 percent. The minimum down payment is five percent under FHA and VA guidelines.

Like the price of mobile homes, however, the down payment that a customer will pay depends upon a number of considerations. Highest among these is the credit standing of the purchaser. If his credit standing is good, a customer can generally expect to pay the minimum advance; but if it is low, he may have to pay 25 to 30 percent or more, assuming he can qualify for the loan. However, lending institutions seem to differ in their required down payment policies, as evidenced by Figure 3.

From the table, ten to 15 percent seems to be the most common range of down payments. Savings and loan associations have shifted their mortgage and loan activities toward the lower end in a competitive attempt to offer more appealing terms and secure a more substantial share of the market.

Down Payment	Banks	Finance Companies	Savings and Loan Associations
10%	43.2	56.0	42.6
15%	23.4	20.0	24.1
20%	18.5	4.0	11.1
25%	5.9	0.0	1.9
other	9.0	20.0	0.3

Source: Mobile Home Financing: 24th Annual Survey MHMA, 1975

FIGURE 3: PERCENT OF ACCOUNTS OUTSTANDING HAVING SPECIFIED DOWN PAYMENTS

Finance companies offer a more consistent down payment rate than do commercial banks. It would appear that they screen the customer to conform to the rate rather than adjust the rate to the estimated riskiness of the customer, as is the practice among commercial banks. The result of this consistency on the part of the finance companies is a lower level of risk, measured by a lower delinquency ratio. In addition to this, the depreciation of the unit is a key factor. In the event of repossession, the lender must be sure of resale in order to recoup the amount of principal still outstanding.

Additional factors that affect the required down payment fraction include the particular dealer involved, the region where the transaction has occurred, and whether or not a government program is used to insure the loan. The down payment required by a particular dealer depends upon his financial condition and his perception of the consumer's credit standing. Within a given region, down payments are competitively restricted by the average level of local down payment requirements and by what the local market will bear. The FHA and VA insurance programs specify minimum down payment requirements in the event that the mobile home is financed under these programs.

1.3 INTEREST

In general, interest is charged on mobile home loans by the same method that is used on other consumer installment loans, such as those which finance automobiles and furniture. By this method, which is known as the "add-on" technique, interest of a given rate is charged as if the entire principal is owed during the full term of the contract.

It should be noted that, for a given add-on rate, the actual simple interest rate decreases as the length of the loan contract increases. This is important because it is a real disadvantage to the lender who extends his terms for any reason. Longer terms tend to reduce the lender's effective rate of interest.

The profitability of a given interest rate to the lender is evaluated through the consideration of a number of parameters, some of which are uncertain. The most important factors are the term and interest rate of the contract, the prime interest rate (lender's opportunity cost), estimates of overhead costs, and risk-loss contingencies.

Although seven percent add-on is a common interest rate figure, other interest rates are certainly available. For example, the Veteran's Administration offers a simple interest rate of 12 percent under its

mobile home loan insurance program. The Federal Housing Administration offers a similar insurance program with rates ranging from 7.63 percent to 11.25 percent simple interest, depending on the term and amount of the loan. One of the reasons these programs have not achieved widespread use is that lenders are somewhat reluctant to lend at those low interest rates when conventional mobile home loan market rates can bring a greater return.

If one compares the average interest rates on conventional home mortgages with those on mobile home installment loans, a substantial discrepancy is detected. This is depicted in Figure 4. Financial institutions attribute this difference to the shorter terms and greater risks of the mobile home loans. Terms, however, are getting longer, and risks are not as great as originally recognized and can be reduced even further through careful screening, control, and supervision of the lender's mobile home portfolio. In fact, the nature of mobile home financing has changed to such a degree that some lenders are now extending mortgage financing to mobile home purchasers at lower mortgage interest rates.

The add-on method of financing aroused much sentiment against the misleading nature of the add-on interest rate. Many felt that the interest rates were exorbitantly high and yet unrecognized by the misinformed buyer. This sentiment resulted in the Consumer Credit Protection Act (the Truth-in-Lending Act) which became effective in 1969 and dictated that add-on interest rates must be translated by the dealer into simple interest rate terms so that the consumer can

Period	Mobile Home Finance Rate ¹	Conventional Mortgage ² Finance Rate
<u>1972</u>		
March	12.57	7.55
May	12.29	7.60
July	12.25	7.65
September	12.41	7.70
November	12.41	7.70
<u>1973</u>		
January	12.51	7.70
March	12.54	7.80
May	12.73	7.95
July	12.77	8.40
September	12.90	8.95
November	13.12	8.75
<u>1974</u>		
January	13.24	8.65
March	13.15	8.60
May	13.08	9.15
July	13.22	9.40
September	13.43	9.80
November	13.60	9.55
<u>1975</u>		
January	13.60	9.15
March	13.59	8.90
May	13.57	9.05
July	13.78	9.00
September	13.78	9.25
November	13.43	9.20

1) Finance companies only.

2) Unweighted rates on first mortgages.

Source: Various issues of the Federal Reserve Bulletin.

FIGURE 4: COMPARISON BETWEEN FINANCE RATES OF MOBILE HOMES AND CONVENTIONAL HOMES

compare alternate financing packages more easily. Unfortunately, this legislation has had little effect on interest rates.

1.4 TERM

The term of a mobile home loan contract is dependent upon a number of factors. Among these are the mobile home's price, the lender, the consumer, and the government program (if any) that insures the loan. Generally, the higher the price of a mobile home, the longer is the term; a short term and a high price usually produce monthly payments that the consumer cannot meet. The interaction between consumer and lender also affects the term of the contract. Together, they bargain for a term satisfactory to both parties. The customer contributes his credit rating and the lender evaluates the profitability of the flow of funds dictated by contracts of various term lengths. The final term will be longer if the credit standing of the consumer is excellent and will be shorter if it is not. The VA and FHA insurance programs further affect term length by specifying maximum terms of 12 to 15 years.

Mobile home loan terms have increased considerably over time. In the late 1960's⁹ the average term was seven years. By 1970 it already was¹⁰ nine years. Mobile home consumer survey data published in 1976 indicate that the current average term for single wide homes is 9.3 years while double wide loan contracts have an average term length of 11.8¹¹ years. The reasons for the increase over the years are rising mobile home prices and the availability of longer term government-insured

contracts.

Although the current average term is 10 years, the actual turnover rate¹² of the typical mobile home loan is considerably shorter. Trade-ins and prepayment are factors that account for the discrepancy in actual and planned contract lives.

1.5 INSURANCE

In accordance with the widely recognized vehicular definition of the mobile home, insurance companies traditionally have formulated policies more closely resembling automobile insurance policies than conventional home policies. In general, the cost of mobile home insurance has been greater than that of conventional home insurance with the same coverage. Furthermore, many of the clauses in the mobile home insurance policy are unique to automobile-type coverage, and do not relate to conventional permanent-site homes (e.g., collision, stranding and sinking, etc.).

Mobile home insurance coverage falls into three categories: physical damage, liability, and credit life insurance. Physical damage insurance can be purchased in "broad form" or "comprehensive form." The broad form covers the insured party for only those specific hazards listed in the policy. These hazards usually include many of the following: fire, lightning, smoke, smudge, flood, earthquake, hail, landslide, rain, sleet, snow, wind, storm, theft, attempted theft, riot or curb commotion, malicious mischief or vandalism, explosion, missiles or falling objects, forced landing of aircraft, broken mirrors, and invasion by wild, stray animals. Comprehensive coverage is a more thorough form of insurance than the broad form and includes virtually every hazard that results in direct, sudden, or accidental loss, except for damage caused by collision. Optional additions

to the above forms of physical damage insurance include personal effects coverage, (which provides for protection against damage, destruction, or theft of the mobile home owner's personal possessions as distinguished from those furnished with the mobile home), and collision coverage (which is usually available with a \$50 or \$100 deductible provision and can be written for short-term or full-term protection). The short-term coverage, generally 30 days, is designed for protection against collision while moving the home from one site to another.

Liability insurance is offered to the mobile home owner for protection in the event of litigation resulting from accidents both on and away from the premises. Typical coverage would cover liability up to \$25,000.

Credit life insurance, introduced in the early 1950's, is the third type of insurance offered to the mobile home owner. In the event of the owner's death, this coverage will provide for the remaining payments on the mobile home up to \$10,000 (and even \$20,000 in some policies). In this way, the title of the mobile home will be transferred to the owner's family, relieving them of the burdensome monthly payments. At present, two-thirds
13
of all mobile home owners carry credit life insurance.

Federal law requires that fire and theft insurance be held by a mobile home resident covering the home and its furnishings, if the home is currently being financed. This law is not very crucial, however, since nearly all lenders have required extensive insurance coverage from the very beginning of mobile home financing. As well as fire and theft, this coverage generally includes vendor's single interest coverage (VSI) in

which the lender is protected in case of collision, embezzlement, full or partial conversion, and secretion. Although VSI coverage is rarely needed, it provides a measure of psychological security for bankers who are overly concerned about the mobility of mobile homes. VSI coverage is still required by many lenders.

Insurance Cost

The cost of mobile home insurance depends upon a number of factors. Obviously, high among these in importance is the degree of coverage a particular mobile home purchaser desires. Although a specific amount of protection may be required by the lender, the customer nevertheless has a wide range of possible plans from which to choose. For example, he may prefer the broad form over the comprehensive, and may choose any of the available options. Two additional factors influencing insurance cost are the specific insurance company and the state in which the transaction occurs.

The final parameters of insurance cost, once the above factors have been specified, are the value of the mobile home and the term of the insurance coverage; the premium rises with increases in either of these factors.

To give some idea of the cost of insurance to the mobile home owner, the premium charts of the Mobile Insurance Company (a subsidiary of McIngvale Associates, Dallas, Texas) for the states of Tennessee, Arkansas, Florida, Alabama, and Mississippi are summarized. The premium for com-

prehensive insurance coverage, excluding VSI, ranges from \$466 to \$586 for seven years of coverage on a \$7,000 mobile home. (In Mississippi, the premium is as high as \$1,050 in one of its counties but this seems abnormally high.) VSI coverage ranges from \$10 for one year to \$34 for seven years. Personal liability (for \$25,000 protection and \$500 medical payments) is \$10 to \$14 per year. Personal effects coverage varies between \$1.10 and \$1.20 for \$100 of personal effects per year. Trip collision coverage costs \$15 to \$40 for 30-day protection with \$50 deductible, and full term collision costs approximately \$2 per \$100 of mobile home value per year with \$50 deductible.

In summary, for a typical mobile home valued at \$7,000, insurance coverage for seven years might cost:

Comprehensive:	\$500	
VSI:	34	
Personal Liability:	70	
Personal Effects:	70	(assume \$1,000 of personal effects)
Trip Collision:	20	
Full-term Collision:	--	(assume none held)
Total premium:	\$694	
Total monthly cost:	\$ 8.26	

Likewise, for a mobile home valued at \$14,000, insurance coverage for seven years might cost:

Comprehensive:	\$850	
VSI:	34	
Personal Liability:	70	
Personal Effects:	140	(assume \$2,000 of personal effects)
Trip Collision:	40	(assume double wide)
Full-term Collision:	--	(assume none held)
Total premium:	\$1134	
Total monthly cost:	13.50	

Thus, the insurance cost per dollar value of mobile home declines for more valuable units. Indeed, if the term of the loan contract for the larger mobile home were twice the term for the smaller one, the monthly insurance payments would be less for the larger unit.

1.6 AMOUNT OF MONTHLY PAYMENTS

A consumer credit installment loan for the purchase of a mobile home is almost always amortized in monthly payments. The size of these monthly payments generally remains constant, and is the result of calculations made at the inception of the loan. Three major factors determine the size of the monthly payments: purchase price, insurance costs, and the conditions of the loan contract. The purchase price includes the cost of the home, transportation costs, and state and local taxes. Insurance includes some items required by the lender (e.g., fire, theft, VSI) as well as optional coverage (e.g., personal liability and personal effects coverage) that may be chosen by the consumer. Contract conditions that affect the size of monthly payments are the interest rate, down payment, and term (length) of the contract.

Monthly payments have increased considerably since the late 1960's. In a 1968 survey conducted by the Department of Housing and Urban Development, 87 percent of the respondents paid between \$50 and \$110 per month on their mobile home loans, and 36 percent paid between \$70 and \$89. The median monthly payment in this survey was \$80. Consumer survey results published in 1976 show that 80 percent of the respondents owning single wide mobile

homes pay between \$75 and \$149 per month (excluding park rentals). Of double wide home owners, 70% pay between \$125 and \$199 per month. Average monthly payment for single wide and double wide homes are \$110 and \$154, respectively. The general increases in monthly payment levels shown by these data suggest that increasing terms have not offset the increase in mobile home prices over the last few years.

The consumer who "shops around" can often find better contract terms, which will lower the monthly payment level. There may be a major difference among loans. Those insured by the FHA or VA offer lower real interest rates and lower monthly payments than loans available from most conventional sources.

1.7 PRICE COMPARISON BETWEEN MOBILE HOMES AND CONVENTIONAL HOUSING

In order to make a valid comparison between the monthly costs faced by a mobile home owner and those faced by the owner of a single-family site built home, one must consider more factors than simply the amounts of the monthly financing payments. The home owner contends with a variety of additional monthly expenses that differ substantially, depending upon the type of living unit and the financing arrangements. For instance, the mobile home owner need not supply furniture at the time of purchase; nor does he need to buy the land, in general, upon which the mobile home is situated. The conventional home owner has to supply not only these additional funds, but also a larger down payment.

In order to determine which type of home is the better choice for a prospective home buyer, one must consider these and other factors: the difference in "true" interest rates between mobile home and site-built home loans; depreciation rate differences; shorter term length of mobile home contracts; stronger future equity position associated with a higher priced home; the difference in insurance costs and coverage; and the availability of credit for each type of loan. A significant problem that arises in this analysis is determination of "correct" figures that should be used in the comparison. Many cost comparisons use figures and make assumptions that are inconsistent. As a result, conflicting conclusions have been reached

about which form of shelter is more economical.

Two comparisons, each beginning with reasonable assumptions but leading to different results, are presented below:

The first is a comparison of monthly housing costs that was published in 1972. It is the result of a dozen studies of mobile home and recreational vehicle consumer markets. ¹⁵ The comparison is summarized in Figure 5. The assumptions of this comparison include the following:

1. The down payment required on a new mobile home is ten percent of the sales price plus sales tax, while that on a site-built home is 25 percent of sales price.
2. Mobile home insurance costs are included in the monthly financing payments.
3. The interest rate for the mobile home loan is 7.75 percent add-on or 13.3 percent simple interest. It is eight percent simple interest for the conventional home.
4. The term of the mobile home installment loan contract is seven years. For the site-built home, it is 25 years.
5. Maintenance costs on the conventional home are estimated to be two percent of the value of the home per year.
6. The taxes on the conventional home are based on an assessed value of \$10,000.

This study concludes that, on the basis of down payment and monthly payment comparisons, the mobile home is less costly than a house.

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FOLLOWING COPYRIGHTED MATERIAL:

FIGURE 5: MONTHLY PAYMENT COMPARISON

Mobile-Modular Housing Dealer Magazine, March 20, 1972.

The second comparison of costs, also published in 1972, calculates monthly costs under a slightly different set of assumptions and extends its analysis to include estimates of owners' equity after twelve and thirty years of ownership.¹⁶ Equity analysis adds a second dimension to the problem of comparative monthly costs by introducing the investment potential of the two alternative forms of housing. If a substantial portion of payments for conventional housing represents an increase in equity, the monthly cost of owning conventional housing may actually be less than the monthly payment.

The study's monthly payment comparison is shown in Figure 6. The major assumptions in this comparison are:

1. The price of a new mobile home is approximately \$9 per square foot; For a conventional home it is \$17 per square foot. The latter price does not include furniture or land. The mobile home is completely furnished and is located on a rented plot of land.
2. The down payment for either type of home is 20 percent of the selling price.
3. Interest on the mobile home is equivalent to approximately 6 1/2 percent add-on.
4. The size of the conventional home is comparable to the double-wide mobile home.
5. Sales tax reflects the tax applicable in California in 1972.
6. Insurance costs are not included (mobile home rates are generally slightly lower than conventional homes).

The assumptions of the value comparison, which is shown in Figure 7, are:

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THE FOLLOWING COPYRIGHTED MATERIAL:

FIGURE 6: MONTHLY PAYMENT COMPARISON ESTIMATES:
MOBILE HOME AND SINGLE FAMILY HOME (1368 SQ. FT.
LIVING SPACE)

FIGURE 7: VALUE COMPARISON

Mobile Homes in California -- Present and Future,
1972, published by Wells Fargo Bank National Association.

1. The value of the conventional home "living unit" includes the value of the land on which it is located.
2. A four percent per year rate of appreciation was applied to the conventional single-family home.
3. The value of "savings" includes the amount that would accumulate if monthly payments the size of the loan repayments were deposited in a time account after complete repayment of the loan (12 years),- and if the difference between the initial costs of the two homes were deposited at the beginning of the first year.
4. An interest rate of four percent was applied to the amount deposited in "savings".

The second study concludes that the mobile home offers three short run advantages to the home-buyer: (1) lower initial costs, (2) lower total investment, and (3) lower average loan payments over a 15 year period than the site-built home. However, the long-run value to the home buyer of purchasing a conventional home is computed to be much greater than that of buying a mobile home. Of course, these conclusions depend on the assumptions concerning the rate of appreciation and the interest rate on savings.

Despite some variation in initial assumptions, both studies conclude that the average monthly payments on a mobile home are less than those on a conventional home during the first 15 years after purchase. The lower payment levels can mean the possibility of home ownership for low income consumers. However, more affluent consumers should consider the benefits and drawbacks of both types of housing before making a choice.

Mobile homes seem to offer four benefits to the prospective home owner. First, the initial costs associated with the purchase of a mobile home are significantly lower than corresponding costs for conventional housing. The difference in costs arises from lower down payment requirements and absence of closing costs. These advantages would be reduced if lower down payment requirements were available for conventional homes or if mobile homes were tied to land, necessitating title searches and other obligations included in closing costs.

The second benefit occurs only if mobile home owners are able to find lower cost sites. Selection of sites in a lower price range would make the mobile homes in the two studies less expensive per month than comparable conventional housing.

The third benefit commences when the shorter term financial contract of the mobile home is satisfied. If mobile home owners remain in their homes for more than seven years, or for more than twelve years with a longer term contract, monthly payments may be as much as \$150 less than the payments for conventional housing. However, the importance of this benefit is questionable because many owners may find that the benefit occurs when they desire and can afford conventional housing.

The fourth benefit does not appear in the studies, which are based on averages for large geographical areas. In many areas, new conventional housing in the \$20,000 to \$27,000 cost range is not being constructed. The used housing market may be able to provide such housing, but the stock of used housing in this price range increases slowly and may not be able to

accommodate increasing demand.

In short, mobile homes are at least as inexpensive as equivalent conventional housing, and under certain conditions may be less expensive. The most important advantage of mobile homes is that they are readily available, while low cost conventional housing with which mobile homes are often compared is becoming increasingly scarce.

Although mobile homes are normally associated with lower monthly costs, proponents of conventional housing argue that the accumulation of equity realized by conventional home owners offsets the short term benefit of mobile homes. The second study cited supports this position, indicating an equity advantage of \$40,000 for the conventional home owner after thirty years. Equal allocation of this advantage over the thirty year term would reduce the true cost of owning a conventional home by approximately \$110 per month, yielding a clear advantage to such housing.

Equity is established by owners of conventional single-family homes through payment of the mortgage principal and appreciation in the value of the housing package, and is manifested in the home's resale value. Since owners of mobile homes could save an amount equal to the payments that the conventional homeowner makes on mortgage principal, the benefit to ownership of a conventional home must arise primarily through appreciation. This increase in the value of the total housing package is associated with increases in the value of its two complementary components: the physical structure and the site upon which the structure is built.

Appreciation in the value of the physical structure is a reflection of increasing production costs for equivalent new conventional housing. Although the value of the structure is increasing, depreciation may cause the value to decrease relative to the replacement cost.

Since land is a limited resource, its value responds to competitive pressure from buyers seeking desirable building sites. As the demand for desirable locations increases, the value of the average site increases in real terms.

Thus, the value of the total conventional home package may increase significantly over time. However, there is no assurance that appreciation will occur. A home on a particular area may decrease in value over time. Also, a catastrophe such as fire may reduce the value of the package. Therefore, reliance on equity build up is associated with some risk.

The mobile home package is subject to similar effects, although their magnitude may be different. It traditionally has been assumed that mobile homes depreciate at a greater rate than conventional housing. Since the cost of new mobile homes has been maintained at lower levels through efficient production techniques, increasing replacement costs do not exert a major influence on the demand for older mobile homes. Also, the inexpensive furniture included in many mobile home packages depreciates exceptionally quickly. Therefore, mobile home value rapidly decreases. This does not imply that the economic life of a mobile home is significantly shorter than that of a conventional home. This project's findings suggest that the mobile home's economic life span may approach that of the tradi-

tional home, if the mobile home is equally well maintained. The high depreciation rate simply reflects the fact that financial institutions still assume an unrealistically short economic life of the mobile home.

The land upon which the mobile home is situated appreciates in value in a manner similar to appreciation of land for conventional housing. There is no reason to believe that mobile home owners who locate on privately owned sites would experience less appreciation in land value than would owners of conventional housing on similar sites. In fact, appreciation may be greater. Many mobile home parks are located in the path of expanding urban development, whereas many conventional homes are in decaying cities. Therefore, the equity potential of land for both types of owners should be assumed equal.

Since a large proportion of mobile homes is located on rented sites, land appreciation accrues to the owner of the park. If entry to the park management industry is not restricted, additional parks will be created until revenues from park operation, including the amortized value of the expected appreciation in land values, are just sufficient to yield normal profits. Under such ideal conditions, the owners of mobile homes would realize the appreciation in land value through decreased land rent. More realistically, it is likely that barriers to entry in the park management field restrict the magnitude of the benefits that mobile home owners actually receive from site appreciation.

1.8 FINANCING SOURCE

Approximately 25 percent of all mobile homes purchased are paid for in cash.^{17,18,19} The remaining 75 percent are financed. More than 90 percent of all mobile home financing is arranged through a dealer; the rest is established directly between the purchaser and the lending institution.^{20,21} Therefore, the sources of financing mobile home purchases are broken down as follows:

25.0%	Cash
67.5%	Through Dealer (75% x 90%)
7.5%	Direct Financing (75% x 10%)
<u>100%</u>	Total

There are two reasons why the amount of direct financing is so low.

The primary reason is that banks have no better way of soliciting mobile home loan business than through dealers (or through service companies that solicit dealers). Therefore, financial institutions generally find it worthwhile to floor plan a dealer's inventory in return for his assistance in directing customers to the lender. Second, lenders are reluctant to lend directly to mobile home purchasers, because this practice eliminates the dealer as an intermediary cushion to absorb, through recourse and repurchase agreements, the shocks of default and delinquency. Due to these higher risks of direct lending, the loans are necessarily more restrictive in the sense that credit standards may be tighter, terms shorter, down payments higher or any combination of these. Thus, these loans can be unattractive to the consumer as well as to the lender.

2.

Sources of Mobile Home Financing:
Nature and Problems

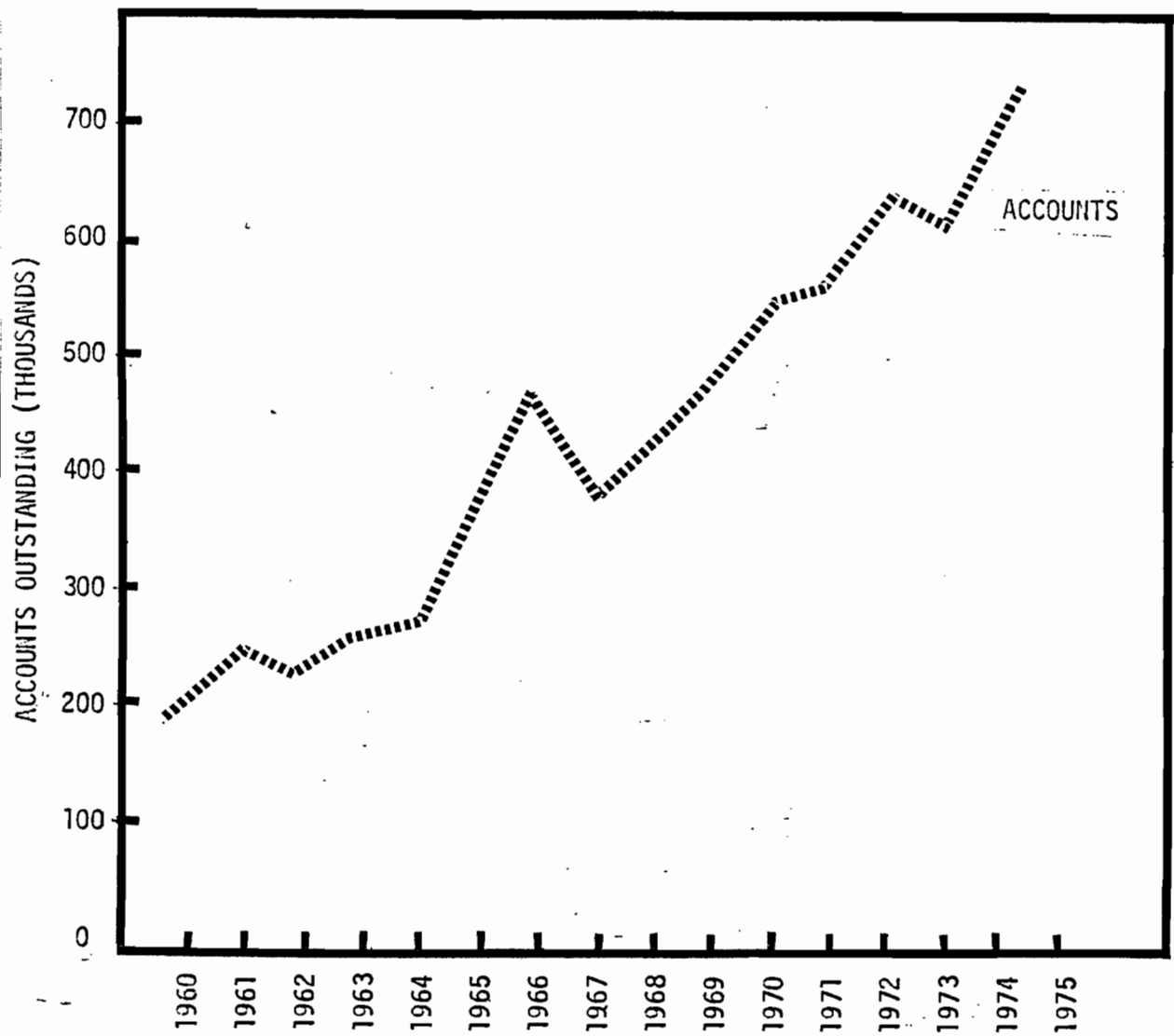
2.1 VOLUME AND CONCENTRATION

The volume of retail mobile home paper outstanding is difficult to determine. To arrive at a reasonable approximation, it is necessary to know the number of mobile homes sold that are financed, the value of the average outstanding account, and the average term of mobile home contracts. A nation-wide survey can provide insight into trends, but sample limitations may prevent actual estimates of volume. The trend in the number of accounts outstanding is shown in Figure 8.

A more effective method is to estimate the volume of retail paper held by the largest investors in the field. The amount of retail paper held by the three largest investors in mobile home paper is shown in Figure 9.

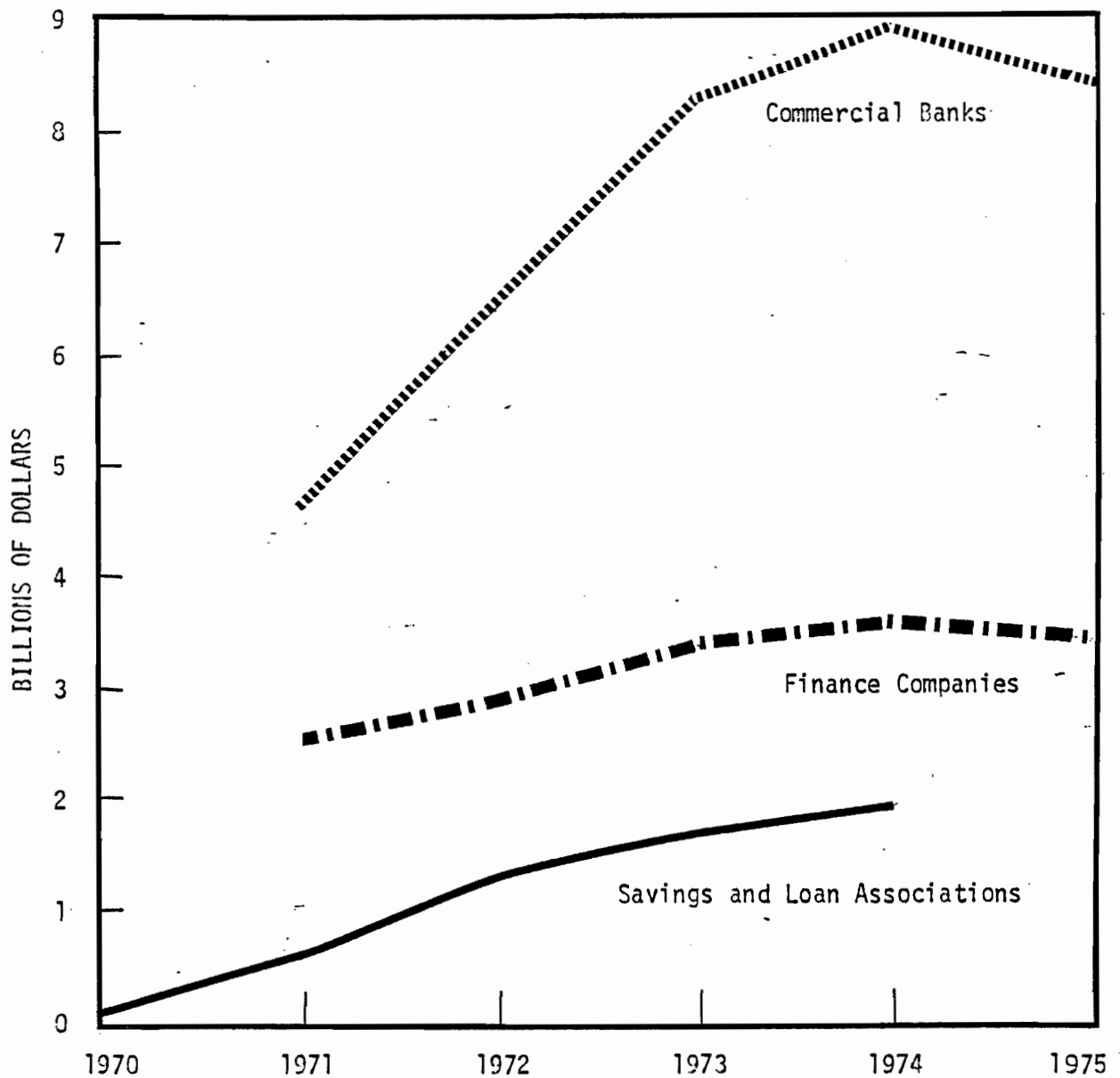
These data clearly indicate the large market share of commercial banks in mobile home retail lending. Figure 9 also shows the increasing amount of finance company lending, and the aggressive growth of savings and loan associations since they received authorization to participate in mobile home paper in 1969. The high average account value of savings and loan associations may account for some of this growth.

The remaining market share of the mobile home retail loan market -- after the shares of commercial banks, finance companies, and savings and loan associations have been accounted for -- is quite small and consists of



Source: Various issues of Mobile Home Financing, Annual Survey, MHMA.

FIGURE 8: NUMBER OF MOBILE HOME ACCOUNTS OUTSTANDING



Note: Data for commercial banks and finance companies are for December of the year indicated.

Source: Compiled from the Savings and Loan Fact Book, 1975, United States League of Savings Associations, and various issues of the Federal Reserve Bulletin, Board of Governors of the Federal Reserve System.

FIGURE 9: VALUE OF OUTSTANDING MOBILE HOME PAPER HELD BY MAJOR LENDERS

the mobile home paper held by private investors, including credit unions and insurance companies. This portion of the retail paper market is distributed exclusively through the Government National Mortgage Association (GNMA), a separate corporation operating in HUD.

2.2 RISKS TO THE LENDER

The financial intermediary involved in supplying money to the mobile home purchaser faces certain risks in making a loan, and must carefully consider the factors that determine the magnitude of contingent losses. Lenders tend to stress the risks of retail mobile home financing when justifying their high rates of interest. In general, they consider the risks of such loans to parallel the risks that are implicit in other forms of consumer credit installment financing, such as the financing of an automobile. However, others deny this claim and insist that the risks faced by the investing institution more closely resemble those of a conventional site-built home mortgage loan. Federal Reserve experts have observed, in this regard, that "the present difference in financing terms appears to be greater than the risk involved."²³

Regardless of the hypothesis that mobile home loans should be placed in the same risk category as conventional mortgages, the appropriateness of the installment loan classification must be seriously questioned. During the late 1960's there was a considerable improvement in risk conditions on mobile home paper. At this time, some finance company officials claimed that the paper²⁴ had the lowest risk and highest yield of any type of installment loan. The risks on various installment loans were measured quantitatively in the American Bankers Association 1967 Installment Credit Survey, which indicated "that

mobile homes had the lowest average dollar amount of losses computed on the basis of liquidations of any other installment loans."²⁵

There were a number of reasons for the relatively low risks of mobile home retail paper during the 1960's. The first is the large size of a mobile home. The traditional lender fears that the mobile home owner could hitch his home to a car and disappear in the middle of the night became unwarranted. A truck and a crew of professional mobile home movers are required to transfer a mobile home due to its large size. Additionally, since the term of a mobile home loan is generally longer than that of other installment loans, a lower turnover rate results in lower total reinvestment and acquisition costs per dollar. A third factor contributing to low risk is the nature of the mobile home as collateral. Since the mobile home is the borrower's residence, default would mean loss of shelter.

Measures have been taken directly by the lender to reduce risks. These measures are costly, but can be economically justified by the risk averse lender. Vendors-single-interest (VSI) coverage exclusively protects the lender against such contingencies as embezzlement and secretion. Credit risk insurance, dealer recourse and repurchase agreements, and dealer reserves are available to compensate the lender for the borrower's delinquent payments and losses due to repossession.

Although mobile home loans may be less risky than other installment loans, they do have some disadvantages. First, the longer term of mobile home loans implies lower reinvestment costs, but also means less flexibility to reinvest when desired. Second, the larger average investment per borrower compared

with other types of installment loans implies a less diversified portfolio of funds, and hence a greater overall risk to the lender. Finally, although mobile homes are virtually immobile, they are still more mobile than a site-built home.

2.2.1 Depreciation

On balance, the factors above tend to push the mobile home out of the loan risk category into the conventional home mortgage risk category. However, there is one controversial factor that militates against this reclassification: depreciation.

Depreciation is a measure of the yearly decrease in the resale price or market value of a capital good. The depreciation rate for mobile homes is much higher than that for conventional housing. Which factors determine the depreciation rate and account for the depreciation rate differential?

The most controversial and important factor influencing the depreciation rate is the actual life of the mobile home. The economic life of the mobile home, is traditionally estimated to range from six years to greater than 20 years, and depends upon several factors. Among these are the size of the mobile home, the make and model, the date of manufacture, quality of maintenance, climatic differences from region to region, family size, and whether or not the mobile home is located within a park. ("Homes inside parks hold up better than the average, those outside succumb faster.")²⁶ Figure 10 has been used by HUD to help determine the need for replacement of mobile homes during the period 1969-1978, and considers only the size and date-of-manufacture parameters.

SIZE	DATE OF SHIPMENT	MEDIAN LIFE IN YEARS
8' wide	1947-1954	9
8' wide	1955-1960	11
10' wide	1956-1969	14
12' wide, doubles, and expandables	1962-1969	16

Source: Appalachia, published by the Appalachian Regional Commission.

FIGURE 10: HUD GUIDELINES FOR DETERMINING USEFUL LIVES OF MOBILE HOMES,
1969-1978

Although financial institutions rarely estimate the average mobile home life to be greater than 15 or, at the most, 20 years, a competent source²⁷ estimates that 20 years is an appropriate figure for the average life.

The chief appraiser for a savings and loan association has predicted that any mobile home built to comply with ANSI-approved standards will have an economic life of 33 years, and those of average and fair quality will have²⁸ lifetimes of 25 and 20 years., respectively.

Extensive nationwide interviews by PMHI of traditional builders and developers as well as mobile home manufacturers and park operators suggest, as mentioned earlier, that the economic life of the mobile home is considerably longer than is commonly assumed and that it may be close to the life of a conventional home. While the lack of adequate data for the development of statistical tests of this hypothesis tempers this conclusion, these results imply that current assumptions of high mobile home depreciation rates are questionable.

The other influences on depreciation are much more subtle. For example, some depreciation depends upon the furniture supplied with the new mobile home. Furniture wears relatively quickly, and often has to be replaced at least once during the life of the home.

Depreciation rates tend to vary by mobile home model and year of production. This characteristic causes the resale of mobile home to resemble that of automobiles, in that prices are determined by age and Blue Book estimates rather than by an appraisal of the true quality and value of the home.

Consumer tastes also influence the rate of depreciation. Many mobile home shoppers do not consider purchasing a used mobile home because they prefer a new home of the latest style. The tendency to buy the new rather than the used mobile home has depressed the price of used mobile homes. A depressed used market is, in turn, the definition of a high rate of depreciation (i.e., low resale value).

The depreciation rates used by dealers and financial institutions in their calculations are very high and surprisingly consistent. A common "rule of thumb" in the industry is 50 percent depreciation in five years.²⁹

A table, which is fairly representative of depreciation evaluations in the industry, has been drawn up by The American Appraisal Company (see Figure 11).³⁰ After approximately 15 years, mobile homes still retain 20 to 35 percent of their original value since they can be used as second homes, sheds, cabins for construction companies or some other sheltering units.

There is a very important reason for lenders to view the rapid rate of depreciation as a significant risk. In the event of repossession, the lender must attempt to recoup some of the lost investment by selling the used unit. Since the unit has lost a significant portion of its value in the first few years, the lender stands to lose this amount by repossssing and reselling the unit. This contingent loss is a very real risk.

It was mentioned earlier that depreciation rates have shown signs of decreasing. The reason for this is that the life of the mobile home is increasing and quality is improving. This does not mean that depreciation

Quality	Age						
	1	2	3	4	5	6	7
Economy	20	35	45	55	60	65	70
Standard	15	30	40	45	50	55	60
Custom	15	25	35	40	45	50	55
Luxury	10	20	30	35	40	45	50

Source: American Appraisal Company

FIGURE 11: PERCENTAGE DEPRECIATION OF MOBILE HOME UNITS
BY AGE

rates will necessarily equal those of conventional homes at some time in the future. They cannot as long as the other factors causing high depreciation rates such as the exclusion of land in the mobile home package, inclusion of relatively inexpensive furniture in the mobile home loan, Blue Book appraisals, and price-depressed used market, are still operating to maintain high rates.

2.2.2 Credit Risk

The effect of general economic conditions on mobile home buyers has become obvious to financial institutions holding mobile home paper. When the economy is doing well, there is a large group of potential mobile home purchasers in the country. However, during a business downturn part of this group loses its income due to layoffs. The mobile home owners affected by a recession may be unable to meet payments, resulting in an increase in defaults. Without sound credit practices, lending institutions are vulnerable to the changing patterns of risk caused by changes in either the national or regional economies.

Lenders can control their expected losses through their credit allocation practices. Although the lender cannot control exogenous factors such as the mobile home depreciation rate and statutory maximum interest rate, he can adjust credit practices to reduce the magnitude of contingent losses.

Several important factors influence the lender's credit policy in the field of retail and wholesale mobile home financing. Among these are the dealer's operations, the terms of the retail/wholesale contracts, and the credit

standing of the customer. These factors are researched and analyzed to the extent that the lender deems appropriate. Cautious lenders maintain strict screening policies in order to lower risk.

Concerning dealer operations, the lender usually will employ inventory and commodity checks periodically on the dealer's lot to insure against "out of trust" sales. These are sales involving the mobile home or its furnishings that are not reported to the lender.

An additional lender screening mechanism is directed at the borrower. The lender considers, through a consumer credit application, the reputation of the borrower. Important parameters are those that the lender feels have a significant bearing upon the consumer's ability to meet monthly payments. These often include age, employment history, marital status, stability of residence, income, previous credit experience, and personal references of the applicant. Young, unmarried, or transient individuals often have considerable difficulty obtaining credit with reasonable terms.

2.2.3 Credit Risk Insurance

Lending institutions often handle their credit screening and enforcement practices through service companies, or at least insure themselves against credit losses by requiring credit risk insurance. Service companies offer collection, repossession, and investigation services.

Credit risk insurance, though part of the package plan offered by service

companies, can also be purchased without the intermediation of a service company. This type of insurance is designed to protect the lender against contract default and the resulting losses from delinquency or ultimate repossession. Credit risk insurance is paid for by the lender and covers credit losses exclusively. In a sense, then, credit risk insurance competes with the VA and FHA backed insurance programs.

The use of mobile home credit risk insurance by a financial institution is justified on several grounds. The first is the philosophy that underlies any insurance program, safety in numbers. Since lenders like other prudent business firms are risk-averse, they prefer to pay a specific cost rather than be concerned about contingent liabilities resulting from future defaults. Insurance policies can provide a specific figure for losses, the cost of the insurance premium, and eliminate contingent losses.

Second, the insurer is skilled at repossessing and reselling mobile homes that are subject to contract defaults. Since this activity is the insurer's business, he has experience and efficiencies that reduce the average loss per repossession.

The third justification for the use of credit risk insurance is that it is more desirable than dealer recourse agreements for both the lender and dealer. The lenders have become aware of the unreliability of dealer recourse agreements through experience, and dealers have used credit risk insurance as a means of relieving themselves of the onerous contingent liabilities that accrue to their businesses from recourse agreements. Dealers are, in general, too small to have the assets needed to back up recourse commitments.

Therefore, lenders have begun to require more uniform and stable security³¹ than that which is available through dealer recourse agreements.

The general terms of credit risk insurance are as follows. The lender pays the entire premium for insurance coverage at the inception of the loan contract. The magnitude of the insurance cost is computed on the entire amount of the loan, but in the event of default the optional equipment may not be covered. The cost tends to be higher than that of mortgage credit insurance.³²

The maximum coverage is calculated by the insurance company on the basis of manufacturer's invoice cost or Blue Book value. Typical figures for the maximum coverage are: 100 percent of manufacturer's invoice (excluding freight) plus sales taxes, and up to \$500 as an additional allowance for a new mobile home; 115 percent of the current cash value as specified in the Blue Book (Judy Berner Publishing Co.) plus sales tax for a used mobile home;³³ and 110 percent of dealer's cost for optional equipment. Credit risk insurance protects the lender from all credit losses that may occur, up to the maximum amount of coverage, for a given mobile home. The insurance company is obligated to repossess and resell the unit, and reimburse the lender when necessary. Generally, insurance contracts are written without recourse to lender or dealer.

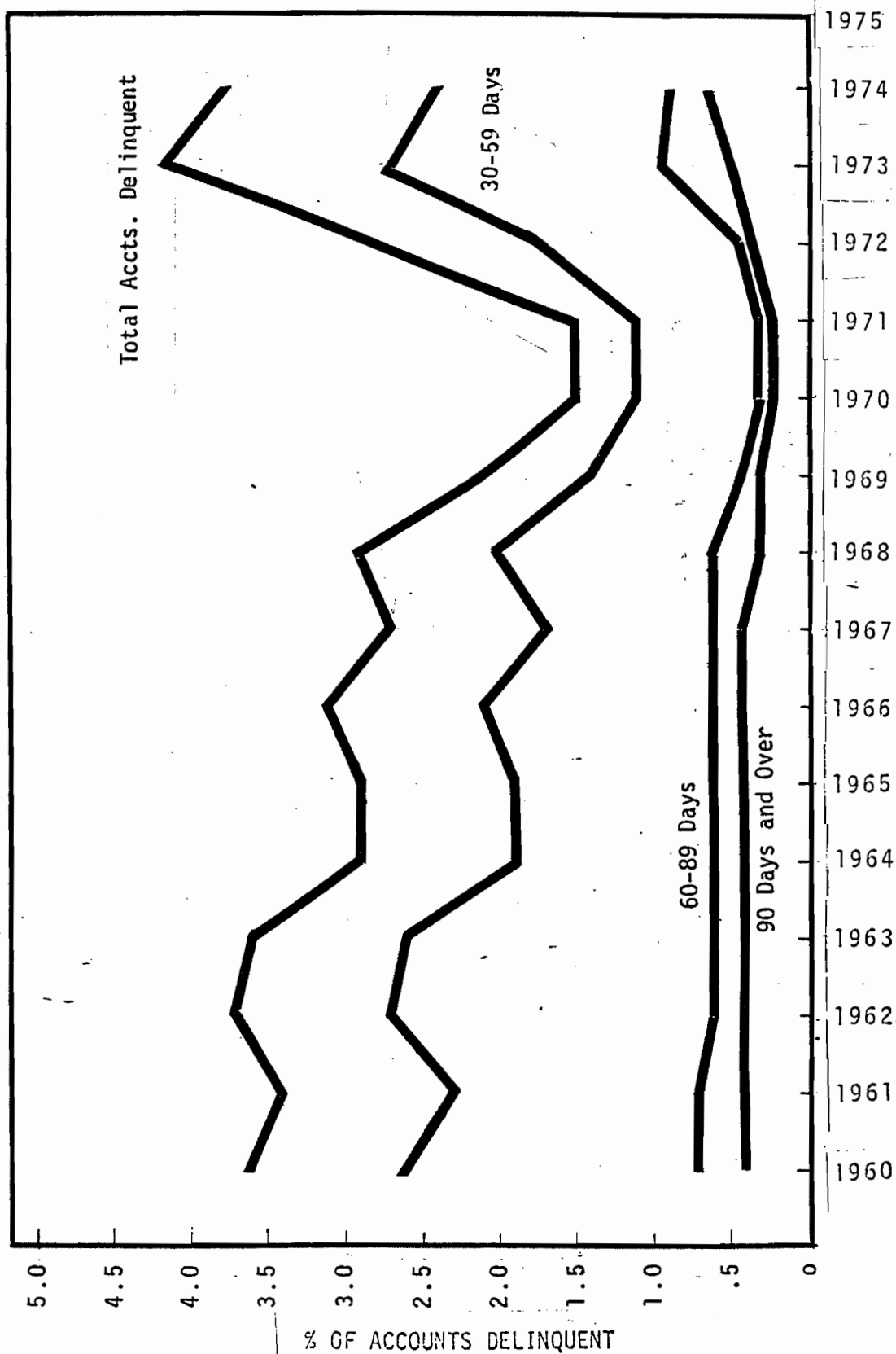
The development and widespread use of credit risk insurance has had two effects upon the financing sector of the mobile home industry. The first is that, from the lender's viewpoint, costs have stabilized. By utilizing credit risk insurance, mobile home loans can be classified as low-risk investments. Since the premium costs of credit risk are known, the lender can project fu-

ture yields with accuracy and confidence. However, the credit policies of lenders affect the levels of insurance premiums. There is an incentive for lenders to monitor credit extensions, since a failure to do so will increase costs. Second, the use of credit risk insurance has caused greater division of labor in the financing sector. That is, dealers need no longer be tied to the financing of mobile homes through recourse agreements, and lenders need no longer venture into the used mobile home business to sell repossessed mobile homes. They may both concentrate resources on their primary business objectives.

2.2.4 Delinquency and Repossession Ratios

The best available quantitative measures of the credit risk faced by the lender are the delinquency and repossession ratios. The ratio of delinquency measures the average percentage of borrowers that are tardy in making monthly payments. The average of all accounts delinquent more than 30 days was approximately four percent in 1974.³⁴ The breakdown of this ratio and the delinquency ratios for past years are plotted in Figure 12.

Prior to 1972, there was a decisive downward trend in the ratio. This reflected the general decline in lender risk over the period. The main reasons for the decline were the influx of customers in upper income brackets and an economic climate that improved the purchasing power of many traditional mobile home consumer groups. The large increase in delinquency ratios in 1972 and 1973 reflected evolving risk conditions. The MHMA suggested that the increase in delinquency ratios from 1971 to 1973 could have



Source: Mobile Home Financing, MHFA, 1975.

FIGURE 12: DELINQUENCY RATIOS

been caused by imprudent lending during peak sales periods such as 1970 to 1972, and economic instability resulting from the energy crisis.³⁵ During 1973 and 1974, the percentages of accounts delinquent more than 60 days were fairly stable at rates above their long-term values. This increase was symptomatic of the difficulties that beset the industry in 1974. The recession of 1974 and 1975 significantly affected risk conditions, because many mobile home owners did not have sufficient income to make loan payments. - -

The repossession rate is a measure of the portion of mobile homes sold that must be seized from borrowers due to extremely delinquent payments or other contract defaults. In the early 1970's, the repossession rate was equivalent to approximately two to three percent of all mobile home accounts outstanding per year.^{36,37,38} By late 1974, the annual rate had risen to four percent of outstanding accounts and by early 1975 it exceeded six percent.³⁹ The trend⁴⁰ in mobile home repossessions is shown in Figure 13.

In the past, experienced lenders have been able to repossess and sell units quickly, thereby keeping losses at a low level. Recently, increased repossession rates and decreased demand caused by economic conditions have led to large losses for lenders and credit risk insurers. Repossessions peaked in early 1975 and have begun to return to lower levels.^{41,42} This may indicate that risk on mobile home paper has begun to return to low levels of the late sixties.

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FOLLOWING COPYRIGHTED MATERIAL:

FIGURE 13: REPOSSESSION RATIO TRENDS

Mobile Home Merchandiser, June, 1976.

2.3 ADVANTAGES AND DISADVANTAGES OF MOBILE HOME PAPER

Financial institutions that are interested in including mobile home paper in their investment portfolios must consider both the pros and cons of holding such paper before plunging into the mobile home arena. Once the lender has made an affirmative decision concerning mobile home investment, time and money will have to be spent in developing a successful mobile home loan department.

The disadvantages of mobile home paper can be understood only relative to other forms of financing. Relative to conventional site-built mortgage financing, mobile home financing involves the added risk of a higher depreciation rate. Compared to consumer installment loans, mobile home paper has a longer term, in general, and is therefore less flexible for reinvestment. Furthermore, mobile home paper generally involves a larger investment than that required for other installment loans, thus concentrating a greater quantity of invested funds per borrower and reducing the diversification of risk.

Additional disadvantages of mobile home paper arise from the indirect (via the dealer) nature of mobile home retail financing. In order to obtain retail financing business through mobile home dealers, generally the lender must provide wholesale financing for the dealer's inventory. This floor plan financing often involves a substantial amount of funds loaned at a low rate of

interest, and hence offers only a marginal yield to the lender. The amount of money required per distribution outlet may range from \$25,000 to \$100,000 and is invested at a rate of only one to 1 1/2 percent above the prime interest rate. The lender must also hire competent credit-screening and auditing personnel in order to avoid losses resulting from uncontrolled and unsupervised floor plan portfolio. These costs reduce the net yield on wholesale financing.

Additional costs to the lender that arise directly from the dealer's intermediation between consumer and lender are: the consumer may vent his dissatisfaction with dealer's service by refusing to meet monthly payments; dealers tend to screen customers less stringently than would the lender if the financing were direct; and few dealers have the financial strength that would be required to back-up their recourse endorsements in the event of default.

Many financial institution believe that the advantages of retail mobile home paper far outweigh the disadvantages. Relative to conventional mortgage investments in site-built homes, investments in mobile home paper return a higher interest rate, provide for a more rapid rate of turnover, require less effort per transaction (no title search fees, or other high administrative and legal fees are necessary), and involve a level of risk comparable to that of financing site-built homes. In the last regard, it had been claimed in 1970 that the repossession ratio of mobile home loans was less than the ratio of defaulted VA or FHA insured conventional home mortgage loans. The experience during the recent recession was different but may well have been a one-time aberration.

Compared to other credit installment paper, mobile home paper provides a similar level of interest rate, a low degree of risk, and lower transaction costs. The last factor is due to the greater average amount and term of mobile home contracts compared to other installment loan contracts. Funds need not be invested as often in mobile home loans due to the lower turnover rate.

An additional advantage to those financial institution that purchase mobile home paper is the likelihood that borrowers will consider the specific lending institution when searching for other financial services. The name of the lender may automatically flash into the borrower's mind if he is making monthly payments to the lender. This new source of customers for the lender can mean additional business and increased revenues.

2.4 STABILITY OF CREDIT: TIGHT MONEY CONSIDERATIONS

What have been the effects of tight money on the mobile home industry? While the conventional home industry has responded in a countercyclical manner relative to the general business activity of the nation, the mobile home industry has historically shown no such pattern. To understand the response to tight money, the varied responses that take place within the financing sector of the mobile home industry must be considered.

The two main reasons why mobile home financing is less affected by tight money market conditions than site-built home financing are the interest rate levels and term length of mobile home paper. The high average interest rates on mobile home loans tend to keep the loans attractive during periods of rising or high interest rate levels. Shorter term lengths than those of mortgages give the mobile home lender more flexibility in control of funds. Both factors provide lenders with incentives to obtain mobile home paper during tight money periods.

There is a secondary reason why mobile home installment credit remains generally available during tight money conditions. Single family residential construction is financed primarily by local institutions, whereas mobile homes are often financed by large national finance companies and money market center commercial banks. Thus capital flows from areas where it is available into areas where

mobile home financing is needed. It is true, however, that the advent of government mortgage securities has begun to give local residential home markets the ability to channel funds from national sources.

Since the cost of money to the lender increases and the supply decreases during tight money periods, the lender must allocate credit more carefully. The lender will be more selective in lending practices; he may encourage (or force) the dealer to give up some of his normal reserves; he will generally cut back considerably on the amount of outstanding floor plan credit (especially to dealers of marginal reliability).

There are several important results from these measures. Many financially unstable dealers go bankrupt, leaving only healthier dealers. Sometimes, however, the larger dealers may be arbitrarily hurt more than smaller dealers, because lenders can realize a more rapid overall improvement in their own restricted position by reducing credit to a few large dealers rather than to many small ones. Furthermore, large dealers do not generally have a close rapport with lenders, so they have less recourse than smaller dealers.

Because of the relatively stable interest rate on mobile home loans, the adequate yield from careful supervision of the paper, and the diversion of shelter-seeking customers from inaccessible site-built home to available mobile homes, the sales figures for mobile home during general business peaks have not reflected the slumps that the permanent housing industry has suffered. In the tight money period of 1968, the mobile home industry's share of the housing market jumped to 25 percent from 21 percent the year before. Shipments were

up 33 percent versus a ten percent rise in housing starts over the year.⁴⁶

Another result of tight money is that service companies may be utilized less often by the lender. Economizing efforts in these periods require more lender self-sufficiency since funds may not be available to pay service company charges. In the tight period of 1973, those "lenders, who provide financing indirectly through service companies, began to cut back their activities because of either a shortage of funds, or a disenchantment with a service company performance,⁴⁷ or both."

In periods of extremely tight money, it is evident that mobile home sales may be adversely affected after a length of time. Interest rates on floor planning bear some relation to the prime interest rate (generally several percentage points above) and, as the prime rate rises due to tight money, so will the cost to the dealer of floor-planning. The dealer will reduce inventory as much as possible to avoid this higher floor-plan financing charge and, ultimately, sales will be hurt by the lack of dealer inventory.

During periods of tight money mobile home paper has a higher yield than does conventional home mortgage paper, resulting in a flow of funds for mobile home loans. However, if the interest rates were lower, the mobile home industry would probably suffer from the same crippling problem that the permanent housing industry faces during periods of tight credit availability.

2.5 CONVENTIONAL MORTGAGE FINANCING

In the early 1960's, when sectionals and double wides began rolling off the assembly line in increasing numbers, lenders began to consider the prospects of using conventional mortgages for the financing of these larger and more costly mobile homes. There were necessary prerequisites, however, to the use of mortgage financing for mobile homes. First, it was important that the land upon which the mobile was situated be included in the purchased package. The rate of appreciation of the value of the land helped to offset the normal high depreciation rate of the mobile home and thus reduced the magnitude of the contingent losses to the lender from potential repossession. Second, lending institutions insisted that the mobile home be secured to the land. Arising perhaps from the lenders' fear that their collateral might vanish in the night, this requirement has been promulgated more formally: "the type of property that can be financed by a mortgage is determined by statute and is limited to assets attached to the land."⁴⁸ As a final precaution, lenders generally insisted that undercarriage and wheels be removed from the mobile home as a prerequisite to mortgage financing.

During 1963, a few state-chartered savings and loan associations in Florida began offering conventional financing to mobile home buyers. One must remember that this was six years before federally-chartered savings and loan associations were authorized to participate in installment credit financing of mobile

homes, before this authorization, they were restricted to the use of mortgage financing in their lending practices to housing purchasers.

The terms offered by the Florida savings and loan associations were a down-payment of 15 to 25 percent, an interest rate of six to seven percent simple interest, and a mortgage term of ten to 15 years.⁴⁹

The terms of a conventional mortgage contract for a new mobile home have remained fairly constant over the last decade. Figures from Oregon show a down-payment of 25 percent, an interest rate of about 7 1/2 percent, and a contract term of up to 20 years.⁵⁰ The down payment percentage depends on the exact circumstances of the loan situation. The interest rate has increased since 1963 but for reasons unrelated to the mobile home industry, such as the fluctuations of the general business cycle, changes in the prime interest rate, and the inflation rate. The mortgage contract term has lengthened considerably due to the better quality, higher price, and longer expected life of recently manufactured mobile homes.

Mortgage interest rates for mobile homes are slightly higher than those for conventional housing and are likely to stay higher until certain factors change. One reason for this is the more rapid rate of depreciation of mobile homes than site-built homes. Another is the fear that mobile home buyers are riskier investments than conventional home mortgages.

The future growth of the use of mortgage contracts for financing new mobile homes is uncertain. A number of factors favor this form of financing, and a number do not.

Among the reasons that encourage lenders to extend credit terms through mortgage financing are:

1. When land is included, the potential appreciation of the land tends to mitigate the high depreciation rate of the mobile home.
2. The large size and immobility of the double-wides instills a feeling of permanence in the lender.
3. The improved quality of mobile homes has increased their expected lives to the point where lenders can safely extend the contract terms.
4. The higher prices of better-quality mobile homes and of double wides and expandables have necessitated the use of longer-term contracts, without which the monthly payments would be prohibitive unless unusually large down payments were made.

Among the reasons that tend to discourage the use of conventional mortgage financing of mobile homes are:

1. Lenders are usually required to provide unprofitable floor plan financing for dealers. To compensate for this loss, the lucrative installment-type retail paper is preferred by the lender over the less profitable mortgage paper.
2. Dealers are not motivated to promote conventional financing since their "dealer's reserve" is eliminated through mortgage financing.

3. Land is not usually included in the purchase of a mobile home, since most mobile home parks rent their lots. Furthermore, some customers prefer to have their mobile homes treated as personal property rather than realty, since personal property is often taxed at a lower rate over time.
4. Periods of "tight money" invariably dry up mortgage money before installment credit funds are affected.

3.

Government Policy
and its Influence

3.1 TRUTH-IN-LENDING LEGISLATION

On February 10, 1969 the Board of Governors of the Federal Reserve System promulgated the Consumer Credit Protection Act of 1969, which became effective on July 1, 1969. The Act must be complied with by anyone who extends credit to individuals for personal, family, household, or agricultural purposes. It contains three main provisions. The first is that the customer has the "right to rescind" within three days of signing the contract if the credit involves a lien on real property that is considered the consumer's place of dwelling. The exception to this is the case of a first lien used to finance the dwelling (such as a first purchase lien on a new mobile home). In this case, the consumer has no rescission right. Second, the Act puts restrictions on advertising. When using any medium of advertising, if any finance term is mentioned (e.g., "no down payment"), then all the finance terms must be specified by the creditor, including loan and down payment amounts, annual percentage rate of interest, balloon payments, and the number, amounts, and schedule of actual payments. Finally, and most important, the Act dictates that the finance charge must be stated explicitly and in written terms to the consumer, both as an annual percentage rate (APR) and as a dollar amount. The dollar amount must include all charges levied by the creditor in the process of extending credit to the customer, including finder's fees, loan fees, premiums for credit life insurance, etc. It need not include such items as taxes, registration fees, certificate title fees, and other amounts that are not required of the con-

sumer due directly to the obtaining of credit. The APR must be given to within one-fourth of one percent.

The purpose of the Act was to elucidate those factors in the installment purchase loan market that would help borrowers to better understand the cost of credit at various sources, so that the borrowers could "shop around" for the best terms available. Presumably, this selection by consumers of the best credit terms would tend to eliminate excessive profiteering by unscrupulous lenders and dealers, who had concealed the true cost of financing from the borrower through technical terms like "add-on" rates of interest. Rates would tend to decline on the average, making funds available to a wider range of people.

Prior to its enactment there was a great deal of controversy over the Act. Those supporting the Act believed that creditors were taking advantage of unknowing borrowers by concealing the true cost of purchasing on installment. Those opposing the Act, on the other hand, claimed that only a small fraction of creditors were guilty of this dishonesty, and that to comply with the Act would add the financial burden of excessive paperwork to credit-⁵¹ors. Within the mobile home industry, fears of the legislation stemmed from experience with similar legislation in Massachusetts. The Executive Secretary of the Massachusetts Bankers Association had claimed that "mobile home⁵² financing (has) virtually halted" in that state. However, the Federal Reserve Bank of Boston reported that creditors in Massachusetts had observed⁵³ no changes in consumer credit and expected none to result from the law.

Unfortunately, the major objectives of the legislation were not realized.

Because of the advertising restriction, public dispersion of rates and credit terms was curtailed significantly (a polar opposite of the broader-knowledge objective).⁵⁴ Furthermore, the increased paperwork costs that the adversaries of Truth-in-Lending legislation predicted became a reality, so that a loan was now less profitable than before the law took effect.⁵⁵ Finally, and most significantly, it was observed that the large majority of borrowers were indifferent to the interest rates of installment credit, regardless of the form in which these rates were stated.⁵⁶ As stated in the Federal Reserve Bank of Boston report mentioned earlier:

"Typically, consumers are apparently either unaware of (the law) or indifferent toward it. When, as required by law, the annual rate is brought to their attention, most consumers express surprise at the size of the percentage, but are fully satisfied when they are made to understand that they are paying the same finance charge as always. Bankers, auto dealers, representatives of department stores, as well as those of consumer organizations and governmental agencies all gave wide support to this conclusion."⁵⁷

In summary, Truth-in-Lending legislation has had little effect on the rates of interest charged on installment credit or on the volume of credit supplied. This is true also of the mobile home industry. Although a short period of adjustment was required for dealers and lenders to become acquainted with the law and additional costs were imposed to print new forms, the law has had a negligible effect on the financing of mobile homes. This conclusion has been affirmed through correspondence with lenders and through its repeated assertion in articles and papers on mobile home financing.

3.2 RESTRICTIONS ON SAVINGS AND LOAN ASSOCIATIONS

During the late 1960's several factors indicated a need for new sources of loans to mobile home purchasers. Traditional suppliers of credit, commercial banks and finance companies, were often overly cautious about extending loans to mobile home purchasers. Also at this time, high officials in the government recognized that there was a serious shortage of low-income housing. Mobile homes, which were becoming increasingly similar to conventional site-built homes, seemed to have the potential to supply the low-income housing market if sufficient credit was made available to purchasers.

The federally chartered savings and loan institutions were potential sources of installment loans. Traditionally, these institutions were authorized exclusively to make housing loans. Savings and loan institutions predominated in the home mortgage market, supplying more mortgage money than any other class of financial institutions. For these reasons, S & L's were authorized to make loans to mobile home purchasers.

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This authority came on November 19, 1969 from the Federal Home Loan Bank Board(FHLBB). Each S & L was allowed to loan up to five percent of its assets for the purchase of new or used mobile homes. The mobile home must be the intended residence of the purchaser or a relative, and must be lo-

cated on a permanent or semi-permanent site. The maximum term was twelve years for a new mobile home and eight years for a used one. Since this term is longer than the average term of mobile home loans made by the other financial institutions, the S & L's could be competitive. The maximum loan amounts were given as a set percentage of manufacturer's invoice if the mobile home is new, or of wholesale value if used, plus sales tax.

Many lending institutions were displeased with the extension of S & L loan-making power. Some felt that S & L's would take a large market share and that the S & L's would reduce profitability through competition. Other institutions objected to the new latitude of S & L's, because the S & L's were not subject to the same stringent reserve requirements and taxing rules that apply to commercial banks.

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S & L institutions were pleased with their new right to purchase mobile home paper, since shorter terms and higher effective interest rates made the paper more lucrative than conventional mortgage paper. The higher yield of these installment loans could provide a useful buffer during periods of tight money when the cost of capital would rise and narrow the return from mortgage lending. Furthermore the S & L's were getting experience in consumer installment lending. This experience would be helpful if S & L's were allowed into the whole installment market, and also if a method of home financing evolved from both installment and mortgage financing.

Although S & L's appreciated their new freedom in lending, many of them found the five percent limitation too restrictive. Potential returns from loans on five percent of assets did not appear to justify the investment that was re-

quired to develop an experienced mobile home loan department. In some areas demand seemed to exceed the amount that S & L's were authorized to loan. Because of the restrictive nature of the five percent limitation and because of the original objectives of the extension in loan-making powers, the FHLBB increased the percentage of total assets that could be invested in mobile home paper to ten percent on June 13, 1972.

In 1970, the 2000-odd Federally-chartered S & L's were estimated to have had total assets of approximately \$162 billion.⁶¹ Even with the five percent limitation, the funds eligible for mobile home loans were \$8 billion, which is more than three times the projected mobile home finance requirement for the years 1971 through 1980.⁶² Despite the large availability of funds, S & L's have not yet taken a substantial share of the mobile home loan market. The basic reason for this is inexperience. S & L institutions are accustomed to mortgage lending and many of the institutions have not accumulated the expertise needed to lower delinquency and repossession risks to industry norms. Hence, the savings and loan institutions often do not realize the higher yields possible on mobile home paper. Furthermore, they are unaccustomed to the practice of floor planning, which is necessary for soliciting paper from mobile home dealers.

Small S & L's often have difficulties generating a large enough portfolio of mobile home loans to diversify risk. These S & L's also have difficulty justifying the expenses of a mobile home loan department. These problems, as well as those above, suggest that savings and loans might benefit from the use of service companies. Indeed, many S & L's have been introduced to mobile home financing through service companies.⁶³

3.3 FHA INSURANCE

In 1969, Title I of the National Housing Act was amended to insure loans taken for the purpose of purchasing mobile homes. The objective of this legislation was to reduce the finance charges that were required of the potential mobile home buyer, and to make the mobile home industry a more readily available source of low-cost housing. This was to be accomplished by lowering interest rates, lengthening contract terms, and alleviating such costly requirements as credit life insurance policies. The lender was to be enticed by the FHA into making such loans by removing some of the risk through an insurance mechanism. Thus, FHA-insured mobile home loans were originated.

On March 21, 1970, the FHA-insured loan program for mobile homes officially made its way into the Code of Federal Regulations under Title 24, Chapter 11, Subchapter 3, Part 201, Subpart B entitled "Mobile Home Loans". In May of the same year, the program took effect.

In order to obtain an FHA-insured loan, the mobile home purchaser must first locate an FHA-approved lender. This can be accomplished through a knowledgeable dealer or by writing directly to the Federal Housing Administration in Washington, D. C. The eligibility of a loan applicant is determined through an investigation undertaken by the lender following the submission of a credit application by the borrower. The borrower's credit standing must prove

to be satisfactory to qualify him for a loan.

A mobile home insured under the FHA Title I program must be intended as the principal residence of the purchaser. It may be new or used, although a used home must have been previously financed through an FHA-insured loan. The mobile home must be a minimum of 40 feet long and 10 feet wide (or be composed of modules whose floor areas sum to at least 400 square feet). It must also be built to ensure "adequate durability and livability"; ANSI Standard A.119.1 fulfills this requirement. The proposed location of the mobile home must meet the Federal Housing Commissioner's requirements regarding sanitation, vehicular access, lot location, landscaping, local zoning laws, etc.

The maximum loan that the FHA will insure on a given mobile home is equal to 115 percent of the manufacturer's invoice plus the transaction costs incident to the purchase of the home. This total may not exceed \$10,000 for a single-unit mobile home or \$15,000 for a home of two or more modules. The transaction costs may include such items as: filing, stamping, and recording fees; state and local taxes; insurance; transportation costs (not to exceed \$400 for a single unit or \$600 for a two-or-more-module mobile home); and dealer set-up charges (not to exceed \$200 or \$400 for single or combined homes respectively).

The FHA loan requires a down payment of at least five percent of the first \$3,000 or less of the purchase cost (exclusive of transaction fees) and ten percent of any amount over \$3,000.

The maximum annual percentage rate (simple interest) that may be charged by the lending institution is specified by the FHA to be 12 percent. Payment schedules are published by the FHA and list the amount of monthly payments, the final payment, the total finance charge, and the annual percentage rate, given the value of the parameters for a specified loan.

The term of the loan, by FHA regulations, may range from one year to 12 years and 32 days (or up to 15 years and 32 days for a two-or-more-module mobile home). The payments must be made in equal periodic (usually monthly) amounts. In the event of the borrower's default on these payments, the lender may exercise its right to accelerate the maturity of the loan. As a less punitive measure, the lender also has the right to charge a late fee, which may not exceed five percent of the monthly payment, and which cannot be included on the borrower's bill for a tardiness of ten days or less.

The lender must pay for the reduction in risk that is available under the FHA Title I program. Specifically, the lender must pay the Federal Housing Administration 0.54 percent per annum of the net proceeds of the loan. This cost may not be passed on to the borrower.

The FHA Title I program has not fulfilled its intended function of becoming a widely used package of reasonably priced consumer financing for mobile homes. Of the 329,300 mobile home shipments in 1974, only 5,073 were financed with FHA-insured loans. This represented approximately two percent of new mobile homes financed during this year. The reason for this low percentage is the reluctance of the financing institutions, the manufacturers, and the dealers to actively promote the program.

Commercial banks and other financing organizations are well aware that conventional mobile home financing involves a substantially higher rate of return than is offered under the FHA program. The greater the difference in interest rates between these options, the less appealing the FHA program becomes to the financing institution, in spite of its lower-risk attributes. The truth of this argument is more apparent when one considers that rural financial institutions predominate in the issuance of FHA-insured loans.⁶⁵ In rural areas yields from financial investments are lower than yields in industrialized regions because the demand for money is lower in these areas. Since the yields are less, the rates charged for conventional mobile home loans in rural areas are closer to the maximum rates offered by the Title I program. However, in general, the competitively determined conventional rates are much higher than the FHA maximum rates. Thus, lenders prefer the conventional rates.

Manufacturers are also somewhat reluctant to become entangled in the "red tape" of the FHA program. The regulations require more information from them than they are accustomed to give. For example, the FHA and the VA need the serial numbers of the mobile homes they insure, but the manufacturer prefers to post the serial number on a mobile home only after it is assured of its sale. This circular problem can be solved only through mutual cooperation of the manufacturers with the government agencies.

The mobile home dealer is generally credited a percentage of the consumer's financial charge on a conventional mobile home loan. This dealer's reserve is paid by the lender as remuneration to the dealer for promoting the lending institution. The FHA program (like the VA program), however, elimi-

nates this spread. This fact has a negative impact upon dealers who make a substantial percentage of their overall profits from the dealer reserve. Furthermore, the down payment is generally less, under these programs, as is the insurance commission to the dealer (due to the smaller coverage requirements of the lender). The net result of these effects is that every inflow of funds that the dealer realizes from a mobile home sale, except the direct payment from the financial institution for the unpaid balance, is decreased through FHA and VA programs.

3.4 VA INSURANCE

On October 23, 1970, Public Law 91-506, more commonly referred to as the Veteran's Housing Act of 1970, became effective. This law was an expansion of the G.I. Bill, and authorized the Veteran's Administration to guarantee loans taken by qualified veterans to finance new mobile homes. It also gave the VA the legal right to make direct loans to veterans. The objective of this law was to make available to the veteran, especially the young, homeless serviceman returning from active duty, a means of financing a mobile home at a reasonable interest rate and term. This law, in turn, has been updated by the Veterans Housing Act of 1974.

The extent of the guarantee provided by the VA under this program consists of a maximum of 60 percent of the loan balance outstanding, excluding unearned interest and financial charges. This means that the lender is assured of receiving up to 60 percent of the borrower's commitment through federal guarantee in the event of default of contract.

In order to qualify for a VA-insured mobile home loan, a veteran must have at least 181 days of active service, must have received an honorable discharge, and must obtain a Certificate of Eligibility for Loan Guarantee Benefits. This certificate is received following submission by the veteran of VA Form 26-1880 (or VA Form 26-1870 if eligibility is based on service

rendered on or before January 31, 1955).

The application for financing originates at the dealer following the decision by the veteran to purchase a mobile home. The dealer forwards the application to the lender, which is usually the same financial institution that supplied the dealer's floor-plan wholesale financing. This institution then exercises a credit check on the veteran and, pending a satisfactory outcome from the investigation, submits the loan application to the nearest VA office. The local VA office has the responsibility of completing several necessary forms after assuring itself that the mobile home transaction meets its standards and legal requirements. Among the necessary physical requirements of the mobile home itself are: it must be a minimum of 10 feet wide and 40 feet long (400 square feet); it must be capable of being towed or moved; it must be equipped for year-round living; and it must conform to the American National Standards Institute standard A.119.1 for Mobile Homes. The entire veteran's loan application process generally will take one week to ten days to complete.

The Veteran's Administration also requires that the manufacturer furnish a written one-year warranty to the veteran, that the lender's security requirements and the owner's title requirements are properly met, and that the site upon which the mobile home is to be located is approved by the VA.

The veteran is limited by the Veteran's Housing Act to a maximum amount that can be borrowed to finance his mobile home. This amount is determined by the particular transaction under consideration. A VA-insured loan on a mobile home unit (including supplied furnishings) may not ex-

ceed 120 percent of the manufacturer's invoice cost plus the fees and charges due to the transaction. These charges may include up to \$200 for set-up and up to \$400 for transportation. The absolute maximum loan on a single-wide unit is \$12,500; the maximum term, 12 years and 32 days. If a lot is included in the loan package, up to \$20,000 plus the cost of site preparation may be borrowed for a term no greater than 15 years and 32 days. Also, a qualified veteran can have the VA insure a loan for the purchase of either a developed or an undeveloped lot, provided that the loan amount does not exceed \$7,500 and that the term is no more than 12 years and 32 days.

If a double-wide unit is purchased, the maximum loan is \$15,000 for the mobile home and \$22,500 for the home with a lot. The maximum term of the loan is 20 years and 32 days.

The maximum interest rate that can be charged by lenders is specifically stated in the law. The rate was initially 10.75 percent simple interest on the mobile home unit but is currently 12 percent, and is 8 1/2 percent on the purchase price of the lot and on the cost of site preparation.⁶⁶ The loan must be organized by the lender to be paid in equal monthly payments through the life of the contract.

No specified down payment is required of the purchaser under the VA program. However, the lender generally requires some down payment, the amount of which varies depending on the region of the country, the veteran's credit standing, and the lender's policies. Representatives of the Veteran's Administration have expressed the desire of that organization that the rate⁶⁷ of down payment remain at about five percent of the total purchase price.

Some additional features of the VA insured loan program are: there can be no penalty or fee levied on the veteran in the event of prepayment; and the debt on a mobile home may be transferable to a second owner with the same terms applicable if the second party is also a qualified veteran.

Until recently, the success of the VA-insured loan program had been somewhat less than was originally expected. In 1972, the Director of Loan Guarantee Services of the Veteran's Administration, announced that some 5,000 VA-insured loans had been made in 1971, the first year following the passage of the Veteran's Housing Act, and that approximately 10,000 and 15,000 loans⁶⁸ were expected in 1972 and 1973 respectively. At this rate some 19,000 VA-insured loans outstanding would be expected by the end of March, 1973. However, the actual number of loans approved and insured under this program⁶⁹ as of March 31, 1973, was 10,162.

The main reason for this shortcoming in loan expectation is probably directly related to the dealers' failure to actively promote the VA-insured loan program. The explanation for this dealer apathy lies in the realization that, as with the FHA program, the VA program omits the dealers from their traditional position as the subsidized middle-man in mobile home financing. In the typical mobile home finance package, the dealer absorbs a percentage of the finance charge paid by the borrower, and the lender receives the remainder of the charge. But through the VA program the dealer is by-passed, and a direct relationship is established between the purchaser and the lender. Hence, the dealer is left without a great deal of motivation to volunteer information about the VA program to purchasers who are veterans.

Furthermore, lenders have shown some reluctance to lend under the VA-insured program. They have complained that a 12 or 15 year term is too long. The depreciation on a mobile home is at such a rapid rate that the difference between the loan outstanding and the market value of the home increases to greater than 30 percent of the loan outstanding during the life of the loan. In other words, the value of the mobile home (the amount the lender would gain by selling the home in the event of default) diverges rapidly from the principal outstanding (the amount the lender would lose through default). Therefore, with a 12 or 15 year loan a lender may lose money if the borrower defaults after five years or more, in spite of the 30 percent VA insurance. A shorter term does not permit this wide divergence between the value of the loan outstanding and the market value of the mobile home.

3.5 FARMERS HOME ADMINISTRATION

The Housing and Community Development Act of 1974 directs the Farmers Home Administration of the Department of Agriculture to insure loans for mobile homes that are to be located in rural areas. Under the law, a rural area has a population of 10,000 to 20,000, and is not located within a standard metropolitan statistical area.

Although the Housing Act was signed by President Ford in August 1974, as of June 1976, local Farmers Home Administration offices had not received details of the mobile home program. It is expected that the Farmers Home Administration mobile home loan insurance will resemble its program for conventional housing loans.

3.6 TANDEM FINANCING; GNMA AND FNMA

Historically, FHA and VA insurance programs have not been able to achieve the expected volume of consumer mobile home loans. Lending institutions have been reluctant to participate in these programs, because they were required to charge lower interest rates than were generally available in the market place. To compensate for a paucity of willing lenders, the Government National Mortgage Association (GNMA or "Ginnie Mae"), a separate corporation inside the Department of HUD, has been authorized to work with the FHA, VA, and Farmers Home Administration to make private capital available to the mobile home purchaser through the securities market. Since the GNMA program works in tandem with programs of these other agencies, the result has been termed "tandem financing".

Tandem financing provide capital to the consumer in the following way. First, mortgage bankers pool into "blocks" those mortgage contracts that are approved and insured by the FHA, VA, or Farmers Home Administration. These blocks are then submitted to GNMA for approval, and contingent upon this guarantee, the blocks are divided by bankers into GNMA "pass-through" certificates and sold, either directly or through a broker, to the public.

The certificates are sold by FHA lenders in amounts of at least \$25,000, with values in excess of this figure denominated in multiples of \$5,000.

GNMA approves blocks of loans only in quantities of at least \$500,000 for each security issue. The lenders who issue GNMA certificates may charge a service fee to investors, but must pay a 0.5 percent charge to GNMA which may be partially refunded when the mortgages are repaid.

The GNMA mobile home pass-through certificate is a security, consisting of pools of mobile home loans insured by the FHA, VA, or Farmers Home Administration. These securities can be purchased by any investor or financial institution such as pension funds, insurance companies, credit unions, and investment advisory groups. The securities are similar to bonds in that they are quite liquid and relatively safe. However, they differ from bonds in that the holder of a GNMA security receives a guaranteed monthly payment rather than a balloon payment at a fixed maturity date. The monthly payments reflect interest and amortization-of-principal payments made by the mobile home owner.

In order to improve the tandem financing program, the Federal National Mortgage Association (FNMA or "Fannie Mae"), a stockholder-owned corporation chartered by Congress, is empowered to issue six-month stand-by commitments to purchase mobile home securities that have been guaranteed by GNMA. These commitments assure the lender of a fixed future yield while he assembles a pool of FHA, VA, or Farmers Home Administration loans. If interest rates decrease, a lender can ignore the commitment in order to obtain more favorable yields available in the market place. If, on the other hand, interest rates increase he can take advantage of the FNMA commitment. The fee for a six-month stand-by commitment is 0.5 percent of the commitment amount.

The introduction of GNMA and FNMA into mobile home consumer financing has provided a vehicle for transferring private funds to lenders. It has also brought mobile home financing techniques to a level of sophistication more comparable with those for conventionally-built housing.

Using tandem financing, purchasers of mobile homes borrow at a lower rate than would generally be possible from conventional sources. Furthermore, the down payments and monthly charges generally are less because of longer loan maturities. Also, the consumer is assured of better quality mobile home construction, since FHA standards have to be met if GNMA is to approve the block of loans.

The tandem arrangement using GNMA securities offers investors high yields, low risk, and high marketability. These factors account for a growing secondary market in GNMA mobile home securities.

From the lender's viewpoint, he is no longer reluctant to lend at the relatively low interest rates dictated by the FHA, VA, and Farmers Home Administration, because his funds are immediately recovered from the sale of GNMA certificates. He is further protected by the FNMA stand-by commitment to purchase the securities for a specified amount. In essence, the lender operates as a direct financial intermediary, serving the function of aggregation and communication, while GNMA and FNMA incur the risks.

The dealer, on the other hand, sees some disadvantages to the tandem financing program. Because the dealer must loan through the FHA, VA, or Farmers Home Administration programs, his finance spread is eliminated. He is not

adequately compensated for bringing business to a lender who participates in the government financing programs, and he may seek another lender.

However, some dealers view the tandem financing program as a marketing advantage. It is a nonrecourse program, and funds do not have to be placed in reserves. Furthermore, the greater amount of capital available for lending as a result of the program leads to a greater volume of mobile home sales. This increased volume may satisfactorily compensate the dealer for revenue lost by the elimination of spread.

As yet, there has not been time to fully evaluate the tandem financing programs with FNMA participation. It is hoped that an infusion of private capital from the securities market will change the much-criticized consumer financing arrangements for purchasers of mobile homes.

3.7 FHA INTEREST SUBSIDIES

There are strong indications that Congress will pass legislation during the 1976 session that will include mobile homes in the FHA 235 Interest Subsidy Program. Under this proposed legislation, double-wide mobile homes associated with land would be eligible for a subsidy equivalent to that available to conventional housing. Although the effects of the program cannot be analyzed until its requirements have been specified, it is expected to have a stimulative effect on mobile home demand by reducing the actual cost of mobile homes to some consumers.

4.

The Influence of Dealership Returns on Cost
of the Mobile Home to the Consumer

In earlier chapters it has been stated that mobile homes are a rather expensive form of shelter, if the total costs of mobile home living are considered. But who is responsible for the relatively high costs of owning a mobile home compared with a conventional home in a similar price range? Several groups might be responsible for these costs, because their actions bear directly on the ultimate price that the consumer must pay: suppliers of components to mobile home manufacturers; mobile home manufacturers; mobile home dealers; and financial institutions. This chapter is concerned exclusively with the effects of dealership returns on the costs of mobile home ownership.

If a portfolio of mobile home dealerships were formed, it would be possible to use portfolio analysis techniques to decide whether the group of dealerships is making excessive returns. This is the approach used in this chapter. Before beginning, however, it is necessary to review briefly the area of capital market theory relevant to the analysis.

4.1 CAPITAL MARKET THEORY

The Capital Asset Pricing Model (CAPM) developed by Sharpe, Lintner and Treynor assumes, among other things, homogeneous expectations, no taxes or transaction costs, and risk-averse investors. Specifically, the CAPM states that the expected return on any portfolio is equal to the risk free rate plus a "risk premium," which is the product of the systematic (non-diversifiable) risk and the risk premium on the market portfolio. The realized return on a portfolio will be a linear function of the risk free rate, a random term, and the product of its systematic risk and the realized rate on the market portfolio. According to portfolio theory, return is related only to the systematic risk of a portfolio. Since unsystematic risk can be eliminated by diversification, no one should be rewarded for bearing it.

The portfolio approach assumes that persons evaluating the risk of a portfolio will evaluate the risk of the portfolio as a whole, rather than the risk of each asset individually. In this light, a statement could be made about the risk of mobile home dealerships only in terms of a group making up the portfolio, rather than the risk of an individual dealership.

Since the CAPM postulates a linear relationship between the rate of return of a portfolio and its systematic risk, the realized return on the market

portfolio can be examined by means of relative comparisons of portfolios within a risk-return space. This could be accomplished by comparing the portfolios to a naively constructed portfolio consisting of combinations of the riskless asset and the market portfolio as shown in Figure 14A. Consider as given the market portfolio M with risk D_m . Then the line R_fM joining R_f and M represents those combinations of the riskless asset with the market Portfolio M that would result in a smaller risk than the market portfolio's risk, D_m . One of many such portfolios is represented by point E. Notice that $D_e < D_m$ and $R_e < R_m$. A portfolio such as E is not earning any excess returns. Neither is Portfolio B earning any excess return. In fact, Portfolio B is not earning as much as it should, given the risk to which its owners are exposed. With the amount of returns Portfolio B is experiencing, it should have risk of only D_b . Portfolio A, on the other hand, is making excessive returns because it is returning more to its owner than the risk justified.

Within the risk-return space, the two portfolios can be ranked without the use of a market line. This is illustrated in Figure 14B. Assume that an investor follows a strategy of investing in Portfolio A and the risk free asset. Depending on the portion of his wealth invested in each alternative, the result of such a strategy will lie somewhere on a straight line joining R_f and A. Similarly, Portfolio B combined with the riskless asset will result in points on the line R_fB . Clearly, Portfolio A is better than Portfolio B, because for any risk level attainable by combinations of the riskless asset with B a higher return can be realized by investing in combinations of the riskless asset and A.

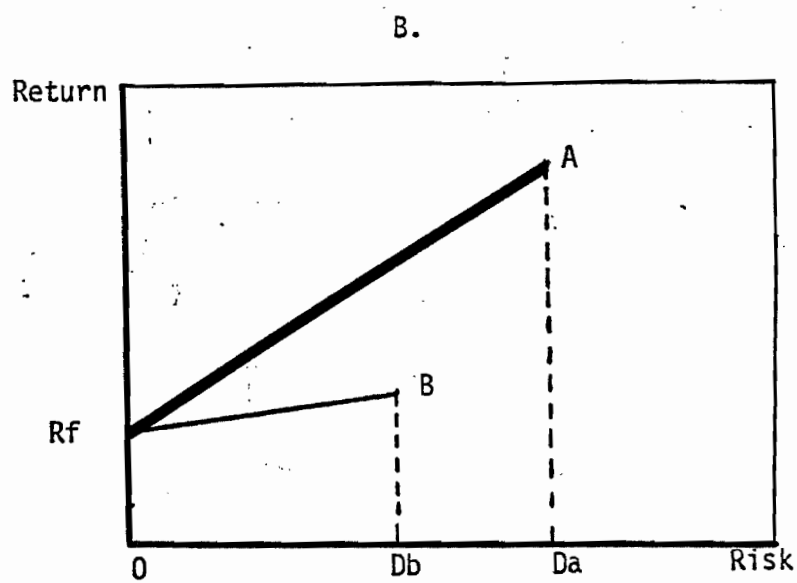
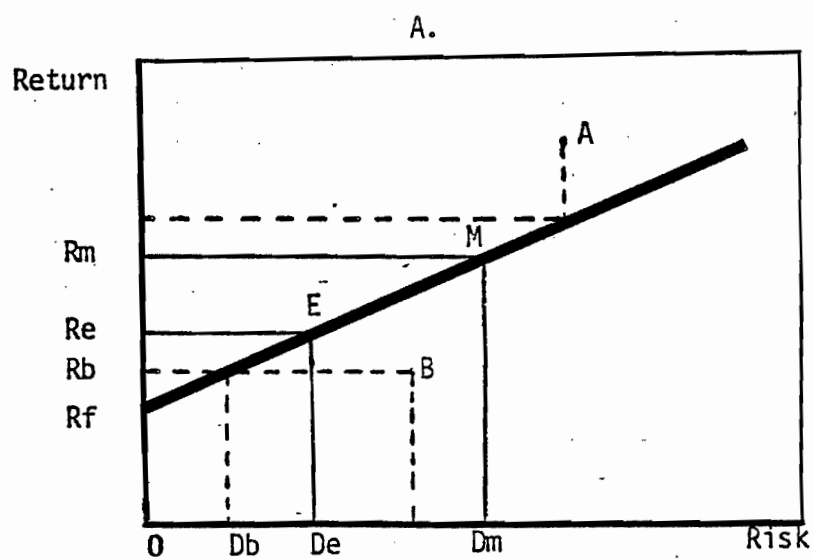


FIGURE 14: RISK-RETURN PLOTS

The slope of R_fA and R_fB is equal to the reward-to-risk ratio, risk appropriately defined. The reward-to-risk ratio indicates the reward per unit risk borne.

Figure 14B provides another way of comparing portfolios with a risk-return framework. It is now possible to by-pass the market line and directly compare a portfolio of mobile home dealerships with another portfolio consisting of a control group of other dealerships. Assume that the slopes of R_fA and R_fB remain constant, even for combinations of the riskless asset and Portfolios A and B that result in risk greater than D_A and D_B . Ordinarily, this is not necessarily the case. Additionally, comparisons based on the reward-to-risk ratio of portfolios that have significantly different risk characteristics are to be avoided.

In order to carry out comparisons of the types described above, two portfolios that could be expected to have the same business and risk characteristics are needed. Such portfolios would be ranked on the basis of ex post returns versus ex post risk. For the present investigation, one could form just such a portfolio of retailers with business characteristics similar to those of mobile home dealers.

In this analysis, the risk of a portfolio will be defined as the variability of its return as measured by its standard deviation of return. Another useful measure of the risk of a portfolio is its volatility, the slope of its characteristic line that is derived by performing a regression on the excess returns of the portfolio compared with the market portfolio. Unfortunately, available data did not permit the use of this measure.

4.2 METHODOLOGY

Three groups of dealerships are compared. A description of their characteristics is given later in this chapter. A company list giving the year incorporated and principal line of business can be found in the Appendix. As the majority of the publicly-owned dealerships have only recently gone public, enough data for a time-series type of analysis were unavailable; hence all analysis is cross-sectional in nature. The main concerns here are comparing publicly owned mobile home dealerships with other dealerships, and comparing privately owned mobile home dealerships with other dealerships. However, comparing the privately owned mobile home dealerships to those that have gone public does provide some interesting insights.

In order to develop the analysis, consider a hypothetical investor who can invest in three portfolios, public, private, and other dealerships. He invests in the publicly-owned mobile home dealerships and the other dealerships at the beginning of 1970, and in the privately-owned dealerships at the beginning of 1972. At the end of 1972 he divests all his holdings and sets out to rank the three portfolios. If, within the risk-return framework presented earlier, the portfolios consisting of mobile home dealerships consistently out-rank the portfolios of other dealerships, then the market has consistently had to revise upwards its expectations of the dealers' returns. This indicates that such returns are likely to be excessive.

4.2.1 Rates of Return

In determining if the rates of return of each of the portfolios are significantly different from one another, returns based on both book values and market values are considered. The returns were calculated as follows:

$$\Delta P_t = \frac{(P_t + D_t) - P_{t-1}}{P_{t-1}}$$

Market Returns

Where P_t = price of stock in period t ,
 D_t = dividends in period t , and P_t is
defined as $\frac{\text{high} + \text{low}}{2}$

(Of course, P_t as defined is a rather questionable quantity. A weighted average would have been more appropriate; or better still, P_t with t specified (i.e., P_t is the price of the stock at the close of the market on, say, the 15th of May). However, such detailed information was not readily available in sufficient quantity to make analysis meaningful, even for the rather short period of time under consideration.)

$$\text{GEOAV} = \prod_{t=1}^3 (1 + \Delta P_t)^{\frac{1}{t}} - 1 \quad \text{where GEOAV is the geometric average of } \Delta P_t.$$

Return on Book Values:

$$\text{ROE} = \frac{\text{Net Income after tax in period } t}{\text{Book Value of Equity in period } t}$$

$$\text{ROC} = \frac{\text{Net Income after tax} + \text{Interest in period } t}{\text{Book Value of Equity} + \text{Total Debt in period } t}$$

ROE is the return on equity, while ROC is the return on total capitalization.

The use of return on equity based on book values may be misleading, because a high ROE may not be the result of the profitability of an enterprise, but may instead be due to the financial arrangement of the capital structure. For instance, if two firms are identical in every way except that one has more debt in its capital structure, in the year that they have equal profits the firm with the higher debt will show a higher ROE. ROE is related to ROC as follows. Let i be the effective interest cost of debt. Then:

$$ROE = ROC + (ROC - i) (D/E)$$

If i is less than ROC, then ROE will increase as the debt equity ratio rises. As a business cannot raise its debt-equity ratio indefinitely, the debt-equity ratios of these companies must be examined to make sure that leverage is not responsible for any difference that may be found among ROE's.

Strictly speaking, ROC does reduce the leverage effect somewhat, since both debt and interest are used in its calculation. However, the use of debt does increase the share of the firm's earnings going to its private stockholders. With market data, the problem of leverage is easily disposed of by several rather well-known techniques.⁷¹

After computing these rates of return, their means were pair-wise compared (using a t-test) to see if the difference between any two of the means was significantly different from zero. Because the use of a t-test assumes that the returns calculated are normally distributed and have equal variances, the equal variance assumption was tested by an F-test, which is simply a ratio of two mean squares. After testing the difference between the means of the

various returns, the risk of the three groups of dealerships was calculated using the definition of risk as the standard deviation of the rates of returns.

After performing a risk-return analysis on the data similar to that discussed in connection with Figures 14A and 14B and calculating reward-to-risk ratios, the three portfolios were compared to a composite portfolio consisting of all the dealerships in the sample. In this way, a market line is developed. This comparison encompasses both book value rates of return and market value rates of return, and risk is defined as the standard deviation of all the dealerships' returns (as defined earlier) for the entire period under consideration.

As the vast majority of mobile home dealerships fall in the category of small businesses, the personal finances of the owner and the finances of the business may be closely interwoven. As a result, a small retailer may mark up his products to an extent that may be considered exorbitant, but may never show any substantial profits. In order to compensate for this problem, the gross margin (GM) of the three groups of dealers are pair-wise compared to determine if either group of mobile home dealerships were marking up their units more than the group of other retailers (the control group). Gross margin is defined as follows:

$$GM = 1 - \frac{\text{Cost of goods sold}}{\text{sales revenue}}$$

4.2.2 Market Expectations

The final comparison in this chapter is an examination of the market expectations regarding the publicly-owned mobile home dealerships and the other dealerships. Did the market expect these dealerships to earn excess returns? If so, did they earn them? If the market was indeed expecting excess returns, then the dealerships were charging too much for their goods and services. However, it is possible that the market could expect excess returns without getting them.

Market expectations can be estimated by the following ratio:

Market-to-Book-Value-of-Equity Ratio, denoted by MB-ratio =

$$\frac{(\text{Market Value of Equity})_t}{(\text{Book Value of Equity})_t} = \frac{(\text{Price})_t \times \# \text{ shares}}{(\text{Book Value of Equity})_t}$$

Where $(\text{Price})_t$ = the price at the close of the day when the financial reports of the companies were published.

For over-the-counter stocks $(\text{Price})_t$ was the "Bid" price at the close of the trading day. If the financial reports were published on a non-trading day, then the price of the last trading day before publication was chosen as $(\text{Price})_t$.

If the MB-ratio is close to one, it can be inferred that the market was not expecting any excess returns from these companies. A high MB-ratio does not constitute proof that a company is making excessive returns, but is an

indication that the market perceives a potential for doing so. It is doubtful that the market will continue to maintain a high MB-ratio for a long period of time if the firm does not earn the excess returns expected of it. Therefore, it is necessary to examine several years of MB-ratios. MB-ratios are appropriate only in those rare situations where the book value of assets is equal to the replacement costs. If a company has land whose price has quadrupled since acquisition, its MB-ratio could be artificially high, since the market will take this land price appreciation into account when pricing the company's securities.

The dynamics of the MB-ratio can be clarified further by the following example. Assume that the 1973 balance sheet and income statement of a hypothetical dealership (PrMHD) are as follows:

Balance Sheet

Assets

1.0 million

Liabilities

Equity 1.0 million

Income Statement

Sales	2 million
Cost of goods sold	<u>1.5m</u>
Gross margin	.5m
Other expenses	<u>.3m</u>
Net profit after tax	.2m

If the dealership goes public and the market capitalizes the net profit after tax at 12 percent (hence valuing the equity at $.2 / .12 = \$1.667m$) while the $ROE = .2 / 1 = 20\%$, then the market perceives an excess return of $(20 - 12) = 8\%$. The MB-ratio in such a case is $1.667 / 1 = 1.667$.

4.2.3 Dealerships

The total sample consisted of 33 retailing organizations. Thirteen of these were privately-owned mobile home dealerships, who included financial statements in the 1973-Project Mobile Home Industry Dealer Survey. Thirteen publicly-owned mobile home dealerships were selected from the nearly 100 mobile home dealerships listed in the Dun and Bradstreet Million Dollar Directory. Only those dealers whose data were publicly available have been considered. In addition, the data had to meet certain subjective standards of comparability. For instance, gross margins of companies that included other expenses in their cost of goods sold figure have been removed from the comparative analysis. Also, since most of the publicly-owned mobile home dealerships engage in other businesses as well, the revenues from the sale of mobile homes must be reasonably segregated from other revenues for a gross margin to be considered. In order to establish the control group of dealers, the retailing industry was searched for retailers having the following characteristics:

- public ownership
- sale of items of high unit value
- data comparability

Seven retailers have been selected as meeting the criteria. A list of these public companies in the sample with a description of their businesses is given in the Appendix. Unfortunately, although over 300 automobile dealerships listed in Dun and Bradstreet Million Dollar Directory were examined,

not one met the above criteria for inclusion in the control group.

4.2.4 Sample Profile

The private mobile home dealerships taken together had a combined sales of \$15 million, with sales ranging from \$113,000 to \$5.8 million. In 1972, these private dealerships had gross margins of about 15 percent, with median gross margin of approximately 16 percent. Return on equity averaged about 19 percent with a high of 50 percent and a low of 11 percent. For the private mobile home dealerships, enough data to enable comparisons was available only for 1972.

The publicly-owned mobile home dealerships selected were considerably larger than the privately owned ones. The largest publicly-owned mobile home dealership, Mobile Home Industries, Inc., had 1972 sales of over \$100 million, with sales outlets in 223 locations. These dealerships tended to be involved in other phases of the mobile home industry such as park operations. Their average gross margins were remarkably stable during 1970-72, around 26 percent in 1970 and 1972, and 24% in 1971. Return on equity ranged between 13 and 15 percent, while return on total capitalization was between eight and 11 percent.

The other retailing institutions to which the mobile home dealerships are being compared included a boat dealer, several recreational vehicle dealers, a furniture retailer, and several appliance dealers. Even though only seven dealers are considered, they had 194 retail sales outlets. Their average gross margins ranged between 23 percent and 25 percent during 1970-72.

Average ROE was more variable, ranging from 12 percent in 1972 to 21 percent in 1971, up from ten percent in 1970. The return on total capitalization was stable, nine to 11 percent.

4.3 RESULTS

For the purposes of this study, a significance level of 20 percent was used in all statistical tests.⁷² This implies that there is at most a 20 percent chance that a statistically significant difference between two means could have been caused by random fluctuations.

For ease of presentation, the three categories of dealerships are denoted as follows:

publicly-owned mobile home dealerships	PuMHD
privately-owned mobile home dealerships	PrMHD
Other dealerships	ODL

4.3.1 Rate of Return Comparisons

On the whole, the results of comparing the means of the various returns of the PuMHD's and the ODL's were somewhat mixed as can be seen from Figure 15.

Variable	t-value	$t_{0.20}$
PuMHD vs. ODL		
Book Returns		
ROE 1970	0.37	1.350
ROE 1971	-1.16	1.333
ROE 1972	0.35	1.345
ROC 1970	-0.21	1.397
ROC 1971	-0.69	1.345
ROC 1972	0.21	1.356
Market Return		
ΔP 1971	-0.55	1.363
ΔP 1972	-1.42*	1.345
GEOAV	-1.35*	1.341
PrMHD vs. PuMHD		
ROE 1972	-0.48	1.323
PrMHD vs. ODL		
	-0.86	1.333

* Significant at the 80% level.

Source: Derived from PMHI/DS, several Annual Reports, and stock market reports.

FIGURE 15: COMPARISONS OF MEANS BETWEEN DEALERSHIPS

The differences between means of the book value returns are not statistically significant. For the six pairs of means considered, the means of the PuMHD's are higher than those of the ODL's in exactly one-half of the cases. For returns based on market values, two out of the three cases can be considered significant. In all three categories the ODL's consistently outperformed the PuMHD's.

In comparing the private mobile home dealerships with the other two groups, the mean differences are not significant, even though the mean of PrMHD's was higher than those of PuMHD's and ODL's. The t-values are shown in Figure 15. None of the differences in the means of the variables studied is significant at the 95 percent level.

As previously noted, comparisons of performance must be based on a risk-return space. Having established that the returns are not significantly different from each other, it must be determined if any of the retailers are being rewarded more for the risk they are bearing than the others.

This can be done by examining the reward-to-risk ratios of the three groups of retailers and by examining several plots similar to Figures 14A and 14B. Of course, the returns must first be corrected by subtracting out the riskless rate. In this case, the riskless rate is taken to be the three month treasury bill rate for each of the years, 1970-72. The reward-to-risk ratios are given in Figure 16.

Again, the mobile home dealerships do not seem to be rewarded more for risk than the other dealerships that comprise ODL. Even though $ROE - PrMHD$ is greater than $ROE - ODL$, the reward-to-risk ratio of PrMHD is considerably

Variable	PuMHD	ODL	PrMHD
Book Returns			
ROE 1970	0.39	0.48	1.06
ROE 1971	0.55	0.92	
ROE 1972	0.54	1.23	
ROC 1970	0.17	0.54	1.06
ROC 1971	0.61	0.83	
ROC 1972	0.64	1.27	
Market Returns			
ΔP 1971	0.81	0.67	1.06
ΔP 1972	-0.26	0.46	

Source: Derived from PMHI/DS, several Annual Reports, and stock market reports.

FIGURE 16: TABLE OF REWARD-TO-RISK RATIOS

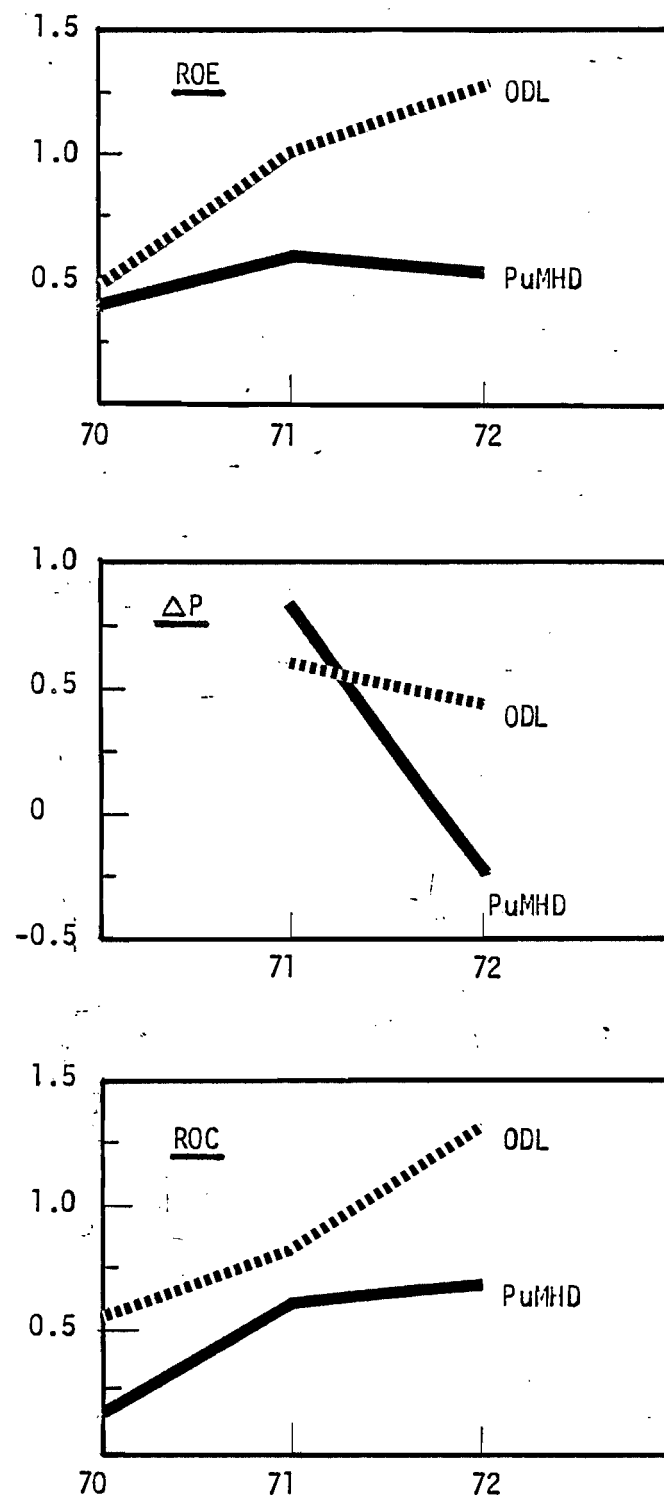
less than that of ODL's. A plot of reward-to-risk ratios for PuMHD and ODL is included as Figure 17.

Figure 18 contains several plots of returns versus risks. The figure compares the variable GEOAV in a risk-return plot, assuming the use of a naïve portfolio consisting of the riskless asset and ODL or PuMHD respectively.

Clearly ODL outperforms PuMHD because for any given risk level a higher return is available through investment in ODL and the riskless asset rather than through investment in PuMHD and the riskless asset. Figures 19A and 19B investigate the year-to-year changes in the risk-return relationship of PuMHD and ODL as follows. Assume an investor buys a portfolio, consisting of all the dealerships in PuMHD and ODL as well as the riskless asset, in 1970 and holds this portfolio through 1971. At the end of 1971, he invests in a portfolio consisting of PuMHD. At the end of 1972, he divests all his holdings. The plots (Figure 19) are used to rank various segments of the portfolio during 1970-72 using both ROE and ROC.

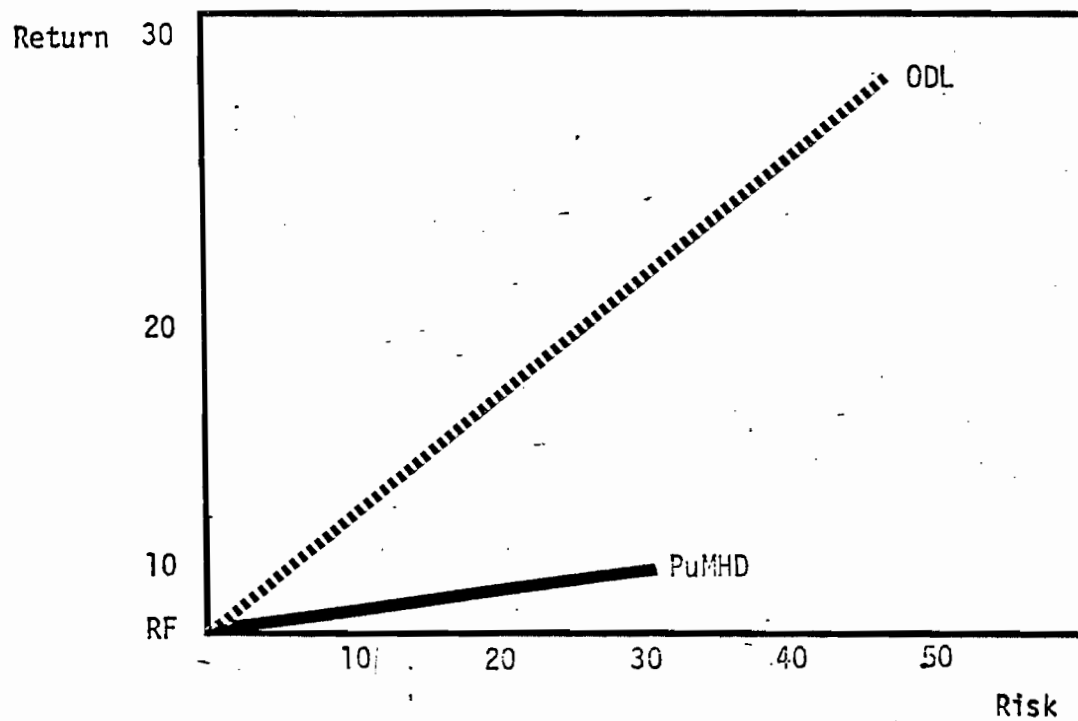
It is clear that for the period 1970-72, far from making excessive returns, the mobile home dealerships were outperformed by the ODL's in nearly every category, even though the superiority of returns of ODL's over the PuMHD is rather weak.

In checking the debt-equity ratio of both PuMHD's and ODL's, no significant



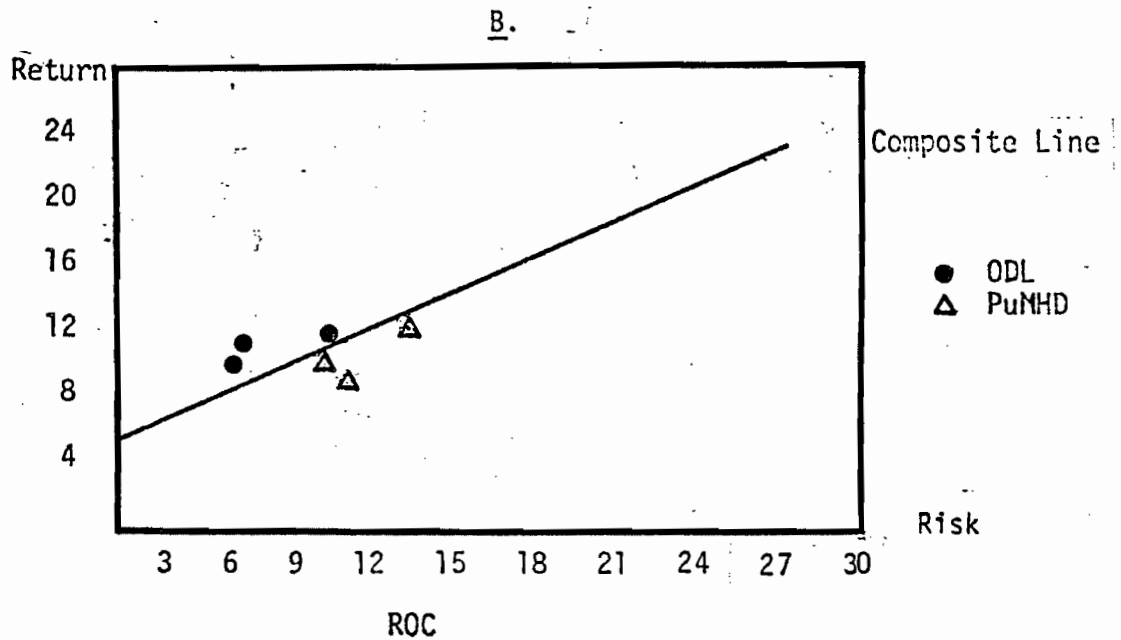
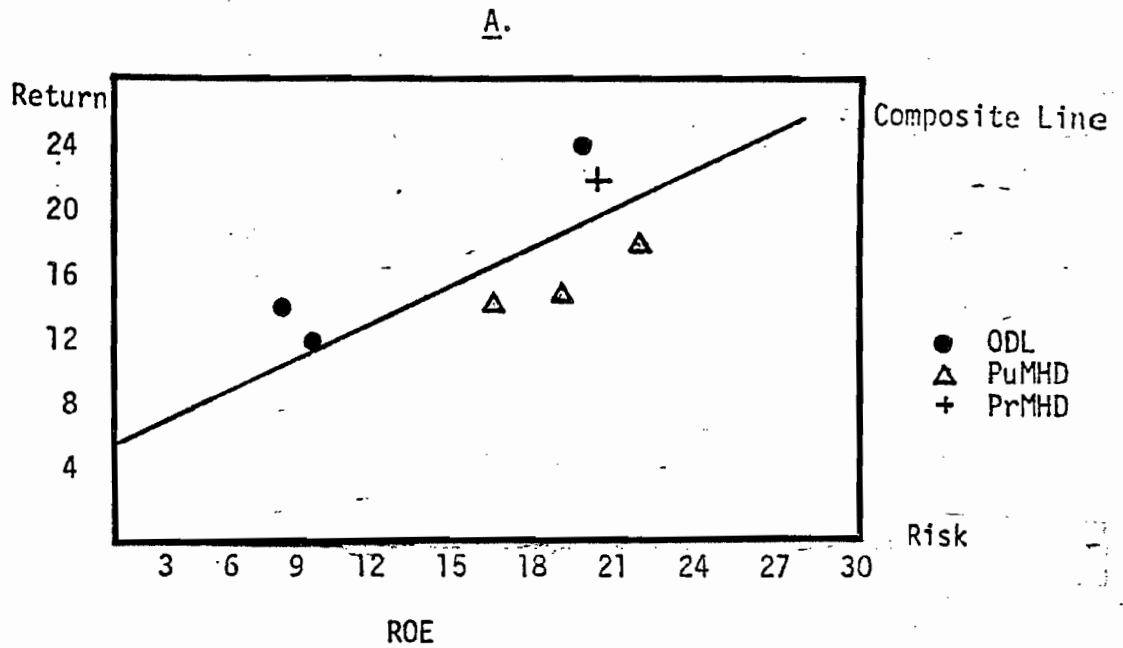
Source; Derived from several Annual Reports and stock market reports.

FIGURE 17: PLOT OF REWARD-TO-RISK RATIOS



Source: Derived from several Annual Reports and stock market reports

FIGURE 18: PuMHD VERSUS ODL



Source: Derived from several Annual Reports and stock market reports.

FIGURE 19: RISK-RETURN PLOTS, 1970-1972

difference between the mean values can be found, although the PuMHD's consistently had a higher mean debt-equity ratio than the ODL's. This is consistent with original expectations, since the book returns of PuMHD's exhibited more variability than those of ODL's.

4.3.2 Gross Margin Comparisons

As previously noted, the gross margins of the three groups of dealerships have been pair-wise compared. The difference between the means of GM-PuMHD and GM-ODL was insignificant during 1970-72. The appropriate t-values are illustrated in Figure 20.

In comparing the GM-PrMHD with GM-PuMHD, a rather surprising fact comes to light. The difference between the means of the gross margins of the privately owned mobile home dealerships and those of the publicly-owned mobile home dealerships was statistically significant in 1972. The difference between the means of GM-PrMHD and GM-ODL was also statistically significant in 1972. However, both differences were not significant at the 95 percent level. It should be pointed out that the F-values for both these tests were high enough to reject the equal variance assumption of the t-test. However, an approximation to the t-distribution that does not require this assumption also showed statistical significance at the 80 percent level of confidence.

These results seem to imply that publicly-owned mobile home dealerships did not mark up their mobile homes more than one would normally expect. In fact, GM-PuMHD was slightly less than GM-ODL for two out of the three years invest-

	Year	t-value	$t_{0.20}$
PuMHD vs. ODL	1970	-0.10	1.340
	1971	-0.09	1.340
	1972	0.28	1.350
PrMHD vs. PuMHD	1972	1.88*	1.325
PrMHD vs. ODL	1972	1.96*	1.333

*Significant at the 80% level of significance.

Note: $t_{0.20}$ changes in value because of small changes in sample sizes which affect the degrees of freedom.

Source: Derived from PMHI/DS, several Annual Reports, and stock market reports.

FIGURE 20: TABLE OF T-VALUES FOR GROSS MARGINS

igated.

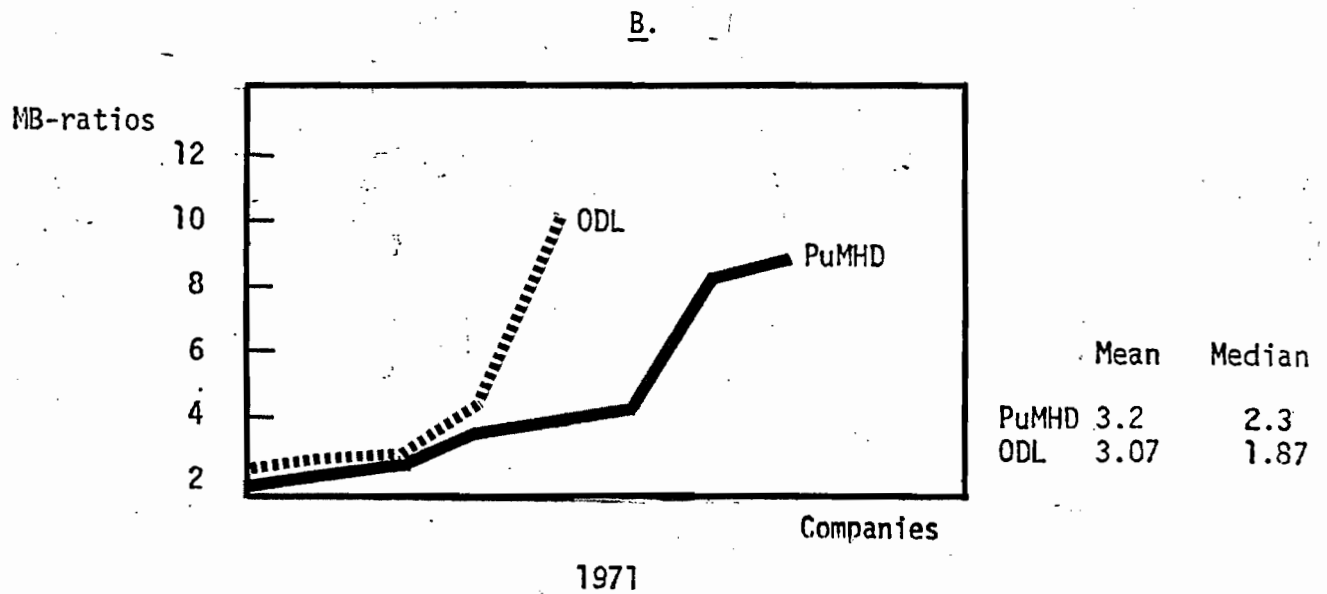
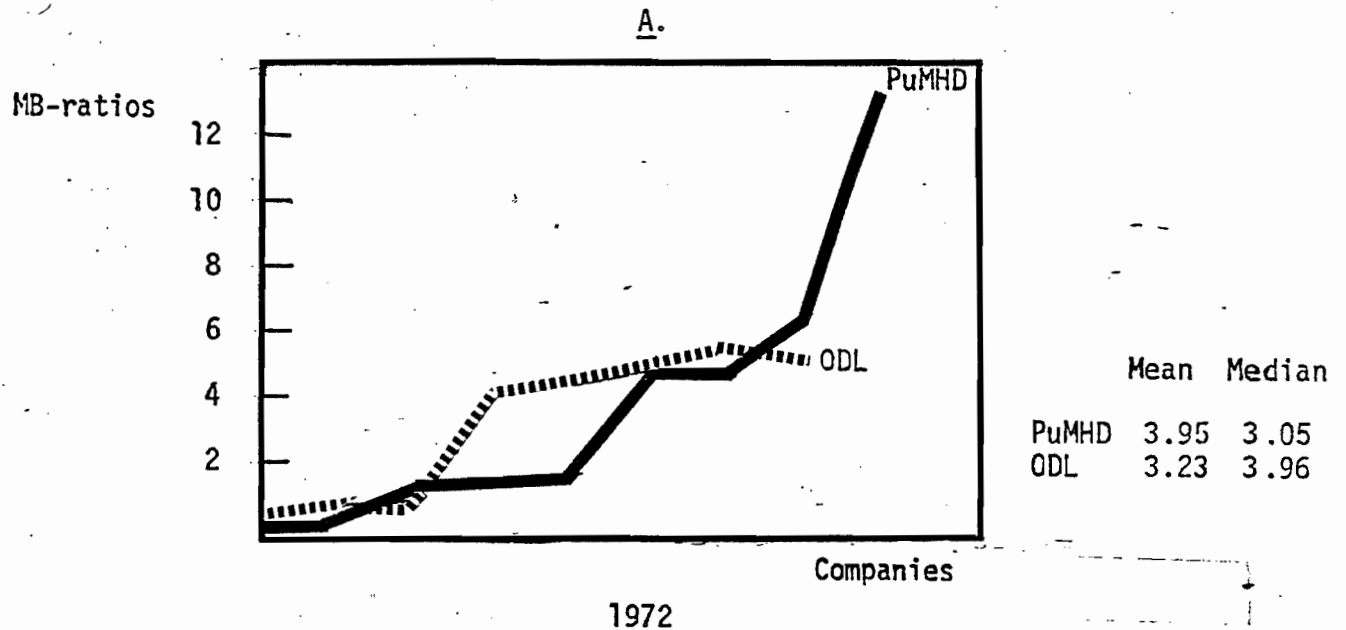
For PrMHD's, the mean is significantly less than both the PuMHD's and the ODL's. Although this could be the result of more efficient PrMHD operations, data collected for these comparisons do not give a clear indication of the cause of this discrepancy.

At any rate, neither the PuMHD's nor the PrMHD's can be accused of excessive mark-up of their products relative to other dealers.

4.3.3 Market Expectations Comparisons

A naive interpretation of the MB-ratios shown in Figures 21A and 21B, would suggest that both the PuMHD's and ODL's are making excess returns, since for the most part the MB-ratios are greater than unity. If the market had supported MB-ratios on the order of ten to 12, then such an interpretation of the plots is justified.

The mean MB-ratios for the publicly-owned mobile home dealerships are higher than the MB-ratios for the other dealerships. However, this does not constitute proof that the PuMHD's were expected by the market to earn excess returns. In 1972 the ODL's had a median MB-ratio almost 1 point higher than the PuMHD's, implying that the PuMHD's had a few "favorite" dealerships with such high MB-ratios that they pull the average of the entire group to the observed level. In 1971 the median MB-ratio for PuMHD's was higher than the median for ODL's.



Source: Derived from several Annual Reports and stock market reports.

FIGURE 21: MB-RATIO PLOTS

The description of the sample companies (see the Appendix) shows that PuMHD's were incorporated more recently than the ODL's. In addition, the period 1970-72 was one of dramatic growth for the mobile home industry. With these advantages, it is interesting that the PuMHD's did not command a higher MB-ratio than was observed. Only partial data for 1973 was available, but all indications point to lower MB-ratios for the PuMHD's.

4.3.4 Analysis of Results

In this analysis of mobile home dealers, no evidence has been found to indicate that excessive returns are being made, at least when compared to the control group of dealers and retailers. Future researchers should go beyond the examinations of returns to the examination of the effective and efficient use of resources in the mobile home industry. Other actors in the mobile home industry besides dealers as well as industry practices could be responsible for the high costs of mobile home ownership. They should be examined to determine what role they may play in imposing high costs on the consumer.

C.

DETERMINATION AND ANALYSIS
OF EMERGING TRENDS

This Part will describe significant trends in the consumer financing sector. In so doing, it will serve as a partial summary of the Analysis of the Present Situation and as a prelude to the Analysis of Performance. Trends in financing are significant because they indicate areas that are conducive or resistant to change. The trends are also indicators of dynamic behavior in the consumer financing sector.

1.

Contract Terms

Price

The average price for a new mobile home has increased significantly, over the years. Three factors have combined to produce an overall rise in the price level. First, the quality of the mobile home has improved. In response to pressures from the Mobile Home Manufacturers Association, from government and from consumer groups, manufacturers have increased their quality standards. A second factor is the increasing size of new mobile homes. As more middle and upper-income families choose the mobile home way of living, a greater demand is created for increased interior space provided by expandables and double wides. A third factor contributing to higher mobile home prices is inflation.

Term and Down Payment

Since mobile home financing was first instituted in the 1930's, the average length of the contract and the down payment requirement have shown definite trends. Terms have lengthened from two or three years to ten or 15 years, and down payments have dropped from 35 percent or more to 15, ten, and even five percent on some VA insured loans.

These more liberal terms have evolved for several reasons. The perceived risk of a mobile home loan has declined over the years, as the character of the mobile home changed with improved construction quality and park conditions. Retail paper has exhibited good performance in terms of de-

linquencies and repossessions. The average life of a mobile home is greater. Public pressures for low-cost housing have resulted in government insurance programs specifying longer terms and lower down payments. Finally, increased competition among lenders for the profitable retail paper has also resulted in more lenient terms.

Interest Rates

The interest rates on mobile home retail paper have declined only slightly over the years, in spite of many forces directed against them. These include the authorization of S & L's to buy retail paper which has increased lender competition and the FHA and VA programs which have reduced the risks to the lender and specified lower interest rates. These forces have served to lower maximum rates on mobile home paper as well as to narrow the gap between the typical mobile home retail interest rate and the conventional home mortgage rate.

However, with the current financing structure, rates will never be competitive with home mortgage rates. Since much of the dealer's income results from the high interest charge (dealer's reserve) and the lender requires lucrative retail interest rates to offset unprofitable wholesale mobile home financing ("floorplanning"), rates are forced up. Consumers may be able to find lower rates by shopping around, but most prefer "package-deals" provided by the dealers.

Monthly Payments

Monthly payments show tremendous variability depending on the lender, the consumer, and the mobile home. The terms of the contract are generally adjusted to produce a level of monthly payments that is compatible with the consumer's income level. Thus, monthly payments will remain closely correlated with the purchaser's level of disposable income.

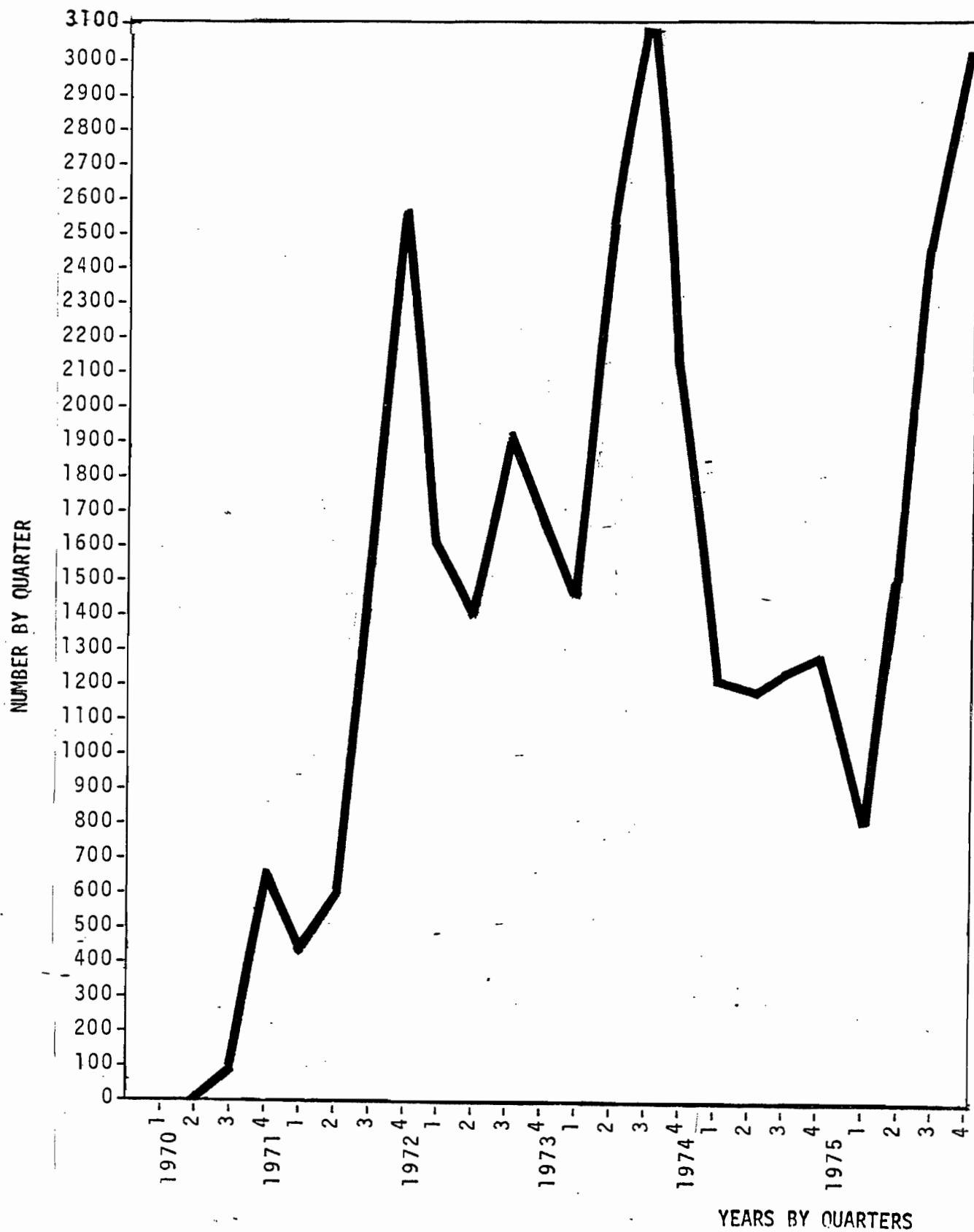
2.

Government Programs

The FHA and VA insurance programs have not grown at the rate that was originally expected of them by their creators. There has been some growth in the use of these programs, but it has not been overwhelming and does not promise to be more significant in the future. Figure 22 displays the number of mobile homes insured under the FHA Title I program per quarter since its inception.⁷³

The GNMA program involves only a fraction of the mobile home paper insured under the VA and FHA programs. The number of outstanding FHA insured mobile home loans is insignificant compared to the total number of mobile home loans outstanding. However, the FHA program has expanded considerably, and can be expected to gain a larger share of mobile home loans.

The inclusion of double-wide mobile homes fixed to land in the FHA 235 Interest Subsidy Program has been proposed in Congress. This program could increase the level of mobile home demand for some consumer groups, and improve lender receptivity to mobile home consumers by emphasizing the similarities between mobile home sales packages that include land and conventional homes.



Source: Compiled from Data Provided by the Federal Housing Administration, U.S. Department of HUD

FIGURE 22: MOBILE HOME LOANS INSURED PER QUARTER UNDER FHA TITLE I, SECTION 2

3.

Sources of Mobile Home Financing

Savings and Loan Associations

Savings and loan associations have demonstrated a steady gain in their market share of the mobile home loan market since they were authorized to lend in 1969. Initial growth of S & L mobile home paper was inhibited by inexperience and a low percentage of assets (five percent) that could legally be used for mobile home loans. Although the percentage has increased to ten percent, the recession had a dampening effect on mobile home lending. A graph of the value of mobile home paper held by the S & L's is presented in Figure 23.

As the economy recovers from the recession, S & L growth should increase. Savings and loan associations already in the market are expected to increase their holdings of mobile home paper. Also, smaller S & L's that have not purchased mobile home paper may enter the market aided by the use of service companies and credit risk insurance.

Risks to the Lender

The perceived rate of depreciation of the value of mobile homes has shown a slight decline over the years. Reasons for this decline include the higher quality and longer expected lives of newer mobile homes. Also, "as more homes are permanently placed...lenders agree that a more equitable depreciation will result." ⁷⁴ A lower depreciation rate, in turn, has

THIS PAGE REPRESENTS PAGE 685, WHICH HAD THE
FOLLOWING COPYRIGHTED MATERIAL:

FIGURE 23: DOLLAR VOLUME OF SAVINGS AND LOAN
MOBILE HOME PAPER

Savings and Loan Fact Book, 1975, United States League
of Savings Associations.

meant a lower level of risk to the lender in terms of expected losses due to repossession. The level of depreciation, though decreasing, is unlikely to reach the low level of a site-built home in the near future. The reasons for this discrepancy include land exclusion, furniture inclusion, and Blue Book appraisals of the mobile home depreciation rate.

The use of credit risk insurance, mainly by small inexperienced lenders, appears to have been increasing in recent years. Lenders have come to recognize and accept the profitable nature of retail mobile home paper and the credit-risk insurance mechanism through which uncertain margins can be converted to predictable profits.

The delinquency and repossession ratios on outstanding mobile home paper decreased impressively during the Sixties and "bottomed out" in 1970 and 1971. A direct determinant of the level of these ratios is the degree of conscientious credit screening and dealer supervision effort by the lender. Another major determinant is the level of economic activity. Inadequate screening and a low level of economic activity combined to produce the increase in delinquencies and repossessions that occurred over the last two years. Improvement in both factors will be necessary for delinquency and repossession ratios to return to the levels of 1970 and 1971.

Conventional Mortgage Financing

The use of conventional mortgage financing of mobile homes has been gradually increasing since it first became available in 1963. Among the reasons

for this increase have been the higher prices, longer terms, lower perceived depreciation rates, and lower delinquency ratios of mobile homes, all of which have improved the compatibility of mobile home parameters with mortgage contract terms. For example, longer mobile home contract terms at constant add-on interest rates result in lower "true" interest rates than do shorter contract terms.

However, the rate of growth of mortgage financing of mobile homes has not been outstanding. Neither has it reflected the view that mortgage financing is the inevitable goal toward which retail mobile home financing is headed. "There will be strong resistance to any change in financing mobile homes from automobile-type loans to mortgages. This financing market is a lucrative one and will not be given up easily, which explains some of the failure of the federal insurance programs for mobile home purchasing."⁷⁵

Federal programs insure only mortgage-type contracts having low interest rates, although the interest rates offered by the VA program are somewhat higher and more competitive than the FHA rates.

The ultimate direction that mobile home financing will take may not be fully described by installment credit financing or conventional mortgage financing, but by a hybrid of the two:

"It seems safe to suggest...that today's conventionally built home and today's mobile home represent the extremes of what will ultimately evolve into the modular, or sectional or industrialized, product of the future.

"Real estate and mobile home financing are as different from each other as are the two types of homes.

"And if the future home falls somewhere between today's extremes, then the financing of that home will likely fall somewhere between the financing techniques for today's conventionally built home and today's mobile home."⁷⁶

D.

OVERALL PERFORMANCE OF THE
CONSUMER FINANCING SECTOR

In analyzing the performance of the consumer financing sector, a relative ranking scale must be established that specifies the importance of "successful" performance for each of the interested parties. How does this sector perform with respect to furthering the interests of the dealer, the lender, and the consumer?

The influences of the structure of the financing sector on the dealer's performance are analyzed specifically in the Performance chapter of the Dealer Financing section, and will not be repeated here. The following material analyzes the performance of the financing sector with respect to the lender and the consumer.

The influences that the structure of the consumer financing sector has on the lender have been referred to repeatedly in the Analysis of the Present Situation and in the Dealer Financing Section. In sum, mobile home paper has offered the prudent financial institution a high yield, low risk source of investment. The potentially lucrative nature of this paper has been described and justified in numerous banking and financial journals.

Mobile home paper offers a yield at least equal to that from other installment loans, such as automobile loans.⁷⁷ In addition, the cost of acquiring and servicing a mobile home loan is less than that for other installment loans, since the loan is larger and the term is longer. Furthermore, the risk on mobile home paper has proven to be quite reasonable.⁷⁸ Lenders with carefully supervised mobile home loan portfolios therefore have good reason to be satisfied with the present structure of the consumer financing sector.

The welfare of the consumer should play a substantial role in an analysis of the performance of the consumer financing sector. The consumer is the pivot upon whom the success of the mobile home industry depends, since he represents the ultimate target toward which mobile home units flow and the source from which all funds originate. How well are the consumer's desires being met within the present structure of the financing sector?

Unfortunately, this question cannot be as decisively answered as that concerning the lender. The reason for ambiguity is that consumers have dissimilar financial and social conditions and hence dissimilar priorities. The mobile home consumer market can be divided into four distinct interest groups: elderly individuals and couples whose mobile homes function primarily as retirement or vacation homes; "middle-income" people who have chosen mobile home living not through necessity but as a preferred alternative to living in a conventional home; the youthful segment, often newlyweds, who are characterized by a limited credit standing; and "low-income" families, who are constrained by their lack of money and their often poor credit standing. Of the mobile home purchasers insured under the FHA Title I program in 1974, "low-income" households (below \$8,000) comprised 20 percent; "middle-income" households (\$8,000-\$15,000), 68 percent; households headed by youthful people (29 years and younger), 56 percent; and households headed by elderly (50 years and up), 8 percent.⁷⁹

Different consumer segments assign varying degrees of importance to different aspects of the consumer financing sector. Thus, while one group of consumers may be quite satisfied with the current performance of consumer financing, another may not benefit from its structure. A listing of the

factors most important to the consumer is given below and discussed. The exact hierarchy of importance of these factors to the consumer depends upon the specific characteristics of the consumer in question:

- A. Monthly payments
- B. Availability of credit
- C. Down payment requirement
- D. Interest rate on loan
- E. Term of loan contract
- F. Consumer's equity

A) A consideration of the monthly costs of purchasing a mobile home is one of the most influential factors to all consumers in their decisions to buy. To the low-income segment, however, it is all-important. The lower the consumer's income, the larger the percentage that must go for monthly payments. In some sense, the consumer financing sector has performed well regarding the monthly-payments factor. Monthly payments have remained below, or at least comparable to, the monthly payments on a conventional mortgage for a site-built home. Lengthening terms have accompanied rising prices to keep monthly payments at a reasonable level. However, some groups, such as low-income and youthful consumers as well as the federal government, have felt that monthly payments should be more representative of the lower prices of mobile homes compared to the prices of site-built homes.

B) The availability of credit to purchasers of mobile homes is of primary concern to youthful and low-income buyers, since the need for credit is most strongly felt by these groups. Fortunately for these consumers, the retail financing sector has generally been successful in maintaining a liberal supply of credit. In the past, financing generally has been available in per-

periods of tight monetary conditions when mortgage lending on conventional homes has been severely curtailed.⁸⁰ The primary reason for this availability is the high interest rate of mobile home paper and the resulting high yield to the lender.

C) The low down payment required by the lender has also proven advantageous to the consumer. Lender competition has driven the down payment requirement of mobile home buyers to ten or 15 percent of the unit's retail price. Since the retail price is so much lower than the price of a site-built home, the required down payment for a mobile home is substantially lower than that required in the purchase of a conventional home. This advantage is weighed most heavily by those consumers having a poor liquid-assets (normally cash savings) position, namely the young, low-income consumers, and perhaps a substantial portion of the middle-income consumers.

D) The interest rate that is charged on a mobile home loan is one of the most negative indicators of consumer financing performance. Again, though, the degree of its importance depends upon the consumer segment analyzed. Many consumers seem indifferent to interest rates, and prefer "one-stop" shopping. The prime reason that mobile home paper carries high interest rates relative to conventional home mortgages is that the conventional homes are financed primarily by institutions (savings and loan associations, savings banks, and mutual savings banks) which: (1) have a legal responsibility to invest in home mortgages, and (2) have a lower cost of borrowing than do commercial banks and finance companies. The latter institutions which provide the bulk of mobile home financing have other investment opportunities available to them. Thus, mobile home loans are competing with all other

types of consumer loans in an institution's portfolio and, therefore, the rates charged on mobile home loans will be similar to the rates on other types of consumer finance paper.

Second, floor planning strongly affects the level of interest rates on mobile home paper. Dealers cannot afford to finance their own inventory at regular borrowing rates. Lenders therefore "subsidize" dealers with inexpensive floor planning in return for the dealer's retail paper business. However, in order to recover any losses that might accrue from floor planning, lenders assure themselves of an adequate return by maintaining interest rates at the level of other installment loans, despite the lower risks (in terms of lower delinquency ratios) involved in purchasing mobile home paper.

Third, the consumer is concerned primarily with purchasing the mobile home. Negotiating a financing plan with manageable payments is more important to many consumers than shopping around for better rates. This aspect of consumer psychology tends to put upward pressure on mobile home rates.

Another possible reason for the high interest rate on mobile home retail paper is the inadequacy of the markup by the dealer from factory price to retail price. The low markup limits the dealer's income and necessitates the dealer's reliance on other sources of income, such as higher dealer reserves. Figure 24 is a causal flow diagram, which is presented to clarify this point and enable visualization of the relationships that are described below.

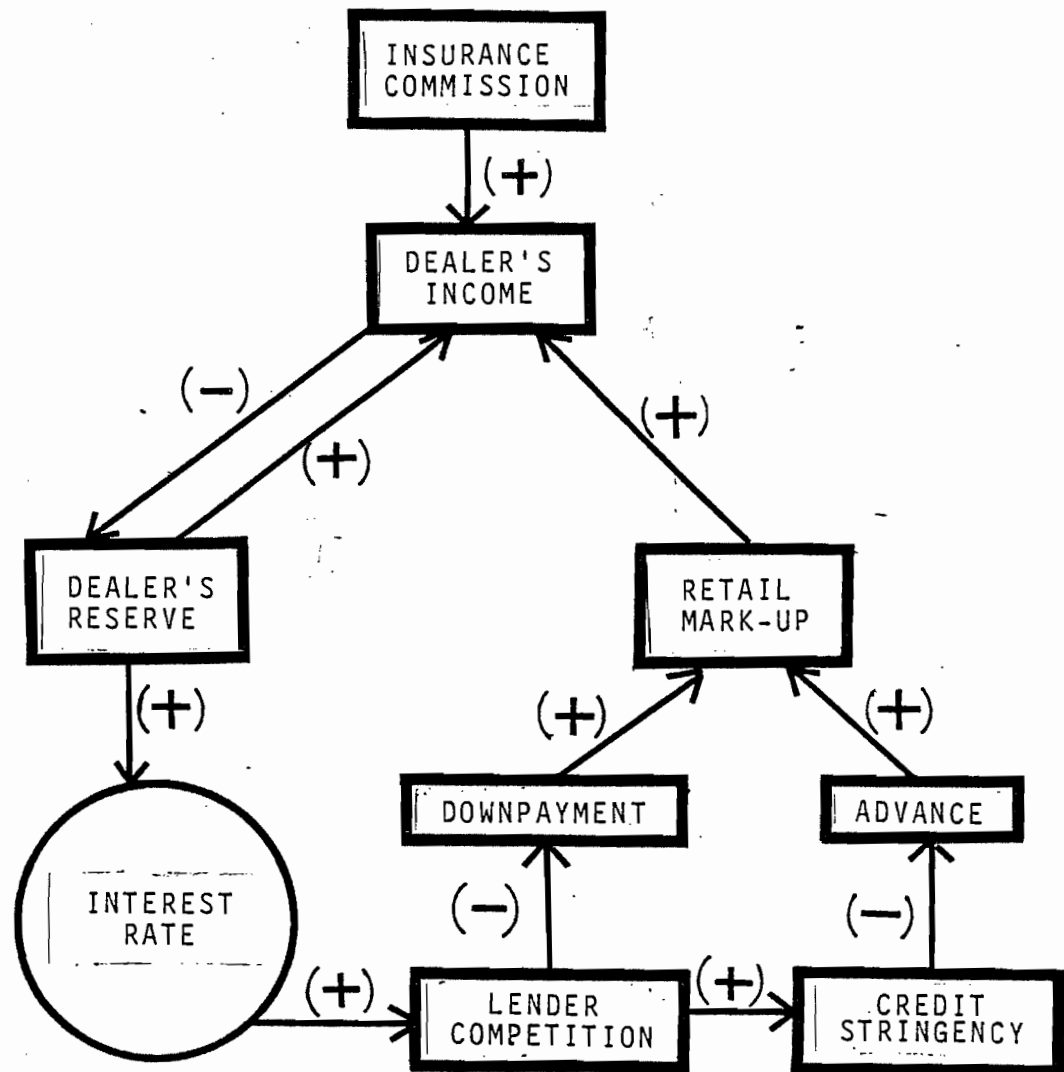


FIGURE 24: FLOW DIAGRAM OF THE RELATIONSHIP OF RETAIL MARK-UP TO INTEREST RATE

A dealer is constrained when setting a markup by two factors: the down payment requirement and the percentage-of-invoice that the lender is willing to advance the dealer. As an example, consider a mobile home that costs the dealer \$8000. The markup computation might proceed as follows:

<u>\$8000</u>	Invoice
\$9200	Advance (@ 115% of invoice)
<u>\$1022</u>	Down payment (@ 10% of retail)
\$10,222	Retail price (maximum).

This calculation assumes that the lender is willing to advance 115% of manufacturer's invoice. This is not a conservative percentage and is, in fact, the maximum percentage that FHA lenders will loan. The resulting gross profit to the dealer in this example is:

$$\$10,222 - \$8000 = \$2222 \text{ Mark-up}$$

$$\frac{\$2,222}{\$10,222} = 21.8\% \text{ actual gross profit}$$

This percentage is inadequate to sustain the dealer's operations. "If a dealer's income is all cash flow, and he is going to do business on a non-recourse basis and has no responsibility for his repossessions and no hold-back from the finance factor, then he must have a gross profit of 26.7 percent to provide him a reasonable return on his investment."⁸¹

The gap between actual margin and necessary margin, stated simply, is the result of low down payment requirement dictated by a competitive market and of the unwillingness of lenders to advance an adequate percentage of invoice cost to permit a reasonable profit on the sale of the mobile home. The ultimate effect of these constraints is that many dealers must struggle to keep their heads above water. "Approximately 75 percent of all dealers

will not remain in business more than three years because of their inability to make a profit from the sale of the home itself. Most dealers depend on endorsement fees (finance participation) and insurance commissions to supplement their income."⁸²

The greater the dealer's reliance on financial kickbacks (dealer's reserve), the greater is the pressure for higher interest rates since dealer's reserve is a specified percentage of the interest rate. Thus, the lender's reluctance to financially support (through an adequate advance) a higher retail price markup forces the dealer to rely on other income sources such as his finance participation reserve, and the result is a higher interest rate.

E) The term of the mobile home loan represents the length of time for which the consumer will be "in debt". Compared to the conventional housing industry (term lengths on mortgages are typically about 30 years), the mobile home financing sector offers a much shorter term length (7-15 years). Of course, this results in a higher monthly payment for the consumer, and thus reduces his borrowing capacity.

F) Earlier in this section, the consumer's equity position from purchasing a mobile home was shown to be inferior to that from buying a site-built home. Over time, owning a house seems to be a better investment than owning a mobile home.

The needs of many mobile home buyers, however, seem to be more in line with obtaining credit and being able to make the monthly payments in order to have shelter for their families, rather than concern over appreciation of

their investment.

Any assessment of the consumer finance sector's performance depends on the weight given each of the above factors. These weights, in turn, depend on the interested party. "Perfect" performance is not possible, since improving one factor (e.g., interest rate) will certainly worsen others (e.g., availability of credit).

With these considerations in mind, the next part will suggest areas that might be influenced to improve the overall responsiveness to the consumer of the consumer financing sector of the mobile home industry.

E.

POTENTIALS FOR
IMPROVING PERFORMANCE

Consumer Financing

700

1.

Potential Government
Influence

What are the areas of the consumer financing sector in which government legislation might improve the performance of this sector? The weaknesses of current federal programs, brought out in earlier chapters, provide some insights.

The Consumer

The consumer's indifference to high interest rates and his propensity to accept the first financing package offered are tendencies that should be accepted by legislators. If legislators believe that the consumer's attitudes should be altered so that they will not be subject to exploitation by others, then advertising may be the answer. Since most dealers and lenders do not promote the federal insurance programs aggressively, promotion through other media may succeed in developing consumer interest.

The Manufacturer

The problem of manufacturer compliance with federal regulations as a prerequisite to federal retail insurance has eased up considerably during the last several years. The mutual cooperation of the VA and FHA with mobile home manufacturers and the MHMA has eliminated substantial manufacturer disdain toward the federal insurance programs. Nevertheless, the importance of minimal paperwork and an expeditious loan process should be stressed.

The Dealer

One of the most promising methods of eliminating inefficiencies in the consumer finance sector is the division of labor, in order to encourage specialization leading to systematic and highly efficient methods.

One possibility of a more clear division of labor elimination might be the elimination of the dealer's direct involvement with financing (namely, the dealer's reserve). Since the typical dealer's income is inadequate if dealer's reserve is eliminated, it must be supplemented in another manner. If lenders were willing to advance 125 percent of manufacturer's invoice, the dealer's mark up computation might proceed as follows:

\$ 8,000	Invoice
\$10,000	Advance (@ 125% of invoice)
\$ 1,111	Down payment (@ 10% of retail)
\$11,111	Retail price

The gross profit would then be:

$$\$11,111 - \$8,000 = \$3,111$$

or, as a percentage:

$$\frac{\$ 3,111}{\$11,111} = 28\%$$

In general, this would be adequate to cover the dealer's expenses and provide a fair return.

The result of such a change would be to eliminate the dealer's need for a financing participation fee and an insurance commission. Dealers would be forced to compete among themselves strictly on a price basis. Financing

considerations would not complicate the consumer's decision of where to buy the mobile home. Since a specific financial institution would probably still be floor planning for a given dealer, it is inevitable that the dealer would direct the consumer to his "preferred" lender. However, interest rates would probably be lower on retail paper, since the dealer's reserve would no longer need to be extracted from the consumer's financing charge.

How would this change affect aspects of mobile home financing important to the consumer? Assuming that the amount that the lender advances to the dealer increased from 115 percent to 125 percent of the manufacturer's invoice, the retail price would increase as follows:

Before (115%)	After (125%)	
\$8000	\$8000	invoice
\$9200	\$10000	advance (@ 115% and 125%)
\$1022	\$1111	down payment (@ 10% of retail)
\$10,222	\$11,111	retail price

The increase in retail price is \$889, less than nine percent of the original retail price, and the increase in down payment is \$89, again less than nine percent above the original down payment figure.

This change affects other important consumer considerations including the interest rate, monthly payments, term, credit availability, and consumer's equity. The interest rate will decline, because dealer's reserves will be eliminated. However, many mobile home buyers are more interested in monthly payments than in the level of the interest rate. The important question then becomes: will interest rates decline adequately to maintain the previous level of monthly payments?

Supposing that the original interest rate is seven percent add-on, and the term is ten years, and using the above example, the monthly payments are:

\$10,222	retail price
<u>1,022</u>	down payment
9,200	advance
<u>6,440</u>	interest charge (@ 7% x 10 yr. x \$9,200)
\$15,640	total payment
\$130.33	monthly payment (120 payments)

What interest rate will allow the higher retail price to produce the same monthly payments, assuming the term remains constant at ten years?

\$11,111	Retail Price
<u>1,111</u>	Down payment
\$10,000	Advance
$\$15,640 = \$10,000 + (\$10,000 \times X\% \times 10 \text{ years})$	
$X\% = 5.64\% \text{ Add-on}$	

Assuming that seven percent add-on is the normal retail financing rate, 5.64 percent is not an unreasonable interest rate to the lender, considering that the dealer would receive no kick-back.

Therefore, from the consumer's point of view (and reflected in the dealer's sales), the interest rate is lower; and monthly payments, availability of credit, and down payment requirement are approximately the same following the change in the percentage of manufacturer's invoice advanced by the lender. Finally, the consumer's equity probably will be higher, since the same mobile home will now sell at a higher price due to the higher mark-up. Because of these higher prices the investment potential in buying a mobile home will remain about the same (higher value for higher prices).

The Lender

Financial institutions are motivated by whatever program will result in maximum profits. The current legislation has, by and large, failed to consider this factor. It has sought to lower the interest rates to lenders with little offsetting compensation. The yield on mobile home paper must be at a sufficient level to attract investors. How would the above advance-increase suggestion appeal to lenders?

Interest rates would decrease but dealer's reserves would be eliminated, so the yield would probably remain at a satisfactory level. There are advantages that would also accrue to the lender from this transition. A higher advance would mean that more money would be loaned, and this would mean a higher volume of business to the lender from the same number of outstanding mobile home loans. A higher volume produces the added benefit of lower relative variability, and thus lower risks, from increased cash flows.

The obvious disadvantages to the lender of this proposed change are those of increased risk. For one thing, lenders that rely on recourse agreements with the dealer (the number of these lenders is continually declining) would hold no reserve from the dealer's sales to back up these agreements. Second, and most important, lenders would stand to lose a significantly greater percentage from contract defaults and repossessions under the increased advance, since they would have advanced more money per mobile home. If not for this specific disadvantage, lenders would probably have already made this change. Therefore, insurance can assist in effecting this transition. Lenders must

be assured that they stand to lose no more by advancing 125 percent than they do by advancing 115 percent.

2.

Other Areas of
Potential Influence

Large lenders do not generally require service companies to generate and service their mobile home portfolios, since they have their own experienced mobile home loan departments. Only the small and often inexperienced lenders must resort to service companies if they want to get involved in mobile home financing. Do service companies cause inefficiency by introducing unnecessary steps in the financing process, or do they promote efficiency by providing services that strictly belong to neither the dealer nor the lender? Since there are strong arguments for and against service companies, this question will best be resolved by time and the competitive nature of the market.

Conventional mortgage financing has been suggested by some industry people as the future trend for mobile home retail financing. There are two major shortcomings to this alternative method of financing at the present time. First, the low interest rates do not appeal to lenders seeking high-yield investment opportunities. Second, the dealer is not motivated to promote this program because the dealer's reserve is eliminated.

Mobile home manufacturers are able to influence the performance of the financing sector of the industry through their ability to control the quality and retail price of the mobile home. As the quality of the unit is improved, its value and expected life increase. The consumer can realize two direct advantages from this improvement. The first is a potentially lower level of monthly payments. A longer contract term may result from the longer expected life, which will allow the total payment to be spread over a longer period, producing lower monthly payments. The second advantage is that of higher consumer equity. A better quality mobile home will

appeal more strongly to those investment-minded shoppers who place significant emphasis on their future equity. These consumers include middle and upper income consumers who represent a growing portion of the mobile home market.

Mobile home dealer and manufacturer associations may be relied on to exert their influence toward improving the performance of the mobile home retail financing sector. They may assist in making quality improvements uniform throughout the industry; they may promote the image of mobile home living as a respectable way of life; they may survey the effects of government legislation; they may assist in implementing desired change in any of the other areas where the performance of consumer financing can be improved.

F.

SUMMARY

The installment method of consumer financing in the mobile home industry is a product of tradition. It continues to be the most widely-used method of financing, primarily because of its relationship to other components of the industry's financial structure. Although the use of installment financing has made mobile home living available to many, it has limited the possible future evolution of the industry.

Using installment financing, lenders have been able to obtain rates of return on mobile home loans that are higher than those available on mortgages. Increasing loan terms have offset the higher interest cost of these loans, with the result that monthly payment levels have remained within the means of most consumers.

However, the interest rate differential between mortgages and mobile home installment loans has resulted in considerable extra cost to mobile home consumers. This higher cost often has been explained by allusions to greater risks associated with mobile home loans, primarily due to mobile home depreciation and the financial status of many mobile home consumers.

The quality of mobile home construction has improved considerably, suggesting that the depreciation gap between mobile homes and conventional housing should narrow. However, the frequently poor quality of mobile home furnishings, the changing magnitude of used mobile home demand, and the exclusion of land from most mobile home sales packages have prevented most lenders from viewing the two types of housing as equivalents.

Until recently, the risk of default associated with mobile home loans was low relative to most other consumer loans. During the past few years a lack of adequate credit screening by lenders, combined with the negative impact of the "energy crisis" and the recession, have caused an upsurge in the number of repossessions. This has caused considerable stress in financial institutions serving the industry. In view of this negative experience, lenders are sure to strengthen screening procedures on future mobile home loans. This new policy and the abatement of the recession should reduce risk.

The financial and physical similarities between mobile homes fixed to a site and conventional homes have suggested a change in financing from the traditional installment methods to mortgage financing. This would be a desirable change for mobile home consumers, because cost of home ownership would be reduced. It is also attractive to the industry, because such a reduction in costs would cause an expansion of consumer mobile home demand.

However, the accepted method of installment financing is only one element in the complex financing pattern prevalent in the mobile home industry. Changes should be made to lower consumer financing costs. These changes must be accompanied by changes in other financial relationships if the manufacturer, lender, and dealer are to remain profitable. Thus, an improvement in consumer financing should be one part of a comprehensive effort, which perhaps would include extension of greater trade credit by manufacturers, the elimination of floor planning and the dealer's reserve, and complete lender control over the loan process.

G.

FOOTNOTES

FOOTNOTES

1. Quick Facts (MHI, Nov. 1975), pp. 3-4.
2. Ibid., p. 1.
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$$100 \frac{\text{Number of New FHA Insured Loans in 1974}}{(.75)(1974 \text{ Mobile Home Shipments})} = 100 \frac{5073}{(.75)(329,300)} = 2\%$$
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72. 80 percent level of confidence was chosen for the following reasons:
 - high variability of the data
 - limited number of annual observations
 - to alert future researchers of possible relationships that may be clouded by the noise in the present data base.
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APPENDIX

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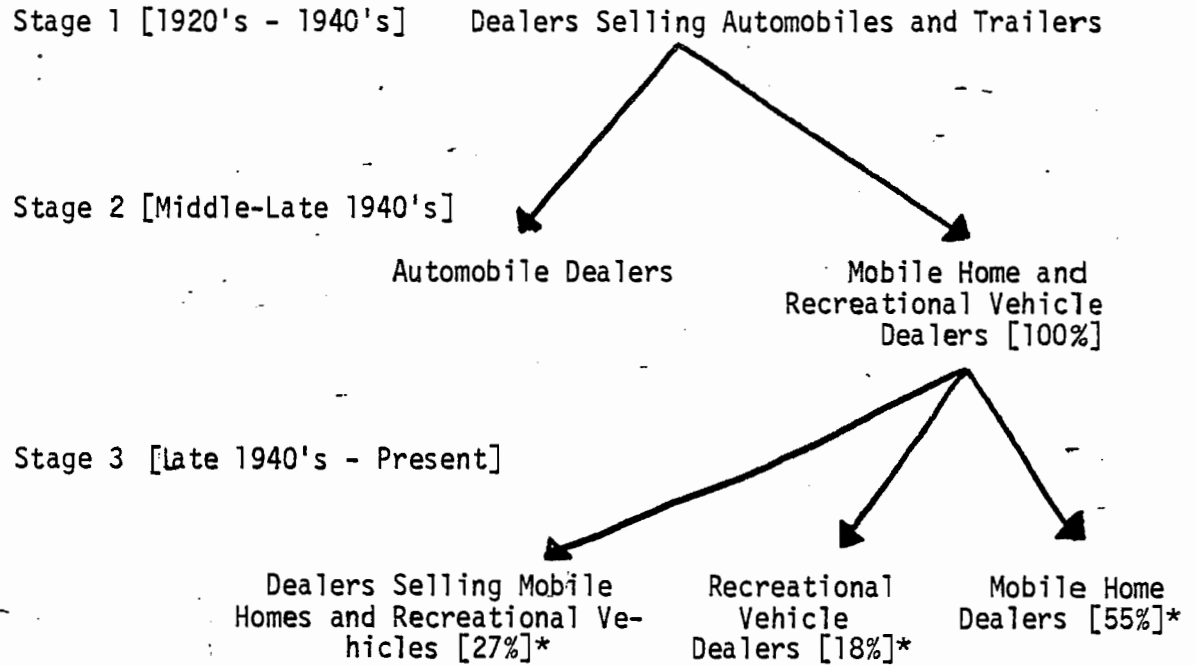
A.

INDUSTRIAL ORGANIZATION

1.

Origins of the System

Development of Mobile Home Dealers Organization
from Automobile Dealerships



*Source: Compiled from ACS Directory of Mobile Home and Recreational Vehicle Dealers in the United States and Canada 1974. Published by: Automotive Credit Service.

FIGURE 1: ORIGIN OF THE SYSTEMS

2.

Regional Trends in Distribution
Outlets, 1970 - 1974

Figures 2 - 14 are taken from the following source:

Compiled from ACS Directory of Mobile Homes & Recreational Vehicle Dealers in the U.S. and Canada, 1970 - 1974. Published by: Automotive Credit Service

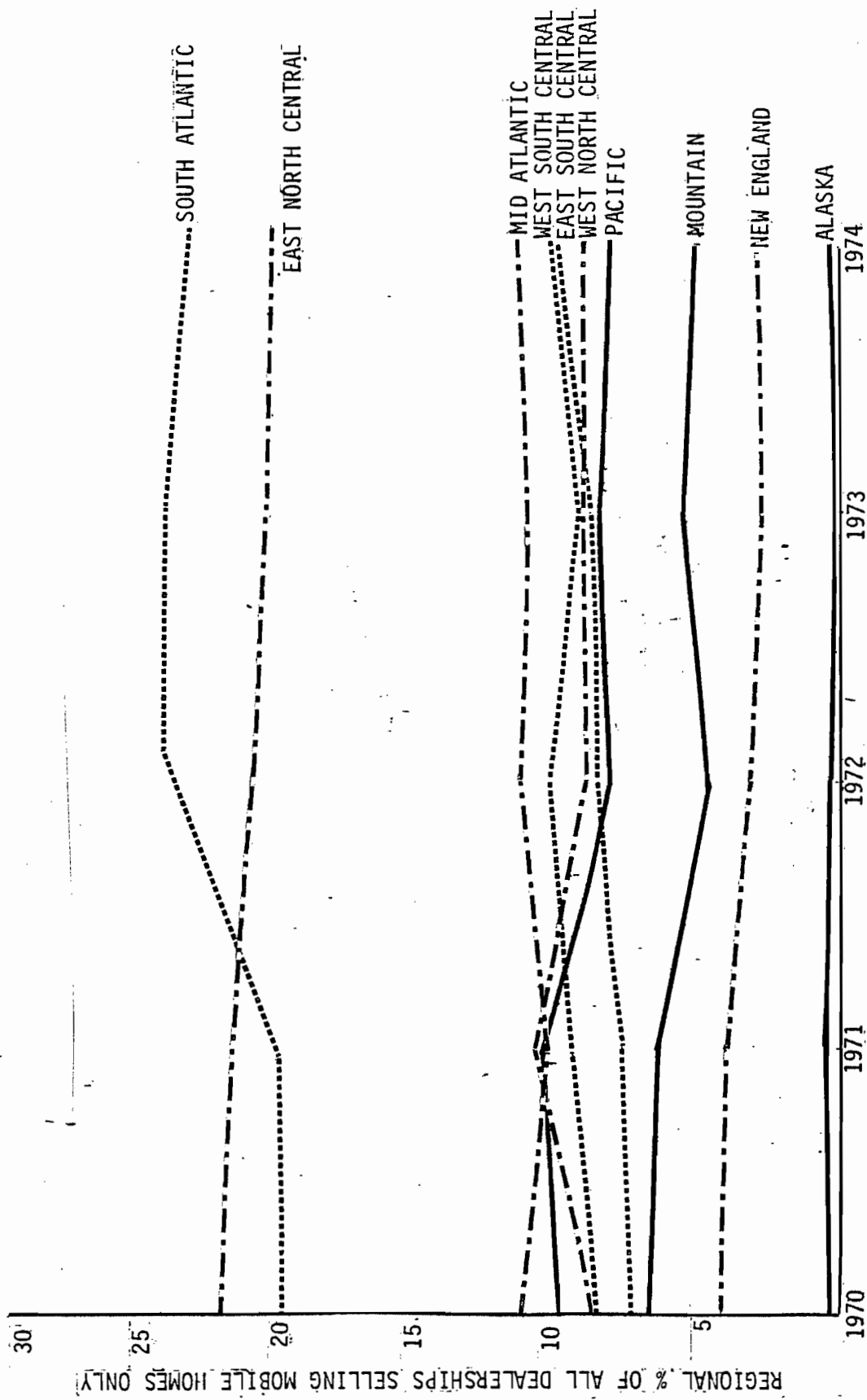


FIGURE 2: REGIONAL REPRESENTATION OF DEALERSHIPS SELLING MOBILE HOMES ONLY 1970-1974

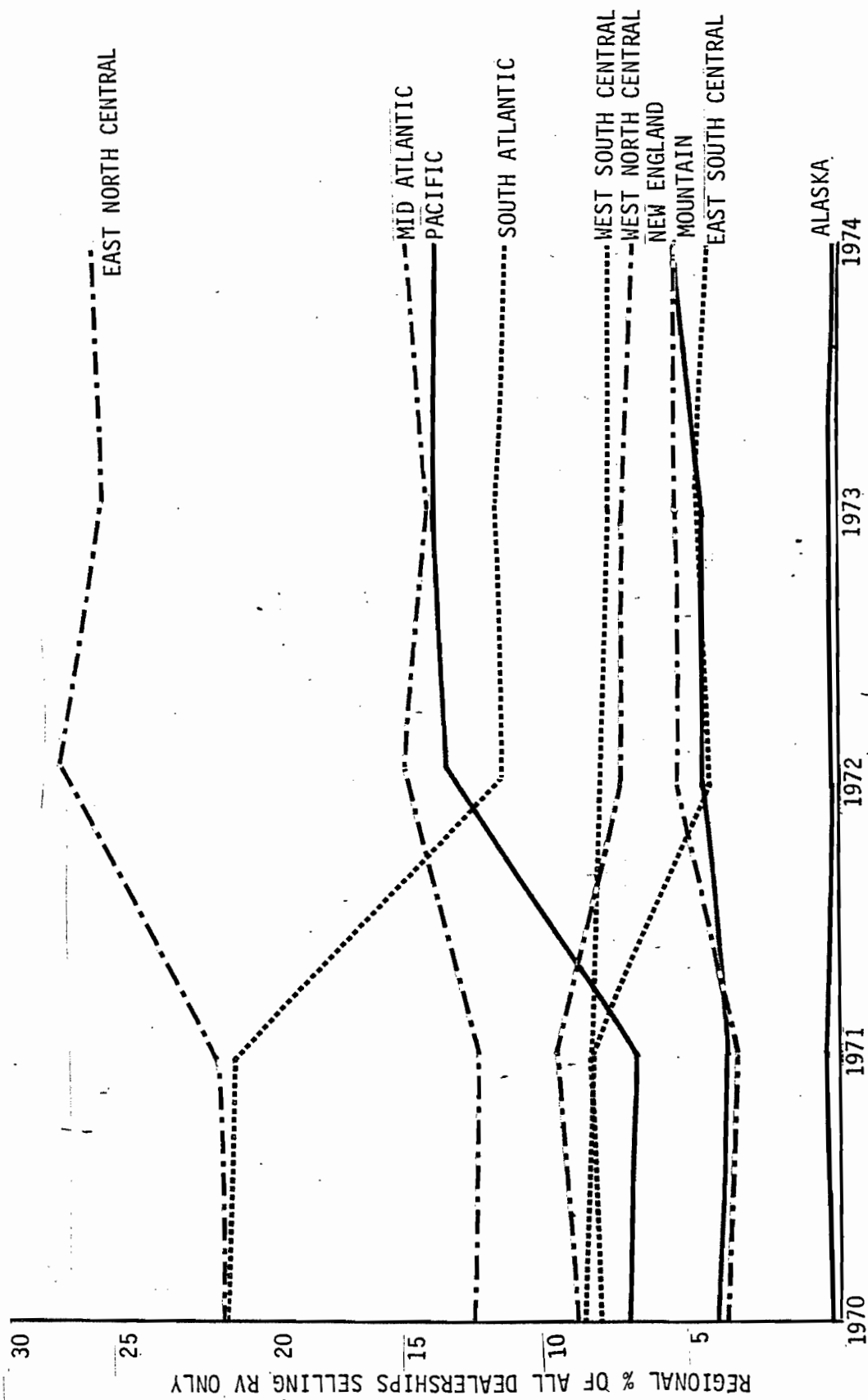


FIGURE 3: REGIONAL REPRESENTATION OF DEALERSHIPS SELLING RECREATIONAL VEHICLES ONLY 1970-1974

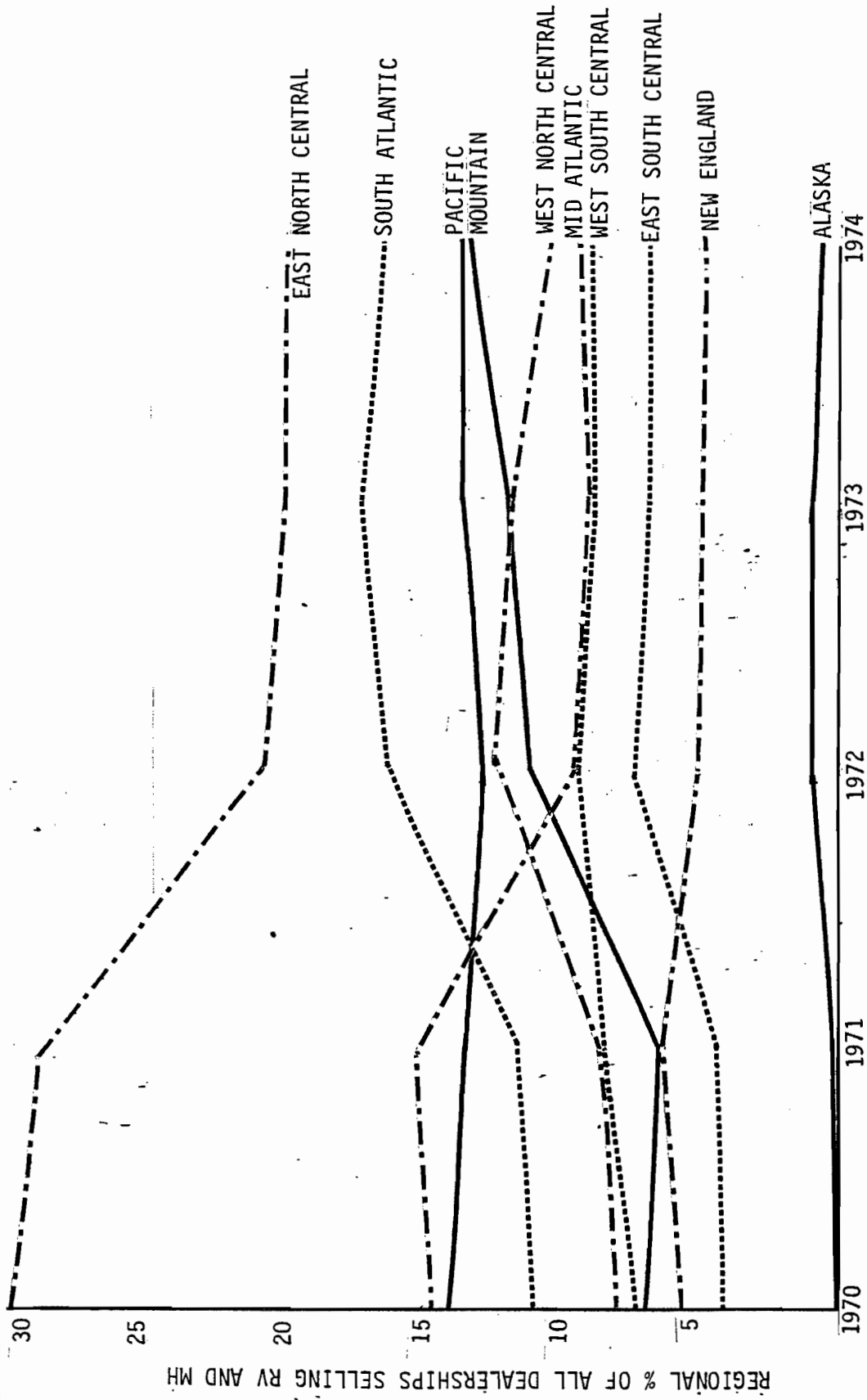


FIGURE 4: REGIONAL REPRESENTATION OF DEALERSHIPS SELLING BOTH MOBILE HOMES AND RECREATIONAL VEHICLES
1970-1974

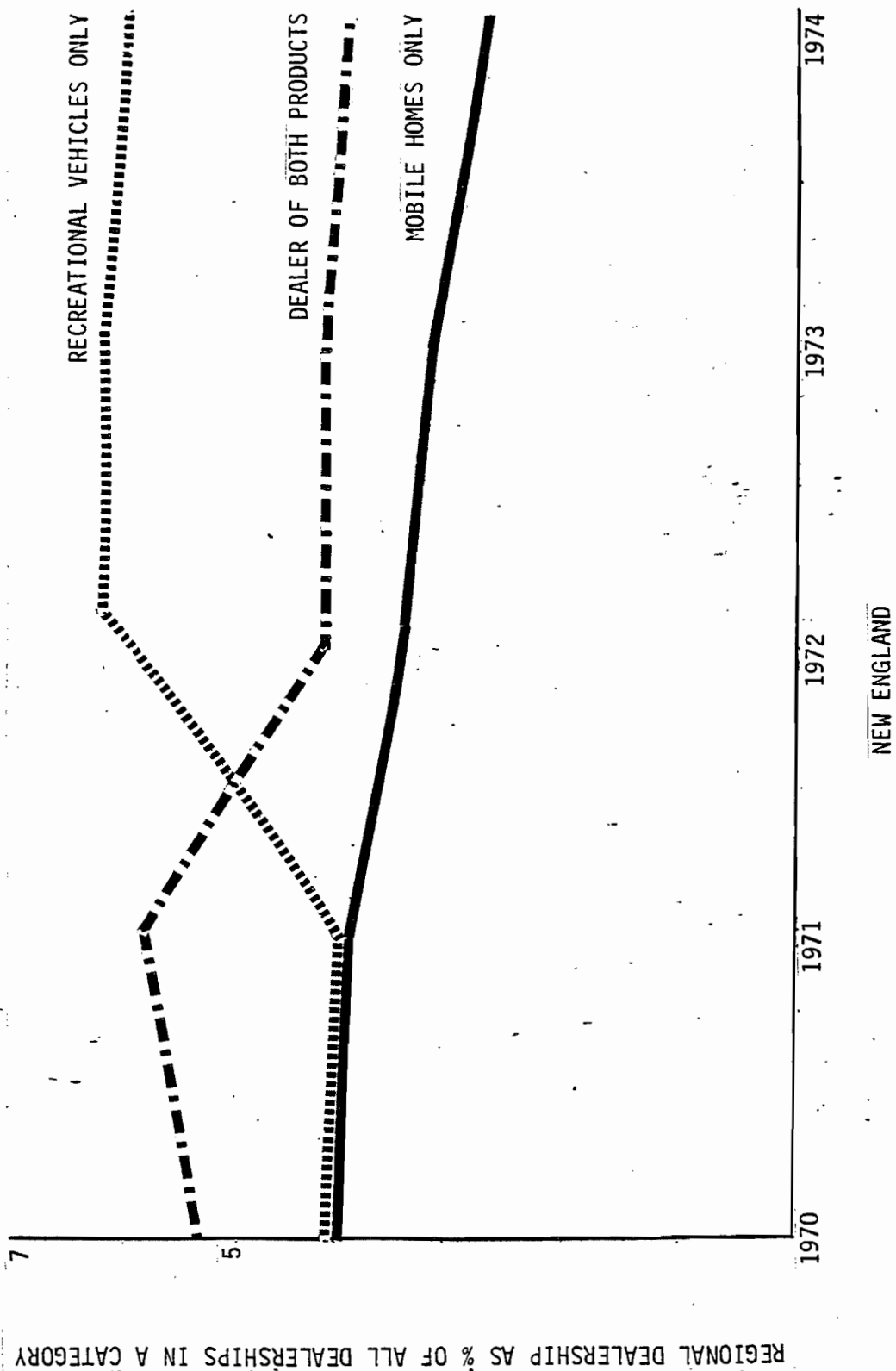


FIGURE 5: REGIONAL CHANGES IN THE DIFFERENT TYPES OF DEALERSHIPS, 1970-1974 AS PERCENTAGE OF EACH NATIONAL CATEGORY

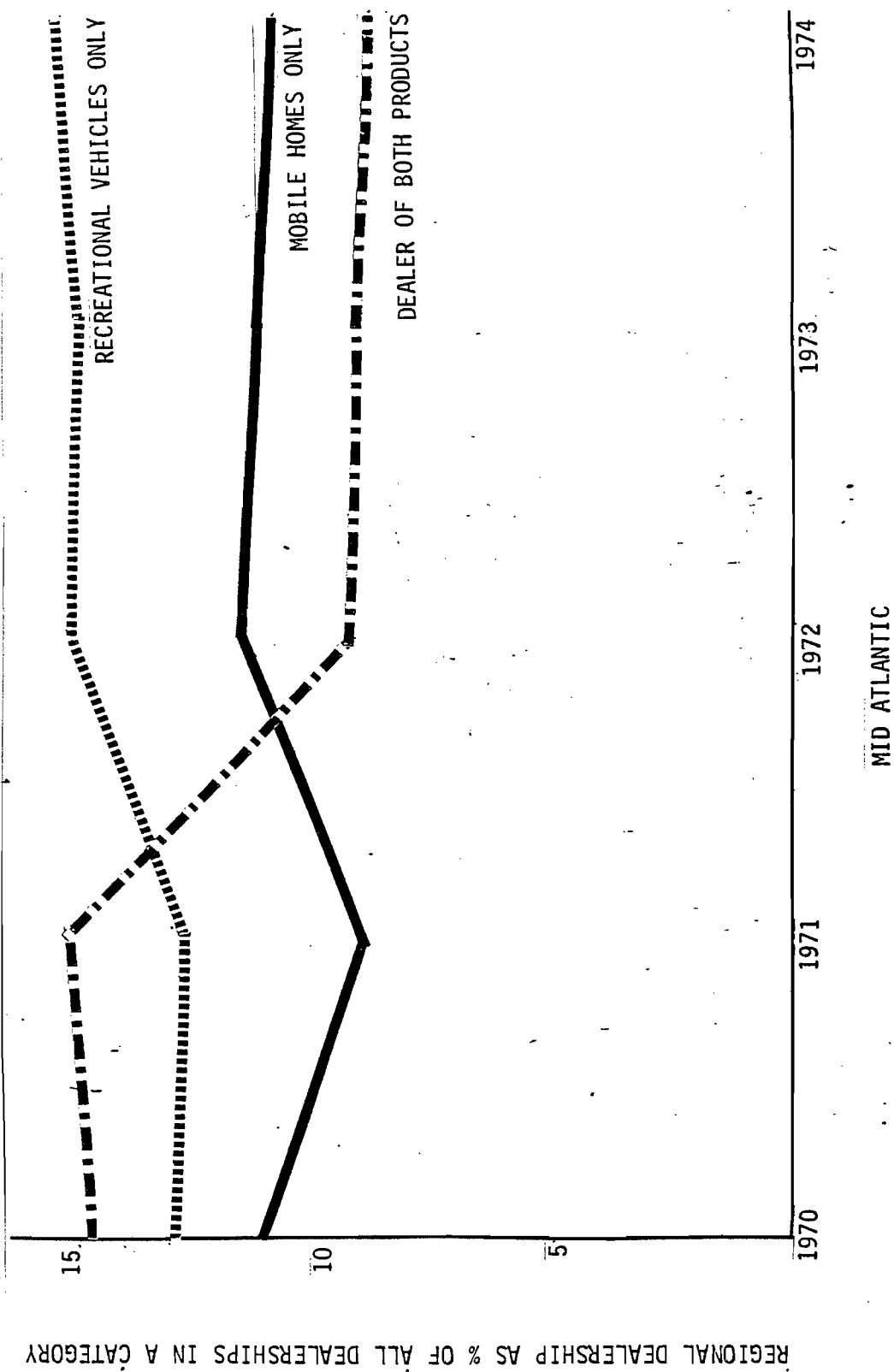


FIGURE 6: REGIONAL CHANGES IN THE DIFFERENT TYPES OF DEALERSHIPS, 1970-1974 AS PERCENTAGE OF EACH NATIONAL CATEGORY

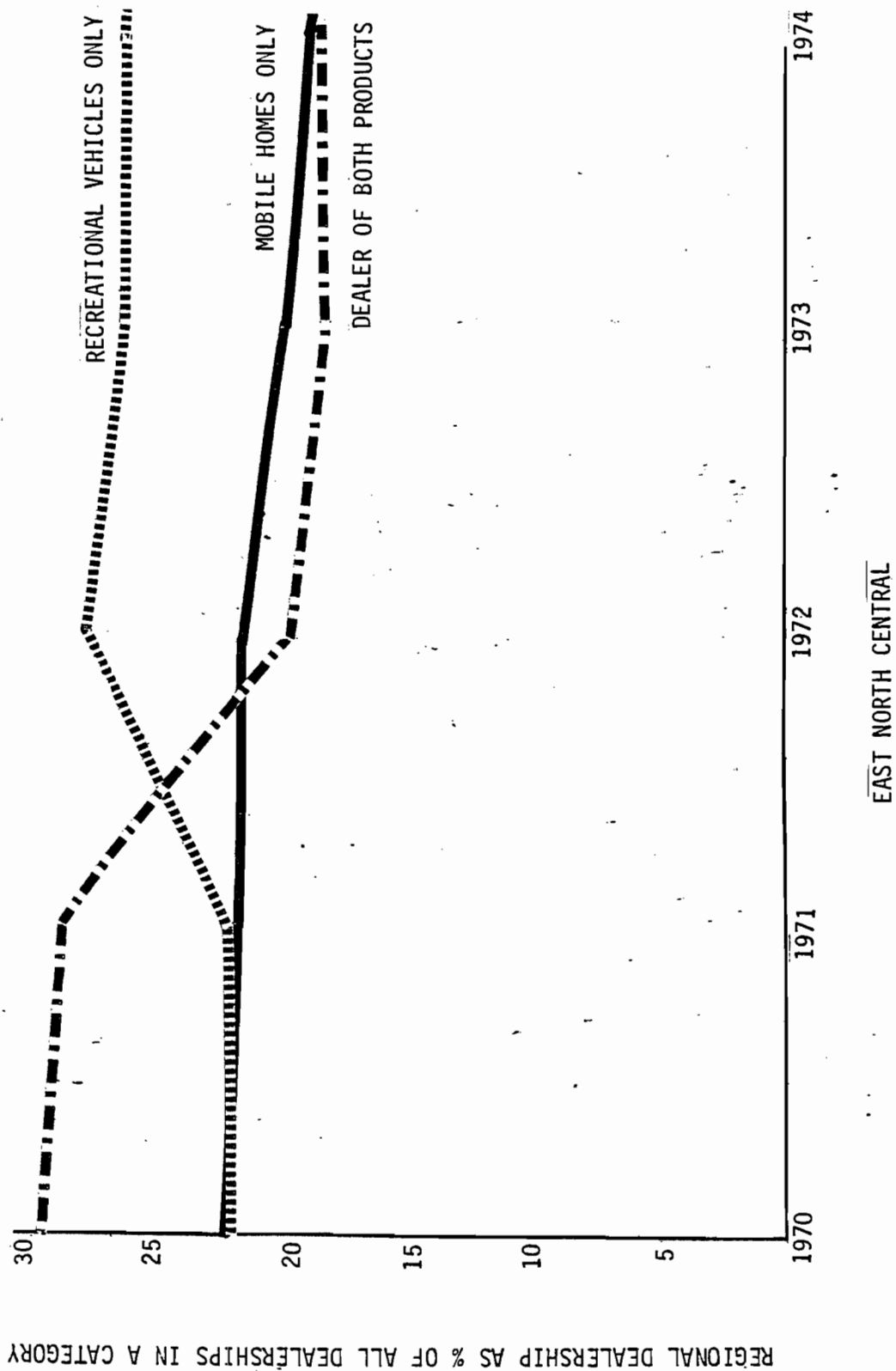


FIGURE 7: REGIONAL CHANGES IN THE DIFFERENT TYPES OF DEALERSHIPS, 1970-1974 AS PERCENTAGE OF EACH NATIONAL CATEGORY

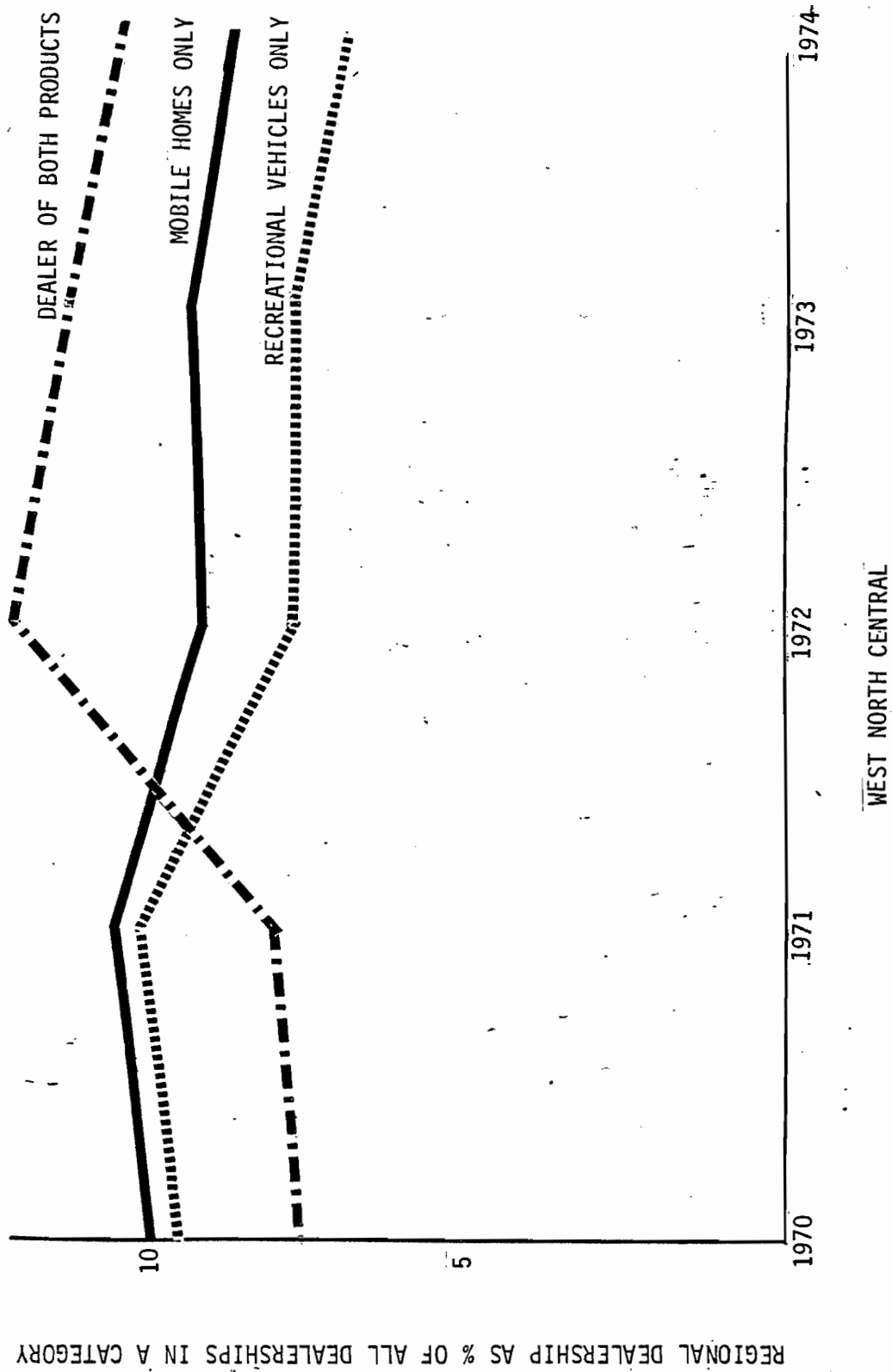


FIGURE 8: REGIONAL CHANGES IN THE DIFFERENT TYPES OF DEALERSHIPS, 1970-1974 AS PERCENTAGE OF EACH NATIONAL CATEGORY

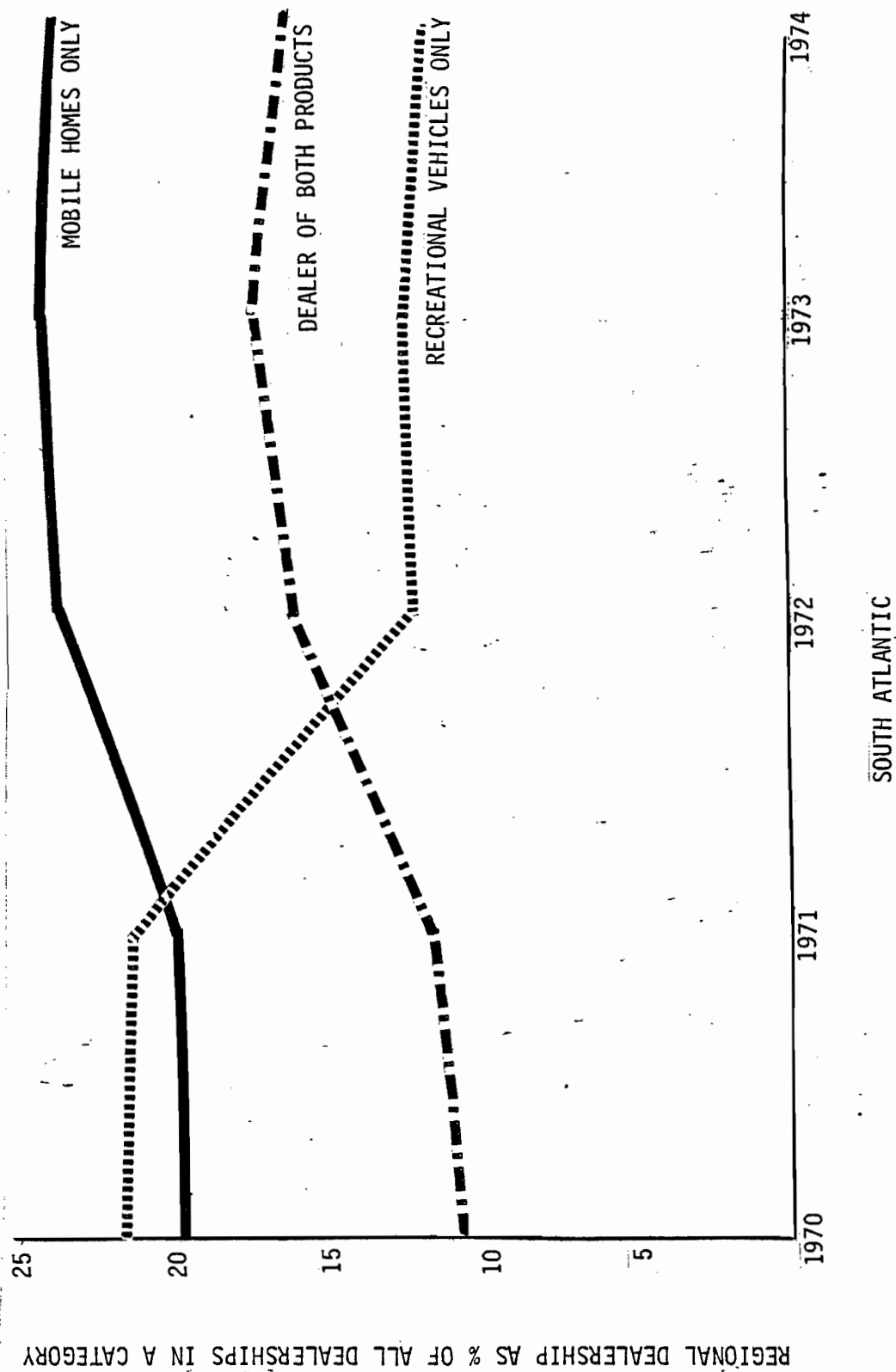


FIGURE 9: REGIONAL CHANGES IN THE DIFFERENT TYPES OF DEALERSHIPS, 1970-1974 AS PERCENTAGE OF EACH NATIONAL CATEGORY

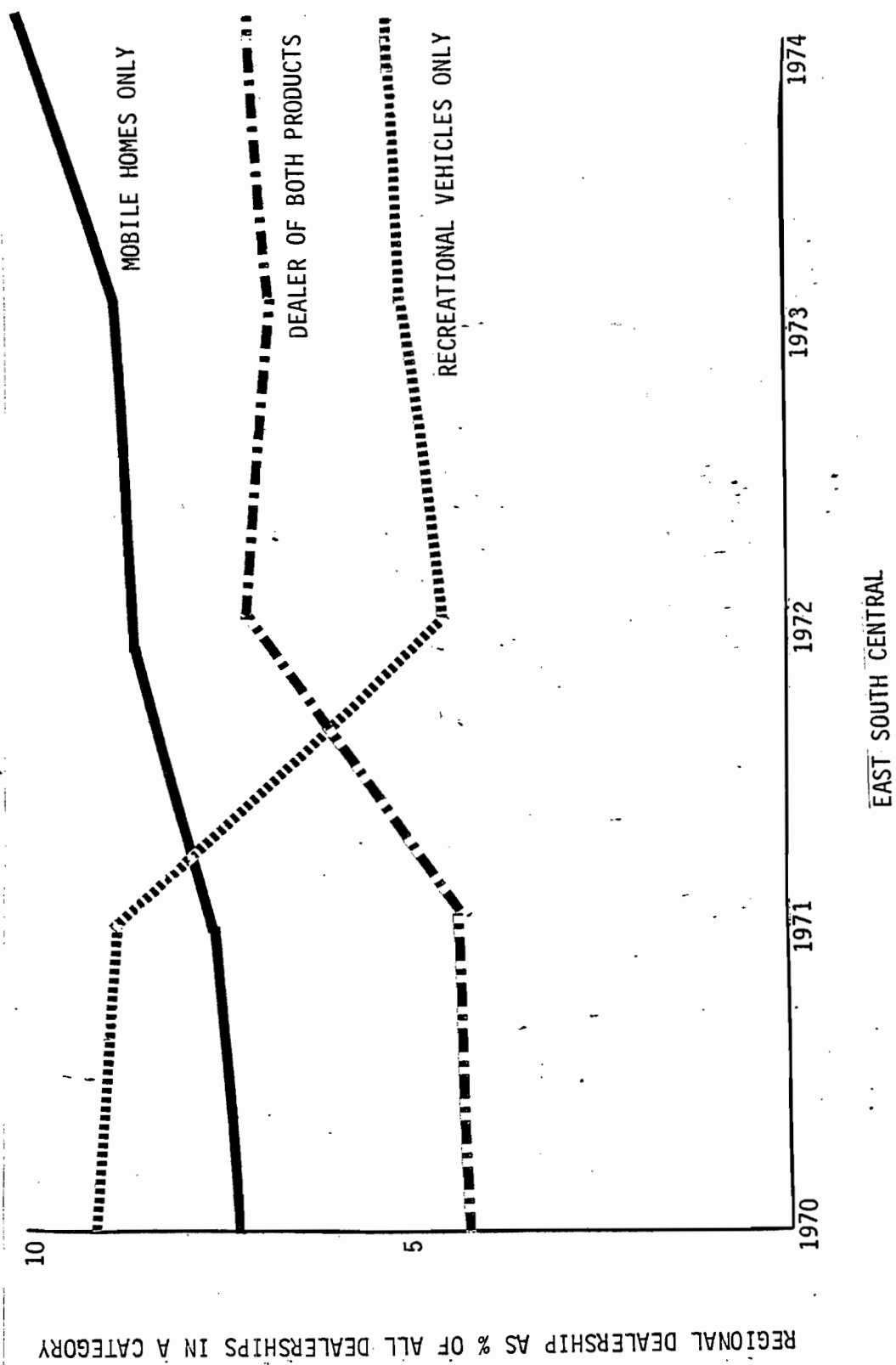


FIGURE 10: REGIONAL CHANGES IN THE DIFFERENT TYPES OF DEALERSHIPS, 1970-1974 AS PERCENTAGE OF EACH NATIONAL CATEGORY

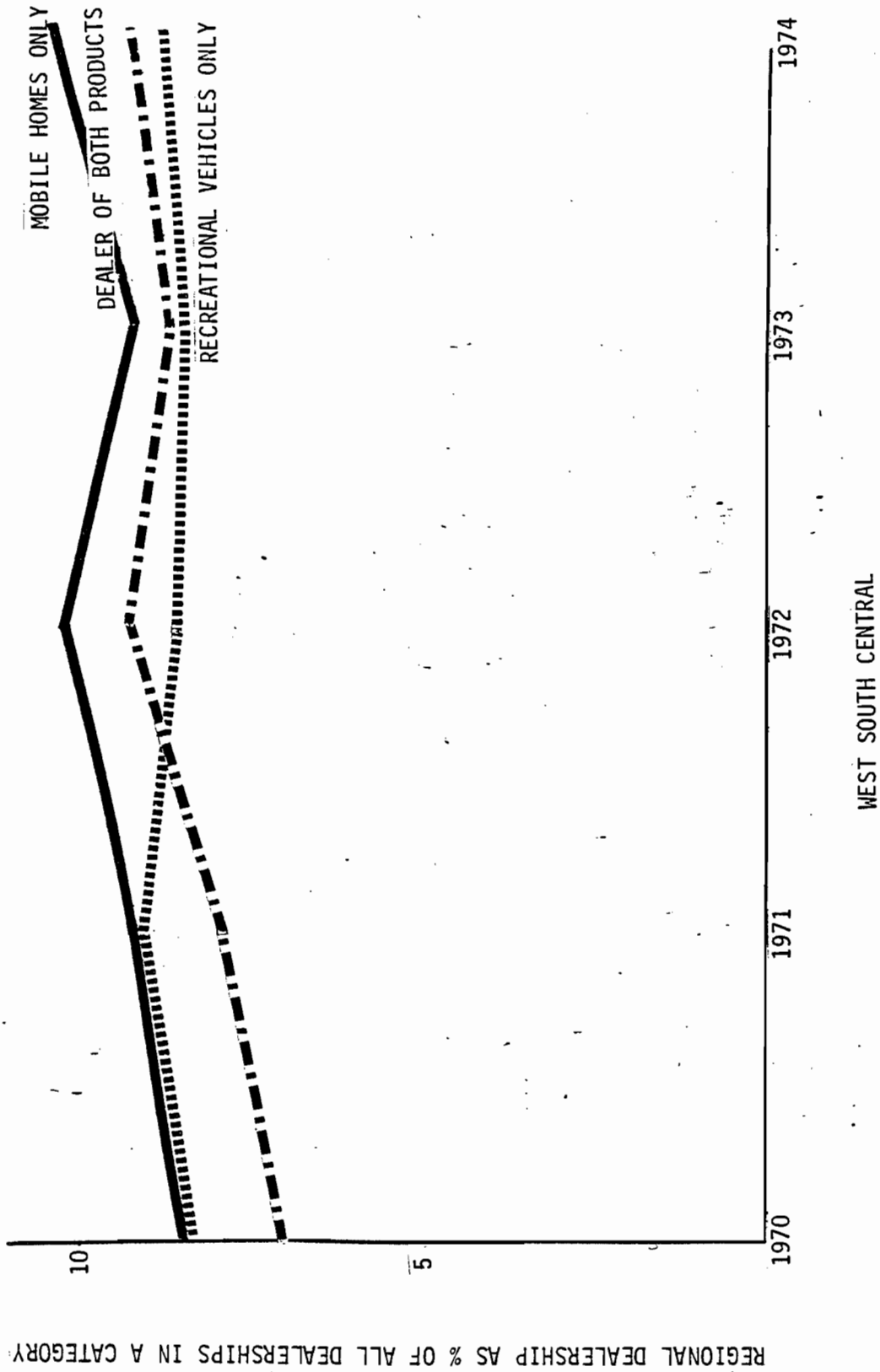


FIGURE 11: REGIONAL CHANGES IN THE DIFFERENT TYPES OF DEALERSHIPS, 1970-1974 AS PERCENTAGE OF EACH NATIONAL CATEGORY

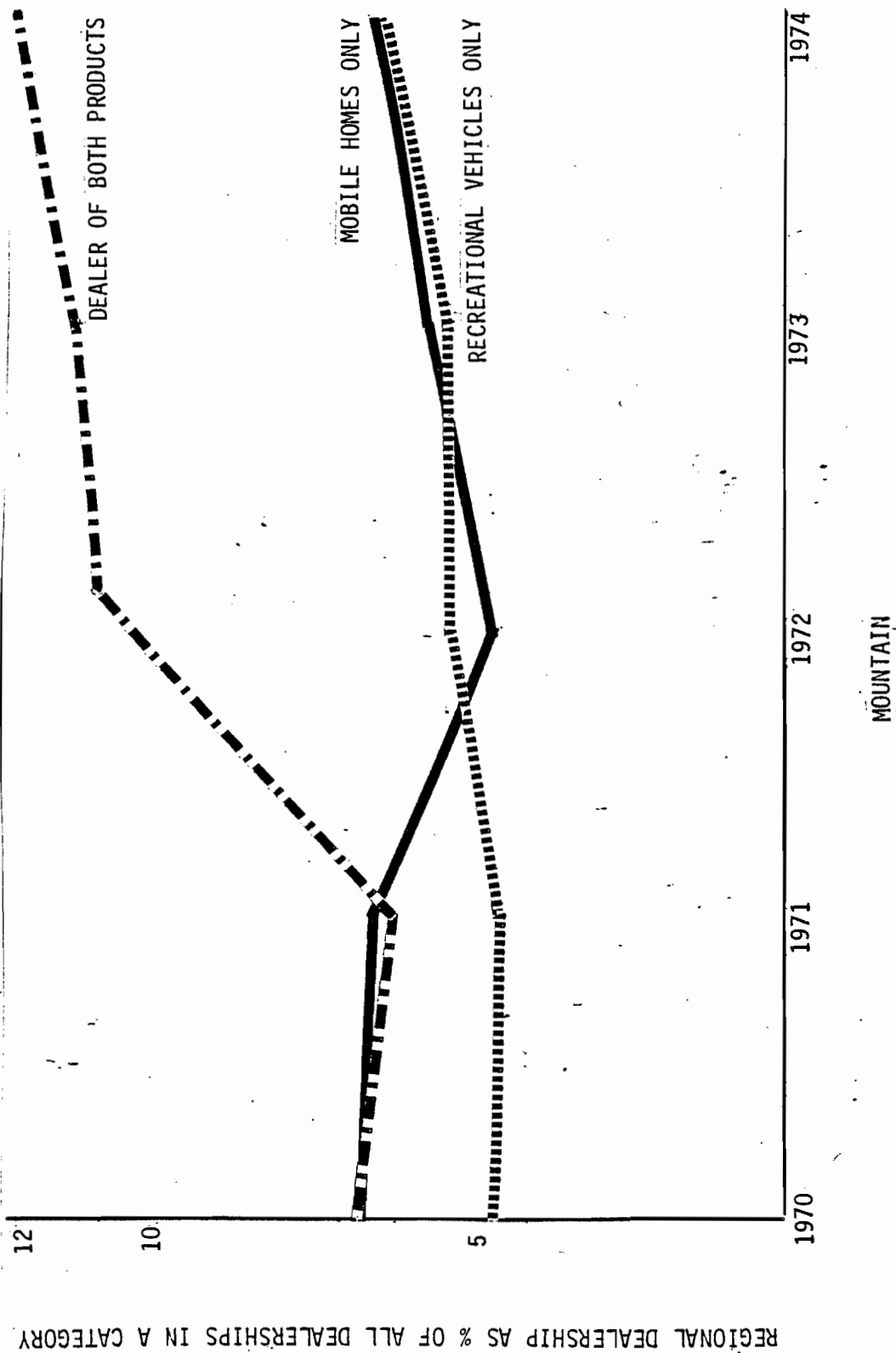


FIGURE 12: REGIONAL CHANGES IN THE DIFFERENT TYPES OF DEALERSHIPS, 1970-1974 AS PERCENTAGE OF EACH NATIONAL CATEGORY

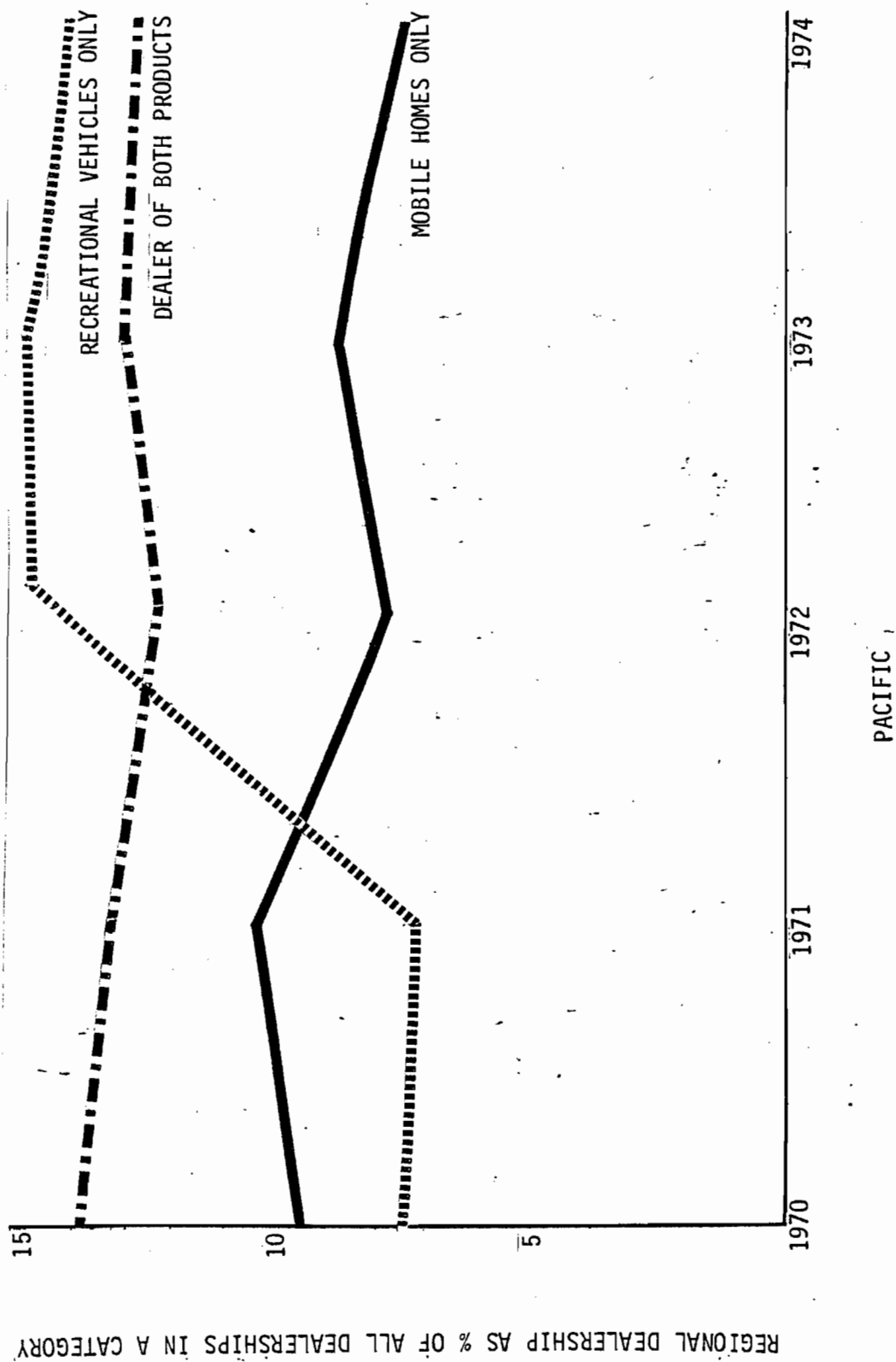


FIGURE 13: REGIONAL CHANGES IN THE DIFFERENT TYPES OF DEALERSHIPS, 1970-1974 AS PERCENTAGE OF EACH NATIONAL CATEGORY

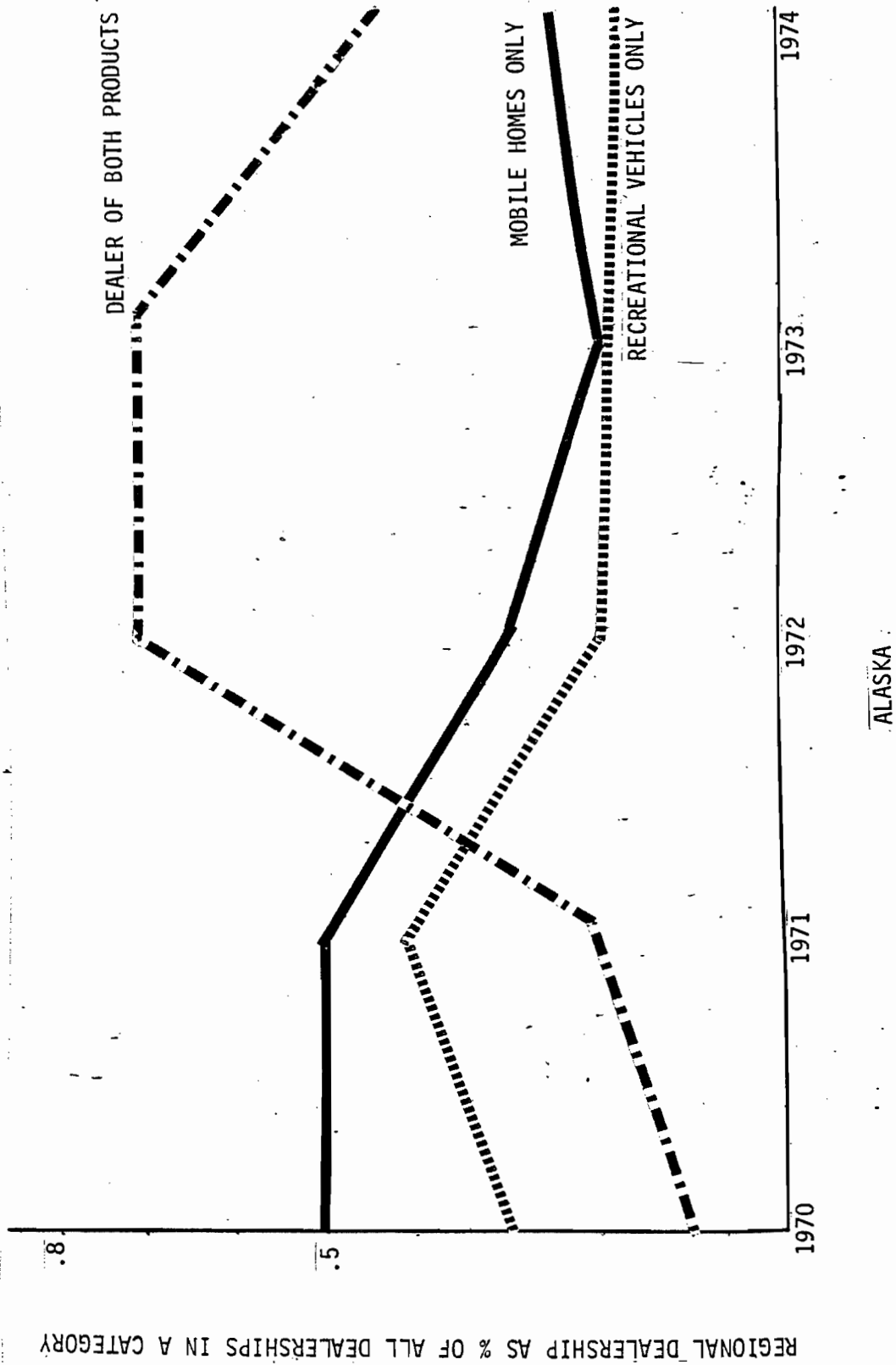


FIGURE 14: REGIONAL CHANGES IN THE DIFFERENT TYPES OF DEALERSHIPS, 1970-1974 AS PERCENTAGE OF EACH NATIONAL CATEGORY

3.

1974 Profile of Distribution Outlets,
State-by-State

Figures 15 - 18 are taken from the following source:

Compiled from ACS Directory of Mobile Homes and Recreational Vehicle Dealers in the U.S. and Canada, 1974. Published by: Automotive Credit Service.

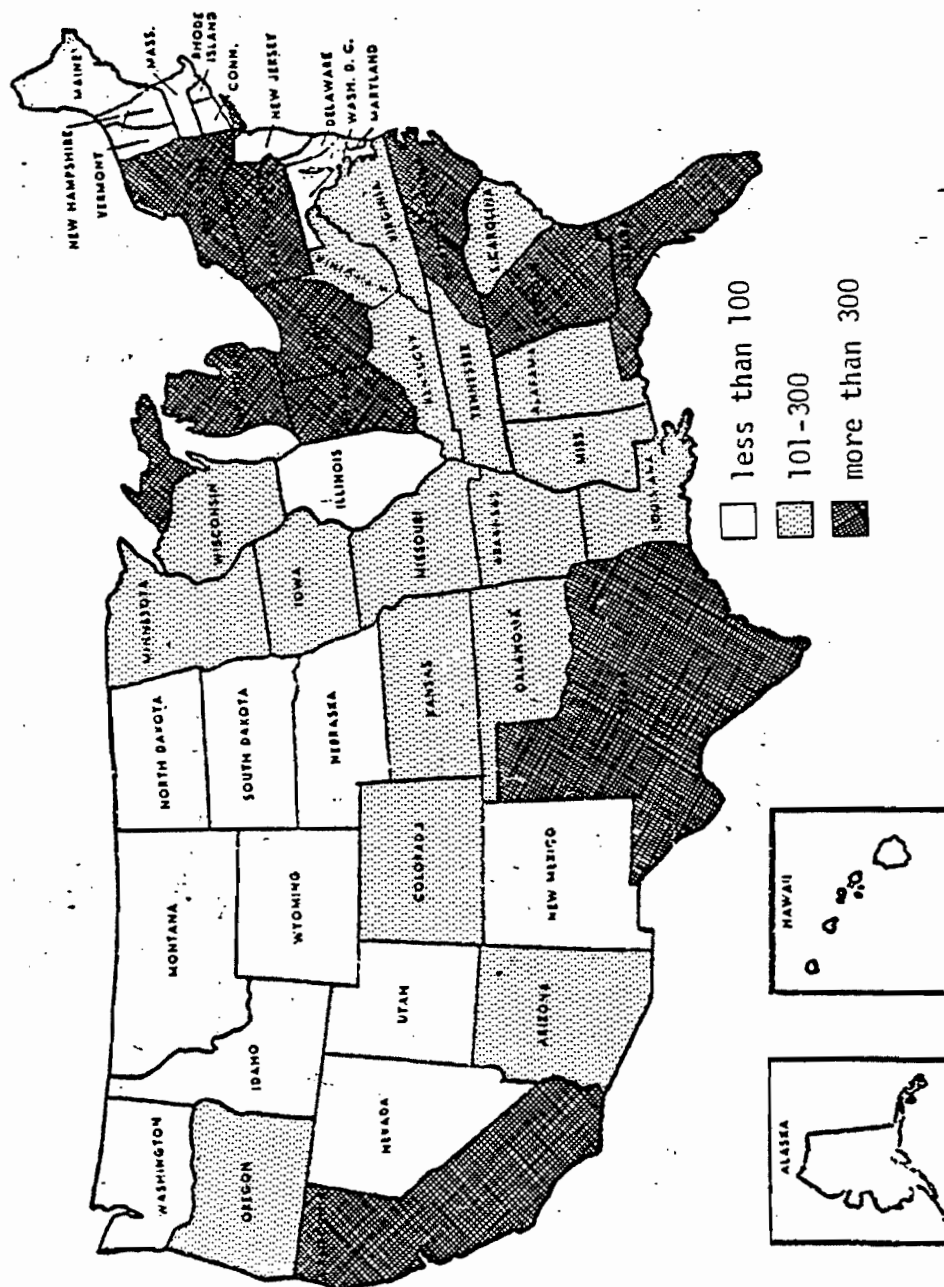


FIGURE 15: DISTRIBUTION OF ALL DISTRIBUTION OUTLETS SELLING MOBILE HOMES, ONLY, BY STATE, 1974

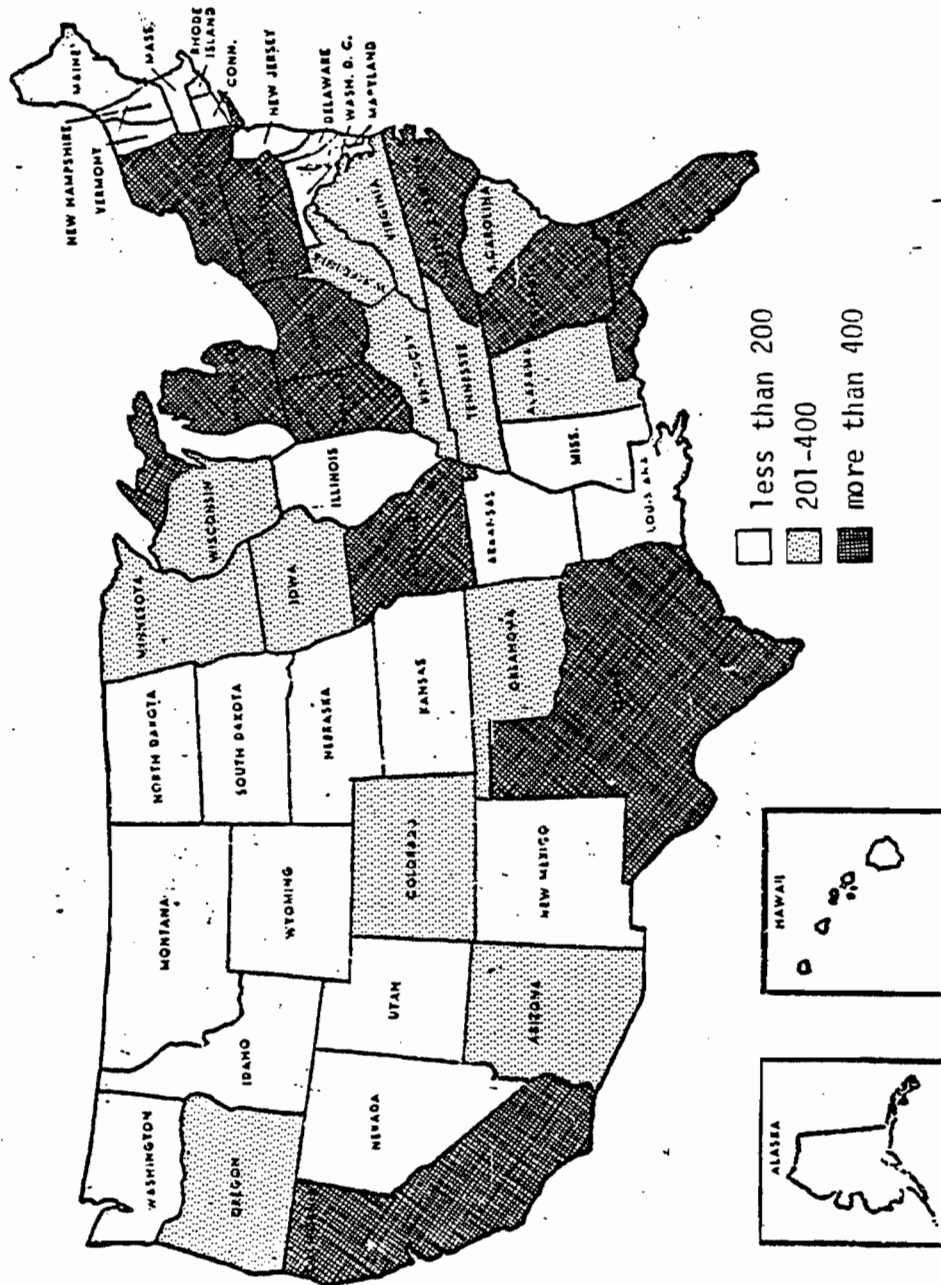


FIGURE 16: DISTRIBUTION OF ALL DISTRIBUTION OUTLETS SELLING EITHER MOBILE HOMES ONLY OR BOTH MOBILE HOMES AND RECREATIONAL VEHICLES, BY STATE, 1974

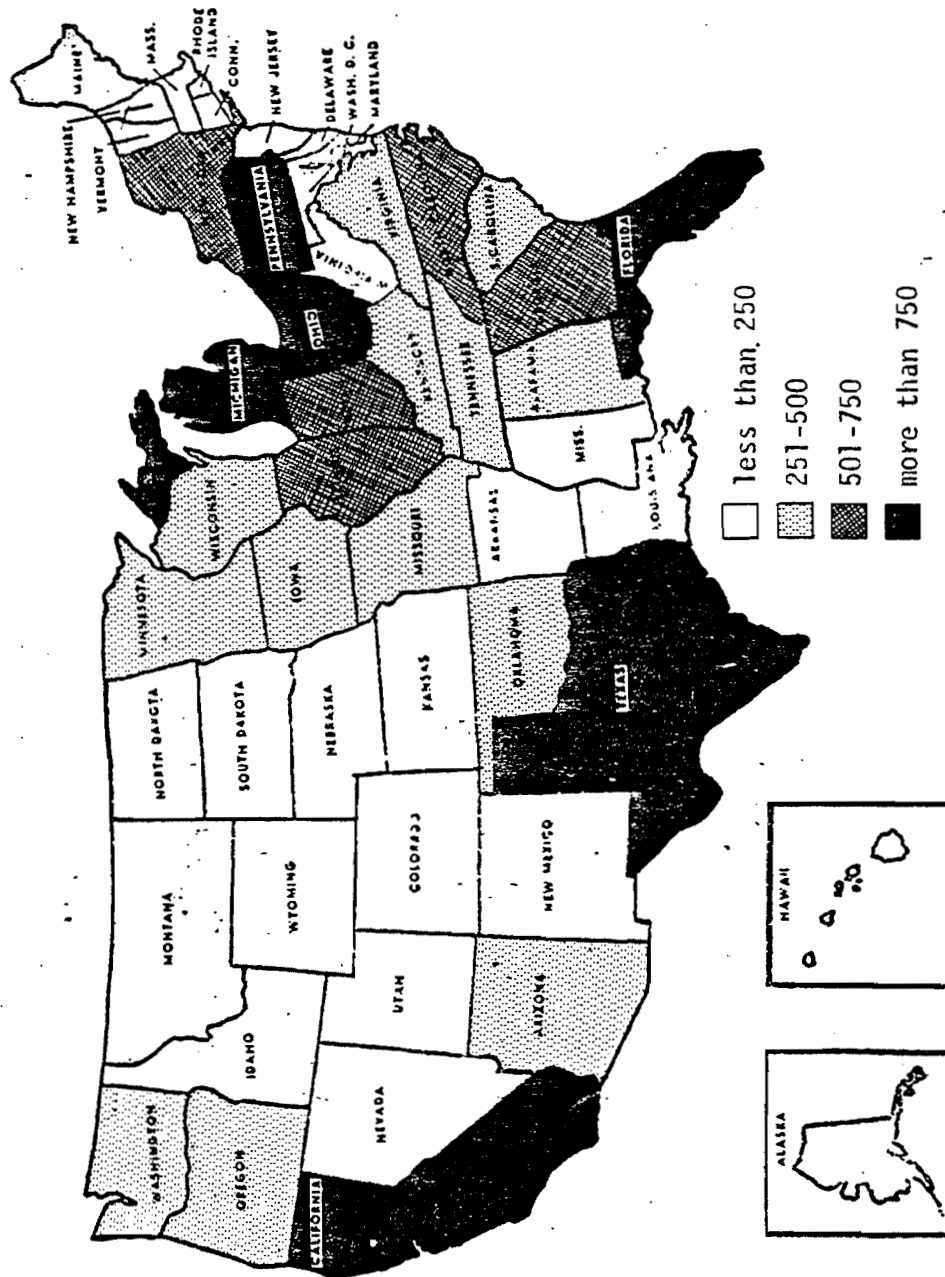


FIGURE 17: DISTRIBUTION OF ALL DISTRIBUTION OUTLETS SELLING MOBILE HOMES ONLY, RECREATIONAL VEHICLES ONLY, AND BOTH PRODUCTS, BY STATE, 1974

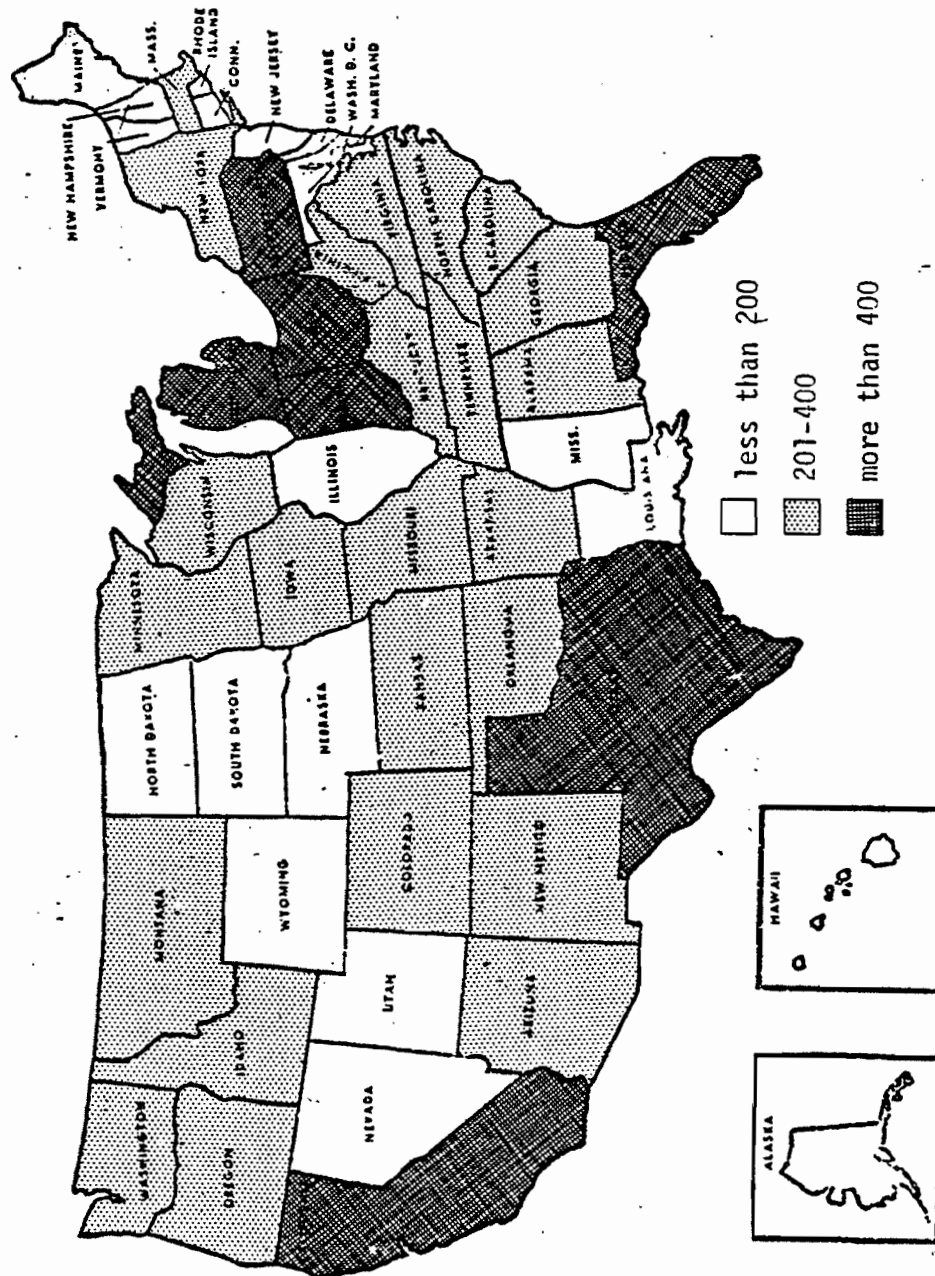


FIGURE 18: DISTRIBUTION OF ALL DISTRIBUTION OUTLETS SELLING BOTH MOBILE HOMES AND RECREATIONAL VEHICLES, BY STATE, 1974

B.

DEALER FINANCING

The purpose of this appendix is to explain the relationship between add-on and simple interest rates.

a. Add-on interest:

Basically, add-on interest treats the principal as if it were outstanding in its entirety throughout the life of the loan. The total interest charge is "added on" at the inception of the loan, and the loan is amortized in a series of even monthly payments. For example, suppose that a mobile home buyer borrows \$10,000 at an annual interest rate of 7-1/2 percent add-on, to be repaid over a term of 10 years. The principal is

\$10,000.

The total interest charge is

$$\$10,000 \times \frac{.075}{\text{year}} \times 10 \text{ years} = \$7,500$$

which, when "added on" to the principal, gives an amount to be financed of

$$\begin{array}{r} \$10,000 \\ + 7,500 \\ \hline \$17,500. \end{array}$$

This amount then amortized over the 10-year term of the loan in even monthly payments of

$$\$17,500 \div 120 \text{ months} = \$145.83$$

b. The simple annual interest rate can be approximated by the following formula:

$$R = \frac{r(2n)}{n+1}$$

where

R = simple annual interest rate

r = add-on interest rate

n = number of equal monthly payments

In the example,

$$R = \frac{.075(240)}{121} = .149 = 14.9\%$$

Thus, for a term of 10 years, a 7-1/2 percent annual add-on interest rate is approximately equal to an annual simple interest rate of 14.9 percent.

C.

CONSUMER FINANCING

Publicly-Owned Mobile Home Dealerships PuMHD

	Year Incorporated	Other Business?
Amcourt Systems, Inc.	1969	Yes
Canaveral International Corp.	1960	Yes
Conner Homes Corp.	1964	No
Michigan Mobile Homes Corp.	1969	No
MoAmCo Corp.	1963	No
Mobile Home Dynamics, Inc.	1969	No
Mobile Home Industries, Inc.	1968	No
Mobile Homes - Multiplex Corp.	1968	No
Modern Diversified Industries, Inc.	1956	Yes
National Mobile Development Co.	1968	Yes
Rex-Noreco, Inc.	1967	No
Vindale Corp.	1955	Yes
Vintage Enterprises, Inc.	1958	No
Other Dealerships & Retailers	ODL	
	Year Incorporated	Business
American Marine, Inc.	1970	sells diesel powered cruisers and pleasure boats.
Kampgrounds of America, Inc.	1960	sells recreational vehicles.
Motor Homes of America, Inc.	1964	sells travel trailers, camper coaches and other recreational vehicles.
Friendly Frost, Inc.	1943	sells major appliance e.g., coin operated laundry equipment.
Forest City Enterprises, Inc.	1960	sells lumber products and building materials.
Reliable Stores Corp.	1925	sells furniture and jewelry.
Silo, Inc.	1958	sells major home appliances.

D.

MAJOR DATA BASES:
THE PMHI DEALER SURVEY
(PMHI/DS)

1.

The Survey

The dealer Survey questionnaire prepared by Project Mobile Home Industry was designed to be as comprehensive as possible, given the constraint that a request for too much information and detail would likely yield an unduly low response rate. With this goal in mind, the Dealer Survey was divided into the following six sections with one page devoted to each: (1) co-ownership, organization, and size; (2) dealer-manufacturer relations; (3) dealer-park relations; (4) marketing; (5) finance; (6) cost of an average-sized model. Because of the important liaison role played by the dealer between the manufacturer and the consumer, one-third of the questionnaire is devoted to these relations.

Information from previous years and estimates for future years were requested so that trends could be identified. After questions were developed, a preliminary draft was prepared and submitted to HUD. With the feedback from that agency, the OMB, and the Bureau of the Census, revisions were made. Parallel to this review process, the various questionnaire versions were extensively field-tested by the industry before the survey questionnaire was finalized.

With the help of J. Brown Hardison, a 1973 list of approximately 16,000 dealers was obtained from the Automotive Credit Service in New York City. This list contained dealers marked as selling "only mobile homes" (Type 1), "only recreational vehicles" (Type 2), "both mobile homes and recreational vehicles" (Type 3), and dealers whose operations were "not specified" (Type 4). A random 10%

sample was taken of all Type 1, Type 3, and Type 4 dealerships in each state. Type 4 dealers were included because the returns from this group were expected to shed some light on the degree of vertical and horizontal integration in the distribution system.

On June 24 and 25, 1973, the 1400 dealer survey packages were sent out (code numbers 300001 - 301400). After the cut-off date, October 15, the rate of return was computed. Of the 1400 sent out, 1310 dealers received the package (90 of the survey packages were returned marked "wrong address" or "out of business"). One hundred-seventeen responded yielding an 8.93% rate of return. Out of those, 71 were codeable for computer analysis. (Note that a follow-up survey for dealer non-respondents was not developed since it was expected that the 1972 Economic Census (Census of Retail Trade) would prove more valuable in estimating the representativeness of the original survey.)

To guarantee that all information would remain confidential, a security system was implemented. Each entry on the mailing list of dealers was given a code number which matched the number stamped on its otherwise unmarked questionnaire. This was done to insure anonymity once PMHI finished its analysis. To insure confidentiality throughout the time that the surveys were being analyzed at PMHI, they were stored in a locked cabinet, accessible only to authorized personnel.

A copy of the Dealer Survey questionnaire is attached.

2.

Statistical Testing of Representativeness

At the time of completion of this report the results of the "1972 Census of Retail Trade" had not yet been completely released. This data base, therefore, could not be used for test purposes. The statistical universe to which PMHI's Dealer sample was compared was all dealers of types 1 ("mobile home only"), 3 ("mobile home and recreational vehicles"), and 4 ("not specified"). Summary statistics for these dealers were taken from the Automotive Credit Services' Mobile Home and Recreational Vehicle Dealers of the U.S. and Canada. The universe included a total of 13,501 dealers.

The standard procedure for testing involved two steps: (1) Compiling a list of common denominators between the information available for the universe and the information in the PMHI/DS questionnaire, and (2) then, selecting for testing all variables which were of basic importance and for which there were a sufficient number of responses in the PMHI/DS sample.

Only two items fit these criteria. They are size distribution and type distribution. The tests are discussed below.

Size Distribution

Size is defined in terms of unit sales volume. In order to limit size testing to mobile homes only (to avoid confusion with recreational vehicles), PMHI compared only Type 1 dealership sales volumes.

For PMHI data, a computer program was used to select and report sales for companies which sold only mobile homes. Corresponding to classifications used in the Automotive Credit Service Directory for the universe, PMHI data were classified into sales of 0 - 50 units and 51 - 100+ units. The comparison is shown in the chart below:

	0-50 Units	51-100+ Units	Total
ACS National	807	1,098	1,905
Expected for 41 (Explanation Below)	17.37	23.63	41
Real No., PMHI	18	23	41

"Expected for 41" means the number one would expect in the category if the total number of companies were 41 (# of PMHI companies which had data on this question); the proportion was the same as in the ACS national data.

Using the Chi-square test of representativeness of distribution for these categories, χ^2 (Chi-squared) = 0.040 for 1 degree of freedom; $p = 0.1 < p < 0.25$. Thus the hypothesis of bias (non-representativeness) can be rejected at the 0.25 level or stronger.

Thus, although representativeness is not established to a statistically significant ($p < .05$) level, representativeness is given moderately strong support.

Dealer Type Distribution

The PMHI/DS distribution between Type 1 ("mobile homes only") and Type 3 ("mobile homes and recreational vehicles") was compared to

the equivalent distribution for ACS, the latter being compiled from summary statistics provided to PMHI by ACS. The comparative distribution is shown below:

	Type 1	Type 3	Total
ACS National	9086 (67.3%)	4415 (32.7%)	13501
Expected for 60 (Explanation Below)	40.38 (67.3%)	19.62 (32.7%)	60
Real No. PMHI	45 (75%)	15 (25%)	60

"Expected for 60" is the distribution one would expect if one had the # of companies in the PMHI sample (60), but the proportions of Type 1 to Type 3 were the same as those of the ACS national data.

The Chi-square test results in $\chi^2 = 1.611$ with 1 degree of freedom and $p = 0.8$. Thus, bias is not demonstrated to a significant level.

Conclusion

Although testing by sales volume and type of dealership did not lead to conclusive results, representativeness was, on balance, given moderate but positive support.

3.

Copy of the PMHI/DS Questionnaire

QUESTIONNAIREPROTECTION OF CONFIDENTIAL INFORMATION

TO ENSURE THAT PROPRIETARY INFORMATION IS HANDLED IN STRICTEST CONFIDENCE, THE QUESTIONNAIRE HAS BEEN GIVEN A CONTROL NUMBER. THIS AND ADDITIONAL PROTECTIVE MECHANISMS THAT ARE BEING ESTABLISHED ASSURE THAT IT WILL NOT BE POSSIBLE TO ASSOCIATE ANY RESPONSE WITH A SPECIFIC COMPANY.

Notes: For the purpose of this questionnaire "company" is defined to include only those subsidiaries or divisions involved in the sale of mobile homes. Diversified firms are requested to exclude all subsidiaries which do not sell mobile homes.

For annual data, please use calendar year or, where necessary, the 12-month period most closely corresponding to the calendar year. Please indicate below which 12-month period you will be using if you are not using calendar year figures. 12-Month period used: _____.

1) In what year did your company first enter the mobile home dealership business? _____

2) What is the industry background of the founder of your company? (Check one)
1. Recreational Vehicle Dealership ☐; 2. Automobile Dealership ☐; 3. Mobile Home Manufacturer ☐; 4. Mobile Home Park Development/Operation ☐; 5. Other types of Land Development ☐; 6. Real Estate Sales ☐; 7. Other? (Please explain): _____

3) Is your company (Check one)
1. Unincorporated? ☐; 2. Incorporated, but privately held? ☐; 3. Incorporated, and publicly traded? ☐.

4) Please list all your lot locations selling mobile homes, giving for each lot 1972 dollar sales volume, the states in which the plants are located which ship units to each lot, as well as the states into which each lot ships units, apart from your own. (If necessary, continue on the back of the page.)

Location (State Only)	1972 Sales	States Where the Plants Which Ship Units to Each Lot Are Located	States Into Which Most Of Your Sales From Each Lot Are Shipped
a.	\$		
b.	\$		
c.	\$		
d.	\$		
e.	\$		

5) Do you rent or lease mobile units? 1. Yes ☐; 2. No ☐. If Yes, are these units used for 1. housing purposes? ☐; 2. for non-housing purposes? ☐.

6) <u>Company Size</u>	<u>1972</u>	<u>1967</u>	<u>1963</u>	<u>1974 Estimate</u>
<u>(All lots, in thousands of dollars)</u>				
a. No. of sales lots				
b. Total annual sales, all items	\$	\$	\$	\$
c. Average inventory level, mobile homes	\$	\$	\$	\$
d. Sales volume, single wides and expandables	\$	\$	\$	\$
e. Sales volume, double and triple wides	\$	\$	\$	\$
f. Sales volume, used mobile homes	\$	\$	\$	\$
g. Sales volume, recreational vehicles	\$	\$	\$	\$
h. Sales volume, special units	\$	\$	\$	\$
i. Sales volume, accessories	\$	\$	\$	\$
j. No. of single wides and expandables sold				
k. Double and triple wides sold, no. of hitches				
l. No. of used mobile homes sold				

- 7) Are you (or any subsidiary of your parent company) now in or planning to expand into these activities? (Check one or more)

	Now In - Year Entered		Plan to Enter - Year	
a. Mobile home park operation	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____
b. Mobile home park development	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____
c. Mobile home consumer financing	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____
d. Mobile home manufacturing	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____
e. Factory produced non-mobile housing	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____
f. Factory produced non-residential shelter	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____
g. On-site residential construction	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____
h. On-site non-residential construction	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____
i. Production of building supplies	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____
j. Distribution of building supplies	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____
k. Recreational vehicles	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____
l. Other (Please explain): _____	<input type="checkbox"/>	_____	<input type="checkbox"/>	_____

DEALER-MANUFACTURER RELATIONS

- 8) How many manufacturers do you represent? _____
- 9) Do you foresee expanding or decreasing the number of manufacturers you represent in the future? (Please explain): _____
-
- 10) With how many of the manufacturers you represent, if any, do you have formal franchise arrangements? _____
- 11) What share of your total mobile home sales do franchised sales represent? _____%.
- 12) What is the average delivery time from the manufacturer for an order? _____ days.
- 13) How much is this lengthened, on the average, by custom orders? _____ days.
- 14) What share of the new mobile home units you sold in 1972 came directly from inventory already on your lot (i.e., did not require ordering from the manufacturer)? _____%.
- 15) Do you follow manufacturer's suggested retail prices? 1. Yes ☐; 2. No ☐.
- 16) If No,
- How do you change them? (Check one): 1. Upwards ☐; 2. Downwards ☐.
 - What is the margin by which you change manufacturer's suggested retail prices? (Check one): 1. 1% to 25% ☐; 2. 26% to 50% ☐; 3. 51% to 75% ☐; 4. 76% to 100% ☐; 5. Over 100% ☐.
 - What factors influence your decision to change these prices? (Please explain): _____
-
- 17) Warranties and Services
- How many of the manufacturers which you represent offer warranties? _____
 - What is the length of the manufacturer warranty? _____
 - What does the manufacturer warranty cover? (Please explain): _____
 - Do you offer a warranty over and above those offered by manufacturers? 1. Yes ☐; 2. No ☐.
 - If Yes, what is the length of the warranty? _____
 - What does your warranty cover? _____
 - What are your major service problems? (Please explain): _____
-

DEALER-PARK RELATIONS

- 18) What share of the number of mobile homes you sold went into:
- | | 1972 | 1967
(if applicable) | 1963 |
|-----------------------------------|---------|-------------------------|---------|
| a. Mobile home parks? | _____ % | _____ % | _____ % |
| b. Individual lots? | _____ % | _____ % | _____ % |
| c. Other? (Please specify): _____ | _____ % | _____ % | _____ % |
| | 100 % | 100 % | 100 % |
- 19) If you have an ownership interest in a mobile home park, please answer the following questions:
- In how many mobile home parks do you have an ownership interest? _____
 - In how many of these is your interest partial? _____
 - In how many of these is your interest complete? _____
 - What is the total site capacity of these parks? _____ spaces.
 - What share of your mobile home sales are to customers with sites in your parks? _____ %.
 - Do you accept tenants to the parks only if they buy units from you? 1. Yes ☐; 2. No ☐.
 - What do you expect your own mobile home park capacity to be in terms of mobile home sites by 1974? _____ sites.
- 20) Do you help prospective buyers find park sites other than in parks owned by you? (Please explain): _____
- 21) Do you give financial incentives to managers of parks not owned by you for the placement of mobile homes sold by you? 1. Yes ☐; 2. No ☐. If Yes, how much per annum? \$_____.
- 22) How many additional mobile home sales could you have made in 1972 had there been sufficient space available either in your own or other parks? _____ units.

MARKETING

- 23) Product Line
Breakdown of retail sales according to the size of the unit, 1972.

<u>Units Retailing for:</u>	<u>Number of Units</u>			
	<u>12' wides</u>	<u>14' wides</u>	<u>Expandables</u>	<u>Double wides</u>
Under \$4000	_____	_____	_____	_____
\$4000 to \$5999	_____	_____	_____	_____
\$6000 to \$7999	_____	_____	_____	_____
\$8000 to \$9999	_____	_____	_____	_____
\$10,000 to \$11,999	_____	_____	_____	_____
\$12,000 to \$13,999	_____	_____	_____	_____
\$14,000 and over	_____	_____	_____	_____

- 24) Advertising
- How large was your advertising budget for 1972? \$_____.

b. What is your advertising breakdown by media?

Medium	Share of Budget
Newspapers	_____ %
Television	_____ %
Radio	_____ %
Other (Please specify) _____	_____ %
	100 %

25) Brand Name Loyalty

- a. Has brand name loyalty developed towards certain lines? 1. Yes ☐; 2. No ☐.
- b. If Yes, are these lines produced by nationally known companies? 1. Yes ☐; 2. No ☐.
- c. Do you use manufacturer brand names in your advertising? 1. Yes ☐; 2. No ☐.
- d. If Yes, in which media? _____
- e. What share of the customers already owning mobile homes request a product by the same manufacturer? _____ %.
- f. What share of your customers request a product by a brand name? _____ %.

26) Trade-Ins

- a. What share of the number of new mobile homes you sell involve used mobile homes as trade-ins? _____ %.
- b. What is the average trade-in price you pay for a used mobile home? \$ _____.
- c. What is the average age of the traded mobile home? _____ years.
- d. What is the average selling price of the trade-ins you sell? \$ _____.
- e. What items other than mobile homes do you accept as trade-ins? (Please explain).

27) Sales Costs

- a. How much are the costs of decorating a new unit prior to a sale? \$ _____.
- b. What are your sales costs per new unit, including overhead and commissions? \$ _____.
- c. How much is the average cost to you for refurbishing and refurnishing a used unit? \$ _____.

28) Transportation

Transportation from dealer lot to site (1972 data):

Means	Share of Total Units Delivered	Average Cost per Mile
a. Own Truck	_____ %	\$ _____
b. Hired local service company	_____ %	\$ _____
c. Other (Please explain) _____	_____ %	\$ _____
	100 %	

29) Seasonality

- a. How many lines (brand names) did you carry in inventory at peak season in 1972? _____
- b. Seasonal Fluctuations, 1972:

	Month	Value	No. of Units	No. of Different Models
1. Highest monthly sales, mobile home units only	_____	\$ _____	_____	_____
2. Lowest monthly sales, mobile home units only	_____	\$ _____	_____	_____
3. Highest monthly inventory, mobile home units only (@ FOB factory prices)	_____	\$ _____	_____	_____
4. Lowest monthly inventory, mobile home units only (@ FOB factory prices)	_____	\$ _____	_____	_____

- 30) What means do you use to get leads on potential buyers? (Please explain) _____
- 31) How do you follow-up on such leads? (Please explain) _____
- 32) What are the two major reasons you fail to make a potential sale? (Please explain). _____

FINANCE

- 33) Please give the following information concerning your total expenditures for land, equipment, etc.

<u>Expenditure</u>	<u>Actual 1972</u>		<u>Planned 1974</u>	
	<u>Purchase</u>	<u>Lease</u>	<u>Purchase</u>	<u>Lease</u>
a. Land	\$ _____	\$ _____	\$ _____	\$ _____
b. Buildings	\$ _____	\$ _____	\$ _____	\$ _____
c. Vehicles	\$ _____	\$ _____	\$ _____	\$ _____
d. Other equipment (Please explain)	\$ _____	\$ _____	\$ _____	\$ _____
Total Expenditures	\$ _____	\$ _____	\$ _____	\$ _____

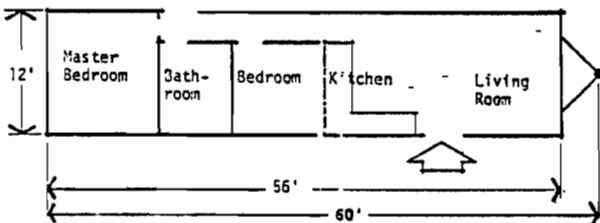
- 34) What percentage, if any, of the mobile homes you had in inventory in 1972 were on consignment from manufacturers? _____%.
- 35) What period of payment do manufacturers generally allow when you order mobile homes on consignment? _____.
- 36) What percentage of the units you sold in 1972 were floor planned? _____%.
- 37) What is the period of time before a curtailment is allowed by your finance source? _____.
- 38) a. How many finance agencies do you deal with for wholesale financing (floor planning)? _____.
b. How many of these sources do you also deal with for retail financing? _____.
- 39) How many other finance agencies do you deal with only for retail financing, and not for wholesale financing? _____.
- 40) What share of your contracts include the following clauses? 1. Recourse financing _____%; 2. Non-recourse financing _____%; 3. Repurchase agreements _____%; 4. Participating reserve _____%.
- 41) Are you familiar with the recent provisions for FHA financing, that is, 5% downpayment and 12-year term of financing? 1. Yes ☐; 2. No ☐.
- 42) If Yes, what effects do you see of this financing on your sales? (Please explain). _____
- 43) a. Are you satisfied with your current financing arrangements? 1. Yes ☐; 2. No ☐.
b. If No, please explain: _____

- 44) What is your repossession rate? ____%. Has this rate (Check one): 1. increased ☐ ; 2. decreased ☐ since 1963? By how much? ____.
- 45) If you have your own finance company, what share of your sales do you finance yourself? ____%.
- 46) PLEASE SUBMIT A COPY OF YOUR 1972 BALANCE SHEET AND INCOME STATEMENT. BE SURE TO OMIT OR BLOT OUT ANY REFERENCES TO THE CORPORATE NAME AND PLACE SO THAT YOUR ANONYMITY CAN BE GUARANTEED.

COST INFORMATION

INSTRUCTIONS FOR REMAINDER OF THIS PAGE

- A. Please select a typical average-priced model with furnishings which comes closest to the following specifications:



EXCLUDE

- 1) Total-electric unit
- 2) Options such as washers and dryers, air conditioners, dishwashers, garbage disposals, raised living rooms/kitchens/dining/ceiling or other extras

- B. BASE ALL YOUR DATA FOR THE REMAINDER OF THIS SECTION ON THE MODEL YOU HAVE SELECTED.

- 47) Model Information
- a. State where model was built: _____.
 - b. State where model was sold: _____.
 - c. Overall Model dimensions (exclude hitch), _____ feet x _____ feet.
 - d. Number of bedrooms, _____; Number of bathrooms, _____.
 - e. Total man-hours required to install and hook-up unit on the site: _____ man-hours.
 - f. Total retail selling price of model as of December 1972, \$_____.
- 48) Percentage Breakdown of Model Retail Selling Price
- | | |
|---|---------|
| a. F.O.B. Factory Price (exclude delivery cost) ----- | _____ % |
| b. Transport: Mfg. to Dealer ----- | _____ % |
| Dealer to Lot ----- | _____ % |
| c. Set-up Costs ----- | _____ % |
| d. Salesman's Commission ----- | _____ % |
| e. Advertising Costs ----- | _____ % |
| f. General and Administrative ----- | _____ % |
| g. Overhead Expenses ----- | _____ % |
| h. Floor Planning Cost ----- | _____ % |
| i. Profit (before taxes) ----- | _____ % |
| Total Selling Price ----- | 100 % |

