

MANPOWER RESOURCES
IN THE
CENTRAL SAVANNAH RIVER AREA

Prepared for
Central Savannah River Area
Planning and Development Commission

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Foreword

More efficient utilization of manpower resources remains one of Georgia's -- and the Central Savannah River Area's -- most important problems. This report, the third in the series in preparation, analyzes the CSRA's manpower situation.

Neither the area nor the state as a whole will close the present wide dollar gap between per capita income in the area and in the U.S. until some of the CSRA's and the state's manpower utilization problems are solved. The attraction of industries which require more highly skilled workers is essential.

As the report points out, the development of additional vocational-technical training facilities is in process and should be a catalyst of some considerable value. The further, more detailed and sophisticated analysis of the area's resources -- particularly market potentials -- will ultimately determine how rapid and complete the solution to the area's manpower resource development problems will be.

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Summary

More than 1,000 high school graduates will seek jobs in the Central Savannah River Area during 1963. Existing and prospective employers in Richmond County, the population and industrial center of the CSRA, have on tap a potential labor supply of high school graduates that far exceeds present requirements. High school graduates are available in the less industrialized CSRA counties, but most of the job openings do not offer the challenge that graduates are seeking.

There is intense competition for white female employees in Glascock, Lincoln, McDuffie, Warren, and Wilkes counties and, to a lesser degree, in Emanuel, Jefferson, and Screven counties. The development of higher-paying opportunities for men in these counties would bring greater stability to the labor force and would create a better balance of male and female employment in the area.

Although many trained and experienced technicians were attracted to the Augusta area during the construction phase of the Atomic Energy Commission's Savannah River Plant, many of the new and expanded firms must continue to import skilled craftsmen, particularly maintenance personnel, into the area. This is true not only in the chemical, electrical, metalworking, and paper industries, but also in the older textile and apparel industries in all parts of the CSRA.

While some skills are in short supply, there is evidence that many CSRA workers are forced to accept jobs that are below their maximum skill levels. As new firms are established, many workers attempt to obtain new jobs that offer opportunities for development and full utilization of their capabilities. Although individual employers may suffer temporarily, benefits accrue to the entire CSRA economy as the upgrading process continues to place workers in those positions from which their best efforts are derived.

The following conclusions concerning the quality of the labor force in the CSRA were drawn from interviews with manufacturers throughout the area:

1. Workers in the area have excellent work attitudes. They exhibit more initiative and have greater pride in their work than members of the more sophisticated labor force in the highly industrialized parts of the country. There is, however, no detectable difference in labor productivity between workers in the CSRA and workers in other sections of the country.

2. The general quality of education received by high school graduates in the area is markedly below that received by students in some other parts of the country.
3. The excellent labor climate is the single greatest industrial development asset of the CSRA.

The growing program of vocational and technical training in the area promises to make a significant contribution to the future economic development of the CSRA. Three area vocational-technical schools are in operation or under construction in the area -- two in Augusta and one in Swainsboro. These new area schools supplement two established vocational schools in Richmond County. There is no doubt that, with the area's abundance of unskilled and semi-skilled labor, increased attention will be directed to the valuable vocational and technical training available in the area.

A consideration of wage rates in the CSRA confirms the desirability of manufacturing diversification and adds the qualification that, for the best interest of the area, diversification should be in the direction of higher-paying industries. The advantages of such a move are clearly evident in Richmond County, where the average monthly wage rate of employees in insured manufacturing jobs is higher than in the state as a whole.

Since low wage rates are attractive to many industrial prospects who give primary consideration to labor costs in making location decisions, the wage structure in the other 12 counties in the CSRA may be considered favorable to the industrial development potentials of these communities. As far as the overall economic development of the area is concerned, however, the validity of this apparent advantage is challenged by the fact that low-paying industries tend to breed and attract other low-paying industries. From the standpoint of the proper utilization of manpower resources, the most serious consequence of the continuation of a relatively low community wage level would be the loss of the best educated and best trained young people to other more attractive communities.

Basic to an understanding of the current manpower resources in the CSRA is a consideration of population, migration, labor force, and employment trends in the area. Eight of the 13 CSRA counties have had a population loss every decade since 1920. Ten now have less population than they had in 1900. Only Richmond County has gained every decade since 1900; Columbia and McDuffie counties have grown each decade since 1930.

In the 1940-1950 decade, every county in the CSRA except Richmond lost a portion of its white males who were between 15 and 24 years of age in 1940, and every county lost a portion of its nonwhite young men during this period. Eleven per cent of the white male and 21% of the nonwhite male population in the selected age group left the 13-county area during the 1950-1960 decade.

Total CSRA population increased 6.2% during the 1950-1960 period, while total labor force increased only 2.9%. In 1950, less than 32% of the CSRA civilian population was under 14 years of age; this proportion had increased to over 35% by 1960. This increase in the number of young people accounts for the decline in the ratio of civilian labor force to civilian population 14 years old and over from 37.7% in 1950 to 35.0% in 1960.

These young people are now beginning to enter the labor market -- approximately 50% more than during the 1950's. The demands of these new entrants for jobs will be felt at an increasing rate for the next few years as they emerge from high school and college and from the new area vocational-technical schools.

During the period from 1952 through 1962, insured nonfarm employment in the CSRA increased 19%. Richmond County accounted for well over one-half of the total CSRA employment during this period and for over one-fourth of the total employment increase for the entire area. The remaining 12 counties had an employment increase of 4,841 persons, with three-fourths of this gain occurring in only three counties -- Emanuel, Burke, and Wilkes.

Since 1956, the finance, construction, and manufacturing groups have demonstrated the best growth in relation to the total employment increase in the area. Employment in each of these groups has increased relatively more rapidly than has total employment. Employment in wholesale and retail trade and in the service group has lagged considerably behind the total employment growth of the area.

More than 3,200 new manufacturing jobs have been added since 1952, accounting for slightly less than one-half of the total employment gains realized in the CSRA between 1952 and 1962. Since 1956, manufacturing has contributed almost 60% of the total employment gains in the CSRA. During this period, manufacturing has been gaining at a much faster rate than all of the other employment groups except finance and construction. Because of the absolute number of jobs involved, manufacturing has had much greater impact on the economy of the CSRA than any other employment group.

Manufacturing employment in the CSRA is largely concentrated in three industries -- apparel, textiles, and lumber. In 1952, these three industries accounted for two-thirds of the total manufacturing employment in the area. By 1962, this percentage had dropped to 58%, and the relative importance of each as an employment source had materially changed. Major employment losses in the lumber industry and relatively minor losses in textiles were more than offset by a 111% employment increase in the apparel industry.

In Richmond County, the textile industry has experienced employment losses in recent years, while the food industry and the stone, clay, and glass industry have realized modest gains. Contributing most to the employment increase in the county has been the recent growth in the apparel, paper, and machinery industries. While not apparent in the employment totals through 1962, the chemical industry promises to show significant gains in the future and has already begun to contribute through the first half of 1963.

As a group, the CSRA must intensify its development efforts in those areas of manufacturing which offer the best solution to the present problems and which promise to contribute significantly to the over-all economic status of the area. In this respect, the paper, machinery, and chemical industries seem to offer the best opportunities at present. Efforts to attract or expand firms in these industries should be intensified, while other industries should be cultivated to insure continued manufacturing growth and prosperity in the CSRA. Only through such a program as this will the smaller counties resolve their employment problems and Richmond County continue its recent manufacturing growth.

INTRODUCTION

An assessment of manpower resources is basic to an understanding of the industrial and economic potentials of any community or area. It is the purpose of this report to review the status of manpower resources in the 13-county Central Savannah River Area (CSRA), based on an analysis of historical trends and on an evaluative consideration of current conditions and developments relating to the present and future labor supply of the area.

This report does not attempt to present a fully comprehensive picture of the manpower situation in the CSRA. A completely exhaustive study, considering the scope dictated by the size of the area and the diversity of factors affecting manpower resources, obviously was not possible within the practical limitations imposed by the time and funds available. Rather, this study focuses on those facets of manpower availability, utilization, and development which were judged to be most critical to an over-all evaluation of manpower resources in the area.

Field work in each of the 13 counties in the CSRA, together with published data from standard statistical sources, provided the core of information upon which this report is based. Personal interviews were conducted with 19 manufacturers in the CSRA, including at least one firm in each county and at least one firm in each of the major industry groups represented in the area. Information on vocational and technical training facilities was developed through personal visits with the directors of the Augusta Area Vocational-Technical School, the Swainsboro Area Vocational-Technical School, the Augusta Vocational School, and the Lucy Laney School and with committee members of the proposed Richmond Area Vocational-Technical School. Details of high school vocational educational programs were secured through correspondence with county school superintendents throughout the CSRA. Discussions with representatives of the Augusta office of the Georgia Department of Labor provided background data and practical insights into the general labor supply situation in the area.

This report is divided into two major sections. The first examines the current status of manpower resources in the CSRA in terms of the general availability of manpower in the area, the quality of manpower resources, the facilities available for training the work force, and the effect of existing wage rates on manpower utilization. The final section reviews trends in population,

migration, labor force, and employment and relates these historical data to present needs for planning the future development of manpower resources in the Central Savannah River Area.

CURRENT STATUS OF MANPOWER RESOURCES

The manpower resources available to new and established industries in the Central Savannah River Area cannot be analyzed in meaningful terms without defining the geographic area to be examined and considering the specific industries to be served. The 13-county CSRA, for example, is much too large to treat as a single labor market area. Also, a consideration of the availability of qualified labor must be related to a particular firm or type of industry rather than to employers in general. In analyzing the current status of manpower resources in the CSRA, therefore, it was necessary to consider separately the key sections of the area and to keep in mind the existing industrial structure and the attendant demands upon the labor force.

Availability of Manpower

For the greatest promise for a continuing supply of manpower most businessmen look to the high schools. A survey of all high schools in the CSRA revealed that more than 2,400 young people were expected to graduate in 1963. The post-graduation plans of these high school seniors are tabulated in Table 1.

Table 1
TENTATIVE PLANS OF 1963 HIGH SCHOOL GRADUATES
IN THE CENTRAL SAVANNAH RIVER AREA

<u>Post-Graduation Plans</u>	<u>Number of Graduates</u>		
	<u>White</u>	<u>Non-White</u>	<u>Total</u>
Enter college	626	184	810
Enter public or private vocational school	272	263	535
Enter labor force	<u>688</u>	<u>377</u>	<u>1,065</u>
Total	1,586	824	2,410

Approximately 34% of the graduates in the CSRA expect to enter college, and 22% intend to develop skills by attending a vocational-technical school or a private business or secretarial school. This leaves over 1,000 to seek jobs with no developed skills as bargaining tools. These are among the first labor force entrants who were born during the baby boom of the mid-forties; the

heaviest influx is yet to come. It is expected that three out of four new job hunters between now and 1965 will consist of newly graduated youngsters who are not planning to enter college. Young workers under 25 will make up nearly half of the added total labor supply during this decade. Aside from the potential loss in manpower through out-migration, failure to provide jobs for this explosive increase could result in a very serious social problem.

It is generally agreed that the basic steps to be taken to cope with the problem include (1) improvement of the educational systems, (2) reduction of the school dropout rate, and (3) extension of training opportunities to jobless youths.

Augusta, located in the center of the CSRA, is the largest urban area in east central Georgia and west central South Carolina. As such, it attracts a large number of high school graduates from a large geographical area that lies outside the CSRA. Existing and prospective employers in the area have on tap a potential labor supply of high school graduates that far exceeds present requirements.

The newly established firms in Richmond County have testified to the surplus of high school graduates in the area. Several managers expressed their surprise at finding such large numbers of graduates who are willing to accept regular production jobs. Most of these firms are in industries that are technologically advanced and are equipped to offer wages considerably higher than the average in the area. These managers recognize that they are getting the cream of the crop of new high school graduates and can afford to be highly selective. They are aware, however, that this advantage will diminish as the area continues to develop industrially.

The situation differs in other sections of the CSRA, however. One manager declared this county a "disaster area as far as young people are concerned." This does not mean that firms are searching in vain for high school graduates, but that fresh graduates are searching for local jobs that offer promise for growth. Many industries would like to have graduates to fill positions that clearly do not require a high school education, but this is not an effective demand for graduates and is not considered a labor shortage in this study. For a high school graduate shortage to exist there must be sufficient openings that legitimately require a high school education. The limited survey found no such cases among CSRA manufacturers. Despite the

recent progress in industrialization, particularly in Richmond, Burke, Emanuel, McDuffie and Warren counties, the high school graduate labor pool is far from being drained, primarily because most of the job openings do not offer the challenge that graduates are seeking.

High school dropouts continue to drift into the CSRA labor pool and are forced to accept menial jobs with little hope for advancement. These young people find a strong demand for punchcard machine operators, electronics trainees, clerk-typists, service technicians for office equipment, and other skilled workers, but these openings generally require advanced training after high school. Few dropouts can hope to fill these spots.

In most CSRA counties there are one or more apparel plants. Because of the heavy demands of these firms on the female labor force, managements do not set a high school education as a criterion for employment. Consequently, there is no shortage of jobs for the female population, whatever the education and age level.

In several counties the imbalance of female employment has prompted the following comments from industrialists:

I would not invest money in a plant in this area that depends upon females for a high percentage of the labor force. The supply of women workers in this area has been depleted.

Because of the lack of job opportunities for young men, they seek work in the cities, taking our workers, their wives, with them. This helps to create an even greater female labor shortage.

In this county most of the men farm a little and their wives work in sewing plants like this. Generally, there are jobs open for women, not many for men.

The girls usually find work as sewers in garment plants in this or the surrounding counties -- the boys "loaf" or leave the county. All too often the girls are the breadwinners of the family.

In this area most jobs are for women. This is one of the largest male employers in the county.

These comments are reinforced by Mr. Louis Heckman of the Augusta office of the Georgia State Employment Service, who stated that "there is intense competition for white females in McDuffie, Warren, and Wilkes counties." Results of the survey indicate an equal degree of tightness in the white female labor pool in Lincoln and Glascock counties, with lesser but still detectable degrees in Emanuel, Screven, and Jefferson counties.

This imbalance of female employment in the CSRA should receive attention in planning the economic development of the area. Industries that concentrate on female labor are traditionally low-paying and should not receive primary attention in developmental activities. Greater over-all benefit would result by concentrating first efforts on upgrading the male labor force by developing higher paying employment opportunities for men. This would bring greater stability to the labor force and would create a better balance of male and female employment in the area.

Quality of Manpower Resources

It is especially true in a discussion of the qualitative aspect of the labor force that a meaningful analysis of manpower resources in the CSRA must include a treatment of key areas to supplement the over-all evaluation. Richmond County, for example, has recently experienced a tremendous expansion of those industries commonly referred to as "growth industries." These new and expanded firms create a sizable demand for highly skilled workers and technicians in the immediate area and exert a strong pull on qualified personnel within an area whose boundaries far exceed those of the CSRA. Many trained and experienced technicians were attracted to the Augusta area during the construction phase of the Atomic Energy Commission's Savannah River Plant. These workers have formed a pool from which the new firms are now drawing their maintenance forces. Largely because of this earlier attraction of skilled personnel, new Augusta firms so far have been able to at least partially satisfy their initial skilled manpower requirements.

Characteristics of the job applicants registered with the Augusta office of the Georgia State Employment Service as of May 1963 are given in Table 2. Well over half of the applications on file were from people with less than a high school education. The Employment Service is increasingly hard put to find challenging permanent jobs for these applicants, since more and more employers are requiring a high school education as a condition of employment. The present supply of high school graduates in the Augusta area makes this job even more difficult there. As Table 2 indicates, almost three-fourths of the total number of applicants were over 25 years of age, of whom a large number had no skills to offer a prospective employer. Employers naturally prefer younger workers if the cost of training must be borne by the company.

Table 2

ANALYSIS OF ACTIVE APPLICATIONS ON FILE IN GEORGIA STATE EMPLOYMENT SERVICE OFFICE,
AUGUSTA, GEORGIA

(May 1963)

Classification	Total	Race		Sex		Age		Education			
		White %	Non- White %	Male %	Female %	Under 25 %	Over 25 %	Less Than High School %	High School %	High School Plus %	College %
Professional & Managerial	167	94	6	81	19	13	87	--	11	10	79
Clerical & Sales	662	96	4	48	52	31	69	28	36	27	9
Service	611	26	74	40	60	19	81	83	16	1	--
Agricultural	3	100	--	100	--	--	100	67	--	--	33
Skilled	506	83	17	94	6	14	86	57	40	2	1
Semi-skilled	860	67	33	71	29	30	70	65	34	1	--
Unskilled	765	27	73	86	14	36	64	81	19	--	--
Entry	<u>90</u>	<u>81</u>	<u>19</u>	<u>37</u>	<u>63</u>	<u>73</u>	<u>27</u>	<u>15</u>	<u>42</u>	<u>23</u>	<u>20</u>
TOTAL	3,664	61	39	68	32	28	72	59	28	7	6

Most of the best-qualified workers are already employed and are not registered with the employment office. The information in Table 2, therefore, does not typify the quality of the CSRA labor force, but it does provide some insight into the problem of absorbing the available manpower into the labor force. For example, 81% of the registered unskilled workers have less than a high school education. What is to become of these people? While community leaders are understandably anxious to attract "high-value-added" industries into the area, an even greater concern should be shown for the underdeveloped manpower that is sure to become the basis for a burden to the community unless corrected.

With few exceptions the firms interviewed emphasized the shortage of trained craftsmen in the area. Despite the labor pool created by the AEC plant mentioned above, many of the new and expanded firms must continue to import maintenance personnel. This is true not only in the chemical, electrical, metalworking, and paper industries, but also in the older textile and apparel industries in all parts of the CSRA.

One of the newer firms in the area recently received over 6,000 applicants for employment with no advertising. No doubt many of these applicants were already employed and were interested in upgrading themselves. Not much is said about underemployment because of the difficulties in quantification, but there is evidence that many CSRA workers are forced to accept jobs that are below their maximum skill levels. As new firms are established, many workers attempt to obtain new jobs that offer opportunities for development and full utilization of their capabilities. This action is to be expected; failure to do so would be a sad commentary on the initiative of the labor force. Although individual employers may suffer temporarily, benefits accrue to the entire CSRA economy as this upgrading process continues to place workers in those positions from which their best efforts are derived.

Only those managers with supervisory experience in other parts of the country were pressed for a statement on the general quality of the local labor force. In every case local workers were highly praised for their "excellent work attitudes." Each manager freely stated that workers in this area exhibited more initiative and had greater pride in their work than members of the more sophisticated labor force in the highly industrialized parts of the country. This does not necessarily mean, however, that local workers

are more productive. The consensus is that there is "no detectable difference in labor productivity between workers in the CSRA and workers in other sections of the country." However, this can be interpreted as a commendation. A first generation industrial work force should not be expected to compete effectively in productivity with those workers who long ago made the transition to an industrial environment from a largely rural one.

One plant manager in a southern CSRA community stated that "the people of this community are not capable of adapting themselves to an industrial environment." An examination of his work force revealed that (1) the majority of his workers are in the 40-45 age bracket, (2) at least 60% of his production employees are female, (3) the average pay is barely above the legal minimum wage, and (4) total employment fluctuates very widely -- a maximum of 600 with an annual average of 250.

From several sources came a sincere expression of concern for the quality of education received by high school graduates. These remarks came from professional managers who have had experience in industry outside the South and, because of the advanced technology of their operations, have urgent reasons to seek better-equipped high school graduates for their firms. The general quality of education, according to one plant manager, is "markedly below that of students in the East and Midwest with which I have had experience."

Most of the labor-intensive firms cited the availability of labor as the single greatest location factor that influenced their decision to establish a plant in the area. They convinced themselves of the adequacy of labor by making surveys of their own, buttressed by the work of local groups such as the Committee of 100 in Augusta. As to the single greatest asset of the area, most industrialists agreed that it is the "excellent labor climate."

Facilities for Upgrading Manpower Resources

An analysis of the quantity and quality of manpower resources in the Central Savannah River Area underscores the critical need for adequate facilities for upgrading manpower resources. The growing program of vocational and technical training in the area promises to make a significant contribution to the future economic development of the CSRA.

Certain basic economic conditions in the area have an impact upon existing and future training needs. These include (1) population movement from

rural to urban centers, (2) changes in the types of employment available and increasing job diversification requiring more specialization, (3) shortages in the technical fields requiring vocational training extending beyond high school, and (4) the continuing shift from an agricultural to an industrial economy.

To meet these changing training needs, vocational education programs in the area are being expanded in the high schools and greater emphasis is being placed on post-high school training through the establishment of area vocational-technical schools.

High Schools. Currently, most of the high schools of the area are offering various vocational courses to their students. These courses, offered in both white and Negro schools, include agricultural education, business education, distributive education, and homemaking education. In most instances, these courses are extended to serve the adults of the area through night classes. These courses are all offered through the cooperative efforts of the Vocational Division of the State Department of Education and the individual high schools, with the curriculum generally dictated by the needs of the community served.

The aim of the agricultural education program, with its problem-solving approach to learning, is farming proficiency. When a student enrolls in this program he projects a farming program which he proposes to conduct, successively expanding the scope and nature of this program as he progresses. In addition to classroom instruction and on-the-farm supervision, farm mechanics instruction is usually provided in a school shop. The adult courses are of two types: (1) those dealing with specific problems in the area of farm management and skill development, and (2) those based upon the needs and interests of the farmers in the community.

Business education at the high school level attempts to help the student in one or more of the following ways: (1) by preparing the student for beginning occupations in the business field, (2) by acquainting the student with one or more business skills which may aid personal needs, (3) by helping the student in personal-economic planning and purchasing, or (4) by helping the student gain a better understanding of the business enterprise system. Courses offered include typing, shorthand, bookkeeping, business math, general business, office

practice, business English, and business law. Most of these courses also are offered in adult classes to provide training for clerical office workers, typists, stenographers, and bookkeepers. In some instances, training is offered in the use of the more modern office machines.

Distributive education prepares students for occupations in the distribution of goods and services to the public in retail, wholesale, and service fields. Classroom instruction is usually augmented by training received through part-time employment with a local distributive business. Here, under the direction of his employer, he follows a training program outlined jointly by his employer and instructor. Adult instruction in distributive education is designed to meet the specific need of the group requesting instruction. In this program, instruction is intended for those persons already employed in distributive occupations who are seeking to improve their occupational status.

Homemaking education is designed to meet the needs of both in-school youth and adults, with separate programs offered to each group. Students enrolled in this program receive instruction in clothing construction, meal planning and preparation, home care of the sick, home decoration, child care and development, consumer education, and family relations.

Vocational-Technical Schools. It is obvious that high school vocational efforts cannot meet fully the increasing demands for technically trained manpower in the CSRA. Limited in scope, these programs lack the orientation and depth to satisfy the changing needs of a growing industrial economy. Fortunately, however, advanced vocational and technical training has been accelerated in the area through the State Department of Education's area vocational-technical school program. Under this relatively new plan, a network of schools is being developed to serve multi-county areas throughout the state.

The Central Savannah River Area has three area vocational-technical schools in operation or under construction. The Augusta Area Vocational-Technical School is currently in its second year of operation. An area school at Swainsboro began operations in September 1963. The Richmond Area Vocational-Technical School (Negro) is under construction. These new area schools supplement two established vocational schools in Richmond County -- the Augusta Vocational School and the Lucy Laney School (Negro).

The Augusta Area Vocational-Technical School was established cooperatively by the Richmond County Board of Education and the State Department of Education.

The State pays the full salary of day instructors and 90% of the salary of evening instructors. The school is tuition free, with the only charge being a nominal fee to cover consumable supplies.

The Augusta school is limited to those with a high school diploma or equivalent. Senior class high school students are admitted on a part-time basis (three hours per day). The school is not designed to be a rehabilitation or training center for high school dropouts in the area. The courses offered are based on knowledge gained during four years of high school or special training such as that offered in armed service schools or gained through industrial experience.

Ten courses are presently offered in the Augusta Area Vocational-Technical School: electronic and electrical technology; drafting technology; air conditioning, refrigeration, and heating; appliance repair; automotive mechanics; business education; cosmetology; diesel mechanics; electricity; and radio and television repair.

Each of these courses was set up by an advisory committee appointed by the school's director. This committee decided which courses to offer, entrance requirements, how the courses were to be taught, and chose the appropriate texts, manuals, and laboratory equipment to be used. The committee continues to meet periodically to evaluate the courses and to make any necessary changes to insure that they are meeting the changing needs of industry and business. In addition to the courses of study set up by the committee, the school can underwrite training programs at individual company requests. The school will hire instructors and run such a program for any length of time desired by the company.

The men selected to instruct in the Augusta school are not all trained educators. Rather, they are men with strong industrial experience and knowledge, familiar with the problems characteristic of their specific areas of instruction. In all cases they have served at least two years in industry as journeymen. Most of the instructors are full-time employees of the school, although some, particularly in the evening program, serve only part-time. In all cases, instructors are selected by the director of the school and are passed upon and certified by the State Department of Education.

Approximately 150 students are enrolled in day sessions and 250 to 300 in the evening extension courses, with a male to female ratio of approximately 2 to 1. This means that the school is currently operating at approximately 50% of enrollment capacity, indicating less than anticipated interest in the program. The lack of immediate response apparently stems partly from the fact that most high schools are primarily geared to academic instruction directed toward college -- an approach which does not properly orient the 65% to 70% of students who fail to enter college or drop out during the first year. To further compound the problem, few principals or counselors are available in the area who have the time to devote to guiding this group. Further, many of those that are able to help this student group still view vocational-technical schools as havens for dropouts and undesirables; they have yet to appreciate fully that this new facility is at least as respectable as other types of schools to which non-college students are usually directed. This situation is rapidly being remedied by an active promotional campaign to sell students, parents, and school officials on the real value of this facility. As a result of newspaper and radio advertising, personal appeals, and specially conducted tours of the school, these groups are gradually changing their views. Perhaps the single most influential factor in demonstrating the school's potential contribution to the area will be this year's first graduating class. These students, by demonstrating the knowledge and skill gained from formalized training, will be the school's best salesmen.

If there is a weakness in the Augusta Area Vocational-Technical School it is in the area of guidance. The school does not have a formal guidance and counseling program to direct each student to the choice of subject matter to which he is best suited and which will be of most value to him when seeking employment. There are no aptitude tests given except for the standard state employment test which is interpreted by the superintendent. On the basis of this test, a personal data sheet, and personal interviews with the superintendent and instructors, an applicant is accepted or rejected in the course of study which he has selected. (Currently, 50% of all applicants are accepted.) Obviously, a formal guidance-counseling program is necessary if students are to realize the true value of the programs offered.

The Swainsboro Area Vocational-Technical School is similar in operation to the Augusta School. Beginning formal sessions in September 1963, the

school offers nine courses: auto mechanics, business education, drafting, industrial electricity, machine shop, sewing machine maintenance, practical nursing, refrigeration and air conditioning, and trowel trades.

The curriculum has been geared to the needs of industry in the area. Although future needs are anticipated in the electronic and mechanical technology fields, the advisory committee selected those courses which would meet present needs first, realizing that changes will be necessary in the future. In addition to these courses, the school will also offer instruction in other areas at the request of local industry, provided a suitable number of students demonstrate an interest in the course.

From evidence gathered before the Swainsboro Area Vocational Technical School opened, it was apparent that the school would be well supported by industry and the community. Excellent response had been received from those selected to serve on the advisory committee, and applications for enrollment were being received daily. Interest in the school was being stimulated through intensive promotional efforts on the part of school officials. Perhaps the best evidence of the community's interest in the program was the 5 to 1 voter acceptance of the bond issue to raise county funds for the school.

The Richmond Area Vocational-Technical School is under construction. This will be a school for Negroes which will be operated and financed in the same manner as the area schools in Augusta and Swainsboro. Tentative plans call for courses in the following fields: electronic technology, industrial electricity, machine shop, drafting and design, auto mechanics, auto body and fender repair and painting, air conditioning and refrigeration, business education, practical nursing, carpentry, bricklaying and plastering, and tile setting and cement finishing.

The Augusta Vocational School for whites and the Lucy Laney School for Negroes are operated by the Department of Vocational Education of the Richmond County Board of Education. The Augusta school has been in operation for more than 25 years, while Lucy Laney has operated over 15 years. Each was initially financed through the joint efforts of state, Federal, and local funds, and teachers in both schools continue to receive salaries which are partially state-supported. Both schools are tuition free regardless of the county or state of residence of the student. As in the area schools, the only charge is a supply fee.

More than 500 students are enrolled in full-time training at the Augusta Vocational School, almost 400 participate in part-time courses, and more than 100 are enrolled in special textile classes. The curriculum includes courses of study in the fields of electricity, electronics, automotive mechanics, metalworking, tool and die making, printing, cosmetology, business education, English, mathematics, distributive education, practical nursing, homemaking, mechanical technology, welding, and plumbing.

The Lucy Laney School has an enrollment of more than 100 in full-time courses and approximately 35 in part-time courses. Course offerings include automotive mechanics, bricklaying and plastering, radio and television repair, upholstery and furniture repair, shoemaking, and academic subjects.

All instructors in the Augusta and Lucy Laney schools are experienced in the fields of study which they teach, having at least three or four years of occupational experience. Not all are college graduates, but each has met the state requirements and standards and has been certified by the State Department of Education.

While the standards for enrollment at these two schools are not as strict as at the area schools, some counseling is done to weed out the potential drop-out element. Non-high school graduates are accepted, usually having been referred to the school by a vocational guidance instructor. Work done by students in these schools can be credited as an elective course of the regular high school curriculum, applicable to graduation requirements. The limited duplication of effort by these schools and the area schools is not expected to create a serious problem. In fact, these schools will enable those students who fail to meet the rigid enrollment qualifications of the area schools to obtain the vocational instruction desired.

Both the Augusta and the Lucy Laney schools attempt to guide new students to train in those occupations for which there is a present or anticipated demand. Although an effort is made to place students who have completed the course work, this is not always possible, due to the limited time of personnel and the absence of a full-time guidance counselor. In many instances the better students fail to finish their training because they find a job before completion.

Even with the increased student capacity of the area vocational-technical schools, future enrollment increases are anticipated which might cause

excessive demands on present facilities. These programs have been very well received by industry, the community, and the local work force, and programs are continually being adapted to meet the changing needs of these groups. There is no doubt that, with the area's abundance of unskilled and semi-skilled labor, increased attention will be directed to the valuable vocational and technical training available in the area.

The Effect of Wage Rates on Manpower Utilization

A consideration of wage rates in the CSRA confirms the desirability of manufacturing diversification and adds the qualification that, for the best interests of the area, diversification should be in the direction of higher-paying industries.

This is especially true for the 12 smaller counties in the area, where the influence of the low-paying apparel and lumber industries is reflected in the average wage rates paid. As shown in Table 3, in the third quarter of 1962 the average monthly wage rate of employees in insured manufacturing jobs in these counties was lower than in Richmond County and in the state as a whole. In fact, the same was true of the average monthly wage rate of all employees in each of the major employment groups in these counties. Among the various manufacturing sub-groups, only in the low-paying industries did these counties compare favorably with the state figures.

Previous studies have indicated that the wage level of the major employing industry in a county directly affects the over-all wage level of the county.^{1/} While no such analysis has been made in this study, it is obvious that this is generally true in these 12 counties. Heavy reliance upon the apparel and lumber industries as sources of employment has lowered the total average monthly wage rate for manufacturing employees to a point substantially below the state average. To eliminate this problem, only one alternative is open -- these counties must diversify into the higher-paying industries.

The advantages of such a move are clearly evident in Richmond County, where the average monthly wage rate of employees in insured manufacturing jobs

^{1/} Jerry L. Lewis, Manpower Resources in the Columbus, Georgia, Area, Industrial Development Division, Engineering Experiment Station, Georgia Institute of Technology, May 1959.

Table 3
AVERAGE MONTHLY WAGE RATES OF INSURED EMPLOYEES
IN THE CENTRAL SAVANNAH RIVER AREA
(Third Quarter 1962)

	<u>Richmond County</u>	<u>Remaining CSRA Counties^{1/}</u>	<u>State</u>
All Industries, Total	\$310	\$223 (12)	\$339
Construction	325	277 (10)	349
Manufacturing, Total	345	230 (11)	335
Food	350	<u>2/</u>	333
Textile	295	315 (4)	287
Apparel	220	220 (13)	237
Lumber	265	187 (13)	223
Paper	505	--	481
Printing and Publishing	410	256 (7)	451
Chemicals	425	267 (4)	441
Stone, Clay, and Glass	330	279 (6)	355
Machinery	440	286 (3)	426
Other Manufacturing	320	229 (8)	427
Transportation, Communication, and Public Utilities	330	302 (8)	460
Trade	270	198 (10)	255
Finance, Insurance, and Real Estate	390	295 (10)	397
Other Industries	280	193 (11)	266

^{1/} Burke, Columbia, Emanuel, Glascock, Jefferson, Jenkins, Lincoln, McDuffie, Screven, Taliaferro, Warren, and Wilkes. In some instances, figure given does not include all 12 counties due to lack of data or absence of covered employment in that industry in the county. The figure in parenthesis indicates the number of counties upon which figure is based.

^{2/} Data not available.

Source: Georgia Department of Labor

is slightly higher than in the state as a whole. This is due primarily to the employment gains which have been made in the higher-paying industries -- food, paper, printing and publishing, machinery, and stone, clay and glass. Continued growth of these industries, plus an acceleration of recent developments in the chemical industry will insure that the total average wage rate of manufacturing employees in Richmond County will remain at a level at least comparable with that of the state as a whole. Richmond County must not neglect its development efforts in any major employment category, however. The total average monthly wage rate for all industries is still below that of the state as a whole.

Low wage rates are no doubt attractive to many industrial prospects who give primary consideration to labor costs in making location decisions. In this sense, the wage structure in the 12 smaller counties may be considered distinctly advantageous to the industrial development potentials of these communities. As far as the over-all economic development of the area is concerned, however, the validity of this apparent advantage is challenged by the fact that low-paying industries tend to breed and attract other low-paying industries. Established employers in a low-wage-rate area are naturally inclined to oppose the entrance of higher-paying industries which will compete with them for the available labor supply.

While the attraction of other low-paying employers to these counties would contribute to the solution of the unemployment problems, it would fail to achieve the long-range benefits which are desired. A perpetuation of abnormally low wage rates would deprive these counties of the economic benefits which accompany an increasing per capita income -- better economic balance, increased purchasing power, higher standards of living, and improved educational facilities and other community services made possible by a higher tax base. From the standpoint of the proper utilization of manpower resources, the most serious consequence of the continuation of a relatively low community wage level would be the loss of the best educated and best trained young people to other more attractive communities.

HISTORICAL TRENDS AFFECTING MANPOWER RESOURCES

Population Trends

While an intensive analysis of population trends and characteristics is beyond the scope of this study, a cursory review is basic to an understanding of the state of the labor force, real and potential, that exists in the Central Savannah River Area. The 1960 Census showed a population of 271,866 for the 13-county area, up more than 6% from the 1950 count. Although the area has experienced an increase in population during every decade since the turn of the century except one -- there was a 7.8% drop in the 1920-1930 period -- it was not until 1960 that the population surpassed by as much as 9,000 the level reached 30 years earlier.

Eight of the 13 counties in the CSRA have had a population loss every decade since 1920. Ten now have less population than they had in 1900. Only Richmond County has gained every decade since 1900; Columbia and McDuffie counties have grown each decade since 1930.

Chronicling the loss of population in the rural counties has become a rather shop-worn method of dramatizing economic ailments. Moreover, this phenomenon is not restricted to Georgia or the Southeast. About half of the counties in the nation lost population during the 1950-1960 decade, while national population rose 18.5%. Over 82% of the counties with less than 5,000 people lost population during this period, as did 74% of those with between 5,000 and 10,000 residents. While the knowledge that rural population losses are not exclusively local trends does not in any sense relieve the problem in the CSRA, it places the situation in perspective.

Perhaps more significant is the fact that the CSRA's share of the total Georgia population has steadily declined since 1900. In 1900 almost 10% of Georgia's population was concentrated in this 13-county area. By 1960 this ratio had declined to slightly less than 7%. Using population as the sole gauge of prosperity, it is clear that the area has not advanced significantly relative to the state.

Almost one-fourth of the total population of the area was urban in 1900. For the state this ratio was only 15.6%. By 1950 the state as a whole had overtaken the CSRA in urbanization growth, and in 1960 the state's urban

areas had 55.3% of the total residents, while the CSRA's urban areas trailed slightly with 51% of the total CSRA population. Richmond County is, of course, responsible for the increased urbanization; it has over 54% of the area population and is almost 82% urbanized.

Migration Trends

Of vital concern to any area, and especially pertinent to a study of manpower resources, is the number of young people who are economically able to remain in the defined area after completing their education. As an index of the propensity to migrate (whatever the reason) among the younger population in the CSRA, a study was made of the young men who were in the 15 to 24 age group in 1940. The number in this group was measured again in 1950; they were, of course, in the 25 to 34 age group then. Finally, a count of this same group was taken in 1960 when the age span of 35 to 44 had been reached. This rough analysis ignores differential death rates in these age groups, assuming that each CSRA county is affected similarly. Also, the analysis is concerned only with net values. The people in the 25 to 34 age group in 1950 are not likely to be the same people who were in the 15 to 24 age group in 1940, but the net effect is the same. The results of the study appear in Table 4.

In the 1940-1950 decade, every county except Richmond lost a portion of its white males who were between 15 and 24 years of age in 1940. Richmond had a gain of over 3,000. This is explained partly by the attraction that urban areas such as Augusta exert on the young, and partly by the presence of Fort Gordon in this county. Emanuel was the heaviest loser in absolute terms. This, the third most heavily populated county in the area, lost 645 (41%) of its group during the 1940-1950 decade. The absolute decline ranged from Emanuel's 645 to Columbia's 15; the percentage decline ranged from Taliaferro's 58% to Columbia's 4%.

Despite the drain on the area's young white men experienced by 12 of the counties, Augusta's drawing power was great enough to overcome these collective declines, and the area had a 6.2% increase in the group during the 1940-1950 decade.

Every county in the CSRA lost a portion of its nonwhite young men during the 1940-1950 decade. Absolute losses of nonwhite males who were in the 15

Table 4
CENTRAL SAVANNAH RIVER AREA
MALE POPULATION TRENDS FOR SELECTED AGE GROUPS, 1940-1960

County	1940 Ages 15-24			1950 Ages 25-34			1960 Ages 35-44			Percentage Changes					
										1940-1950			1950-1960		
	White	Non- white	Total	White	Non- white	Total	White	Non- white	Total	White	Non- white	Total	White	Non- white	Total
Burke	649	1,975	2,624	514	747	1,261	462	527	989	-21	-62	-52	-10	-29	-22
Columbia	386	603	989	371	241	612	621	191	812	- 4	-60	-38	+67	-21	+33
Emanuel	1,576	866	2,442	931	391	1,322	778	244	1,022	-41	-55	-46	-16	-38	-23
Glascocock	333	153	486	183	49	232	117	26	143	-45	-68	-52	-36	-47	-39
Jefferson	854	1,218	2,072	575	561	1,136	505	395	900	-33	-54	-45	-12	-30	-21
Jenkins	596	639	1,235	397	242	639	343	152	495	-33	-62	-48	-14	-37	-23
Lincoln	323	371	694	250	172	422	195	119	314	-23	-54	-39	-22	-31	-26
McDuffie	574	585	1,159	491	324	815	504	270	774	-14	-41	-30	+ 3	-17	- 5
Richmond	4,321	2,959	7,280	7,397	2,521	9,918	6,370	2,387	8,757	+71	-15	+36	-14	- 5	-12
Screven	910	1,184	2,094	568	515	1,083	472	320	792	-38	-57	-48	-17	-38	-27
Taliaferro	228	435	663	95	124	219	73	75	148	-58	-71	-67	-23	-40	-32
Warren	307	745	1,052	184	291	475	161	177	338	-40	-61	-55	-13	-39	-29
Wilkes	528	973	1,501	355	272	627	346	226	572	-33	-72	-58	- 3	-17	- 9
Total CSRA	11,585	12,706	24,291	12,311	6,450	18,761	10,947	5,109	16,056	+ 6	-49	-23	-11	-21	-14

to 24 age group in 1940 ranged from 1,228 in Burke (the area's second largest county) to 104 in Glascock (the area's smallest county). Wilkes had the largest percentage loss (72%), while Richmond suffered a relatively small decline of 14.8%. Every county except two -- McDuffie and Richmond -- gave up well over 50% of this young group during the decade. The net effect on the area was a total loss of 6,256 nonwhite males who were somewhere between the ages of 15 and 24 during the 10-year period.

The attrition rate during the 1950-1960 period was not nearly as great in either the white or nonwhite group as in the previous decade. This can be partly explained by the fact that a great many of them had families and were, of course, less mobile than before. Of those counties that experienced a loss during the earlier decade, Emanuel again led in absolute losses of white males in this group (153). Columbia County imported 250 during the period, McDuffie had a modest increase of 13, and Wilkes almost held its own with a loss of only nine.

Richmond County experienced a decline of over 1,000 in this white male group, exerting such a heavy impact on the area that the net result was a loss of 1,364 by 1960.

All counties continued to lose nonwhites during the 1950-1960 period, although not as heavily as in the previous decade. For the area the loss was 1,341 -- not quite as great an absolute loss as the white male loss but a much larger percentage decline. Eleven per cent of the white male and 21% of the nonwhite male population in the selected age group left the 13-county area during the 1950-1960 decade.

Labor Force Trends

For a realistic appraisal of the relationship between labor force and population, it is necessary to adjust the raw population figures for two conditions that tend to distort the relationship -- the large number of military personnel in the area and a relatively large group of below-work-age people. These adjustments and trends in population and labor force in the CSRA for the 1950-1960 decade are given in Table 5.

Table 5
LABOR FORCE AND POPULATION COMPARISONS
IN THE CENTRAL SAVANNAH RIVER AREA
(1950 and 1960)

	<u>1950</u>	<u>1960</u>	<u>Change</u>
<u>Labor Force - Population:</u>			
Total population	255,933	271,866	+ 6.2%
Total labor force	101,045	103,970	+ 2.9%
Total labor force to total population	39.5%	38.2%	- 1.3%
<u>Military Adjustment:</u>			
Civilian population	248,788	258,393	+ 3.9%
Civilian labor force	93,900	90,497	- 3.6%
Civilian labor force to civilian population	37.7%	35.0%	- 2.7%
<u>Age Adjustment:</u>			
Percentage of civilian population under 14	31.7%	35.1%	+ 3.4%
Civilian population 14 and over	169,871	167,739	- 1.3%
Civilian labor force to civilian population 14 and over	55.3%	54.0%	- 1.3%

Total CSRA population increased 6.2% during the 1950-1960 period, while total labor force increased only 2.9%. As a result, the ratio of total labor force to total population fell to 38.2% in 1960. An adjustment for the military reveals a decline in the civilian labor force for the period, forcing the ratio of civilian labor force to civilian population to 35.0% in 1960 from 37.7% in 1950. Ten of the 13 counties had a reduction in their civilian labor force during the decade. Richmond County had an increase of over 2,500 and Columbia and McDuffie counties gained a little more than 500 each. These increases, however, were not enough to counterbalance the collective losses of the other 10 CSRA counties.

The 1960 ratio of civilian labor force to civilian population is lower than that in many other areas in Georgia and is below the ratio normally considered necessary to support the population. An adjustment to eliminate the effects of an unusually large number of below-working-age youths helps to

explain this. The result of the much heralded rise in the postwar birth rate is revealed in the data in Table 5. In 1950, less than 32% of the CSRA civilian population was under 14 years of age; this proportion had increased to over 35% by 1960. This increase in the number of young people accounts for the drop in the ratio of civilian labor force to civilian population 14 years old and over.

Even now, three years after the Census of Population from which the data for this analysis were derived, these young people are beginning to enter the labor market -- approximately 50% more than during the 1950's. The demands of these new entrants for jobs will be felt at an increasing rate for the next few years as they emerge from high school and college and from the new area vocational-technical schools. The upgrading of job skills through provision of facilities for training carries with it the risk of losing an even greater investment through out-migration of graduate technicians. This can be avoided only by providing those jobs through which the young people, anxious to demonstrate their new skills, can matriculate into the labor force.

Employment Trends^{1/}

Total Employment. During the period from 1952 through 1962, insured non-farm employment in the Central Savannah River Area increased 19%, from 35,644 persons to 42,379 persons. (See Table 6.) Of the eight counties which experienced an employment increase, Emanuel County had the greatest absolute gain -- 1,962 persons. This growth, coupled with Richmond County's addition of 1,894 jobs, accounted for over one-half the total employment increase in the CSRA during this period. In terms of percentage, four counties increased their employment over 90%, with Emanuel having a 220% gain. Only two counties had significant losses during the period. Taliaferro and Lincoln counties experienced losses of 37% and 18%, respectively.

^{1/} All employment figures used in this section are taken from the records of the Georgia Department of Labor. The most recent figures represent the total employment in establishments with four or more employees, as reported by the Georgia Employment Security Agency. Insured employment excludes all railroad and government employment. Totals for the years prior to 1956 include only those establishments employing eight or more persons, resulting in a significant increase in the reported employment total between 1955 and 1956. In every instance, the figure shown is the employment total for the month of September. Reference is made only to nonfarm employment, and employment in agriculture, forestry, fishing, and mining is excluded.

Table 6
TOTAL INSURED NONFARM EMPLOYMENT
IN THE CENTRAL SAVANNAH RIVER AREA BY COUNTY
(1952-1962)

County	Total Insured Employment										
	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962
Richmond	24,846	23,365	22,362	22,360	23,622	23,325	23,494	25,170	26,493	25,342	26,740
Emanuel	890	1,009	911	1,047	1,668	2,024	2,070	2,759	2,528	2,525	2,852
McDuffie	2,508	2,204	1,855	2,172	2,405	2,352	2,763	2,552	2,404	2,664	2,410
Jefferson	1,719	1,813	1,726	1,843	1,991	1,933	1,744	1,996	1,799	1,501	1,966
Wilkes	1,236	1,263	1,253	1,311	1,505	1,534	1,726	1,858	1,823	1,827	1,959
Burke	875	1,034	855	869	1,388	1,465	1,422	1,473	1,467	1,434	1,820
Screven	652	841	909	862	1,131	971	1,102	1,110	1,186	1,091	1,267
Jenkins	738	806	759	799	920	852	1,038	1,091	1,015	929	977
Warren	388	378	395	319	456	560	158	294	449	394	836
Columbia	614	595	675	759	802	810	661	657	623	547	608
Lincoln	618	578	511	618	649	471	496	598	525	488	507
Glascock	229	247	221	183	201	155	140	147	127	153	228
Taliaferro	331	252	207	213	219	280	154	241	246	212	209
Total	25,644	34,385	32,639	33,355	36,957	36,732	37,068	39,946	40,685	38,107	42,379

Throughout the period being considered, Richmond County accounted for well over one-half of the employment total in the CSRA. Its 7% employment increase during the 1952-1962 period was over one-fourth of the total increase for the entire area. The remaining 12 counties had an employment increase of 4,841 persons, with three-fourths of this gain occurring in only three counties -- Emanuel (41%), Burke (19%), and Wilkes (15%). Only Emanuel and Wilkes counties experienced sustained increases throughout the period, while Burke County remained relatively stable after the 1955-1956 adjustment caused by redefinition of the Employment Security Agency figures. Burke County's big gain occurred between 1961 and 1962, when 400 new jobs were added. The only other county which has shown any growth trend in recent years is Warren County, which has added 700 persons to its payrolls since 1958. All other counties have remained relatively stable since 1956, with little or no net change during this period.

Richmond County has experienced sustained growth since its low year of 1955, when only 22,360 persons were employed. Since the redefinition adjustment between 1955 and 1956, Richmond County has added more than 3,000 persons to its payrolls. However, it is far from being the fastest growing county in the CSRA in terms of employment and has, in fact, lost part of its share of the total CSRA employment. In 1962, Richmond County accounted for 63% of the total employment in the CSRA, compared with 70% in 1952. Other counties, such as Burke, Emanuel, Screven, Warren, and Wilkes, have demonstrated their potential for industrial growth through relatively significant employment increases in recent years.

Employment Sources. As illustrated in Table 7, the percentages of total insured nonfarm employment contributed by each major employment source in the CSRA remained relatively constant throughout the 1952-1962 period. Fluctuations between 1955 and 1956 resulted more from changes in reporting procedures than from actual changes in employment. During the period, manufacturing accounted for approximately one-half of the employment total, and wholesale and retail trade contributed approximately one-fourth. A little more than 15% of the total employment in the area was almost equally divided between the construction group and the service and other group. The remaining 10% was divided between the transportation, communications, and public utilities category and the finance, insurance, and real estate classification.

Table 7

TRENDS IN TYPES OF INSURED NONFARM EMPLOYMENT
IN THE CENTRAL SAVANNAH RIVER AREA
(1952-1962)

Employment Source	1952		1955		1956		1962		Net Change					
	No.	%	No.	%	No.	%	No.	%	1952-1955		1956-1962		1952-1962	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Manufacturing	17,345	49	16,569	50	17,421	47	20,591	49	-776	-4	3,170	18	3,246	19
Wholesale and retail trade	9,416	26	8,344	25	10,050	27	10,591	25	-1,072	-11	541	5	1,175	12
Service and other	3,053	9	2,819	9	3,525	10	3,794	8	-234	-8	269	8	741	24
Construction	2,850	8	2,766	8	2,630	7	3,323	8	-84	-3	693	26	473	18
Transportation, communications, and utilities	1,914	5	1,727	5	1,812	5	2,048	5	-187	-10	236	13	134	7
Finance, insur- ance, and real estate	1,066	3	1,130	3	1,519	4	2,032	5	64	6	513	34	966	91
Total	35,644		33,355		36,957		42,379		-2,289	-6	5,422	15	6,735	19

More significant than the proportionate share of total employment of these groups is their relative contribution to the net change in total employment. During the 1952-1962 period, employment in finance, insurance, and real estate increased 91%, while total employment increased only 19%. Employment in the service trades increased 24%, and manufacturing employment increased by the same percentage as total employment. All other employment groups increased at a less rapid rate than did total employment.

Between 1952 and 1955, employment in the area showed a decrease of 6%. The finance, insurance, and real estate group was the only employment source that increased during the period. Relatively heavy employment losses were suffered in the wholesale and retail trade group and in the transportation, communications, and public utilities group.

Employment changes during the period from 1956 to 1962 are especially significant not only because they are based on reliably comparable data, but more importantly because they reflect the most recent employment trends. Since the adjustment of employment totals in 1956, the finance, construction, and manufacturing groups have demonstrated the best growth in relation to the total employment increase in the area. Employment in each of these groups has increased relatively more rapidly than has total employment. On the other hand, employment in wholesale and retail trade and in the service group has lagged considerably behind the total employment growth of the area.

Exclusive of Richmond County, which accounts for over 60% of the total employment in the CSRA, the 12 remaining counties have shown greatest relative growth in the transportation and finance groups, with manufacturing maintaining its own and trade somewhat static. These counties have accounted for more than 40% of the total employment increase in the CSRA during the 1956-1962 period, with the major absolute gain occurring in the manufacturing group. In Richmond County, substantial gains and growth potential are evident in manufacturing, construction, and finance.

Regardless of trends in employment sources, two facts regarding the overall employment situation remain constant: (1) employment opportunities must expand to take care of the increasing supply of workers; and (2) the CSRA will benefit from diversified manufacturing whether or not the relative importance of manufacturing continues to increase. In light of this it is apparent that recent trends and developments within this group are quite important.

More than 3,200 new jobs have been added to the manufacturing total since 1952, accounting for slightly less than one-half of the total employment gains realized in the CSRA between 1952 and 1962. During the first four years of this period, manufacturing employment actually decreased. Since 1956, however, over 3,000 new manufacturing jobs have been created, accounting for almost 60% of the total employment gains in the CSRA during these latter years. During this period, manufacturing has been gaining at a much faster rate than all of the other employment groups except finance and construction. Because of the absolute number of jobs involved, manufacturing has had much greater impact on the economy of the CSRA than any other employment group.

While not yet recorded, significant gains have also been made during 1962 and the first half of 1963. The past has impressed upon business and community leaders the advantages and economic gains realized through manufacturing growth. Manufacturing is the attraction that induces people to move into an area initially, and it is the primary source of income which contributes to the area's well-being. All other employment groups -- trade, service, construction, transportation, communications, public utilities, finance, insurance, and real estate -- are somewhat dependent upon manufacturing for their growth, and in some respects, for their very existence.

Manufacturing Employment. Manufacturing employment in the CSRA is largely concentrated in three industries -- apparel, textiles, and lumber. (See Table 8.) In 1952, these three industries accounted for two-thirds of the total manufacturing employment in the area. By 1962, this percentage had dropped to 58%, and the relative importance of each as an employment source had materially changed. Lumber, the leading source of employment in 1952, with 28% of total manufacturing employment, suffered a 45% decrease in employment during the period and accounted for only 13% of total manufacturing employment in 1962. Employment in the textile industry declined by 6% during the period and dropped in relation to total manufacturing employment from 23% in 1952 to 19% in 1962. These losses were more than offset by the 111% employment increase in the apparel industry, which advanced from 15% of total manufacturing employment in 1952 to 26% of total manufacturing employment in 1962.

The apparel industry's steady gains are not quite as bright as they might first appear. In the first place, over 85% of the apparel employment in the

Table 8

TRENDS IN TYPES OF MANUFACTURING EMPLOYMENT
IN THE CENTRAL SAVANNAH RIVER AREA
(1952-1962)

Employment Source	1952		1955		1956		1962		Net Change					
	No.	%	No.	%	No.	%	No.	%	1952-1955		1956-1962		1952-1962	
Textiles	4,053	23	3,843	23	3,753	22	3,808	19	-210	-5	55	1	-245	-6
Apparel	2,577	15	3,389	20	3,486	20	5,425	26	812	32	1,939	56	2,848	111
Lumber	4,824	28	4,058	24	4,055	23	2,659	13	-766	-16	-1,396	-34	-2,165	-45
Paper	--	--	--	--	--	--	1,112	5	--	--	1,112	--	1,112	--
Printing and publishing	--	--	--	--	49	*	461	2	--	--	412	841	461	--
Chemicals	777	4	613	4	543	3	379	2	-164	-21	-164	-30	-398	-51
Stone, clay, and glass	1,578	9	1,445	9	1,698	10	1,839	9	133	-8	141	8	261	17
Machinery	31	*	95	*	222	1	685	3	64	206	463	209	654	2,110
Other	3,505	20	3,126	19	3,615	21	4,223	21	-379	-11	608	17	718	20
Total	17,345		16,569		17,421		20,591		-776	-4	3,170	18	3,246	19

* = less than 1%

CSRA is located outside Richmond County. In these other counties, the apparel and lumber industries account for an even greater share of total manufacturing employment -- over 70%. Since the lumber industry has been declining almost as rapidly as the apparel industry has been gaining, these counties could be faced with net employment losses in the future -- unless other industries begin to improve their status. In this respect, these 12 counties have been fortunate in that both the textile and machinery groups have increased since 1957, tending to diminish the economic consequences associated with employment losses. However, if these counties hope even to maintain a healthy industrial status they must strive to develop other industries.

Secondly, the apparel industry is overwhelmingly oriented toward female employment. It is not surprising to find apparel companies where over 95% of the employees are women, and a safe estimate for the industry in general is approximately 85% female. Textiles, too, employ many women, so the recent gains in this industry have not accomplished much in the way of solving the imbalance of female employment in these counties. This imbalance poses a serious problem to these counties since it usually results in population losses. People tend to migrate to those areas where the head of the household can find work -- to those areas offering employment for men. As mentioned elsewhere in this report, population losses have serious economic repercussions. Therefore, these counties must strive to develop those industries which afford employment opportunities for males. Until this is accomplished, these counties face nothing more than a continuation of the present problem. Regardless of gains made elsewhere, development of the higher-wage, higher-skilled, male-employing industries is a necessity if these counties are to improve their economic status.

The situation in Richmond County is somewhat better, although prior to 1957 this county was suffering from many of the same problems. Three industries -- textile, food, and stone, clay and glass -- accounted for approximately three-fourths of the total manufacturing employment between 1952 and 1956. Continued reliance upon these industries would have been unfortunate, however, for only the food industry has contributed to employment growth since 1956. The other two have remained fairly static, contributing little to the economic growth of the county.

Total employment in Richmond County has increased substantially in each of the four years since 1958, unlike the prior six years when a net loss was realized annually. During these latter four years, the largest manufacturing group in the county -- textiles -- has continued to experience employment losses, while the food industry and the stone, clay, and glass industry have realized modest gains. The major reason for substantial employment gains in manufacturing since 1958 has been the appearance of new growth industries. The apparel, paper, and machinery manufacturers have begun to contribute to Richmond County's economy, more than offsetting losses elsewhere. The paper industry is singularly impressive, having reached an employment total of over 1,100 persons in 1962. While the other two have not been quite so spectacular, their growth and resultant contributions have been steady. Finally, while not apparent in the employment totals through 1962, the chemical industry promises to show significant gains in the future and has already begun to contribute through the first half of 1963. Richmond County has overcome both problems confronting the other 12 CSRA counties -- manufacturing diversification and employment opportunities for males. However, due to its prominence in the area and its total contribution to the economy of the CSRA, Richmond County cannot afford to neglect its industrial development efforts.

As a group, the CSRA must intensify its development efforts in those areas of manufacturing which offer the best solution to present problems and which promise to contribute significantly to the over-all economic status of the area. In this respect, the paper, machinery, and chemical industries seem to offer the best opportunities at present. Efforts to attract or expand firms in these industries should be intensified, while other industries should be cultivated to insure continued manufacturing growth and prosperity in the CSRA. Only through such a program as this will the smaller counties resolve their employment problems and Richmond County continue its recent manufacturing growth.