

by William C. Miller

**Physical Distribution of
OAK STRIP FLOORING
in 1969**



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DISTRIBUTION is an important aspect in the marketing of any forest product. For any marketing system to be effective, it must provide for the orderly and reliable distribution of the product, and it must provide for effective merchandising and promotion.

As an aid to the marketing of oak strip flooring, a study was made of the distribution process for this product, from manufacture to consumer—where the flooring came from, where it went, how much was shipped, and who handled it.

THE STUDY

In 1969 a mail questionnaire was developed for obtaining information for an analysis of the distribution process for the residential and commercial hardwood flooring industry in general. The information asked for included other hardwood strip flooring (except hard maple) and hardwood plank flooring.

The questionnaire was mailed on 27 January 1970, to all manufacturers (81) of residential hardwood flooring. Two subsequent mailings were made at 3-week intervals to those who did not respond to the previous mailings. Finally a follow-up telephone survey was made to contact those who still had not responded. The following response was obtained from the 81 manufacturers: 54 firms provided usable responses; 8 firms provided gross production data; 7 firms provided no gross production data; 12 firms were either not in business in 1969 or did not manufacture any residential or commercial flooring in 1969.

The data were grouped according to the regions and divisions used by the Bureau of Census (fig. 1). This grouping was used

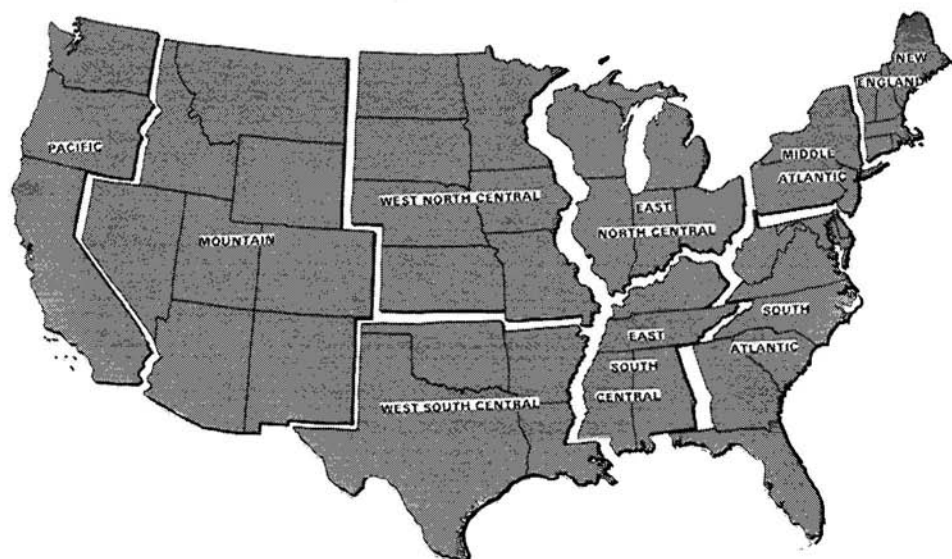


Figure 1.—Composition of regions and geographic divisions.

to facilitate comparisons with other Government data. The "production" region as used in this report is the region in which the flooring was manufactured and from which it was shipped.

Six major channels of distribution were considered in the study: (1) builders, (2) flooring subcontractors, (3) retailers, (4) wholesalers, (5) nonstocking wholesalers, and (6) agents and brokers.

RESULTS

Responses from manufacturers to the mail questionnaire provided basic information about shipment of oak strip flooring. The shipments totaled 328,049,300 board feet. Additional information was obtained on the production of 35,143,000 board feet from those who did not respond to the mailed questionnaire. These data were combined with the questionnaire shipment data to give an adjusted total of 363,192,300 board feet, which represented about 95 percent of the total 1969 shipments of oak strip flooring.

The data presented in this paper are based solely on manufacturers' records of what happened to oak strip flooring shipments through the first step of the distribution process. What happened to the flooring after this was not examined.

PRODUCTION

Oak strip flooring is produced chiefly in the Southern and Appalachian hardwood areas of the United States.

Eighty-eight percent of the flooring was produced in the East South Central, West South Central, and South Atlantic Regions (fig. 2 and table 1). Greatest production was in the East South

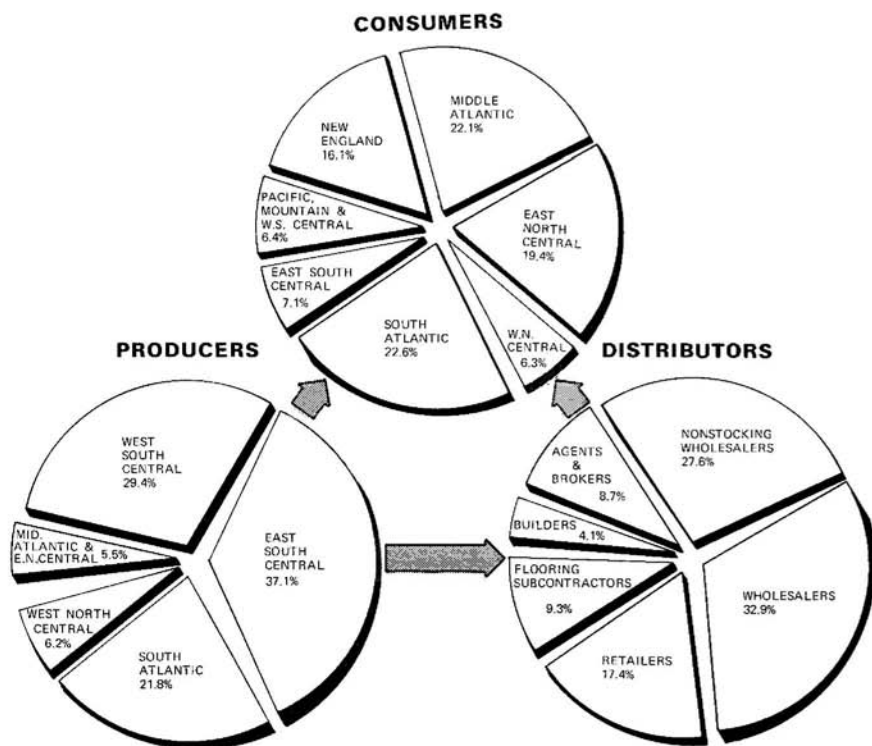


Figure 2.—Producers, consumers, and distributors of oak strip flooring in 1969.

Central Region, mainly in Tennessee and Alabama. The West South Central Region was second in production; Arkansas and Louisiana were the only producing states in this region. The South Atlantic Region was third; Virginia, Florida, and Georgia contributed the majority of the oak flooring production in that region.

Middle Atlantic and East North Central

To avoid confidential disclosure of shipment data, the data for the Middle Atlantic and East North Central production regions were combined.

Production of oak strip flooring in the Middle Atlantic and East North Central Regions accounted for about 5.5 percent (19,772,500 board feet) of the United States total (fig. 2 and table 2). Of the five regions, these regions manufactured the smallest amount of oak strip flooring.

Flooring subcontractors distributed about 56 percent of the oak strip flooring produced in these regions, and wholesalers distributed about 27 percent. Agents and brokers did not distribute any of the flooring originating in these regions.

About 29 percent of the production from the area was shipped to the West North Central and South Atlantic Regions. About 55 percent of the flooring produced stayed in the regions. A very small quantity of flooring was shipped into the West South Central Region.

West North Central

The West North Central Region produced about 6.2 percent (22,561,700 board feet) of oak strip flooring in 1969 (fig. 2 and table 2). This region ranked next to last in the production of oak flooring.

Nonstocking wholesalers were the most important distributors of flooring produced in the West North Central Region. They handled about 48 percent of the region's production. Wholesalers were the second most important distributor, handling about 32 percent of the total regional production. The majority of the

remaining flooring was handled by flooring subcontractors. Here again, as with the distribution of the Middle Atlantic and East North Central Regions' production, agents and brokers did not distribute any of the flooring produced in the West North Central Region.

About 31 percent and 26 percent, respectively, of West North Central flooring production was shipped to the East North Central and New England Regions. About 23 percent of the production stayed in the West North Central Region. A very small amount of oak strip flooring was shipped to the West South Central and Mountain Regions.

South Atlantic

About 21.8 percent (79,239,200 board feet) of the total 1969 oak strip flooring was produced in the South Atlantic Region (fig. 2 and table 2), which ranked third in production.

Agents and brokers and nonstocking wholesalers were the two most important distributors of flooring from the South Atlantic Region. They handled about 32 percent and 29 percent, respectively, of the total regional production. Retailers were third, handling about 19 percent; and builders distributed about 3 percent.

Almost 51 percent of the production was shipped to distributors in the region. The New England Region was the second largest recipient, getting about 25 percent. Less than 1 percent of the flooring produced in the South Atlantic Region was shipped to the regions west of the Mississippi River.

East South Central

The East South Central Region was the largest producer of oak strip flooring in 1969 (fig. 2 and table 2). This region accounted for about 37.1 percent (134,771,900 board feet) of the total oak flooring production.

The flooring produced within the East South Central Region was distributed primarily through wholesalers, who handled about 49 percent of the production. Retailers and nonstocking wholesalers ranked second and third as distributors of flooring. Agents and brokers handled the least amount.

The Middle Atlantic and South Atlantic Regions each received about 23 percent of the production from the East South Central Region. The East North Central Region was the next largest recipient, getting about 19 percent of the total. About 15 percent of the production was consumed in the East South Central Region, and about 10 percent was shipped into the western half of the United States.

West South Central

The production of oak strip flooring in the West South Central Region represented about 29.4 percent (106,847,000 board feet) of the total production (fig. 2 and table 2). The region ranked second in production.

Nonstocking wholesalers, wholesalers, and retailers distributed about 89 percent of the production from the region. About 46 percent was handled by nonstocking wholesalers, and 29 percent was handled by wholesalers. Builders and agents and brokers each distributed about 3 percent.

The East North Central Region was the largest consumer of flooring produced in the West South Central Region, using about 29 percent. The Middle Atlantic and New England Regions ranked second and third in consumption, with about 25 percent and 16 percent, respectively. About 3 percent of the production was consumed in the region.

CHANNELS OF DISTRIBUTION

The distribution channels considered fall into two groups. In the first group, builders, flooring subcontractors, retailers, and wholesalers buy the flooring from the manufacturer and actually take title to it. This group handled 64 percent of the oak strip flooring.

The second group includes nonstocking wholesalers, agents, and brokers who act as marketing intermediaries. Usually, this group is paid either a percentage of the value of the flooring sold or a fixed fee per unit of flooring sold and does not take title to the flooring. About 36 percent of the flooring was sold through intermediaries.

Wholesalers handled 33 percent of the oak strip flooring produced in 1969 (fig. 2 and table 3). Nonstocking wholesalers and retailers ranked second and third.

Builders

Builders received the smallest amount of oak strip flooring from manufacturers in 1969 (fig. 2 and table 4). They handled only about 4.1 percent (14,890,900 board feet) of the total oak strip flooring production.

About 95 percent of the oak flooring distributed by builders was shipped from the East South Central, South Atlantic, and West South Central Regions. About 60 percent originated in the East South Central Region, 19 percent originated in the South Atlantic Region, and 17 percent originated in the West South Central Region. The West North Central Region supplied less than 1 percent of the flooring distributed by builders.

The Middle Atlantic Region consumed about 30 percent, the South Atlantic Region consumed 25 percent, and the East South Central Region consumed 24 percent of the total flooring distributed by builders in the Mountain and Pacific Regions.

Flooring Subcontractors

About 9.3 percent (33,776,900 board feet) of the total oak strip flooring production was distributed by flooring subcontractors (fig. 2 and table 4), who ranked fourth in volume of flooring distributed.

About 81 percent of the oak flooring distributed by flooring subcontractors originated in the Middle Atlantic and East North Central, East South Central, and West South Central Regions. About 36 percent came from the Middle Atlantic and East North Central Regions, 29 percent came from the East South Central Region, and 16 percent came from the West South Central Region. The remainder was manufactured in the South Atlantic and West North Central Regions—10 percent and 9 percent, respectively.

About one-half of the oak flooring distributed by flooring subcontractors was consumed in the Middle Atlantic and West North

Central Regions. The Middle Atlantic Region consumed about 29 percent, the East North Central Region consumed about 20 percent, and the South Atlantic Region consumed about 11 percent. A little more than 1 percent was distributed to each of the West South Central and Mountain Regions.

Retailers

Retailers ranked as the third largest type of distributor of oak strip flooring (fig. 2 and table 4), handling about 17.4 percent (63,195,400 board feet) of the total.

The East South Central Region shipped about 49 percent of the oak flooring handled by retailers, and the South Atlantic and West South Central Regions each shipped 23 to 25 percent. Retailers distributed very little flooring from either the Middle Atlantic and East North Central Regions or the West North Central Region.

Nearly 56 percent of the flooring handled by retailers was consumed in the South Atlantic Region. The East North Central and East South Central Regions each consumed about 15 percent. Less than 5 percent was consumed in the regions west of the Mississippi River.

Wholesalers

The wholesalers distributed the largest volume of oak strip flooring in 1969 (fig. 2 and table 4). They handled about 32.9 percent (119,450,300 board feet) of the total production of oak strip flooring.

About 58 percent of the flooring distributed by wholesalers was shipped from the East South Central Region, and about 24 percent was shipped from the West South Central Region. The other three regions shipped between 4 and 8 percent each.

About 29 percent of the oak strip flooring distributed by wholesalers was consumed in the Middle Atlantic Region, about 22 percent was consumed in the East North Central Region, and more than 14 percent was consumed in the New England Region. About 1 to 3 percent was consumed in the West South Central and Mountain Regions.

Nonstocking Wholesalers

Nonstocking wholesalers ranked second as distributors of oak strip flooring in 1969 (fig. 2 and table 4). They handled about 27.6 percent (100,281,100 board feet) of the oak strip flooring production.

About 46 percent of the flooring distributed by nonstocking wholesalers was manufactured in the West South Central Region. Both the South Atlantic Region and the East South Central Region provided 22 to 24 percent of the total, respectively. Less than 1 percent of the flooring was provided by the Middle Atlantic and East North Central Regions.

The Middle Atlantic, East North Central, South Atlantic, and New England Regions consumed about 88 percent of the oak strip flooring distributed by nonstocking wholesalers. About 24 percent was consumed in the Middle Atlantic Region; 22 to 23 percent was consumed in the East North Central Region and the South Atlantic Region. Less than 10 percent was consumed in the regions west of the Mississippi River.

Agents and Brokers

Agents and brokers distributed about 8.7 percent (31,597,700 board feet) of the total oak strip flooring production. Agents and brokers ranked next to last as distributors of flooring (fig. 2 and table 4).

The South Atlantic Region produced about 82 percent of the flooring distributed by agents and brokers. The other 18 percent was produced in the East South Central and West South Central Regions.

About 53 percent of the flooring distributed by agents and brokers was consumed in the New England Region, about 18 percent was consumed in the South Atlantic Region, and about 11 percent was consumed in the Middle Atlantic Region. Only 2 to 3 percent was consumed in the regions in the western half of the United States.

CONSUMPTION

In the past, the eastern half of the United States has consumed the greatest volume of oak strip flooring because of the joist-type of residential construction used in the area. More than 87 percent of the oak strip flooring shipments (fig. 2 and table 5) was consumed east of the Mississippi River. The South Atlantic, Middle Atlantic, East North Central, and New England Regions consumed about 80 percent of that total. A relatively small amount of flooring was consumed in each of the other regions.

New England

Consumption in the New England Region was about 16.1 percent—58,474,000 board feet (fig. 2 and table 6) of the total United States consumption of oak strip flooring.

About 35 percent of the flooring consumed was shipped from the South Atlantic Region. The majority of the remaining shipments into New England came from the East South Central and West South Central Regions.

Nonstocking wholesalers distributed about 34 percent of the total flooring consumed in New England, and wholesalers distributed about 30 percent. Only a little over 1 percent of the flooring was distributed by flooring subcontractors.

Middle Atlantic

Consumption of oak strip flooring in the Middle Atlantic Region represented 22.1 percent of the total United States consumption—80,265,500 board feet (fig. 2 and table 6). About 40 percent of this flooring was shipped from the East South Central Region. Another 46 percent was shipped from the South Atlantic and West South Central Regions.

About 81 percent of the shipments from Middle Atlantic and East South Central Regions was distributed by flooring subcontractors (table 6). Agents and brokers were almost as important as wholesalers and nonstocking wholesalers in the handling of shipments from the South Atlantic Region. However, for the region as a whole, wholesalers distributed about 43 per-

cent of the flooring consumed in the region, and nonstocking wholesalers distributed about 30 percent, thereby making these two categories of distributors dominant in the region.

East North Central

About 89 percent of the 70,459,300 board feet (about 19.4 percent of the total United States consumption) of the oak strip flooring consumed in the East North Central Region was shipped from the South Atlantic, East South Central and West South Central Regions (fig. 2 and table 6).

Agents and brokers were the most important distributors of shipments from the South Atlantic Region, whereas the nonstocking wholesalers were most important in the handling of shipments from the West North Central Region (table 6). Builders, on the other hand, distributed the least volume. However, for the region as a whole, about 38 percent of the shipments into the region were distributed by wholesalers, thereby making them the dominant distributors in the region.

West North Central

The West North Central Region consumed 6.3 percent (22,881,100 board feet) of the total United States consumption of oak strip flooring (fig. 2 and table 6). About 60 percent of this total was shipped from the East South Central and West South Central Regions.

Flooring subcontractors distributed about 37 percent of the flooring sold in the region, and wholesalers distributed about 30 percent.

The nonstocking wholesalers distributed about 50 percent of the flooring produced in the region (table 6). Ninety percent of the flooring shipped from the South Atlantic Region into the West North Central Region was distributed by nonstocking wholesalers.

South Atlantic

The South Atlantic Region is very large, including the metropolitan areas of Miami, Atlanta, Baltimore, and Washington.

The region was not only one of the three major oak strip

flooring producing regions, but it also consumed about 22.6 percent (82,081,500 board feet) of the total oak strip flooring consumed in the United States in 1969 (fig. 2 and table 6).

More than 49 percent of the flooring consumed in the South Atlantic Region was produced in the region. The East South Central and West South Central Regions produced the majority of the remaining flooring consumed in the South Atlantic Region.

Retailers distributed about 42 percent of the flooring consumed in the South Atlantic Region. This region constitutes a well-established traditional market for oak strip flooring. Nonstocking wholesalers distributed about 27 percent of the flooring consumed in the region.

East South Central

The East South Central Region produced about 37 percent of the total oak strip flooring but consumed only about 7.1 percent (25,786,600 board feet) of the total (fig. 2 and table 6). About 82 percent of the flooring consumed in the East South Central Region was manufactured within the region.

Retailers distributed about 36 percent of the flooring consumed, and wholesalers ranked second as distributors of consumed flooring. Agents and brokers were the most important distributors for shipments from both the South Atlantic and West South Central Regions, whereas nonstocking wholesalers were most important in handling shipments from the West North Central Region (table 6).

This region is similar to the South Atlantic and West South Central Regions because there is a well-established traditional market for oak strip flooring in the East South Central Region.

West South Central

The 1969 demand for oak strip flooring in the West South Central Region was relatively small, about 1.4 percent of the total United States consumption—5,084,700 board feet (fig. 2 and table 6). The West South Central Region produced 70 percent of the flooring consumed in the region.

Retailers distributed nearly 39 percent of the flooring con-

sumed in this region, and nonstocking wholesalers distributed about 26 percent. The minute amount of flooring shipped from the West North Central Region was handled exclusively by builders, and no flooring was shipped from the South Atlantic Region (table 6).

Mountain

About 63 percent of the small amount (about 1.2 percent of total United States consumption or 4,358,300 board feet) of oak strip flooring sold in the Mountain Region was shipped from the West South Central Region (fig. 2 and table 6). Most of the remaining flooring was shipped from the East South Central, Middle Atlantic, and East North Central Regions. No flooring came in from the South Atlantic Region.

As with most of the other regions, wholesalers were dominant in distributing flooring. They handled about 58 percent of it. Flooring subcontractors handled the small volume of flooring originating in the West North Central Region (table 6). No flooring was handled by builders or agents and brokers in the region.

Pacific

About 3.8 percent of the total oak strip flooring produced in the United States (13,801,300 board feet) was consumed in the Pacific Region (fig. 2 and table 6). About 90 percent of the flooring was produced in the East and West South Central Regions. Wholesalers handled 74 percent of the flooring shipped into the region. Flooring subcontractors and nonstocking wholesalers handled the majority of the remaining flooring (about 25 percent). The consumption in this region is relatively small considering the fact that there are several very large metropolitan areas in the region.

Total United States

The South Atlantic, East South Central, and West South Central Regions shipped about 22, 37, and 29 percent, respectively, of the total United States consumption of 363,192,300 board feet of oak strip flooring in 1969 (fig. 2 and table 6).

Wholesalers, nonstocking wholesalers, and retailers were the three most important distributors. They handled 33, 28, and 17 percent, respectively, of the total United States consumption. Builders were the least active distributors.

On a regional basis, flooring subcontractors were used extensively in the distribution of flooring shipped from the Middle Atlantic and East North Central Regions whereas agents, brokers, and nonstocking wholesalers were used extensively in handling shipments from the South Atlantic Region (table 6).

DISCUSSION AND SUMMARY

Information provided by hardwood flooring manufacturers was used to determine the physical distribution patterns existing in the oak strip flooring industry in 1969.

The conclusions are based on shipment of 363,192,300 board feet. This represents approximately 95 percent of the total volume shipped in 1969.

Most of the production of oak strip flooring is in the Southern and Appalachian hardwood forest areas of the United States. The South Atlantic, East South Central, and West South Central Regions of the United States produced 88 per cent of the oak strip flooring sold in the United States in 1969. The Middle Atlantic, East North Central, and West North Central Regions produced the remainder.

The production-consumption relationship varies greatly from region to region. The consumption within the South Atlantic Region was about 51 percent of the production in the region. The consumption in the East South Central and West South Central Regions was about 15 and 3 percent, respectively, of the production in those regions.

The Middle Atlantic and East North Central composite region consumed over 53 percent of the production in the region. The West North Central Region consumed only 23 percent of its production.

Total consumption of oak flooring also varied considerably from region to region throughout the United States. Most of

the consumption was in the New England, Middle Atlantic, East North Central, and South Atlantic Regions. The highest consumption was in the South Atlantic Region, which accounted for about 23 percent of the total United States consumption. It was followed closely by the Middle Atlantic Region, which consumed 22 percent of the total.

In contrast, the West South Central and Mountain Regions accounted for only a little more than 2 percent of the total consumption. Generally speaking, the dividing line in the concentration of oak strip flooring markets is the Mississippi River—about 90 percent of the markets are found to the East, and about 10 percent are found to the West.

Wholesalers were the main distributors of flooring throughout the United States. They handled about 33 percent of all oak strip flooring shipped in 1969. Nonstocking wholesalers ranked second as distributors of flooring, and retailers ranked third. Builders were the least used type of distributors, indicating that few of them buy directly from the manufacturer.

Even though wholesalers dominated the distribution patterns in most regions, retailers handled most of the shipments into the three largest producing regions—South Atlantic, East South Central, and West South Central.



APPENDIX

Table 1.—1969 production of oak strip flooring,¹ by geographic region

Geographic region	Production	Percent of U. S. total
	<i>MBF</i>	<i>Percent</i>
Middle Atlantic & East North Central ²	19,772.5	5.5
West North Central	22,561.7	6.2
South Atlantic	79,239.2	21.8
East South Central	134,771.9	37.1
West South Central	106,847.0	29.4
U. S. total	363,192.3	100.0

¹Figures reflect a small amount of plank flooring and include other hardwood strip and plank flooring (except hard maple).

²To avoid confidential disclosure of production data, data for the Middle Atlantic and East North Central production regions were combined.

Table 2.—Production of oak strip flooring¹ in 1969, in percent

Shipped to—	Kind of distributor						Percent total	Percent of—	
	Builders	Flooring subcontractors	Retailers	Wholesalers	Non-stocking wholesalers	Agents & brokers		Production region total	U.S. total
MIDDLE ATLANTIC & EAST NORTH CENTRAL REGIONS ²									
New England	44.5	2.8	—	52.7	—	—	100.0	5.5	0.3
Middle Atlantic	1.4	81.4	0.7	16.1	0.4	—	100.0	41.8	2.3
East North Central	—	36.0	10.7	43.9	9.4	—	100.0	12.7	.7
West North Central	—	61.0	4.7	34.3	—	—	100.0	21.8	1.2
South Atlantic	—	—	80.0	—	20.0	—	100.0	7.3	.4
East South Central	10.0	20.0	65.0	5.0	—	—	100.0	1.8	.1
West South Central	10.0	10.0	50.0	30.0	—	—	100.0	(³)	(³)
Mountain	—	—	.7	99.3	—	—	100.0	3.6	.2
Pacific	—	76.7	—	23.3	—	—	100.0	5.5	.3
Entire U.S., percent	3.4	56.1	10.3	27.2	3.0	—	100.0	100.0	5.5
Production total (MBF)	—	—	—	—	—	—	—	19,772.5	363,192.3
WEST NORTH CENTRAL REGION									
New England	—	—	—	39.1	60.9	—	100.0	25.8	1.6
Middle Atlantic	—	—	—	61.9	38.1	—	100.0	12.9	.8
East North Central	—	21.4	0.9	37.6	40.1	—	100.0	30.7	1.9
West North Central	—	41.0	3.1	6.4	49.5	—	100.0	22.6	1.3
South Atlantic	—	—	—	28.6	71.4	—	100.0	3.2	.2
East South Central	—	—	—	—	100.0	—	100.0	3.2	.3
West South Central	100.0	—	—	—	—	—	100.0	(³)	(³)
Mountain	—	100.0	—	—	—	—	100.0	(³)	(³)
Pacific	—	73.0	—	27.0	—	—	100.0	1.6	.1
Entire U.S., percent	0.1	18.8	1.0	32.4	47.7	—	100.0	100.0	6.2
Production total (MBF)	—	—	—	—	—	—	—	22,561.7	363,192.3

SOUTH ATLANTIC REGION

New England	—	—	—	2.8	17.1	80.1	100.0	24.8	5.4
Middle Atlantic	1.3	3.3	13.5	23.9	32.6	25.4	100.0	15.6	3.4
East North Central	—	—	21.7	4.7	30.4	43.2	100.0	6.4	1.4
West North Central	—	—	—	10.0	90.0	—	100.0	.5	.1
South Atlantic	6.3	6.9	30.2	14.9	33.8	7.9	100.0	50.9	11.1
East South Central	—	—	2.3	—	5.5	92.2	100.0	1.4	.3
West South Central	—	—	—	—	—	—	—	—	—
Mountain	—	—	—	—	—	—	—	—	—
Pacific	—	—	—	10.0	90.0	—	100.0	.4	.1

Entire U.S., percent	3.4	4.1	18.9	12.4	29.1	32.1	100.0	100.0	21.8
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Production total (MBF)	—	—	—	—	—	—	—	79,239.2	363,192.3
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EAST SOUTH CENTRAL REGION

New England	5.1	4.3	4.2	62.0	21.9	2.5	100.0	11.1	4.1
Middle Atlantic	8.2	5.6	2.7	65.6	16.7	1.2	100.0	22.6	8.4
East North Central	2.4	7.8	6.9	59.9	22.3	.7	100.0	18.6	6.9
West North Central	—	35.9	2.6	44.5	14.2	2.8	100.0	4.6	1.7
South Atlantic	3.1	2.6	54.6	21.0	15.0	3.7	100.0	22.6	8.4
East South Central	16.7	7.4	39.6	29.1	6.2	1.0	100.0	15.1	5.6
West South Central	8.6	9.0	49.4	29.8	2.3	.9	100.0	1.1	.4
Mountain	—	—	4.7	91.8	3.5	—	100.0	.5	.2
Pacific	—	.9	—	96.7	2.4	—	100.0	3.8	1.4

Entire U.S., percent	6.2	6.7	21.3	48.5	15.5	1.8	100.0	100.0	37.1
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Production total (MBF)	—	—	—	—	—	—	—	134,771.9	363,192.3
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Table 2.—Continued

Shipped to—	Kind of distributor						Percent total	Percent of—	
	Builders	Flooring subcontractors	Retailers	Wholesalers	Non-stocking wholesalers	Agents & brokers		Production region total	U.S. total
WEST SOUTH CENTRAL REGION									
New England	—	0.4	7.3	28.5	63.8	—	100.0	16.0	4.7
Middle Atlantic	6.2	—	5.5	32.8	55.5	—	100.0	24.5	7.2
East North Central	.5	8.4	22.2	24.1	44.8	—	100.0	28.9	8.5
West North Central	9.2	18.7	4.8	26.2	31.5	9.6	100.0	6.5	1.9
South Atlantic	—	.6	41.0	10.2	34.2	14.0	100.0	8.5	2.5
East South Central	2.8	5.5	22.7	8.6	16.5	43.9	100.0	3.0	.9
West South Central	.7	9.2	34.2	19.0	36.9	—	100.0	3.4	1.0
Mountain	—	10.6	.3	39.9	49.2	—	100.0	2.7	.8
Pacific	2.5	14.2	—	67.7	15.6	—	100.0	6.5	1.9
Entire U.S., percent	2.5	5.4	14.7	28.5	45.9	3.0	100.0	100.0	29.4
Production total (MBF)	—	—	—	—	—	—	—	106,847.0	363,192.3
ALL REGIONS									
New England	2.3	1.4	3.2	30.0	34.1	29.0	100.0	—	16.1
Middle Atlantic	5.5	12.0	5.0	43.4	29.7	4.4	100.0	—	22.1
East North Central	1.1	9.6	14.3	38.4	33.1	3.5	100.0	—	19.4
West North Central	2.7	36.8	3.8	29.8	23.2	3.7	100.0	—	6.3
South Atlantic	4.3	4.5	41.5	16.5	26.5	6.7	100.0	—	22.6
East South Central	14.2	7.0	36.1	24.9	8.2	9.6	100.0	—	7.1
West South Central	3.5	9.1	38.6	22.2	26.4	.2	100.0	—	1.4
Mountain	—	9.2	1.2	57.5	32.1	—	100.0	—	1.2
Pacific	1.3	14.7	—	74.0	10.0	—	100.0	—	3.8

Entire U.S., percent	4.1	9.3	17.4	32.9	27.6	8.7	100.0	—	100.0
Production total (MBF)	—	—	—	—	—	—	—	—	363,192.3

¹Figures reflect a small amount of plank flooring and include other hardwood strip and plank floorings (except hard maple).

²To avoid confidential disclosure of shipment data, Middle Atlantic and East North Central production regions were combined.

³Less than 0.05 percent.

Table 3.—Volume of oak strip flooring¹ production handled
by major distributors

Distributor	Production	Percent of U. S. total
	<i>MBF</i>	<i>Percent</i>
Builders	14,890.9	4.1
Flooring subcontractors	33,776.9	9.3
Retailers	63,195.4	17.4
Wholesalers	119,450.3	32.9
Nonstocking wholesalers	100,281.1	27.6
Agents & brokers	31,597.7	8.7
U. S. total	363,192.3	100.0

¹Figures reflect a small amount of plank flooring and include other hardwood strip and plank floorings (except hard maple).

Table 4.—Distribution of oak strip flooring¹ in 1969, in percent

Shipped to—	Production by geographic region					Percent total	Percent of—	
	Middle Atlantic & East North Central ²	West North Central	South Atlantic	East South Central	West South Central		Distribution total	U. S. total
BUILDERS								
New England	40.6	—	—	59.4	—	100.0	9.1	0.3
Middle Atlantic	2.9	—	3.8	59.2	34.1	100.0	30.0	1.2
East North Central	—	—	—	82.7	17.3	100.0	5.2	.2
West North Central	—	—	—	—	100.0	100.0	4.0	.2
South Atlantic	—	—	72.0	28.0	—	100.0	24.2	1.0
East South Central	1.0	—	—	97.0	2.0	100.0	25.2	1.0
West South Central	7.4	11.2	—	66.7	14.7	100.0	1.2	.1
Mountain	—	—	—	—	—	—	—	—
Pacific	—	—	—	—	100.0	100.0	1.1	.1
Entire U. S., percent	4.9	0.1	18.6	59.5	16.9	100.0	100.0	4.1
Distribution total (MBF)	—	—	—	—	—	—	14,890.9	363,192.3
FLOORING SUBCONTRACTORS								
New England	4.3	—	—	87.0	8.7	100.0	2.4	0.2
Middle Atlantic	76.9	—	4.3	18.8	—	100.0	28.9	2.7
East North Central	16.0	15.3	—	31.9	36.8	100.0	19.6	1.8
West North Central	36.0	19.6	—	29.4	15.0	100.0	24.5	2.3
South Atlantic	—	—	76.0	22.5	1.5	100.0	10.7	1.0
East South Central	4.1	—	—	87.6	8.3	100.0	5.5	.5
West South Central	2.8	—	—	26.8	70.4	100.0	1.4	.1
Mountain	—	26.7	—	—	73.3	100.0	1.2	.1
Pacific	35.9	15.2	—	2.5	46.4	100.0	5.8	.6
Entire U. S., percent	36.4	8.9	9.8	28.6	16.3	100.0	100.0	9.3
Distribution total (MBF)	—	—	—	—	—	—	33,776.9	363,192.3

CONTINUED

Table 4.—Continued

Shipped to—	Production by geographic region						Percent of—	
	Middle Atlantic & East North Central ²	West North Central	South Atlantic	East South Central	West South Central	Percent total	Distribution total	U. S. total
RETAILERS								
New England	—	—	—	36.2	63.8	100.0	2.9	0.5
Middle Atlantic	1.6	—	42.6	21.9	33.9	100.0	6.4	1.1
East North Central	3.2	0.4	11.5	19.0	65.9	100.0	16.0	2.8
West North Central	27.1	14.6	—	20.5	37.8	100.0	1.3	.2
South Atlantic	3.8	—	35.7	50.4	10.1	100.0	55.0	9.6
East South Central	2.6	—	.3	90.5	6.6	100.0	15.1	2.6
West South Central	3.3	—	—	34.7	62.0	100.0	3.2	.6
Mountain	8.4	—	—	74.9	16.7	100.0	.1	(³)
Pacific	—	—	—	—	—	—	—	—
Entire U. S., percent	3.5	0.3	24.4	48.5	23.3	100.0	100.0	17.4
Distribution total (MBF)	—	—	—	—	—	—	63,195.4	363,192.3
WHOLESALEERS								
New England	3.8	9.3	3.3	57.3	26.3	100.0	14.8	4.9
Middle Atlantic	4.2	3.8	8.6	60.3	23.1	100.0	29.1	9.6
East North Central	4.9	6.7	.9	61.0	26.5	100.0	22.7	7.5
West North Central	25.0	3.8	.3	44.9	26.0	100.0	5.7	1.9
South Atlantic	—	.5	44.3	48.8	6.4	100.0	11.3	3.7
East South Central	.3	—	—	96.1	3.6	100.0	5.3	1.7
West South Central	3.5	—	—	36.5	60.0	100.0	.7	.2
Mountain	24.7	—	—	31.0	44.3	100.0	2.2	.7
Pacific	2.2	1.1	.2	52.4	44.1	100.0	8.2	2.7
Entire U. S., percent	5.0	4.3	8.4	58.3	24.0	100.0	100.0	32.9
Distribution total (MBF)	—	—	—	—	—	—	119,450.3	363,192.3

NONSTOCKING WHOLESALERS

New England	—	12.7	17.7	17.8	51.8	100.0	19.9	5.5
Middle Atlantic	.2	3.4	17.2	22.3	56.9	100.0	23.7	6.5
East North Central	1.2	8.3	6.9	26.3	57.3	100.0	23.2	6.4
West North Central	—	37.5	3.9	18.5	40.1	100.0	5.4	1.5
South Atlantic	1.5	.8	62.6	21.8	13.3	100.0	21.5	5.9
East South Central	—	12.8	3.1	62.9	21.2	100.0	2.2	.6
West South Central	—	—	—	2.4	97.6	100.0	1.4	.4
Mountain	—	—	—	2.1	97.9	100.0	1.4	.4
Pacific	—	—	14.9	9.8	75.3	100.0	1.3	.4
Entire U. S., percent	0.6	7.6	23.6	22.1	46.1	100.0	100.0	27.6
Distribution total (MBF)	—	—	—	—	—	—	100,281.1 *	363,192.3

AGENTS AND BROKERS

New England	—	—	97.6	3.4	—	100.0	54.1	4.7
Middle Atlantic	—	—	89.6	10.4	—	100.0	11.4	1.0
East North Central	—	—	92.3	7.7	—	100.0	7.6	.7
West North Central	—	—	—	23.3	76.7	100.0	2.5	.2
South Atlantic	—	—	57.5	21.0	21.5	100.0	16.4	1.4
East South Central	—	—	43.4	8.8	47.8	100.0	8.0	.7
West South Central	—	—	—	100.0	—	100.0	(³)	(³)
Mountain	—	—	—	—	—	—	—	—
Pacific	—	—	—	—	—	—	—	—
Entire U. S., percent	—	—	82.3	8.1	9.6	100.0	100.0	8.7
Distribution total (MBF)	—	—	—	—	—	—	31,597.7	363,192.3

CONTINUED

Table 4.—Continued

Shipped to—	Production by geographic region					Percent total	Percent of—	
	Middle Atlantic & East North Central ²	West North Central	South Atlantic	East South Central	West South Central		Distribu- tion total	U. S. total
ALL DISTRIBUTORS								
New England	2.1	7.1	35.3	27.7	27.8	100.0	—	16.1
Middle Atlantic	11.3	2.7	15.7	39.8	30.5	100.0	—	22.1
East North Central	4.2	6.9	7.5	39.1	42.3	100.0	—	19.4
West North Central	21.7	17.6	1.0	30.1	29.6	100.0	—	6.3
South Atlantic	1.9	.3	49.1	38.4	10.3	100.0	—	22.6
East South Central	1.4	1.1	4.5	82.5	10.5	100.0	—	7.1
West South Central	2.6	.4	—	27.0	70.0	100.0	—	1.4
Mountain	14.3	2.5	—	19.4	63.8	100.0	—	1.2
Pacific	6.9	3.1	1.7	40.1	48.2	100.0	—	3.8
Entire U. S., percent	5.5	6.2	21.8	37.1	29.4	100.0	—	100.0
Distribution total (MBF)	—	—	—	—	—	—	—	363,192.3

¹Figures reflect a small amount of plank flooring and include other hardwood strip and plank floorings (except hard maple).

²In order to avoid confidential disclosure of shipment data, Middle Atlantic and East North Central production regions were combined.

³Less than 0.05 percent.

Table 5.—1969 consumption of oak strip flooring¹ by location

Shipped to—	Consumption	Percent of U. S. total
	<i>MBF</i>	<i>Percent</i>
New England	58,474.0	16.1
Middle Atlantic	80,265.5	22.1
East North Central	70,459.3	19.4
West North Central	22,881.1	6.3
South Atlantic	82,081.5	22.6
East South Central	25,786.6	7.1
West South Central	5,084.7	1.4
Mountain	4,358.3	1.2
Pacific	13,801.3	3.8
U. S. total	363,192.3	100.0

¹Figures reflect a small amount of plank flooring and include other hardwood strip and plank floorings (except hard maple).

Table 6.—Consumption of oak strip flooring¹ in 1969, in percent

Shipped to—	Kind of distributor						Percent of—		
	Builders	Flooring sub-contractors	Retailers	Wholesalers	Non-stocking wholesalers	Agents & brokers	Percent total	Production region total	U. S. total
NEW ENGLAND REGION									
Middle Atlantic & East North Central ²	44.5	2.8	—	52.7	—	—	100.0	2.1	0.3
West North Central	—	—	—	39.1	60.9	—	100.0	7.1	1.6
South Atlantic	—	—	—	2.8	17.1	80.1	100.0	35.3	5.4
East South Central	5.1	4.3	4.2	62.0	21.9	2.5	100.0	27.7	4.1
West South Central	—	.4	7.3	28.5	63.8	—	100.0	27.8	4.7
Percent total	2.3	1.4	3.2	30.0	34.1	29.0	100.0	100.0	16.1
Consumption total (MBF)	—	—	—	—	—	—	—	58,474.0	363,192.3
MIDDLE ATLANTIC REGION									
Middle Atlantic & East North Central ²	1.4	81.4	0.7	16.1	0.4	—	100.0	11.3	2.3
West North Central	—	—	—	61.9	38.1	—	100.0	2.7	.8
South Atlantic	1.3	3.3	13.5	23.9	32.6	25.4	100.0	15.7	3.4
East South Central	8.2	5.6	2.7	65.6	16.7	1.2	100.0	39.8	8.4
West South Central	6.2	—	5.5	32.8	55.5	—	100.0	30.5	7.2
Percent total	5.5	12.0	5.0	43.4	29.7	4.4	100.0	100.0	22.1
Consumption total (MBF)	—	—	—	—	—	—	—	80,265.5	363,192.3

EAST NORTH CENTRAL REGION									
Middle Atlantic & East North Central ²	—	36.0	10.7	43.9	9.4	—	100.0	4.2	0.7
West North Central	—	21.4	.9	37.6	40.1	—	100.0	6.9	1.9
South Atlantic	—	—	21.7	4.7	30.4	43.2	100.0	7.5	1.4
East South Central	2.4	7.8	6.9	59.9	22.3	.7	100.0	39.1	6.9
West South Central	.5	8.4	22.2	24.1	44.8	—	100.0	42.3	8.5
Percent total	1.1	9.6	14.3	38.4	33.1	3.5	100.0	100.0	19.4
Consumption total (MBF)	—	—	—	—	—	—	—	70,459.3	363,192.3
WEST NORTH CENTRAL REGION									
Middle Atlantic & East North Central ²	—	61.0	4.7	34.3	—	—	100.0	21.7	1.2
West North Central	—	41.0	3.1	6.4	49.5	—	100.0	17.6	1.4
South Atlantic	—	—	—	10.0	90.0	—	100.0	1.0	0.1
East South Central	—	35.9	2.6	44.5	14.2	2.8	100.0	30.1	1.7
West South Central	9.2	18.7	4.8	26.2	31.5	9.6	100.0	29.6	1.9
Percent total	2.7	36.8	3.8	29.8	23.2	3.7	100.0	100.0	6.3
Consumption total (MBF)	—	—	—	—	—	—	—	22,881.1	363,192.3
SOUTH ATLANTIC REGION									
Middle Atlantic & East North Central ²	—	—	80.0	—	20.0	—	100.0	1.9	0.4
West North Central	—	—	—	28.6	71.4	—	100.0	.3	.2
South Atlantic	6.3	6.9	30.2	14.9	33.8	7.9	100.0	49.1	11.1
East South Central	3.1	2.6	54.6	21.0	15.0	3.7	100.0	38.4	8.4
West South Central	—	.6	41.0	10.2	34.2	14.0	100.0	10.3	2.5
Percent total	4.3	4.5	41.5	16.5	26.5	6.7	100.0	100.0	22.6
Consumption total (MBF)	—	—	—	—	—	—	—	82,081.5	363,192.3

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Table 6.—Continued

Shipped to—	Kind of distributor						Percent total	Percent of—	
	Builders	Flooring sub-contractors	Retailers	Wholesalers	Non-stocking wholesalers	Agents & brokers		Production region total	U. S. total
EAST SOUTH CENTRAL REGION									
Middle Atlantic & East North Central ²	10.0	20.0	65.0	5.0	—	—	100.0	1.4	0.1
West North Central	—	—	—	—	100.0	—	100.0	1.1	.2
South Atlantic	—	—	2.3	—	5.5	92.2	100.0	4.5	.3
East South Central	16.7	7.4	39.6	29.1	6.2	1.0	100.0	82.5	5.6
West South Central	2.8	5.5	22.7	8.6	16.5	43.9	100.0	10.5	.9
Percent total	14.2	7.0	36.1	24.9	8.2	9.6	100.0	100.0	7.1
Consumption total (MBF)	—	—	—	—	—	—	—	25,786.6	363,192.3
WEST SOUTH CENTRAL REGION									
Middle Atlantic & East North Central ²	10.0	10.0	50.0	30.0	—	—	100.0	2.6	(³)
West North Central	100.0	—	—	—	—	—	100.0	.4	(³)
South Atlantic	—	—	—	—	—	—	—	—	—
East South Central	8.6	9.0	49.4	29.8	2.3	0.9	100.0	27.0	.4
West South Central	.7	9.2	34.2	19.0	36.9	—	100.0	70.0	1.0
Percent total	3.5	9.1	38.6	22.2	26.4	0.2	100.0	100.0	1.4
Consumption total (MBF)	—	—	—	—	—	—	—	5,084.7	363,192.3
MOUNTAIN REGION									
Middle Atlantic & East North Central ²	—	—	0.7	99.3	—	—	100.0	14.3	0.2
West North Central	—	100.0	—	—	—	—	100.0	2.5	(³)

South Atlantic	—	—	—	—	—	—	—	—	—
East South Central	—	—	4.7	91.8	3.5	—	100.0	19.4	.2
West South Central	—	10.6	.3	39.9	49.2	—	100.0	63.8	.8
Percent total	—	9.2	1.2	57.5	32.1	—	100.0	100.0	1.2
Consumption total (MBF)	—	—	—	—	—	—	—	4,358.3	363,192.3

PACIFIC REGION

Middle Atlantic & East North Central ²	—	76.7	—	23.3	—	—	100.0	6.9	0.3
West North Central	—	73.0	—	27.0	—	—	100.0	3.1	.1
South Atlantic	—	—	—	10.0	90.0	—	100.0	1.7	.1
East South Central	—	.9	—	96.7	2.4	—	100.0	40.1	1.4
West South Central	2.5	14.2	—	67.7	15.6	—	100.0	48.2	1.9
Percent total	1.3	14.7	—	74.0	10.0	—	100.0	100.0	3.8
Consumption total (MBF)	—	—	—	—	—	—	—	13,801.3	363,192.3

TOTAL UNITED STATES

Middle Atlantic & East North Central ²	3.4	56.1	10.3	27.2	3.0	—	100.0	—	5.5
West North Central	.1	18.8	1.0	32.4	47.7	—	100.0	—	6.2
South Atlantic	3.4	4.1	18.9	12.4	29.1	32.1	100.0	—	21.8
East South Central	6.2	6.7	21.3	48.5	15.5	1.8	100.0	—	37.1
West South Central	2.5	5.4	14.7	28.5	45.9	3.0	100.0	—	29.4
Percent total	4.1	9.3	17.4	32.9	27.6	8.7	100.0	—	100.0
Consumption total (MBF)	—	—	—	—	—	—	—	—	363,192.3

¹Figures reflect a small amount of plank flooring and include other hardwood strip and plank floorings (except hard maple).

²In order to avoid confidential disclosure of shipment data, Middle Atlantic and East North Central production regions were combined.

³Less than 0.05 percent.



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