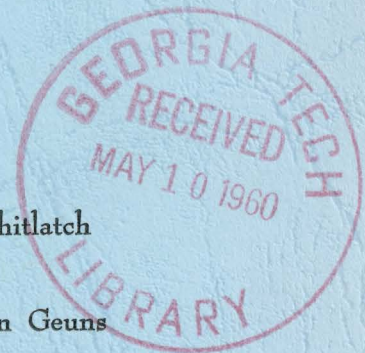


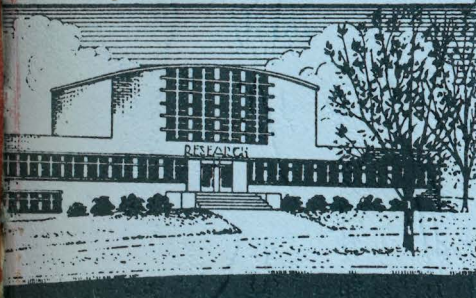
An Evaluation of the Economic
Assets and Liabilities
of the Columbus Area

Prepared for the
Columbus Chamber of Commerce
Columbus, Georgia

by
George I. Whitlatch
and
Robert E. Van Geuns



Engineering Experiment Station
Georgia Institute of Technology
Atlanta, Georgia



AN EVALUATION OF THE ECONOMIC
ASSETS AND LIABILITIES
OF THE COLUMBUS AREA

Prepared for the
Columbus Chamber of Commerce
Columbus, Georgia

by

George I. Whitlatch
Senior Research Scientist

and

Robert E. Van Geuns
Research Engineer

Industrial Development Branch
Engineering Experiment Station
Georgia Institute of Technology
March, 1959

Table of Contents

	<u>Page</u>
Introduction	1
Summary	3
Environment	11
Economic Geography	13
Agriculture Production	16
Forest Production	17
Mineral Resources	24
Area Development	28
Columbus Industry	28
Trade Area Industry	31
Retail - Wholesale Trade	39
Transportation	53
Railroads	53
Motor Freight	54
Highways and Streets	55
Bus Lines	59
Public Transportation	59
Air Lines	60
River Transportation	61
Industrial Sites	65
Electric Power	71
Fuels	72
Coal	72
Natural Gas	72
Fuel Oil	73
Water	75
Sewerage and Waste Disposal	79
Medical, Hospital, and Public Health Facilities	81
Police and Fire Protection	84
Hotels, Motels, and Food Services	92
Banking	96

Community Appearance	97
Retail Area	98
Streets and Thorofares	100
Parking and Service Areas	101
City Maintenance	101
Recreation Facilities	102
Housing	103
Schools	105
Libraries	112
Churches	114
Appendix A: Mineral Resources	117
Appendix B: Supplementary Tables	123

INTRODUCTION

Columbus, in recent years, has experienced a significant decline in manufacturing employment. At the same time, the city's population has increased sharply, reflecting the in-migration of farm workers from the surrounding counties. In addition, Columbus' share of the retail sales of its trade area has been declining.

It is this combination of facts that, in mid-1958, stimulated the businessmen of Columbus, through the Chamber of Commerce, to seek a thorough analysis of the city's present economic situation. These men recognized that the future of Columbus will be charted by the course of its economic development and that, to properly chart such course, full and complete information on the area's economic assets, liabilities, and potentialities is required.

The present report covers the first phase of the Columbus study--an audit of the area's assets and liabilities, with special reference to industrial development. Recommendations for the improvement or elimination of liabilities are enumerated in the Summary. A special report on "Manpower," analyzing the local employment and labor supply situation, is in preparation.

The next phase of the study will involve an identification of the area's specific economic potentials, including those industries suitable for location there, and an action program for making possible the systematic, orderly development of those potentials. For example, the present report's Summary suggests several industries that might locate in the Columbus area. In succeeding reports, the possibilities offered by these and other industries will be fully evaluated. For the most likely "prospects," detailed feasibility studies will be completed.

Many of the economic and physical improvements needed in Columbus will be dependent upon the degree to which manufacturing is diversified and expanded, creating the job opportunities needed to retain and support the city's growing population. This expansion of industry may be largely within the Columbus metropolitan area or it may be widely distributed over the Columbus trade area, or it may encompass both. But regardless of the pattern eventually achieved, it is obvious that more jobs at good pay are essential to meet the current trend of migration from the farm to the city. If sufficient industry can be established in the surrounding rural counties, this migration to the "big city" can be mainly halted--otherwise, the task of supplying jobs falls to the Columbus area proper.

This is the goal to which the businessmen of Columbus have dedicated their time and their money. To the present report they have, through various working committees, contributed a tremendous mass of information that has been invaluable in the analysis of the local economy. But the real task lies before them. The "selling" of Columbus as a location to new industry can best be done by its people. No research or no research organization can be expected, in themselves, to bring in a new firm. Nothing can substitute for the active participation in the Chamber's industrial development program by individuals and firms willing to contribute their time and money.

The general attitude of the citizenry determines whether or not a needed job gets done in a community. It is evident from the present study that the people of Columbus want to go ahead, to progress and improve. If they strongly desire to do these things, their goal can be reached.

SUMMARY

Columbus is a Fall Line city which, throughout most of its history, has been identified with textiles. Even today, it is heavily dependent upon this type of manufacture, although there have been several substantial developments in food products manufacture within the past 10 years. Nevertheless, manufacturing employment has been in a definitely downward trend since 1951 and moreover, value added by manufacture declined over 22% between 1948 and 1954.

The present population of Columbus is about 130,000, including new residential areas annexed in 1959. However, the metropolitan area of Columbus includes two other nearby populous areas--Phenix City (30,000) across the Chattahoochee River in Alabama and Ft. Benning (71,000) in adjacent Chattahoochee County. Muscogee County, of which Columbus is the county seat, has grown from 118,028 in 1950 to an estimated 175,281 in 1957--a 48.4% increase that greatly exceeds the 9.5% state average gain over the same period. A substantial part of the county's gain represents increased city population which, by the 1959 annexation, skyrocketed 64% over the 1950 figure.

The present study has been primarily concerned with Columbus and Muscogee County, but the 14-county trade area around Columbus has been carefully evaluated as part of the problem, since the future growth and prosperity of the city are closely linked with that of its trade area. The location of industry anywhere in the trade area will benefit Columbus business and financial interests through increased employment and trade.

While Columbus merchants today account for over 54% of the trade area's total retail sales, they have failed in recent years to improve their position as the regional trading center, having lost 3.7% of their share of total retail sales in the period 1950-57. On the other hand, Columbus' gains in wholesale trade have been outstanding. The 46.8% expansion of this trade in Muscogee County between 1948 and 1954 is well above the state average of 39.9% and far above the 16 to 22% gains registered by other major Georgia cities in that same six-year period.

The agricultural situation in the Columbus trade area is quite poor, especially in the Georgia section. The average farm income for the entire area is only approximately 50% that of the Georgia state average, and few of the counties can equal the state average in sale of farm products. Livestock

sales especially are low, but it is apparent that the area needs to engage more heavily in livestock raising. Dairying particularly offers an excellent opportunity for expansion.

The mineral resources of Muscogee County appear to be limited to clays, sands, gravel and crystalline aggregate. There presently are developments of all economic deposits of these resources, with the exception of a sand deposit of possible glass quality.

Employment in manufacturing at Columbus is largely accounted for by a few plants, mainly in textile and food products industries. Eight of the city's nine largest plants are textile mills, employing 10,000 of the total 17,000 manufacturing workers. It is especially significant that the textile and food products industries have profit percentages which are among the lowest of all manufacturing groups and pay relatively low wages. Other Columbus industries include several metal-working and wood-working firms, but, as a whole, Columbus seriously lacks secondary high-profit manufacturing activities. The present concentration of one or two types of industry is not without its dangers and it is desirable, if not absolutely necessary, that Columbus seek to diversify its manufacturing production.

Throughout the Georgia part of the Columbus trade area, there is very little industrial activity outside of Muscogee County. However, on the Alabama side, manufacturing is scattered over a number of smaller centers and, like that of Columbus, is mainly of the traditional types--textiles, lumbering, wood-working, and brick-making. Nevertheless, the Alabama counties show a much higher per capita payroll return than do the Georgia counties, emphasizing how greatly underdeveloped the latter are industrially. It is obvious that Columbus should make every effort to further industrialize the counties of its trade area.

The steadily increasing population of Columbus, due in part to the lack of opportunity for farm workers and their migration to the city, makes it imperative that new jobs be found. All of these jobs need not be in the city. Not only will new industry in the rural areas tend to slow this migration from the farm, but as manufacturing jobs are increased over the trade area, this increased purchasing power will be felt by both the retail and wholesale trades of Columbus. In other words, if the commercial and service industries of Columbus continue to thrive and grow, they must have the support of more productive agriculture and of more manufacturing employment throughout the trade area.

Of the basic economic factors essential to successful industrial plant location, Columbus affords a definitely favorable situation. There are no real handicapping deficiencies in sites, transportation, fuel, power, water, waste disposal, and labor supply. Nevertheless, choice in available industrial sites is definitely limited, and this probably is one of the city's most serious weaknesses in its plans for future industrial expansion. Further site studies are planned.

On community appearance and community services--those intangibles which so often are difficult to actually assess but equally often are decisive in influencing the decisions of management--Columbus scores quite well. On the whole, the city is a reasonably successful example of sustained city planning, but it is still not an ideal city. The downtown area, with its wide streets and plazas, is especially attractive, yet the central business district has numerous deficiencies in both the exterior and interior appearances of its stores. And elsewhere in the city are numerous slum areas, unsightly street conditions, and similar sore spots that need correction.

Police and fire protection, as rated by crime records and fire losses, are good. The community is adequately served by existing hospitals and other medical and public health services and facilities, although the growing demands on Columbus as a regional medical center make an early expansion of present civilian hospital services desirable. Schools currently are suffering from overcrowded classrooms and double sessions, but this problem has been recognized and some \$5,000,000 is being invested by Muscogee County in several new school buildings and classroom additions. The quality of instruction insofar as it can be measured by academic training of the teachers, is excellent. Housing is diversified and adequate, offering both choice and price range to the prospective renter or purchaser.

Columbus has inadequate hotel accommodations for a city of its size, but this deficiency is largely balanced by above-average motel and related travel facilities. Its restaurants are numerous but short on quality, and the need for a first-class uptown restaurant, catering to business trade, is evident.

In summation, Columbus has many advantages and resources to offer new industry. Admittedly, it has a number of deficiencies but none so serious that it cannot be overcome by proper planning and aggressive action by the city's civic leaders.

The growth of Columbus from a typical small mill town to a metropolitan

area has been so rapid that many of its civic leaders have failed to comprehend that the city has "grown up" and that complex social and economic changes are occurring. Meeting these changing situations requires constant advance planning, especially by the city government. Right now, there is apparent need for Columbus to undertake a 10-year capital budget study. Such a study would comprehensively chart the capital investments in streets, schools, water and sewer system, and other municipal improvements and additions that appear to be necessary over the next decade; then these long-range investments could be budgeted in order of priority, and ways and means outlined for meeting these obligations. It is obvious that the city government of Columbus cannot continue to think in terms of prewar dollars and budgets. The present and future needs must be realistically faced and if current revenues are insufficient to get the job done, then there is the necessity for a careful review of present tax rates and property assessment practices.

An outline summary of specific findings follows:

I. Area Development Program

Findings:

The counties comprising the Columbus trade area are predominantly agricultural and have relatively low income from agriculture. (\$6900 per 1,000 acres versus State average of \$12,000 per 1,000 acres.)

Recommendations:

1. Chamber of Commerce should continue to actively pursue its area industrial development program designed to assist towns of its trade area in getting new industry.
2. Promotion of increased dairying throughout the Columbus trade area should be undertaken by banks and merchants association.

II. Industry

Findings:

Columbus manufacturing is heavily concentrated in textiles, has lately been declining in both employment and output value, and pays its workers one of the lowest average annual wages in the State.

Recommendations:

1. Encourage and aid in product diversification by existing manufacturers, through conference with firms' executives and follow-up with assistance of Georgia Tech's Industrial Development Branch.

2. Promote the development of new industries, particularly in chemical and electronic fields, and also the following:

- (a) glass bottles and related products
- (b) pulp mill
- (c) plastics
- (d) tire recapping equipment
- (e) v-belts
- (f) retractable boat-hauling gear
- (g) textile machinery--manufacture and repair
- (h) furniture
- (i) garments (as an interim step)

III. Retail Trade

Findings:

Over the period of 1950-57, Columbus retailers failed to improve their position as the regional trading center--in fact, their share of total retail sales in the trade area was 3.7% less in 1957 than in 1950.

Recommendations:

1. Analyse the extent and characteristics of the Columbus retail trade area, as a prerequisite to determining further steps needed to develop Columbus' potentials as a regional trade center.

2. Promote improvement of the city's retail trade facilities and attractions, including:

- (a) retention and beautification of the Broadway parkway.
- (b) modernization of store building exteriors.
- (c) improvement of store interior arrangements and decoration.
- (d) elimination of sidewalk displays of merchandise.
- (e) standardization and control of size and placement of exterior store signs.
- (f) removal or upgrading of old residences a block or so off Broadway.

IV. Transportation

Findings:

Through traffic and that of rush hours are unduly congested by lack of circumferential arterial routes, various highway approaches are unsightly, and rail freight shipments encounter delays in transfer between local yards; air and truck movements are satisfactory; river transportation appears to have future potentials.

Recommendations:

1. Push completion of plans for early construction of new Fourth Street Bridge and connecting east-west arterial and of the Lindsey Creek Bypass.

2. Provide additional traffic lanes for access to Fourteenth Street Bridge.
3. Improve and clean up Victory Drive, Hamilton Road, and the Expressway.
4. Expedite traffic on the existing "Expressway" by reducing stop signals.
5. Complete name marking of city streets.
6. Seek to obtain consolidation of existing railroad freight yards into a single terminal facility.
7. Make further survey and analysis of the freight potentials and economic feasibility of river port developments at Columbus. (To be undertaken by IDB under conditions specified in the proposal and contract.)

V. Industrial Sites

Findings:

Lack of available industrial sites is probably the greatest weakness of the industrial development situation at Columbus.

Recommendations:

1. Further study of the site situation must be made (by IDB).
2. Encourage the preservation of present industrial sites through agreement among realtors, railroads, Chamber of Commerce officials, and others as to holding and/or zoning of lands for industrial use and fair pricing practices.
3. Review zoning ordinances with view to revision or modifications to afford greater protection to industrial sites and to promote industrial development generally.

VI. Community Appearance

Findings:

Columbus is a reasonably successful example of sustained city planning, yet it is still a long way from an ideal city. Practically all of the main approaches and thoroughfares need improvement in the appearance of adjoining properties and/or upgrading of the really blighted areas.

Recommendations:

1. Expedite the Urban Renewal Project for cleaning up the "Bottoms" area.
2. Redevelop other slum areas, particularly those that are highly visible from Broadway, the Expressway, River Road, and other main approaches and thoroughfares.
3. Road shoulders should be repaired and grassed along main approaches and thoroughfares.
4. By city ordinance, owners of commercial establishments along main approaches thoroughfares should be required to provide all-weather surfaces on all parking and service areas. They should further be encouraged to maintain grass in other unused areas of their properties.

5. Strict enforcement of the minimum housing code should be sought or else the code should be re-written to provide a more enforceable form.

VII. Recreation

Findings:

The recently completed Plan for Recreation, developed for the city government, appears to meet the immediate needs of Columbus, including the newly annexed areas.

Recommendations:

1. The city government should program this recreation plan, select sites, and arrange for its financing.
2. A similar work-financing program should be established for improvement of existing park facilities, including provision of rest rooms, drinking fountains, surfaced walkways and parking areas.

VIII. Education

Findings:

Muscogee County is under-financing its school system. In 1957-58, the per pupil expenditure was only \$140.38 for elementary schools and \$167.73 for high schools, against the 1956-57 State average of \$205. Overcrowded classrooms are probably the most pressing problem while increased teachers salaries are necessary to retain and recruit teachers capable of maintaining the present high level of instruction.

Recommendations:

1. County school taxes should be increased.
2. Teachers salaries should be revised upward, both as to minima and maxima. Also the number of years of required service between lowest and highest salary levels should be reduced to bring such salaries and service requirements into line with those of other Georgia counties with which Muscogee must compete in recruitment of new teachers.
3. Improvement and expansion of the Muscogee County school plant to relieve currently overcrowded classrooms should be done as expeditiously as possible.
4. Plans should be formulated for fully exploiting the advantages of the projected vocational training school at Columbus.

IX. Hotels--Food Service

Findings:

In comparison with cities of comparable size, Columbus is definitely deficient in modern hotel facilities. For the feeding of the numerous weekly and

monthly civic groups, Columbus has relatively limited facilities--of 272 restaurants, cafeterias and other eating places, only ten are rated locally as having good food and service.

X. Medical Care

Findings:

There is a trend toward development of the Columbus Medical Center into a regional hospital serving communities up to 100-150 miles distant. This, in combination with a growing population and greater use of hospital insurance plans, makes early expansion of the Center's services desirable. Exclusive of hospital facilities at Ft. Benning, there is presently a deficit of 217 hospital beds to serve the tri-county metropolitan area.

Recommendations:

1. Construction of a new wing to the Medical Center and other expansion of services to meet the area's increased hospital needs should be done as expeditiously as possible, in conformity with recommendations made by the Board of Hospital Managers.

XI. Police Protection

Findings:

Both the City and County Police Departments are well staffed, properly supported with modern equipment, and have centralized operations in the same headquarters building.

Recommendations:

The City and County police operations should be consolidated into a single joint department.

ENVIRONMENT

Columbus (population 130,000) is the county seat of Muscogee County, located near the middle of the western border of Georgia which is here formed by the Chattahoochee River. The city is situated on the Fall Line, a physiographic feature--marked by the falls of the Chattahoochee--that represents the intersection of the Piedmont and Coastal Plains provinces. To these falls, Columbus owes much of its past history and development.

The two distinct and separate physiographic provinces into which the Fall Line divides Muscogee County are reflections of the underlying geological formations. To the north of the Fall Line is rolling country, showing limited erosional effects due to the underlying crystalline rocks and extensive use of cover crops. The area south of the Fall Line is underlain by relatively soft sedimentary strata, consisting mainly of sands and clays that are much more readily eroded than the crystallines in the northern part of the county. As a consequence, this southern area is rolling country, cut by numerous gullies and deep stream valleys.

The original townsite of Columbus is a relatively level tract of some 1,200 acres, with the Chattahoochee River on the west, gently rolling highlands to the north and east, and flat lands sloping off to flood-plains on the south. Subsequent growth of the city has expanded its limits mainly to the north and east where the terrain becomes fairly rugged, with some of the hills reaching elevations of 450 feet. In the main, however, the elevations range from about 250 to 350 feet, although in the southern parts of the city along the river elevations of around 200 feet are not uncommon. On the other hand, housing developments in the Benning Hills section are at the 450-foot level.

Since Columbus is situated at the Fall Line, its soils somewhat reflect the differences in the underlying geology above and below that line and range from sandy to sandy loam. In general, the area is underlain by a hard sandy clay subsoil that provides firm footings or foundations for industrial buildings.

Climate

The climate of Columbus is quite moderate. In July, the mean maximum temperature is 91° and the highest recorded (1930) was 105°. Nights, however, are relatively cool, with the July mean minimum being 70.7°. Average

relative humidity in July, at noon, is 59%. Winters are usually moderate, and only rarely is there snow or ice. As shown by a 10-year average, there are 44 days per year below 32°. The lowest temperature ever recorded (February, 1899) was -3°.

The average annual rainfall is 49 inches, with the heaviest rains occurring from December through March and in July and August. Severe hail storms are rare, and damaging windstorms are equally uncommon--there has been only one tornado in the past 50 years, that occurring in 1953 and causing severe damage to certain parts of the city. Prevailing winds, as reported over a 10-year record, are generally from the northwest from February through June and from the northeast from August through November; they are from the south in January and July, while in December, they are from the north.

Floods

The history of flooding has been poorly documented. The last major flood on the Chattahoochee River was in 1929, this being a 130-year flood that reached a level of 238.34 feet^{1/} as recorded on a gage at the Central of Georgia Railway bridge, 1/2-mile downstream from the Eagle-Phenix dam. The highest flood of known record reportedly inflicted considerable property damage to low-lying areas on both sides of the river south of Columbus. Other floods have reached heights of 235.64 ft. (70-year flood); 233.14 ft (45-year, 1886 flood); 230.0 ft. (20-year flood); and 212.64 ft. normal annual flood level. Normal summer pool level is 190 ft.; winter, 185 ft.

The various smaller streams that run through Columbus, such as Bull and Verocoba creeks, occasionally flood but seldom cause serious property damage.

^{1/} Reported by U. S. Corps of Engineers, Atlanta Office--see U. S. Geological Survey Water Supply Paper 1172 (1950), p. 374

ECONOMIC GEOGRAPHY

Any analysis of the economy of Columbus and its future must be based on its trade area, rather than the city alone, since it is the people of such an area that support manufacturing through their labor, and wholesale and retail trades and services through their purchases and patronage.

For the present discussion, the trade area of Columbus is defined as a 14-county area roughly within a 40-mile radius of the city. On the Georgia side of the Chattahoochee River are Muscogee, Chattahoochee, Stewart, Webster, Marion, Schley, Taylor, Talbot, Harris, and Quitman counties. On the Alabama side are Lee, Russell, Barbour, and Chambers counties. (See Table 1.)

This 14-county area derives many of its economic characteristics from the fact that it lies mainly south of the Fall Line in the Fall Line Hills which form a belt 40 to 50 miles wide across the state. The only exceptions are Harris and Talbot counties in Georgia and Lee and Chambers counties in Alabama--these are in the Piedmont Plain which is underlain by granitic formations and here is quite as hilly as the Fall Line Hills themselves.

The Fall Line Hills area "is characterized by flat-topped hills or ridges and deep gullies or 'washes'. The larger streams have cut courses 200 to 350 feet below the level of the upland plain and the northern portion of the belt is as broken as the adjacent Piedmont Plain. . . Two types of hills are commonly recognized, the sand hills and the red hills. The sand hills are best developed in the upper part of the belt and are conspicuous in Richmond, Crawford, Taylor, Talbot, Marion, and other counties and are really no more than flat ridges with a notable covering of grayish or brownish, superficial sand . . . probably residual from the underlying Cretaceous and Eocene formations. The soil is poorly productive, and the tree growth is mainly stunted oak and scattered long-leaf pine.

"The lower portion of the Fall Line Hills belt is mainly red hills and the gray superficial sand is less widely distributed. The soil of these hills is a bright red sand or red sandy loam, which is residual from the underlying geological formations, chiefly the Eocene."^{1/} Stewart County of the Columbus trade area is among the counties in which the red hills are conspicuous.

^{1/} Preliminary Report on the Geology of the Coastal Plain of Georgia, Otto Veach and Lloyd W. Stephenson, Geological Survey of Georgia Bulletin 26, pp. 29-30, 1911.

COLUMBUS RETAIL TRADE AREA, 1958

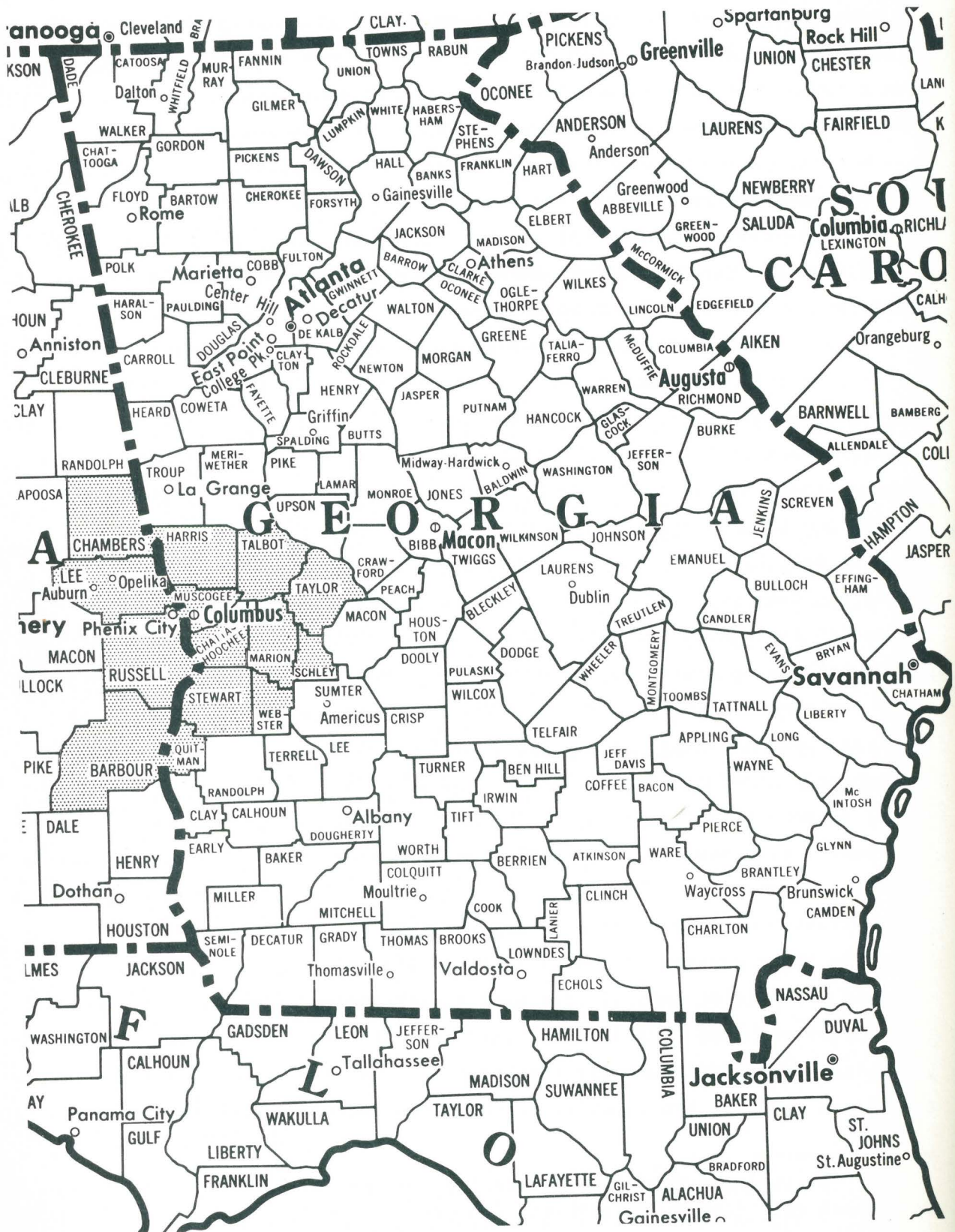


Table 1

POPULATION AND LAND-USE IN COLUMBUS TRADE AREA^{1/}

<u>County</u>	<u>Population</u>	<u>Land Surface (Sq. Miles)</u>	<u>Population Density/sq.mi.</u>	<u>% Non whites</u>	<u>% Farm land</u>	<u>% Forest land</u>	<u>% Soft woods (saw timber)</u>
Georgia (1957 estimate):							
Chattahoochee	10,694	253	42.4	15.6	11.7	80.2	83.1
Harris	10,269	465	22.1	56.6	48.3	83.4	77.8
Marion	5,645	365	15.4	59.2	72.6	75.1	37.1
Muscogee	175,281	220	795.0	26.1	33.7	66.8	82.7
Quitman	2,424	170	14.3	66.3	71.1	72.9	60.1
Schley	3,035	162	18.8	59.3	92.5	62.1	34.4
Stewart	7,975	463	17.2	72.5	53.9	70.3	67.6
Talbot	6,723	390	17.2	69.7	58.6	85.4	79.5
Taylor	8,365	400	20.9	47.8	76.4 ^{a/}	65.8	39.0
Webster	<u>3,178</u>	<u>195</u>	<u>16.3</u>	<u>63.9</u>	<u>109.3^{a/}</u>	<u>74.0</u>	<u>34.8</u>
Georgia totals and averages	233,589	3,083	77.6	35.7	60.2	74.2 ^{b/}	65.7
Alabama (1950 data):							
Barbour	28,892	899	32.1	53.4	89.9	59.1	
Chambers	39,528	598	66.2	36.7	80.3	64.4	
Lee	45,073	612	73.4	40.2	70.3	61.2	
Russell	<u>40,364</u>	<u>639</u>	<u>63.2</u>	<u>52.0</u>	<u>86.9</u>	<u>51.7</u>	
Alabama totals and averages	153,857	2,748	55.9	44.9	82.6	58.8	

^{1/} U. S. Census, 1950; Forest Statistics of Georgia, 1951-53, U. S. Forest Service, Southeastern Experiment Station, Forest Survey Release 44 (1954); Population Estimates of Georgia Counties for 1956-1957, John L. Fulmer, Industrial Development Branch, Georgia Institute of Technology, Engineering Experiment Station (1957).

^{a/} The excess of farm acreage over approximate land area is due to the fact that the entire acreage of a farm is tabulated as in the county in which the headquarters is located, even though a part of a farm may be situated in an adjoining county.

^{b/} State total - 64%, predominantly pines.

The situation on the Alabama side of the Chattahoochee River is quite similar, insofar as Barbour and Russell counties are concerned. In short, most of the soil of the Columbus trade area is fairly sandy, more or less eroded, and not particularly well suited to cultivation. This is especially serious since the Columbus trade-area counties are dominantly agricultural, drawing most of their income from row crops, livestock and forest products, particularly on the Georgia side.

Agricultural Production

The relatively low agricultural income of the Columbus trade-area counties, as compared with the state average in Georgia, is readily demonstrated by calculating the income per 1,000 acres. These data^{1/} are given in Table 2. Muscogee and Chattahoochee counties are omitted, since the former is almost entirely occupied by the City of Columbus and Fort Benning and the latter, also by Fort Benning. The agricultural outputs in these two counties, therefore, must necessarily be quite low.

The Georgia counties of Harris, Marion, Stewart and Talbot which border immediately on the Muscogee-Chattahoochee counties complex have especially low agricultural incomes, averaging in 1954 about \$4,750 per 1,000 acres against the state average of \$12,000 per 1,000 acres. None of these counties has any industry. In other words, Columbus on the Georgia side is surrounded by what might almost be called an "economic vacuum."

The average agricultural income for the entire Columbus trade area, excluding Muscogee and Chattahoochee counties, is \$6,900 per 1,000 acres, which is still substantially below the Georgia state average. ✓

It is somewhat surprising to find that Harris and Talbot are among the very low income counties, with respective incomes of \$3,680 and \$4,000 per 1,000 acres, since both are Piedmont area counties. They are, however, largely within the Pine Mountain district where the soils are stony and poorly suited to cultivation^{2/}.

While a number of counties, notably Schley, Taylor, and Webster, do as well or better than the Georgia state average in crops sold, the majority sell less than the \$6,520 average.

1/ 1954 Census of Agriculture, Vol. 1, Part 17--Georgia, and Part 21--Alabama, U. S. Department of Commerce, Bureau of Census, 1956.

2/ "Physical Geography of Georgia," by LaForge, Cooke, Keith, and Campbell, Geological Survey of Georgia Bulletin 42, pp. 79-80.

In livestock sales, all counties without exception are well below the Georgia state average of \$5,070 per 1,000 acres. Even Lee County, Alabama, with the top average of \$3,350 compares unfavorably with that average. These facts suggest that the Columbus trade area counties need to engage more heavily in livestock raising. Dairying also offers an excellent opportunity for expansion. (See Retail-Wholesale Trade.) In the Alabama counties, excepting Barbour, the value of dairy products output per 1,000 acres exceeds the Georgia state average, whereas the Georgia counties, excepting Harris, are much below that average.

Although local information indicates increased poultry production in many of the Columbus trade area counties over the last few years, Table 2 shows that as late as 1954 all of the counties were well under the Georgia state average.

Forest Production

Georgia: All of the Georgia counties in the Columbus trade area, except Schley, have a higher percentage of commercial forest land than the 64% state average. (See Table 3.) The forests of Chattahoochee, Harris, Muscogee, and Talbot counties are of the loblolly pine type. Marion, Taylor, and Webster counties have oak-pine type forests, and the first two of these counties also have some oak-hickory type forests. As to percentage of softwoods, Chattahoochee, Harris, Muscogee, Stewart, and Talbot counties have relatively high percentages; Marion, Taylor, and Webster counties have somewhat more hardwoods than softwoods; but Quitman and Schley have a rather balanced distribution of hard and soft woods.

A comparison of the net volume of growing stock, by pulping species group and tree diameter, between this 10-county area and Georgia as a whole is shown in Table 4. These figures show that the distribution over the 10-county area is remarkably similar to that throughout the State. The net volume of growing stock in the 10-county area is 5% of the state volume, whereas the net volume of cull trees is 6.3% of the state volume. In other words, the growth of cull trees here exceeds the state average.

The rising pulpwood production of this 10-county area is shown in Table 29 of the Appendix. With the high percentage of yellow pine in this area and the somewhat high percentage of cull wood, this seems to be one of the area's better industrial possibilities.

Table 2

FARM PRODUCTS SALES IN COLUMBUS TRADE AREA^{1/}
 (values shown per 1000 acres)

County	(Georgia)		Quitman	
	1949	1954	1949	1954
Total acreage	37,500,000		109,000	
All farms	198,191	165,523	325	249
All farm products sold ^{2/}	\$10,023	\$12,020	\$6,050	\$6,930
All crops sold ^{2/}	\$ 6,240	\$ 6,520	\$4,920	\$5,570
Field crops, other than vegetables, fruits and nuts	5,700	5,830	4,860	5,540
Vegetables sold	265	237	29	6
Fruits and nuts sold	141	337	27	29
Horticultural specialties sold	130	118	2	1
All livestock and livestock products sold ^{2/}	\$ 3,203	\$ 5,070	\$ 863	\$1,020
Dairy products sold	641	840	83	8
Poultry and poultry products sold	1,205	2,540	24	76
Livestock and livestock products, other than dairy and poultry	1,360	1,690	770	942
Forest products sold	\$ 583	\$ 392	\$ 261	\$ 339

^{1/} 1954 Census of Agriculture, Vol. 1, Part 17 - Georgia, and Part 21 - Alabama, Bureau of the Census, U. S. Department Commerce, 1956. Data taken from County Table 4, p. 108, and recalculated to values per 1000 acres.

^{2/} These are rounded totals and do not add up exactly with sub-totals.

Table 2

FARM PRODUCTS SALES IN COLUMBUS TRADE AREA (Continued)
 (values shown per 1000 acres)

County	Harris		Marion		Webster	
	1949	1954	1949	1954	1949	1954
Total acreage	298,000		234,000		125,000	
All farms	1,036	837	785	650	572	476
All farm products sold	\$4,660	\$3,680	\$4,100	\$5,250	\$10,800	\$10,500
All crops sold	\$1,130	\$1,005	\$2,930	\$3,440	\$ 9,040	\$ 6,560
Field crops, other than vegetables, fruits and nuts	970	808	2,840	3,340	8,860	6,450
Vegetables sold	67	75	52	47	6	31
Fruits and nuts sold	46	73	35	31	169	66
Horticultural specialties sold	45	49	28	17	10	--
All livestock and livestock products sold	\$2,180	\$2,450	\$ 835	\$1,600	\$ 1,218	\$ 2,240
Dairy products sold	708	993	24	256	77	190
Poultry and poultry products sold	758	570	152	623	114	422
Livestock and livestock products, other than dairy and poultry	718	885	658	713	1,025	1,630
Forest products sold	\$1,350	\$ 221	\$ 326	\$ 228	\$ 513	\$ 1,700

Table 2

FARM PRODUCTS SALES IN COLUMBUS TRADE AREA (Continued)
 (values shown per 1000 acres)

County	Schley		Stewart		Talbot		Taylor	
	103,600		297,000		250,000		256,500	
Total acreage	<u>1949</u>	<u>1954</u>	<u>1949</u>	<u>1954</u>	<u>1949</u>	<u>1954</u>	<u>1949</u>	<u>1954</u>
All farms	514	401	874	707	714	623	1,044	818
All farm products sold	\$10,200	\$10,030	\$5,660	\$6,230	\$2,700	\$4,000	\$7,520	\$9,000
All crops sold	\$ 8,330	\$ 7,480	\$3,740	\$4,130	\$1,010	\$1,450	\$4,500	\$6,050
Field crops, other than vegetables, fruits and nuts	7,800	7,200	3,700	4,080	740	792	3,640	4,420
Vegetables sold	177	153	8	7	25	13	643	184
Fruit and nuts sold	342	129	41	43	244	640	216	1,450
Horticultural specialties sold	---	---	---	---	---	---	4	---
All livestock and livestock products sold	\$ 1,510	\$ 2,300	\$1,580	\$1,790	\$1,350	\$2,240	\$2,760	\$2,480
Dairy products sold	109	466	244	398	130	486	275	146
Poultry and poultry products sold	211	234	85	133	162	320	1,284	1,042
Livestock and livestock products, other than dairy and poultry	1,200	1,600	1,250	1,260	1,050	1,430	1,195	1,292
Forest products sold	\$ 369	\$ 248	\$ 338	\$ 316	\$ 346	\$ 323	\$ 262	\$ 471

Table 2

FARM PRODUCTS SALES IN COLUMBUS TRADE AREA (Concluded)
(values shown per 1000 acres)

County	Barbour (Ala.)		Chambers (Ala.)		Lee (Ala.)		Russell (Ala.)	
	576,000		384,000		392,000		410,000	
Total acreage	<u>1949</u>	<u>1954</u>	<u>1949</u>	<u>1954</u>	<u>1949</u>	<u>1954</u>	<u>1949</u>	<u>1954</u>
All farms	2,848	2,494	2,477	2,177	2,059	1,940	1,870	1,659
All farm products sold	\$9,370	\$8,080	\$6,730	\$6,800	\$6,600	\$7,920	\$5,390	\$6,300
All crops sold	\$7,000	\$5,450	\$3,680	\$3,670	\$3,760	\$4,180	\$2,560	\$3,510
Field crops, other than vegetables, fruits and nuts	6,850	5,380	3,630	3,540	2,540	3,360	2,390	3,370
Vegetables sold	6	14	29	24	71	84	49	52
Fruits and nuts sold	133	54	19	53	60	62	62	83
Horticultural specialties sold	11	12	2	58	1,090	666	56	7
All livestock and livestock products sold	\$2,170	\$2,300	\$2,530	\$2,680	\$2,530	\$3,350	\$2,303	\$2,520
Dairy products sold	156	122	924	940	1,010	1,050	1,044	1,214
Poultry and poultry products sold	77	153	322	260	433	906	224	241
Livestock and livestock products, other than dairy and poultry	1,935	2,024	1,284	1,490	1,080	1,390	1,037	1,070
Forest products sold	\$ 191	\$ 323	\$ 520	\$ 438	\$ 306	\$ 388	\$ 530	\$ 254