Project B-211
Technical Report No. 6

THE COOSA VALLEY'S RESOURCES FOR THE MANUFACTURE OF WOOD HOUSEHOLD FURNITURE

Prepared for

Coosa Valley Area Planning
and Development Commission

by

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Summary

The Coosa Valley has both the resources and the location features to make it an advantageous area for the manufacture of wood household furniture. Its assets include:

1. a large and continuing supply of labor,
2. excellent industrial training facilities,
3. hardwood sawtimber resources measured in billions of board feet,
4. rail, highway, and air transportation access to all major markets and sources of supply, and
5. proximity to one million square feet of display space which is so located as to be within two hours' flying time of all but two of the major cities east of the Rocky Mountains.

The available labor supply is estimated at from 16,000 to 27,000, and both wage rates and fringe benefits are likely to be lower than in major furniture producing states, such as North Carolina. Productivity at existing plants is high, according to a recent survey. Prospective newcomers to the Coosa Valley can take advantage of both pre-employment and on-the-job training services which are available throughout the area, in some cases at no expense to the company. These services include the courses and facilities at an area vocational-technical school located in Rome.

Hard hardwood sawtimber available within 100 miles of Rome, Georgia, the largest city in the Coosa Valley, totaled almost 10 billion board feet in 1961; oak was the predominant species. Soft hardwood sawtimber in the area totaled 3.1 billion board feet; gum and poplar were the predominant species. Net sawtimber volume is growing rapidly in the Valley -- hard hardwood sawtimber volume grew 79% between 1953 and 1961, and soft hardwood volume grew 47%. Roughly 25% of the hardwood available within 100 miles of Rome is believed to be suitable for exposed furniture surfaces.

Georgia and the several states surrounding the Coosa Valley produce large quantities of other necessary raw materials, including woven upholstery fabrics, dimension stock, hardwood plywood, and hardwood veneer. Wood particleboard, springs, and fillings and paddings are also produced.

The Valley is served by 48 common motor carriers, a variety of piggyback facilities, five main-line railroads, and three commercial airports. It

offers furniture manufacturers attractive power and fuel sources, available buildings, low construction costs, and local financing.

Some 45 miles south of the Coosa Valley is located the one-million-square foot Atlanta Merchandise Mart with its valuable and growing ability to attract furniture buyers. Including this important wholesaling city, the Coosa Valley is closer than Raleigh, North Carolina, to 15 of the 25 top furniture wholesaling cities in the U. S.

As a bonus to its available manufacturing resources and national distribution position, a site in the Coosa Valley area will be in the center of the $260 million southeastern wood household furniture market. This market, which is growing by $9 million a year, can be shipped to more cheaply by plants in the Coosa Valley than by competing plants in Dallas, Texas, Bloomington, Illinois, and High Point, North Carolina.

INTRODUCTION

Increasing demand for furniture in the United States is firmly based on the nation's increasing total personal consumption expenditures. Total personal consumption expenditures reached $375 billion in 1963, a 61% increase over 1953. In this same decade, personal consumption expenditures for furniture grew 64% to a total of $5.4 billion in 1963. Continued growth of demand for wood household furniture is an obvious prediction.

An awareness of this trend has caused entrepreneurs and successful established furniture companies to express an interest in locating plants in Georgia. Several inquiries have come from North Carolina companies which are experiencing a greatly increased demand for their products. In order to assure themselves adequate sources of both labor and hardwood timber, they wish to establish branch manufacturing plants at sites outside North Carolina.

This study was undertaken to assess the feasibility of locating new furniture plants in the Coosa Valley area of northwest Georgia -- an area encompassing the 13 counties of Bartow, Catoosa, Chattooga, Dade, Douglas, Floyd, Gordon, Haralson, Murray, Paulding, Polk, Walker, and Whitfield. The area is known to have more than adequate supplies of both labor and hardwood timber and appears to be well suited for the manufacture of wood furniture in other ways as well. Two medium-sized and more than a dozen small plants are already manufacturing wood household furniture in the Valley.

This report is designed to answer the specific inquiries of both entrepreneurs and established manufacturers who may consider locating new plants in the Coosa Valley. It presents information on those aspects of the Valley's economy which should be of interest to prospective local plant managers. Special emphasis is placed on labor and hardwood timber resources in the Coosa Valley area because of the particular significance of these factors in the manufacture of wood household furniture.

Availability

The total Coosa Valley area civilian labor force is estimated at 111,020 persons in recent Georgia Department of Labor reports. There are approximately 105,570 employed persons in the area, 47% of whom are engaged in manufacturing. Current unemployment is 5,450, or 5% of the total civilian labor force. Some labor availability indicators for each of the Valley's 13 counties are presented in Table 1.

Georgia Employment Security Agency reports indicate that the available labor supply in a given county is approximately three to five times the number of unemployed. Since total unemployment in the Valley is 5,450, available labor supply in the area should be between 16,000 and 27,000. Part of the total number would be drawn from counties surrounding the Valley in Georgia, Alabama, and Tennessee. The available labor supply is estimated to be 10% skilled (e.g., machinists, carpenters, foremen), 45% semiskilled (e.g., loopers, cutters, inspectors, truck drivers), 25% unskilled, and 20% professional, managerial, clerical, sales, or service workers.

The availability of workers in the Valley has received favorable comment from managements of new firms requiring from six to 900 employees. One of the larger employers had 10,000 applications in its files before it started hiring and continued to receive applications at a rate of 25 to 50 a week when it was at the end of its initial hiring period. A few years later, a public announcement that the hourly work force would be enlarged elicited, within a 12-week period, 10 times as many applications as there were job openings.

Obviously many of these applicants did not meet the company's screening requirements. Management estimates that half the applicants possessed at least minimum requirements and that a quarter of all applicants had a usable skill. In general, the skilled applicants came from the larger industrial cities in the South -- particularly Atlanta, Chattanooga, and Birmingham. Others learned their trades in northern cities or within the Valley.

Major employers requiring skilled and semiskilled workers have their employment needs more than adequately filled from current application files. Furniture plants moving into the Valley are likely to duplicate the experience

Table 1

LABOR AVAILABILITY INDICATORS IN THE COOSA VALLEY AREA
(June 1964)

County	Total Population[1/]	Civilian Labor Force[2/]	Unemployment	Major Manufacturing Industries
Bartow	30,900	9,120	460 (5%)	Textiles, apparel
Catoosa	22,400	2,990	100 (3.3%)	Textiles
Chattooga	20,900	7,520	350 (4.6%)	Textiles, apparel
Dade	9,100	1,050	90 (8.6%)	Lumber, furniture
Douglas	17,700	3,070	190 (6.2%)	Textiles
Floyd	70,100	27,630	1,090 (3.9%)	Textiles, metals, and machinery
Gordon	20,100	6,960	360 (5.2%)	Textiles, apparel
Haralson	15,000	6,310	160 (2.5%)	Apparel
Murray	11,100	2,060	140 (6.8%)	Textiles, apparel
Paulding	13,600			
Polk	29,600	11,180	940 (8.4%)	Textiles
Walker	49,000	11,140	550 (4.9%)	Textiles, apparel
Whitfield[3/]	42,109	21,990	1,020 (4.6%)	Textiles, apparel
	351,609	111,020	5,450 (4.9%)	

1/ Georgia Department of Public Health, 1964.

2/ Excludes members of the Armed Forces and inmates of institutions.

3/ July 1964.

Source: Georgia Department of Labor

of other newcomers and should expect to receive more than enough job applicants. Local chambers of commerce and other development agencies can arrange labor availability surveys for companies interested in specific communities.

Labor Costs and Productivity

Prevailing wage rates vary appreciably from one county to another in the Coosa Valley area. Nearby metropolitan areas -- Atlanta on the south and Chattanooga on the north -- influences wage rates to a degree, but their effect is not excessive. Of greater importance than the rate structure of any particular county is the high ratio of available labor and the relatively high productivity rate.

Wage rates and fringe-benefit costs for furniture manufacturers in the Coosa Valley are likely to approximate those shown in Tables 2 and 3, which are based on a survey conducted in late 1964 and early 1965. Wage rates presented in Table 2 do not accurately reflect total wages that might be paid by companies using an incentive system, a point which will be discussed in detail in succeeding paragraphs.

The furniture labor cost survey was designed to approximate the conditions under which a new plant might be established in the Coosa Valley. Detailed information was sought from six companies of medium size (from 100 to 400 employees) located in small communities (population from 2,500 to 35,000) which are outside of Atlanta (actually, at least 50 miles from Atlanta). Five companies with a total of 1,250 employees responded in time to be included in the results.

The survey shows a wage-rate structure which is well below the national average and below the wage-rate structures of major furniture manufacturing states in the Southeast. But it also shows a broad range of pay for each job title. Similar conclusions can be drawn for fringe-benefit costs.

The broad range of wages turned up by the survey is due primarily to the fact that two companies pay incentive wages on top of base rates while the other three pay only straight, non-incentive wages. The result is that some companies are paying total wages which are from 6% to 89% higher than those paid by other companies for the same job title.

Table 2

RANGE OF WAGES PAID BY FIVE FURNITURE MANUFACTURERS IN GEORGIA
(dollars per hour)

	Job Title	Average Rate	Average Starting Rate	Average Top Rate	Range of Top Rates
1.	Saw Operator, trim	1.42	1.33	1.46	1.39-1.53
2.	Saw Operator, other (cut-off band, straight-line rip)	1.40	1.26	1.44	1.35-1.50
3.	Planer, rough or finish	1.36	1.28	1.43	1.39-1.45
4.	Glue Clamp Operator	1.31	1.26	1.38	1.28-1.45
5.	Router, Shaper, or Boring Machine Operator	1.41	1.29	1.50	1.39-1.65
6.	Molder, Dado or Lathe Operator	1.49	1.31	1.52	1.34-1.61
7.	Sander, belt	1.38	1.26	1.44	1.36-1.50
8.	Pre-assembler	1.38	1.26	1.41	1.35-1.55
9.	Frame Builder	1.45	1.27	1.49	1.40-1.67
10.	Sprayer	1.52	1.28	1.54	1.47-1.60
11.	Hand Rubber	1.32	1.26	1.33	1.29-1.35
12.	Finish Worker, other (sander, patchman, stain wiper, wash-off, repair)	1.30	1.26	1.42	1.35-1.60
13.	Pad Installer	1.33	1.26	1.34	1.31-1.36
14.	Fabric Cutter	1.44	1.28	1.46	1.35-1.56
15.	Sewing Machine Operator	1.47	1.27	1.48	1.39-1.57
16.	Zipper Machine Operator	1.47	1.27	1.47	1.36-1.57
17.	General Upholsterer	1.55	1.35	1.58	1.51-1.68
18.	Inspector, Wood Products	1.52	1.28	1.56	1.46-1.63
19.	Inspector, Upholstered Products	1.57	1.30	1.60	1.55-1.63
20.	Shipping Personnel (loader, puller, packer)	1.40	1.25	1.41	1.34-1.45
21.	Janitor	1.30	1.25	1.32	1.27-1.37
22.	Maintenance Man	1.58	1.29	1.61	1.53-1.80
23.	Clerk (shipping, receiving, stock)	1.37	1.25	1.39	1.33-1.55

This broad range of wages does not show up in Table 2, however, because the table is derived from only the base rates paid by companies with incentive plans and the total wages of companies without incentive plans. Incentive rates are applied by one or two companies to 15 of the job titles listed in Table 2 -- numbers 1 through 10 and 13 through 17. None of the companies applies incentive rates to the other eight job titles.

When incentive rates are applied to the 15 job titles, wages range from 110% to 189% of the base rate and average 141% of the base rate. The highest base rate used for incentive application is at the lower end of the range of top rates shown in Table 2 one third of the time, at the upper end of the range one third of the time, and within the range one third of the time.

Top rates shown for incentive jobs in Table 2 are from $1.36 for a pad installer to $1.68 for a general upholsterer. With the application of incentive pay, the top wages would range from $1.67 to $3.18. Although there is no logical method for applying the incentive information derived from the survey to the average hourly rate shown in the first column of Table 2, companies with incentive systems can roughly estimate the wages they are likely to pay in the Coosa Valley area by adding 40% to the rates shown.

Both the incentive-paying and the non-incentive-paying companies in the survey are convinced that their method is preferable. The straight-wage companies do not believe the additional administrative costs required by an incentive system would be offset by lower unit production costs. The incentive-paying companies claim that the higher wages and costs are more than compensated for by higher productivity.

The manager of one incentive-paying plant in Georgia -- one which is owned by a national company -- has only praise for his workers in spite of the relatively high wages he is paying. He claims that productivity at his plant is presently higher than at any of the company's other plants in the Northeast, the Midwest, and the Far West and that his plant has always been at or near the top in productivity. Since the company pays exactly the same incentive rate and nearly the same base rate at all of its plants, the high productivity of the Georgia plant cannot be attributed to the wage structure. He also claims that his plant has always produced the best-quality furniture -- fewer pieces have been returned to his factory for reworking.

Fringe benefits of the companies participating in the survey also cover a broad range. They are shown in Table 3.

Table 3

FRINGE BENEFITS OF SELECTED COMPANIES IN THE GEORGIA FURNITURE INDUSTRY

Paid Holidays:	0 to 7
Shift Differential:	Only one company uses a second shift. It pay a 5¢ per hour shift differential.
Vacation:	One week after one year - 5 companies Two weeks after five years - 3 companies Three weeks after 15 years - 2 companies
Insurance and Hospital Options:	All companies have hospital, surgical, and life insurance coverage. Two of those supplying information pay half the cost and two pay all the cost.
Pensions:	Two companies contribute to employee retirement programs.
Total Fringe Benefits:	Total costs ranging from 16¢ to 43¢ per hour were reported.

Skills and Training Facilities

Lumber, wood products, furniture, and fixtures are manufactured in the Coosa Valley by about 75 plants with a total employment of 1,300. One fifth of the plants and a little less than half of the employees are engaged in producing wood household furniture.

Since skilled furniture workers are not readily available in the Valley, new plants will need to train new workers or retrain workers from other industries. The decline of the textile industry in some parts of the Valley has produced some labor surplus which is readily adaptable, according to the managements of some recently located plants.

Pre-employment and on-the-job programs for both new and expanding plants in the Coosa Valley are provided by state and local organizations. Expenses paid by the prospective employer vary; in some cases the company incurs no charges.

Job training specifications generally are determined by the prospective employer in cooperation with personnel from the Coosa Valley Vocational-Technical School (Coosa Tech) in Rome and the Trade and Industrial Education Service of the Georgia State Department of Education. Discussion determines the method of selecting trainees, the length of the training period, the basic skills and knowledge to be taught, and the site for classes. The number of job classifications for which training programs may be established for one employer is not limited, provided there is a minimum of 10 trainees per instructor.

Instructors may be selected from the Coosa Tech staff. In the event the staff has no qualified instructor, the company is asked to recommend one.

Training programs may be sponsored by any local board of education in the Valley in conjunction with the State Board of Education. The State Board will reimburse the local board to which the instructor is responsible for at least 90% of the instructor's salary, the remainder to come from local sources, including the local board and the prospective employer.

Suitable buildings and utilities are provided at no cost when classes are conducted at Coosa Tech or other schools or public buildings in the Valley. Funds for rented facilities must be provided by local sources, such as the Board of Education or the Chamber of Commerce.

Machinery and equipment at Coosa Tech may be used for training programs free of charge. All machinery required at other locations or additional machinery required at Coosa Tech must be provided and installed by the prospective employer on a loan basis. The company is expected to supply instructional materials and maintenance for all training programs. In some cases, Federal funds may be used to provide the necessary classroom space, machinery, and instructional materials.

The Georgia State Employment Service will, upon request of the company and program officials, recruit, test, and select prospective trainees and refer them to the training program for further screening. Selected applicants will be advised of the company's employment schedule and requirements and reminded that the most proficient trainees will be selected for employment first.

Further information or consultative assistance regarding the training programs may be obtained from local school officials in the Coosa Valley area,

the State Trade and Industrial Education Service, or Mr. Maurice Culberson, Director of the Coosa Valley Vocational-Technical School, 112 Hemlock Street, Rome, Georgia.

RAW MATERIALS

Hardwood Sawtimber

Sawtimber stands in the 1.9 million acres of commercial forest within the Coosa Valley are large and increasing in volume. Net volume in the 13 counties amounted to 2,169 million board feet in 1961. This total is nearly 50% higher than eight years earlier, according to data presented in Table 4.

Hardwood species, which accounted for about three fifths of the total net volume in 1961, showed the greatest increase. Soft hardwoods totaled 326 million board feet in 1961 for a 47% increase over 1953, and hard hardwoods totaled 962 million board feet for a 79% increase. Softwoods increased 27% to a total of 881 million board feet in 1961.

Some of the best sawtimber stands in Tennessee, Alabama, and Georgia adjoin those of the Coosa Valley. The volume of sawtimber available within 100 miles of Rome, Georgia, the largest city in the Coosa Valley, is shown in Table 5. The geographical area covered by the table is delineated on Map 1. About 45% of the sawtimber in the area is hard hardwood, predominantly oak. The area includes stands of very high quality Appalachian hardwoods.

A rough indication of the relative volumes of various species of sawtimber available can be inferred from Table 6. The geographical area for which data are presented comprises two forestry divisions of Georgia, which include all of the Coosa Valley counties plus 40 other north Georgia counties. (See Map 1.)

Available softwood sawtimber is primarily loblolly and shortleaf pine, along with other pine, hemlock, and cedar. The most common soft hardwood is yellow poplar, but soft maple and various gum species also are available in quantity. Abundant hard hardwoods include hickory, red oaks, and white oaks. Oak sawtimber, in fact, is even more plentiful than pine sawtimber in some counties of the Coosa Valley and the area within 100 miles of Rome.

Information on sawtimber size in the Valley and the surrounding area must be inferred from data on the whole state of Georgia. Hardwood sawtimber is of primary interest here. A recent Federal Government publication[1/] stated that

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1/ U. S. Department of Agriculture, Forest Survey Resource Bulletin SE-1, Georgia's Timber, 1963.

Table 4

NET VOLUME OF SAWTIMBER, BY TYPE AND BY COUNTY, IN THE COOSA VALLEY, 1953 AND 1961
(in millions of board feet)

County	1953				1961				Per Cent Change 1953-61
	Softwood	Soft Hardwood	Hard Hardwood	Total	Softwood	Soft Hardwood	Hard Hardwood	Total	
Bartow	78.1	-	39.6	117.7	106.7	4.9	61.2	172.8	+ 46.8
Catoosa	20.9	2.4	34.3	57.6	15.4	5.4	75.7	96.5	+ 67.5
Chattooga	53.3	8.9	30.3	92.5	56.6	16.9	85.5	159.0	+ 71.9
Dade	10.3	29.2	72.4	111.9	8.0	11.1	94.5	113.6	+ 1.5
Douglas	17.8	31.4	17.2	66.4	18.0	51.0	58.8	127.8	+ 92.4
Floyd	138.3	19.8	45.7	203.8	164.3	50.0	73.1	287.4	+ 41.0
Gordon	36.9	2.2	20.3	59.4	60.7	9.5	51.6	121.8	+105.0
Haralson	37.5	70.6	38.6	146.7	13.1	55.9	91.5	160.5	+ 9.4
Murray	88.2	5.6	78.4	172.2	109.9	15.3	127.7	252.9	+ 46.9
Paulding	50.3	23.0	25.9	99.2	119.1	56.4	42.1	217.6	+119.4
Polk	26.2	2.9	23.1	52.2	53.0	6.3	46.3	105.6	+102.2
Walker	79.1	20.4	86.6	186.1	64.3	33.1	97.9	195.3	+ 4.9
Whitfield	57.0	6.2	25.2	88.4	91.7	10.5	55.8	158.0	+ 78.7
Total	693.9	222.6	537.6	1,454.1	880.8	326.3	961.7	2,168.8	+ 49.2
Per Cent Change 1953-1961					+26.9	+46.6	+78.9	+49.2	-

Sources: 1953 data -- U. S. Department of Agriculture, Forest Service Release No. 44, Forest Statistics for Georgia, 1951-63

1961 data -- U. S. Department of Agriculture, Forest Service Resource Bulletin SE-1, Georgia's Timber, 1963

Table 5

VOLUME OF SAWTIMBER AVAILABLE WITHIN 100 MILES OF ROME, GEORGIA
(in millions of board feet)

Distance from Rome, Georgia	Softwood	Soft Hardwood	Hard Hardwood	Total
0 to 50 Miles				
Alabama	818.1	132.5	507.5	1,458.1
Georgia	1,300.8	423.0	1,321.3	3,045.1
Total	2,118.9	555.5	1,828.8	4,503.2
50 to 75 Miles				
Alabama	888.8	246.4	1,191.0	2,326.2
Georgia	1,365.5	603.3	1,732.1	3,700.9
Tennessee	697.5	202.3	709.8	1,609.6
Total	2,951.8	1,052.0	3,632.9	7,636.7
75 to 100 Miles				
Alabama	1,548.4	385.8	1,035.8	2,970.0
Georgia	1,599.1	561.4	1,442.7	3,603.2
Tennessee	716.5	405.0	1,511.9	2,633.4
North Carolina	168.7	141.2	511.7	821.6
Total	4,032.7	1,493.4	4,502.1	10,028.2
0 to 100 Miles	9,103.4	3,100.9	9,963.8	22,168.1
Predominant species in above area				
Alabama	pine	gum	oak	
Georgia	yellow pine	poplar	oak	
Tennessee	yellow pine	-	oak	
North Carolina	pine	poplar	oak	

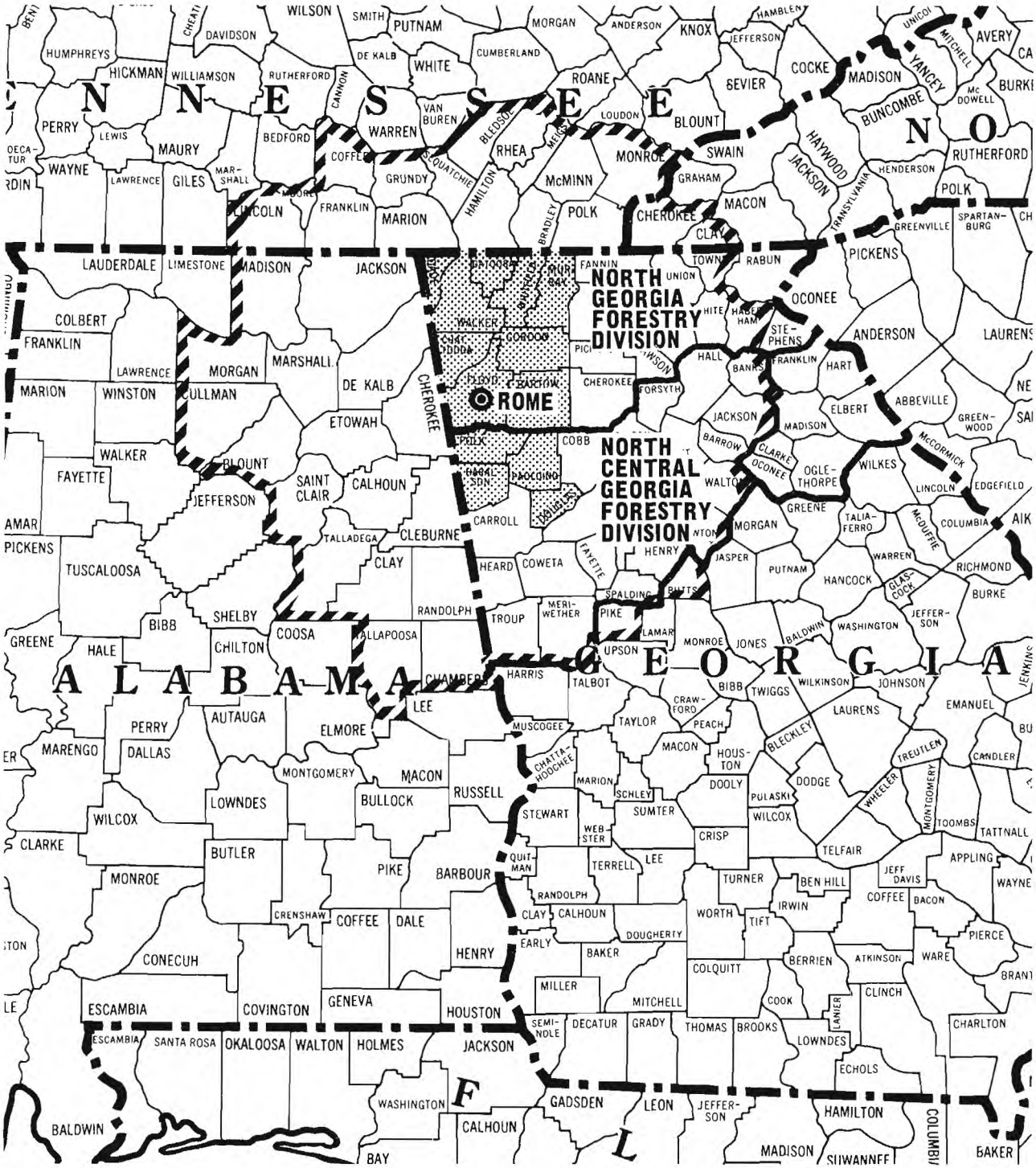
Source: U. S. Department of Agriculture

Southeastern Forest Experiment Station, Asheville, N. C.: Georgia's Timber, 1963; Forest Statistics for the Mountain Region of North Carolina, 1955

Southern Forest Experiment Station, New Orleans, La.: Alabama Forests, 1963; Tennessee Forests, 1962

MAP 1

COOSA VALLEY TIMBER RESOURCE AREAS



COOSA VALLEY

COUNTIES WITHIN 100 MILES OF ROME

Industrial Development Division
Engineering Experiment Station
GEORGIA INSTITUTE OF TECHNOLOGY

Table 6

VOLUME OF SAWTIMBER ON COMMERCIAL FOREST LAND IN GEORGIA, BY SPECIES, 1961

(in millions of board feet)[1/]

Species	North Georgia[2/]	N. Central Georgia[3/]	Total
Softwoods:			
Longleaf and slash pine	15.9	58.2	74.1
Loblolly pine	548.7	1,657.9	2,206.6
Shortleaf pine	953.0	1,115.1	2,068.1
Other yellow pine	247.1	8.6	255.7
White pine, hemlock, and cedar	258.7	.8	259.5
Total softwoods	2,023.4	2,840.6	4,864.0
Hardwoods:			
Tupelo and black gum	79.8	93.0	172.8
Sweet gum	67.7	481.1	548.8
Yellow poplar	299.9	467.1	767.0
Soft maple	72.8	159.5	232.3
Other soft hardwoods	45.0	127.8	172.8
Total	565.2	1,328.5	1,893.7
White and swamp chestnut oaks	480.3	460.8	941.1
Other white oaks	687.9	159.8	847.7
Northern red, cherrybark, and shumard oaks	585.8	149.6	735.4
Other red oaks	916.8	463.4	1,380.2
Hickory	400.4	372.2	772.6
Ash	47.7	179.7	227.4
Beech	12.9	58.4	71.3
Black walnut	7.6	3.8	11.1
Other hard hardwoods	39.8	103.2	143.0
Total	3,179.2	1,950.9	5,129.8
Total hardwoods	3,744.4	3,279.4	7,023.5
All Species	5,767.8	6,120.0	11,887.5

1/ International ¼-inch rule.

2/ Comprises 21 counties; Coosa Valley counties are Bartow, Catoosa, Chattooga, Dade, Floyd, Gordon, Murray, Walker, and Whitfield.

3/ Comprises 32 counties; Coosa Valley counties are Douglas, Haralson, Paulding, and Polk.

Source: Preliminary Forest Survey Statistics (Georgia series 1960-1961), Division of Forest Economics Research, Southeastern Forest Experiment Station, Forest Service, U. S. Department of Agriculture, 1962.

in Georgia hardwood sawtimber trees 15 inches and larger in diameter at breast height declined from 10.6 billion board feet in 1936 to 9.7 billion board feet in 1961. Although trees 15 to 19 inches in diameter showed a small increase during the period, it was not enough to offset the decline in the volume of 19-inch and larger trees. The volume of trees in the 11- to 15-inch diameter classes increased more than 37% during the period, however. While there are no data to verify the statement, hardwood timber producers in the Coosa Valley claim that the area has had a better net growth record than the state as a whole.

Published data on sawtimber quality are not available. However, local hardwood producers estimate that roughly 25% of the hardwood available within 100 miles of Rome is suitable for exposed surfaces in the manufacture of either upholstered or nonupholstered furniture.

Hardwood lumber dealers in the Valley use three classifications -- #1 common and better (includes official grades 1 through 3, which are suitable for exposed surfaces in furniture), #2 common (includes official grades 4 through 6, which are suitable for unexposed wooden parts of upholstered furniture), and below grade (unsuitable for furniture). A recent shipment containing 34,170 board feet of hardwood cut from the Coosa Valley showed that 22% was #1 common and better, 70% was #2 common, and 8% was below grade. The lumber dealer whose shipment was analyzed claimed that the shipment was reasonably typical, but that the proportion of #1 common and better would be higher for the average shipment. The shipment contained red oak, white oak, hickory, hackberry, sap gum, black gum, poplar, soft maple, sycamore, ash, beech, and basswood.

Other Raw Materials

Other raw materials which are important to the furniture industry are woven upholstery fabrics (which account for 25% of total material costs for upholstered furniture), dimension stock, hardwood plywood, hardwood veneer, and springs.

Practically all of the cotton and synthetic fabrics required in the manufacture of upholstered furniture are produced in Georgia and the surrounding states of Alabama, North Carolina, and South Carolina. The four states shipped more than 80% of the nation's cotton broad-woven fabrics in 1958 and almost two thirds of its man-made broad-woven fabrics. Georgia alone accounted for

26% of U. S. shipments of cotton sheeting and allied fabrics. South Carolina shipped 75% of total U. S. cotton print fabrics. The four-state area produced about half of the U. S. output of narrow-woven fabrics and also half its rayon or acetate pile, upholstery, tie, and blanketing fabrics. The four states plus Tennessee produced about 18% of the nation's padding and upholstery filling.

Hardwood dimension stock output in the five states of Alabama, Georgia, North Carolina, South Carolina, and Tennessee totaled $44.6 million (27% of the U. S. output) in 1964, according to a recent Industrial Development Division report.[1/] Georgia's output totaled $3.6 million. A survey used for the report turned up 11 non-captive companies in Georgia for whom hardwood dimension stock is a major product. An estimated 40 to 50 lumber mills and other woodworking concerns produce dimension stock occasionally as a side line. Six of the 11 merchant stock producers plan to expand their production, and some of the occasional producers intend to set up for full-time production. Most merchant dimension stock produced in Georgia presently is marketed in other states, including North Carolina, Ohio, Pennsylvania, and Texas.

The five-state area also produces large quantities of hardwood plywood, hardwood veneer, and particleboard. In 1958, the area produced hardwood plywood valued at $62 million, or one third of the U. S. output; leading producing states were Georgia and the Carolinas. The area also produced hardwood veneer valued at $27 million in 1958, or nearly one third of the U. S. output; leading states were Alabama, Georgia, and North Carolina. Wood particleboard plants in the Carolinas and Tennessee had a total capacity in excess of 112 million square feet in 1964, or more than 15% of the U. S. capacity.[2/]

Many other furniture raw materials, such as sinuous and coil springs, spring constructions, synthetic fillings and paddings, and cotton linters, are produced in Georgia.

1/ Tze I. Chiang, Hardwood Dimension Stock: A Manufacturing Opportunity in Georgia, Industrial Development Division, Engineering Experiment Station, Georgia Institute of Technology, Atlanta, Georgia, March 1965.

2/ Tze I. Chiang, The Feasibility of Producing Wood Particleboard in Georgia, Industrial Development Division, Engineering Experiment Station, Georgia Institute of Technology, Atlanta, Georgia, August 1964.

OTHER LOCATION FACTORS

Transportation

Map 2 shows the highway and rail network which serves the Coosa Valley area.

Forty-eight common carrier motor freight lines are authorized to serve cities and towns in the Valley; no major community has less than seven authorized motor carriers. Of the 48 truck lines, nine are authorized to handle intrastate shipments as well as interstate. Truckload shippers in the Coosa Valley area have second- and third-morning delivery service to Chicago, Dallas, Detroit, Boston, Miami, New York, St. Louis, and intermediate points. Under special arrangements, highway transportation to most major eastern markets is possible within 24 hours.

Five main-line railroads operate through the Valley. Rail facilities in the area enable carload shippers to obtain second- to seventh-morning delivery to Chicago, Dallas, Detroit, Houston, Miami, the New York area, and St. Louis. Shipping times necessarily are influenced by routing and the city of the consignor. Interchange is carried out at Bremen, Cartersville, Cedartown, Rockmart, and Rome.

Piggyback facilities are generally available. Dalton and Chattanooga have cranes for loading and unloading piggyback units; permanent ramps have been built at Rome, Lyerly, and LaFayette. Several portable ramp cars can be made available at any location on the Southern Railway or the Central of Georgia Railway (Map 2), and permanent ramps will be built when justified by volume piggyback traffic.

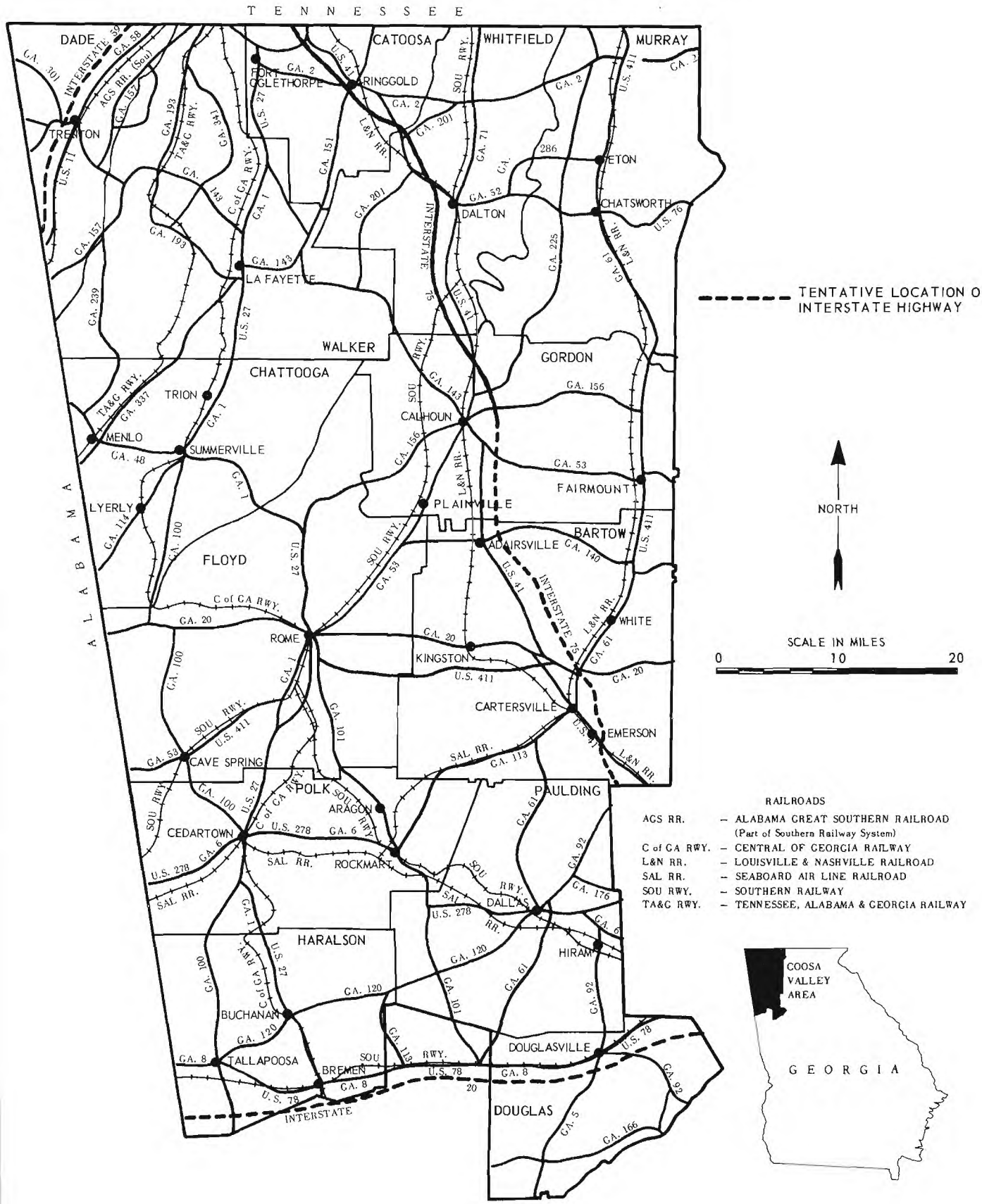
The area is served by three commercial airports -- Russell Field in Rome, the Atlanta Municipal Airport, located 45 miles south of the Coosa Valley, and the Chattanooga Airport in Tennessee, which is 15 miles to the north of the Valley.

Power and Fuels

Georgia Power Company transmits and distributes electric power over most of the Coosa Valley area. Georgia Power's Plant Hammond, a 300,000-kw capacity steam-generating station, is located at Coosa, near the center of the

MAP 2

RAILROADS AND HIGHWAYS IN THE COOSA VALLEY AREA



Valley. Power is transmitted at 110 and 66 kv, and the company's state-wide generating facilities are interconnected.

The North Georgia Electric Membership Corporation serves parts of five counties. Two cities own and operate municipal distribution facilities.

Southern Natural Gas Company operates a north-south transmission line into the central part of the Coosa Valley and an east-west line in the southern part of the area. This company supplies natural gas to transmission lines owned by Atlanta Gas Light Company, the Valley's largest distributor-service company, and seven municipal supply organizations. Natural gas service is available in 24 cities and towns. Municipal facilities serve 10 of these communities.

Liquid petroleum gases, fuel oils, and coal are available throughout the Coosa Valley area. Six liquid petroleum gas dealers distribute butane and propane from 15 separate bulk stations.

Fuel oils are available in bulk amounts, for residential and industrial purposes, from several dealers located in each county.

Coal can be purchased locally in virtually every community. It is obtainable through local brokers or may be purchased direct from Alabama, Kentucky, Tennessee, and Virginia mines.

Sites and Buildings

Both developed and undeveloped sites are available within the Coosa Valley. Information on sites and on existing buildings available for new industry may be secured from the Coosa Valley Area Planning and Development Commission, 426 Broad Street, Rome, Georgia.

Construction costs are low. A 150,000-square foot manufacturing plant recently was built at a cost of $3.31 per square foot. It included concrete foundation and floors, jumbo brick exterior walls, steel framing and columns, and a built-up roof on a plywood deck. Costs for a good-quality air-conditioned furniture plant are likely to run from $5.00 to $7.00 per square foot.

Local financing is available in some areas. Funds also may be secured from the Small Business Administration and the Area Redevelopment Administration for establishing manufacturing operations in some counties.

Furniture Display Facilities

The Atlanta Merchandise Mart is located some 45 miles south of the Coosa Valley. Comparable with the large furniture marts found in High Point, Chicago, and Dallas, the Atlanta Mart is presently housed in a 23-story, one-million-square foot structure. It performs the important function of centralizing the merchandise displays of hundreds of furniture manufacturers and other wholesale firms for the buying convenience of retailers. Furniture and other home furnishings are displayed in almost 200 separate showrooms which occupy 10 floors of the present structure.

Opened in mid-1961 with 65% of its space under contract, the Atlanta Merchandise Mart reached 95% occupancy by 1963. In 1964, more than 100,000 legitimate retail buyers from the Southeast and from more distant locations, such as Texas, Illinois, Vermont, and the Bahamas, registered at the Mart. Obvious buyer interest has sparked additional demand for display space and precipitated plans for expanding present facilities.

An addition providing more than 500,000 square feet of exhibition space is planned for completion in 1966. Construction is already under way on other facilities which are designed and located to serve the Mart and its activities. These include a 30-story office building, an 800-room convention hotel with parking facilities for 600 cars, and a 1,000-car self-park garage, all of which will be physically connected to the present structure by bridges and ramps.

The Atlanta Merchandise Mart is located within two hours' flying time of all but two of the major cities east of the Rocky Mountains. The Mart's growing ability to attract furniture buyers is a valuable asset to Coosa Valley manufacturers.

National Distribution

The Coosa Valley lies approximately due south of Cincinnati and Battle Creek, Michigan, and is closer to Chicago, Detroit, Cleveland, Pittsburgh, and Baltimore than to Miami. Its central location among states east of the Rocky Mountains facilitates rapid, low-cost delivery to these states. It is better

located for serving the West Coast market than most major furniture producing states.

Highway mileages from Rome, representing the Coosa Valley, and Raleigh, representing North Carolina, to major furniture wholesaling cities are presented in Table 7 and illustrated in Map 3. Rome is closer than Raleigh to 15 of the 25 top furniture wholesaling cities in the U. S.

The Coosa Valley also has a topographic advantage in serving national markets. It is located at the southern tip of the Appalachian Mountain range, at the intersection of plateaus extending from Georgia to the Midwest and from Georgia up the Eastern Seaboard. This topographic advantage makes possible low-cost highway and railroad distribution to a large part of the nation.

Southeastern Markets[1/]

Estimated 1961 furniture sales to southeastern retailers totaled $167 million for nonupholstered and $95 million for upholstered wood furniture. The geographical area for which the estimates were made includes Alabama, Florida, Georgia, Kentucky, Mississippi, and Tennessee and small parts of Ohio, Louisiana, and the Carolinas -- the area to which a manufacturer in the Coosa Valley could ship more cheaply than competing plants in Dallas, Texas, Bloomington, Illinois, and High Point, North Carolina. (See Map 3.)

Furniture retailers in the area are expected to increase their purchases of nonupholstered furniture by $4 million a year and their purchases of upholstered furniture by $5 million a year. By 1967, annual sales of nonupholstered wood furniture should exceed $180 million and annual sales of upholstered furniture should reach $125 million.

Total annual wood furniture sales to retail stores in Atlanta alone are estimated at more than $20 million. In contrast to the national pattern, more furniture is sold to department stores than to furniture stores in Atlanta. In addition, Atlanta is headquarters for several large furniture store chains which buy some furniture in Atlanta for their retail stores outside the city.

1/ Based on Wood Household Furniture: A Manufacturing Opportunity in Georgia, by George W. Morris, Jr., Industrial Development Division, Engineering Experiment Station, Georgia Institute of Technology, Atlanta, Georgia, September 1963.

Table 7

ROAD-MILE DISTANCES TO MAJOR FURNITURE WHOLESALING CITIES
FROM ROME, GEORGIA, AND RALEIGH, NORTH CAROLINA

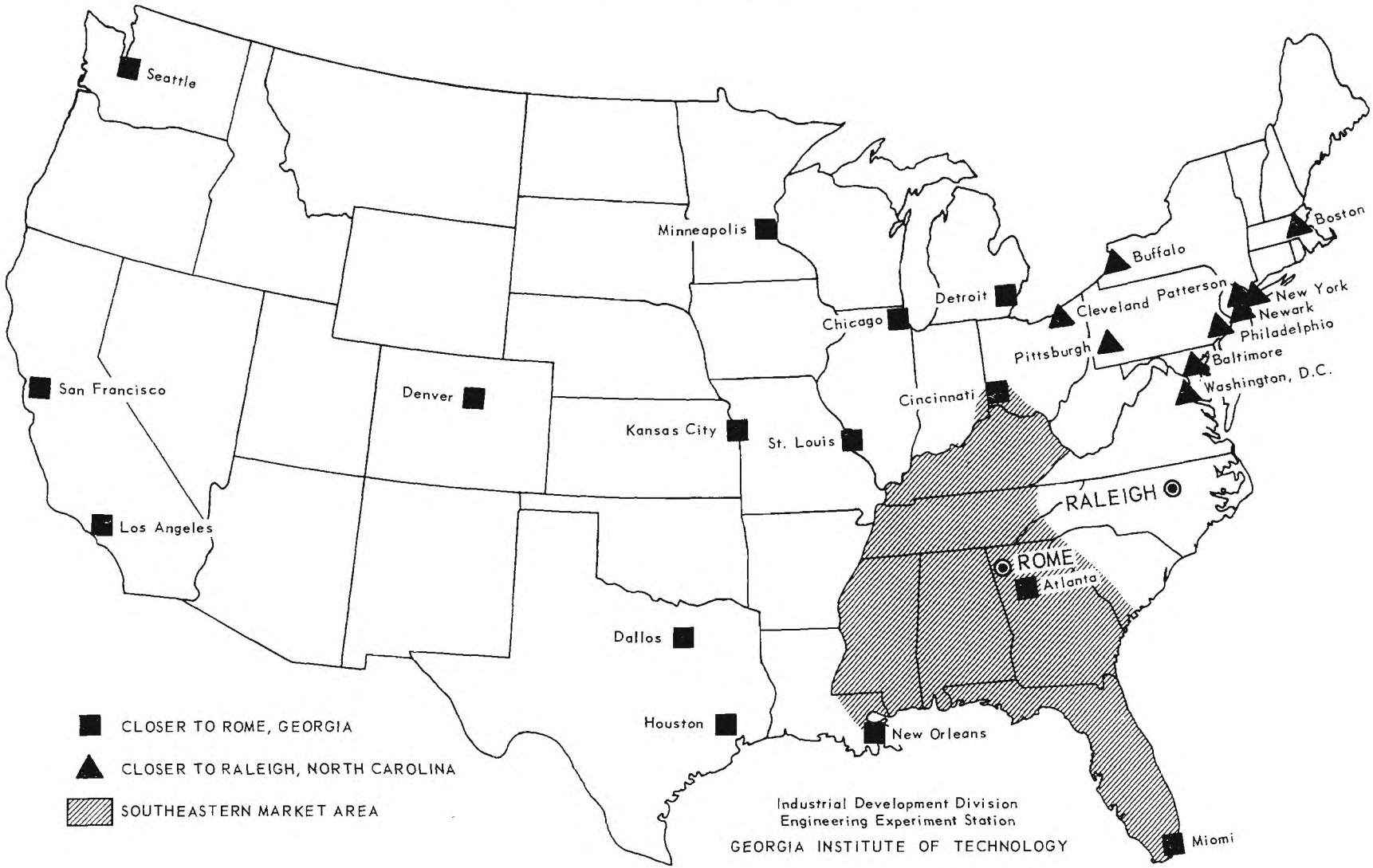
	TO:	FROM: Rome, Ga.	FROM: Raleigh, N. C.	Closer City
1.	New York, N. Y.	876	500	Raleigh
2.	Chicago, Ill.	639	790	Rome
3.	Los Angeles, Calif.	2,143	2,579	Rome
4.	Philadelphia, Pa.	776	400	Raleigh
5.	San Francisco, Calif.	2,467	2,903	Rome
6.	Boston, Mass.	1,082	706	Raleigh
7.	Dallas, Tex.	767	1,201	Rome
8.	Detroit, Mich.	667	687	Rome
9.	Cleveland, O.	643	562	Raleigh
10.	Atlanta, Ga.	67	396	Rome
11.	Pittsburgh, Pa.	666	448	Raleigh
12.	Kansas City, Mo.	746	1,067	Rome
13.	St. Louis, Mo.	494	815	Rome
14.	Minneapolis, Minn.	1,027	1,204	Rome
15.	Cincinnati, O.	411	526	Rome
16.	Newark, N. J.	856	480	Raleigh
17.	Seattle, Wash.	2,603	2,842	Rome
18.	Denver, Colo.	1,347	1,671	Rome
19.	Baltimore, Md.	679	303	Raleigh
20.	Houston, Tex.	776	1,210	Rome
21.	Washington, D. C.	640	264	Raleigh
22.	Miami, Fla.	732	843	Rome
23.	Buffalo, N. Y.	832	602	Raleigh
24.	Patterson, N. J.	866	498	Raleigh
25.	New Orleans, La.	469	903	Rome

Notes: Road-mile distances are derived from Standard Highway Mileage Guide, Rand McNally & Company, 1962. Destination cities are listed in descending order of wholesale sales of furniture and home furnishings (SIC 5097) shown in 1958 Census of Business.

MAP 3

THE COOSA VALLEY'S NATIONAL DISTRIBUTION POSITION

The Top 25 Furniture Wholesaling Cities in the U.S.



The importance of shipping costs to furniture manufacturers makes it desirable to locate plants near a large market if manufacturing inputs are economically available. This is especially true for nonupholstered furniture. Like other furniture manufacturers in Georgia, however, those in the Coosa Valley are likely to ship to national as well as regional markets.