



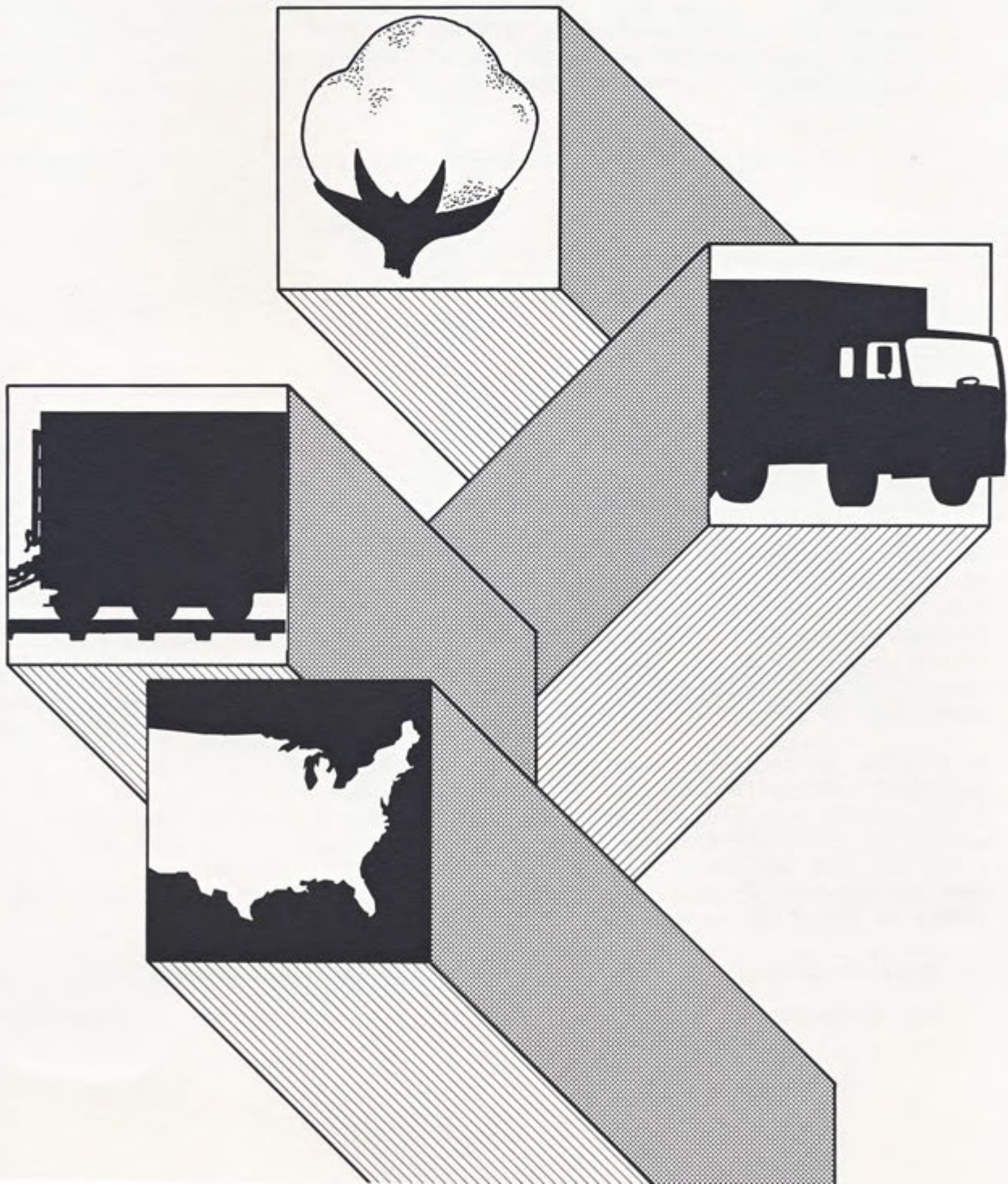
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U.S. Cotton Distribution Patterns, 1986/87

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U.S. COTTON DISTRIBUTION PATTERNS, 1986/87, by Edward H. Glade, Jr., and Mae Dean Johnson, Commodity Economics Division, Economic Research Service, U.S. Department of Agriculture, Statistical Bulletin No. 769.

ABSTRACT

Expanding domestic demand and strong export sales sharply increased beltwide cotton shipments during 1986/87. Both within and across regions in the United States, larger and fewer shipments have concentrated the movement of cotton, and innovative transportation arrangements have altered traditional cotton flows. Fifty-two percent of total marketing went to the Southeast mill area and to nonconsuming points for reshipment to final destinations. Ports, primarily on the Pacific coast, received about 48 percent of the volume. Trucks reportedly shipped about 75 percent of all shipments, and rail carriers transported the remaining 25 percent.

KEYWORDS: Cotton marketing, trade channels, shipping patterns.

PREFACE

This report continues a series of studies on the origins, destinations, and modes of transportation involved in marketing U.S. cotton. Previous reports covering the 1961, 1970, 1975, and 1980 crop years are out of print. This report contains some limited data covering these years, but the authors can provide more detailed information upon request.

The authors express special appreciation to the many individuals in the cotton warehousing industry and to the Cotton Warehouse Association of America for its continued support of these studies.

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INTRODUCTION

U.S. cotton marketing patterns have changed significantly during the past decade. Shifts in location of production and growth in the export market have altered beltwide cotton flows. Trucks have replaced rail carriers as the primary means of moving cotton to domestic mills and ports. Changes in the transportation of cotton have also required changes in marketing institutions and practices.

Important events shaping the U.S. cotton distribution system include:

- o Recent market-oriented farm programs and policies have attempted to provide a better balance between cotton supplies and anticipated market demands. This has enabled cotton acreage to shift to lower cost areas in the Southwest and West.
- o Textile mill closings and consolidations due to textile imports, cotton dust regulations, and other factors have reduced the number of domestic destinations and concentrated shipments in fewer areas.
- o Transportation deregulation, including rail line abandonment, has decreased rail-truck competition in some areas but increased such competition in other areas, thus altering the means by which cotton is delivered to market outlets.
- o Changes in the relative sizes of foreign markets for U.S. cotton, particularly in the Far East, are altering beltwide shipping patterns. For example, some large foreign mills take title to U.S. cotton at interior points and arrange for all associated delivery costs to foreign destinations under one flat rate. Many of these movements are back-haul container shipments utilizing special rates with foreign steamship lines.
- o The cotton provisions of the Food Security Act of 1985 have enabled U.S. cotton to be priced competitively in world markets, regaining lost market share. The growth in U.S. export volume has resulted in a significant volume of 1986/87 ¹/₂ cotton.

¹/₂ The marketing year for cotton begins August 1 and ends July 31.

- o Moving to ports under innovative transportation arrangements. This export growth has altered traditional beltwide cotton flows and increased demand on the cotton marketing system.

This report presents the results of a survey of cotton storage and handling facilities located in each cotton-producing State to determine shipping and marketing patterns for U.S. raw cotton. Information collected covers the 1986/87 season and documents cotton origins, destinations, volumes, and modes of transportation. Similar surveys and published results covering the 1970/71, 1975/76, and 1980/81 seasons are fully comparable with results presented in this report.

METHODOLOGY

A total of 205 questionnaires were mailed to Government-approved cotton warehouses in each of the 14 cotton-producing States. Facilities were identified on the basis of lists maintained by the U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service (ASCS). The survey, conducted in the fall of 1987, obtained 154 useable responses. An additional 48 firms returned the questionnaire but reported being out of business or handling no cotton during the 1986/87 season. Also, a number of chain warehouses within a State reported their combined operations on one survey form.

Data were obtained on shipments of approximately 8.3 million bales, or over 85 percent of 1986/87 production. In some States and regions, however, reported shipments exceeded production because of a significant decrease in cotton stocks during the season. Total 1986/87 marketings exceeded 14.1 million bales, and ending stocks declined over 4 million bales from year-earlier levels.

Not all cotton actually shipped was accounted for in the survey. Some cotton shipped from non-Government approved warehouses was not included, and cotton moving directly from gins to textile mills and ports was also excluded from the survey. In addition, destinations reported in the survey were first destinations and may not have always been final destinations. Data are not available for determining the extent of reshipments.

The survey classified cotton shipments by both destination and purpose. The survey assumed that all cotton shipped to Alabama, Georgia, North Carolina, South Carolina, and Virginia was directly sent for domestic mill consumption, and it identified these five States as the Southeast mill area. Cotton shipped to the New England States also goes directly to the mill. Shipments to Arkansas, Louisiana, Mississippi, Missouri, Tennessee, and Texas primarily concentrate cotton into larger lots for eventual reshipment. The survey therefore assumed all movements to these States were for concentration purposes, even though these States have some textile mills. The destinations of cotton shipped for export are the four primary port areas: the Atlantic coast ports; the Pacific coast ports; the central gulf ports of New Orleans, Mobile, and Pensacola; and the west gulf ports in Texas.

FINDINGS

Results of the 1986/87 survey show the diverse nature of cotton movements across the Cotton Belt. Both within and across regions, shipments have become more concentrated toward final destinations, and innovative transportation arrangements have altered traditional cotton flows.

U.S. Distribution Patterns

Nearly 52 percent of all reported U.S. cotton shipments during the 1986/87 season moved to textile mills in the Southeastern States and to interior concentration points, compared with 45 percent in 1980/81 and 63 percent in 1975/76 (fig. 1). Both expanding domestic demand and strong exports boosted beltwide cotton flows during 1986/87, with domestic consumption reaching its highest level in many years.

Cotton exports through the four major port areas accounted for about 48 percent of total shipments during 1986/87, compared with 55 percent during the 1980/81 season (table 1). However, the actual volume of cotton exported was nearly 15 percent above the 1980/81 level.

The Pacific coast continues to grow as the leading cotton-exporting center, while the gulf port area cotton shipping has fallen during the past 6 years (table 2). Cotton exports through the Atlantic coast ports have increased substantially both in terms of volume and proportion but still represent only about 1 percent of all reported shipments in 1986/87. Shipments to Pacific port areas represented nearly 36 percent of total cotton movement to all destinations during 1986/87, up from 33 percent in 1980/81.

Motor trucks are the primary mode of transporting cotton to domestic mills and ports. Trucks moved about 47 percent of all shipments during the 1975/76 season but almost 75 percent of all shipments by 1986/87 (fig. 2). This shift from rail to truck transportation occurred most sharply in the Southeast and South Central States between 1980/81 and 1986/87 (table 3). For most States in these areas, the proportion of cotton carried by rail dropped to less than 10 percent of the volume marketed. In many areas of the Southwest, however, rail transportation remains an important method of shipment because of the relatively large volumes and distances involved.

The steady increase in the proportion of cotton moving by truck is attributed to increasingly competitive truck rates, more flexible scheduling, generally shorter delivery times of truck transportation, and efficiencies gained by containerized shipments for export movements.

Regional Distribution Patterns

Cotton marketing patterns vary between regions. The patterns diverge primarily because of differing quality in each area and the available supplies of the cotton, changing worldwide consumption patterns, and changing transportation rate structures.

Southeast

Most Southeast cotton moves directly to textile mills within the region. During 1986/87, over 95 percent of all reported shipments terminated in the Southeast mill area, with about 51 percent being intrastate movements

(tables 4-8). The proximity to major textile mills and the availability of transportation directly to mills from gins or local warehouses without additional compression encourages the consumption of Southeast cotton within the region. This regional consumption has stabilized distribution patterns since 1975/76 (fig. 3). While trucks have transported most of the Southeast crop for many years, the proportion increased sharply during the 1986/87 season. Trucks moved approximately 88 percent of all shipments in 1986/87, compared with about 79 percent during the 1980/81 period (fig. 4). Truck shipments ranged from 96 percent of all movements from South Carolina to about 82 percent in Alabama during 1986/87 (table 3).

South Central

Over 74 percent of all warehouse shipments of cotton in the South Central region moved directly to Southeast mills in 1986/87. The proportions ranged from about 72 percent of Mississippi shipments to nearly 81 percent of the cotton shipped from Missouri warehouses (tables 9-14). Shipments to the four major port areas and Canada accounted for over 12 percent of all South Central marketings, somewhat below the 1980/81 volume but slightly above the 11-percent volume for the 1975/76 season (fig. 5). Most cotton exported from the South Central States moves through ports on the central gulf, primarily New Orleans. However, special back-haul freight arrangements have enabled South Central cotton to compete with other regional growers in Far East markets by shipping through the Pacific coast.

The most significant change in distribution patterns in the region is in the method of transportation used. Approximately 9 percent of all regional shipments were rail movements in 1986/87, compared with over 46 percent during the 1975/76 season (fig. 6). The continuing use of motor trucks as the primary transporter of South Central cotton reflects the strong competition of motor carriers in the region, plus unavailability of rail cars and abandonment of numerous connecting lines within the area.

Southwest

Southwest cotton shipments were more widely distributed than in the other regions. About 37 percent of the cotton marketed from the Southwest in 1986/87 went to domestic mills, with significant volumes shipped to each of the primary textile mill States (fig. 7 and table 15). Most Southwest cotton, however, moved to export markets. Shipments to Canada and U.S. ports accounted for over 50 percent of all regional movements during 1986/87. The largest proportion of Southwest exports are now handled through the Pacific coast using special freight arrangements that preload cotton into exportable containers at the point of origin. The cotton is then shipped by rail or truck to Pacific ports. A large volume of Texas-Oklahoma cotton was exported through the port of Seattle, Washington. About 31 percent of all Southwest marketings went to Pacific coast ports, compared with 16 percent exported from the traditional port of Houston-Galveston on the west gulf.

In contrast with other regions, the Southwest continues to use rail transportation to ship most of its cotton. During the 1986/87 season, over 43 percent of all movements used rail, compared with 46 percent in 1980/81 and nearly 70 percent during 1975/76 (fig. 8). The sharp drop in the proportion of rail shipments between 1975/76 and 1980/81 primarily reflects the substitution of trucks for moving cotton to the west gulf. Most cotton now

shipped to west gulf ports for export moves by truck, while shipments to Pacific coast ports use rail transportation.

West

In 1986/87, about 69 percent of western cotton was shipped for export, about the same proportion as in 1980/81 (fig. 9). The growth in cotton sales to the Far East and the sharp rise in the cost of moving cotton to the Southeast mill area are primarily responsible for the development of western cotton as an export commodity since 1975/76.

The large share of cotton moving to nearby ports accounted for the use of trucks to transport over 82 percent of the 1986/87 shipments from the region, compared with 58 percent during 1975/76 (fig. 10). Both trucks and rail carriers moved nearly equal proportions of shipments to the Southeast mill area (table 18). Trucks moved many of these long-haul shipments because of their generally shorter delivery times and greater availability of equipment.

Figure 1
Exports vs. domestic shipments of U.S. cotton

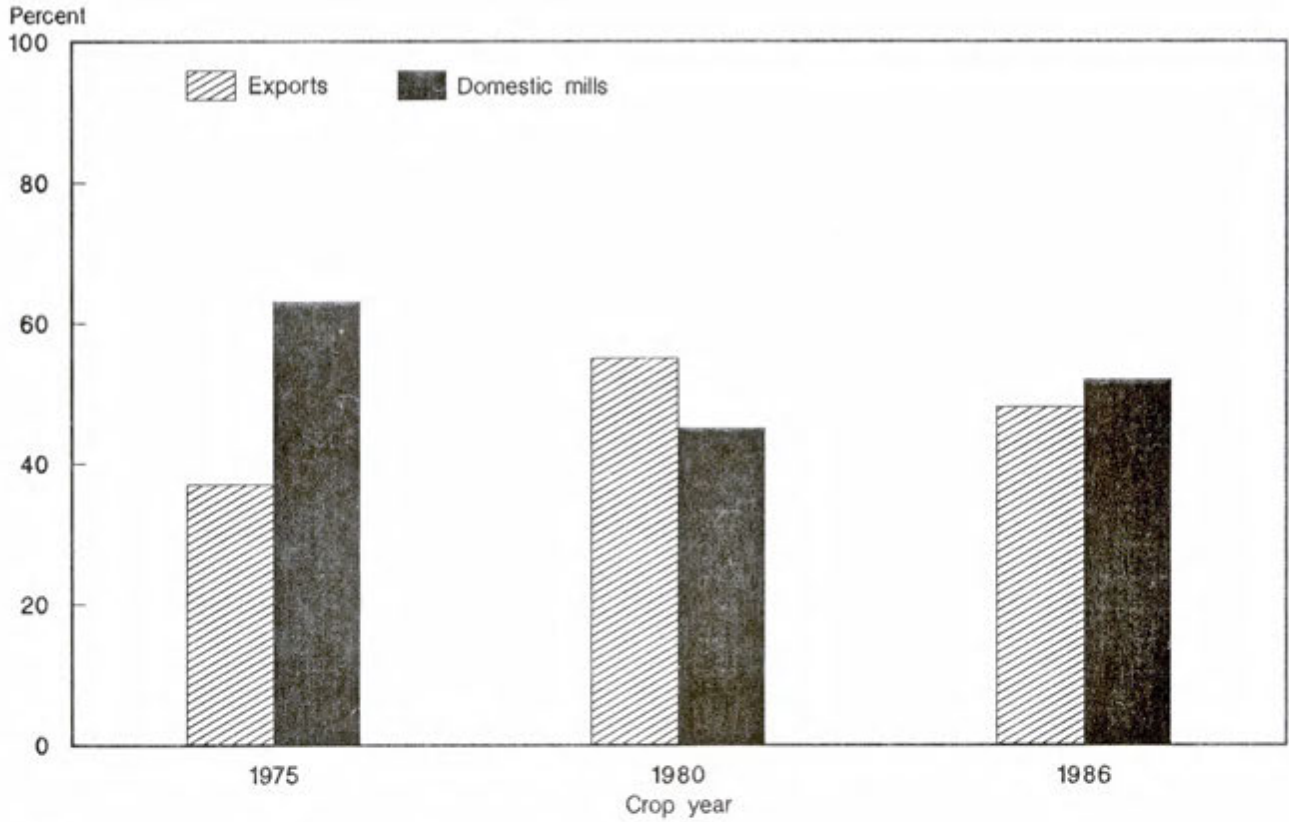


Figure 2
Rail vs. truck transportation of U.S. cotton

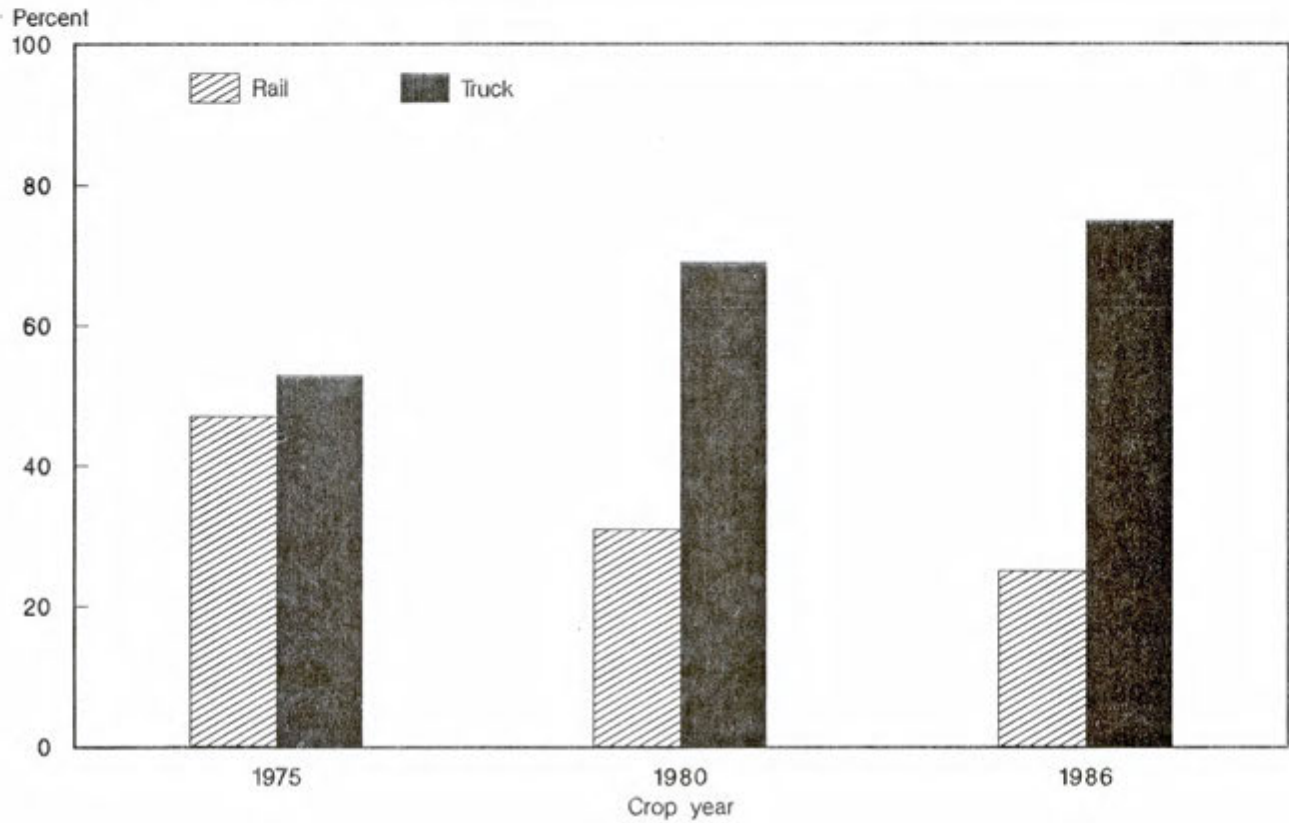


Table 1--Cotton shipments from warehouses, by destinations
and mode of transportation, 1986/87

Destination	Rail	Truck	Total	Share of U.S. total
	<u>Bales</u>			<u>Percent</u>
Southeast mill area:				
Interstate--				
Alabama	168,999	326,748	495,747	5.9
Georgia	80,717	525,649	606,366	7.3
North Carolina	373,493	951,857	1,325,350	15.9
South Carolina	264,387	633,179	897,566	10.8
Virginia	25,008	29,971	54,979	.7
Total	912,604	2,467,404	3,380,008	40.6
Intrastate--				
Alabama	4,151	99,959	104,110	1.3
Georgia	80	15,512	15,592	.2
North Carolina	2,450	58,715	61,165	.7
South Carolina	8,540	201,787	210,327	2.5
Virginia	0	0	0	0
Total	15,221	375,973	391,194	4.7
New England	0	3,027	3,027	0
Interior concentration points <u>1/</u>	137,817 <u>2/</u>	335,643 <u>3/</u>	473,460	5.7
Canada	9,531	20,695	30,226	.4
Ports:				
Atlantic coast	10,922	85,824	96,746	1.2
Central gulf	17,603	86,865	104,468	1.2
West gulf	81,570	714,302	795,872	9.6
Pacific coast	917,552	2,060,466	2,978,018	35.7
Other <u>4/</u>	10,960	64,119	75,079	.9
Total shipments	2,113,780	6,214,318	8,328,098	100.0
<u>Percent</u>				
Truck vs. rail	25.4	74.6	100.0	NA

NA = Not applicable.

1/ Nonconsuming points from which cotton is reshipped to final destination.

2/ South Central, 18,674; Southwest, 93,073; West, 26,070.

3/ Southeast, 10,906; South Central, 136,905; Southwest, 133,440; West, 54,392.

4/ Minor destinations and destinations designated as "other" by shipping warehouse.

Table 2--Cotton shipments for domestic use and export,
by State, selected marketing years

Origin	Domestic mills 1/			Ports 2/		
	1975/76	1980/81	1986/87	1975/76	1980/81	1986/87
	<u>Percent</u>					
Southeast:						
Alabama	99.7	93.1	98.3	0.3	6.9	1.7
Georgia	97.0	91.5	99.2	3.0	8.5	.7
North Carolina	100.0	100.0	99.7	0	0	.3
South Carolina	98.4	99.6	98.8	1.6	.4	1.2
South Central:						
Arkansas	88.8	83.4	91.1	11.2	16.6	8.9
Louisiana	89.8	89.8	88.7	10.2	10.2	11.3
Mississippi	89.1	79.1	86.1	10.9	20.9	13.9
Missouri	95.4	93.3	97.4	4.6	6.7	2.6
Tennessee	90.3	78.2	91.1	9.7	21.8	8.9
Southwest:						
Oklahoma	50.9	32.2	43.7	49.1	67.8	56.3
Texas	40.6	36.2	44.6	59.4	63.8	55.4
West:						
Arizona	36.7	12.8	19.7	63.3	87.2	80.3
California	55.8	32.0	29.1	44.2	68.0	70.9
New Mexico	82.0	58.2	56.3	18.0	41.8	43.7
United States	62.9	45.2	59.4	37.1	54.8	40.6

1/ Shipments to Southeast mill areas, interior concentration points, and other unspecified locations.

2/ Includes shipments to Canada.

Table 3--Cotton shipments by mode of transportation,
by State, selected marketing years

Origin	Rail			Truck		
	1975/76	1980/81	1986/87	1975/76	1980/81	1986/87
	<u>Percent</u>					
Southeast:						
Alabama	37.0	29.9	18.2	63.0	70.1	81.8
Georgia	22.7	28.9	6.9	77.3	71.1	93.1
North Carolina	25.4	35.9	4.8	74.6	64.1	95.2
South Carolina	49.7	25.0	4.0	50.3	75.0	96.0
South Central:						
Arkansas	54.7	32.7	7.1	45.3	67.1	92.9
Louisiana	46.6	14.9	2.8	53.4	85.1	97.2
Mississippi	38.4	19.7	9.8	61.6	80.3	90.2
Missouri	44.6	31.6	3.3	55.4	68.4	96.7
Tennessee	54.9	37.2	6.1	45.1	62.8	93.9
Southwest:						
Oklahoma	73.1	44.7	62.4	26.9	55.3	37.6
Texas	69.5	46.1	41.5	30.5	53.9	58.5
West:						
Arizona	29.2	18.2	2.4	70.8	91.8	97.6
California	45.6	23.8	19.2	54.4	76.2	80.8
New Mexico	72.1	37.7	14.2	27.9	62.3	85.8
United States	52.6	31.2	24.9	47.4	68.8	75.1

Figure 3
Exports vs. domestic shipments of Southeast cotton

Percent

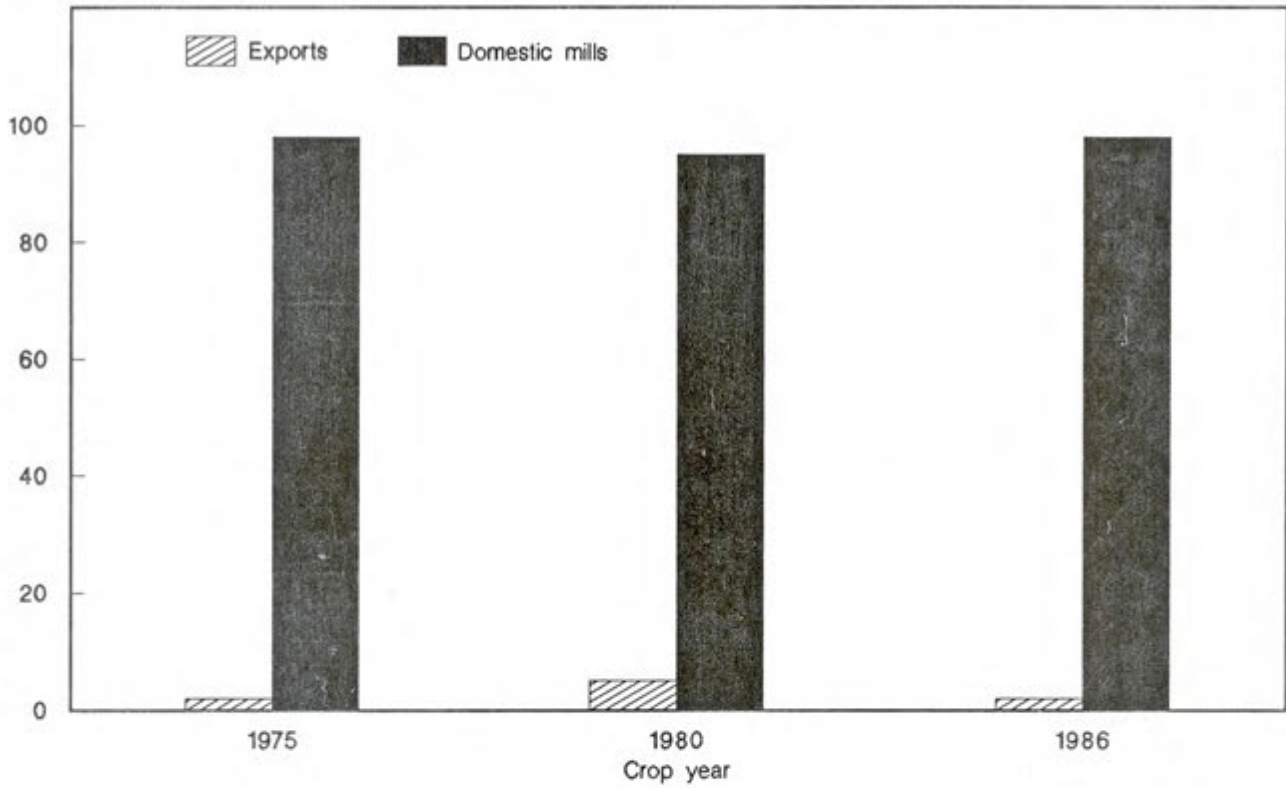


Figure 4
Rail vs. truck transportation of Southeast cotton

Percent

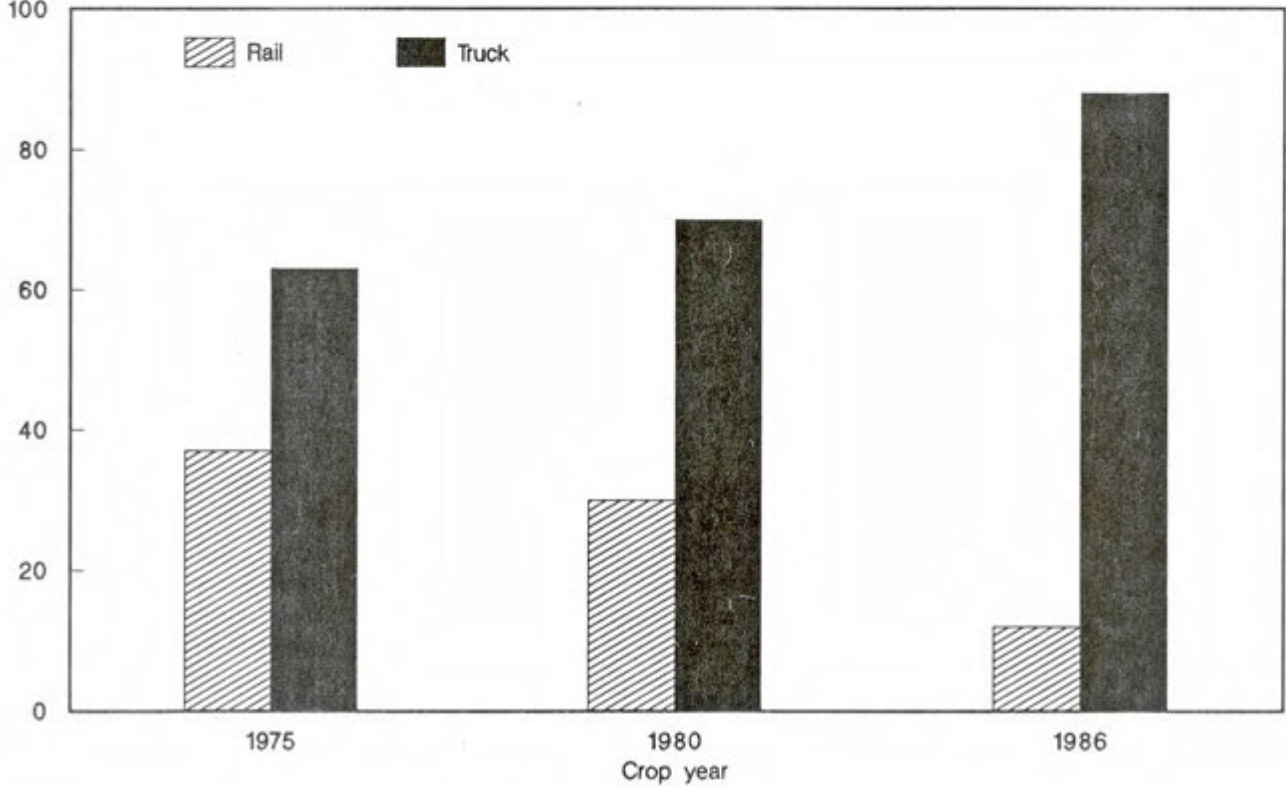


Table 4--Southeast: Cotton shipments from warehouses,
by destination and mode of transportation, 1986/87

Destination	Rail	Truck	Total	Share of Southeast total
	<u>Bales</u>			<u>Percent</u>
Southeast mill area:				
Interstate				
Alabama	1,239	15,872	17,111	2.2
Georgia	14,106	72,113	86,219	11.3
North Carolina	14,429	101,539	115,968	15.2
South Carolina	35,535	76,146	111,681	14.6
Virginia	4,510	2,309	6,819	.9
Total	69,819	267,979	337,798	44.2
Intrastate--				
Alabama	4,151	99,959	104,110	13.6
Georgia	80	15,512	15,592	2.0
North Carolina	2,450	58,715	61,165	8.0
South Carolina	8,540	201,787	210,327	27.5
Total	15,221	375,973	391,194	51.2
New England	0	0	0	0
Interior concentration points <u>1/</u>	0	10,906 <u>2/</u>	10,906	1.4
Canada	0	425	425	0
Ports:				
Atlantic coast	344	2,883	3,227	.4
Central gulf	0	2,635	2,635	.4
West gulf	0	520	520	.1
Pacific coast	3,449	155	3,604	.5
Other <u>3/</u>	345	13,064	13,409	1.8
Total shipments	89,178	674,540	763,718	100.0
<u>Percent</u>				
Truck vs. rail	11.7	88.3	100.0	NA

NA = Not applicable.

1/ Nonconsuming points from which cotton is reshipped to final destinations.

2/ Arkansas, 361; Mississippi, 5,296; Tennessee, 4,880; Texas, 369.

3/ Minor destinations and destinations designated as "other" by shipping warehouses.

Table 5--Alabama: Cotton shipments from warehouses,
by destination and mode of transportation, 1986/87

Destination	Rail	Truck	Total	Share of Alabama total
	<u>Bales</u>			<u>Percent</u>
Southeast mill area:				
Interstate--				
Georgia	13,578	87,810	101,388	26.2
North Carolina	12,750	66,899	79,649	20.6
South Carolina	32,001	51,306	83,307	21.5
Virginia	4,330	669	4,999	1.3
Total	62,659	206,684	269,343	69.6
Intrastate	4,151	99,959	104,110	26.9
New England	0	0	0	0
Interior concentration points <u>1/</u>	0	7,039 <u>2/</u>	7,039	1.8
Canada	0	425	425	.1
Ports:				
Atlantic coast	344	1,000	1,344	.4
Central gulf	0	1,168	1,168	.3
West gulf	0	0	0	0
Pacific coast	3,449	155	3,604	.9
Other <u>3/</u>	0	26	26	0
Total shipments	70,603	316,456	387,059	100.0
	<u>Percent</u>			
Truck vs. rail	18.2	81.8	100.0	NA

NA = Not applicable.

1/ Nonconsuming points from which cotton is reshipped to final destination.

2/ Arkansas, 53; Mississippi, 4,468; Tennessee, 2,518.

3/ Minor destinations and destinations designated as "other" by shipping warehouse.

Table 6--Georgia: Cotton shipments from warehouses,
by destination and mode of transportation, 1986/87

Destination	Rail	Truck	Total	Share of
				Georgia total
			<u>Bales</u>	<u>Percent</u>
Southeast mill area:				
Interstate--				
Alabama	739	6,606	7,345	12.1
North Carolina	703	7,014	7,717	12.7
South Carolina	2,134	11,203	13,337	21.9
Virginia	180	82	262	.4
Total	3,756	24,905	28,661	47.1
Intrastate	425	28,323	28,748	47.1
Interior concentration points <u>1/</u>	0	3,104 <u>2/</u>	3,104	5.1
Ports:				
Atlantic coast	0	477	477	.7
Central gulf	0	0	0	0
West gulf	0	0	0	0
Pacific coast	0	0	0	0
Other <u>3/</u>	0	0	0	0
Total shipments	4,181	56,809	60,990	100.0
<u>Percent</u>				
Truck vs. rail	6.9	93.1	100.0	NA

NA = Not applicable.

1/ Nonconsuming points from which cotton is reshipped to final destinations.

2/ Arkansas, 308; Mississippi, 108; Tennessee, 2,319; Texas, 369.

3/ Minor destinations and destinations designated as "other" by shipping warehouse.

Table 7--North Carolina: Cotton shipments from warehouses,
by destination and mode of transportation, 1986/87

Destination	Rail	Truck	Total	Share of N. Carolina total
	----- <u>Bales</u> -----			<u>Percent</u>
Southeast mill area:				
Interstate--				
Alabama	0	1,370	1,370	1.7
Georgia	0	2,740	2,740	3.4
South Carolina	1,400	13,637	15,037	18.6
Virginia	0	390	390	.5
Total	1,400	18,137	19,537	24.2
Intrastate	2,450	58,715	61,165	75.5
Interior concentration points <u>1/</u>	0	0	0	0
Canada	0	0	0	0
Ports:				
Atlantic coast	0	150	150	.1
Central gulf	0	200	200	.2
West gulf	0	0	0	0
Pacific coast	0	0	0	0
Other <u>2/</u>	0	0	0	0
Total shipments	3,850	77,202	81,052	100.0
	<u>Percent</u>			
Truck vs. rail	4.8	95.2	100.0	NA

NA = Not applicable.

1/ Nonconsuming points from which cotton is reshipped to final destination.

2/ Minor destinations and destinations designated as "other" by shipping warehouse.

Table 8--South Carolina: Cotton shipments from warehouses,
by destination and mode of transportation, 1986/87

Destination	Rail	Truck	Total	Share of S. Carolina total
	<u>Bales</u>			<u>Percent</u>
Southeast mill area:				
Interstate--				
Alabama	500	7,896	8,396	3.1
Georgia	528	12,063	12,591	4.7
North Carolina	976	27,626	28,602	11.6
Virginia	0	1,168	1,168	.4
Total	2,004	48,753	50,757	19.8
Intrastate	8,540	201,787	210,327	78.6
New England	0	0	0	0
Interior concentration points <u>1/</u>	0	763 <u>2/</u>	763	.3
Ports:				
Atlantic coast	0	1,256	1,256	.5
Central gulf	0	1,267	1,267	.5
West gulf	0	520	520	.2
Pacific coast				
Other <u>3/</u>	0	227	227	.1
Total shipments	10,544	254,573	265,117	100.0
	<u>Percent</u>			
Truck vs. rail	4.0	96.0	100.0	NA

NA = Not applicable.

1/ Nonconsuming points from which cotton is reshipped to final destination.

2/ Mississippi, 720; Tennessee, 43.

3/ Minor destinations and destinations designated as "other" by shipping warehouse.

Figure 5

Exports vs. domestic shipments of South Central cotton

Percent

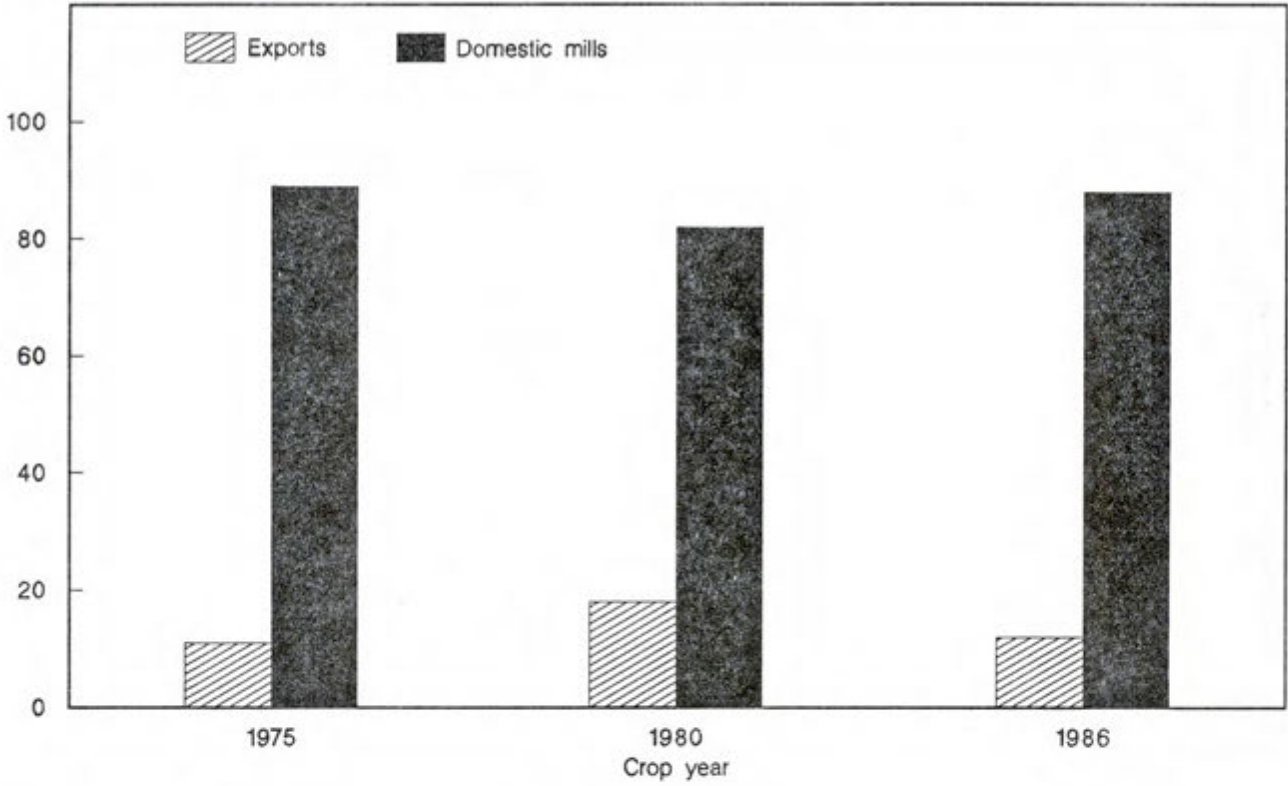


Figure 6

Rail vs. truck transportation of South Central cotton

Percent

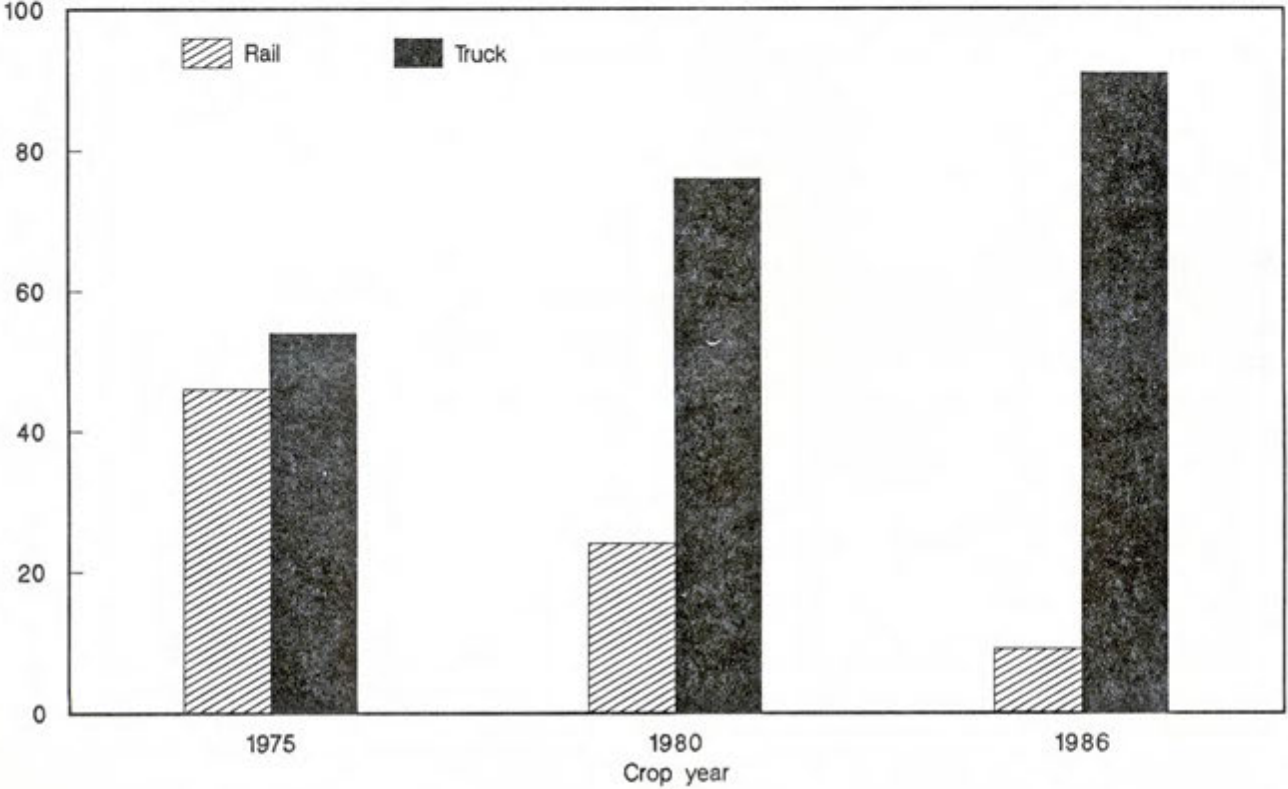


Table 9--South Central: Cotton shipments from warehouses,
by destination and mode of transportation, 1986/87

Destination	Rail	Truck	Total	Share of S. Central total
	<u>Bales</u>			<u>Percent</u>
Southeast mill area:				
Alabama	16,159	145,951	162,110	11.4
Georgia	2,293	143,145	145,438	10.2
North Carolina	16,940	391,449	408,389	28.8
South Carolina	20,031	299,987	320,018	22.6
Virginia	1,843	17,090	18,933	1.3
Total	57,266	997,622	1,054,888	74.3
New England	0	858	858	.1
Interior concentration points <u>1/</u>	18,674 <u>2/</u>	136,905 <u>3/</u>	155,579	11.0
Canada	4,585	7,987	12,572	.9
Ports:				
Atlantic coast	165	1,291	1,456	.1
Central gulf	12,645	83,729	96,374	6.8
West gulf	16,521	20,069	36,590	2.6
Pacific coast	14,269	11,958	26,227	1.8
Other <u>4/</u>	0	34,560	34,560	2.4
Total shipments	124,125	1,294,979	1,419,104	100.0
	<u>Percent</u>			
Truck vs. rail	8.8	91.2	100.0	NA

NA = Not applicable.

1/ Nonconsuming points from which cotton is reshipped to final destination.

2/ Mississippi, 15,496; Missouri, 1,928; Arkansas, 1,250.

3/ Arkansas, 11,875; Louisiana, 12,357; Mississippi, 87,952; Missouri, 13,969; Tennessee, 10,752.

4/ Minor destinations and destinations designated as "other" by shipping warehouse.

Table 10--Arkansas: Cotton shipments from warehouses,
by destination and mode of transportation, 1986/87

Destination	Rail	Truck	Total	Share of Arkansas total
	<u>Bales</u>			<u>Percent</u>
Southeast mill area:				
Alabama	1,466	25,487	26,953	16.5
Georgia	0	9,277	9,277	5.7
North Carolina	349	43,171	43,520	26.6
South Carolina	5,167	46,303	51,470	31.5
Virginia	0	585	585	.3
Total	6,982	124,823	131,805	80.6
New England	0	7	7	0
Interior concentration points <u>1/</u>	1,250 <u>2/</u>	11,875 <u>3/</u>	13,125	8.1
Canada	3,029	0	3,029	1.9
Ports:				
Atlantic coast	0	0	0	0
Central gulf	0	7,956	7,956	4.9
West gulf	0	269	269	.1
Pacific coast	384	2,875	3,259	2.0
Other <u>4/</u>	0	4,013	4,013	2.4
Total shipments	11,645	151,818	163,463	100.0
<u>Percent</u>				
Truck vs. rail	7.1	92.9	100.0	NA

NA = Not applicable.

1/ Nonconsuming points from which cotton is reshipped to final destination.

2/ Tennessee, 1,250.

3/ Arkansas, 975; Mississippi, 1,221; Tennessee, 9,679.

4/ Minor destinations and destinations designated as "other" by shipping warehouse.

Table 11--Louisiana: Cotton shipments from warehouses,
by destination and mode of transportation, 1986/87

Destination	Rail	Truck	Total	Share of Louisiana total
	<u>Bales</u>			<u>Percent</u>
Southeast mill area:				
Alabama	903	13,856	14,759	7.5
Georgia	188	21,402	21,590	11.0
North Carolina	1,396	48,828	50,224	25.6
South Carolina	1,639	69,086	70,725	36.1
Virginia	0	287	287	.2
Total	4,126	153,459	157,585	80.4
Interior concentration points <u>1/</u>	0	12,357 <u>2/</u>	12,357	6.3
Canada	522	340	862	.5
Ports:				
Atlantic coast	0	80	80	0
Central gulf	817	7,182	7,999	4.1
West gulf	0	12,956	12,956	6.6
Pacific coast	0	257	257	.1
Other <u>3/</u>	0	3,912	3,912	2.0
Total shipments	5,465	190,543	196,008	100.0
	<u>Percent</u>			
Truck vs. rail	2.8	97.2	100.0	NA

NA = Not applicable.

1/ Nonconsuming points from which cotton is reshipped to final destination.

2/ Arkansas, 621; Louisiana, 5,000; Mississippi, 2,434; Tennessee, 4,291; Texas, 11.

3/ Minor destination and destinations designated as "other" by shipping warehouse.

Table 12--Mississippi: Cotton shipments from warehouses,
by destination and mode of transportation, 1986/87

Destination	Rail	Truck	Total	Share of
				Mississippi total
			<u>Bales</u>	<u>Percent</u>
Southeast mill area:				
Alabama	12,704	99,425	112,129	12.0
Georgia	1,559	100,411	101,970	11.0
North Carolina	14,469	261,907	276,376	29.7
South Carolina	11,733	154,852	166,585	17.9
Virginia	1,657	12,771	14,428	1.5
Total	42,122	629,372	671,494	72.1
New England	0	851	851	.1
Interior concentration points <u>1/</u>	15,496 <u>2/</u>	87,952 <u>3/</u>	103,448	11.1
Canada	1,034	7,562	8,596	.9
Ports:				
Atlantic coast	0	1,211	1,211	.1
Central gulf	11,248	63,047	74,295	8.0
West gulf	16,521	6,344	22,865	2.5
Pacific coast	13,347	8,826	22,173	2.4
Other <u>4/</u>	0	26,635	26,635	2.8
Total shipments	99,768	831,800	931,568	100.0
				<u>Percent</u>
Truck vs. rail	9.8	90.2	100.0	NA

NA = Not applicable.

1/ Nonconsuming points from which cotton is reshipped to final destination.

2/ Mississippi, 6,586; Tennessee, 7,796; Texas, 1,114

3/ Arkansas, 10,097; Louisiana, 4,679; Mississippi, 18,674; Tennessee, 53,349; Texas, 1,153.

4/ Minor destinations and destinations designated as "other" by shipping warehouse.

Table 13--Missouri: Cotton shipments from warehouses,
by destination and mode of transportation, 1986/87

Destination	Rail	Truck	Total	Share of Missouri total
	<u>Bales</u>			<u>Percent</u>
Southeast mill area:				
Alabama	186	6,569	6,755	10.7
Georgia	0	7,517	7,517	11.9
North Carolina	0	16,148	16,148	25.6
South Carolina	592	13,729	14,321	22.7
Virginia	0	909	909	1.4
Total	778	44,872	45,650	72.3
Interior concentration points <u>1/</u>	1,928 <u>2/</u>	13,969 <u>3/</u>	15,897	25.1
Canada	0	85	85	.1
Ports:				
Atlantic coast	165	0	165	.3
Central gulf	400	960	1,360	2.2
West gulf	0	0	0	0
Pacific coast	0	0	0	0
Total shipments	3,271	59,886	63,157	100.0
		<u>Percent</u>		
Truck vs. rail	3.3	96.7	100.0	NA

NA = Not applicable.

1/ Nonconsuming points from which cotton is reshipped to final destination.

2/ Arkansas, 1,197; Missouri, 380; Tennessee, 351.

3/ Arkansas, 110; Louisiana, 98; Mississippi, 370; Missouri, 6,087; Tennessee, 7,267; Texas, 37.

Table 14--Tennessee: Cotton shipments from warehouses,
by destination and mode of transportation, 1986/87

Destination	Rail	Truck	Total	Share of Tennessee total
	----- <u>Bales</u> -----			<u>Percent</u>
Southeast mill area:				
Alabama	900	614	1,514	2.3
Georgia	546	4,538	5,084	7.8
North Carolina	726	21,395	22,121	34.1
South Carolina	900	16,017	16,917	26.1
Virginia	186	2,538	2,724	4.2
Total	3,258	45,102	48,360	74.5
Interior concentration points <u>1</u>/	0	10,752 <u>2</u> /	10,752	16.6
Ports:				
Atlantic coast	0	0	0	0
Central gulf	180	4,584	4,764	7.3
West gulf	0	500	500	.8
Pacific coast	538	0	538	.8
Total shipments	3,976	60,938	64,914	100.0
			<u>Percent</u>	
Truck vs. rail	6.1	93.9	100.0	NA

NA = Not applicable.

1/ Nonconsuming points from which cotton is reshipped to final destination.

2/ Arkansas, 279; Mississippi, 76; Tennessee, 10,370; Texas, 27.

Figure 7

Exports vs. domestic shipments of Southwest cotton

Percent
100

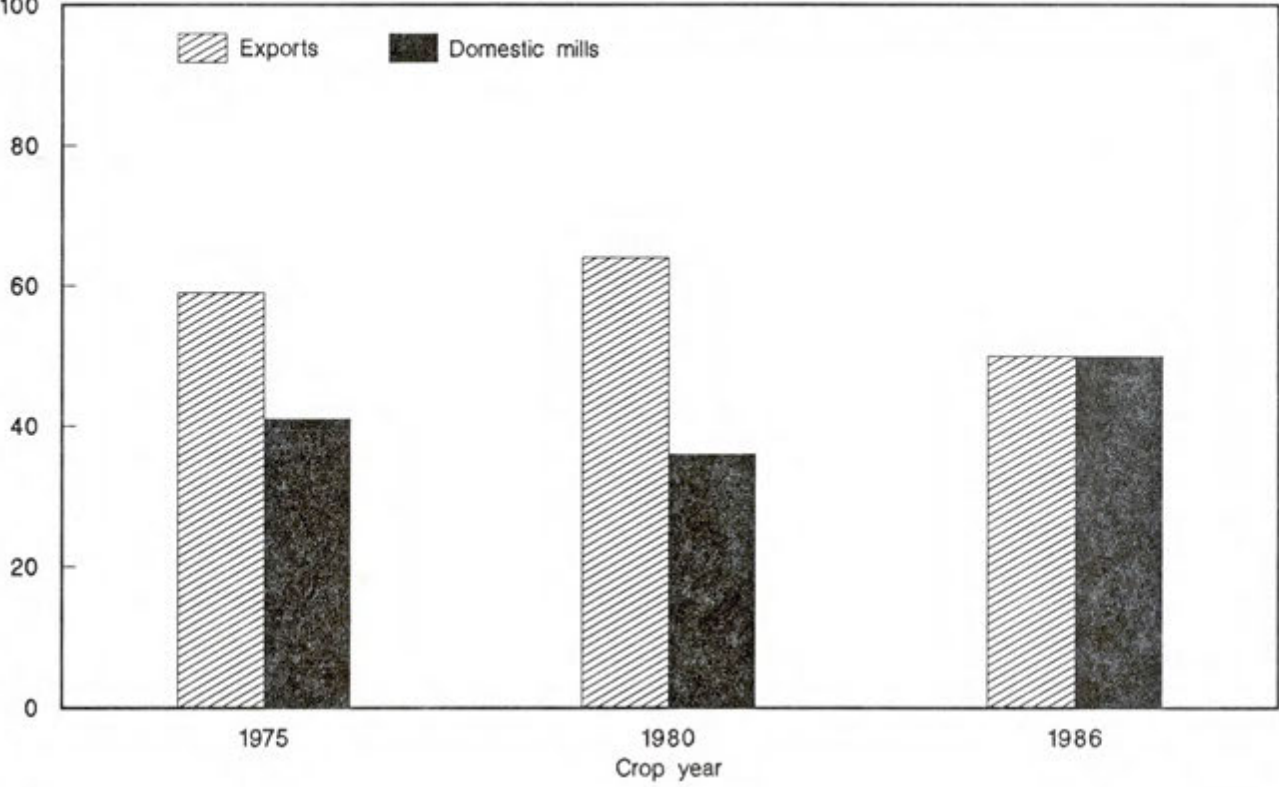


Figure 8

Rail vs. truck transportation of Southwest cotton

Percent
100

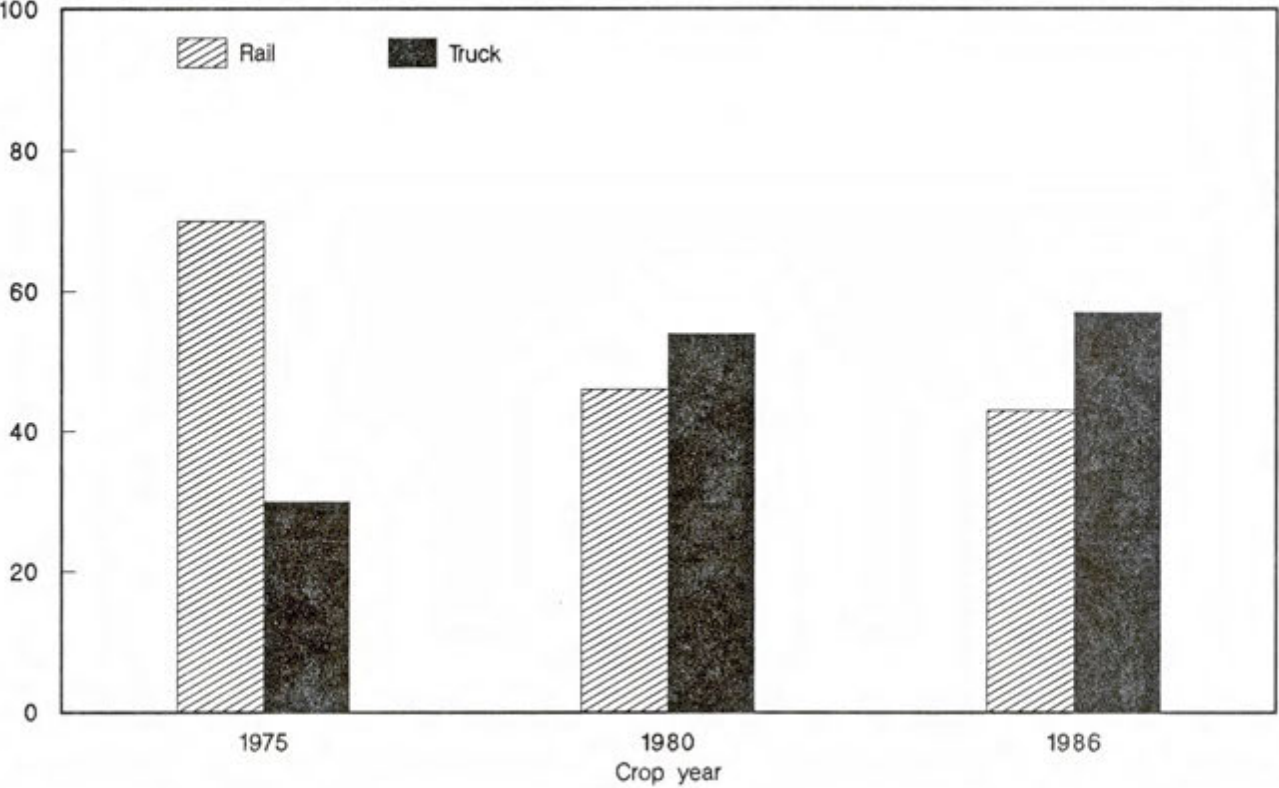


Table 15--Southwest: Cotton shipments from warehouses,
by destination and mode of transportation, 1986/87

Destination	Rail	Truck	Total	Share of Southwest total
	<u>Bales</u>			<u>Percent</u>
Southeast mill area:				
Alabama	56,422	120,512	176,934	5.6
Georgia	23,889	224,075	247,964	7.8
North Carolina	207,020	289,566	496,586	15.6
South Carolina	70,517	160,626	231,143	7.3
Virginia	6,954	5,675	12,629	.4
Total	364,802	800,454	1,165,256	36.7
New England	0	2,169	2,169	.1
Interior concentration points <u>1/</u>	93,073 <u>2/</u>	133,440 <u>3/</u>	226,513	10.2
Canada	1,386	10,323	11,709	.3
Ports:				
Atlantic coast	10,413	81,650	92,063	2.9
Central gulf	0	501	501	0
West gulf	63,049	623,274	686,323	16.2
Pacific coast	835,235	136,357	971,592	30.6
Other <u>4/</u>	10,075	6,316	16,391	3.0
Total shipments	1,378,033	1,794,484	3,172,517	100.0
	<u>Percent</u>			
Truck vs. rail	43.4	56.6	100.0	NA

NA = Not applicable.

1/ Nonconsuming points from which cotton is reshipped to final destination.

2/ Mississippi, 6,650; Tennessee, 58,145; Oklahoma, 15,940; Texas, 12,338.

3/ Arkansas, 3,760; Louisiana, 3,656; Mississippi, 7,874; Missouri, 2,495; Tennessee, 14,813; Oklahoma, 1,839; Texas, 99,003.

4/ Minor destinations and destinations designated as "other" by shipping warehouse.

Table 16--Oklahoma: Cotton shipments from warehouses,
by destination and mode of transportation, 1986/87

Destination	Rail	Truck	Total	Share of Oklahoma total
	<u>Bales</u>			<u>Percent</u>
Southeast mill area:				
Alabama	3,536	13,097	16,633	5.6
Georgia	738	17,929	18,667	6.3
North Carolina	18,665	14,393	33,058	11.1
South Carolina	8,012	10,801	18,813	6.3
Virginia	3,820	676	4,496	1.5
Total	34,771	56,896	91,667	30.8
Interior concentration points <u>1/</u>	22,152 <u>2/</u>	15,571 <u>3/</u>	37,723	12.7
Canada	0	454	454	.2
Ports:				
Atlantic coast	0	0	0	0
Central gulf	0	0	0	0
West gulf	6,144	26,804	32,948	11.1
Pacific coast	122,268	11,292	133,560	45.0
Other <u>4/</u>	0	532	532	.2
Total shipments	185,335	111,549	296,884	100.0
	<u>Percent</u>			
Truck vs. rail	62.4	37.6	100.0	NA

NA = Not applicable.

1/ Nonconsuming points from which cotton is reshipped to final destination.

2/ Mississippi, 395; Tennessee, 5,119; Oklahoma, 15,940; Texas, 698.

3/ Louisiana, 80; Mississippi, 4,669; Tennessee, 303; Oklahoma, 1,839; Texas, 8,680.

4/ Minor destinations and destinations designated as "other" by shipping warehouse.

Table 17--Texas: Cotton shipments from warehouses,
by destination and mode of transportation, 1986/87

Destination	Rail	Truck	Total	Share of Texas total
	<u>Bales</u>			<u>Percent</u>
Southeast mill area:				
Alabama	52,886	107,415	160,301	5.6
Georgia	23,151	206,146	229,297	8.0
North Carolina	188,355	275,173	463,528	16.1
South Carolina	62,505	149,825	212,330	7.4
Virginia	3,134	4,999	8,133	.3
Total	330,031	743,558	1,073,589	37.4
New England	0	2,169	2,169	.1
Interior concentration points <u>1/</u>	70,921 <u>2/</u>	117,869 <u>3/</u>	188,790	6.5
Canada	1,386	9,869	11,255	.4
Ports:				
Atlantic coast	10,413	81,650	92,063	3.2
Central gulf	0	501	501	0
West gulf	56,905	596,470	653,375	22.7
Pacific coast	712,967	125,065	838,032	29.1
Other <u>4/</u>	10,075	5,784	15,859	.6
Total shipments	1,192,698	1,682,935	2,875,633	100.0
<u>Percent</u>				
Truck vs. rail	41.5	58.5	100.0	NA

NA = Not applicable.

1/ Nonconsuming points from which cotton is reshipped to final destination.

2/ Mississippi, 6,255; Tennessee, 53,026; Texas, 11,640.

3/ Arkansas, 3,760; Louisiana, 3,576; Mississippi, 3,205; Missouri, 2,495;
Tennessee, 14,510; Texas, 90,323.

4/ Minor destinations and destinations designated as "other" by shipping warehouse.

Figure 9
Exports vs. domestic shipments of West cotton

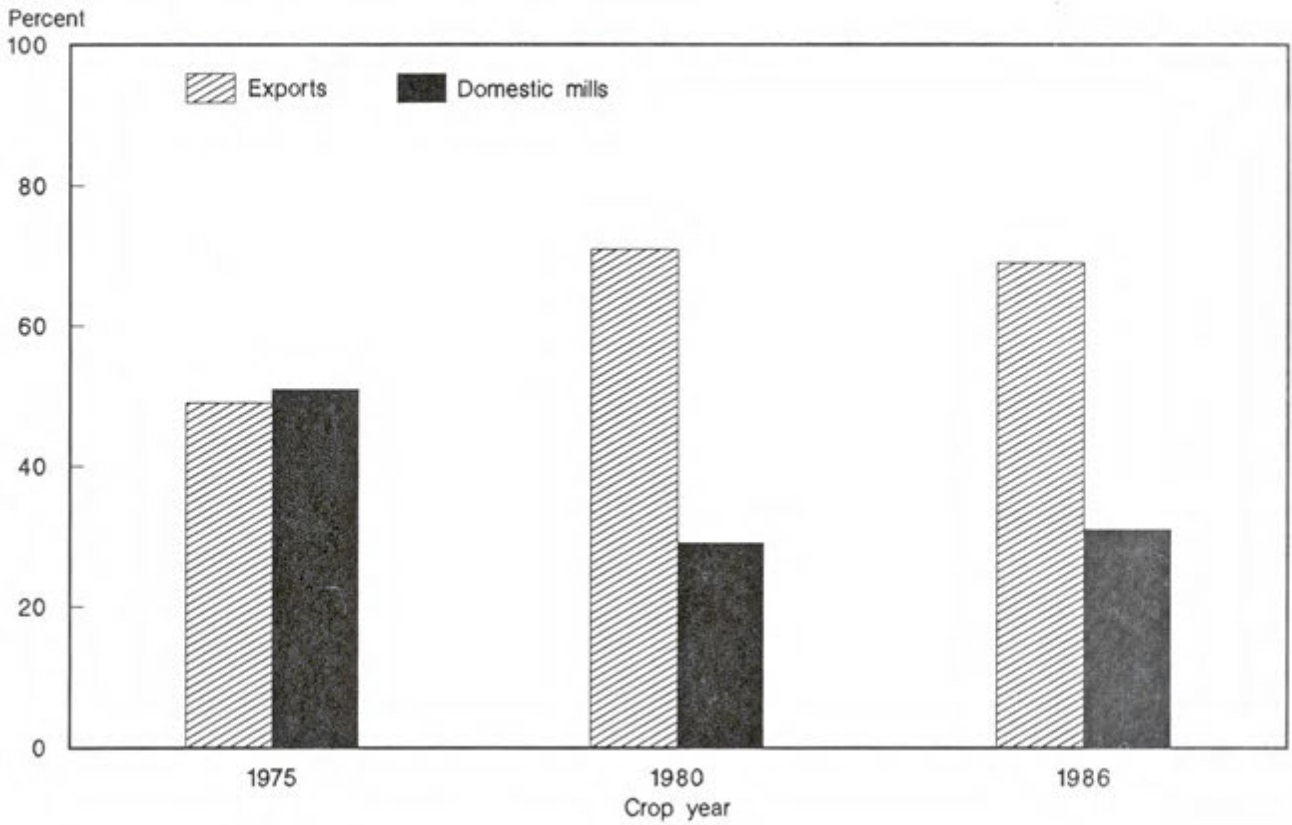


Figure 10
Rail vs. truck transportation of West cotton

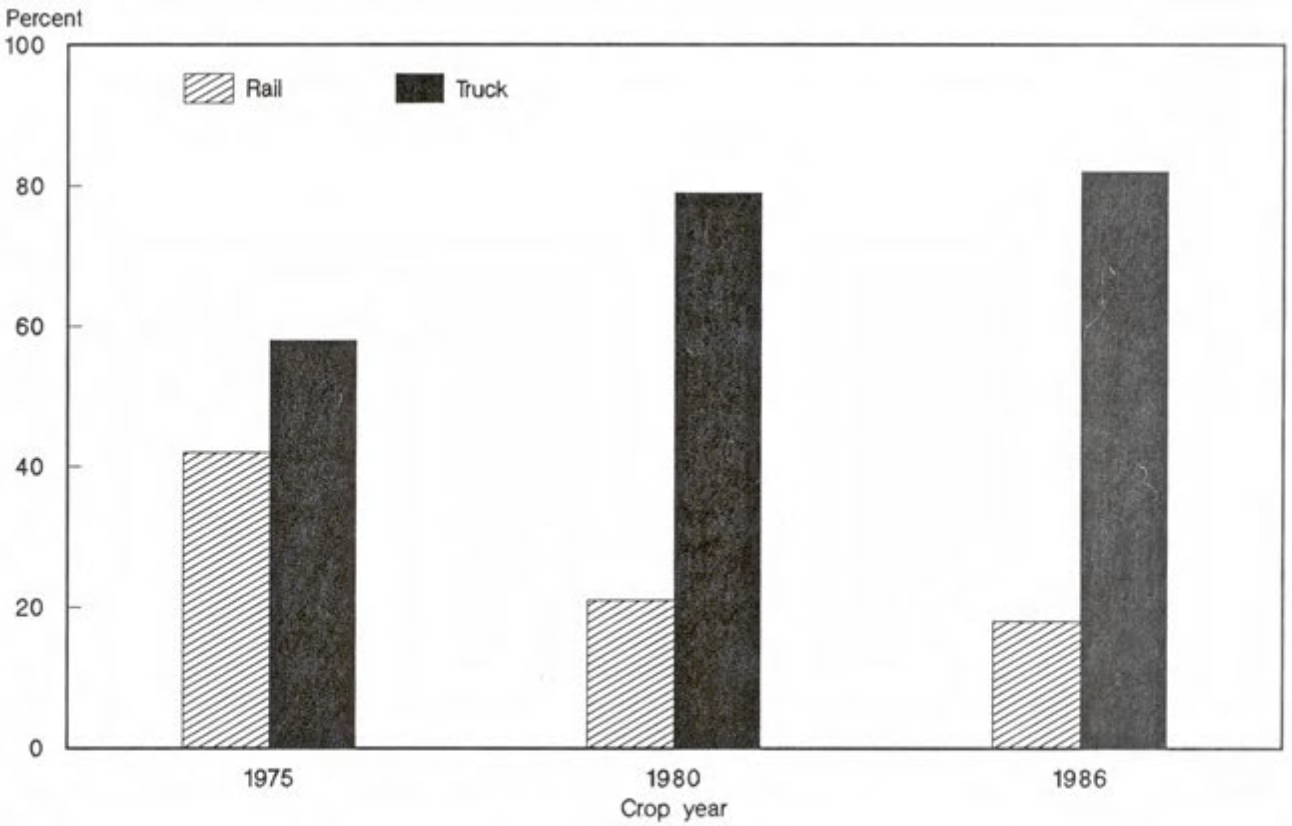


Table 18--West: Cotton shipments from warehouses, by destination and mode of transportation, 1986/87

Destination	Rail	Truck	Total	Share of West total
	<u>Bales</u>			<u>Percent</u>
Southeast mill area:				
Alabama	95,179	44,413	139,592	4.7
Georgia	40,429	86,316	126,745	4.3
North Carolina	135,104	169,303	304,407	10.2
South Carolina	138,304	96,420	234,724	7.9
Virginia	11,701	4,897	16,598	.5
Total	420,717	401,349	822,066	27.6
Interior concentration points <u>1/</u>				
	26,070 <u>2/</u>	54,392 <u>3/</u>	80,462	2.7
Canada	3,560	1,960	5,520	.2
Ports:				
Atlantic coast	0	0	0	0
Central gulf	4,958	0	4,958	.2
West gulf	2,000	70,439	72,439	2.4
Pacific coast	64,599	1,911,996	1,976,595	66.5
Other <u>4/</u>	540	10,179	10,719	.4
Total shipments	522,444	2,450,315	2,972,759	100.0
	<u>Percent</u>			
Truck vs. rail	17.6	82.4	100.0	NA

NA = Not applicable.

1/ Nonconsuming points from which cotton is reshipped to final destinations.

2/ Mississippi, 901; Tennessee, 22,447; Texas, 2,722.

3/ Louisiana, 1,528; Mississippi, 6,229; Missouri, 58; Tennessee, 31,814; Texas, 14,763.

4/ Minor destinations and destinations designated as "other" by shipping warehouse.

Table 19--Arizona: Cotton shipments from warehouses,
by destination and mode of transportation, 1986/87

Destination	Rail	Truck	Total	Share of Arizona total
	<u>Bales</u>			<u>Percent</u>
Southeast mill area:				
Alabama	540	3,001	3,541	1.7
Georgia	200	5,505	5,705	2.7
North Carolina	989	10,701	11,690	5.5
South Carolina	1,000	5,690	6,690	3.1
Virginia	0	164	164	.1
Total	2,729	25,061	27,790	13.1
Interior concentration points <u>1/</u>	1,462 <u>2/</u>	6,645 <u>3/</u>	8,107	3.8
Ports:				
Atlantic coast	0	0	0	0
Central gulf	0	0	0	0
West gulf	0	7,516	7,516	3.5
Pacific coast	926	162,547	163,473	76.8
Other <u>4/</u>	0	5,993	5,993	2.8
Total shipments	5,117	207,762	212,879	100.0
		<u>Percent</u>		
Truck vs. rail	2.4	97.6	100.0	NA

NA = Not applicable.

1/ Nonconsuming points from which cotton is reshipped to final destinations.

2/ Tennessee, 419; Texas, 1,043.

3/ Louisiana, 1,500; Tennessee, 2,951; Texas, 2,194.

4/ Minor destinations and destinations designated as "other" by shipping warehouse.

Table 20--California: Cotton shipments from warehouses,
by destination and mode of transportation, 1986/87

Destination	Rail	Truck	Total	Share of California total
	<u>Bales</u>			<u>Percent</u>
Southeast mill area:				
Alabama	90,114	37,122	127,236	5.1
Georgia	38,749	31,091	69,840	2.8
North Carolina	128,895	122,986	251,881	10.0
South Carolina	132,196	74,066	206,262	8.2
Virginia	11,371	3,101	14,472	.6
Total	401,325	268,366	669,691	26.7
Interior concentration points <u>1/</u>	19,063 <u>2/</u>	37,563 <u>3/</u>	56,626	2.2
Canada	3,560	1,910	5,470	.2
Ports:				
Atlantic coast	0	0	0	0
Central gulf	4,958	0	4,958	.2
West gulf	2,000	0	2,000	.1
Pacific coast	50,178	1,716,266	1,766,444	70.4
Other <u>4/</u>	540	3,358	3,898	.2
Total shipments	481,624	2,027,463	2,509,087	100.0
	<u>Percent</u>			
Truck vs. rail	19.2	80.8	100.0	NA

NA = Not applicable.

1/ Nonconsuming points from which cotton is reshipped to final destination.

2/ Mississippi, 901; Tennessee, 16,483; Texas, 1,679.

3/ Mississippi, 5,270; Tennessee, 26,516; Texas, 5,777.

4/ Minor destinations and destinations designated as "other" by shipping warehouse.

Table 21--New Mexico: Cotton shipments from warehouses,
by destination and mode of transportation, 1986/87

Destination	Rail	Truck	Total	Share of New Mexico total
	<u>Bales</u>			<u>Percent</u>
Southeast mill area:				
Alabama	4,525	4,290	8,815	3.5
Georgia	1,480	49,720	51,200	20.4
North Carolina	5,220	35,616	40,836	16.3
South Carolina	5,108	16,664	21,772	8.7
Virginia	330	1,632	1,962	.8
Total	16,663	107,922	124,585	49.7
Interior concentration points <u>1/</u>	5,545 <u>2/</u>	10,184 <u>3/</u>	15,729	6.3
Canada	0	50	50	0
Ports:				
Atlantic coast	0	0	0	0
Central gulf	0	0	0	0
West gulf	0	62,923	62,923	25.1
Pacific coast	13,495	33,183	46,678	18.6
Other <u>4/</u>	0	828	828	.3
Total shipments	35,703	215,090	250,793	100.0
	<u>Percent</u>			
Truck vs. rail	14.2	85.8	100.0	NA

NA = Not applicable.

1/ Nonconsuming points from which cotton is reshipped to final destination.

2/ Tennessee, 5,545.

3/ Louisiana, 28; Mississippi, 959; Missouri, 58; Tennessee, 2,347;

Texas, 6,792.

4/ Minor destinations and destinations designated as "other" by shipping warehouse.

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