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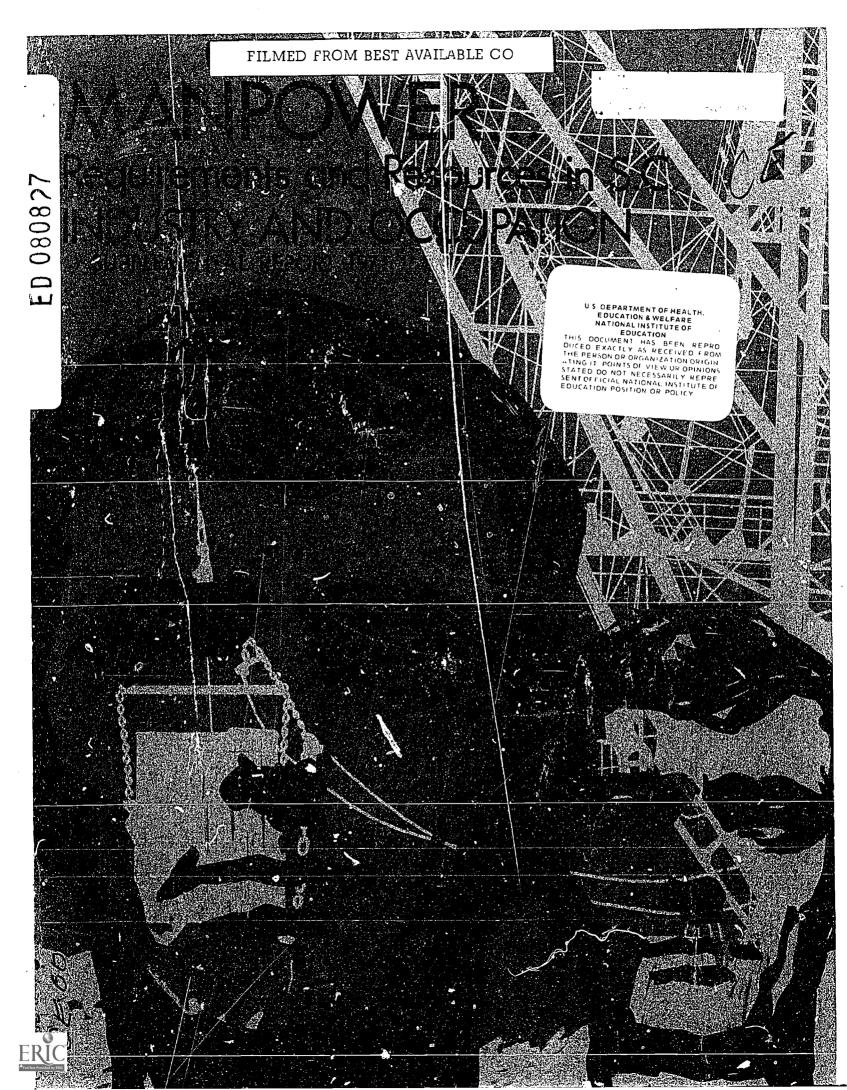
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#### ABSTRACT

South Carolina's population growth over 1970-1975 is expected to average 22,000 per year, paralleling the growth rate of the last five-year period. Nonfarm wage and salary employment is expected to increase at an average annual rate of 2.4%, with the corresponding national rate being 2.0%. The fastest growing industrial sectors will be manufacturing, construction, trade, services, and government. Jobs requiring relatively high skill levels, such as professional, technical, and managerial and structural occupations, are expected to have substantial growth. Jobs with lower skill requirements are also expected to expand significantly. Total job demand over the five-year study should amount to 275,000. Occupational categories which are expected to have the largest demand are clerical and sales; professional, technical and managerial: and service. Those occupations which are not expected to exert a demand on the economy are agricultural (service) and processing occupations. More than 43,000 workers will be needed between 1970 and 1975 to meet expansion and replacement needs, as compared to 49,000 for the preceding five-year period. (Statistical tables and charts make up two-thirds of the report.) (See ED053284) (Author/SC)





## MANPOWER

# Requirements and Resources in S. C. INDUSTRY AND OCCUPATION

SUPPLEMENTAL REPORT 1971

SOUTH CAROLINA EMPLOYMENT SECURITY COMMISSION

SAM H. HENDRIX, Chairman
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Columbia, South Carolina May 1971

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## **FOREWORD**

This study was prepared by staff of the Research and Statistics Section, South Carolina Employment Security Commission, under the direction of William B. Richey, Manager, Research and Statistics. C. LaRay Drafts, Labor Market Analyst III, and other staff members contributed significantly to the research and writing. The project was a cooperative effort involving thousands of employers all over the State, numerous business and trade associations, and a host of other governmental agencies who share our concern for current and future manpower problems in South Carolina.

The United States Department of Labor provided assistance through the national and regional offices of the Manpower Administration and the Bureau of Labor Statistics.

Special acknowledgments are extended to the State Committee for Technical Education, State Department of Education, and State Board of Health for their guidance and direct assistance in developing the data presented in this document. Without their support, this work would not have been possible at this time.

Arrangements for coordination of the cooperative effort of the various state agencies were initiated through the Manpower Statistics Committee established by the Division of Research and Statistical Services, State Budget and Control Board. The Division also followed the progress of the study and provided technical assistance, principally through George F. Fowler, State Statistical Coordinator.

The assistance of the South Carolina Hospital Association, South Carolina Textile Manufacturers Association, South Carolina Medical Association, South Carolina Oil Jobbers Association, South Carolina Nursing Home Association, and South Carolina Automobile Dealers Association, as well as the support of the South Carolina State Chamber of Commerce, is gratefully acknowledged.



## INTRODUCTION

The United States Bureau of Labor Statistics developed and distributed in 1969 a guidebook entitled Tomorrow's Manpower Needs, which included a national industry-occupation matrix for selected industries and a methodology for use by states in developing manpower forecasts based on the national matrix. Utilizing the methodology in the guidebook, the South Carolina Employment Security Commission developed and published in July, 1969, a study entitled Manpower Requirements and Resources in South Carolina, Industry and Occupation. It included a great deal of information on technological trends in major industries and the probable effect of these changes on future employment levels and occupational patterns. Perhaps the most substantial criticisms of this work were the lack of occupational detail and the absence of disaggregate data below the state level. Despite its limitations, the study served two primary purposes. First, it provided some badly needed information for manpower planning; and second, it afforded an opportunity to gain experience in the relatively new field of occupational statistics.

The information included in this, the first supplemental report to Manpower Requirements and Resources in South Carolina, Industry and Occupation, represents the most comprehensive body of occupational statistics ever produced in this State.

There are perhaps as many uses for occupational statistics as there are users; however, among those broad uses most frequently encountered arc.

- (1) Planning education and training programs to meet future needs at the state and area level within the framework of national man-power policy and program objectives;
- (2) Allocating resources for education and training among alternative types of training;
- (3) Evaluating manpower training programs;
- (4) Studying the effects of shifts in public and private demand;
- (5) Measuring the effects of changes in technology and industry organization on the occupational and geographic mobility of labor and on occupational manpower requirements;

(6) Relating jcb vacancy data by occupation to a meaningful base—occupational employment.

South Carolina's economy is dynamic and becoming more dynamic every year, and her society is mobile and becoming more mobile every year. Therefore, the more that is known about changes in progress, the industrial mix of the economy, the occupational composition of the work force or the kinds of jobs available now and expected in the future, the more efficient the preparation of individuals for the world of work. The increasing commitment of both the public and private sectors of the economy toward the maximum development and utilization of human resources presents a challenge to develop information systems for planning and evaluating manpower programs. Ideally, such a system must be capable of gathering, storing, integrating, retrieving, analyzing, and disseminating information on manpower demand and supply, by industry and by occupation, within a short time at relatively low cost. Moreover, of primary importance, the system must be flexible and capable of meeting specific informational needs of not only the State but economic subdivisions of the State.

Central to the effort of establishing a system to provide manpower information as required by current and expected trends is the development of an industry-occupation matrix. Briefly, such a matrix represents a detailed distribution of the occupational composition of every major industry in the nonfarm wage and salary sector of the economy. In turn, it permits development of estimates of current and future employment by occupation, requiring only the additional input of industry employment data.

Economic trends in South Carolina are strongly influenced by national decisions with respect to monetary and fiscal policy. The assumptions shown below are intended as a framework for the manpower forecasts presented in this study.

(1) A substantial change is anticipated in the area of national defense. The United States' commitment of Armed Forces in Southeast Asia will continue to decrease. However, no



<sup>&</sup>lt;sup>1</sup> See Methodology for detailed description, of the industry-oc apation matrix.

- appreciable change is expected in other forms of military assistance.
- (2) By mid-1971, the national economy is expected to exhibit moderate recovery from the recent business downturn. Indications are that it should be at or near peak performance by 1973. The State's economy is expected to follow the national pattern of recovery and growth.
- (3) Competition from foreign textiles is expected to continue to have a noticeable effect on domestic production. Consequently, manpower demand in textiles will not be as great between 1970 and 1975 as was experienced during the preceding five-year period.
- (4) The emphasis in federal spending will increasingly shift toward domestic programs. While some efforts will be continued to restrain inflation, the main thrust will be in the areas of development and utilization of human resources, economic expansion, and pollution control.

- (5) The rate of unemployment in South Carolina is expected to average about 4 percent—near full employment.
- (6) The State's population growth will continue at about the same rate as was experienced during the last decade. Therefore, total population should reach 2,700,000 in 1975.
- (7) Technological progress will continue, and this will affect the manpower requirements of industry both in terms of education and skill.
- (8) The economy will become more service oriented with demand for services increasing in both the public and private sectors.

As has been the custom in the past, the Commission will continue to work in the area of manpower forecasts by periodically reviewing and adjusting the projections and refining the detail. In this manner, the forecasts reflect current adjustments and emerging trends in the economy.



### **HIGHLIGHTS**

#### Population

South Carolina's population growth over the study period 1970-1975 is expected to parallel that recorded for the preceding five-year period. This will amount to an average of about 22,000 per year. The only notable difference in the forecast is in the age-group distribution, i.e., fewer in age groups under 24 years, but substantially more in age groups 24 years and over.

#### Industry Employment Trends

Nonfarm wage and salary employment in South Carolina is expected to increase at an average annual rate of 2.4 percent from 1970 to 1975. The corresponding rate for the Nation is 2.0 percent. The fastest growing industrial sectors, in terms of jobs, will likely be manufacturing, construction, trade, services, and government.

#### Occupational Employment Trends

In recent years the State's rapidly expanding economy has become more diversified and technologically oriented. As a consequence, substantial growth is anticipated over the next few years in occupations requiring relatively high skill levels. This is not to say, however, that jobs with lower skill requirements will decline. On the contrary, they are expected to grow significantly over the study period.

Prominent among the occupational categories which are expected to grow and also demand higher

skills are professional, technical, and managerial and structural occupations. Among those categories requiring lower skills which also are expected to grow are clerical and sales, services, and processing occupations.

#### Manpower Requirements

Total job demand over the study period should amount to 215,000. Some 105,000 workers will be required to fill new jobs created by expansion while the remainder will be for replacement purposes. The occupational categories expected to demonstrate the largest demand are clerical and sales; professional, technical, and managerial; and service.

Those occupations not expected to exert a great deal of pressure on the economy for either expansion or replacements by virtue of their relatively small size are agricultural (service) and processing occupations.

#### Manpower Resources

More than 43,000 workers will be needed each year between 1970 and 1975 in South Carolina to meet the projected required need for expansion and replacement. By comparison, some 49,000 workers were supplied annually during the period 1965-1970 for expansion and replacement. In all but three of the major occupational categories (processing, benchwork, and structural) slightly fewer workers will be needed over the projection period 1970-1975 than were required during the preceding five-year period.



## POPULATION

Population data represent an integral part of any manpower forecast. Because of its importance, this section is intended to focus attention on population statistics as well as employment participation rates.

There are three principal factors which influence population: dearb rates, birth rates, and migration. Little variation in the series will be attributed to death rates due to their stability over time. Along the same lines, variations in birth rates will have little significance because primary attention is directed to the group of years of age and over from which the State's work force is drawn. Finally, with regard to migration, South Carolina's population has been characterized by a relatively high rate of out-migration over the last several years; however, between 1970 and 1975 this trend is expected to turn down. Population data for the United States and South Carolina and nonfarm wage and salary employment participation rates for the population 14-years-old and over are shown in Table 1.

The recorded growth between 1960 and 1970 in the Li-years-old-and-over group for the State was about 280,000. Growth for the corresponding age group for the period 1970-1975 is expected to be around 140,000. In comparison with the United States, South Carolina's population growth and participation rates are relatively low.

The only notable difference in the population forecast is the anticipated changes in the age-group distribution. Based on an analysis of the preliminary 1970 census data, there bould be fewer individuals in the age group under 14 years as well as the age group 14 to 24 years. On the other hand, substantially more of the State's population will likely be found in age groups 24 to 44 and 44 years of age and over. The increase expected in the age groups 24 years and over should have a significant effect on the State's economy because of the incidence of new family formations.

TABLE 1. TOTAL RESIDENT POPULATION IN SOUTH CAROLINA AND THE UNITED STATES AND NONFARM WAGE AND SALARY EMPLOYMENT PARTICIPATION RATES FOR THE POPULATION 14 YEARS OLD AND OVER, 1960, 1970, AND PROJECTIONS TO 1975

| ,   |             |             |              |         | al Rate<br>hange |
|---|-------------|-------------|--------------|---------|------------------|
|   | 1960        | 1970        | 1975         | 1960-70 | 1970-75          |
| SOUTH CAROLINA                                |             |             |              |         |                  |
| Total Population                              | 2,382,594   | 2,590,516   | 2,700,000    | 8.0     | 8.0              |
| Population 14 years and over                  | 1,579,356   | 1,859,699   | 2,000,000    | 1.6     | 1.4              |
| Nonfarm wage and salary participation rates 1 | 36.8        | 44.9        | 47.1         | xxx     | xxx              |
| UNITED STATES                                 |             |             |              |         |                  |
| Total Population                              | 179,323,000 | 203,184,000 | 214,735,0002 | 1.0     | xxx              |
| Population 14 years and over                  | 126,277,000 | 149,352,000 | 163,354,000  | 1.0     | xxx              |
| Nonfarm wage and salary participation rates   | 43.0        | 47.4        | (INA)        | xxx     | xxx              |

Source: U. S. Bureau of the Census, U. S. Census of Population. The 1975 population estimates for South Carolina were prepared by the Division of Research and Statistical Services, State Budget and Control Board, and represent preliminary estimates. The 1975 population estimates for the United States were included in Current Population Reports, U. S. Bureau of the Census Series P-25, No. 448, "Population Estimates and Projections—Projections of the Population of the United States, by Age and Sex (Interim Revisions): 1970 to 2020".

Nonfarm wage and salary employment participation rates were calculated by dividing employment by the population 14 years of age and over. Fincludes Armed Forces abroad.



## INDUSTRY EMPLOYMENT TRENDS

The industrial composition of South Carolina's economy has been persistently changing in recent years. Not only has it undergone significant expansion, but it has become increasingly diversified and more technologically oriented. This trend has created numerous new jobs demanding higher levels of skill. At the same time, these same forces which have created new jobs have also rendered many jobs obsolete. Consequently, the imbalance between manpower demand and supply has widened.

At present, the greatest demand is for trained or skilled workers, but the supply is comprised largely of workers with no skill or obsolete skill. For this reason, it is imperative that the changing patterns of industries be identified as soon as possible so that solutions can be conceived and implemented to facilitate the most efficient utilization of manpower resources.

For the most part, employment trends in South Carolina have paralleled those for the Nation, and this pattern is expected to continue through 1975. Manufacturing has been declining relative to total employment while the services division has been increasing. Transportation, communications, and public utilities represents the only major industry division reflecting a divergent trend. It is expected to decline in relative importance nationally but to increase in South Carolina. The changes in percent distribution are shown in Table 2.

TABLE 2. PERCENT DISTRIBUTION OF NONFARM WAGE AND SALARY EMPLOYMENT IN SOUTH CAROLINA AND THE UNITED STATES BY MAJOR INDUSTRY DIVISION, 1965, 1970, AND PROJECTIONS TO 1975

|  | Percent Distribution |            |                |       |       |       |  |  |
|--|----------------------|------------|----------------|-------|-------|-------|--|--|
| Industry   | U                    | nited Stat | South Carolina |       |       |       |  |  |
| •  | 1965                 | 1970       | 1975           | 1965  | 1970  | 1975  |  |  |
| Total  | 100.0                | 100.0      | 100.0          | 100.0 | 100.0 | 100.0 |  |  |
| Agriculture, Forestry, & Fisheries                 | 0.2                  | 0.2        | 0.3            | 0.3   | 0.3   | 0.3   |  |  |
| Mining   |                      | 0.9        | 0.7            | 0.2   | 0.2   | 0.2   |  |  |
| Contract Construction                              | 5.2                  | 4.7        | 5.4            | 6.3   | 5.9   | 6.8   |  |  |
| Manufacturing                                      | 29.7                 | 27.5       | 26.6           | 42.7  | 40.7  | 39.6  |  |  |
| Transportation, Communications, & Public Utilities | 6.6                  | 6.4        | 5.8            | 4.1   | 4.4   | 4.7   |  |  |
| Wholesale & Retail Trade                           | 20.9                 | 21.1       | 20.5           | 16.8  | 17.0  | 16.7  |  |  |
| Finance, Insurance, & Real Estate                  | 5.0                  | 5.2        | 4.9            | 3.5   | 3.5   | 3.5   |  |  |
| Services . T                                       | 14.8                 | 16.2       | 16.9           | 9.9   | 10.2  | 10.8  |  |  |
| Government   | 16.6                 | 17.8       | 18.9           | 16.2  | 17.8  | 17.4  |  |  |

Employment estimates for 1965 and 1970 for the United States are from Employment and Earnings, U. S. Department of Labor, Bureau of Labor Statistics. Data for 1975 are from Tomorrow's Manpower Needs, Bureau of Labor Statistics Bulletin 1606, supplement number 2.

The remainder of this section will be devoted to technological trends in major industries and the probable effects of these changes on future employment levels and occupational patterns. The emphasis will be on trends in major industries in the United States and South Carolina.

The growth in total employment between 1970 and 1975 is expected to average 2.1 percent per year for the United States and 2.4 percent per year for the State. While this represents substantial growth both nationally and at the State level, it is below the 1965-1970 experience due in large part to the recent slowdown in business activity. It should be noted, however, that the economic expansion recorded between 1965 and 1970 was unusually high.

To highlight the timing and extent of recent industrial development in South Carolina and the United. States, employment by major industry division and selected industry groups is presented in Table 3 for 1965 and 1970 along with projections to 1975. In addition, average annual growth rates are shown for the periods 1965-1970 and 1970-1975. For additional detail on South Carolina, see Appendix Table 1.

#### Agriculture, Forestry and Fisheries

In 1970, agriculture, forestry, and fisheries accounted for two in every thousand jobs in the United States compared to three in every thousand jobs in South Carolina. Between 1970 and 1975, little or no change is expected in this division. It should be noted that this division represents a number of industries providing agricultural services such as cotton ginning; seed cleaning; sorting, grading, and packing of fruits and vegetables, etc. This division does not include agricultural production such as field crops, vegetables, and livestock. While employment in agricultural production will continue to decline, this reduction will have no appreciable effect on agricultural services.



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TABLE 3. AVERAGE NONFARM WAGE AND SCHARY EMPLOYMENT IN THE UNITED STATES AND SOUTH CAROLINA BY MAJOR INDUSTRY DIVISION AND CILCULD INDUSTRY GROUPS, 1965, 1970, AND PROJECTIONS TO 1975 WITH AVERAGE ANNUAL GROWTH RATES FOR THE PERIODS 1965-70 AND 1970-75

| The second secon | Employment<br>(Thousands)  |          |                |       |       |       | Annı  | ual Gi | rowth<br>rcent) |       |
|--|----------------------------|----------|----------------|-------|-------|-------|-------|--------|-----------------|-------|
|  | United States <sup>1</sup> |          | South Carolina |       |       | 1965- | 1970  | 1970   | -1975           |       |
|  | 1965                       | 1970     | 1975           | 1965  | 1970  | 1975  | U. S. | 5. C.  | U. S.           | S. C. |
| Total  | 60,815.0                   | 70,664.0 | 78,400.0       | 685.0 | 836.0 | 943.2 | 3.0   |        | 2.1             | 2.4   |
| Agriculture, Forestry, & Fisheries   | 142.0                      | 168.0    | 200.0          | 2.1   | 2.5   | 2.8   | 3.3   | 3.5    | 3.6             | 2.3   |
| Mining   | 632.0                      | 622.0    | 575.0          | 1.7   | 1.7   | 1.7   | -0.3  | •      | 1.5             | *     |
| Contract Construction  | 3,186.0                    | 3,347.0  | 4,200.0        | 43.0  | 49.5  | 64.5  | 1.0   | 2.9    | 4.6             | 5.4   |
| Manufacturing  | 18,062.0                   | 19,393.0 | 20,910.0       | 292.0 | 339.1 | 374.5 | 1.4   | 3.0    | 1.5             | 2.0   |
| Durable Goods  | 10,405.3                   | 11,203.0 | 12,320.0       | 63.7  | 84.4  | 103.5 | 1,5   | 5.8    | 1.9             | 4.2   |
| Lumber & Wood Products   | 606.9                      | 580.3    | 590.0          | 15.7  | 14.1  | 13.5  | 0.9 - | -2.0   | 0.3             | 0.8   |
| Furniture & Fixtures   | 430.7                      | 459.9    | 560.0          | 4.1   | 4.4   | 5.2   | 1.3   | 1.4    | 4.0             | 3.4   |
| Stone, Clay & Glass Products   | 628.3                      | 637.7    | 725.0          | 9.2   | 11.0  | 15,0  | 0.3   | 3.6    | 2.6             | 6.4   |
|  | 1,494.8                    | 1,634.8  | 1,770.0        | 5.2   | 7.7   | 10.8  | 1.8   | 8.2    | 1.6             | 7.0   |
| Nonelectrical Machinery  | 1,735.3                    | 1,964.1  | 2,230.0        | 10.4  | 15.4  | 20.1  | 2.5   | 8.2    | 2.5             | 5.5   |
| Electrical Equipment & Supplies  | 1,659.2                    | 1,913.4  | 2,150.0        | 9.6   | 13.5  | 16.0  | 2.9   | 7.1    | 2.3             | 3.5   |
| Instruments & Related Products   | 389.0                      | 459.0    | 510.0          | 2.8   | 3.2   | 4.0   | 3.4   | 2.7    | 2.1             | 4.6   |
| Other Durable <sup>2</sup>   | 3,461.1                    | 3,553.9  | 3,785.0        | 6.7   | 15.1  | 18.9  | 0.5   | 17.6   | 1.3             | 4.6   |
| Nondurable Goods   | 7,656.2                    | 8,190.0  | 8,590.0        | 228.3 | 254.7 | 271.0 | 1.4   | 2.2    | 1.0             | 1.2   |
| Food & Kindred Products  | 1,756.7                    | 1,795.9  | 1,765.0        | 12.1  | 14.5  | 15.1  | 0.4   | 3.7    | -0.3            | 8.0   |
| Textile Mill Products  | 925.6                      | 964.8    | 950.0          | 139.9 | 148.8 | 149.0 | 0.8   | 1.2    | -0.3            | •     |
| Apparel & Other Textile Products   | 1,354.2                    | 1,385.3  | 1,580.0        | 41.0  | 43.4  | 49.0  | 0.4   | 1.1    | 2.7             | 2.5   |
| Paper & Allied Products  | 639.1                      | 710.0    | 755.0          | 9.8   | 12.0  | 14.2  | 2.1   | 4.1    | 1.2             | 3.4   |
| Printing & Publishing  | 979.4                      | 1,106.3  | 1,165.0        | 3.8   | 4.9   | 5.7   | 2.5   | 5.2    | 1.0             | 3.1   |
| Chemicals & Allied Products  | 907.8                      | 1,056.8  | 1,115.0        | 18.2  | 25.9  | 32.0  | 3.1   | 7.3    | 1.1             | 4.3   |
| Other Nondurable <sup>33</sup>   | 1,093.4                    | 1,170.8  | 1,260.0        | 3.5   | 5.2   | 6.0   | 1.4   | 8.2    | 1.5             | 2.9   |
| Transportation, Communications, &  |                            |          |                |       |       |       |       |        |                 |       |
| Public Utilities   | 4,036.0                    | 4,498.0  | 4,560.0        | 28.1  | 37.1  | 44.0  | 2.2   | 5.7    | 0.3             | 3.5   |
| Wholesale & Retail Trade   | 12,716.0                   | 14,950.0 | 16,065.0       | 115.4 | 142.1 | 157.4 | 3.3   | 4.3    | 1.4             | 2.1   |
| Wholesale Trade  | 3,312.0                    | 3,849.0  | 4,175.0        | 24.6  | 29.6  | 34.1  | 3.0   | 3.8    | 1.6             | 2.9   |
| Retail Trade   | 9,404.0                    | 11,102.0 | 11,890.0       | 90.8  | 112,5 | 123.3 | 3.4   | 4.4    | 1.4             | 1.9   |
| Finance, Insurance, & Real Estate  | 3,023.0                    | 3,679.0  | 3,830.0        | 23.8  | 29.5  | 32.6  | 4.0   | 4.4    | 0.8             | 2.0   |
| Wholesale Trade Retail Trade Finance, Insurance, & Real Estate Services  | 8,945.0                    | 11,409.0 | 13,260.0       | 67.7  | 85.5  | 101.5 | 5.0   | 4.8    | 3.0             | 3.5   |
| Government   | 10,074.0                   | 12,597.0 | 14,800.0       | 111.2 | 149.0 | 164.2 | 4.6   | 6.0    | 3.3             | 2.0   |

Employment estimates for 1965 and 1970 for the United States are from Employment and Earnings, U. S. Department of Labor, Bureau of Labor Statistics. Data for 1975 are from Tomorrow's Manpower Needs, Bureau of Labor Statistics Bulletin 1606, supplement number 2. Includes primary metals, transportation equipment, and miscellaneous manufacturing.

Less than .05 percent.

#### Mining

Mining, another relatively small industry in South. Carolina, employs fewer than 2,000 workers. All of the employment is in mining and quarrying of non-metallic minerals, except fuels, namely crushed and broken stone and clay. Unless new discoveries are made or some significant breakthrough in the utilization of existing resources is achieved, little change is anticipated through 1975.

#### Contract Construction

Three major industry groups comprise the contract construction division: (1) general building (residential, industrial, commercial, and other buildings); (2) heavy construction (highways and streets, bridges, sewers, and other heavy construction); and (3) special trade contractors (plumbing, heating, masonry, carpenplastering, painting, and other special trades). Rel-

ative to all wage and salary jobs, construction employment is expected to rise steadily through 1975, and the rate of increase will be greater in South Carolina than in the Nation. The average annual rate of growth between 1970 an' 1975 has been placed at 4.6 percent for the United States compared to 5.4 percent for South Carolina. An anticipated housing boom is expected to exert an even greater influence on employment at the state level than at the national level. Moreover, the anticipated industrial expansion also will represent a significant factor.

Essentially, the same forces influencing national manpower requirements will be at work in the State—rising population and household formation, higher income levels (personal and business), the trend toward more second homes, emphasis on ecology, increasing expenditures for highways and schools, and rising expenditures for new and expanding industrial

<sup>\*</sup>Includes tobacco products, petroleum and coal products, rubber and plastic products, and leather and leather products.

facilities. Moreover, the development of new and improved construction materials and other technological innovations will have a marked influence on manpower.

Employment in each of the three major construction groups will increase, but the greatest gains are expected in the special trades sector. In that area, the increase can be linked mainly to the high activity in residential, commercial, and industrial building. Finally, while the long-range highway development program is nearing completion, the emphasis is shifting to the more complex and expensive urban transportation systems; therefore, good growth is expected in heavy construction.

#### Manufacturing

Indications are that manufacturing employment in South Carolina and the Nation will increase significantly over the study period. More than 35,000 new manufacturing jobs will be created in the State during the five-year period 1970-1975 placing the manufacturing employment projection around 374,500.

At present, durable goods industries account for one in every four manufacturing jobs in South Carolina compared to one in every two nationally. While the Nation's manufacturing economy reflects balance with respect to the distribution of durable and nondurable goods industries, the textile industry is the dominant influence in South Carolina. Despite the economic slowdown in 1970, textile mills, predominantly broadwoven fabrics, accounted for 44 per cent of all the State's manufacturing jobs. However, this industry is not expected to expand over the next several years. Nationally, it will decline slightly. The production of broadwoven cotton and synthetic fabrics in particular has suffered because of foreign imports. A number of plants closed in 1970, and several marginal operations may shut down during 1971.

The slowing in the rate of expansion in textiles accompanied by accelerated growth elsewhere in manufacturing is creating wider diversification. This is evident from only a cursory examination of the number and kinds of new products produced in South Carolina. It is significant to note that many new industries such as those producing aircraft parts and equipment, nuclear fuel cells, calculators, and signaling devices were nonexistent in this State until a few years ago. Consequently, constant pressure will be exerted on the economy as producers of chemicals, apparel, stone-clay-glass products, fabricated metals, electrical and non-electrical machinery, and instruments compete for manpower. It is evident that the same

technological developments and innovations which have influenced and will continue to influence manufacturing employment nationally are at work in South Carolina, namely new processing methods, more sophisticated and improved machinery, more efficient materials handling, new and improved raw materials for product development, instrumentation and automatic controls, and increased use of electronic computers for improved communications, market development, and inventory control.

#### Transportation, Communications, and Public Utilities

Of the nonfarm wage and salary employment in South Carolina in 1970, some 37,000 workers were employed in transportation, communications, and public utilities. Despite the decline in railroads, transportation represents the major component. Continued expansion in local and long distance trucking coupled with the expected growth in communications and public utilities should produce a gain of around 7,000 by 1975. This reflects an increase in demand caused by a rising population with a higher incidence of household formation.

#### Wholesale and Retail Trade

Wholesale and retail trade establishments in South Carolina employed about 142,000 workers in 1970. By 1975, this figure is expected to increase to more than 157,000 because of rising population, per capita income, and consumer expenditures. Compared to the United States, the average annual rate of expansion will be greater.

Within wholesale trade, a good market is expected in office equipment and equipment and supplies for industry and heavy construction due largely to the rapid expansion and diversification of the State's manufacturing base. Other areas are expected to reflect only moderate growth—farm products (grain, cotton, to-bacco and livestock), furniture, paper, and lumber. Little or no increase is expected in groceries and allied products, drugs and chemicals, and dry goods. Here are evident the effects of more efficient ordering and inventory controls, improved packaging, and use of labor-saving innovations such as automatically controlled conveyors for moving and handling goods in storage.

The retail sector will vary widely in manpower requirements. Most of the demand will be centered in general merchandise establishments, food stores, and restaurants. Moderate expansion should occur in automotive dealers, gasoline service stations, and apparel and accessories stores. The continuing population shift

from rural to urban areas and from cities to suburban areas represent important factors affecting manpower due to the increasing demand for neighborhood shopping facilities with generally longer store hours. Two additional areas of influence are the trend toward self-service and the efforts to increase tourism.

Finance, Insprance, and Real Estate

The finance, insurance, and real estate division employed just under 30,000 workers in South Carolina during 1970. By 1975, the terminal year of the study period, another 3,000 will be added. At the national level moderate expansion is anticipated.

Finance represents a little less than half of the State's employment in the division but in recent years has accounted for most of the growth. Moreover, this trend will likely continue over the next several years. Increases in population, personal income, and the number and size of demand deposits has contributed in large part to this expansion. Finally, innovations in banking services such as branch banks, credit cards, and longer and more convenient hours of direct service have contributed significantly to the growth in this area.

Although manpower requirements in the banking and insurance industries have been affected by the increasing use of computers and related equipment used in clerical operations, these innovations will be more of a limiting factor on employment nationally than in South Carolina. This is caused by the more advanced and widespread use of such labor-saving devices nationally.

#### Services

The services division is expected to provide jobs for well over 100,000 in 1975—an increase of about 16,000 workers over the 1970 count. The average annual rate of increase in services for the period 1965-1970 was almost identical for the State and Nation, but the annual growth rate for the period 1970-1975 is expected to be fractionally higher for the State than for the United States.

Technological developments should not seriously limit employment growth in service industries largely because of the industrial composition (large numbers of relatively small firms) and the nature of the work performed (person-to-person) by service establishments. If there is a limiting factor, it probably will be a lack of qualified workers in the health field such as doctors, nurses, and medical and laboratory technicians. Some clerical functions are sure to be affected, however, by computers and related equipment as these services become more readily available to small busi-

nesses on a contract or time-sharing basis. The principal factors which will contribute either directly or indirectly to the rapid expansion in services are rising population, rising incomes, increasing participation of women in the work force, tourism, and the increase in leisure time made possible through the increased use of laborsaving devices.

As has been the case in recent years, a great deal of pressure will be exerted on the economy for health service workers. Commensurate with national trends, health manpower resources have not kept pace with the demand for medical care. Shortages have been most severe among physicians and nurses, but manpower shortages have been felt in virtually all health jobs. Aside from population growth, expanding coverage under health insurance programs, particularly those subsidized by the federal government, as well as the widening scope of medical services, represent the driving force behind the continued job expansion in this field.

Other areas in services which are expected to exhibit substantial growth are hotels and motels and business services (advertising, consumer credit, etc.). Less spectacular perhaps, but equally significant, is the anticipated expansion in personal services (beauty shops, funeral service, etc.), education services, and nonprofit organizations.

#### Government

In 1970, in terms of number of jobs, government ranked second to manufacturing in South Carolina. Nationally, it represented the third largest industry, and employment projections to 1975 indicate that these relationships will not change. With a rising population demanding more services at all levels of government, continued expansion is inevitable.

While government is among the fastest growing industries nationally, anticipated growth at the State level over the study period is below the average for all industries. Federal government employment will decline slightly because of cutbacks in defense. Of the three components of government employment (federal, state, and local) the largest, by far, in South Carolina is local government. However, unlike past experience, State government is expected to increase by almost as much as local government between 1970 and 1975. The slower rate of growth projected for local government is centered in the school sector. The demands placed on education caused by the baby boom of the mid- and late-1940's peaked about 1965. Since then, the pressure has been on our colleges and universities and on the job market.

## OCCUPATIONAL EMPLOYMENT TRENDS

As may be determined by examination of the tabular data presented in this study, the occupational structure of the State's work force has experienced remarkable changes within the past decade. The changes are (1) continuing decline in farm employment, (2) continuing industrial expansion and diversification, (3) demand for services growing faster than demand for goods, and (4) higher productivity of workers due to advances in technology. The last factor has notably affected blue collar and farm workers. Based upon the most authoritative information available, it is expected that these trends will continue and perhaps even accelerate, thereby causing additional changes in the composition and employment level of the work force.

Definitions for the nine occupational categories are presented in the appendix. This information is intended as a guide for the reader.

The following analysis of occupational categories and selected occupations is intended to emphasize the major trends in South Carolina over the study period 1970-1975. The analysis substantiates the fact that the occupational structure has changed from an earlier period of economic growth, accompanied by a demand for unskilled and semi-skilled workers, to a more stabilized growth profile with emphasis on higher skills. Unlike the experience of the early 1960's, the emphasis in industrial development is now on those industries requiring a relatively high level of capital expenditures. This is usually accompanied by a demand for higher skills; the inevitable result is to raise the

personal income of South Carolina workers. During the period 1960-1965, South Carolina experienced the most dramatic employment growth in its history; this was due to concerted efforts by the State to attract new industries in order to establish a strong base for long-term growth and diversification. These efforts were obviously successful as evidenced by unprecedented employment expansion. Since that time, the economic profile of the State has matured so that there is now a greater demand for workers with higher skills. This shift in emphasis has resulted in, among other things, expanded educational and training programs to meet future needs. The success of these programs represents the key to continued economic growth.

By 1975, only three of the nine occupational groups will change notably in their relative proportion to all jobs: service, machine trades, and structural occupations. Service jobs and structural occupations will increase in relative proportion because of the rise in population and the attendant demand for a spectrum of services. In contrast, jobs in machine trades will decline in relative importance as a result of advances in technology. Employment for the State among all occupational groups studied increased by 22 percent during the period 1965-1970, but this rate of increase is expected to decline to about 13 percent during the period 1970-1975. This merely reflects growth at a decreasing rate. The experienced and projected developments for major occupational groups and selected occupations are presented in Table 4 and Chart 1. For additional information on occupations, see Appendix Table 2.

TABLE 4. AVERAGE NONFARM WAGE AND SALARY EMPLOYMENT IN SOUTH CAROLINA BY SELECTED OCCUPATIONAL GROUPS, 1965, 1970, AND PROJECTIONS TO 1975

|                                       |         | Employmen      |           |            |           |  |
|---------------------------------------|---------|----------------|-----------|------------|-----------|--|
| Occupation                            | Act     | tual           | Projected | Net Change |           |  |
|                                       | 1965    | 1970           | 1975      | 1965-1970  | 1970-1975 |  |
| TOTAL <sup>1</sup>                    | 684,350 | 832,650        | 938,000   | 148,300    | 105,350   |  |
| PROFESSIONAL, TECHNICAL, & MANAGERIAL |         |                |           |            |           |  |
| OCCUPATIONS                           | 114,700 | 149,550        | 167,650   | 34,850     | 18,100    |  |
| Architects                            | 300     | 400            | 450       | 100        | 50        |  |
| Engineers                             | 5,850   | 8,100          | 9,400     | 2,250      | 1,300     |  |
| Technicians                           | 7,300   | 9,550          | 11,150    | 2,250      | 1,600     |  |
| Scientists                            | 2,950   | 3 <i>,</i> 750 | 4,050     | 900        | 650       |  |
| Medicine & Health                     | 11,650  | 16,250         | 19,750    | 4,600      | 3,500     |  |
| Education                             | 28,800  | 42,350         | 44,850    | 13,550     | 2,500     |  |
| Librarians                            | 1,100   | 1,550          | 1,700     | 450        | 150       |  |
| Lawyers, Judges, & Magistrates        | 600     | 850            | 1,050     | 250        | 200       |  |
| Clergymen                             | 4 2 5 0 | 3,700          | 3,850     | 650        | 150       |  |
| Writers & Editors .                   | 600     | 800            | 900       | 200        | 100       |  |
| Designers                             | 250     | 300            | 400       | 50         | 100       |  |

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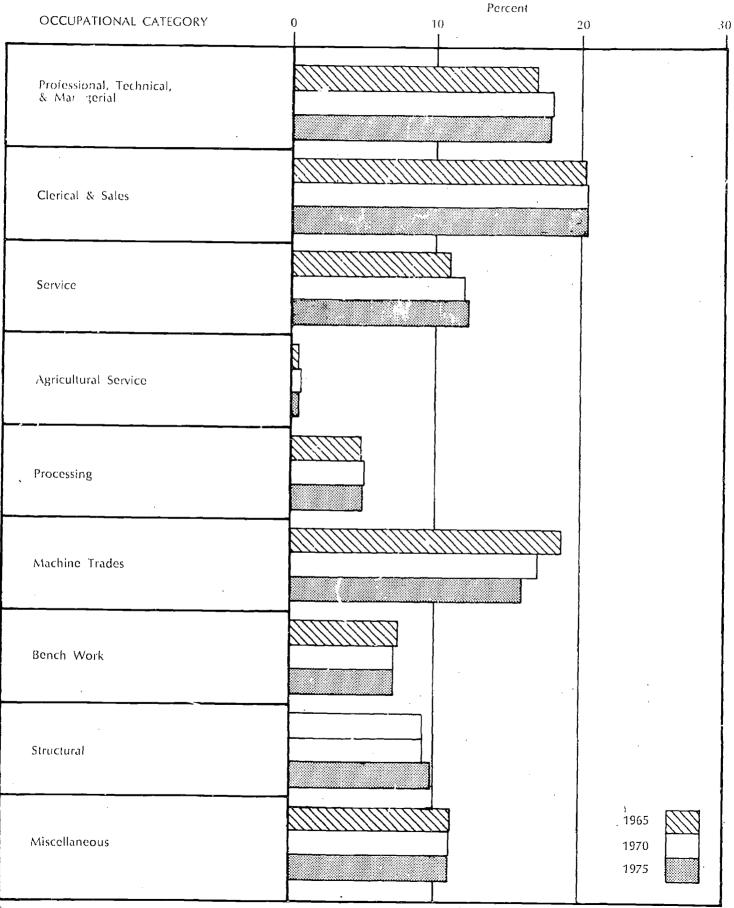
TABLE 4. AVERAGE NONFARM WAGE AND SALARY EMPLOYMENT IN SOUTH CAROLINA BY SELECTED OCCUPATIONAL GROUPS, 1965, 1970, AND PROJECTIONS TO 1975---(Continued)

|  |          | Employmen        | -         |                 |           |  |
|--|----------|------------------|-----------|-----------------|-----------|--|
| Occupation   | Ac       | tual             | Projected | Net Change      |           |  |
|  | 1965     | 1970             | 1975      | 1965-1970       | 1970-1975 |  |
| Entertainment & Recreation                             | 3,000    | 3,150            | 3,400     | 150             | 250       |  |
| Managerial & Administration                            | . 47,300 | 58,100           | 65,850    | 10,800          | 7,750     |  |
| CLERICAL & SALES OCCUPATIONS                           |          | 170,000          | 190,850   | 30,950          | 20,850    |  |
| Clerical Occupations                                   |          | 111,250          | 126,000   | 22,050          | 14,750    |  |
| Salesmen, Services                                     |          | 6,400            | 6,950     | 950             | 550       |  |
| Salesmen, Commodities                                  | . 27,950 | 33,050           | 36,700    | 5,100           | 3,650     |  |
| Merchandising  |          | 19,250           | 21,150    | 2,800           | 1,900     |  |
| SERVICE OCCUPATIONS                                    |          | 99,650           | 114,750   | 23,200          | 15,100    |  |
| Food Services  |          | 32,800           | 36,700    | 9,500           | 3,900     |  |
| Lodging Service  |          | 5,800            | 7,250     | 1,700           | 1,450     |  |
| Barbering, Cosmetology, & Related Service              |          | 2,000            | 2,150     | 400             | 150       |  |
| . Amusement & Recreation Service                       |          | 1,000            | 1,150     | 300             | 150       |  |
| Personal Service                                       | 8,850    | 12,500           | 15,050    | 3,650           | 2,550     |  |
| Apparel & Furnishing Service                           | 9,750    | 9,600            | 10,600    | <del></del> 150 | 1,000     |  |
| Protective Service                                     | 9,100    | 12,550           | 15,850    | 3,450           | 3,300     |  |
| Building Service                                       | . 19,150 | 23,400           | 26,050    | 4,250           | 2,650     |  |
| AGRICULTURAL SERVICE OCCUPATIONS                       | 3,050    | `,850            | 4,350     | 800             | 500       |  |
| PROCESSING OCCUPATIONS                                 | . 33,400 | 41,350           | 47,350    | 7,950           | 6,000     |  |
| Metal Processing                                       |          | 1,000            | 1,250     | 350             | 250       |  |
| Foundry Processing                                     |          | 1,250            | 1,450     | 300             | 200       |  |
| Food Processing  |          | 6,050            | 6,400     | 1,150           | 350       |  |
| Paper Processing                                       |          | 2,650            | 3.050     | 400             | 400       |  |
| Chemical Processing                                    |          | 11,750           | 14,400    | 3,450           | 2,650     |  |
| Stone, Clay, & Glass Processing                        | . 3,200  | 3,950            | 5,400     | 700             | 1,450     |  |
| Textile Processing                                     |          | 14,350           | 14,950    | 1,600           | 600       |  |
| MACHINE TRADES OCCUPATIONS                             |          | 141,250          | 149,200   | 14,250          | 7,950     |  |
| Metal Machining  |          | 10,050           | 12,250    | 2,950           | 2,200     |  |
| Metal Working  |          | 4,800            | 6,100     | 2,000           | 1,300     |  |
| Mechanics & Machinery Repair                           |          | 25,950           | 28,850    | 4,800           | 2,900     |  |
| Paperworking   |          | 1,800            | 2,200     | 450             | 400       |  |
| Printing   |          | 3,250            | 3,600     | 500             | 350       |  |
| Wood Machining   |          | 7,450            | 7,700     | <del>-350</del> | 250       |  |
| Textiles   |          | 87,750           | 88,300    | 3,850           | 550       |  |
| BENCH WORK OCCUPATIONS.                                |          | 59,050           | 67,850    | 8,350           | 8,800     |  |
| Fabrication, Assembly, & Repair of Metal Products      |          | 4,100            | 5,100     | 1,650           | 1,000     |  |
| Fabrication & Repair of Medical & Scientific Products  |          | .,               | 3,100     | .,050           | .,000     |  |
| & Photographic & Optical Goods                         | 1,650    | 2,000            | 2,400     | 350             | 400       |  |
| Assembly & Repair of Electrical Equipment              |          | 6,000            | 6,950     | 1,750           | 950       |  |
| Fabrication & Repair of Products Made from             | . 4,230  | 0,000            | 0,550     | 1,730           | 230       |  |
| Assorted Materials                                     | . 1,350  | 1,750            | 2,250     | 400             | 500       |  |
| Painting & Decorating                                  |          | 1,050            | 1,300     | 250             | 250       |  |
| Fabrication & Repair of Synthetics, Rubber, & Plastics |          | 800              | 850       | 350             | 50        |  |
| Fabrication & Repair of Wood Products                  |          | 1,500            | 1,700     | —100            | 200       |  |
|  |          | 550              | 700       | 100             | 150       |  |
| Fabrication & Repair of Stone, Clay, & Glass Products  |          |                  |           |                 |           |  |
| Fabrication & Repair of Textile & Related Products     |          | 41,350<br>75,450 | 46,600    | 3,600           | 5,250     |  |
| STRUCTURAL WORK OCCUPATIONS                            |          | 75,450           | 92,850    | 13,300          | 17,400    |  |
| Structural Metal Fabricating                           |          | 8,600            | 10,400    | 2,100           | 1,800     |  |
| Welders & Flame Cutters                                |          | 4,850            | 6,200     | 1,300           | 1,350     |  |
| Electrical Assembling, Installing, & Repairing         |          | 13,050           | 15,550    | 3,150           | 2,500     |  |
| Painting, Plastering, Waterproofing, & Cementing       |          | 4,700            | 5,950     | 650             | 1,250     |  |
| Excavating, Grading, & Paving                          |          | 7,000            | 8,200     | 1,400           | 1,200     |  |
| Other Construction                                     |          | 32,450           | 41,100    | 3,700           | 8,650     |  |
| Structural Maintenance                                 |          | 4,850            | 5,500     | 1,000           | 10.600    |  |
| MISCELLANEOUS OCCUPATIONS                              |          | 92,600           | 103,200   | 14,750          | 10,600    |  |
| Motor Freight  |          | 20,100           | 23,650    | 3,250           | 3,550     |  |
| Transportation Occupations                             |          | 14,900           | 15,650    | 3,250           | 750       |  |
| Packaging & Materials Handling                         |          | 48,300           | 53,850    | 7,150           | 5,550     |  |
| Extraction of Minerals                                 |          | 550              | 600       | 50              | 50        |  |
| Logging  |          | 2,550            | 2,300     | -300            | 250       |  |
| Utilities Production & Distribution                    |          | 3,900            | 4,400     | 750             | 500       |  |
| Graphic Art Work                                       | 1,400    | 1,800            | 2,100     | 400             | 300       |  |

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Occupational totals do not add to total employment by industry because of a number of exclusions such as student workers and employees of Neighborhood Youth Corps and Headstart projects.

CHART 1. OCCUPATIONAL CATEGORIES AS A PERCENT OF TOTAL NONFARM WAGE AND SALARY EMPLOYMENT IN SOUTH CAROLINA 1965, 1970, AND PROJECTIONS TO 1975



Professional, Technical, and Managerial Occupations

The proportion of these occupations to total employment should remain constant at about 18 percent through 1975 although this one group, of the nine, contains the second largest number of workers. One of the reasons this group will not experience a relative increase in employment is the anticipated sharp reduction in the demand for elementary and secondary school teachers. This may be attributed principally to lower birth rates and the accompanying reductions in school enrollment. On the other hand, there are other forces that could bear significantly on the demand for teachers. Some examples are teacher-pupil ratios, relatively high retention rates at the elementary level, and the statewide kindergarten program. Nonetheless, the effects of these developments are so longranged and complex that it is difficult, if not altogether impossible, to determine their influence over the study period.

The continued growth in engineering occupations is expected to be concentrated among civil and construction engineers reflecting the growth in the construction industry.

Of all the occupations within the major group, technical jobs will likely grow faster than any of the others. This anticipated growth is consonant with industrial expansion and diversification which have created new demands for a variety of highly skilled workers such as draftsmen and laboratory technicians.

Occupations in medicine and health should continue to expand to meet rising needs for medical care, particularly for the aged to whom new health services are being offered through Medicare and Medicaid. Primary among the medical and health occupations for which significant demand is anticipated are medical technologists and technicians.

#### Clerical and Sales Occupations

Clerical and sales, in terms of number of jobs, represents the largest occupational category. The percentage increase in clerical and sales jobs should parallel that for all workers. The increased use of digital computers, related peripheral equipment, and a large variety of electronic business machines has not appreciably diminished the demand for clerical workers although expansion in some occupations has been dampened. The reason is that the demand for more detailed analytic reports and studies for management, by virtue of greater complexity in business organization and operations, will likely offset any reductions the to automatic data processing. Additionally, one

must consider as a relevant factor the expansion of state and local government activities which has created larger demands for cle ical occupations. The dominant component of these occupations is secretaries and stenographers for which the employment level is expected to increase by 14 percent over the study period.

Sales and merchandising jobs, embracing most of the retail sector of the State's economy, will aecline slightly in relative importance primarily because of the growing trend toward large-scale self-service in retail stores.

#### Service Occupations (Including Agricultural Services)

Service occupations represent the fourth largest category of jobs. By 1975, it is expected that these occupations will represent about 13 percent of total employment, compared with 12 percent in 1970. Most of the jobs will continue to be in the food, building (janitorial), and personal services. It should be noted that most of the employment in personal services is in health service occupations; these should continue to grow because of the rising demand for skilled health workers throughout the State. No appreciable change is anticipated in agricultural services.

#### Processing Occupations

While employment in this group will not likely change relative to other occupational categories, modest expansion is anticipated over the study period. Occupations in chemical processing—which has grown substantially since 1960 because of the demand created by new synthetic fiber plants—should show a gain. Chemical machine operators, who constitute nearly the total in this group, offer little potential for training programs since these occupations consist of a number of diverse jobs requiring brief periods of onthe-job training.

The growth in textile processing occupations should be negligible. This expectation is related to changes in applied technology in the textile industry as well as the economic impact of foreign competition.

#### Machine Trades Occupations

The relative proportion of these occupations to total employment has declined slightly since 1960, reflecting technological advances which have reduced the demand for these workers. The advances have been the inevitable result of industrial expansion and diversification in the State. It should be borne in mind that this category—which is the third largest in terms of employment—includes the majority of the textile occupations which are not expected to increase by virtue of



strong foreign competition and technological changes telated to the installation of modern equipment. The percentage of jobs in textiles will probably fall from 66 percent of the total in 1965 to 59 percent by 1975. The most dominant occupations should be mechanics and machinery repair, metal machining, and wood mach ang, with modest growth over the study period.

#### Bench Work Occupations

Nearly half of the jobs contained in this category are sewing machine operators which are found primarily in the apparel industry. These jobs should experience an appreciable increase by 1975. Also, electrical equipment assembly and repair jobs—found in planes manufacturing such electronic components as capacitors and semi-conductors—should increase by about 1,000 over the study period.

#### Structural Occupations

This category should have an important increase

and, indeed, should be one of the fastest growing of the nine included in this study. Specifically, a 23 percent increase in employment is anticipated—a direct result of continued expansion in the construction industry. Moderate to substantial gains should be realized in jobs such as sheet-metal working, flame-cutting, electrical assembly installation and repair, linemen, painting, plastering, waterproofing and cementing, pipefitters, plumbers, carpenters, and bricklayers to name only the more obvious.

#### Miscellaneous Occupations

This category, which ranks fifth in total employment, embraces a variery of jobs such as rruck drivers, packaging and material handlers, and laborers, all of which should have modest increases by 1975. The only job which may experience a sharp decline is that of logger which has been consistently falling since 1960 primarily because of mechanization in the harvesting of forest products.



## MANPOWER REQUIREMENTS

The preceding sections of this study have dealt with the measurement of employment levels over time—industrial expansion. However, jobs added to the economy represent only part of the total job demand. The need to replace workers who die, retire, or leave the work force for other reasons is an equally important determinant of manpower requirements. In some jobs, worker requirements for replacement purposes are greater than those caused by expansion. Finally, it should be noted that in occupations where the total number of jobs is not expected to change and even in some where the number of jobs is declining,

manpower requirements for replacements can be substantial.

For the State as a whole, expansion and replacement needs are nearly on a one-to-one ratio. As indicated in Table 5 and Chart 2, expansion needs will be significant for most of the major occupational groups over the study period; however, four of the nine occupational categories will require more workers for replacement than for expansion. These are professional, technical, and managerial; clerical and sales; service; and machine trades occupations. Moreover, these occupational groups are among the largest in terms of total job demand.

TABLE 5. TOTAL JOB DEMAND AND PERCENT DISTRIBUTION BY OCCUPATIONAL CATEGORIES IN SOUTH CAROLINA FOR THE PERIOD 1970-1975

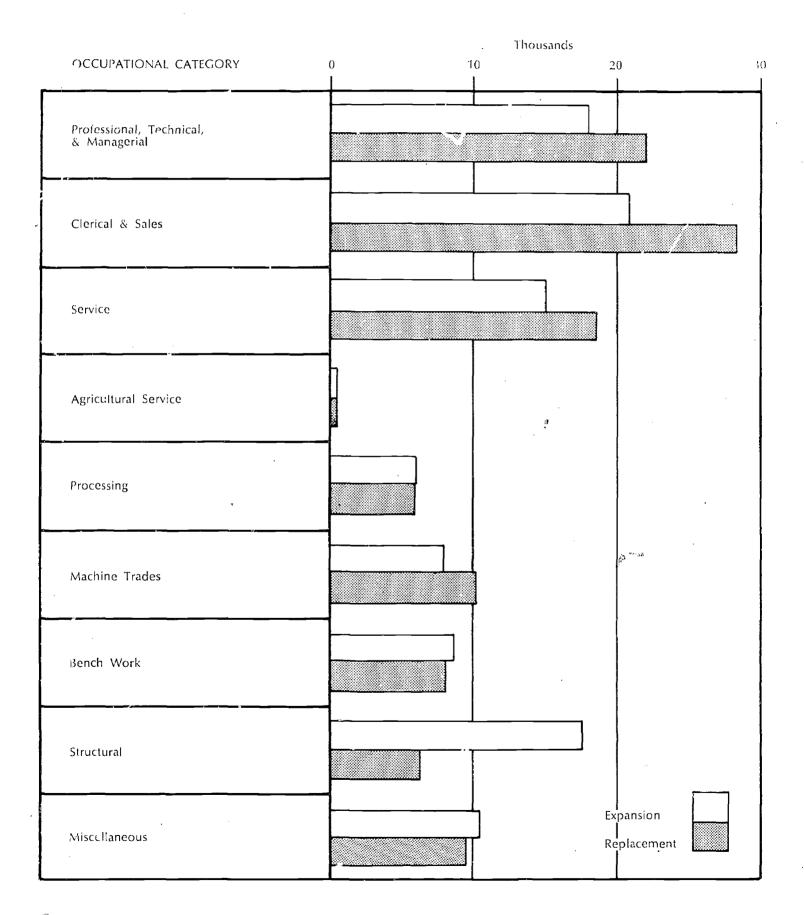
| Occupational Category                 | Deniai<br>Expai | nd for<br>nsion | Demand for<br>Replacement |         | Total<br>Demand |              |
|---------------------------------------|-----------------|-----------------|---------------------------|---------|-----------------|--------------|
|                                       | Number          | Percent         | Number                    | Percent | Number          | Percent      |
| Total                                 | 105,300         | 100.0           | 110,170                   | 100.0   | 215,470         | 100.0        |
| Professional, Technical, & Managerial | 18,130          | 17.2            | 22,300                    | 20.2    | 40,430          | 18.8         |
| Clerical & Sales                      | 20,890          | 19.8            | 28,530                    | 26.0    | 49,420          | 22.9         |
| Service                               | 15,080          | `14.3           | 18,740                    | 17.0    | 33,820          | 15. <i>7</i> |
| Agricultural Service                  | 510             | 0.5             | 500                       | 0.4     | 1,010           | 0.5          |
| Processing                            | 6,000           | 5.7             | 5,840                     | 5.3     | 11,840          | 5.5          |
| Machine Trades                        | 7,900           | 7.5             | 10,220                    | 9.3     | 18,120          | 8.4          |
| Bench Work                            | 8,760           | 8.5             | 8,040                     | 7.3     | 16,800          | 7.8          |
| Structural                            | 17,440          | 16.6            | 6,210                     | 5,6     | 23,650          | 11.0         |
| Miscellaneous                         | 10,590          | 10.1            | 9,790                     | 8.9     | 20,380          | 9.4          |

Of the total job demand for the professional, technical, and managerial category, workers needed for replacement will be nearly one-fourth greater than the number required for expansion purposes. This is especially true for medical and health; education; and managerial, administrative, and technical workers. For the clerical and sales category, more than one-third more workers will be needed for replacement than for expansion. In the service category, replacement needs are expected to be about 24 percent greater than expansion needs while the corresponding difference for

machine trades will approach 30 percent over the study period. A relatively large proportion of women are employed in the service occupations, and they typically experience higher labor turnover than men. Aside from the high proportion of women employed and the attendant turnover experience, the service group is characterized by relatively large numbers of low-skilled entry jobs. These are consequently among the lowest paid. These, too, contribute to high labor turnover. For more occupational detail on expansion and replacement needs, see Appendix Table 3.



CHART 2. EXPANSION AND REPLACEMENT DEMAND BY OCCUPATIONAL CATEGORIES IN SOUTH CAROLINA FOR THE PERIOD 1970-1975





## MANPOWER RESOURCES

The preceding sections of this study have dealt primarily with the forecasting of manpower requirements. For effective program planning and evaluation it also is important to consider another factor—manpower resources. Therefore, this section is devoted to an appraisal of the adequacy of supply in terms of occupational categories and selected subgroups in South Carolina.

There are a number of possible sources for workers entering an occupation, i.e., training programs, other occupations, immigrants, in-migration from other areas, Armed Forces and as new or re-entrants to the work force. Conversely, workers may leave an occupation because of death, retirement, occupational transfer, emigration, out-migration to other areas, and ithdrawal from the work force because of marriage, callebirth, and other reasons.

The job market is dynamic and becoming more so every year. Unfortunately, the techniques for measuring future labor supply are not as advanced as those for measuring future labor demand. Except for the limitations imposed through hiring requirements, workers are relatively free to make job choices and to move from one location to another. While this may be desirable for workers, it tends to make the measurement of labor supply especially difficult.

Despite the complexities, there are a number of ways to forecast manpower supply. The selection of a method, however, necessarily depends upon the availability of technical staff, the desired volume and precision of the estimates, and the time and resources available for the work. As was the case in the previous occupational study in South Carolina, the approach selected was simple, inexpensive, and fast.

The technique involves a comparison of the annual number of workers entering an occupation over a recent period with a projection of the number that will be required annually in a future period for both employment expansion and replacement. As such, these measures indicate whether the current rate of new worker input to an occupation should be expanded, contracted, or maintained at about the current level in order to meet future needs. Therefore, these measures do not take into account the total supply of workers.

An average of 43,000 workers will be needed each terms of the each term of the each terms of the each

meet the projected required need for expansion and replacement. By comparison, some 49,000 workers were supplied annually during the period 1965-1970 for expansion and replacement.

TABLE 6. ESTIMATED AVERAGE ANNUAL NEW JOB ENTRANTS IN SOUTH CAROLINA EXPERIENCED FROM 1965-1970, AND PROJECTED REQUIRED FROM 1970-1975 BY OCCUPATIONAL CATE-

| Occupational          | Average<br>New Job       |                        | Ratio of<br>Projected to |
|-----------------------|--------------------------|------------------------|--------------------------|
| Category .            | Experienced<br>1965-1970 | Projected<br>1970-1975 | Experienced<br>Need      |
| Total                 | 48,910                   | 43,090                 | 0.9                      |
| Professional, Technic | cal,                     |                        |                          |
| & Managerial          | 10,680                   | 8,090                  | 0.8                      |
| Clerical & Sales      | 11,030                   | 9,880                  | 0.9                      |
| Service               | 7,700                    | 6,760                  | 0.9                      |
| Agricultural Service  |                          | 200                    | 0.8                      |
| Processing            | 2,300                    | 2,370                  | 1.0                      |
| Machine Trades        |                          | 3,620                  | 0.6                      |
| Bench Work            | 3,090                    | 3,360                  | 1.1                      |
| Structural            | 3,680                    | 4,730                  | 1.3                      |
| Miscellaneous         | 4,660                    | 4,080                  | 0.9                      |

Note: The sum of the subitems may not add to the total because of rounding.

To facilitate analysis, the ratio of the projected required new job entrants for the period 1970-1975 to the experienced need during the 1965-1970 period is presented in Table 6 for each of the occupational categories. More detail is shown in Appendix Table 4. Some occupations, based on the projections, will not require as many workers during the period 1970-1975 as were needed during the preceding five-year period. These are identified by ratios less than 1.0 or unity. Conversely, for some occupations, the projected need in the period 1970-1975 will be greater than that in the period 1965-1970. These are identified by ratios greater than 1.0 or unity. Finally, for some occupations, the projected required number of workers for the period 1970-1975 will approximate that of the 1965-1970 period, and these are identified by ratios of unity or near unity.

It should be borne in mind that the ratios of projected requirements to experienced supply are intended only to point out possible imbalances in certain occupations. In *no* case should these ratios be considered a mathematically precise indication of the change in demand for new workers.

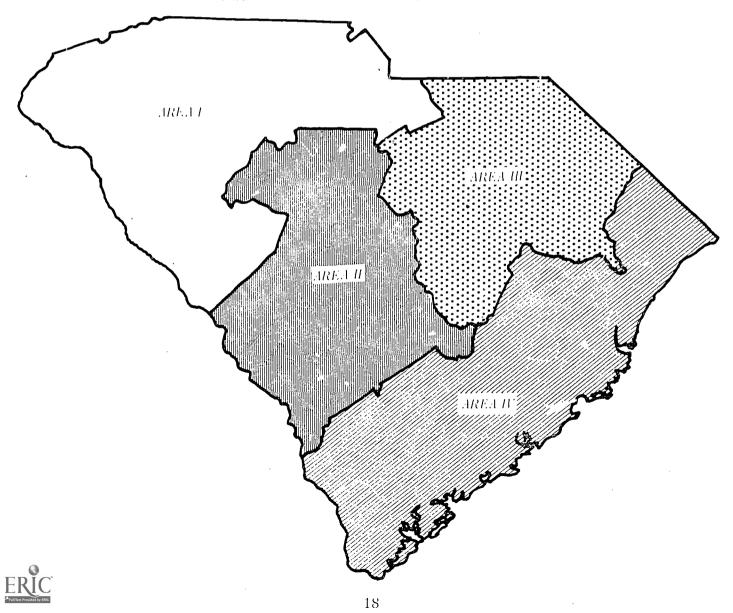
## ECONOMIC AREA TRENDS

This section of the study is devoted to an analysis of industry and occupational employment for selected economic areas in South Carolina. In selecting the areas, the State was divided into four reasonably distinct economic regions which are homogeneous with respect to industry mix. Each area represents a consolidation of existing planning districts within the State. The districts, ten in number, were chosen for their internal homogeneity and are used as standards for planning purposes. The counties comprising each economic area and planning district are presented in the table below. Chart 3 shows a graphic presentation of the breakdown of economic areas within the State. Appendix tables 5-12 show detailed industry and occupational data for the economic areas.

TABLE 7. ECONOMIC AREAS AND PLANNING DISTRICTS IN SOUTH CAROLINA

| Economic<br>Area | Planning<br>District | Counties  |
|------------------|----------------------|---|
| I                | 1                    | Anderson, Cherokee, Greenville,   |
|                  | 2                    | Oconee, Pickens, Spartanburg<br>Abbeville, Edgefield, Greenwood, Laurens, McCormick, Saluda |
|                  | 3                    | Chester, Lancaster, York, Union   |
| П                | 4                    | Lairfield, Lexington, Richland, New-  |
|                  | 5                    | berry<br>Aiken, Allendale, Bamberg, Calhoun,<br>Barnwell, Orangeburg                        |
| 111              | 6                    | Clarendon, Kershaw, Lee, Sumter   |
|                  | 7                    | Chesterfield, Darlington, Dillon, Florerce, Marion, Marlboro                                |
| IV               | 8                    | Georgetown, Horry, Williamsburg   |
|                  | 9                    | Berkeley, Charleston, Dorchester  |
|                  | 10                   | Beaufort, Colleton, Hampton, Jasper   |

CHART 3. SOUTH CAROLINA ECONOMIC AREAS



#### Economic Area i

Economic Area I which encompasses planning districts one, two, and three, or the Piedmont section of South Carolina, represents the Area of greatest industrialization. It is the hub of the State's textile industry. Of the four areas, between 1970 and 1975, Area I will account for the greatest employment expansion. Aside from textiles, which is expected to remain relatively stable, most of the other major industries in the Area will increase substantially. Predominant gains will be concentrated in trade, services, construction, and government.

This area has the highest concentration of manufacturing in the State. The principal industry is textiles; consequently, it is reasonable that the bulk of employment is found among machine trade occupations which account for about 24 percent of all jobs and are expected to increase by 4,900 jobs by 1975. One important fact is that this category is declining in relative importance, from 27 percent of the total number of jobs in 1965 to about 24 percent by 1975. This is due basically to the textile industry's marginal growth which is related to changes in technology and the complexities of marketing problems particularly with respect to foreign competition. It would be inadvisable to infer that these anticipated changes are always indicative of trends; rather, it should be kept in mind that such changes often occur with oscillations in general business activity and do not necessarily reflect long-term patterns.

Clerical and sales jobs, as well as professional, technical, and managerial, should reflect substantial gains—an important growth since these categories account for about 32 percent of the total number in

the Area. Consonant with Statewide trends, additional growth should also be realized in service occupations as the demand for personal, business, and health services increases over time.

#### Economic Area II

Planning districts four and five comprise Economic Area II. Geographically, this Area coincides roughly with the Sandhills section of the State and contains the seat of state government. The predominant industries are manufacturing, government, and trade. Of the three, manufacturing should show the most significant employment increase between 1970 and 1975; and this expansion, nearly 8,000, will be fairly well distributed throughout the division. Government should continue to reflect good growth with the state sector leading the advance.

By 1975, substantial gains in employment within all nine major occupational categories should be realized although relative to all jobs in Economic Area Il the proportion in each group should remain nearly constant. As has been the case in the past, clerical and sales jobs will account for about 23 percent of the total. This is related primarily to the concentration of state and local government activities, as well as a large number of insurance company home offices within the Columbia Metro area. The second most dominant group is professional, technical, and managerial, comprising about 20 percent of all employment. Most of the demand for these jobs will arise from the expanding need for a variety of specialized medical and health skills. Finally, service occupations should show good growth as an indication of expanding needs for personal, business, food, and health services.

TABLE 8. AVERAGE NONFARM WAGE AND SALARY EMPLOYMENT FOR ECONOMIC AREAS IN SOUTH CAROLINA BY MAJOR INDUSTRY DIVISION, 1970, AND PROJECTIONS TO 1975

| Industry   | Economic Area I |         | Economic Area II |         | Economic        | Area III | Economic Area IV |         |
|--|-----------------|---------|------------------|---------|-----------------|----------|------------------|---------|
|  | 1970            | 1975    | 1970             | 1975    | 1970            | 1975     | 1970             | 1975    |
| Total  | 363,500         | 407,200 | 180,400          | 206,700 | 110,100         | 125,200  | 152,300          | 171,300 |
| Agriculture, Forestry, & Fisheries                 | 500             | 500     | 400              | 500     | 300             | 300      | 900              | 1,000   |
| Mining   | 600             | 600     | 700              | 700     | 300             | 300      | 100              | 100     |
| Contract Construction                              |                 | 22,400  | 9,900            | 13,100  | 5,100           | 6,600    | 9,200            | 12,000  |
| Manufacturing                                      | 197,100         | 214,100 | 56,400           | 64,200  | 49,600          | 55,700   | 33,900           | 38,500  |
| Transportation, Communications, & Public Utilities | 12,000          | 14,600  | 8.800            | 10,700  | 3,200           | 3.900    | 7,400            | 9,100   |
| Wholesale & Retail Trade                           | 53,700          | 59,200  | 33,100           | 36,800  | 19.400          | 21,400   | 30,100           | 33,400  |
| Finance, Insurance, & Real Estate                  | 9,300           | 10,400  | 9,200            | 10,100  | 2,600           | 2,900    | 5,300            | 6,000   |
| Services   | 31,500          | 37,800  | 20,700           | 24,100  | 12,200          | 14,800   | 17,600           | 20,500  |
| Government   | 41,800          | 47,600  | 41,200           | 46,500  | 17 <b>,</b> 400 | 19,300   | 47,800           | 50,700  |



#### Economic Area III

Economic Area III which includes planning districts six and seven represents the least populous area in the State and the most economically underdeveloped. It is frequently referred to as the Pee Dee area. Li've Area II, the major industries are manufacturing, trade, and government. Manufacturing jobs should increase by about 5,000 during the period 1970-1975. Most of this gain will be centered in the garment, chemicals, and electrical machinery industries. Of the other major industry divisions in the Area, services and trade will account for the greatest growth in terms of jobs.

Economic Area III is sparsely populated and most of the occupations are concentrated in processing, machine trades, and benchwork. It is significant that most of the jobs in these three categories—which account for about 31 percent of the total number of jobs—are semi-skilled or unskilled. By 1975, it is expected that these categories will not change in relative importance

Clerical and sales, comprising nearly 19 percent of the total number, should continue to be the most dominant single category and will expand slightly over the next five years. Professional, technical, and managerial occupations, the third largest category, should show a moderate gain, especially in medical and health services.

#### Economic Area IV

Economic Area IV consists of planning districts eight, nine, and ten. This represents the Coastal section of the State. One of the most significant features that will figure prominently in the Area's future economic growth is its excellent harbors and beaches. At present, the military is an important influence providing jobs for nearly 16,000 civilians. The heaviest concentrations are in the naval shipyard and air force base in Charleston. Following government, the major industries are manufacturing and trade. The largest employment increase between 1970 and 1975 should be in manufacturing. In the Charleston SMSA alone (Charleston and Berkeley counties), manufacturing employment rose by more than 30 percent between 1965 and 1970. Other industries in Economic Area IV expected to show moderate to substantial growth over the study period are trade, construction, and services.

Two significant factors in defining the occupational structure for Economic Area IV are (1) the presence of several large military installations—such as Charleston Naval Shipyard, Myrtle Beach AFB, Charleston AFB, and the Beaufort Marine Corps complex—which employ substantial numbers of workers, and (2) various beach resort areas, such as Myrtle Beach, which account for a variety of service jobs.

The largest category of employment is clerical and sales which accounts for about 23 percent of all jobs and which should have a modest gain by 1975. Professional, technical, and managerial occupations embrace a large number of administrative workers who are employed by various federal and military offices as well as the different components of the Charleston medical complex-including the Medical University of South Carolina, Veterans Administration Hospital, and several other hospitals and clinics—that require numerous and varied medical and health service workers. As these medical facilities grow with the implementation of new state and federal programs, additional workers will be required; consequently, this category should experience modest to substantial gains. Additionally, continuing growth in the private sector of the Area's economy should result in further job gains.

Generally, the ratio of total jobs within each category to the total number in the area should remain fairly constant through 1975. The most important categories in job numbers will continue to be clerical and sales; professional, technical, and managerial; and service occupations.

TABLE 9. PROJECTED OCCUPATIONAL EMPLOYMENT FOR THE FOUR ECONOMIC AREAS OF SOUTH CAROLINA, 1975

| 0 11 1 6 1                    |         | Econon  |         |         |
|-------------------------------|---------|---------|---------|---------|
| Occupational Category         | ory i   | II      | 111     | IV      |
| Total                         | 405,800 | 205,000 | 124,200 | 170,250 |
| Frofessional,<br>Technical, & |         |         |         |         |
| Managerial                    | 61,000  | 41,300  | 21,950  | 34,400  |
| Clerical & Sales              | 71,100  | 47,800  | 23,650  | 39,750  |
| Service                       | 42,900  | 29,150  | 15,300  | 27,700  |
| Agricultural                  |         |         |         |         |
| Service                       | 1,350   | 1,100   | 500     | 1,250   |
| Processing                    | 23,950  | 8,400   | 9,300   | 4,600   |
| Machine Trades                | 96,350  | 22,750  | 16,200  | 13,350  |
| Bench Work                    | 34,150  | 12,400  | 12,500  | 8,700   |
| Structural                    | 32,650  | 20,500  | 10,300  | 19,900  |
| Miscellaneous                 | 42,400  | 21,650  | 14,350  | 20,600  |



## **METHODOLOGY**

The methodology is divided into six sections. The first section defines the industry-occupation matrix. The following section addresses itself to the techniques employed in forecasting industry employment while the remaining sections are devoted to the occupational sure y, occupational classification system, occupational projections, and replacement needs.

#### Industry - Occupation Matrix

The industry-occupation matrix excludes proprictors and workers in private households as well as agricultural, self-employed, and unpaid family workers. At present, detailed data for these classes of workers are not available. Moreover, they cannot be obtained from a central source as can data for other classes of workers.

The occupational projections presented in this study were developed by using the industry-occupation matrix approach. The matrix represents a detailed distribution of the occupational patterns for every major industry in the nonfarm wage and salary sector of the State's economy. The occupational patterns represent the relative proportion of each occupation to the total employment in each industry.

Before proceeding further, a number of basic premises should be considered:

- 1. The occupational composition of individual industries is distinctive. For example, the garment industry is comprised largely of sewing machine operators while employment in the construction industry consists mainly of craft workers such as carpenters and bricklayers.
- 2. The differences in the occupational composition between similar establishments in the same industry tend to be minimal. To illustrate, in department stores classified in the same industry and size group, the relative proportion of salespersons or clerks, managers, and other classes of workers to the total number employed will be about the same.
- 3. The proportional distribution of the occupations comprising a given industry tend to change very slowly over time. In the construction industry, the relative proportion of carpenters to total employment in the industry would not change significantly in the short run or over a period of about five years.

i. The employment level for a given industry is the primary determinant of the occupational levels within that industry.

There are other factors to be considered in determining occupational patterns within a given industry as well as differences between the patterns of one industry and those of another. Some examples are goods produced, services performed, size of plant, volume of production, age of equipment, worker skills, wage rates, and labor supply to mention only the more obvious.

When establishments employ a certain number of workers in a given occupation, an occupational pattern evolves. The distribution of employment among the various occupational patterns, for all practical purposes, represents a management decision regarding the most efficient combination of occupational skills required to accomplish the establishment's objectives. If we accept the four basic premises outlined earlier, one can conclude (1) that the manpower requirements for a given industry reflect the composite staffing or occupational patterns of establishments within that industry, and (2) that once the occupational patterns are determined for each industry, given the industry employment level, occupational employment levels for that industry can be estimated.

#### Industry Projections

Since industry employment represents an integral part of the matrix approach in determining occupational employment levels, careful consideration was given to the selection of the projection technique. A number of limiting factors were considered. Principally, these included availability of technical staff, volume and precision of the projections, and computer capability and availability.

Four least-squares regression models were chosen as an efficient method of arriving at first approximations of industry employment. However, regression analysis has the obvious limitation of being based on past trends. Therefore, the first approximations were carefully analyzed and frequently refined by labor analysts familiar with the State's economy, industry trends, previous forecasts, new and pending legislation, and population developments. Finally, the estimates were reviewed by representatives of industry organizations, other government agencies, and representatives of private industry for reasonableness and consistency.



The historical data used for making projections were annual average employment for each industry from 1958 to 1970. Varying base periods were selected for the estimating equations.

The regression models used were as follows:

Model I The relationship between State employment and time.

Model II The relationship between the common logarithm of State employment and time.

Model III The relationship between the ratio of State employment to national employment and time.

Model IV The relationship between the common logarithm of State employment and the common logarithm of national employment.

In Model I, State employment represented the dependent variable and time the independent variable. The method assumes a straight-line trend over time. This particular model, based on past experience, is fairly reliable because many industries in South Carolina have demonstrated a simple arithmetic progression or straight-line trend over time. Model II was most useful for those industries that fit a geometric or curvilinear progression over time. In this model the logarithm of State employment was the dependent variable and time the independent variable. The assumption associated with Model III was that the ratio of State to national employment in an industry (dependent variable) can be compared to time (independent variable) and a trend in relationship determined. By extrapolating this relationship, a projected ratio was developed for each industry and then applied to the comparable national industry projection to yield a forecast for the state industry. This model placed a great deal of reliance on the national employment projections prepared by the United States Bureau of Labor Statistics (BLS). In Model IV, the logarithm of State employment represented the dependent variable and the logarithm of national employment the independent variable. For Scuth Carolina, this model did not produce many estimates thought to be reliable.

Each of the regression models is expressed mathematically as follows:

 $S_e$  = State employment (annual averages)

 $N_e$  = national employment (annual averages)

a = constant; intercept; the value of the depen-

dent variable when the independent variable is zero

b = constant (slope of the regression line)

t = time

Model I  $S_e = a + b(t)$ 

Model II Log  $S_p = a + b(t)$ 

Model III  $S_e/N_e = a + b(t)$ 

Model IV Log  $S_e = a + b(\log N_e)$ 

Occupational Survey

The occupational survey in connection with this study had two important goals: first, to secure as much information as possible on the number and kinds of jobs by industry; second, to improve and expand the matrix-oriented methodology for developing occupational employment statistics.

Aside from the limited information derived from the decennial census enumerations, very little is known about the detailed occupational composition of industries. Therefore, it was not feasible to design an optimum-size sample that would provide reliable information on the occupational patre us of industries in South Carolina. As data collection on the scale of a Statewide occupational survey is a comparatively expensive undertaking, it is considered essential to determine the minimum sample size that will yield accurate estimates of occupational employment by industry. To do this, it was determined that the initial survey should cover every firm in the nonfarm wage and salary sector of the economy. This would provide the basic information needed to test the assumptions associated with the industry-occupation matrix and produce sufficient information for the selection of optimum samples for future surveys to update the matrix.

Prior to and during the survey, field visits were made for the purpose of developing structured questionnaires (prelisted and coded job titles). In addition, a great deal of information on staffing patterns for selected industries was secured through the Occupational Analysis Field Center associated with the United States Department of Labor, Manpower Administration. Although it was desirable, time did not permit the preparation of structured questionnaires for all establishments. Structured questionnaires were prepared for textile mills, hospitals, local government, and offices of practicing physicians and dentists. The remaining majority of the questionnaires were unstructured.

The mailing of questionnaires was staged by industry in blocks of two to three thousand at a time. This allowed for the coding of job titles for a given industry to be concentrated over a shorter period of time. Job codes were based on all nine digits of the Dictionary of Occupational Titles (DOT), 1965 edition. No field tests were made for response analysis because of time and resource restrictions. However, it is reasonable to assume that by concentrating on one industry at a time, the job coding was accomplished more accurately and efficiently. There is no doubt that this technique had the added advantage of simplifying the coordination and control of data from the survey.

While the major data collection effort was by mail with telephone follow-ups, all establishments with 250 or more employees were selected for personal visits. Some 500 establishments were contacted by this method, and they accounted for approximately 45 percent of all nonfarm wage and salary jobs. Mailed questionnaires were used for all other establishments. The questionnaires were designed to collect information on unique payroll job titles, the number employed in each job, and job vacancies. Employment and vacancies when combined represent total job demand.

Most of the mailed questionnaires were returned within three weeks. Follow-up for nonresponse was by telephone for in-State firms and by mail for those out-of-State. There were two important advantages in using telephones for follow-up. First, it was possible for the analyst to collect all of the data by phone from establishments employing fewer than 100 workers. Second, it allowed the analyst to evaluate all of the data immediately. Where this was not convenient and or desirable, the respondent was requested to return the questionnaires at the earliest convenience. Every non-respondent was contacted three times.

Nearly 24,000 establishments were included in the survey. More than 12,000 responded, representing two-thirds of all nonfarm wage and salary jobs in South Carolina. Initially, it was estimated that a minimum of six months would be required for the data collection which began in May, 1970. It was ended after six and one-half months.

#### Occupational Classification System

The occupations presented in this survey were classified according to the *Dictionary of Occupational Titles*, 1965 edition. The *DOT* defines approximately 14,000 unique occupations. Each title is identified by a nine-digit numerical code. The first three digits of the code indicate the type of work done, the second

group of three digits reflects the skill level, and the last three digits indicate the specific title of the occupation. To illustrate, the title Automobile Mechanic has a DOT code of 620.281014. Within the first set of three digits, the first digit (6) defines the major category of machine trades. The second digit (2) represents the division of mechanics and machinery repairmen and the third digit (0) indicates motorized vehicle and equipment repairmen. The second set of three digits (281) represents the skill level of the occupation in relation to data, people, and things (equipment). The first digit (2) signifies that the occupation requires a substantial ability to analyze data, the second digit (8) means that dealing with people is not necessary, and the third digit (1) shows that the highest ability for precision work with equipment is necessary. Since these same first six digits describe 25 occupations from air conditioning sechanic to tune-up man, it is necessary to differentiate by the last three digits in order to determine a specific title for the occupation.

The primary advantage of the *DOT* classification system is that it serves to standardize terminology used in classifying occupations. This system also reflects some measure of the skill level of the job. The *DOT* is used extensively by the U. S. Department of Labor and affiliated agencies as well as private industry.

The most significant disadvantage of the *DOT* is its volume. All occupations are defined narrowly. Occupations which for most purposes could be considered a single job are often broken down into several occupations. This is true not only of sophisticated occupations such as medical specialties but also for occupations which demand little or no skill or training. Therefore, it is difficult to use this classification system for the purpose of developing data for planning and evaluating manpower training programs.

#### Occupational Projections

While there are a number of ways to estimate future manpower requirements by occupation, the technique selected to develop the occupational projections presented in this study relied on a detailed industry-occupation matrix for South Carolina. The matrix already has been defined as a table showing the occupational composition or patterns of individual industries. For each industry, ratios were developed reflecting the relative proportion of the industry employment represented by each occupation.

As the information from the occupational survey was collected, each job was assigned a nine-digit nu-



merical code according to the DOT. The use of these sea numerical codes served two basic purposes. First, the various titles used by employers for an occupation were eliminated and a single standard title assigned. Second, the numerical code facilitated computer processing.

The two basic determinants of occupational requirements are the employment levels of each industry and the unique occupational patterns (ratios) within each industry. Outlined below are the steps involved in deriving the occupational patterns.

- (a) The sample employment in each industry was inflated to the universe in such a manner as to minimize bias due to differences in response between industries and employing units of various sizes within each industry. The procedure involved dividing the universe employment for each industry into four size classes—class one, employing units of less than 20; class two, employing units of 20-49; class three, employing units of 50-99; and class four, employing units of 100 or more.
- (b) The universe employment for each size class in each industry was divided by the corresponding sample employment to yield inflation factors.
- (c) The inflation factors from step (b) were applied to the occupational data in each size
- (d) Finally, the size-class data were aggregated for each occupation in each industry and these aggregates divided by the total employment in each industry to determine the occupational pattern or relative proportion of employment in each job to the total employment in each industry.

The occupational patterns developed by the foregoing steps subsequently are utilized to decompose a set of industry employment projections into separate projections of employment by occupation for each industry. These separate projections of employment by occupation for each industry are summed, occupationby-occupation, across all industries to obtain projected totals for each occupation. The entire procedure can be expressed mathematically as follows:

$$E_{oi} = E_i \times r$$

$$E_o = \Sigma E_{oi}$$

 $E_0 = employment$  an occupation



E<sub>oi</sub> — employment in an occupation in an industry

employment level in each industry

ratio of employment in an occupation in an industry to total industry employment.

Replacement Needs

As has been indicated, projected occupational employment levels are important determinants of future labor requirements. The number of workers needed for expansion or to satisfy the expected growth in an occupation can be projected as the difference between the level of employment in a given occupation in the base and terminal years. Workers needed for expansion are only part of the story. The projection of replacement needs by occupation or the number needed to replace existing workers who withdraw from the work force because of death or retirement is much more difficult. Total labor requirements for the future then are represented by the sum of workers needed for both expansion and replacement.

While there are alternative methods for estimating replacement needs, as presented in the BLS guidebook Tomorrow's Manpower Needs, each method has some limiting factors. The chosen method for this study relies upon national age-specific separation rates by sex and the 1960 census distribution of the State's labor force by occupation, age, and sex. Distinction between the sexes is necessary because of the generally higher work force withdrawal rates of women. The national age-specific separation rates for males and females, based on tables of working life, were used to calculate the annual separation rates for each occupation in South Carolina. Working life tables have been developed on an actuarial basis by sex, and these data are used to measure the effect of death and retirements (separately) on the work force at different age levels.

Since the population in South Carolina is heavily weighted by young people, it follows that the age distribution by occupation will not be the same as that for the Nation. Under these circumstances, it was desirable to determine separation rates by occupation for South Carolina. Therefore, employment by occupation was arranged according to age groups and sex based on the 1960 census. These data were then multiplied by national age-specific separation rates to determine the corresponding annual separation rates for the State. These rates, thus determined, made it possible to estimate the total number of separations or work force withdrawals over the study period by multiplication of the rates by the projected occupational employment in the State.

The technique for calculating separation rates for South Carolina is expressed mathematically and illustrated for carpenters as follows:

$$SR = \Sigma(E_{ag} \times ASR) \quad \text{where} \quad \Sigma E_{o}$$

SR = separation rate

E<sub>ag</sub> = employment in a South Carolina occupation age group

ASR = annual separation rate for age group, and

 $E_0 = total$  employment for that occupation.

ESTIMATED ONE-YEAR SEPARATIONS FOR CARPENTERS—SOUTH CAROLINA

| Age Groups | Employed<br>Males <sup>1</sup> | Annual<br>Separation Rate <sup>2</sup> | Number of<br>Separations |
|------------|--------------------------------|--|--------------------------|
| 14-19      | 399                            | .00128                                 | 1                        |
| 20-24      | 860                            | .00181                                 | 2                        |
| 25-29      | 1,079                          | .00171                                 | 2                        |
| 30-34      | 1,260                          | .00227                                 | 3 '                      |
| 35-44      | 3,406                          | .00491                                 | 17                       |
| 45-54      | 3,388                          | .01504                                 | 51                       |
| 55-59      | 1,047                          | .03232                                 | 34                       |
| 60-64      | 707                            | .09625                                 | 68                       |
| 65+        | 480                            | .13464                                 | 65                       |
| Total      | 12,626                         |  | 243                      |

 $SR = \frac{243}{12,626} = 1.92$ 



<sup>&</sup>lt;sup>1</sup> Table #123—S. C. Detailed Characteristics of Population (1960)

<sup>&</sup>lt;sup>2</sup> Tomorrow's Manpower Needs, Vol. 1, Bureau of Labor Stătistics Bulletin 1606

## **APPENDIX**

## DEFINITIONS OF OCCUPATIONAL CATEGORIES

- 1. Professional. Technical, and Managerial Occupations—This category includes occupations concerned with the theoretical or practical aspects of such fields of human endeavor as art, science, engineering, education, medicine, law, business relations, and administrative, managerial, and technical work. Most of these occupations require substantial education at the university, junior college, or technical institute level.
- 2. Clerical and Sales Occupations—Included are occupations concerned with preparing, transcribing, transferring, systematizing, and preserving written communications and records; collecting accounts; and distributing information. The sales category includes jobs which influence customers in favor of a commodity or service. Also included are occupations closely identified with sales transactions but not involving actual participation.
- 3. Service Occupations—This category includes occupations concerned with performing tasks in and around private households; serving individuals in institutions and in commercial and other establishments; and protecting the public against crime, fire, accidents, and acts of war.
- 4. Agricultural Service Occupations—The occupations included in this category are those primarily concerned with providing services in support of agricultural, forestry, and fishery activities.
- 5. Processing Occupations—The processing category includes occupations concerned with refining, mixing, compounding, chemically treating, heat treating, or similarly working materials and products. Knowledge of a process and adherence to formulas or other specifications are required. Vats, stills, ovens, furnaces, mixing machines, crushers, grinders, and related equipment or machines are usually involved.
- 6. Machine Trades Occupations This category includes occupations related to feeding, tending, operating, controlling, and setting up machines to cut, bore, mill, abrade, print, and similarly work such materials as metal, paper, wood, and stone. Throughout

- this category, the overall relationship of the worker to the machine is of prime importance. At the more complex levels, the important aspects of the work include understanding machine functions, reading blueprints, making mathematical computations, and exercising judgment to attain conformity to specifications. Coordination of the eyes and hands is the most significant factor at the lower levels. Disassembly, repair, reassembly, installation, and maintenance of machines and mechanical equipment, and weaving, knitting, spinning, and similarly working textiles are included in this category.
- 7. Bench Work Occupations—Included are occupations concerned with the use of body members, handtools, and bench machines to fit, grind, carve, mold, paint, sew, assemble, inspect, repair, and similarly work relatively small objects and materials, such as at a set position in a mill, plant, or shop, at a bench, worktable, or conveyor. At the more complex levels, workers frequently read blueprints, follow patterns, use a variety of handtools, and assume responsibility for meeting standards. Workers at the less complex levels are required to follow standardized procedures.
- 8. Structural Work Occupations This category includes occupations involved with fabricating, erecting, installing, paving, painting, repairing, and similarly working structures or structural parts, such as bridges, buildings, roads, motor vehicles, cables, airplane engines, girders, plates, and frames. The work generally occurs outside a factory or shop environment, except for factory production line occupations. Tools used are hand or portable powered, and such materials as wood, metal, concrete, glass, and clay are involved. Workers are frequently required to have a knowledge of the materials with which they work, e.g., stresses, strains, durability, and resistance to weather.
- 9. Miscellaneous Occupations—This category includes occupations concerned with transportation services; packaging and warehousing; utilities; amusement, recreation, and motion picture services; mining and logging; and graphic arts.





## APPENDIX TABLE 1. AVERAGE NONFARM WAGE AND SALARY EMPLOYMENT IN SOUTH CAROLINA BY MAJOR INDUSTRY DIVISION AND SELECTED INDUSTRY GROUPS, 1965, 1970, AND PROJECTIONS TO 1975

|              | A STATE OF THE STA |                  |                  | <del></del>      |                 |                  |
|--------------|--|------------------|------------------|------------------|-----------------|------------------|
|              | Industry   |                  | Average Em       |                  | Net C           |                  |
| SIC          | Name   | 1965             | 1970             | 1975             | 1965-1970       | 1970-1975        |
|              | TOTAL  | 685,000          | 836,000          | 943,200          | 151,000         | 107,200          |
| 07-09        | Agriculture, Forestry, & Fisheries   | 2,100            | 2,500            | 2,800            | 400             | 300              |
| 07           | Agricultural Services  | 1,300            | 1,600            | 1,800            | 300             | 200              |
| 80           | Forestry   | 700              | <sup>^</sup> 800 | 900              | 100             | 100              |
| 1014         | Mining   | 1,700            | 1,700            | 1,700            | 0               | 0                |
| 14           | Mining & Quarrying—Nonmetallic Minerals  | 1,700            | 1,700            | 1,700            | 0               | 0                |
| 15–17<br>15  | Contract Construction  | 43,000<br>18,000 | 49,500           | 64,500           | 6,500           | 15,000           |
| 1.5<br>16    | Building Construction Heavy Construction Contractors   | 8,600            | 16,800<br>11,700 | 22,500<br>14,000 | 1,200<br>3,100  | 5,700<br>2,300   |
| 161          | Highway & Street Construction  | 4,300            | 5,500            | 6,500            | 1,200           | 1,000            |
| 162          | Heavy Construction   | 4,300            | 6,200            | 7,500            | 1,900           | 1,400            |
| 17           | Special Trade Contractors  | 16,400           | 20,900           | 28,000           | 4,500           | 7,100            |
| 171          | Plumbing, Heating, & Air Conditioning  | 4,700            | 6,200            | 8,400            | 1,500           | 2,200            |
| 172          | Painting   | 1,000            | 1,200            | 1,600            | 200             | 400              |
| 173<br>174   | Electrical Masonry, Stonework, & Plastering  | 3,100<br>3,000   | 4,100<br>3,800   | 5,500<br>5,000   | 1,000<br>800    | 1,400<br>1,200   |
| 176,9        | Miscellaneous Special Trade Contractors  | 4,000            | 4,700            | 6,300            | 7 <b>0</b> 0    | 1,600            |
| 19-39        | Manufacturing  | 292,000          | 339,100          | 374,500          | 47,100          | 35,400           |
| 20           | Food & Kindred Products  | 12,100           | 14,500           | 15,100           | 2,400           | 600              |
| 201          | Meat Products  | 3,300            | 2,800            | 2,900            | -500            | 100              |
| 2011,3       | Meat Packing   | 1,600            | 1,600            | 1,700            | 0               | 100              |
| 2015         | Poultry Dressing   | 1,700<br>2,300   | 1,200<br>2,400   | 1,200<br>2,400   | -500            | 0                |
| 202<br>204   | Dairy Products   | 600              | 600              | 600              | 100<br>0        | . 0              |
| 205          | Bakery Products  | 2,000            | 2.300            | 2,200            | 300             | 100              |
| 208          | Beverages  | 2,600            | 2,700            | 2,700            | 100             | 0                |
| 22           | Textile Mill Products  | 139,900          | 148,800          | 149,000          | 8,900           | 200              |
| 221          | Broadwoven Cotton  | 73,800           | 67,600           | 64,000           | 6,200           | -3,600           |
| 222          | Broadwoven Synthetics  | 22,900<br>2,900  | 25,900           | 25,000           | 3,000           | 900              |
| 223<br>224   | Broadwoven Wool  | 1,800            | 4,000<br>2,900   | 3,500<br>3,200   | 1,100<br>1,100  | -500<br>300      |
| 225          | Knitting Mills   | 6,000            | 10,400           | 12,200           | 4,400           | 1,800            |
| 2251,2       | Knit Hosiery   | 1,900            | 3,600            | 4,500            | 1,700           | 900              |
| 2253,4       | Knit Apparel   | 3,200            | 4,100            | 4,300            | 900             | 200              |
| 2256         | Knit Fabric  | 900              | 2,700            | 3,400            | 1,800           | 700              |
| 226          | Dying & Finishing  | 18,200           | 20,400           | 21,200<br>16,700 | 2,200<br>—1,000 | 800              |
| 2261<br>2262 | Finishing, CottonFinishing, Synthetic  | 17,600<br>500    | 16,600<br>3,300  | 4,000            | 2,800           | 100<br>700       |
| 227          | Floor Covering   | 3,000            | 5,200            | 6,300            | 2,200           | 1,100            |
| 2271         | Carpets & Rugs, Woven  | 1,700            | 1,400            | 1,700            | -300            | 300              |
| 2272         | Carpets & Rugs, Tufted   | 1,300            | 3,800            | 4,600            | 2,500           | 800              |
| 228          | Yarn Mills   | 7,100            | 7,700            | 8,300            | 600             | 600              |
| 2281         | Yarn Spinning  | 3,600            | 4,400            | 4,700            | 800             | 300              |
| 2282<br>23   | Yarn Throwing, Twisting, & Winding<br>Apparel & Other Finished Products  | 400<br>41,000    | 1,000<br>43,400  | 1,100<br>49,000  | 600<br>2,400    | 100<br>5,600     |
| 232          | Men's & Boys' Apparel  | 11,200           | 10,900           | 11,500           | <del>-300</del> | 600              |
| 2321         | Men's & Boys' Shirts & Nightwear   | 8,600            | 8,000            | 8,300            | -600            | 300              |
| 2322         | Mon's & Boys' Underwear  | 1,700            | 1,600            | 1,700            | -100            | 100              |
| 233          | Women's & Misses' Outerwear  | 16,100           | 15,600           | 17,500           | 500             | 1,900            |
| 2331         | Women's Blouses  | 5,300            | 4,500            | 5,000            | -800            | 500              |
| 2335<br>2339 | Women's Outerwear, NEC   | 7,100<br>3,000   | 6,700<br>3,700   | 7,500<br>4,200   | 400<br>700      | 800<br>500       |
| 234          | Women's Underwear & Nightwear  | 2,000            | 2,500            | 3,000            | 500             | 500              |
| 236          | Girls', Children's & Infants' Outerwear  | 7,100            | 7,200            | 8,600            | 100             | 1,400            |
| 238          | Miscellaneous Apparel & Accessories  | 1,200            | 2,100            | 2,600            | 900             | 500              |
| 239          | Miscellaneous Fabricated Textile Products  | 3,900            | 4,800            | -5,900           | 900             | 1,100            |
| 2391         | Curtains—Draperies   | 1,100            | 600              | 800              | 500             | 200              |
| 2392         | House Furnishings, NEC   | 2,100<br>15,700  | 2,700            | 3,300<br>13,500  | 600<br>600, 1–1 | 600<br>—600      |
| 24<br>241    | Lumber & Wood Products<br>Logging  | 3,500            | 14,100<br>2,800  | 2,400            | 700<br>700      | -400<br>-400     |
| 242          | Sawmills & Planing Mills   | 6,200            | 5,700            | 4,800            | -500            | <u>900</u>       |
| 2421         | Sawmills & Planing Mills, General  | 5,500            | 5,200            | 4,400            | 300             | -800             |
| 2426         | Hardwood Dimension & Flooring  | 700              | 500              | 400              | -200            | <del>-</del> 100 |
| 243          | Millwork, Veneer, Plywood, &-Prefabricated   | 4.500            | 4.000            | 4.600            | E00             | 600              |
| 2424         | Structural Wood  | 4,500<br>800     | 4,000<br>800     | 4,600<br>900     | -500<br>0       | 600<br>100       |
| 2431<br>2432 | MillworkVeneer & Plywood   | 3,700            | 3,200            | 3,700            | -500            | 500              |
| 244          | Wooden Containers  | 700              | 700              | 800              | 0               | 100              |
| 249          | Miscellaneous Wood Products  | 800              | 900              | 900              | 100             | 0                |
| 25           | Furniture & Fixtures   |                  | 4,400            | 5,200            | 300             | 800              |
| 251          | Household Furniture  | 3,600            | 3,800            | 4,400            | 200             | 600              |



## APPENDIX TABLE 1. AVERAGE NONFARM WAGE AND SALARY EMPLOYMENT IN SOUTH CAROLINA BY MAJOR INDUSTRY DIVISION AND SELECTED INDUSTRY GROUPS, 1965, 1970, AND PROJECTIONS TO 1975—Continued

|               | Industry  | Annual         | Average Em       | ployment                 | Net C            | hange           |
|---------------|---|----------------|------------------|--------------------------|------------------|-----------------|
| SIC           | Name  | 1965           | 1970             | 1975                     | 1965-1970        | 1970-1975       |
| 2511          | House Furniture, Wood                                 | 2,900          | 2,500            | 2,900                    | 400              | 400             |
| 2:12          | House Furniture, Upholstered                          | 400            | 1,100            | 1,300                    | 700              | 200             |
| 26            | Paper & Allied Products                               | 9,800          | 12,000           | 14,200                   | 2,200            | 2,200           |
| <b>261–</b> 3 | Pulp, Paper, & Paperboard Mills                       | 4,600          | 5,200            | 5,800                    | 600              | 600             |
| 265           | Paperboard Containers and Boxes                       | 3,800          | 5,000            | 5,800                    | 1,200            | 800             |
| 2653          | Corrugated & Solid File Boxes                         | 800            | 1,200            | 1,400                    | 400              | 200             |
| 27<br>271–4   | Printing, Publishing, & Allied Industries             | 3,800          | 4,900            | 5,700                    | 1,100            | 800             |
| 2/1-4         | Newspapers, Periodicals, Books, & Miscel-             | 2,700          | 3,300            | 2 700                    | 600              | 400             |
| 275           | laneous Publishing Commercial Printing & Engraving    | 1,000          | 1,400            | 3,700<br>1,700           | 600<br>400       | 400<br>300      |
| 28            | Chemicals & Allied Products                           | 18,200         | 25,900           | 32,000                   | 7,700            | 6,100           |
| 281           | Industrial Organic & Inorganic Chemicals              | 6,400          | 6,700            | 6,300                    | 300              | <del>-400</del> |
| 2818          | Organic Chemicals                                     | 300            | 1,000            | 900                      | 700              | -100            |
| 282           | Plastics, Resins, & Synthetic Rubber                  | 8,900          | 15,800           | 22,200                   | 6,900            | 6,400           |
| 2823,4        | Cellulosic Man-Made & Noncellulosic                   |                |                  |                          |                  |                 |
| 004           | Organic Fibers  | 3,400          | 14,400           | 19,600                   | 6,000            | 5,200           |
| 284           | Soap, Cleaners, & Toilet Goods                        | 600            | 800              | 800                      | 200              | 0               |
| 287<br>30     | Agricultural Chemicals                                | 1,300          | 1,200            | 1,200                    | -100             | 0               |
| 306           | Rubber & Plastic Products                             | 1,900<br>300   | 3,600            | 4,600                    | 1,700            | 1,000           |
| 307           | Fabricated Rubber Products                            | 1,500          | 700<br>2,200     | 800                      | 400              | 100             |
| 32            | Stone, Clay & Glass Products                          | 9,200          | 11,000           | 2,800<br>15, <b>0</b> 00 | 700              | 600             |
| 325           | Structural Clay                                       | 1,400          | 1,300            | 1,700                    | 1,800<br>—100    | 4,000           |
| 327           | Concrete, Gypsum & Plaster Products                   | 1,900          | 2,200            | 3,100                    | 300              | 400<br>900      |
| 3271          | Concrete Block & Brick                                | 500            | 800              | 1,100                    | 300              | 300             |
| 3272          | Concrete Products, NEC                                | 600            | 700              | 1,000                    | 100              | 300             |
| 3273          | Ready-Mix Concrete                                    | 800            | 700              | 1,000                    | -100             | 300             |
| 328           | Stone & Stone Products                                | 100            | 100              | 200                      | 0                | 100             |
| 329           | Miscellaneous Nonmetallic Mineral                     |                |                  |                          |                  |                 |
|               | Products  | 1,100          | , 1,400          | 1,800                    | 300              | 400             |
| 33            | Primary Metal Industries                              | 900            | 2,600            | 3,700                    | 1,700            | 1,100           |
| 331           | Blast Furnace, Rolling & Finishing Mills              | 400            | 1,400            | 2,100                    | 1,000            | 700             |
| 34            | Fabricated Metal Products                             | 5,100          | 7,500            | 10,600                   | 2,400            | 3,100           |
| 343           | Heating & Plumbing Fixtures                           | 300            | 400              | 500                      | 100              | 100             |
| 344<br>3441   | Fabricated Structural Metal Products                  | 2,900          | 4,600            | 6,900                    | 1,700            | 2,300           |
| 3442,4        | Fabricated Structural Steel                           | 1,800<br>900   | 3,000<br>900     | 4,600<br>1,300           | 1,200<br>0       | 1,600<br>400    |
| 3446          | Architectural & Ornamental Metal                      | 100            | 300              | 400                      | 200              | 100             |
| 347           | Coating & Plating                                     | 100            | 200              | 200                      | 100              | 0               |
| 348           | Miscellaneous Fabricated Wire Products                | 300            | 400              | 500                      | 100              | 100             |
| 349           | Miscellaneous Fabricated Metal Products               | 100            | 200              | 200                      | 100              | 0               |
| 35            | Nonelectrical Machinery                               | 10,300         | 15,400           | 20,200                   | 5,100            | 4,800           |
| 353           | Construction & Related Machinery                      | 200            | 700              | 1,000                    | 500              | 300             |
| 355           | Special Industry Machinery                            | 6,800          | 6,400            | 6,500                    | -400             | .100            |
| 356           | General Industry Machinery                            | 600            | 1,800            | 2,600                    | 1,200            | 800             |
| 357           | Office, Computing, & Accounting Machines              | 200            | 500              | 800                      |                  | 300             |
| 358           | Service Industry Machines                             | 200            | 400              | 600                      | 200              | 200             |
| 359<br>36     | Miscellaneous Machinery                               | 200            | 500              | 800                      | 300              | 300             |
|               | Electrical Machinery                                  | 9,600          | 13,500           | 16,000                   | 3,900            | 2,500           |
| 362<br>363    | Electrical Industrial Apparatus  Household Appliances | 1,100<br>1,300 | · 1,900<br>2,300 | 2,300<br>2,800           | 800<br>1,000     | 400<br>500      |
| 364           | Light & Wiring Equipment                              | 500            | 800              | 1,000                    | 300              | 200             |
| 367           | Electronic Components & Accessories                   | 5,000          | 5,800            | 6,800                    | 800              | 1,000           |
| 369           | Miscellaneous Electrical Equipment                    | 700            | 1,200            | 1,500                    | 500              | 300             |
| 37            | Transportation Equipment                              | 2,400          | 8,200            | 9,200                    | 5,800            | 1,000           |
| 371           | Motor Vehicles & Equipment                            | 200            | 900              | 1,000                    | <sup>′</sup> 700 | 100             |
| 373           | Ship & Boat Building & Repair                         | 600            | 900              | 1,200                    | 300              | 300             |
| 379           | Miscellaneous Transportation Equipment                | 1,000          | 1,500            | 1,900                    | 500              | 400             |
| 38            | Instruments & Related Products                        | 2,800          | 3,200            | 4,000                    | 400              | 800             |
| 39            | Miscellaneous Manufacturing                           | 3,400          | 4,300            | 6,000                    | 900              | 1,700           |
| 394           | Toys, Amusement, Sporting, & Athletic                 |                |                  |                          |                  |                 |
|               | Goods   | 1,200          | 1,600            | 2,200                    | 400              | 600             |
| 396           | Costume Jewelry, Novelties, & Miscella-               |                |                  |                          |                  |                 |
| 200           | neous Notions   | 1,000          | 1,200            | 1,700                    | 200              | 500             |
| 399           | Miscellaneous Manufacturing, NEC                      | 800            | 1,000            | 1,400                    | 200              | 400             |
| <b>–</b> 49   | Transportation, Communication, Electric, Gas, &       | 20.422         | 27 400           | 44.000                   | 0.000            | ( 000           |
| 40            | Sanitary Services                                     | 28,100         | 37,100           | 44,000                   | 9,000            | 6,900           |
| 40            | Railroad Transportation                               | 4,500          | 4,000            | 3,600                    | -500             | -400            |
| 41<br>42      | Local & Suburban Transportation                       | 1,300<br>7,800 | 1,300            | 1,300                    | 2 200            | 2 500           |
| 42<br>421     | Trucking & Warehousing<br>Trucking                    | 7,800<br>6,700 | 10,000<br>8,900  | 12,500                   | 2,200            | 2,500           |
| <b>→</b> ∠ 1  | Trucking  | 0,700          | 0,500            | 11,100                   | 2,200            | 2,20 <b>0</b>   |



## APPENDIX TABLE 1. AVERAGE NONFARM WAGE AND SALARY EMPLOYMENT IN SOUTH CAROLINA BY MAJOR INDUSTRY DIVISION AND SELECTED INDUSTRY GROUPS, 1965, 1970, AND PROJECTIONS TO 1975—Continued

|            | Industry  | Annual A      | verage Em      |                  |                | ange           |
|------------|---|---------------|----------------|------------------|----------------|----------------|
| SIC        | Name  | 1965          | 1970           | 1975             | 1965-1970      | 1970-1975      |
| 422,3      | Public Warehousing & Trucking Terminal                                    |               |                |                  |                |                |
| 722,0      | Facilities  | 1,100         | 1,100          | 1,400            | 0              | 300            |
| 44         | Water Transportation  | 1,200         | 1,900          | 2,500            | 700            | 600            |
| 45         | Transportation by Air   | 500           | 800            | 900              | 300            | 100            |
| 451,2      | Certificated & Noncertificated Air Transpor-                              |               |                |                  |                |                |
| a miras    | tation  | 200           | 400            | 400              | 200            | 0              |
| 458        | Air Transportation Services   | 300           | 400            | 500              | 100            | 100            |
| 47<br>48   | Transportation Services   | 200<br>7,500  | 400<br>10,300  | 500<br>13,000    | 200            | 100            |
| 481        | Communication   | 5,800         | 8,300          | 10,400           | 2,800<br>2,500 | 2,700<br>2,100 |
| 482,9      | Telegraph Communication & Communica-                                      | 5,000         | 0,500          | 10,400           | 2,300          | 2,100          |
| -702,5     | tion Services, NEC  | 200           | 200            | 300              | 0              | 100            |
| 483        | Radio & Television Broadcasting   | 1,500         | 1,800          | 2,300            | 300            | 500            |
| 49         | Electric, Gas & Sanitary Services   | 5,000         | 8,300          | 9,600            | 3,300          | 1,3 <b>0</b> 0 |
| 491        | Electric Companies & Systems  | 2,400         | 5,300          | 6,200            | 2,900          | 900            |
| 492        | Gas Companies & Systems   | 400           | 500            | 500              | 100            | 0              |
| 493,5      | Combination Companies & Sanitary Services                                 | 2,200         | 2,500          | 2,900            | 300            | 400            |
| -59        | Wholesale & Retail Trade  | 115,400       | 142,100        | 157,400          | 26,700         | 15,300         |
| 50         | Wholesale Trade   | 24,600        | 29,600         | 34,100           | 5,000          | 4,500          |
| 501        | Automobiles & Equipment   | 2,000         | 2,500          | 3,300            | 500            | 800            |
| 502        | Drugs & Chemica's   | 1,400         | 1,800          | 2,300            | 400            | 500            |
| 503        | Piece Goods, Notion: & Apparel  | 700<br>5,200  | 800            | 1,100            | 100            | 300            |
| 504        | Groceries & Related Products  | 700           | 4,900          | 5,000            | -300<br>0      | 100<br>0       |
| 505<br>506 | Farm Products   | 1,400         | 700<br>1,800   | 700<br>2,300     | 0<br>400       | 500            |
| 507        | Electrical Goods  | 1,300         | 1,600          | 2,100            | 300            | 500            |
| 508        | Hardware, Plumbing & Heating Equipment<br>Machinery, Equipment & Supplies | 3,500         | 5,200          | 6,300            | 1,700          | 1,100          |
| 509        | Miscellaneous Wholesalers   | 8,400         | 10,200         | 11,100           | 1,800          | 900            |
| 52         | Retail Building Materials & Farm Equipment                                | 0,.00         | 10,200         | 11,100           | 1,000          | 300            |
| .,_        | Dealers   | 6,700         | 6,800          | 7,400            | 100            | 600            |
| 521-4      | Building Materials  | 4,600         | 4,400          | 4,800            | -200           | 400            |
| 525        | Hardware & Farm Equipment   | 2,100         | 2,400          | 2,600            | -300           | 200            |
| 53         | Retail Trade General Merchandise  | 18,700        | 22,600         | 25,500           | 3,900          | 2,900          |
| 531        | Department Stores   | 7,800         | 9,800          | 11,500           | 2,000          | 1,700          |
| 532        | Mail Order Houses   | 400           | 500            | 600              | 100            | 100            |
| 533        | Variety Stores  | 5,200         | 5,800          | 6,000            | 600            | 200            |
| 534        | Merchandising Machine Operators   | 1,400         | 1,700          | 1,900            | 300            | 200            |
| 535        | Direct Selling  | 500           | 600            | 700              | 100            | 100            |
| 539        | Miscellaneous General Merchandise   | 3,500         | 4,200          | 4,800            | 700            | 600            |
| 54         | Retail Food Stores  | 15,000        | 19,300         | 21,500<br>20,600 | 4,300          | 2,200<br>2,200 |
| 541        | Grocery Stores  | 14,400        | 18,400         | ,                | 4,000<br>300   | 2,200          |
| 542-9      | Food Stores, NEC  | 600<br>16,300 | 900<br>18,800  | 900<br>19,400    | 2,500          | 600            |
| 55         | Retail Automotive Dealers & Gas Stations                                  | 10,300        | 10,900         | 11,200           | 600            | 300            |
| 551,2      | New and Used Automobiles  | 1,900         | 2,500          | 2,600            | 600            | 100            |
| 553<br>554 | Automobile Accessories  | 3,400         | 4,500          | 4,600            | 1,100          | 100            |
| 559        | Service Stations Boat, Trailer, & Aircraft Dealers                        | 800           | 1,000          | 1,000            | 200            | 0              |
| 56         | Retail Apparel & Accessory Stores   | 5,200         | 6,200          | 6,600            | 1,000          | 400            |
| 561        | Men's & Boys' Furnishings   | 900           | 1,000          | 1,100            | 100            | 100            |
| 562,3      | Women's Clothing & Accessories  | 2,600         | 2,900          | 3,000            | 300            | 100            |
| 565        | Family Clothing Stores  | 800           | 1,000          | 1,100            | 200            | 100            |
| 566        | Shoes   | 900           | 1,200          | 1,300            | 400            | 100            |
| 57         | Retail Home Furnishings Stores  | 5,500         | 5,900          | 6,100            | 400            | 200            |
| 571        | Furniture & Home Furnishings  | 4,000         | 4,100          | 4,200            | 100            | 100            |
| 572,3      | Household Appliances  | 1,500         | 1,800          | 1,900            | 300            | 100            |
| 58         | Eating & Drinking Places  | 12,500        | 19,400         | 22,000           | 6,900          | 2,600          |
| 59.        | Miscellaneous Retail Stores   | 10,800        | 13,500         | 14,800           | 2,700          | 1,300          |
| 591        | Drug Stores   | 4,600         | 5,500          | 6,100            | 900            | 600            |
| 594        | Books & Stationery  | 800           | 1,500          | 1,700            | 700            | 200            |
| 596        | Farm & Garden   | 1,100         | 1,600          | 1,700            | 500            | 100            |
| 598        | Fuel & Ice  | 1,600         | 1,600          | 1,700            | 0<br>5 700     | 100<br>3,100   |
| -67        | Finance, Insurance, & Real estate   | 23,800        | 29,500         | 32,600           | 5,700<br>2,500 | 1,200          |
| 60         | Banking   | 5,200         | 7,700<br>5,200 | 8,900            | 2,500          | 800            |
| 61         | Credit Agencies Except Banks  | 4,500         | 5,200          | 6,000            | 700<br>200     | 200            |
| 612        | Savings & Loan  | 1,000         | 1,200          | 1,400            | 200            | 500            |
| 614        | Personal Credit Institutions  | 3,100         | 3,300          | 3,800            | 300            | 0              |
| 62         | Security & Commodity Brokers, & Services                                  | 300           | 600            | 600              |                | 500            |
| 63         | Insurance Carriers  | 7,900         | 9,400          | 9,900            | 1,500          | 300            |
|            | Life Insurance  | 5,500         | 6,200          | 6,500            | 700            | 200            |
| 631        |   |               | 1 200          | 1 3 0 0          | <b>EUU</b>     | 100            |
| 632<br>633 | Accident & Health Insurance Fire, Marine, & Casualty Insurance            | 600<br>1,700  | 1,200<br>1,900 | 1,300<br>2,000   | 600<br>200     | 100<br>100     |

## APPENDIX TABLE 1. AVERAGE NONFARM WAGE AND SALARY EMPLOYMENT IN SOUTH CAROLINA BY MAJOR INDUSTRY DIVISION AND SELECTED INDUSTRY GROUPS, 1965, 1970. AND PROJECTIONS TO 1975—Continued

|              | Industry   |                   | Average Em        |                   | Net C           |                |
|--------------|--|-------------------|-------------------|-------------------|-----------------|----------------|
| SIC          | Name   | 1965              | 1970              | 1975              | 1965-1970       | 1970-1975      |
| 64           | Insurance Agents, Brokers, & Service                       | 2,100             | 2,400             | 2,500             | 300             | 100            |
| 65           | Real Estate  | 2,500             | 3,200             | 3,600             | 700             | 400            |
| 66           | Combined Real Estate, Insurance, Etc.                      | 1,200             | 900               | 1,000             | -300            | 100            |
| 70-89        | Services   | 67,700            | 85,500            | 101,500           | 17,800          | 16,000         |
| 70<br>72     | Hotels & Other Lodging Places Personal Services            | 5,300<br>12,100   | 7,400<br>12,000   | 9,500<br>13,000   | 2,100<br>100    | 2,100<br>1,000 |
| 721          | Dry Cleaning & Laundry                                     | 9,300             | 8,700             | 9,400             | -600            | 700            |
| 722          | Photographic Studios Beauty Shops                          | 300               | 300               | 300               | . 0             | 0              |
| <b>72</b> 3  | Beauty Shops   | 1,000             | 1,400             | 1,500             | 400             | 100            |
| 724<br>726   | Barber Shops Funeral Service & Crematories                 | 300<br>900        | 300<br>1,000      | 300<br>1,100      | 100             | 100            |
| 726<br>73    | Miscellaneous Business Services                            | 5,100             | 9.700             | 14,000            | 100<br>4,600    | 100<br>4,300   |
| 731          | Advertising  | 400               | 400               | 600               | 0               | 200            |
| 732          | Consumer Credit Reporting Agency                           | 300               | 600               | 900               | 300             | 300            |
| 734          | Service to Dwellings                                       | 1,100             | 2,600             | 3,700             | 1,500           | 1,100          |
| 736<br>733,9 | Private Employment Agencies Business Services, NEC         | 300<br>3,100      | 500<br>5,600      | 700<br>8,100      | 200<br>2,500    | 200<br>2,500   |
| 755,5<br>75  | Automobile Services & Repairs                              | 2,700             | 4,000             | 4,600             | 1,300           | 600            |
| 751          | Automobile Rentals   | 400               | 700               | 800               | 300             | 100            |
| 753          | Automobile Repairs   | 1,700             | 2,400             | 2,800             | 700             | 400            |
| 752,4        | Automobile Services, NEC                                   | 600               | 900               | 1,000             | 300             | 100            |
| 76<br>762    | Miscellaneous Repair Services                              | 1,100<br>200      | 1,700<br>300      | 1,900<br>300      | 600<br>100      | 200<br>0       |
| 764,9        | Electrical Repair Shops Repair Services, NEC               | 900               | 1,400             | 1,600             | 500             | 200            |
| 78           | Motion Pictures  | 1,000             | 1,500             | 1,800             | 500             | 300            |
| 79           | Amusement & Recreation                                     | 1,900             | 2,800             | 3,300             | 900             | 500            |
| 80           | Medical & Health Services                                  | 12,000            | 18,000            | 22,500            | 6,000           | 4,500          |
| 801<br>802   | Physicians & Surgeons Dentists & Dental Surgeons           | 2,300<br>300      | 3,500<br>500      | 4,300<br>600      | 1,200<br>200    | 800<br>100     |
| 806          | Hospitals  | 6,300             | 9,400             | 11,700            | 3,100           | 2,300          |
| 809          | Medical Service, NEC                                       | 3,000             | 4,700             | 5,800             | 1,700           | 1,100          |
| 81           | Legal Services   | 1,200             | 1,600             | 2,000             | 400             | 400            |
| 82           | Educational Services Elementary & Secondary Schools        | 5,100<br>2,500    | 7,500<br>5,100    | 8,000<br>5,400    | 2,400<br>2,600  | 500<br>300     |
| 821<br>822   | Colleges, Universities & Professional                      | 2,300             | 3,100             | 3,400             | 2,000           | 300            |
| 022          | Schools  | 700               | 600               | 600               | -100            | 0              |
| 86           | Nonprofit Membership Organizations                         | 16,400            | 13,900            | 14,500            | -2,500          | 600            |
| 866          | Religious Organizations Miscellaneous Services             | 12,000<br>3,700   | 10,200<br>5,400   | 10,600<br>6,400   | —1,800<br>1,700 | 400<br>1,000   |
| 89<br>891    | Engineering & Architectural Services                       | 2,600             | 3,900             | 4,500             | 1,300           | 600            |
| 893          | Accounting, Auditing & Bookkeeping                         | 2,000             | 5,200             | 1,500             | .,              |                |
| •            | Services   | 1,000             | 1,500             | 1,800             | 500             | 300            |
| 91-93        | Government   | 111,200<br>29,300 | 149,000<br>33,900 | 164,200<br>33,100 | 37,800<br>4,600 | 15,200<br>—800 |
| 91<br>9108   | Forestry Services  | 300               | 33,300            | 33,100            | 4,000           | _000<br>0      |
| 9119         | Ordnance & Accessories                                     | 900               | 1,200             | 1,100             | 300             | <b>100</b>     |
| 9137         | Transportation Equipment                                   | 7,700             | 7,300             | 6,700             | -4G0            | -600           |
| 9153         | General Merchandise, Petail                                | 1,400             | 1,900             | 1,800             | 500             | -100           |
| 9158         | Eating & Drinking<br>Amusement & Recreation, Except Motion | 800               | 900               | 900               | 100             | 0              |
| 9179         | Pictures   | 300               | 500               | 400               | 200             | -100           |
| 9180         | Medical & Other Health Services                            | 1,000             | 1,800             | 1,900             | 800             | 100            |
| 9190         | Federal Government, NEC                                    | 16,900            | 20,000            | 20,100            | 3,100           | 100            |
| 92           | State Government   | 24,200<br>200     | 35,200<br>300     | 42,100<br>300     | 11,000<br>100   | 6,900<br>0     |
| 9207<br>9208 | Agricultural Services                                      | 500               | 600               | 600               | 100             | ő              |
| 9216         | Construction   | 5,100             | 6,300             | 7,100             | 1,200           | 800            |
| 9244         | Water Transportation                                       | 400               | 500               | 600               | 100             | 100            |
| 9249         | Electric, Gas & Sanitary Services                          | 500<br>5,800      | 600<br>7,200      | 700<br>8,100      | 100<br>1,400    | 100<br>900     |
| 9280<br>9282 | Medical ServicesEducational Services                       | 5,600<br>7,100    | 14,000            | 18,100            | 6,900           | 4,100          |
| 9290         | State Government, NEC                                      | 4,700             | 5,800             | 6,500             | 1,100           | 700            |
| 93           | Local Government   | 57,700            | 79,900            | 89,000            | 22,300          | 9,000          |
| 9316         | Construction   | 1,700             | 2,300             | 2,900             | 600             | 600            |
| 9349         | Electric, Gas, & Sanitary Services                         | 3,400<br>8,200    | 4,600<br>11,200   | 6,000<br>14,500   | 1,200<br>3,000  | 1,400<br>3,300 |
| 9380<br>9382 | Medical Services<br>Educational Services                   | 37,900            | 53,100            | 54,000            | 15,200          | 900            |
| , 9390       | Local Government, NEC                                      | 6,500             | 8,900             | 11,600            | 2,400           | 2,700          |

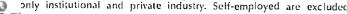
NOTE: Estimates include all full and part-time wage and salary workers who were employed during the pay period including the 12th of the onth. Proprietors, self-employed persons, workers in private households, unpaid family workers and personnel of the armed forces were exided. Industries are classified according to the Standard Industrial Classification Manual, 1967. In some instances, two or more industries are mbined.

## APPENDIX TABLE 2. AVERAGE NONFARM WAGE AND SALARY EMPLOYMENT IN SOUTH CAROLINA BY SELECTED OCCUPATIONS, 1965, 1970, AND PROJECTIONS TO 1975

|  |                    | Employment   |              |                |                   |
|--|--------------------|--------------|--------------|----------------|-------------------|
| Occupation   | Ac                 | tual         | Projected    | Net Ch         | nange             |
|  | 1965               | 1970         | 1975         | 1965-1970      | 1970-1975         |
| TOTAL <sup>1</sup>   | 684,350            | 832,650      | 938,000      | 148,300        | 105,350           |
| PROFESSIONAL, TECHNICAL, & MANAGERIAL                              |                    |              |              |                | ,                 |
| OCCUPATIONS<br>Architect   | 114,700<br>300     | 149,550      | 167,650      | 34,850         | 18,100            |
| Engineer   | 57850              | 400<br>8,100 | 450<br>9,400 | 100<br>2,250   | 50<br>1,300       |
| Electrical Engineer  | 1,100              | 1,550        | 1,750        | 450            | 200               |
| Electrical & Electronic Engineer Plant & Field Electrical Engineer | 850<br>250         | 1,150<br>350 | 1.300        | 300            | 150               |
| Civil & Construction Engineers                                     | 1,300              | 1,650        | 400<br>1,900 | 100<br>350     | 50<br>250         |
| Civil Engineer   | 700                | 950          | 1,050        | 250            | 100               |
| Construction Engineer Purification Plant Operator                  | 300<br>100         | 350<br>100   | 400          | 50             | 50                |
| Sanitary Engineer  | 50                 | 50           | 150<br>50    | 0<br>0         | 50<br>0           |
| Mechanical Engineer  | 950                | 1,250        | 1,500        | 300            | 250               |
| Plant Engineer Chemical Engineer                                   | 200<br>400         | 250<br>750   | 250<br>1,000 | 50             | 0                 |
| Metallurgical Engineer   | 50                 | 100          | 100          | 350<br>50      | 250<br>0          |
| Safety Engineer  | 50                 | 50           | 50           | 0              | Ö                 |
| Manufacturing Engineer<br>Industrial Engineer                      | 100<br>1,450       | 200<br>1,950 | 250<br>2,200 | 100<br>500     | 0                 |
| Engineering Liaison Man  | 0                  | 50           | 50           | 50             | 250<br>0          |
| industrial Engineer  | 700                | 850          | 900          | 150            | 50                |
| Methods Engineer Production Engineer                               | 50<br>0            | 100<br>50    | 100<br>50    | 50<br>50       | 0 .               |
| Production Engineer<br>Production Planner                          | 350                | 450          | 550          | · 100          | 100               |
| Quality Control Engineer Time Study Engineer                       | 200                | 250          | 300          | 50             | 50                |
| Time Study Engineer Nuclear Engineer                               | 100<br>100         | 150<br>100   | 150<br>100   | 50<br><b>0</b> | 0<br>0            |
| Technicians  | 7,300              | 9,550        | 11,150       | 2,250          | 1,600             |
| Draftsman Architectural  | 1,500              | 2,050        | 2,450        | 55 <i>0</i>    | 400               |
| Architectural Electrical & Electronic                              | 300<br>150         | 400<br>200   | 450<br>250   | 100<br>50      | 50<br>50          |
| Civil Draftsman  | 350                | 500          | 600          | 150            | 100               |
| Mechanical   | 350<br>100         | 450<br>100   | 500          | 100            | 50                |
| Commercial   | 250                | 100<br>400   | 100<br>500   | 0<br>150       | 0<br>100          |
| Electrical & Electronic Technician                                 | 850                | 900          | 900          | 50             | 0                 |
| Mechanical Engineering Technician & Designer                       | <i>4</i> 50<br>150 | 550<br>250   | 600<br>350   | 100            | 50                |
| Industrial Engineering Technician                                  | 250                | 300          | 350<br>350   | 100<br>50      | 100<br>50         |
| Surveyor   | 250                | 350          | 400          | 100            | 50                |
| Quality Technician Laboratory Technician                           | 350<br>2,750       | 500<br>3,650 | 600          | 150            | 100               |
| Laboratory Supervisor  | 100                | 3,630<br>150 | 4,300<br>150 | 900<br>50      | 650<br>0          |
| Scientist  | 2,950              | 3,750        | 4,050        | 800            | 300               |
| Mathematical Scientist Engineering Analyst                         | 950<br>300         | 1,250        | 1,400        | 300            | 150               |
| Project Director, Business Data Processing                         | 50                 | 400<br>100   | 450<br>100   | 100<br>50      | 50<br>0           |
| Programmer   | 500                | 600          | 650          | 100            | 50                |
| Statistician Chemist   | 50<br>350          | 100<br>400   | 100          | 50<br>50       | 0                 |
| Forester & Agronomist  | 400                | 450<br>450   | 500<br>450   | 50<br>50       | 100<br>0          |
| Biologist  | 100                | 100          | 100          | 0              | ŏ                 |
| Psychologist, Research Psychologist, Guidance & Counseling         | 50<br>850          | 50<br>1,100  | 50<br>1,200  | 0<br>250       | 100               |
| Economist  | 50                 | 50           | 50           | 0              | 100<br>0          |
| Medicine & Health  | 11,650             | 16,250       | 19,750       | 4,600          | 3,500             |
| Physician & Dentist <sup>2</sup> Pharmacist                        | 450<br>1,050       | 650<br>1,300 | 750<br>1,450 | 200<br>250     | 100<br>150        |
| Nurse, Registered  | 4,750              | 6,750        | 8,300        | 2,000          | 1,550             |
| Dietition  | 300                | 450          | 500          | 150            | 50                |
| Medical Technologist Medical Technician                            | 450<br>350         | 650<br>450   | 800<br>600   | 200<br>100     | 50<br><b>1</b> 50 |
| Medical Laboratory Assistant                                       | 400                | 500          | 650          | 100            | 150               |
| Sanitarian   | 150                | 200          | 250          | 50             | 50                |
| Inhalation Therapist   | 100                | 100          | 150          | 0              | 50                |

Occupational totals do not add to total employment by industry because of a number of exclusions such as student workers and employees of Neighborhood Youth Corps and Headstart projects.

Only institutional and private industry. Self-employed are excluded.





|  |                  | Employmen                 |                  |                 |              |
|--|------------------|---------------------------|------------------|-----------------|--------------|
| Occupation   | Act              | tual                      | Projected        | Net C           | hange        |
|  | 1965             | 1970                      | 1975             | 1965-1970       | 1970-1975    |
| Medical Assistant                                    | 150              | 200                       | 250              | 50              | 50           |
| Dental Assistant                                     | 200              | 300                       | 350              | 100             | 50           |
| Nurse, Licensed Practical                            | 2,250<br>50      | 3,250<br>100              | 4,050            | 1,000<br>50     | 800<br>0     |
| Physical Therapist                                   | 200              | 250                       | 100<br>350       | 50<br>50        | 100          |
| Education  | 28,800           | 42,350                    | 44,850           | 13,550          | 2,500        |
| Faculty Member, College or University                | 1,500            | 2,650                     | 3,300            | 1,150           | 650          |
| School Administrator                                 | 1,300            | 1,850                     | 1,900            | 550             | 50           |
| Teacher, Secondary School Teacher, Elementary School | 10,200<br>10,350 | 14,800<br>15,3 <b>0</b> 0 | 15,300<br>15,800 | 4,600<br>4,950  | 500<br>500   |
| Teacher, Handicapped                                 | 650              | 950                       | 1,000            | 300             | 500          |
| Home Economists & Farin Advisor                      | 650              | 950                       | 1,050            | 300             | 100          |
| Vocational Education Instructor                      | 900              | 1,000                     | 1,100            | 100             | 100          |
| Athletic Coach                                       | 500              | 750                       | 750              | 250             | 0            |
| Tracher, Adult Education                             | 600<br>1,100     | 800<br>1,600              | 830<br>1,650     | 200<br>500      | 50<br>50     |
| Librarian  | 1,100            | 1,550                     | 1,700            | 450             | 150          |
| Lawyer, Judge, & Magistrate                          | 600              | 850                       | 1,050            | 250             | 200          |
| Clergyman  | 4,350            | 3,700                     | 3,850            | <del>-650</del> | 150          |
| Writer & Editor                                      | 600              | 800                       | 900              | 200             | 100          |
| Commercial Artist                                    | 150<br>250       | 200<br>300                | 250<br>400       | 50<br>50        | 50<br>100    |
| Designer   | 200              | 200                       | 250              | 0               | 50           |
| Art Teacher  | 200              | 300                       | 300              | 100             | 0            |
| Entertainment & Recreation                           |                  | 3,150                     | 3,400            | 150             | 250          |
| Musician   | 2,350            | 2,300                     | 2,350            | 50              | 50           |
| Athletic Instructor                                  | 100              | 200                       | 200              | 100             | 0            |
| Announcer, Broadcasting                              | 350<br>47,300    | 400<br>58,100             | 500              | 50              | 100          |
| Managerial and Administration  Accountant & Auditor  | 2,550            | 3,250                     | 65,850<br>3,750  | 10,800<br>700   | 7,750<br>500 |
| Estimator  | 500              | 650                       | 800              | 150             | 150          |
| Treasurer  | £50              | 550                       | 600              | 0               | 50           |
| Purchasing Agent & Buyer                             | 1,300            | 1,650                     | 1,900            | 350             | 250          |
| Sales ManagerPublic Relations Man                    | 1,350<br>400     | 1,600<br>450              | 1,800<br>500     | 250<br>50       | 200<br>50    |
| Manager, Personnel                                   | 400              | 500                       | 550              | 100             | 50<br>50     |
| Employment Manager                                   | 400              | 450                       | 500              | 50              | 50           |
| Training Supervisor                                  | 300              | 350                       | 350              | 50              | 0            |
| Employment Interviewer                               | 350<br>800       | 550<br>1,000              | 650<br>1,150     | 200             | 100          |
| Investigator & Inspector, Fublic Service             | 4,550            | 5,400                     | 6,050            | 200<br>850      | 150<br>650   |
| Superintendent, Construction                         | 1,400            | 1,600                     | 2,000            | 200             | 400          |
| Construction Inspector                               | 300              | 400                       | 450              | 100             | 50           |
| Plant Manager  | 2,000            | 2,450                     | 2,800            | 450             | 350          |
| Production Foreman                                   | 2,850            | 3,350                     | 3,750            | 500             | 400          |
| Manager & Official                                   | 1,150            | 1,450                     | 1,750            | 300             | 300          |
| Retail & Wholesale Manager & Official                | 6,500            | 7,800                     | 8,500            | 1,300           | 700          |
| Finance, Insurance, & Real Estate Executive          | 4,400            | 5,350                     | 6,050            | 900             | 700          |
| Service Industry Executive                           | 3,750<br>850     | 4,900<br>1,050            | 5,500<br>1,100   | 1,150<br>200    | 650<br>50    |
| Social Worker and Supervisor                         | 1,500            | 1,800                     | 2,050            | 300             | 250          |
| CLERICAL & SALES OCCUPATIONS                         | 139,050          | 170,000                   | 190,850          | 30,950          | 20,850       |
| Clerical Occupations                                 | 89,200           | 111,250                   | 126,000          | 22,050          | 14,750       |
| Secretary & Stenographer                             | 15,950           | 19,550<br>650             | 22,250           | 3,600           | 2,700        |
| Typist Personnel Clerk                               | 550<br>690       | 750                       | 700<br>850       | 100<br>150      | 50<br>100    |
| File Clerk   | 750              | 900                       | 1,000            | 150             | 100          |
| Duplicating Machine Operator                         | 200              | . 200                     | 250              | 0               | 50           |
| Clerk-Typist   | 6,400            | 8,050                     | 9,100            | 1,650           | 1,050        |
| General Clerk  | 4,000            | 5,000<br>9,600            | 5,600<br>11,100  | 1,000<br>1,800  | 600<br>1,500 |
| Bookkeeper<br>Cashier                                | 7,800<br>3,200   | 4,150                     | 4,600            | 950             | 450          |
| Teller   | 1,950            | 2,750                     | 3,200            | 800             | 450          |
| Computer Operator                                    | 550              | 750                       | 800              | 200             | 50           |
| Keypunch Operator                                    | 1,400            | 1,750                     | 1,900            | 350             | 150          |
| Payroll Clerk  | 1,100<br>9,300   | 1,300<br>11,300           | 1,500<br>12,900  | 200<br>2,000    | 200<br>1,600 |
| Accounting Clerk                                     | 1,900            | 2,450                     | 2,750            | 550             | 300          |



| The state of the s |                  | Employment       |                   |                 |                 |
|--|------------------|------------------|-------------------|-----------------|-----------------|
| Occupation   | Act              | tual             | Projected         | Net C           | hange           |
|  | 1965             | 1970             | 1975              | 1965-1970       | 1970-1975       |
| Production Clerk   | 1,700            | 2,100            | 2,300             | 400             | 200             |
| Shipping & Receiving Clerk   | 4,850            | 5,800            | 6,700             | 950             | 900             |
| Stock Clerk State  | 7,400<br>3,100   | 9,100<br>3,650   | 10,100<br>3,700   | 1,700<br>550    | 1,000<br>50     |
| Mail Carrier   | 3,050            | 3,600            | 3,650             | 550<br>550      | 50<br>50        |
| Telephone Operator   | 3,050            | 4,300            | 5,350             | 1,250           | 1,050           |
| Receptionist & Information Clerk   | 1,550            | 2,050            | 2,450             | 500             | 400             |
| Collector  | 750<br>850       | 900<br>1,000     | 1,100<br>1,050    | 150<br>150      | 200<br>50       |
| Hotel Clerk  | 500              | 750              | 950               | 250             | 200             |
| Salesman, Services   | 5,450            | 6,400            | 6,950             | 950             | 550             |
| Salesman, Insurance & Real Estate  | 4,250            | 4,750            | 5,100             | 500             | 350             |
| Salesman, Business Services  | 300<br>27,950    | 400<br>33,050    | 450<br>36,700     | 100<br>5,100    | 50<br>3,650     |
| Salesman, Food, Beverages, & Tobacco   | 1,600            | 1,550            | 1,650             | 50              | 100             |
| Salesman, Textile Products & Apparel   | 6,700            | 8,050            | 8,850             | 1,350           | 800             |
| Salesman, Chemicals and Drugs  | 1,400            | 1,700            | 1,950             | 300             | 250             |
| Salesman, House Furnishings  | 1,600<br>?,850   | 1,700<br>3,300   | 2,200<br>3,900    | 100<br>450      | 500<br>600      |
| Salesman, Industrial Equipment & Supplies Salesman, Transportation Equipment   | 2,700            | 3,050            | 3,250             | 350             | 200             |
| Salesman, General  | 8,400            | 10,200           | 11,230            | 1,800           | 1,050           |
| Merchandising  | 16,450           | 19,250           | 21,1              | 2,800           | 1,900           |
| Salesperson, Food Routeman   | 2,500<br>6,550   | 3,200<br>7,150   | 3,500<br>7,500    | 700<br>600      | 300<br>350      |
| Manager, Department Store  | 1,850            | 2,300            | 2,600             | 450             | 300             |
| Cashier-Checker  | 2,750            | 3,500            | 3,850             | 750             | 350             |
| Delivery Boy   | 1,000            | 1,150            | 1,450             | 150             | 300             |
| SERVICE OCCUPATIONS Food Services  | 76,450<br>23,300 | 99.650<br>32,800 | 114,750<br>36,700 | 23,200<br>9,500 | 15,100<br>3,900 |
| Food Services Waiter & Waitress  | 8,500            | 12,200           | 13,800            | 3,700           | 1,600           |
| Cook   | 6,100            | 8,700            | 9,650             | 2,600           | 950             |
| Meat Cutter  | 1,450            | 1,800            | 2,000             | 350             | 200             |
| Kitchen Helper Food Assembler  | 5,750<br>850     | 8,150<br>1,050   | 9,100<br>1,200    | 2,400<br>200    | 950<br>150      |
| Lodging Services   | 4,100            | 5,800            | 7,250             | 1,700           | 1,450           |
| Housekeeper  | 250              | 350              | 450               | 100             | 100             |
| Maid Barbering, Cosmetology, & Related Services  | 3,450<br>1,600   | 4,900<br>2,000   | 6,100<br>2,130    | 1,450<br>400    | 1,200<br>150    |
| Barber Barber  | 300              | 300              | 350               | 0               | 50              |
| Hair Stylist & Cosmetologist   | 950              | 1,350            | 1,500             | 400             | 150             |
| Embalmer Amusement & Recreation Services   | 250<br>700       | 250<br>1,000     | 300<br>1,150      | 0<br>300        | 50<br>150       |
| Pin Boy  | 50               | 1,000            | 1,130             | 50              | 130             |
| Recreation Facility Attendant  | 400              | 600              | 700               | 200             | 100             |
| Ticker Taker & Usher   | 200              | 350              | 400               | 150             | 50              |
| Personal Services  | 8,850<br>150     | 12,500<br>200    | 15,050<br>300     | 3,650<br>50     | 2,550<br>100    |
| Nurse's Aid  | 5,050            | 7,100            | 8,750             | 2,050           | 1,650           |
| Orderly  | 850              | 1,250            | 1,550             | 400             | 300             |
| Tray Line Worker   | 1,450            | 2,100            | 2,250             | 650             | 150             |
| Child Care Attendant   | 750<br>9,750     | 1,150<br>9,600   | 1,350<br>10,600   | 400<br>150      | 200<br>1,000    |
| Apparel & Furnishing Services Laundry Laborer  | 800              | 850              | 1,000             | 50              | 150             |
| Dry Cleaner  | 450              | 450              | 450               | 0               | ·. 0            |
| Presser, Apparel   | 5,800            | 5,700            | 6,250             | -100<br>-50     | 550<br>50       |
| Checker, Dry Cleaning  | 600<br>800       | 550<br>750       | 600<br>850        | -50<br>-50      | 100             |
| Protective Services  | 9,100            | 12,550           | 15,850            | 3,450           | 3,300           |
| Guard & Watchman   | 4,400            | 6,200            | 7,900             | 1,800           | 1,700           |
| Fireman  | 850<br>2.100     | 1,200            | 1,450<br>3,500    | 350<br>700      | 250<br>700      |
| Policeman Deputy Sheriff & Bailiff   | 2,100<br>300     | 2,800<br>450     | 550<br>550        | 700<br>150      | 100             |
| Building Services  | 19,150           | 23,400           | 26,050            | 4,250           | 2,650           |
| Janitor & Porter   | 18,750           | 22,850           | 25,400            | 4,100           | 2,550           |
| AGRICULTURAL SERVICE OCCUPATIONS   | 3,050            | 3,850            | 4,350             | 800<br>550      | 500<br>300      |
| Groundskeeper  | 1,800<br>350     | 2,350<br>450     | 2,650<br>450      | 550<br>100      | 300<br>0        |
| OCESSING OCCUPATIONS   | 33,400           | 41,350           | 47,350            | 7,950           | 6,000           |
| 1etal Processing   | 650              | 1,000            | 1,250             | 350             | 250             |
| ided by ERIC   |                  |                  |                   |                 |                 |

| _  |              | Employmen    | t              |              | . *                 |
|--|--------------|--------------|----------------|--------------|---------------------|
| Occupation   |              | tual         | Projected      | Net C        | Change              |
|  | 1965         | 1970         | 1975           | 1965-1970    | 1970-1975           |
| Electro-Plater                                       | 50           | 100          | 100            | 50           | 0                   |
| Laborer, Electroplating                              | 50           | 100          | 100            | 50           | _0                  |
| Dip Plater Metal Cleaner                             | 100<br>150   | 100<br>200   | 150            | 0            | 50                  |
| Heat Treater   | 100          | 150          | 250<br>200     | 50<br>50     | 50<br>50            |
| Laborer, Metal Processing                            | 150          | 200          | 300            | 50<br>50     | 100                 |
| Foundry Processing                                   | 950          | 1,250        | 1,450          | 300          | 200                 |
| Foreman, Foundry                                     | 100          | 100          | 100            | 0            | 0                   |
| Die Casting Machine Operator                         | 0            | 50           | 50             | 50           | 0                   |
| Laborer, Die Casting Molder                          |              | 350          | 400            | 100          | 50                  |
| Molder<br>Laborer, Foundry                           |              | 300<br>300   | 300<br>350     | 0<br>100     | 0<br>50             |
| Food Processing                                      | 4,900        | 6,050        | 6,400          | 1,150        | 350                 |
| Foreman, Food Processing                             | 400          | 400          | 400            | 0            | 0                   |
| Butcher, All-Round                                   | 200          | 200          | 200            | 0            | 0                   |
| Baker  | 100          | 100          | 150            | 0            | 50                  |
| Laborer, Food Processing                             | 3,850        | 4,800        | 5,100          | 950          | 300                 |
| Paper Processing Foreman, Paper Processing           | 2,250<br>100 | 2,650<br>150 | 3,050<br>150   | 400<br>50    | 400<br>0            |
| Combiner Operator                                    | 200          | 250          | 300            | 50<br>50     | . 50                |
| Pulp & Paper Tester                                  | 50           | 100          | 100            | 50           | 0                   |
| Treating Plant Operator                              | 150          | 200          | 250            | . 50         | 50                  |
| Laborer, Paper Processing                            | 1,200        | 1,350        | 1,550          | 150          | 200                 |
| Asphalt Processing Occupations                       |              | 150          | 150            | 50           | 0                   |
| Chemical Processing                                  | 8,300        | 11,750       | 14,400         | 3,450        | 2,650               |
| Foreman, Chemicals                                   | 300<br>300   | 450<br>400   | 600            | 150          | 150                 |
| Chemical Mixer                                       | 1,300        | 1,700        | 400<br>1,850,  | 100<br>400   | 0<br>150            |
| Molding Machine Operator                             | 500          | 700          | 850            | 200          | 150                 |
| Spinner Tender                                       | 250          | 400          | 550            | 150          | 150                 |
| Chemical Machine Operator                            | 1,750        | 2,750        | 3,550          | 1,000        | 800                 |
| Chemical Machine Tenger                              | 2,050        | 2,850        | 3,500          | 800          | 650                 |
| Wood Processing                                      |              | 300          | 300            | . 0          | 0                   |
| Kiln Operator — Wood Treater Tender                  | 50<br>100    | 50<br>100    | 50<br>100      | 0<br>0       | 0                   |
| Gluer Tender   | 100          | 50           | 100<br>50      | . 50         | 0                   |
| Stone, Clay, & Glass Processing                      | 3,200        | 3,950        | 5,400          | . 700        | 1,450               |
| Foreman  | 450          | 650          | 850            | 200          | 200                 |
| Miller Tender  | 200          | 200          | 250            | 0            | 50                  |
| Batch & Furnace Man                                  | 100          | 150          | 200            | 50           | 50                  |
| Kiln Burner Laborer, Baking, Drying; & Heat Treating |              | 100<br>150   | 150            | 0            | 50                  |
| Laborer, Forming                                     | 150<br>950   | 150<br>1,250 | 200<br>1,700   | 0<br>300,    | 50<br>• 450         |
| Laborer, Concrete Plant                              | 850          | 1,000        | 1,400          | 150.         | 400                 |
| Textile Processing                                   | 12,750       | 14,350       | 14,950         | 1,600        | 600                 |
| Foreman  | 750          | 850          | 900            | 100          | 50                  |
| Slasher Tender                                       | 1,600 .      | 1,700        | 1,700          | 100          | Ō                   |
| Cloth Treater Tender                                 | 2,600        | 3,150        | 3,400          | 550          | 250                 |
| Back Tendor<br>Calender Operator                     | 1,600<br>350 | 1,600<br>400 | 1,600          | 0            | 0                   |
| Clearing Machine Operator                            | 750          | 750          | 400<br>750     | 50<br>0      | 0                   |
| Cloth Folder, Hand                                   | 950          | 850          | 900            | <b>—</b> 100 | 50                  |
| Cloth Processing Tender                              | 1,300.       | 1,600        | 1,700          | 300          | 100                 |
| Impregnating Tank Operator                           | 250          | 300          | 400            | 50           | 100                 |
| ACHINE TRADES OCCUPATIONS                            | 127,000      | 141,250      | 149,200        | 14,250       | 7,950               |
| Metal Machining                                      |              | 10,050       | 12,250         | 2,950        | 2,200               |
| Foreman<br>Machinist                                 | 300          | 450<br>2 600 | 550            | 150          | 100                 |
| Tool & Die Maker                                     | 2,200<br>550 | 2,600<br>80) | 2,900<br>1,000 | 400<br>250   | 300<br>200          |
| Tool Maker, Bench                                    | 100          | 150          | 200            | 50<br>50     |                     |
| Grinder Operator                                     | 400          | 700          | 900            | 300          | 200                 |
| . Screw Machine Operator                             | 450          | 650          | 800            | 200          | 150                 |
| Drill Press Operator                                 | 250          | 500          | <b>60</b> 0    | 250          | 100                 |
| Inspector, Metal Machinery                           | 250          | 550<br>2 500 | 850            | 300          | 300                 |
| Production Machine Operator                          | 1,850        | 2,500        | 2,950<br>6 100 | 650          | 450                 |
| Metalworking Foreman                                 | 2,800<br>50  | 4,800<br>100 | 6,100<br>150   | 2,000        | 1,300<br>5 <b>0</b> |
| Punch Press Operator                                 | 300          | 500          | 650            | 50<br>200    | 150                 |
| Set-Up Man   | 750          | 1,050        | 1,400          | 300          | 350                 |



|  | .              | Employment           |                      |   |             |
|--|----------------|----------------------|----------------------|---|-------------|
| Occupation   | Act            | ual                  | Projected            | Net C   | hange       |
|  | 1065           | 1970                 | 1975                 | 1965-1970                                     | 1970-1975   |
| Forging Press Operator   | 50             | 10 <b>0</b>          | 150                  | 50  | 50          |
| Punch Press Tender<br>Metal Fabricator   | 150            | 250                  | 350                  | 100   | 100         |
| Metal Fabricator  Machine Operator   | 150<br>400     | 300<br>1,200         | 400<br>1,350         | 150<br>80 <b>0</b>                            | 100<br>150  |
| Mechanics & Machinery Repair   | 21,150         | 25,950               | 28,850               | 4,800   | 2,900       |
| Mechanics & Machinery Repair Foreman   | 1,400          | 1,800                | 2,050                | 400   | 250         |
| Auto Mechanic Auto Mechanic Helper Aircraft & Engine Mechanic                    | 6,900          | 8,150                | 8,950                | 1,250   | 800         |
| Aircraft & Engine Mechanic   | 1,050<br>150   | 1,350<br>250         | 1,55 <b>0</b><br>250 | 300<br>100                                    | 200<br>0    |
| Carman   | 75 <b>0</b>    | 650                  | 600                  | -100  | -50         |
| Carman<br>Farm Equipment Mechanic  | 350            | 400                  | 400                  | 50  | 0           |
| Overhauler, Machinery Textile Machine Mechanic                                   | 1,050<br>200   | 1,050<br>200         | 1,000<br>200         | 0   | -50<br>0    |
| Refrigeration Mechanic   | 1,200          | 1,400                | 1,600                | 200   | 200         |
| Maintenance Mechanic   | 4,850          | 6,150                | 7,200                | 1,300   | 1,050       |
| Maintenance Mechanic Helper  | 750<br>650     | 1,050                | 1,250                | 300   | 200         |
| Sewing Machine Repairman Paperworking  | 650<br>1,350   | 850<br>1,800         | 900<br>2,200         | 200<br>450                                    | 50<br>400   |
| Paper Cutting & Winding Operator   | 100            | 100                  | 150                  | 430   | 50          |
| Paper Cutting & Winding Tender   | 200            | 250                  | 300                  | 50  | . 50        |
| raper rolder Operator  | 50<br>150      | 100<br>200           | 100<br>250           | 50  | 0           |
| Bindery Worker Bag Machine Operator  | 500            | 650                  | 750<br>750           | 50<br>150                                     | 50<br>100   |
| Printing   | 2,750          | 3,250                | 3,600                | 500   | 350         |
| Foreman  | 150            | 200                  | 250                  | 50  | 50          |
| Printing Press Operator  | 600<br>750     | 800<br>850           | 1,000                | 200   | 200         |
| Cloth Printing Machine Operator Cloth Printing Helper                            | . 500          | 450                  | 900<br>450           | 100<br>50                                     | 50<br>0     |
| Wood Machining   | 7,800          | 7,450                | 7,700                | 350   | 250         |
| Foreman  | 550            | 550                  | 550                  | 0   | 0           |
| Cabinetmaker Saw Operator  | 350<br>4,350   | 350<br>4,150         | 450 °<br>4,150       | $^{0}$ $-200$                                 | 100<br>0    |
| Woodworking-Machine Operator   | 850            | 800                  | 900                  | 50<br>50                                      | 100         |
| Laborer, Wood Machining  | 550            | 550                  | 550                  | .0  | 0           |
| Stone, Clay, & Glass Machining   | 100            | 100                  | 150                  | 0   | 50          |
| Polisher, Stone  | 0<br>0         | 50<br>0              | 50<br>0              | · 50<br>0                                     | 0           |
| Stone Cutter, Machine  | 0              | 0                    | . 0                  | . 0   | ő           |
| Textiles   | 83,900         | 87,750               | 88,300               | 3,8 <b>5</b> 0 ·                              | 550         |
| Foreman Card Grinder   | 3,250<br>450   | 3,40 <b>0</b><br>450 | 3,350<br>450         | 150<br>0                                      | -50         |
| Card Grinder Carding, Combing, & Drawing Tender                                  | 7,050          | 7,250                | 7,250                | 200   | 0<br>)      |
| Machine Fixer  | 1,250          | 1,300                | 1,300                | 50  | Ó           |
| Twister, Winder, & Warper  | 6,550          | 7,200                | 7,600                | 650   | 400         |
| Frame Spinner  | 7,600<br>6,000 | 7,450<br>5,900       | 7,300<br>5,650       | -150<br>-100                                  | 150<br>250  |
| Loom: Changer  | 700            | 70 <b>0</b>          | . 650                | 0   | -50         |
| Weaver<br>Draw-In & Smash Hand   | 11,150         | 11,300               | 10,950               | - 150   | -350        |
|  | 2,300<br>4,050 | 2,300<br>3,900       | 2,250<br>3,700       | 0<br>-150                                     | -50 -200    |
| Battery Filler Knitting Machine Operator   | 750            | 1,250                | 1,400                | - 500   | 150         |
| Section Man  | 3,050          | 3,250                | 3,300                | 200   | 50          |
| Cloth & Yarn Tester  | 350<br>2,250   | 300<br>2,25 <b>0</b> | 300<br>2,150         | 50<br>0`                                      | 0<br>-100   |
| Cloth Grader   | 2,550          | 2,550                | 2,130                | 0   | 50          |
| Cloth & Yarn Winder  | 3,950          | 4,350                | 4,500                | 400   | 150         |
| Doffer & Spooler   | 10,250         | 10,250               | 10,050               | 0   | -200        |
| Creeler<br>Machine Cleaner & Oiler   | 2.500          | 2,200<br>2,550       | 2,350<br>2,550       | 350<br>50                                     | 150<br>0    |
| BENCH WORK OCCUPATIONS   | 50,700         | 59,050               | 67,850               | 8,350   | 8,800       |
| Fabrication, Assembly, & Repair of Metal Products                                | 2,450          | 4,100                | 5,100                | 1,650   | 1,000       |
| Foreman  | 0<br>350       | 0<br>550             | 0<br>700             | $\begin{smallmatrix} 0\\200\end{smallmatrix}$ | ` 0<br>150  |
| Grinder & Polisher Laborers, Grinding & Polishing Laborers, Grinding & Polishing | 50<br>50       | 100                  | 150                  | 50  | . 50        |
| Inspector, Metal Assembly  | 100            | 200                  | 300                  | 100   | 100         |
| Precision Assembler, Bench<br>Assembler, Metal Products                          | 50<br>1,350    | 300                  | 300                  | 250<br>800                                    | 0<br>550    |
| Fabrication & Repair of Medical & Scientific Products &                          | 1,200          | 2,150                | 2,700                | 000   | 5 <b>50</b> |
| Photographic & Optical Goods   | 1,650          | 2,000                | 2,400                | 350   | 400         |
| 26   | •              | •                    | •                    |   |             |

|  |              | Employment   |                  |                  | ang at the same and the second of the second |
|--|--------------|--------------|------------------|------------------|--|
| Occupation   | Acti         | ual          | Projected        | Net Ch           | nange  |
|  | 1965         | 1970         | 1975             |                  | 1970-1975  |
| Foreman  | 0            | 0            | 0                | 0                | 0  |
| Instrument Mechanic                                    | 400          | 550          | 650              | 150              | 100  |
| Assembler, Instrument                                  | 50           | 100          | 150              | 50               | 50   |
| Lens Polisher & Grinder                                | 100          | 100          | 100              | 0                | 0  |
| Dental Laboratory Technician                           | 300          | 450          | 550              | 150              | 100  |
| Optician   | 100          | 100<br>150   | 100<br>150       | 0                | 0  |
| Assembler, Photographic                                | 200<br>100   | 150          | 150              | 50<br>50         | 0  |
| Assembly & Repair of Electrical Equipment              | 4,250        | 6,000        | 6,950            | 1, <b>7</b> 50 · | •  |
| Foreman  | 100          | 150          | 150              | 50               | 0  |
| Radio & Television Repairman                           | 250          | 350          | 250              | 100              | -100   |
| Electric Motor Repairman                               | 150          | 250          | 250              | 100              | 0  |
| Motor Winder   | 150          | 200          | 200              | 50               | 0  |
| Assembler, Electrical Appliance                        | 550          | 900          | 1,100            | 350              | 200  |
| Inspector, Electrical Equipment                        | 300<br>250   | 400<br>350   | 450<br>400       | 100<br>100       | 50<br>50   |
| Assembler, Electronic Assembler, Components            | 230          | 50           | 50               | 50               | 0  |
| Assembler, Components  Assembler, Electrical Equipment | 650          | 900          | 1,100            | 250              | 200  |
| Fabrication & Repair of Products Made from Assorted    | 050          | 300          | ,,,,,,           | , 250            | 200  |
| Materials  | 1,350        | 1,750        | 2,250            | 400              | 500  |
| Foreman  | 100          | 100          | 100              | 0                | 0  |
| Musical Instrument Assembler                           | 100          | 150          | 200              | 50               | 50   |
| Finisher, Hand   | 100          | 100          | 150              | 0                | 50   |
| Assembler, Sports Equipment                            | 300          | 400          | 550<br>150       | 100              | 150  |
| Assembler, Furniture Assembler, Small Products         | 100<br>350   | 150<br>500   | 150<br>600       | 50<br>150        | 0<br>100   |
| Painting & Decorating                                  | 800          | 1,050        | 1,300            | 250              | 250  |
| Spray Painter  | 400          | 550          | 700              | 150              | 150  |
| Spray Paint Helper                                     | 200          | 250          | 300              | 50               | 50   |
| Fabrication & Repair of Synthetics, Rubber, & Plastics | 450          | 800          | 850              | 350              | 50   |
| Foreman  | 0            | 50           | 50               | 50               | 0  |
| Tire Repairer  | 100          | 100          | 100              | 0                | 0  |
| Assembler, Plastic Products                            | 150          | 350          | 350              | 200              | . 0  |
| Fabrication & Repair of Wood Products                  | 1,600        | 1,500        | 1,700            | -100             | 200  |
| Sander   | 300          | 300          | 350              | 0                | 50   |
| Assembler, Wood Products Laborer, Wood Products        | 150<br>150   | 150<br>150   | 150<br>150       | 0                | 0<br>0   |
| Furniture Assembler                                    | 450          | 450          | 500              | 0                | 50   |
| Woodworking-Shop Hand                                  | 350          | 250          | 300              | 100              | 150  |
| Fabrication & Repair of Stone, Clay, & Glass Products  | 450          |              | 700              | 100              | 150  |
| Pottery Finisher                                       | 100          | 150          | 200              | 50               | 50   |
| Inspector, Glass                                       | 50           | 50           | 100              | 0                | 50   |
| End Finder, Asbestos                                   | 100          | 150          | 200              | 50               | 50   |
| Fabrication & Repair of Textile & Related Products     | 37,750       | 41,350       | 46,600           | 3,600            | 5,250  |
| Foreman  | 1.000        | 1,050        | 1,200            | 50               | 150  |
| Upholsterer, Production                                | 450<br>450   | 750<br>500   | 900<br>550       | 300<br>50        | 150<br>50  |
| Bundler & Draper                                       | 1,250        | 1,400        | 1,550            | 150              | 150  |
| Hand Sewer   | 850          | 1,250        | 1,350            | 400              | 100  |
| Seamstress   | 1,000        | 1,100        | 1,250            | 100              | 150  |
| Sewing Machine Operator                                | 26,500       | 28,100       | 31,600           | 1,600            | 3,500  |
| Garment Inspector                                      | 1,950        | 2,200        | 2,400            | 250              | 200  |
| Folder & Turner  | 1,100        | 1,450        | 1,750            | 350              | 300  |
| STRUCTURAL WORK OCCUPATIONS                            | 62,150       | 75,450       | 92,850           | 13,300           | 17,400   |
| Structural Metal Fabricating                           | 6,500<br>200 | 8,600<br>250 | 10,400<br>350    | , 2,100<br>50    | 1,800<br>100   |
| Structural Steel Worker                                | 500          | 550<br>550   | 700              | 50               | 150  |
| Sheet Metal Worker                                     | 2,050        | 2,850        | 3,550            | 800              | 700  |
| Boilermaker  | 250          | 300          | <sup>′</sup> 300 | 50               | 0  |
| Rigger   | 300          | 300          | 300              | 0                | 0  |
| Assembler, Transportation Equipment                    | 250          | 400          | 400              | 150              | 0  |
| Framer, Mobile Home                                    | 600          | 850          | 1,050            | 250              | 200  |
| Autmobile-Body Repairman                               | 1,000        | 1,150        | 1,250            | 150<br>100       | 100<br>150   |
| Fabricator-Assembler, Metal Products                   | 150<br>3,550 | 250<br>4,850 | 400<br>6,200     | 1,300            | 1,350  |
| Welding & Flame Cutting                                | 3,330<br>50  | 4,630<br>50  | 50               | 1,300            | 1,330  |
| Welder, Spot   | 150          | 200          | 250              | 50               | 50   |
| Welder, Arc  | 250          | 400          | 500              | 150              | 100  |
| Welder, Combination                                    | 2,250        | 3,100        | 3,950            | 850              | 850  |
|  |              |              |                  |                  |  |



|   |                  | Employment      |                 |              |                |
|---|------------------|-----------------|-----------------|--------------|----------------|
| Occupation  | Act              | ual             | Projected .     | Net C        | hange          |
|   | 1965             | 1970            | 1975            | 1965-1970    | 1970-1975      |
| Welder-Fitter   | 500              | 500             | 700             | 0            | 200            |
| Welder Helper   | 150              | 250             | 350             | 100          | 100            |
| Electrical Assembling, Installing, & Repairing Foreman  | 9,900<br>750     | 13,050<br>1,050 | 15,550<br>1,250 | 3.150<br>300 | 2,500          |
| Lineman, Power  | 600              | 1,000           | 1,230           | 400          | 200<br>200     |
|   | 800              | 1,150           | 1,400           | 350          | 250            |
| Telephone Repairman<br>Lineman, Telephone   | 600              | 900             | 1,050           | 300          | 150            |
| Liectrician   | 4,000            | 4,750           | 5,600           | 750          | 850            |
| Household-Appliance Repairman<br>Electrician Helper   | 550<br>950       | 650<br>1,250    | 650<br>1,600    | 100<br>300   | 0<br>350       |
| Painting, Plastering, Waterproofing, & Cementing  | 4,050            | 4,700           | 5,950           | 650          | 1,250          |
| e   | 100              | 100             | 150             | 0            | 50             |
| Painter Painter Helper  | 2,250            | 2,550           | 3,200           | 300          | 650            |
| Painter Helper  | 350<br>250       | 350<br>300      | 450<br>450      | 0<br>50      | 150<br>150     |
| Cement Mason  | 650              | 750             | 950             | 100          | 200            |
| Cement Mason Helper   | 50               | 100             | 100             | 50           | 0.0            |
| Excavating, Grading, & Paving   | 5,600            | 7,000           | 8,200           | 1,400        | 1,200          |
| Foreman   | 200<br>900       | 250             | 300             | 50           | 50             |
| Excavating Equipment Operators  Road Laborer  | 1,750            | 1,100<br>2,200  | 1,350<br>2,500  | 200<br>450   | 250<br>250     |
| Motor-Grader Operator   | 250              | 300             | 400             | 50           | 100            |
| Pipe Layer  | 200              | 250             | 300             | 50           | 50             |
| Operating Engineer  | 1,900            | 2,400           | 2,800           | 500          | 400            |
| Other Construction  | 28,750<br>1,150  | 32,450<br>1,300 | 41,100          | 3,700        | 8,650          |
| Carpenter   | 5,850            | 6,050           | 1,600<br>7,700  | 150<br>200   | . 300<br>1,650 |
| Carpenter, Rough Laborer, Carpentry   | 900              | 900             | 1,150           | 0            | 250            |
| Laborer, Carpentry  | 2,100            | 2,100           | 2,750           | 0            | 650            |
| Bricklayer Bricklayer Helper Bricklayer Helper Bricklayer Helper Bricklayer Helper Bricklayer Helper Bricklayer | 1,500<br>1,200   | 1,750<br>1,400  | 2,300<br>1,900  | 250<br>200   | 550            |
| Pipefitter & Plumber  | 3,650            | 4,350           | 5,350           | 700          | 500<br>1,000   |
| Pipefitter & Plumber<br>Pipefitter & Plumber Helper   | 800              | 1,000           | 1,300           | 200          | . 300          |
| Insulation Worker   | 550              | 650             | 850             | 100          | 200            |
| Roofer  | 550<br>1,100     | 650<br>1,200    | 850<br>1.550    | 100          | 200            |
| Erector Construction Worker   | 7,500            | 8,850           | 1,550<br>11,050 | 100<br>1,350 | 350<br>2,200   |
| Structural Maintenance  | 3,850            | 4,850           | 5,500           | 1,000        | 650            |
| Foreman   | 1,200            | 1,500           | 1,750           | 300          | 250            |
| Maintenance Man, Factory  | 550              | 650             | 750             | 100          | 100            |
| Maintenance Man, Building   | 1,300<br>650     | 1,650<br>850    | 1,900<br>900    | 350<br>200   | 250<br>50      |
| MISCELLANEOUS OCCUPATIONS   | 77,850           | 92,600          | 103,200         | 14,750       | 10,600         |
| Motor Freight   | 16,850           | 20,100          | 23,650          | 3,250        | 3,550          |
| Foreman   | 400              | 450             | 550             | 50           | 100            |
| Tank Truck Driver Tractor-Trailer Truck Driver  | 650              | 800<br>5,600    | 850<br>6,550    | 150<br>950   | 50<br>950      |
| Truck Driver, Heavy   | . 4,650<br>5,300 | 6,100           | 7,000           | 800          | 900            |
| Distributor Truck Driver  | 2,550            | 3,000           | 3,300           | 450          | 300            |
| Van & Garbage Truck Driver  | 1,500            | 2,000           | 2,550           | 500-         | 550            |
| Transportation Occupations  | 11,650           | 14,900          | 15,650          | 3,250        | 750            |
| Foreman<br>Brakeman, Yard   | 750<br>600       | 900<br>550      | 1,050<br>500    | 150<br>50    | 150<br>50      |
| Bus & Taxicab Driver  | 4,350            | 5,900           | 6,050           | 1,550        | . 150          |
| Automobile Service Station Attendant  | 2,600            | 3,400           | 3,550           | 800          | 150            |
| Tire Repairman<br>Cleaner   | 550              | 700             | 800             | 150          | 100            |
| Cleaner<br>Packaging & Materials Handling   | 800<br>41,150    | 1,000<br>48,300 | 1,100<br>53,850 | 200<br>7,150 | 100<br>5,550   |
| Foreman   | 1,200            | 1,350           | 1,550           | 150          | 200            |
| Packager, Machine   | 1,450            | 1,650           | 1,850           | 200          | 200            |
| Packager, Hand Crane & Elevator Operator Industrial Truck Operator  | 8,450            | 10,200          | 11,450          | 1,750        | 1,250          |
| Industrial Truck Operator   | ' 850<br>2,750   | 1,050<br>3,100  | 1,200<br>3,400  | 200<br>350   | 150<br>300     |
| Laborer, Stores   | 9,400            | 11,150          | 12,500          | 1,750        | 1,350          |
| Tractor Operator  | 700              | 650             | 650             | -50          | 0              |
| Baling Machine Operator  Material Handler   | 650<br>15,150    | 750<br>17,700   | 800             | 100          | 50<br>1 050    |
| Extraction of Minerals  | 15,150<br>500    | 17,700<br>550   | 19,650<br>600   | 2,550<br>50  | 1,950<br>50    |
| Logging   | 2,850            | 2,550           | 2,300           | -300         | -250           |
|   |                  |                 | •               |              |                |



|   |       | Employmen | t         |            |            |
|---|-------|-----------|-----------|------------|------------|
| Occupation                              | Actı  | ual       | Projected | -<br>Net C | hange      |
|   | 1965  | 1970      | 1975      | 1965-1970  | 1970-1975  |
| l'oreman                                | 200   | 200       | 150       | 0          | -50        |
| Logger                                  | 2,150 | 1,850     | 1,700     | -300       | <b>150</b> |
| Log Loader Operator                     | 150   | 150       | 100       | 0          | 50         |
| Laborer, Log Receiving                  | 150   | 150       | 100       | 0          | -50        |
| Utilities Production & Distribution     | 3,150 | 3,900     | 4,400     | 750        | 500        |
| Foreman                                 | 200   | 250       | 300       | 50         | 0د         |
| Stationary Engineer                     | 300   | 350       | 400       | 50         | 50         |
| Boiler Room Helper                      | 200   | 200       | 200       | 0          | 0          |
| Fireman & Humidifier Attendant          | 550   | 650       | 750       | 100        | 100        |
| Power Plant Operator                    | 750   | 850       | 900       | 100        | 50         |
| Laborer, Power Transmission             | 50    | 100       | 150       | 50         | 50         |
| Sewage Plant Operator                   | 100   | 100       | 150       | 0          | 50         |
| Sewage Plant Attendant                  | 50    | 50        | 100       | 0          | <b>50</b>  |
| Street Cleaner                          | 250   | 350       | 500       | 100        | 150        |
| Tree Trimmer                            | 150   | 200       | 250       | 50         | 50         |
| Amusement, Recreation, & Motion Picture | 200   | 300       | 350       | 100        | 50         |
| Projectionist                           | 150   | 200       | 250       | 50         | 50         |
| Graphic Art Work                        | 1,400 | 1,800     | 2,100     | 400        | 300        |
| Foreman                                 | 50    | 50        | 100       | 0          | 50         |
| Letterer & Sketcher                     | 100   | 150       | 150       | 50         | 0          |
| Compositor                              | 500   | 650       | 750       | .150       | 100        |
| Photoengraver                           | 200   | 250       | 300       | 50         | 50         |
| Developing Machine Operator             | 100   | 100       | 150       | 0          | 50         |
| Reproduction Machine Operator           | 100   | _100      | 150       | 0          | 50         |

| PROFESSIONAL, TECHNICAL, & MANAGERIAL OCCUPATIONS  | Occupation                         | Expansion<br>Needs | Replacement<br>Needs | Total Demand for Workers |
|--|------------------------------------|--------------------|----------------------|--------------------------|
| PROFESSIONAL, TECHNICAL, & MANAGERIAL OCCUPATIONS  | TOTAL                              | 105,300            | 110,170              | 215,470                  |
| OCCUPATIONS         18,130         22,300         40,430           Engineer         1,330         500         1,830           Electrical Engineer         220         80         300           Electrical & Electronic Engineer         150         60         210           Plant & Field Electrical Engineer         60         20         80           Civil & Construction Engineer         240         140         380           Civil Engineer         120         80         200           Construction Engineer         40         30         70           Purification Plant Operator         40         10         50           Sanitary Engineer         10         INA         10           Mechanical Engineer         220         80         300           Chemical Engineer         270         40         310           Industrial Engineer         260         100         370           Industrial Engineer         90         40         130           Production Planner         70         20         90           Quality Control Engineer         50         10         60           Nuclear Engineer         50         10         60  |                                    | ,                  | • •                  | ,                        |
| Engineer         1,330         500         1,830           Electrical Engineer         220         80         300           Electrical Engineer         150         60         270           Plant & Field Electrical Engineer         60         20         80           Civil & Construction Engineer         240         140         380           Civil Engineer         120         80         200           Construction Engineer         40         30         70           Purification Plant Operator         40         10         50           Sanitary Engineer         10         INA         10           Sanitary Engineer         220         80         300           Chemical Engineer         270         40         310           Industrial Engineer         270         40         310           Industrial Engineer         90         40         130           Production Planner         70         20         90           Quality Control Engineer         50         10         60           Nuclear Engineer         50         10         60           Nuclear Engineer         50         10         60           Civil Draftsman </td <td></td> <td>18.130</td> <td>22.300</td> <td>40.430</td>  |                                    | 18.130             | 22.300               | 40.430                   |
| Électrical Engineer         220         80         300           Electrical & Electronic Engineer         150         60         270           Plant & Field Electrical Engineer         60         20         80           Civil & Construction Engineer         240         140         380           Civil Engineer         120         80         200           Construction Engineer         40         30         70           Purification Plant Operator         40         10         50           Sanitary Engineer         10         INA         10           Sanitary Engineer         220         80         300           Chemical Engineer         220         80         300           Chemical Engineer         270         40         310           Industrial Engineer         260         100         370           Industrial Engineer         90         40         130           Production Planner         70         20         90           Quality Control Engineer         50         10         60           Nuclear Engineer         -10         0         -10           Technician         1,570         310         1,880           <   |                                    |                    |                      |                          |
| Electrical & Electronic Engineer   150   60   210     Plant & Field Electrical Engineer   60   20   80     Civil & Construction Engineer   240   140   380     Civil Engineer   120   80   200     Construction Engineer   40   30   70     Purification Plant Operator   40   10   50     Sanitary Engineer   20   80   300     Chemical Engineer   20   80   300     Chemical Engineer   220   80   300     Chemical Engineer   270   40   310     Industrial Engineer   270   40   310     Industrial Engineer   260   100   370     Industrial Engineer   90   40   130     Production Planner   70   20   90     Quality Control Engineer   50   10   60     Nuclear Engineer   -10   0   -10     Technician   1,570   310   1,880     Draftsman   390   110   500     Architectural   60   20   80     Civil Draftsman   110   30   140     Mechanical   80   20   100     Marine   -10   0   -10     Commercial   110   20   130     Electrical & Electronic Technician   -20   20   0     Mechanical Research Technician   90   10   100     Industrial Engineering Technician   90   10   100     Industrial Engineering Technician   90   10   100     Industrial Engineering Technician   30   10   40     Surveyor   50   10   60     Quality Technician   140   20   150     Laboratory Technician   660   110   770     Scientist   340   661   950  |                                    | •                  |                      | *                        |
| Plant & Field Electrical Engineer   240   140   380     Civil & Construction Engineer   240   140   380     Civil Engineer   120   80   200     Construction Engineer   40   30   70     Purification Plant Operator   40   10   50     Sanitary Engineer   10   INA   10     Mechanical Engineer   220   80   300     Chemical Engineer   270   40   310     Industrial Engineer   260   100   370     Industrial Engineer   90   40   130     Production Planner   70   20   90     Quality Control Engineer   50   10   60     Nuclear Engineer   -10   0   -10     Technician   1,570   310   1,880     Draftsman   390   110   500     Architectural   60   20   80     Civil Draftsman   110   30   140     Mechanical   80   20   100     Marine   -10   0   -10     Commercial   110   20   130     Electrical & Electronic Technician   -20   20   0     Chemical Research Technician   Designer   60   20   80     Chemical Research Technician   90   10   100     Industrial Engineering Technician   0   0   0     Quality Technician   140   20   160     Capture   10   10   100     Control Engineering Technician   140   20   160     Capture   140   20   160     Capt | Electrical & Electronic Engineer   |                    |                      | 210                      |
| Civil & Construction Engineer         240         140         380           Civil Engineer         120         80         200           Construction Engineer         40         30         70           Purification Plant Operator         40         10         50           Sanitary Engineer         10         INA         10           Mechanical Engineer         220         80         300           Chemical Engineer         220         40         310           Industrial Engineer         260         100         370           Industrial Engineer         90         40         130           Production Planner         70         20         90           Quality Control Engineer         50         10         60           Nuclear Engineer         -10         0         -10           Technician         1,570         310         1,880           Draftsman         390         110         500           Architectural         60         20         80           Civil Draftsman         110         30         140           Mechanical         80         20         100           Marine         -10         0 <td>Plant &amp; Field Flectrical Engineer</td> <td></td> <td></td> <td>. 210</td>  | Plant & Field Flectrical Engineer  |                    |                      | . 210                    |
| Civil Engineer         120         80         200           Construction Engineer         40         30         70           Purification Plant Operator         40         10         50           Sanitary Engineer         10         INA         10           Mechanical Engineer         220         80         300           Chemical Engineer         270         40         310           Industrial Engineer         260         100         370           Industrial Engineer         90         40         130           Production Planner         70         20         90           Quality Control Engineer         50         10         60           Nuclear Engineer         -10         0         -10           Technician         1,570         310         1,880           Draftsman         390         110         500           Architectural         60         20         80           Civil Draftsman         110         30         140           Mechanical         80         20         100           Marine         -10         0         -10           Commercial         110         20         30 <td>Civil &amp; Construction Engineer</td> <td></td> <td>— <del>-</del></td> <td>380</td>   | Civil & Construction Engineer      |                    | — <del>-</del>       | 380                      |
| Construction Engineer         40         30         70           Purification Plant Operator         40         10         50           Sanitary Engineer         10         INA         10           Mechanical Engineer         220         80         300           Chemical Engineer         270         40         310           Industrial Engineer         260         100         370           Industrial Engineer         90         40         130           Production Planner         70         20         90           Quality Control Engineer         50         10         60           Nuclear Engineer         -10         0         -10           Technician         1,570         310         1,880           Draftsman         390         110         500           Architectural         60         20         80           Civil Draftsman         110         30         140           Mechanical         80         20         100           Marine         -10         0         -10           Commercial         110         20         30           Electrical & Electronic Technician         -20         20 <td></td> <td></td> <td></td> <td>200</td>  |                                    |                    |                      | 200                      |
| Purification Plant Operator         40         10         50           Sanitary Engineer         10         INA         10           Mechanical Engineer         220         80         300           Chemical Engineer         270         40         310           Industrial Engineer         260         100         370           Industrial Engineer         90         40         130           Production Planner         70         20         90           Quality Control Engineer         50         10         60           Nuclear Engineer         -10         0         -10           Technician         1,570         310         1,880           Draftsman         390         110         50           Architectural         60         20         80           Civil Draftsman         110         30         140           Mechanical         80         20         100           Marine         -10         0         -10           Commercial         110         20         30           Electrical & Electronic Technician         -20         20         0           Mechanical Engineering Technician         90  | Construction Engineer              | 71 .               |                      |                          |
| Sanitary Engineer       10       INA       10         Mechanical Engineer       270       40       310         Chemical Engineer       270       40       310         Industrial Engineer       260       100       370         Industrial Engineer       90       40       130         Production Planner       70       20       90         Quality Control Engineer       50       10       60         Nuclear Engineer       -10       0       -10         Nuclear Engineer       -10       0       -10         Technician       1,570       310       1,880         Draftsman       390       110       500         Architectural       60       20       80         Civil Draftsman       110       30       140         Mechanical       80       20       100         Mechanical       80       20       100         Marine       -10       0       -10         Commercial       110       20       130         Electrical & Electronic Technician       -20       20       0         Mechanical Engineering Technician       90       10       10   |                                    |                    |                      |                          |
| Mechanical Engineer         220         80         300           Chemical Engineer         270         40         310           Industrial Engineer         260         100         370           Industrial Engineer         90         40         130           Production Planner         70         20         90           Quality Control Engineer         50         10         60           Nuclear Engineer         -10         0         -10           Technician         1,570         310         1,880           Draftsman         390         110         500           Architectural         60         20         80           Civil Draftsman         110         30         140           Mechanical         80         20         100           Marine         -10         0         -10           Commercial         110         20         130           Electrical & Electronic Technician         -20         20         0           Mechanical Engineering Technician & Designer         60         20         80           Chemical Research Technician         90         10         100           Industrial Engineering Technician <td>Sanitary Engineer</td> <td></td> <td></td> <td>10</td>  | Sanitary Engineer                  |                    |                      | 10                       |
| Chemical Engineer         270         40         310           Industrial Engineer         260         100         370           Industrial Engineer         90         40         130           Production Planner         70         20         90           Quality Control Engineer         50         10         60           Nuclear Engineer         -10         0         -10           Technician         1,570         310         1,880           Draftsman         390         110         500           Architectural         60         20         80           Civil Draftsman         110         30         140           Mechanical         80         20         100           Marine         -10         0         -10           Commercial         110         20         130           Electrical & Electronic Technician         -20         20         0           Mechanical Engineering Technician & Designer         60         20         80           Chemical Research Technician         90         10         100           Industrial Engineering Technician         30         10         40           Surveyor <td< td=""><td>Mechanical Engineer</td><td></td><td></td><td>• • •</td></td<>  | Mechanical Engineer                |                    |                      | • • •                    |
| Industrial Engineer         260         100         370           Industrial Engineer         90         40         130           Production Planner         7C         20         90           Quality Control Engineer         50         10         60           Nuclear Engineer         -10         0         -10           Technician         1,570         310         1,880           Draftsman         390         110         500           Architectural         60         20         80           Civil Draftsman         110         30         140           Mechanical         80         20         100           Marine         -10         0         -10           Commercial         110         20         130           Electrical & Electronic Technician         -20         20         0           Mechanical Engineering Technician & Designer         60         20         80           Chemical Research Technician         90         10         10           Industrial Engineering Technician         30         10         40           Surveyor         50         10         60           Quality Technician         1  | Chemical Engineer                  |                    | - •                  |                          |
| Industrial Engineer   90   |                                    |                    |                      |                          |
| Production Planner         7C         20         90           Quality Control Engineer         50         10         60           Nuclear Engineer         -10         0         -10           Technician         1,570         310         1,880           Draftsman         390         110         500           Architectural         60         20         80           Civil Draftsman         110         30         140           Mechanical         80         20         100           Marine         -10         0         -10           Commercial         110         20         130           Electrical & Electronic Technician         -20         20         0           Mechanical Engineering Technician & Designer         60         20         80           Chemical Research Technician         90         10         100           Industrial Engineering Technician         30         10         40           Surveyor         50         10         60           Quality Technician         140         20         160           Laboratory Technician         660         110         770           Scientist         340 <td>Industrial Engineer</td> <td></td> <td></td> <td></td>   | Industrial Engineer                |                    |                      |                          |
| Quality Control Engineer       50       10       60         Nuclear Engineer       -10       0       -10         Technician       1,570       310       1,880         Draftsman       390       110       500         Architectural       60       20       80         Civil Draftsman       110       30       140         Mechanical       80       20       100         Marine       -10       0       -10         Commercial       110       20       130         Electrical & Electronic Technician       -20       20       0         Mechanical Engineering Technician & Designer       60       20       80         Chemical Research Technician       90       10       100         Industrial Engineering Technician       30       10       40         Surveyor       50       10       60         Quality Technician       140       20       160         Laboratory Technician       660       110       770         Scientist       340       610       950  | Production Planner                 |                    |                      |                          |
| Nuclear Engineer       -10       0       -10         Technician       1,570       310       1,880         Draftsman       390       110       500         Architectural       60       20       80         Civil Draftsman       110       30       140         Mechanical       80       20       100         Marine       -10       0       -10         Commercial       110       20       130         Electrical & Electronic Technician       -20       20       0         Mechanical Engineering Technician & Designer       60       20       80         Chemical Research Technician       90       10       100         Industrial Engineering Technician       30       10       40         Surveyor       50       10       60         Quality Technician       140       20       160         Laboratory Technician       660       110       770         Scientist       340       610       950  | Quality Control Engineer           |                    |                      | 60                       |
| Technician       1,570       310       1,880         Draftsman       390       110       500         Architectural       60       20       80         Civil Draftsman       110       30       140         Mechanical       80       20       100         Marine       -10       0       -10         Commercial       110       20       130         Electrical & Electronic Technician       -20       20       0         Mechanical Engineering Technician & Designer       60       20       80         Chemical Research Technician       90       10       100         Industrial Engineering Technician       30       10       40         Surveyor       50       10       60         Quality Technician       140       20       160         Laboratory Technician       660       110       770         Scientist       340       610       950   | Nuclear Engineer                   |                    |                      |                          |
| Draftsman       390       110       500         Architectural       60       20       80         Civil Draftsman       110       30       140         Mechanical       80       20       100         Marine       -10       0       -10         Commercial       110       20       130         Electrical & Electronic Technician       -20       20       0         Mechanical Engineering Technician & Designer       60       20       80         Chemical Research Technician       90       10       100         Industrial Engineering Technician       30       10       40         Surveyor       50       10       60         Quality Technician       140       20       160         Laboratory Technician       660       110       770         Scientist       340       610       950  | Technician                         | • -                | •                    |                          |
| Architectural       60       20       80         Civil Draftsman       110       30       140         Mechanical       80       20       100         Marine       -10       0       -10         Commercial       110       20       130         Electrical & Electronic Technician       -20       20       0         Mechanical Engineering Technician & Designer       60       20       80         Chemical Research Technician       90       10       100         Industrial Engineering Technician       30       10       40         Surveyor       50       10       60         Quality Technician       140       20       160         Laboratory Technician       660       110       770         Scientist       340       610       950  |                                    |                    |                      |                          |
| Civil Draftsman       110       30       140         Mechanical       80       20       100         Marine       -10       0       -10         Commercial       110       20       130         Electrical & Electronic Technician       -20       20       0         Mechanical Engineering Technician & Designer       60       20       80         Chemical Research Technician       90       10       100         Industrial Engineering Technician       30       10       40         Surveyor       50       10       60         Quality Technician       140       20       160         Laboratory Technician       660       110       770         Scientist       340       610       950   | Architectural                      |                    |                      |                          |
| Mechanical       80       20       100         Marine       -10       0       -10         Commercial       110       20       130         Electrical & Electronic Technician       -20       20       0         Mechanical Engineering Technician & Designer       60       20       80         Chemical Research Technician       90       10       100         Industrial Engineering Technician       30       10       40         Surveyor       50       10       60         Quality Technician       140       20       160         Laboratory Technician       660       110       770         Scientist       340       610       950  | Civil Draftsman                    |                    |                      | 7 -                      |
| Marine       -10       0       -10         Commercial       110       20       130         Electrical & Electronic Technician       -20       20       0         Mechanical Engineering Technician & Designer       60       20       80         Chemical Research Technician       90       10       100         Industrial Engineering Technician       30       10       40         Surveyor       50       10       60         Quality Technician       140       20       160         Laboratory Technician       660       110       770         Scientist       340       610       950   |                                    |                    |                      |                          |
| Commercial       110       20       130         Electrical & Electronic Technician       -20       20       0         Mechanical Engineering Technician & Designer       60       20       80         Chemical Research Technician       90       10       100         Industrial Engineering Technician       30       10       40         Surveyor       50       10       60         Quality Technician       140       20       160         Laboratory Technician       660       110       770         Scientist       340       610       950  |                                    |                    |                      |                          |
| Electrical & Electronic Technician       -20       20       0         Mechanical Engineering Technician & Designer       60       20       80         Chemical Research Technician       90       10       100         Industrial Engineering Technician       30       10       40         Surveyor       50       10       60         Quality Technician       140       20       160         Laboratory Technician       660       110       770         Scientist       340       610       950  |                                    |                    | ~                    |                          |
| Mechanical Engineering Technician & Designer       60       20       80         Chemical Research Technician       90       10       100         Industrial Engineering Technician       30       10       40         Surveyor       50       10       60         Quality Technician       140       20       160         Laboratory Technician       660       110       770         Scientist       340       610       950  | Flectrical & Flectronic Technician |                    | — <del>-</del>       | 0                        |
| Chemical Research Technician       90       10       100         Industrial Engineering Technician       30       10       40         Surveyor       50       10       60         Quality Technician       140       20       160         Laboratory Technician       660       110       770         Scientist       340       610       950  |                                    |                    | _•                   | 80                       |
| Industrial Engineering Technician       30       10       40         Surveyor       50       10       60         Quality Technician       140       20       160         Laboratory Technician       660       110       770         Scientist       340       610       950   | Chemical Research Technician       |                    |                      | * -                      |
| Surveyor       50       10       60         Quality Technician       140       20       160         Laboratory Technician       660       110       770         Scientist       340       610       950  |                                    |                    |                      |                          |
| Quality Technician       140       20       160         Laboratory Technician       660       110       770         Scientist       340       610       950  |                                    |                    |                      |                          |
| Laboratory Technician         660         110         770           Scientist         340         610         950  |                                    |                    |                      |                          |
| Scientist 340 610 950  |                                    |                    | — <del>-</del>       |                          |
|  | Scientist                          |                    |                      |                          |
|  | Mathematical Scientist             | 150                | 100                  | 250                      |
|  |                                    |                    |                      | 80                       |
|  |                                    |                    |                      | 120                      |



| Chemist Psychologist, Guidance & Counseling Medicine & Health Physician & Dentist <sup>1</sup> Pharmacist Nurse, Registered Dietitian Medical Technologist Medical Technician Medical Laboratory Assistant Inhalation Therapist | 50<br>80<br>3,500<br>110<br>150<br>1,530<br>60<br>170<br>120<br>110<br>30 | 30<br>140<br>2,470<br>90<br>210<br>1,670<br>110 | 80<br>220<br>5,970<br>200<br>360<br>3,200 |
|---|---|---|---|
| Medicine & Health Physician & Dentist <sup>1</sup> Pharmacist Nurse, Registered Dietitian Medical Technologist Medical Laboratory Assistant   | 3,500<br>110<br>150<br>1,530<br>60<br>170<br>120<br>110                   | 2,470<br>90<br>210<br>1,670<br>110              | 5,970<br>200<br>360                       |
| Physician & Dentist <sup>1</sup> Pharmacist Nurse, Registered Dietitian Medical Technologist Medical Technician Medical Laboratory Assistant  | 110<br>150<br>1,530<br>60<br>170<br>120<br>110                            | 90<br>210<br>1,670<br>110                       | 200<br>360                                |
| Pharmacist Nurse, Registered Dietitian Medical Technologist Medical Technician Medical Laboratory Assistant   | 150<br>1,530<br>60<br>170<br>120<br>110                                   | 210<br>1,670<br>110                             | 360                                       |
| Nurse, Registered Dietitian Medical Technologist Medical Technician Medical Laboratory Assistant  | 1,530<br>60<br>170<br>120<br>110  | 1,670<br>110                                    |   |
| Dietitian Medical Technologist Medical Technician Medical Laboratory Assistant  | 60<br>170<br>120<br>110   | 110   |   |
| Medical Technologist  Medical Technician  Medical Laboratory Assistant  | 120<br>110  | 150   | 170                                       |
| Medical Laboratory Assistant  | 110   |   | 320                                       |
| Medical Laboratory Assistant Inhalation Therapist   |   | 110   | 230                                       |
|   |   | 120   | 230                                       |
| Medical Assistant   | 50<br>50  | 0<br>·  | 30<br>50                                  |
| Dental Assistant  | 70  | 0   | 70 ·                                      |
| Nurse, Licensed Practical   | 820   | 10  | 830                                       |
| Surgical Technician   | 80  | INA   | 80  |
| Education   | 2,520   | 8,660   | 11,180                                    |
| Faculty Meniber, College or University  | 670   | 390   | 1,060                                     |
| School Administrator  | 60  | 380   | 440                                       |
| Teacher, Secondary School   | 480<br>510  | 2,250<br>3,030                                  | 2,730<br>3,540                            |
| Teacher's Aid   | . 60  | 150   | 210                                       |
| Librarian   | 140   | 410   | 550                                       |
| Designer  | 60  | 70  | 130                                       |
| Entertainment & Recreation  | 260   | 700   | 960                                       |
| Managerial & Administration   | 7,800   | 7,630   | 15,430                                    |
| Accountant & Auditor  | 490   | 390   | 880                                       |
| Estimator   | 170   | 80  | . 250                                     |
| Purchasing Agent & Buyer  | 250<br>180  | 400<br>170                                      | 650<br>350                                |
| Sales Manager<br>Public Relations Man   | 40  | 100   | 140                                       |
| Manager, Personnel  | 70<br>70  | 120   | 190                                       |
| Employment Manager  | 20  | 100 -   | 120                                       |
| Training Supervisor   | 40  | 80  | 120                                       |
| Employment Interviewer  | 140   | 90  | 230                                       |
| Investigator & Inspector, Public Service  | 150   | 190   | · 340<br>1,210                            |
| Administrative Manager Superintendent, Construction Superintendent,   | 630<br>400  | 580 .<br>160                                    | 560                                       |
| Construction Inspector  | 50  | 70 ·  | 120                                       |
| Plant Manager   | 340   | 220   | 560                                       |
| Production Foreman  | 390   | 300   | 690                                       |
| Transportation, Communication, & Public Utilities   | 270   | 200   | 470                                       |
| Manager & Official  | 270<br>700  | 200<br>1,170                                    | 470<br>1,870                              |
| Finance, Insurance, & Real Estate Executive   | 690   | 450   | 1,140                                     |
| Service Industry Executive  | 650   | 660   | 1,310                                     |
| Public Administration   | 80  | 130   | 210                                       |
| Social Worker and Supervisor  | 240   | 400   | 640                                       |
| CLERICAL & SALES OCCUPATIONS  | 20,890  | 28,530  | .49,420                                   |
| Clerical Occupations Secretary & Stenographer   | 14,740<br>2,710   | 21,410<br>5,290                                 | 36,150<br>8,000                           |
| Secretary & Stenographer Typist Typist  | 60  | 170   | 230                                       |
| Personnel Clerk   | 90  | 110   | 200                                       |
| File Clerk  | 110   | 130   | 240                                       |
| Clerk-Typist  | 1,030   | 2,170   | 3,200                                     |
| General Clerk   | 630   | 730   | 1,360                                     |
| Bookkeeper  | 1,410<br>480  | 2,020<br>1,100                                  | 3,430<br>1,580                            |
| Cashier   | 430   | 750   | 1,180                                     |
| Computer Operator   | 90  | 110   | 200                                       |
| Kevpunch Operator   | 200   | 500   | 700                                       |
| Payroll Clerk   | 170   | 350   | 520                                       |
| General Office Clerk  | 1,590   | 1,690   | 3,280                                     |
| Accounting Clerk  | 330   | 520<br>310                                      | 850<br>530                                |
| Production Clerk Shipping & Receiving Clerk   | 210<br>890  | - 310<br>- 870                                  | 520<br>1.760                              |
| Shipping & Receiving Clerk  | 1,000   | 1,340   | 1,760<br>2,340                            |
| Post Office Clerk   | 20  | 510   | 2,340<br>530                              |
| Mail Carriers   | 20  | 360   | 380                                       |
| Telephone Operator  | 1,050   | 1,180   | 2,230                                     |

| Occupation   | Expansion<br>Needs | Replacement Needs | Total Demand<br>for Workers |
|--|--------------------|-------------------|-----------------------------|
| Receptionist & Information Clerk                     | 410                | 460               | 870                         |
| Collector  | 190                | 140               | 330                         |
| Adjuster   | 60                 | 140               | 200                         |
| Hotel Clerk  | 200                | 120               | 320<br>1,790                |
| Salesman, Services Salesman, Insurance & Real Estate | 550<br>320         | 1,240<br>1,100    | 1,420                       |
| Salesman, Business Services                          | 320<br>70          | 40                | 110                         |
| Salesman, Commodities                                | 3,650              | 3.130             | 6,780                       |
| Salesman, Food, Beverages, & Tobacco                 | 60                 | 140               | 200                         |
| Salesman, Textile Products & Apparel                 | 840                | 760               | 1,600                       |
| Salesman, Chemicals & Drugs                          | 260                | 120               | 380                         |
| Salesman, House Furnishings                          |                    | 180               | 700                         |
| Salesman, Industrial Equipment & Supplies            | 580                | 520               | 1,100                       |
| Salesman, Transportation Equipment                   | 210                | 450               | 660<br>1,420                |
| Salesman, General Merchandising                      |                    | 350<br>2,750      | 4,700                       |
| Salesperson, Food                                    |                    | 300               | 630                         |
| Routeman   |                    | 660               | 1,030                       |
| Manager, Department Store                            |                    | 350               | 630                         |
| Cashier-Checker                                      | 380                | 880               | 1,260                       |
| Delivery Boy   | 300                | . 50              | 350                         |
| SERVICE OCCUPATIONS                                  | 15,080             | 18,740            | 33,820                      |
| Food Services  | 3,900              | 5,660             | 9,560                       |
| Waiter & Waitress                                    | 1,570              | 2,460             | 4,030                       |
| Cook   |                    | 1,480             | 2,430                       |
| Meat Cutter  |                    | 130               | 320                         |
| Kitchen Helper                                       |                    | 460               | 1,430                       |
| Food Assembler                                       |                    | 60                | 190                         |
| Lodging Services                                     |                    | 1,620             | 3,080                       |
| Housekeeper  |                    | 110<br>1,5 ໄປ     | 190<br>2,730                |
| Maid<br>Barbering, Cosmetology, & Related Services   |                    | 340               | 510                         |
| Barber Barber  | 20                 | 40                | 60                          |
| Hair Stylist & Cosmetologist                         |                    | 240               | 360                         |
| Amusement & Recreation Services                      |                    | 180               | 340                         |
| Personal Services                                    |                    | 2,950             | 5,460                       |
| Nurse, Practical                                     |                    | 60                | 120                         |
| Nurse's Aid  |                    | 1,980             | 3,620                       |
| Orderly  |                    | 300               | 620                         |
| Tray Line Worker                                     |                    | 340               | 520                         |
| Child Care Attendant                                 |                    | 270               | 470                         |
| Apparel & Furnishing Services                        |                    | 1,650<br>110      | · 2,610<br>230              |
| Laundry Laborer                                      | 120<br>550         | 1,060             | 1,610                       |
| Presser, Apparel Checker, Dry Cleaning               | 50                 | 100               | 150                         |
| Folder & Marker                                      |                    | 140               | 210                         |
| Protective Services                                  |                    | 2,310             | 5,570                       |
| Guard & Watchman                                     |                    | 1,560             | 3,260                       |
| Fireman  |                    | 100               | 390                         |
| Policeman  |                    | 280               | 1,000                       |
| Deputy Sheriff & Bailiff                             | 130                | 40                | 170                         |
| Building Services                                    | 2,660              | 4,030             | 6,690                       |
| Janitor & Porter                                     | 2,530              | 2,970             | 5,500                       |
| AGRICULTURAL SERVICE OCCUPATIONS                     |                    | 500               | 1,010                       |
| Groundskeeper  | 340                | 300               | 640                         |
| PROCESSING OCCUPATIONS                               | 6,000              | 5,840             | 11;840                      |
| Metal Processing                                     | 260                | 50                | 310                         |
| Foundry Processing                                   | 220                | . 60              | 280                         |
| Laborer, Die Casting                                 |                    | 20                | 100                         |
| Molder   |                    | 10                | 30                          |
| Laborer, Foundry                                     |                    | 20                | 80<br>920                   |
| Food Processing                                      |                    | 540               | 920<br>590                  |
| Laborer, Food Processing                             |                    | 260               | 590<br>400                  |
| Paper Processing                                     |                    | 100               | 490                         |
| Laborer, Paper Processing                            |                    | 2 250             | 250<br>4 890                |
| Chemical Processing                                  |                    | 2,250             | 4,890                       |
| Foreman, Chemicals Chemical Mixor                    |                    | 30<br>80          | . 190                       |
| Chemical Mixer  Molding Machine Operator             |                    | 80<br>20          | 240<br>170                  |
| Spinner Tender                                       |                    | 20<br>10          | 150                         |
| Chemical Machine Operator                            |                    | 80                | 900                         |



| Occupation  | Expansion<br>Needs | Replacement<br>Needs | Total Demand<br>for Workers |
|---|--------------------|----------------------|-----------------------------|
| Chemical Machine Tender                           | 660                | 80                   | 740                         |
| Stone, Clay, & Glass Processing                   | 1,440              | 200                  | 1,640                       |
| Foreman   | 230                | 60                   | 290                         |
| Laborer, Forming                                  | 470                | 60                   | 530                         |
| Laborer, Concrete Plant                           | 390<br>650         | 50                   | 440                         |
| Textile Processing Slasher Tender                 | 650<br>- —10       | 2,570<br>300         | 3,220<br>290                |
| Cloth Treater Tender                              | 230                | 570                  | 800                         |
| Back Tender                                       | -10                | 90                   | 80                          |
| Cloth Processing Tender                           | 120                | 290                  | 410                         |
| Impregnating Tank Operator                        | 80                 | 60                   | 140                         |
| MACHINE TRADES OCCUPATIONS                        | 7,900              | 10,220               | 18,120                      |
| Metal Machining                                   | 2,190              | 820                  | 3,010                       |
| Foreman   | 120                | 40                   | 160                         |
| Machinist   | 290                | 190                  | 480                         |
| Tool & Die Maker                                  | 180                | 30                   | 210                         |
| Grinder Operator                                  | 220                | 70                   | 290                         |
| Screw Machine Operator                            | 150                | 60                   | 210                         |
| Drill Press Operator                              | 130                | 50<br>120            | 180                         |
| Inspector, Metal Machinery                        | 300<br>470         | 120<br>240           | 420<br>710                  |
| Production Machine Operator                       | 1,290              |                      |                             |
| Metalworking                                      | 1,290              | 400<br>50            | 1,690<br>220                |
| Punch Press Operator                              | 330                | 80                   | 410                         |
| Forging Press Operator                            | 40                 | 10                   | 50                          |
| Punch Press Tender                                | 70                 | 30                   | 100                         |
| Metal Fabricator                                  | 100                | . 10                 | 110                         |
| Machine Operator                                  | 180                | 110                  | 290                         |
| Mechanics & Machinery Repair                      | 2,900              | 1,690                | 4,590                       |
| Foreman   | 220                | 150                  | 370                         |
| Auto Mechanic                                     | . 800              | 430                  | 1,230                       |
| Auto Mechanic Helper                              | 190                | 70                   | 260                         |
| Carman  | -70<br>20          | 40                   | -30                         |
| Overhauler, Machinery                             | -30<br>170         | · 60<br>90           | 30,                         |
| Refrigeration Mechanic                            | 1,040              | 470                  | 260<br>1,510                |
| Maintenance Mechanic Helper                       | 200                | 10                   | 210                         |
| Sewing Machine Repairman                          | 80                 | 50                   | 130                         |
| Paperworking                                      | 390                | 70                   | 460                         |
| Paper Cutting & Winding Tender                    | 80                 | 10                   | 90                          |
| Bag Machine Operator                              | 110                | 40                   | 150                         |
| Printing  | 330                | 130                  | 460                         |
| Printing Press Operator                           | 170                | <b>50</b> .          | 220                         |
| Wood Machining                                    | 2 <u>40</u>        | 460                  | 700                         |
| Cabinetmaker                                      | 70<br>50           | 50                   | 120                         |
| Saw Operator                                      | 50                 | 280                  | 330                         |
| Woodworking-Machine Operator                      | 60                 | • 50                 | 110 '                       |
| Stone, Clay, & Glass Machining                    | 20<br>540          | 0                    | 20                          |
| Textiles Foreman                                  | -40                | 6,650                | 7,190                       |
| Foreman<br>Card Grinder                           | -10<br>-10         | 210<br>30            | 170<br>20                   |
| Carding, Combing, & Drawing Tender                | 10                 | 420                  | 430                         |
| Machine Fixer                                     | -10                | 80                   | 70                          |
| Twister, Winder, & Warper                         | 380                | 430                  | 810                         |
| Frame Spinner                                     | -170               | 900                  | 730                         |
| Loom Fixer  | -250               | 360                  | 110                         |
| Loom Changer                                      | 30                 | 40                   | . 10                        |
| Weaver  | -320               | 1,360                | 1,040                       |
| Draw-In & Smash Hand                              | -80<br>-200        | 130                  | 50                          |
| Battery Filler                                    | -200<br>180        | 220<br>60            | 20<br>240                   |
| Knitting Machine Operator<br>Cloth Grader         | 100<br>100         | 310                  | 210                         |
| Cloth Examiner, Machine                           | —100<br>—80        | 360                  | 280                         |
| Doffer & Spooler                                  |                    | 590                  | 430                         |
| Creeler   | 150                | 130                  | 280                         |
| BENCH WORK OCCUPATIONS                            | 8,760              | 8,040                | 16,800                      |
| Fabrication, Assembly, & Repair of Metal Products | 980                | 390                  | 1,370                       |
| Grinder & Polisher                                | 160                | 50                   | 210                         |
|   | _                  |                      |                             |
| Inspector, Metal Assembly                         | 90                 | 40                   | 130                         |



| Occupation   | Expansion<br>Needs | Replacement<br>Needs | Total Demand<br>for Workers |
|--|--------------------|----------------------|-----------------------------|
| Fabrication & Repair of Medical & Scientific Products  |                    |                      |                             |
| & Photographic & Optical Goods   | 370                | 360                  | 730                         |
| Instrument Mechanic Dental Laboratory Technician Assembly & Repair of Electrical Equipment   | 140                | 40                   | 180                         |
| Assembly & Repair of Electrical Equipment  | 110<br>940         | 100<br>380           | 210                         |
| Assembler Floctrical Appliance   | 200                | 380<br>110           | 1,320<br>310                |
| Assembler, Electrical Appliance<br>Inspector, Electrical Equipment                           | 80                 | 60                   | 140                         |
| Assembler, Electronic  | 60                 | 40                   | 100                         |
| Assembler, Electronic<br>Assembler, Electrical Equipment                                     | 200                | 110                  | 310                         |
| Fabrication & Repair of Products Made from Assorted  |                    |                      |                             |
| Materials  | 530                | 220                  | 750                         |
| Materials<br>Assembler, Sports Equipment   | 160                | 50                   | 210                         |
| Assembler, Small Products  | 140                | 60                   | 200                         |
| Painting & Decorating Spray Painter  | 230                | 50                   | 280                         |
| Spray Painter .  | 140<br>90          | 20<br>40             | 160<br>130                  |
| Fabrication & Repair of Synthetics, Rubber, & Plastics Fabrication & Repair of Wood Products | 220                | . 180                | 400                         |
| Furniture Assembler  | 80                 | . 160                | 130                         |
| Fabrication & Repair of Stone, Clay, & Glass Products  | 180                | 30                   | 210                         |
| Pottery Finisher   |                    | 10                   | 60                          |
| Irispector, Glass  | 30                 | 10                   | 40                          |
| End Finder, Asbestos   | 50                 | 10                   | 0ð                          |
| Fabrication & Repair of Textile & Related Products   | 5,240              | 6,390                | 11,630                      |
| Foreman Upholsterer, Production Cutter & Spreader  | 130                | 90                   | 220                         |
| Upholsterer, Production  | 140                | 140                  | 280                         |
| Cutter & Spreader  | 180                | 90                   | 270                         |
| Hand Sewer   | 120<br>120         | 220<br>410           | 340<br>530                  |
| Seamstress Sewing Machine Operator   | 3,520              | 5,000                | 8,520                       |
| Garment Inspector  | 240                | 320                  | 560                         |
| Folder & Turner  | 290                | 90                   | 380                         |
| STRUCTURAL WORK OCCUPATIONS  | 17,440             | 6,210                | 23,650                      |
| Structural Metal Fabricating   | 1,810              |                      | 2,410                       |
| Foreman  | 70                 | 30                   | 100                         |
| Structural Steel Worker  | 160                | 40                   | 200                         |
| Sheet Metal Worker   | 700                | 540 .                | 1,240                       |
| Kigger   | -10                | 20                   | 10                          |
| Framer, Mobile Home Automobile-Body Repairman  | 200<br>80          | · 90<br>60           | 290<br>140                  |
| Fabricator-Assembler, Metal Products   | 120                | 40                   | 160                         |
| Welding & Flame Cutting  |                    | 0.00                 | 1,590                       |
| Welding & Flame Cutting  | 50                 | 10                   | 60                          |
| Welder, Arc  | 120                | 20                   | 140                         |
| vveider, Combination   | 870                | 150                  | 1,020                       |
| Welder-Fitter  | 180                | 30                   | 210                         |
| Welder Helper  | 80                 | 20                   | 100                         |
| Electrical Assembling, Installing, & Repairing   | 2,510              | 780                  | 3,290                       |
| Foreman  | 220<br>220         | 100                  | 320<br>260                  |
| Lineman, Power Telephone Repairman   | 280                | 40<br>70             | 350                         |
| Telephone Repairman<br>Lineman, Telephone  | 170                | 40                   | 210                         |
| Electrician  | 840                | 280                  | 1,120                       |
| Electrician Helper   | 350                | 80                   | 430                         |
| Painting, Plastering, Waterproofing, & Cementing   | 1,250              | . 400                | 1,650                       |
| Painter  | 650                | . 220                | 870 ,                       |
| Painter Helper   | 100                | 30                   | 130                         |
| Lather & Plasterer   | 100                | $\frac{30}{20}$      | 130                         |
| Cement Mason   | 210                | 70                   | 280                         |
| Excavating, Grading, & Paving  | 1,250              | 900                  | 2,150                       |
| Excavating Equipment Operator  | 240<br>280         | 220<br>130           | 460<br>410                  |
| Motor-Grader Operator  | 80                 | . 60                 | 140                         |
| Pipe Layer   | 60                 | 10                   | 70                          |
| Operating Engineer   | 430                | 460                  | 890                         |
| Other Construction   | 8,620              | 2,490                | 11,110                      |
| Foreman  | 330                | 120                  | 450                         |
| Carpenter  | 1,660              | 660                  | 2,320                       |
| Carpenter, Rough   | 250                | 100                  | 350                         |
| Laborer, Carpentry   | 620                | 140                  | 760 <sup>-</sup>            |
| Bricklayer   | 560                | 200                  | 760                         |
|  |                    |                      |                             |



| Occupation                           | Expansion                              | Replacement<br>Needs | Total Demand |
|--------------------------------------|--|----------------------|--------------|
| Bricklayer Helper                    | 470                                    | 90                   | 560          |
| Pipefitter & Plumber                 | 1,010                                  | 340                  | 1,350        |
| Pipefitter & Plumber Helper          |  | 60                   | 320          |
| Insulation Worker                    | 210                                    | 70                   | 280          |
| Roofer                               |  | 70                   | 290          |
| Erector                              |  | 80                   | 450          |
| Construction Worker                  |  | 560                  | 2,769        |
| Structural Maintenance               | 640                                    | 810                  | 1,450        |
| Foreman                              |  | 140                  | 380          |
| Maintenance Man, Factory             |  | 110                  | 180          |
| Maintenance Man, Building            |  | 280                  | 510          |
| Maintenance Helper                   | 90                                     | 40                   | 130          |
| MISCELLANEOUS OCCUPATIONS            | 10,590                                 | 9,790                | 20,380       |
| Motor Freight                        |  | 1.770                | 5,290        |
| Foreman                              | ' - a                                  | 40                   | 120          |
| Tank Truck Driver                    |  | 80                   | 160          |
| Tractor-Trailer Truck Driver         |  | 550                  | 1,530        |
| Truck Driver, Heavy                  |  | 600                  | 1,500        |
| Distributor Truck Driver             | 320                                    | 290                  | 610          |
| Van & Garbage Truck Driver           | 560                                    | 210                  | 770          |
| Transportation Occupations           |  | 920                  | 1,670        |
| Foreman                              |  | 80                   | 210          |
| Brakeman, Yard                       |  | . 40                 | -10          |
| Bus & Taxicab Driver                 | ···· · · · · · · · · · · · · · · · · · | 560                  | 720          |
| Automobile Service Station Attendant |  | 150                  | 300          |
| Cleaner                              |  | 60                   | 160          |
| Packaging & Materials Handling       |  | 6,160                | 11,740       |
| Foreman                              |  | . 120                | 310          |
| Packager, Machine                    |  | 70                   | 250          |
| Packager, Hand                       |  | 410                  | 1,630        |
| Crane & Elevator Operator            | ·                                      | 170                  | 340          |
| Industrial Truck Operator            |  | 410                  | 730          |
| Laborer, Stores                      |  | 1,420                | 2,790        |
| Material Handler                     | ····· ,                                | 710                  | 2,680        |
|                                      |  | 270                  | 20           |
| Logging                              | 17.2.2                                 | 210                  | 20           |
| Logger                               |  | 500                  | 1,030        |
| Street Cleaner                       |  | 50                   | 160          |
| Graphic Art Work                     |  | 100                  | 410          |

INA Values may not be shown for individual occupations because of insufficient information.

| Occupation  | Experienced<br>Need<br>1965-1970 | Projected<br>Require<br>1970-19-5 | Ratio of Projected<br>Required to<br>Experienced Need |
|---|----------------------------------|-----------------------------------|---|
| TOTAL   | 48,910                           | 43,091                            | . 0.9   |
| PROFESSIONAL, TECHNICAL, & MANAGERIAL OCCUPATIONS Architect | 10,680<br>30                     | 8,090<br>20                       | 0.8<br>0.7  |
| Engineer  | 530                              | 370                               | 0.7   |
| Electrical Engineer   | 100                              | 60                                | 0.6   |
| Electrical & Electronic Engineer                            | 80                               | 40                                | 0.5   |
| Plant & Field Electrical Engineer                           | 20                               | 20                                | 1.0   |
| Civil & Construction Engineer                               | 100                              | 80                                | 8.0   |
| Civil Engineer  | 60                               | 40                                | 0.7   |
| Construction Engineer                                       | 20                               | 10                                | 0.5   |
| Purification Plant Operator                                 | 10                               | 10                                | 1.0   |
| Mechanical Engineer   | 80                               | 60                                | 8.0   |
| Chemical Engineer   | 70                               | 60                                | 8.0   |
| Industrial Engineer   | 110                              | 70                                | 0.6   |
| Industrial Engineer   | 40                               | 30                                | 0.8   |
| Production Planner  | 20                               | 20                                | 1.0   |
| Quality Control Engineer                                    | 20                               | 10                                | 0.5   |
| Technician'   | 500                              | 380                               | 0.8   |
| Draftsman   | 120                              | 100                               | 0.8   |
| Architectural   | 30                               | 20                                | 0.7   |
| Electrical & Electronic                                     | 10                               | 10                                | 1.0   |
| Civil Draftsman   | 30                               | 30                                | 1.0   |



| • Occupation  | Experienced<br>Need<br>1965-1970 | Projected<br>Required<br>1970-1975 | Ratio of Projected<br>Required to<br>Experienced Need |
|---|----------------------------------|------------------------------------|---|
| Mechanical  | 20                               | 20                                 | 1.0   |
| Commercial  | 30                               | 30                                 | 1.0   |
| Electrical & Electronic Technician                  | 10                               | 0                                  |   |
| Mechanical Engineering Technician & Designer        | 20                               | 20                                 | 1.0   |
| Chemical Research Technician                        | 20<br>10                         | 20<br>10                           | 1.0<br>1.0  |
| Surveyor  | 20                               | 10                                 | 0.5   |
| Quality Technician                                  | 30                               | 30                                 | 1.0   |
| Laboratory Technician                               | 200                              | 150                                | 0.8   |
| Laboratory Supervisor                               | 10                               | 0                                  | <del></del>   |
| Scientist   | 260<br>70                        | 190<br>50                          | 0.7<br>0.7  |
| Engineering Analyst                                 | 20                               | 20                                 | 1.0   |
| Project Director, Business Data Processing          | 10                               | 0                                  |   |
| Programmer  | 30                               | 20                                 | 0.7   |
| Statistician  | 10                               | 10                                 | 1.0   |
| Chemist Syldence & Councelling                      | 20                               | 20                                 | 1.0   |
| Psychologist, Guidance & Counseling                 | 80<br>1,300                      | 40                                 | 0.5   |
| Physician & Dentist                                 | 50                               | 1,190<br>40                        | 0.9<br>0.8  |
| Pharmacist  | 80                               | 70                                 | 0.0   |
| Nurse, Registered                                   | 660                              | 640                                | 1.0   |
| Dietitian   | 40                               | 30                                 | 0.8   |
| Medical Technologist                                | 60                               | 60                                 | 1.0   |
| Medical Technician  Medical Laboratory Assistant    | 40<br>50                         | 50<br>50                           | 1.2   |
| Inhalation Therapist                                | 10                               | 10                                 | 1.0<br>1.0  |
| Medical Assistant                                   | 10 *                             | 10                                 | 1.0   |
| Dental Assistant                                    | 20                               | 10                                 | 0.5   |
| Nurse, Licensed Practical                           | 200                              | 170                                | <b>8.0</b>  |
| Physical Therapist                                  | 10                               | 0                                  | <del></del>   |
| Surgical Technician                                 | 20<br>4,130                      | 20<br>2,240                        | 1.0<br>0.5  |
| Education Faculty Member, College or University     | 280                              | 2,240                              | 0.8   |
| School Administrator                                | 180                              | 90                                 | 0.5   |
| Teacher, Secondary School                           | 1,290                            | 550                                | 0.4   |
| Teacher, Elementary School                          | 1,480                            | 710                                | 0.5   |
| Teacher's Aid                                       | 120<br>160                       | 40                                 | 0.3   |
| Librarian   | 20                               | 110<br>30                          | 0.7<br>1.5  |
| Entertainment & Recreation                          | 150                              | 190                                | 1.3   |
| Management & Administration                         | 3,450                            | 3,090                              | 0.9   |
| Accountant & Auditor                                | 210                              | 180                                | 0.9   |
| Estimator   | 40                               | 50                                 | 1.2   |
| Purchasing Agent & Buyer                            |                                  | 130                                | 1.0   |
| Sales Manager Public Relations Man                  | 80<br>30                         | 70<br>30                           | 0.9   |
| Manager, Personnel                                  | 40                               | 40                                 | 1.0<br>1.0  |
| Employment Manager                                  | 30                               | 20                                 | 0.7   |
| Training Supervisor                                 | 20                               | 20                                 | 1.0   |
| Employment Interviewer                              | 50                               | 50                                 | 1.0   |
| Investigator & Inspector, Public Service            | 70                               | 70                                 | 1.0   |
| Administrative Manager Superintendent, Construction | 270<br>60                        | 240<br>110                         | 0.9   |
| Construction Inspector                              | 30                               | 20                                 | 0.7   |
| Plant Manager & Assistant Plant Manager & Assistant | 130                              | 110                                | 0.8   |
| Production Foreman                                  | 150                              | 140                                | 0.9   |
| Transportation, Communication, & Public Utilities   | 00                               | 00                                 | 1.0   |
| Manager & Official                                  | 90<br>460                        | 90<br>370                          | 1.0<br>0.8  |
| Finance, Insurance, & Real Estate Executive         | 260                              | 230                                | 0.9   |
| Service Industry Executive                          | 340                              | 260                                | 0.8   |
| Public Administration                               | 60                               | 40                                 | 0.7   |
| Social Worker & Supervisor                          | 130                              | 130                                | 1.0   |
| CLERICAL & SALES OCCUPATIONS                        | 11,030<br>8,030                  | 9,880<br>7,230                     | 0.9   |
| Clerical Occupations Secretary & Stenographer       | 8,030<br>1,620                   | 7,230<br>1,600                     | 0.9<br>1.0  |
| Typist  | 50                               | 50                                 | 1.0   |
| Personnel Clerk                                     | 50                               | 40                                 | 0.8   |
|   | 50                               | 50                                 | 1.0   |
|   |                                  | •                                  |   |

| Occupation   | Experienced<br>Need<br>1965-1970 | Projected<br>Required<br>1970-1975 | Ratio of Projected<br>Required to<br>Experienced Need |
|--|----------------------------------|------------------------------------|---|
| Clerk-Typist   | 700                              | 640                                | 0.9   |
| General Clerk  | 310                              | 270                                | 0.9   |
| Bookkeeper   | 690                              | 690                                | 1.0   |
| Cashier  | 370                              | 320                                | 0.9   |
| Cashier Teller                                       | 290                              | 240                                | 8.0   |
| Computer Operator                                    |                                  | 40                                 | 8.0   |
| Keypunch Operator Payroll Clerk                      | 160                              | 140                                | 0.9   |
| Payroll Clerk General Office Clerk                   | 110<br>690                       | 100<br>6 <b>6</b> 0                | 0.9<br>1.0  |
| Accounting Clerk                                     | 200                              | 170                                | 0.8   |
| Production Clerk                                     | 130                              | 100                                | 0.8   |
| Shipping & Keceiving Clerk                           | 340                              | 350                                | 1.0   |
| Stock Clerk  | 580                              | 470                                | 0.8   |
| Post Office Clerk                                    | 210                              | 110                                | 0.5   |
| Mail Carrier   | 180                              | 80                                 | 0.4   |
| Telephone Operator                                   | 430                              | 450                                | 1.0   |
| Receptionist & Information Clerk                     | 190                              | 170                                | 0.9   |
| Collector  | 50                               | 70                                 | 1.4   |
| Adjuster Hotel Clerk                                 | 50<br>60                         | 40<br>60                           | 0,8<br>1.0  |
| Salesman, Services                                   | 390                              | 3 <b>6</b> 0                       | 0.9   |
| Salesman, Insurance & Real Estate                    | 300                              | 290                                | 1.0   |
| Salesman, Business Services                          | 30                               | 20                                 | 0.7   |
| Salesman, Commodities                                | 1,570                            | ° 1,360                            | 0.9   |
| Salesman, Food, Beverages, & Tobacco                 | 20                               | 40                                 | 2.0   |
| Salesman, Textile Products & Apparel                 | 400                              | 320                                | 8.0   |
| Salesman, Chemicals & Drugs                          | 80                               | 80                                 | 1.0   |
| Salesman, House Furnishings                          | 60                               | 140                                | 2.3   |
| Salesman, Industrial Equipment & Supplies            | 180                              | 220                                | 1.2   |
| Salesman, Transportation Equipment Salesman, General | 160 <sup>.</sup><br>420          | 130<br>280                         | 0.8<br>0.7  |
| Merchandising  | 1.040                            | 940                                | 0.9   |
| Salesperson, Food                                    | 190                              | 130                                | 0.7   |
| Routeman   |                                  | 210                                | 0.9   |
| Manager, Department Store                            | 150                              | 130                                | 0.9   |
| Cashier-Checker                                      | 290                              | 250                                | 0.9   |
| Delivery Boy   | 30                               | 70                                 | 2.3   |
| SERVICE OCCUPATIONS                                  | 7,700                            | 6,760                              | 0.9   |
| Food Services  | 2,810                            | 1,910                              | 0.7   |
| Waiter & Waitress                                    |                                  | 810                                | 0.7   |
| Cook  Meat Cutter                                    | 760<br>90                        | 490                                | 0.6<br>0.7  |
| Kitchen Helper                                       | 560                              | 290                                | 0.5   |
| Food Assembler                                       | 50                               | 40                                 | 0.8   |
| Lodging Services                                     | 580                              | 620                                | 1.1   |
| Maid   | 510                              | 550                                | 1.1   |
| Maid .<br>Barbering, Cosmetology, & Related Services | 150                              | 100                                | 0.7   |
| Barber   | 10                               | 10                                 | 1.0   |
| Hair Stylist & Cosmetologist                         | 120                              | 70                                 | 0.6   |
| Amusement & Recreation Services                      | 90                               | 70                                 | 0.8   |
| Personal Services                                    | 1,190                            | 1,090                              | 0.9   |
| Nurse's Aid  | 30<br>710                        | 20<br>720                          | 0.7<br>1.0  |
| Orderly  | 120                              | 120                                | 1.0   |
| Tray Line Worker                                     | 180                              | 100                                | ر.<br>د .6  |
| Child Care Attendant                                 | 120                              | 90                                 | 0.8   |
| Apparel & Furnishing Service                         | 290                              | 520                                | 1.8   |
| Laundry Laborer                                      | 40                               | 50                                 | 1.2   |
| Presser, Apparel                                     | 180                              | 320                                | 1.8   |
| Checker, Dry Cleaning                                | 20                               | 30 ·                               | 1.5   |
| Folder & Marker                                      | 20                               | 40                                 | 2.0   |
| Protective Service                                   | 1,040                            | 1,110                              | 1.1   |
| Guard & Watchman                                     | 600                              | 650                                | 1.1   |
| Policeman  | 80<br>190                        | 80<br>200                          | 1.0   |
| Policeman Deputy Sheriff & Bailiff                   | 30                               | 30                                 | 1.0<br>1.0  |
| Building Services                                    | 1,550                            | 1,340                              | 0.9   |
| Janitor & Porter                                     | 1,330                            | 1,340<br>1,160                     | 0.8   |
| AGRICULTURAL SERVICE OCCUPATIONS                     | 250                              | 200                                | 0.8   |
| Groundskeeper  | 160                              | 130                                | 0.8   |
| IC'  |                                  |                                    |   |

| Occupation                               | Experienced<br>Need<br>1965-1970 | Projected<br>Required<br>1970-1975 | Ratio of Projected<br>Required to<br>Experienced Need |
|--|----------------------------------|------------------------------------|---|
| ROCESSING OCCUPATIONS                    | 2,300                            | 2,370                              | 1.0   |
| Metal Processing                         | 70                               | 60                                 | 8.0   |
| Foundry Processing                       | 60                               | <sub>.</sub> 60                    | 1.0   |
| Laborer, Die Casting                     | 20                               | 20                                 | 1.0   |
| Molder                                   | 0<br>20                          | 10                                 | 1.0   |
| Laborer, Foundry Food Processing         | 320<br>320                       | 20<br>180                          | 1.0<br>0.6  |
| Laborer, Food Processing                 | 240                              | 120                                | 0.5   |
| Paper Processing                         | 100                              | 100                                | 1.0   |
| Laborer, Paper Processing                | 40                               | 50                                 | 1.2   |
| Chemical Processing                      | 750                              | 980                                | 1.3   |
| Foreman, Chemicals                       | 40                               | 40                                 | 1.0   |
| Chemical Mixer                           | 90                               | 50                                 | 0.6   |
| Molding Machine Operator                 | 40                               | 30                                 | 0.8   |
| Spinner Tender Chemical Machine Operator | 30<br>210                        | 30<br>180                          | 1.0<br>0.9  |
| Chemical Machine Tender                  | 170                              | 150                                | 0.9   |
| Stone, Clay, & Glass Processing          | 180                              | 330                                | 1.8   |
| Foreman                                  | 50                               | 60                                 | 1.2   |
| Laborer, Forming                         | 60                               | 110                                | 1.8   |
| Laborer, Forming Laborer, Concrete Plant | 40                               | 90                                 | 2.2   |
| Textile Processing                       | 790                              | 640                                | 8.0   |
| Slasher Tender                           | 80                               | , 60                               | 8.0   |
| Cloth Treater Tender                     | 210                              | 160                                | 1.8   |
| Back Tender                              | 20                               | 20                                 | 1.0   |
| Cloth Processing Tender                  | 100                              | . 80                               | 0.8   |
| Impregnating Tank Operator               | 20                               | 30                                 | 1.5   |
| ACHINE TRADES OCCUPATIONS                | 5,530                            | 3,620                              | 0.6   |
| Metal Machining Foreman                  | 720<br>40                        | 600<br>30                          | 0.8   |
| Machinist                                | 120                              | 100                                | 0.8   |
| Tool & Die Maker                         | 50                               | 40                                 | 0.8   |
| Grinder Operator                         | 50                               | 60                                 | 1.2   |
| Screw Machine Operator                   | 50                               | 40                                 | 0.8   |
| Drill Press Operator                     | 50                               | 40                                 | 0.8   |
| Inspector, Metal Machinery               | 80                               | 80                                 | 1.0   |
| Production Machine Operator              | 160                              | 140                                | 0.9   |
| Metalworking                             | 450°                             | 340                                | 0.8   |
| Punch Press Operator Set Up Man          | 40<br>70                         | 40<br>80                           | 1.0<br>1.1  |
| Forging Press Operator                   | 10                               | 10                                 | 1.0   |
| Punch Press Tender                       | 20                               | 20                                 | 1.0   |
| Metal Fabricator                         | 30                               | $\overline{20}$                    | 0.7   |
| Machine Operator                         | 170                              | 60                                 | 0.4   |
| Mechanics & Machinery Repair             | 1,250                            | 920                                | 0.7   |
| Foreman                                  | 110                              | 70                                 | 0.6   |
| Auto Mechanic                            | 330                              | 250                                | 0.8   |
| Auto Mechanic Helper                     | 70                               | 50                                 | 0.7   |
| Carman                                   | -10                              | -10                                | 1.0   |
| Refrigeration Mechanic                   | 50                               | 50                                 | 1.0   |
| Maintenance Mechanic                     | 340                              | 300                                | 0.9   |
| Sewing Machine Repairman                 | 60<br>40                         | 40<br>30                           | 0.7<br>C.8  |
| Paperworking                             |                                  | 90                                 | 0.9   |
| Paper Cutting & Winding Tender           | 100                              | 20                                 | 2.0   |
| Bag Machine Operator                     | 30                               | 30                                 | 1.0   |
| Printing                                 | 120                              | 90                                 | 0.8   |
| Printing Press Operator                  | 50                               | 40                                 | 0.8   |
| Wood Machining                           | 20                               | 140                                | 7.0   |
| Cabinetmaker                             |                                  | 20                                 | 2.0   |
| Saw Operator                             | 10                               | 70                                 | 7.0   |
| Woodworking-Machine Operator             | 10                               | 20                                 | 2.0   |
| Stone, Clay, & Glass Machining           | 0                                | . 0                                | _   |
| Textiles                                 | 2,870                            | · 1,440                            | 0.5   |
| Foreman                                  | 70                               | 30                                 | 0.4   |
| Card Grinder                             | 0                                | 0                                  | ~~  |
| Carding, Combing, & Drawing Tender       | 130                              | 90                                 | 0.7   |
| Machine Fixer                            | 30<br>220                        | 10<br>160                          | 0.3   |
| INVISION VALUE ON VALUE                  | 22U                              | 160                                | 0.7   |



| Occupation ·  | Experienced<br>Need<br>1965-1970 | Projected<br>Required<br>1970-1975 | Ratio of Projected<br>Required to<br>Experienced Need |
|---|----------------------------------|------------------------------------|---|
| Loom Fixer  | 60                               | 20                                 | 0.3   |
| Loom Changer  |                                  | 0<br>210                           | 0.7   |
| Weaver Draw-in & Smash Hand   | 300                              | 10                                 | 0.7   |
| Battery Filler  | 10                               | 0                                  |   |
| Knitting Machine Operator   | 110                              | 50                                 | 0.4   |
| Cloth Grader Cloth Examiner, Machine  | 60<br>70                         | 40<br>60                           | 0.7<br>0.8  |
| Doffer & Spooler  | 120                              | 90                                 | · 0.8   |
| Creeler   |                                  | 60                                 | 0.7   |
| BENCH WORK OCCUPATIONS  | 3,090                            | 3,360                              | 1.1   |
| Fabrication, Assembly, & Repair of Metal Products                                   |                                  | 270<br>40                          | 0.7   |
| Grinder & Polisher  | 40<br>30                         | 30                                 | 1.0<br>1.0  |
| Inspector, Metal Assembly Assembler, Metal Products                                 | 200                              | 170                                | 0.8   |
| Fabrication & Repair of Medical & Scientific Products &                             |                                  |                                    |   |
| Photographic & Optical Goods  | 130                              | 150                                | 1.2   |
| Instrument Mechanic   | 40<br>50                         | 40<br>40                           | 1.0<br>0.8  |
| Dental Laboratory Technician  Assembly & Repair of Electrical Equipment             |                                  | 260                                | 0.4   |
| Assembler, Electrical Appliance   | 90                               | 60                                 | 0.7   |
| Inspector, Electrical Equipment   | 30                               | 30                                 | 1.0   |
| Assembler, Electronic   |                                  | 20<br>60                           | 1.0<br>0.8  |
| Assembler, Electrical Equipment Fabrication & Repair of Products Made from Assorted | 70                               | 60                                 | 0.0   |
| Materials   | 120                              | 150                                | 1.2   |
| Assembler, Sports Equipment   |                                  | 40                                 | 2.0   |
| Assembler, Small Products   |                                  | 40                                 | 1.3   |
| Painting & Decorating   |                                  | 60<br>30                           | 1.0<br>0.8  |
| Spray Painter Fabrication & Repair of Synthetics, Rubber, & Plastics                |                                  | 30                                 | 0.4   |
| Fabrication & Repair of Wood Products   |                                  | 80                                 | 4.0   |
| Furniture Assembler   | 10                               | 30                                 | 3.0   |
| Fabrication & Repair of Stone, Clay, & Glass Products                               |                                  | 40<br>10                           | 1.3<br>1.0  |
| Pottery Finisher  |                                  | 10                                 | 1.0<br>—  |
| End Finder, Asbestos  | -                                | 10•                                | 1.0   |
| Fabrication & Repair of Textile & Related Products                                  | 1,880                            | 2,330                              | 1.2   |
| Foreman   |                                  | 40                                 | 2.0   |
| Upholsterer, Production   | 80<br>40                         | 60<br>50                           | 0.8<br>1.2  |
| Cutter & Spreader   | · <del>-</del>                   | 70                                 | 0.6   |
| Seamstress  | 90                               | 110                                | 1.2   |
| Sowing Machine Operator   | 1,240                            | 1,700                              | 1.4   |
| Garment Inspector Folder & Turner   | 10<br>80                         | 110<br>80                          | 11.0<br>1.0   |
| STRUCTURAL WORK OCCUPATIONS   |                                  | 4,730                              | 1.3   |
| Structural Metal Fabricating  | 520                              | 480                                | 0.9   |
| Foreman   | 20                               | 20                                 | 1.0   |
| Structural Steel Worker   | 20                               | 40<br>250                          | 2.0<br>1.3  |
| Sheet Metal Worker Rigger   | 190<br>10                        | 0                                  | 1.3   |
| Framer, Mobile Home   |                                  | 6 <u>0</u>                         | 0.9   |
| Automobile-Body Repairman   | 40                               | 30                                 | 0.8   |
| Fabricator-Assembler, Metal Products  |                                  | 30                                 | 1.0   |
| Welding & Flame Cutting   | 290<br>10                        | 320<br>10                          | 1.1<br>1.0  |
| Welder, Spot<br>Welder, Arc   | 30                               | 30                                 | 1.0   |
| Welder, Combination   |                                  | 200                                | 1.0   |
| Welder-Fitter   | 10                               | 40                                 | 4.0   |
| Welder Helper   |                                  | 20                                 | 1.0   |
| Electrical Assembling, Installing, & Repairing                                      |                                  | 660<br>60                          | 0.9<br>0.9  |
| Foreman Lineman, Power Lineman, Power   | 80                               | 50                                 | 0.6   |
| Telephone Repairman   | 7.0                              | 70                                 | 10  |
| Lineman, Telephone  | 60                               | 40                                 | 0.,   |
| Electrician Holper  |                                  | 220<br>90                          | 1.1<br>1.3  |
| Electrician Helper Painting, Plastering, Waterproofing, & Cementing                 |                                  | 330                                | 1.7   |
| Painter   |                                  | 170                                | 1.7   |



| Occupation   | Experienced<br>Need<br>1965-1970 | Projected<br>Required<br>1970-1975 | Ratio of Projected<br>Required to<br>Experienced Need |
|--|----------------------------------|------------------------------------|---|
| Painter Helper   | 10 .                             | 30                                 | 3.0   |
| Lather & Plasterer   | 20                               | 30                                 | 1.5   |
| Cement Mason   | 30                               | 60                                 | 2.0   |
| Excavating, Grading, & Paving Excavating Equipment Operator Road Laborer   | 430                              | 430                                | 1.0   |
| Excavating Equipment Operator  | 80                               | 90                                 | 1.1   |
| Road Laborer<br>Motor-Grader Operator                                      | 110                              | 80                                 | 0.7   |
| Motor-Grader Operator  | 20                               | 30                                 | 1.5   |
| Pipe Layer   | 10                               | 10                                 | 1.0   |
| Pipe Layer Operating Engineer  | 170                              | 180                                | 1.0   |
| Other Construction   | 1,160                            | 2,220                              | 1.9   |
|  |                                  | 90                                 | 1.8   |
| Carpenter Carpenter, Rough Laborer, Carpentry Bricklayer Bricklayer Helper | 150                              | 460                                | 3.1   |
| Carpenter, Rough   | 20                               | 70                                 | 3.5   |
| Laborer, Carpentry   | 30                               | 150                                | 5.0   |
| Bricklayer   | 80                               | 150                                | 1.9   |
| Bricklayer Helper  | 60                               | 110                                | 1.8   |
| Pipefitter & Plumber<br>Pipefitter & Plumber Helper                        | 190                              | 270                                | 1.4   |
| Pipefitter & Plumber Helper  | 50                               | 60                                 | 1.2   |
| Insulation Worker  | 30                               | 60                                 | 2.0   |
| Roofer   | 30                               | 60                                 | 2.0   |
| Erector Construction Worker  | 30                               | 90                                 | 3.0   |
| Construction Worker  | 370                              | 550                                | 1.5   |
| Structural Maintenance   | 340                              | 290                                | 8.0   |
| Foreman  Maintenance Man, Factory  | 80                               | 80                                 | 1.0   |
| Maintenance Man, Factory   | 40                               | 40                                 | 1.0   |
| Maintenance Man, Building  | 120                              | 100                                | 8.0   |
| Maintenance Helper   | 60                               | 30                                 | 0.5   |
| MISCELLANEOUS OCCUPATIONS  | 4,660                            | 4,080                              | 0.9   |
| Motor Freight  | 950                              | 1,060                              | 1.1   |
| Foreman  | 20                               | 20                                 | 1.0   |
| Tank Truck Driver  | 40                               | 30                                 | 0.8   |
| Tractor-Trailer Truck Driver   | 280                              | 310                                | 1.1   |
| Truck Driver, Heavy Distributor Truck Driver                               | 260                              | 300                                | 1.2   |
| Distributor Truck Driver   | 130                              | 120                                | 0.9   |
| vali & Galbage Truck Driver  | 130                              | 150                                | 1.2   |
| Transportation Occupations   | 810                              | 330                                | 0.4   |
| Foreman  | 50                               | 40                                 | 8.0   |
| Brakeman, Yard   | 0                                | 0                                  |   |
| Bus & Taxicab Driver   | 410                              | 140                                | 0.3   |
| Automobile Service Station Attendant                                       | 190                              | 60                                 | 0.3   |
| Cleaner  | 50                               | 30                                 | 0.6   |
| Packaging & Materials Handling   | 2,510                            | 2,350                              | 0.9   |
| Foreman  | 50                               | 60                                 | 1.2   |
| Packager, Machine  | . 60                             | 50<br>320                          | 0.8   |
| Packager, Hand   | 430                              | 330                                | 0.8   |
| Crane & Elevator Operator  | 60<br>140                        | 70<br>150                          | 1.2   |
| Industrial Truck Operator  |                                  | 150                                | 1.1   |
| Laborer, Stores  | 590<br>630                       | 560<br>540                         | 0.9   |
| Material Handler   |                                  | 540                                | 0.9   |
| Logging  | -10<br>10                        | 0                                  |   |
| Luilities Production & Distribution  | 10                               | 0<br>: <b>31</b> 0                 | 0.0   |
| Utilities Production & Distribution  | 230                              | · 210                              | 0.9   |
| Street Cleaner   | 30                               | 30                                 | 1.0   |
| Graphic Art Work   | 100                              | 80                                 | 0.8   |

#### APPENDIX TABLE 5. NONFARM WAGE AND SALARY EMPLOYMENT FOR ECONOMIC AREA 11 IN SOUTH CAROLINA BY MAJOR INDUSTRY DIVISION AND SELECTED INDUSTRY GROUPS, 1965, 1970, AND PROJECTIONS TO 1975

|                | •                                  |         |         |         | •         |            |  |  |
|----------------|------------------------------------|---------|---------|---------|-----------|------------|--|--|
|                | Industry Annual Average Employment |         |         |         |           | Net Change |  |  |
| SIC            | Name                               | 1965    | 1970    | 1975    | 1965-1970 | 1970-1975  |  |  |
|                | TOTAL <sup>2</sup>                 | 303,800 | 363,500 | 407,200 | 59,700    | 43,700     |  |  |
| 07-09          | Agriculture, Forestry, & Fisheries | 400     | 500     | 500     | 100       | 0          |  |  |
| 10–14          | Mining                             | 600     | 600     | 600     | 0         | 0          |  |  |
| 15 <b>–1</b> 7 | Contract Construction              | 14,700  | 17,000  | 22,400  | 2,300     | 5,400      |  |  |
| 15             | Building Construction              | 5,400   | 5,000   | 6,800   | -400      | 1,800      |  |  |
| 16             | Heavy Construction Contractors     | 2,600   | 3,500   | 4,200   | 900       | 700        |  |  |

Economic Area I consists of Abbeville, Anderson, Cherokee, Chester, Edgefield, Greenville, Greenwood, Lancaster, Laurens, McCormick, Oconee,

Pickers' Saluda, Spartanburg, Union, and York.

The sign of the industry totals for the four economic areas do not add to the state total because some employees are not allocated to a specific county due to the nature of work.



APPENDIX TABLE 5. NONFARM WAGE AND SALARY EMPLOYMENT FOR ECONOMIC AREA 11 IN SOUTH CAROLINA BY MAJOR INDUSTRY DIVISION AND SELECTED INDUSTRY GROUPS, 1965, 1970, AND PROJECTIONS TO 1975—Continued

|               | Industry  | Annual         | Average Emp      | ployment         |                | hange         |
|---------------|---|----------------|------------------|------------------|----------------|---------------|
| SIC           | Name  | 1965           | 1970             | 1975             | 1965-1970      | 1970-1975     |
| 17            | Special Trade Contractors   | 6,700          | 8,500            | 11,400           | 1,800          | 2,900         |
| <b>19-</b> 39 | Manufacturing   | 173,400        | 197,100          | 214,100          | 23,700         | 17,000        |
| 20<br>22      | Food & Kindred Products   |                | 4,700<br>115,300 | 4,900<br>115,500 | 700<br>6,900   | 200           |
| 221           | Broadwoven Cotton   | 53,700         | 57,100           | 57,200           | 3,400          | 200<br>100    |
| 222           | Broadwoven Synthetics   | 22,500         | 24,000           | 24,000           | 1,500          | 0             |
| 224           | Narrow Fabrics  | 2,400          | 2,500            | 2,500            | 100            | Ō             |
| 225           | Knitting Mills  | 6,100          | 6,500            | 6,500            | 400            | 0             |
| 226<br>227    | Dying & Finishing Floor Covering                                    |                | 14,600<br>3,800  | 14,700<br>3,800  | 800            | 100           |
| 228           | Yarn Mills  |                | 5,400            | 5,400            | 200<br>300     | 0             |
| 23            | Apparel & Other Finished Products                                   | 21,300         | 22,600           | 25,500           | 1,300          | 2,900         |
| 232           | Men's & Boys' Apparel   | 7,200          | 7,600            | 8,600            | 400            | 1,000         |
| <b>2</b> 33   | Women's & Misses' Outerwear   | 6,800          | 7,200            | 8,100            | 400            | 900           |
| 236<br>239    | Girls', Children's & Infants' Outerwear                             |                | . 2,100<br>3,100 | 2,300<br>3,500   | 100            | 200           |
| 24            | Miscellaneous Fabricated Textile Products<br>Lumber & Wood Products |                | 2,500            | 2,400            | 200<br>200     | 400<br>—100   |
| 25            | Furniture & Fixtures  | 800            | 900              | 1,000            | 100            | 100           |
| 26            | Paper & Allied Products   | 2,900          |                  | 4.200            | 700            | 600           |
| 27            | Printing, Publishing, & Allied Industries                           |                | 2,500            | 2,900            | 600            | 400           |
| 28<br>30      | Chemicals & Allied Products   | 8,400<br>700   | ,                | 14,700           | 3,500          | 2,800         |
| 30<br>32      | Rubber & Plastic Products Stone, Clay & Glass Products              | 700<br>4,100   | 4,900            | 1,600<br>6,600   | 600<br>800     | 300°<br>1,700 |
| 33            | Primary Metal Industries  | 300            | 800              | 1,200            | 500            | 400           |
| 34            | Fabricated Metal Products   | 1,500          | 2,200            | 3,100            | 700            | 900           |
| 35            | Nonelectrical Machinery   | 8,000          |                  | 15,500           | 3,800          | 3,700         |
| 355           | Special Industry Machinery  | 3,800          | 5,500            | 7,300            | 1,700          | 1,800         |
| 356<br>36     | General Industry Machinery  | 1,100<br>4,100 | 1,700<br>5,800   | 2,200<br>6,900   | 600<br>1 700   | 500           |
| 37            | Electrical Machinery  |                | 1,900            | 2,200            | 1,700<br>1,300 | 1,100<br>300  |
| 38            | Instruments & Related Products                                      | 1,900          |                  | 2,700            | 200            | 600           |
| 39            | Miscellaneous Manufacturing   | 1,700          | 2,100            | 3,000            | 400            | 900           |
| 40-49         | Transportation, Communications, Electric, Gas                       | <u>k</u>       | 10.000           | 4.600            | . = 00         |               |
| 42            | Sanitary Services   | 8,500<br>3,000 | 12,000           | 14,600<br>4,800  | 3,500          | 2,600         |
| 42<br>48      | Trucking & Warehousing  | 2,500          | 3,900<br>3,400   | 4,300            | 900<br>900     | 900<br>900    |
| 49            | Electric, Gas & Sanitary Services                                   |                | 4,000            | 4,700            | 1,600          | 700           |
| 50-59         | Wholesale & Retail Trade  | 43,400         | 53,700           | 59,200           | 10,300         | 5,500         |
| -50           | Wholesale Trade   | 8,400          | 10,10 <b>0</b>   | 11,600           | 1,700          | 1,500         |
| 52            | Retail Building Materials & Farm Equipmen                           | t<br>2,100     | . 2,200          | 2,300            | 100            | 100           |
| 53            | Dealers Retail Trade General Merchandise                            | 7,800          | 9,400            | 10,700           | · 100<br>1.600 | 100<br>1,300  |
| 54            | Retail Food Stores  |                | 8,600            | 9,500            | 2,000          | 900           |
| 55            | Retail Automotive Dealers & Gas Stations                            | 5,900          | 6,800            | 7,000            | 900            | 200           |
| 56            | Retail Apparel & Accessory Stores                                   |                | 2,400            | 2,500            | 400            | 100           |
| 57<br>58      | Retail Home Furnishings Stores                                      | 2,400<br>4,400 | 2,600<br>6,800   | 2,700            | 200            | 100           |
| 59            | Eating & Drinking Places Miscellaneous Retail Stores                |                | 4,800            | 7,700<br>5,200   | 2,400<br>1,000 | 900<br>400    |
| 60-67         | Finance, Insurance, & Real Estate                                   |                | 9,300            | 10,400           | 1,700          | 1,100         |
| 60            | Banking   | 1,800          | 2,700            | 3,100            | 900            | 400           |
| 61            | Credit Agencies Except Banks  |                | 1,800            | 2,100            | 200            | 300           |
| . 63          | Insurance Carriers  |                | 2,700            | 2,800            | 500            | 100           |
| 64<br>65      | Insurance Agents, Brokers, & Service<br>Real Estate                 |                | 600<br>1,000     | 700<br>1,200     | 0<br>200       | 100<br>200    |
| 70-89         | Services  |                | 31,500           | 37,800           | 6,500          | 6,300         |
| 70            | Hotels & Other Lodging Places                                       |                | 1,500            | 1,900            | 400            | 400           |
| 72            | Personal Services   | 4,900          | 4,900            | 5,300            | 0              | 400           |
| 73<br>70      | Miscellaneous Business Services                                     | 2,400          | 4,500            | 6,500            | 2,100          | 2,000         |
| 75<br>76      | Automobile Services & Repairs                                       |                | 1,400<br>600     | 1,600<br>700     | 500<br>200     | 200<br>100    |
| 78            | Motion Pictures   |                | 600              | 800              | 200            | 200           |
| 79            | Amusement & Recreation  | 600            | 800              | 1,000            | 200            | 200           |
| 80            | Medical & Health Services   | . 4,700        | 7,100            | 8,900            | 2,400          | 1,800         |
| 81            | Legal Services  | 400            | 500              | 600              | 100            | 100           |
| 82<br>86      | Educational Services  | 1,600          | 2,300<br>5,300   | 2,500            | 700<br>1 000   | 200           |
| 89            | Nonprofit Membership Organizations Miscellaneous Services           |                | 5,200<br>2,100   | 5,500<br>2,500   | —1,000<br>700  | 300<br>400    |
| 91–93         | Government  |                | 41,800           | 47,600           | 11,600         | 5,800         |
| 91            | Federal Government  |                | 2,700            | 2,700            | 300 '          | 0             |
| 92            | State Government  | 5,700          | 8,800            | 16,700           | 3,100          | 1,900         |
| 93            | Local Government  | 22,100         | 30,400           | 34,200           | 8,200          | 3,900         |

|  | Employment     |                |                         |                      |              |  |
|--|----------------|----------------|-------------------------|----------------------|--------------|--|
| Occupation   |                | tual           | Projected               | Projected Net Change |              |  |
|  | 1965           | 1970           | 1975                    | 1965-1970            |              |  |
| TOTAL <sup>1</sup>   | 303,650        | 362,850        | 405,800                 | 59,200               | 42,950       |  |
| PROFESSIONAL, TECHNICAL & MANAGERIAL   | 42.200         | E 4 E 0 0      | (4.000                  | 40.200               | 6.500        |  |
| OCCUPATIONS  | 42,200         | 54,500         | 61,000                  | 12,300               | 6,500        |  |
| Electrical Engineer  | 2,550<br>350   | 3,350<br>450   | 3,850<br>550            | 800<br>100           | 500<br>100   |  |
| Civil & Construction Engineer  | 350            | 500            | 600                     | 150                  | 100          |  |
| Mechanical Engineer  | 550            | 750            | 900                     | 200                  | 150          |  |
| Chemical Engineer  | 250            | 400            | 450                     | 150                  | 50           |  |
| Industrial Engineer  | 850            | 1,050          | 1,150                   | 200                  | 100          |  |
| Technician   | 2,850          | 3,800          | 4,500                   | 950                  | 700          |  |
| Draftsman  | 700            | 1,000          | 1,250                   | 300                  | 250          |  |
| Electrical & Electronic Technician   | 50<br>100      | 100            | 100                     | 50                   | U<br>TO      |  |
| Mechanical Engineering Technician & Designer<br>Chemical Research Technician   | 100            | 150<br>150     | 200<br>200              | 50<br>50             | 50<br>50     |  |
| Surveyor   | 100            | 150            | 150                     | 50                   | 0            |  |
| Quality Technician   | 200            | 300            | 350                     | 100                  | 50           |  |
| Laboratory Technician  | 1,350          | 1,750          | 2,050                   | 400                  | 300          |  |
| Scientist  | 1,050          | 1,300          | 1,400                   | 250                  | 100          |  |
| Mathematical Scientist   | 400            | 500            | 550                     | 100                  | 50           |  |
| Chemist Children & Connection and  | 150            | 200            | 200                     | 50                   | 0            |  |
| Psychologist, Guidance & Counseling  | 300            | 350            | 400                     | 50                   | 1 1 5 0      |  |
| Medicine & Health Pharmacist   | 3,750<br>400   | 5,000<br>500   | 6,150<br>550            | 1,250<br>100         | 1,150<br>50  |  |
| Nurse, Registered  | ∌ 1,500        | 1,950          | 2,500                   | 450                  | 550          |  |
| Dietition  | 100            | 150            | 150                     | 50                   | 0            |  |
| Medical Technologist   | 150            | 200            | 250                     | 50                   | 50           |  |
| Medical Technician   | 100            | 150            | 200                     | 50                   | 50           |  |
| Medical Laboratory Assistant   | 50             | 100            | 100                     | 50                   | 0            |  |
| Education  | 10,650         | 15,450         | 16,200                  | 4,800                | 750          |  |
| * Faculty Member, College or University  | 450<br>500     | 800<br>700     | 1,000<br>700            | 350<br>200           | 200<br>0     |  |
| Teacher, Secondary School  | 3,900          | 5,550          | 5,750                   | 1,650                | 200          |  |
| Teacher, Elementary School   | 4,050          | 5,700          | 5,800                   | 1,650                | 100          |  |
| Teacher's Aid  | 400            | 600            | 600                     | 200                  | 0            |  |
| Librarian  | 400            | 550            | 550                     | 150                  | 0            |  |
| Entertainment & Recreation   | 1,050          | <b>1</b> ,100  | 1,200                   | 50                   | 100          |  |
| Managerial and Administration  | 17,500         | 21,450         | 24,300                  | 3,950                | 2,850        |  |
| Accountant & Auditor   | 850<br>150     | 1,100<br>200   | 1,200<br>- 250          | 250<br>50            | 100<br>50    |  |
| Estimator Treasurer  | 200            | 250<br>250     | 250                     | 50<br>50             | 0            |  |
| Purchasing Agent & Buyer   | 450            | 600            | 650                     | 150                  | · 50         |  |
| Sales Manager  | 450            | 600            | 650                     | 150                  | 50           |  |
| Manager, Personnel   | 150            | 200            | 250                     | 50.                  | 50           |  |
| Employment Manager   | 200            | 250            | 250                     | 50                   | 0            |  |
| Training Supervisor  | 150<br>100     | 150<br>150     | 200<br>200              | 0<br>50              | 50<br>50     |  |
| Employment Interviewer<br>Investigator & Inspector, Public Service   | 250            | 350            | 350                     | 100                  | 0            |  |
| Administrative Manager   | 1,300          | 1,800          | 2,150                   | 500                  | 350          |  |
| Plant Manager & Assistant  | 950            | 1,100          | 1,250                   | 150                  | 150          |  |
| Production Foreman   | 1,700          | 1,950          | 2,150                   | 250                  | 200          |  |
| Transportation, Communications, & Public Utilities Man-  | 250            | <b>700</b>     | 600                     | 450                  | . 400        |  |
| ager & Official  | 350            | 500            | 600                     | 150                  | 100          |  |
| Retail & Wholesale Manager & Official<br>Finance, Insurance & Real Estate Executive  | 2,500<br>1,500 | 2,950<br>1,850 | 3,250<br>2,0 <b>5</b> 0 | 450<br>350           | 300<br>200   |  |
| Service Industry Executive   | 1,250          | 1,650          | 1,800                   | 400                  | 150          |  |
| Public Administration  | 150            | 200            | 200                     | 50                   | 0            |  |
| Social Worker and Supervisor   | 450            | 550            | 600                     | 100                  | 50           |  |
| CLERICAL & SALES OCCUPATIONS   | 51,850         | 63,100         | 71,100                  | 11,250               | 8,000        |  |
| , Clerical Occupations   | 33,200         | 40,700         | 46,200                  | 7,500                | 5,500        |  |
| Secretary & Stenographer   | 5,800          | 7,050          | 7,850                   | 1,250                | 800          |  |
| Typist   | 150<br>250     | 200<br>300     | 250<br>350              | 50<br>50             | 50<br>50     |  |
| Personnel Clerk<br>File Clerk  | 350<br>350     | 400            | 400                     | 50<br>50             | 0            |  |
| Clerk-Typist   | 2,250          | 2,800          | 3,150                   | 550                  | 350          |  |
| General Clerk  | 1,350          | 1,700          | 1,950                   | 350                  | 250          |  |
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<sup>&</sup>lt;sup>1</sup> Occupational totals do not add to total employment by industry because of a number of exclusions such as student workers and employees of Neighborhood Youth Corps and Heardstart projects.



|   | Employment     |                        |                |                    | Employment    |  |  |  |
|---|----------------|------------------------|----------------|--------------------|---------------|--|--|--|
| Occupation  | Act            |                        | Projected      | Net C              | hange         |  |  |  |
|   | 1965           | 1970                   | 1975           |                    | 1970-1975     |  |  |  |
| Bookkeeper  | 2,900          | 3,600                  | 4,200          | 700                | 600           |  |  |  |
| Cashier   | 1,100          | 1,450                  | 1,650          | 350                | 200           |  |  |  |
| Teller  | 700            | 1,000                  | 1,150          | 300                | 150           |  |  |  |
| Computer Operator   | 200<br>600     | 250<br>700             | 300<br>800     | 50                 | 50            |  |  |  |
| Keypunch Operator Payroll Clerk   | 500            | 600                    | 650            | 100<br>100         | 100<br>50     |  |  |  |
| General Office Clerk  | 3,950          | 4,800                  | 5,250          | 850                | 450           |  |  |  |
| Accounting Clerk  | 700            | 900                    | 1,000          | 200                | 100           |  |  |  |
| Production Clerk  | 1,000          | 1,150                  | 1,250          | 150                | 100           |  |  |  |
| Shipping & Receiving Clerk Stock Clerk  | 2,250<br>3,000 | 2,600<br>3,650         | 3,000<br>4,050 | 350<br><b>6</b> 50 | 400<br>400    |  |  |  |
| Post Office Clerk   | 400            | 500                    | 500            | 100                | 0             |  |  |  |
| Mail Carrier  | 400            | 500                    | 450            | 100                | 50            |  |  |  |
| Telephone Operator  | 1,050          | 1,450                  | 1,800          | 400                | 350           |  |  |  |
| Receptionist & Information Clerk Call and the second secon | 750            | 1,000                  | 1,200          | 250                | 200           |  |  |  |
| Collector Adjuster  | 300<br>250     | 350<br>300             | 400<br>300     | 50<br>50           | 50<br>0       |  |  |  |
| Hotel Clerk   | 100            | 150                    | 200            | 50<br>50           | 50            |  |  |  |
| Salesman, Services  | 1,700          | 2,050                  | 2,250          | 350                | 200           |  |  |  |
| Salesman, Insurance & Real Estate   | 1,300          | 1,550                  | 1,650          | 250                | 100           |  |  |  |
| Salesman, Business Services   | 100            | 100                    | 150            | 0                  | 50            |  |  |  |
| Salesman, Commodities   | 10,400         | 12,400                 | 13,850         | 2,000              | 1,450         |  |  |  |
| Salesman, Food, Beverages & Tobacco<br>Salesman, Textile Products & Apparel   | 450<br>2,650   | 500<br>3,150           | 600<br>3,500   | 50<br>500          | 100<br>350    |  |  |  |
| Salesman, Chemical & Drugs  | 550            | 700                    | 800            | 150                | 100           |  |  |  |
| Salesman, House Furnishings   | 650            | 750                    | . 800          | 100                | 50            |  |  |  |
| Salesman, Industrial Equipment & Supplies   | 1,000          | 1,150                  | 1,350          | 150                | 200           |  |  |  |
| Salesman, Transportation Equipment  | 950<br>3,050   | 1,150<br>3,700         | 1,200          | 200                | 50<br>450     |  |  |  |
| Salesman, General Merchandising   | 6,550          | 7,950                  | 4,150<br>8,800 | 650<br>1,400       | 450<br>850    |  |  |  |
| Salesperson, Food   | 1,050          | 1,350                  | 1,500          | 300                | 150           |  |  |  |
| Routeman  | 2,450          | 2,900                  | 3,150          | 450                | . 250         |  |  |  |
| Manager, Department Store   | 750            | 950                    | 1,050          | 200                | 100           |  |  |  |
| Cashier-Checker   | 1,150          | 1,500                  | 1,650          | 350                | 150           |  |  |  |
| Delivery Boy SERVICE OCCUPATIONS  | 400<br>28,700  | 500<br>3 <b>6,9</b> 00 | 500<br>42,900  | 100<br>8,200       | 0<br>6,000    |  |  |  |
| Food Services   | 7,800          | 11,050                 | 12,350         | 3,250              | 1,300         |  |  |  |
| Waiter & Waitress   | 2,800          | 4,000                  | 4,550          | 1,200              | 550           |  |  |  |
| Cook  | 2,050          | 3,000                  | 3,300          | 950                | 300           |  |  |  |
| - Meat Cutter   | 600            | 750                    | 850            | 150                | 100           |  |  |  |
| Kitchen HelperFood Assembler  | 1,800<br>300   | 2,600<br>400           | 2,900<br>450   | 800<br>100         | 300<br>50     |  |  |  |
| Lodging Services  | 950            | 1.400                  | 1,700          | 450                | 300           |  |  |  |
| Maid  | 850            | 1,200                  | 1,450          | 350                | 250           |  |  |  |
| Barbering, Cosmetology & Related Services   | 650            | 700                    | 750            | . 50               | 50            |  |  |  |
| Hair Stylist & Cosmetologist  | 500            | 500                    | 500            | 0                  | 0             |  |  |  |
| Amusements & Recreation Services  | 250            | 350                    | 400            | 100                | 50            |  |  |  |
| Recreation Facility Attendant   | 150<br>2,700   | 200<br>3,800           | 250<br>4,800   | 50<br>1,100        | 50<br>1,000   |  |  |  |
| Personal Services   | 4,000          | 4,150                  | 4,550          | 1,100              | 400           |  |  |  |
| Laundry Laborer   | 300            | 350                    | 400            | 50                 | 50            |  |  |  |
| Presser, Apparel  | 2,550          | 2,600                  | 2,850          | 50                 | 250           |  |  |  |
| Checker, Dry Cleaning   | 200            | 200                    | <b>2</b> 50    | 0                  | 50            |  |  |  |
| Protective Sérvices   | 3,600          | 5,150                  | 6,800          | 1,550              | 1,650         |  |  |  |
| Guard & WatchmanFireman   | 2,000<br>300   | 2,950<br>400           | 4,000<br>450   | 950<br>100         | 1,050<br>- 50 |  |  |  |
| Policeman   | 750            | 1,000                  | 1,100          | 250                | 100           |  |  |  |
| Deputy Sheriff & Bailiff  | 100            | 150                    | 200            | 50                 | 50            |  |  |  |
| Building Service  | 8,700          | 10,400                 | 11,450         | 1,700              | 1,050         |  |  |  |
| Janitor & Porter  | 8,600          | 10,250                 | 11,250         | 1,650              | 1,000         |  |  |  |
| AGRICULTURAL SERVICE OCCUPATIONS  | 950<br>650     | 1,200<br>800           | 1,350<br>900   | 250<br>150         | 150           |  |  |  |
| GroundskeeperFire Warden & Lookout  | 100            | 100                    | 150            | 150<br>0           | 100<br>50     |  |  |  |
| PROCESSING OCCUPATIONS  | 18,250         | 21,500                 | 23,950         | 3,250              | 2,450         |  |  |  |
| Metal Processing  | 350            | 500                    | 650            | 150                | 150           |  |  |  |
| Foundry Processing  | 300            | 700                    | 900            | 400                | 200           |  |  |  |
| Food Processing   | 1,200          | 1,500                  | 1,550          | 300<br>150         | 50<br>50      |  |  |  |
| Laborer, Food Processing  | 850            | 1,000                  | 1,050          | 150                | 50            |  |  |  |



|  | Employment  Actual Projected Net Chang  |                |               |                 |           |
|--|---|----------------|---------------|-----------------|-----------|
| Occupation                                 | Ac                                      | Actual         |               | Net_C           | Change    |
| ·  | 1965                                    | 1970           | 1975          | 1965-1970       | 1970-197  |
| Paper Processing                           |   | 550            | 650           | 100             | 100       |
| Chemical Processing                        |   | 5,900          | 7,050         | 1,450           | 1,150     |
| Foreman, Chemicals                         | 150                                     | 200            | 250           | 50              | . 50      |
| Dye Weigher                                | 250                                     | 250            | 250           | 0               | 0         |
| Chemical Mixer                             |   | 900            | 1,000         | 150             | 100       |
| Molding Machine Operator                   |   | 350            | 450           | 100             | 100       |
| Spinner TenderChemical Machine Operator    |   | 200<br>1,550   | 250<br>1,900  | 50<br>450       | 50<br>350 |
| Chemical Machine Tender                    | 1,000                                   | 1,350          | 1,700         | 350             | 350       |
| Wood Processing                            |   | 100            | . 100         | 0               | 0         |
| Stone, Clay & Glass Processing             |   | 1,900          | 2,550         | 350             | 650       |
| Foreman                                    |   | 350            | 450           | 100             | 100       |
| Laborer, Forming                           |   | 700            | 950           | 100             | 250       |
| Laborer, Concrete Plant                    |   | 400            | 550           | 50              | 150       |
| Textile Processing                         | 9,600                                   | 10,350         | 10,500        | 750             | 150       |
| Foreman                                    | 550                                     | 600            | 600           | 50              | 0         |
| Slasher Tender                             |   | 1,300          | 1,300         | 100             | 0         |
| Cloth Treater Tender                       |   | 2,250          | 2,300         | 200             | 50        |
| Back Tender                                |   | 1,350<br>300   | 1,350<br>300  | 100<br>0        | 0<br>0    |
| Calender OperatorShearing Machine Operator |   | 600            | 650           | 0               | 50        |
| Cloth Folder, Hand                         |   | 650            | 700           | ő               | 50        |
| Cloth Processing Tender                    |   | 1,100          | 1,150         | 50              | 50        |
| Impregnating Tank Operator                 | 100                                     | 150            | 200           | 50              | 50        |
| MACHINE TRADES OCCUPATIONS                 | 82,600                                  | 91,500         | 96,350        | 8,900           | 4,850     |
| Metal Machining                            |   | 5,450          | 6,900         | 1,550           | 1,450     |
| Foreman                                    |   | 250            | 350           | 50 <sup>,</sup> | 100       |
| Machinist                                  | 1,000                                   | 1,250          | 1,450         | 250             | 200       |
| Tool & Die Maker                           | 300                                     | 450            | 550           | 150             | 100       |
| Grinder Operator                           |   | 500            | 650           | 150<br>150      | 150       |
| Screw Machine OperatorDrill Press Operator |   | 450<br>300     | 550<br>350    | 150<br>100      | 100<br>50 |
| Inspector, Metal Machinery                 | 250                                     | 350            | 450           | 100             | 100       |
| Production Machine Operator                |   | 1,100          | 1,400         | 300             | 300       |
| Metalworking                               |   | 2,050          | 2,700         | 650             | 650       |
| Punch Press Operator                       |   | 200            | 250           | 50              | 50        |
| Set Up Man                                 | 450                                     | 650            | 850           | 200             | 200       |
| Punch Press Tender                         |   | 200            | 250           | 100             | 5n        |
| Machine Operator                           |   | s & 250        | 350           | 50              | 100       |
| Mechanics & Machinery Repair               |   | 10,250         | 11,550        | 1,600           | 1,300     |
| Foreman                                    |   | 650            | 750           | 150             | 100       |
| Auto Mechanic                              | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 2,750<br>450   | 3,100<br>500  | 400<br>100      | 350<br>50 |
| Overhauler, Machinery                      |   | 850            | 850           | 50              | 0         |
| Textile Machine Mechanic                   |   | 100            | 150           | 0               | 50        |
| Refrigeration Mechanic                     | 500                                     | 600            | 650           | 100             | 50        |
| Maintenance Mechanic                       | 2,500                                   | 3,000          | 3,500         | 500             | 500       |
| Maintenance Mechanic Helper                | 400                                     | 450            | 550           | <sub>.</sub> 50 | 100       |
| Sewing Machine Repairman                   | 400                                     | 450            | 500           | 50              | 50        |
| Paperworking                               | 800                                     | 1,000          | 1,200         | 200             | 200       |
| Bag Machine Operator                       | 250                                     | 300            | 350           | 50              | 50        |
| Printing                                   | 1,800                                   | 2,050          | 2,150         | 250             | 100       |
| Printing Press Operator                    |   | 350            | 400           | 100             | 50        |
| Cloth Printing Machine Operator            | 550<br>350                              | 550<br>400     | 550<br>400    | 0<br>50         | 0         |
| Cloth Printing Helper                      |   | 1,800          | <b>1</b> ,950 | 100             | 150       |
| Wood MachiningSaw Operator                 |   | 700            | 700           | -50             | 0         |
| Wood Working Machine Operator              |   | 500            | 600           | 150             | 100       |
| Textiles                                   |   | 68,850         | 69,850        | 4,550           | 1,000     |
| Foreman                                    |   | 2,650          | 2,650         | 200             | 0         |
| Card Grinder                               | 350                                     | 350            | 400           | 0               | 50        |
| Carding, Combing, & Drawing Tender         | 5,100                                   | 5,450          | 5,500         | 350             | 50        |
| Machine Fixer                              | <u>:</u> 900                            | 950            | 950           | 50              | 0         |
| Twister, Winder, & Warper                  | 5,000                                   | 5,450          | 5,550         | 450             | 100       |
| Frame Spinner                              |   | 6, <b>1</b> 50 | 6,200         | 350             | 50        |
| Loom Fixer<br>Loom Changer                 | = 0.0                                   | 5,000<br>550   | 5,000<br>550  | 300<br>50       | 0<br>0    |
| COURT VIIAUPEI                             | .100                                    | 220            | 220           | JU              | U         |



|  |                  | Employment     |                       |                     |             |
|--|------------------|----------------|-----------------------|---------------------|-------------|
| Occupation   | Act              |                | Projected             | Net Cl              | 121100      |
|  | 1965             | 1970           | 1975                  |                     | 1970-1975   |
| Draw-in and Smash Hand   | 1,800            | 1,950          | 1,950                 | 150                 | 0           |
| Battery Filler   | 3,100            | 3,300          | 3,300                 | 200                 | Ö           |
| Knitting Machine Operator  | 800              | 850            | 850                   | 50                  | ő           |
| Section Man  | 2,350            | 2,500          | 2,550                 | 150                 | 50          |
| Cloth & Yarn Tester  | 250              | 250            | 250                   | 0                   | 0           |
| Cloth Grader   | 1,750 -<br>2,050 | 1,850<br>2,200 | 1,850                 | 100                 | 0           |
| Cloth & Yarn Winder  | 3,150            | 3,350          | 2,200<br>3,400        | 150<br>2 <b>0</b> 0 | 0<br>50     |
| Doffer & Spooler   | 7,550            | 8,100          | 8,150                 | 550                 | 50<br>50    |
| Creeler  | 1,400            | 1,550          | 1,600                 | 150                 | 50          |
| Machine Cleaner & Oiler  | 1,700            | 1,850          | 1,900                 | 150                 | 50          |
| BENCH WORK OCCUPATIONS   | 26,150           | 29,850         | 34,150                | 3,750               | 4,300       |
| Fabrication, Assembly, & Repair of Metal Products                    | 1,450            | 2,150          | 2,750                 | 700                 | 600         |
| Grinder & Polisher<br>Inspector, Metal Assembly                      | 250<br>150       | 350<br>. 200   | 450<br>250            | 100<br>50           | 100         |
| Assembler, Metal Production  | 750 .            | 1,150          | 1,450                 | 400                 | 50<br>300   |
| Fabrication & Repair of Medical & Scientific Products &              | . 55             | .,             | 1,150                 | 100                 | 300         |
| Photographic & Optical Gords   | 700              | 950            | 1,150                 | 250                 | 200         |
| Instrument Mechanic  | 250              | 300            | 350                   | 50                  | 50          |
| Dental Laboratory Technician   | 200              | 300            | 400                   | 100                 | 100         |
| Assembly & Repair of Electrical Equipment                            | 1,750<br>100     | 2,600          | 3,150                 | 850                 | 550         |
| Radio & Television Repairman Inspector, Electrical Equipment         | 100              | 150<br>150     | 150<br>200            | 50<br>50            | 0<br>50     |
| Assembler, Electronic  | 50               | 100            | 100                   | 50<br>50            | 0           |
| Assembler, Components a  | 0                | 0              | 50                    | 0                   | 5 <b>0</b>  |
| Assembler, Electrical Equipment                                      | 250              | 350            | 450                   | 100                 | 100         |
| Fabrication & Repair of Products Made From Assorted                  | 700              | 000            |                       |                     |             |
| Materials  Musical Instrument Assembler                              | 700<br>100       | 900<br>150     | 1,150<br>200          | 200                 | 250         |
| Assembler, Sports Equipment  | 200              | 200            | 300                   | 50<br>0             | 50<br>100   |
| Assembler, Small Products  | 200              | 200            | 300                   | ŏ                   | 100         |
| Painting & Decorating  | 200              | 250            | 350                   | 50                  | 100         |
| Spray Painter  | 100              | 150            | 200 8                 |                     | 50          |
| Fabrication & Repair of Synthetics, Rubber & Plastics                | 200<br>50        | 300            | 350                   | 100                 | 50          |
| - Assembler, Plastics Products Fabrication & Repair of Wood Products | 250              | 100<br>300     | 100<br>350            | 50<br>50            | 0<br>50     |
| Fabrication & Repair of Stone, Clay, & Glass Products                | 250              | 350            | 450                   | 100                 | 100         |
| Pottery Finisher   | 100              | 150            | 200                   | 50                  | 50          |
| Fabrication and Repair of Textile & Related Products                 | 20,600           | 22,050         | 24,450                | 1,450               | 2,400       |
| Foreman  | 500              | 500            | 600                   | 0                   | 100         |
| Upholsterer Production Bundler & Draper                              | 300<br>200       | . 300<br>200   | 350<br>250            | 0                   | 50<br>50    |
| Cutter & Spreader  | 650              | 700            | 800                   | 50                  | 100         |
| Hand Sewer   | 600              | 650            | 700                   | 50                  | 50          |
| Seamstress   | 400              | 450            | 500                   | 50                  | 50          |
| Sewing Machine Operator  | 14,200           | 15,150         | 16,900                | 950                 | 1,750       |
| Garment Inspector  | 1,150<br>700     | 1,250<br>800   | 1,350<br>8 <b>5</b> 0 | 100<br>100          | 100<br>50   |
| STRUCTURAL WORK OCCUPATIONS  | 21,100           | 26,350         | 32,650                | 5,250               | 6,300       |
| Structural Metal Fabricating   | 2,050            | 3,100          | 3,750                 | 1,050               | 650         |
| Structural Steel Worker Structural Steel Worker                      | 150              | 200            | 250                   | 50                  | 50          |
| Sheet Metal Worker   | 850              | 1,200          | 1,450                 | . 350               | 250         |
| Framer, Mobile Home  | 200<br>350       | 550<br>400     | 650<br>450            | 350<br>50           | 100<br>50   |
| Welding & Flame Cutting  | 1,200            | 1,550          | 1,950                 | 350                 | 400         |
| Welder, Art  | 100              | 150            | 200                   | 50                  | 50          |
| Welder, Combination  | 700              | 900            | 1,150                 | 200                 | 250         |
| Welder-Fitter  | 150              | 150            | 200                   | 0                   | 50          |
| Welder Helper Electrical Assembling, Installing, & Repairing         | 50<br>3,600      | 100<br>4,750   | 150<br>5,700          | 50<br>1,150         | 50<br>1,050 |
| Foreman  | 300              | .400           | 450                   | 1,130               | 1,050<br>50 |
| Lineman, Power   | 200              | 300            | 350                   | 100                 | 50          |
| Telephone Repairman  | 250              | 350            | 450                   | 100                 | 100         |
| Lineman, Telephone   | 250              | 350            | 400                   | 100                 | 50<br>350   |
| Electrician  Household-Appliance Repairman                           | 1,400<br>250     | 1,700<br>300   | 2,050<br>300          | 300<br>50           | 350<br>0    |
| Electrician Helper   | 400              | 500            | 650                   | 100                 | 150         |
| Painting, Plastering, Waterproofing, & Cementing                     | 1,400            | 1,650          | 2,100                 | 250                 | 450         |
|  |                  |                |                       |                     |             |



|   |               | Employmen      | t              |              |             |
|---|---------------|----------------|----------------|--------------|-------------|
| Occupation                                      | Act           | ual            | Projected      |              | Change      |
|   | 1965          | 1970           | 1975           | 1965-1970    | 1970-1975   |
| Painter   | 700           | 800            | 1,050          | 100          | <b>2</b> 50 |
| Lather & Plasterer                              | 100           | 150            | 200            | -50          | 50          |
| Cement Mason                                    | 250           | 300            | 400            | 50           | 100         |
| Excavating, Grading, & Paving                   | 1,800<br>250  | 2,250          | 2,650          | 450          | 400         |
| Excavating Equipment Operator                   | 550<br>550    | 350<br>700     | 400<br>800     | 100<br>150   | 50<br>100   |
| Motor Grader Operator                           | 100           | 100            | 150            | 0            | 50          |
| Operating Engineer                              | 600           | 750            | 900            | 15 <b>0</b>  | 150         |
| Other Construction                              | 9,600         | 11,250         | 14,450         | 1,650        | 3,200       |
| Foreman   | 350           | 450            | 550            | 100          | 100         |
| Carpenter                                       | 1,850         | 2,000          | 2,550          | 150          | 550         |
| Carpenter, Rough                                | 300<br>700    | .300           | 400<br>900     | 0            | 100         |
| Laborer, Carpenter<br>Bricklayer                | 650           | 700<br>750     | 1,050          | 0<br>100     | 200<br>300  |
| Bricklayer's Helper                             | 500           | 650            | 850            | 150          | 200         |
| Pipefitter & Plumber                            | 1,050         | 1,300          | 1,600          | 250          | 300         |
| Pipefitter's & Plumber's Helper                 | 250           | 350            | 450            | 100          | 100         |
| Insulation Worker                               | 200           | 200            | 300            | 0            | 100         |
| Roofer  | 200           | 250            | 300            | 50           | 50          |
| Erecjor   | 400           | 450            | 600            | 50           | 150         |
| Construction Worker                             | 2,400         | 2,950          | 3,650          | 550          | 700         |
| Structural Maintenance                          | 1,450<br>500  | 1,800<br>600   | 2,050<br>700   | 350<br>100   | 250<br>100  |
| Maintenance Man, Factory                        | 300           | 350            | 400            | ·50          | 50          |
| Maintenance Man, Building                       | 450           | 550            | 650            | 100          | 100         |
| Maintenance Helper                              | 200           | 250            | 250            | 50           | 0           |
| MISCELLANEOUS OCCUPATIONS                       | 31,850        | 37,850         | 42,400         | 5,900        | 4,550       |
| Motor Freight                                   | 5,650         | 6,950          | 8,500          | 1,300        | 1,200       |
| Foreman   | 150           | 200            | 200            | 50           | _0          |
| Tank Truck Driver                               | 200           | 250            | 300            | 50           | 50          |
| *Tractor-Trailer Truck Driver                   | 1,450         | 1,800          | 2,300          | 350          | 500         |
| Truck Driver, Heavy<br>Distributor Truck Driver | 1,700<br>900  | 2,050<br>1,100 | 2,450<br>1,200 | 350<br>200   | 400<br>100  |
| Van & Garbage Truck Driver                      | 550           | 700            | 800            | 150          | 100         |
| Transportation Occupations                      | 3,750         | 4,800          | 5,100          | 1,050        | 300         |
| Foreman   | 200           | 250            | 300            | 50           | 50          |
| Bus & Taxicab Driver                            | 1,650         | 2,200          | 2,250          | 550          | 50          |
| Automobile Service Station Attendant            | 950           | 1,150          | 1,200          | 200          | 50          |
| Tire Repairman                                  | 250           | 300            | 300            | 50           | 0           |
| Cleaner   | 300           | 400            | 400            | 100          | 0           |
| Packaging & Materials Handling                  | 19,850<br>400 | 22,950<br>500  | 25,300<br>550  | 3,100<br>100 | 2,350       |
| Foreman Packager, Machine                       | 600           | 700            | 800            | 100          | 50<br>100   |
| Packager, Hand                                  | 4,550         | 5,300          | 5,850          | 750          | 550         |
| Crane & Elevator Operator                       | 300           | 350            | 400            | 50           | 50          |
| Industrial Truck Operator                       | 1,400         | 1,600          | 1,700          | 200          | 100         |
| Laborer, Stores                                 | 3,400         | 3,950          | 4,350          | 550          | 400         |
| Baling Machine Operator                         | 400           | 450            | 450            | 50           | 0           |
| Material Handler                                | 8,400         | 9,700          | 10,650         | 1,300        | 950         |
| Extraction of Minerals                          | 150<br>400    | 150<br>350     | 200            | 0            | 50          |
| Logger  | 250           | 250<br>250     | 400<br>250     | -50<br>0     | 50<br>0     |
| Utilities Production & Distribution             | 1,250         | 1,550          | 1,700          | 300          | 150         |
| Stationary Engineer                             | 150           | 200            | 200            | 50           | . 0         |
| Fireman & Humidifier Attendant                  | 250           | 300            | 300            | 50           | ŏ           |
| Power Plant Operator                            | 200           | 250            | 300            | 50           | 50          |
| Street Cleaner                                  | 100           | 150            | 150            | 50           | 0           |
| Amusement, Recreation, & Motion Picture         | 100           | 100            | 150            | 0            | 50          |
| Graphic Art Work                                | 700           | 900            | 1,050          | 200          | 150         |
| Compositor                                      | 250           | 300            | 35J            | 50           | 50          |
| Photoengraver                                   | 100           | 150            | 150            | 50           | 0           |
| UNCLASSIFIED                                    | 100           | 150            | 150            | 50           | 0           |

NOTE: Refer to Appendix Table 5, footnote 1, for list of counties comprising Economic Area 1.



APPENDIX TABLE 7. NONFARM WAGE AND SALARY EMPLOYMENT FOR ECONOMIC AREA III IN SOUTH CAROLINA BY MAJOR INDUSTRY DIVISION AND SELECTED INDUSTRY GROUPS, 1965, 1970, AND PROJECTIONS TO 1975

|                 | Industry  |               | Average Emp  | loyment        | Net C        |            |
|-----------------|---|---------------|--------------|----------------|--------------|------------|
| SIC             | Name  | 1965          | 1970         | 1975           | 1965-1970    | 1970-1973  |
|                 | TOTAL <sup>2</sup>                                | 145,600       | 180,400      | 206,700        | 34,900       | 26,200     |
| 07-09           | Agriculture, Forestry, & Fisheries                | 400           | 400          | 500            | . 0          | 100        |
| 10-14           | Mining  |               | 700          | 700            | 0            | 0          |
| 1517            | Contract Construction                             |               | 9,900        | 13,100         | 1,200        | 3,200      |
| 15              | Building Construction                             |               | 3,600        | 4,800          | 200          | 1,200      |
| 16              | Heavy Construction Contractors                    |               | 1,700        | 2,100          | 400          | 400        |
| 17              | Special Trade Contractors                         | 3,600         | 4,600        | 6,200          | 1,000        | 1,600      |
| 19-39           | Manufacturing                                     | 47,900        | 56,400       | 64,200         | 8,500        | 7,800      |
| 20              | Food & Kindred Products                           | 3,100         | ',3,700      | 3,900          | 600          | 200        |
| 22              | Textile Mill Products                             | 16,000        | 17,000       | 17,200         | 1,000        | 200        |
| 221             | Broadwoven Cotton                                 | 9,700         | 10,400       | 10,400         | 700          | 0          |
| 23              | Apparel & Other Finished Products                 | 6,400         | 6,800        | 7,700          | 400          | 900        |
| 232             | Men's & Boys' Apparel                             |               | 2,200        | 2,400          | 200          | 200        |
| 233             | Women's & Misses' Outerwear                       |               | 2,200        | 2,500          | 100          | 300        |
| 24              | Lumber & Wood Products                            |               | 3,400        | 3,200          | -400         | -200       |
| 26              | Paper & Allied Products                           |               | 1,100        | 1,300          | 200          | 200        |
| 27              | Printing, Publishing, & Allied Industries         |               | 1,300        | 1,500          | 300          | 200        |
| 28              | Chemicals & Allied Products                       | 5,500         | 7,800        | 9,600          | 2,300        | 1,800      |
| 32              | Stone, Clay & Glass Products                      | 3,000         | 3,600        | 4,800          | 600          | 1,200      |
| 34              | Fabricated Metal Products                         | 2,100         | 3,000        | 4,300          | 900          | 1,300      |
| 35              | Nonelectrical Machinery                           |               | 2,200        | 2,600          | 700          | 400        |
| + 36<br>- 37    | Electrical Machinery                              | 1,600<br>200. | 2,200        | 2,600          | 600          | 400        |
| 37<br>38        | Transportation Equipment                          |               | 700<br>1,000 | 800            | 500<br>100   | 100        |
| 30<br>39        | Instruments & Related Products                    |               | 1,600        | 1,200<br>2,300 | 300          | 200<br>700 |
|                 | Miscellaneous Manufacturing                       |               | 1,800        | 2,300          | 300          | 700        |
| 40-49           | Transportation, Communications, Electric, Gas, &  | C 100         | 8,300        | 10 700         | 2.400        | 1 000      |
| 41              | Sanitary Services                                 |               | 500          | 10,700<br>500  | 2,400<br>. 0 | 1,900<br>0 |
| 42              | Local & Suburban Transportation                   | 1,900         | 2,400        | 3,000          | 500          | 600        |
| 48              | Trucking & Warehousing                            |               | 3,400        | 4,300          | 900          | 900        |
| 49              | Communication  Electric, Gas, & Sanitary Services |               | 2,300        | 2,700          | 900          | 400        |
| 50-59           | Wholesale & Retail Trade                          |               | 33,100       | 36,800         | 6,200        | 3,700      |
| 50-57           | Wholesale Trade                                   | 6,200         | 7,400        | 8,600          | 1,200        | 1,200      |
| 52              | Retail Building Materials & Farm Equipment        |               | 7,100        | 0,000          | 1,200        | 1,200      |
| 32              | Dealers   |               | 1,600        | 1,700          | 0            | 100        |
| 53              | Retail Trade General Merchandise                  |               | 5,000        | 5,600          | 90Ó          | 600        |
| 54 .            | Retail Food Stores                                |               | 4,000        | 4,400          | 900          | 400        |
| 55              | Retail Automotive Dealers & Gas Stations          |               | 4,200        | 4,300          | 600          | 100        |
| 56 .            | Retail Apparel & Accessory Stores                 | 1,200         | 1,400        | 1,500          | 200          | 100        |
| 57              | Retail Home Furnishings Stores                    |               | 1,200        | 1,30 <b>0</b>  | 100          | 100        |
| 58              | Eating & Drinking Places                          |               | 5,000        | 5,700          | 1,700        | 700        |
| 59              | Miscellaneous Retail Stores                       |               | 3,300        | 3,700          | 600          | 400        |
| 50-67           | Finance, Insurance, & Real Estate                 |               | 9,200        | 10,10 <b>0</b> | 1,800        | 900        |
| 60              | Banking   |               | 2,600        | 3,000          | 900          | 400        |
| 61              | Credit Agencies Except Banks                      |               | 1,500        | 1,700          | 200          | 200        |
| 63              | Insurance Carriers                                |               | 3,100        | 3,300          | 500          | 200        |
| 64              | Insurance Agents, Brokers, & Service              | 900           | 1,000        | 1,000          | 100          | . 0        |
| 65              | Real Estate                                       | 500           | 600          | 700            | 100          | 100        |
| 70-89           | Service   | 16,700        | 20,700       | 24,100         | 4,000        | 3,400      |
| 70              | Hotels & Other Lodging Places                     |               | 1,400        | 1,700          | 400          | 300        |
| 72              | Personal Services                                 | 3,000         | 3,000        | 3,200          | 0            | 200        |
| 73              | Miscellaneous Business Services                   | 1,100         | 2,100        | 3,100          | 1,000        | 1,000      |
| <i>7</i> 5      | Automobile Services & Repairs                     |               | 1,100        | 1,300          | 300          | 200        |
| 79 <sup>.</sup> | Amusement & Recreation                            | 400           | 700          | 800            | 300          | 100        |
| 80              | Medical & Health Services                         |               | 3,900        | 4,800          | 1,300        | 900        |
| 81 -            | Legal Services                                    | 400           | 500          | 600            | 100          | 100        |
| 82              | Educational Services                              | 1,500         | 2,300        | 2,400          | 800          | 100        |
| 86              | Nonprofit Membership Organizations                |               | 3,800        | 4,000          | -700         | 200        |
| 89              | Miscellaneous Services                            | 900           | 1,300        | 1,500          | 400          | 200        |
| 91-93           | Government  | 30,500        | 41,200       | 46,500         | 10,700       | 5,300      |
| 91              | · Federal Government                              | 7,000         | 8,000        | 8,000          | 1,000        | 0          |
| 92              | State Government                                  |               | 15,200       | 18,200         | 4,700        | 3,000      |
| 93              | Local Government                                  | 13,000        | 18,000       | 20,300         | 5,000        | 2,300      |

<sup>1</sup> Economic Area II consists of Aiken, Allendale, Bamberg, Barnwell, Calhoun, Fairfield, Lexington, Newberry, Orangeburg, and Richland.

<sup>\*</sup> The sum of the industry totals for the four economic areas do not add to the state total because some employees are not allocated to a specific county due to the nature of work.



|   | Employment         |                |                  |                |                |
|---|--------------------|----------------|------------------|----------------|----------------|
| Occupation  | Act                | ual            | Projected        |                | hange          |
|   | 1965               | 1970           | 1975             | 1965-1970      | 1970-1975      |
| TOTAL!  | 145,350            | 179,050        | 205,000          | 33,700         | 25,950         |
| PROFESSIONAL, TECHNICAL, & MANAGERIAL                                       |                    |                |                  |                |                |
| OCCUPATIONS   | 28,350<br>1,000    | 36,700         | 41,300           | 8,350          | 4,600          |
| Electrical Engineer   |                    | 1,450<br>350   | 1,600<br>400     | 450<br>100     | 150<br>50      |
| Civil & Construction Engineer   | 250                | 350            | 400              | 100            | 50             |
| Mechanical Engineer   | 150                | 150            | 200              | 0              | 50             |
| Chemical Engineer<br>Industrial Engineer                                    | 100<br>250         | 150            | 150              | 50             | 0              |
| Technician  | 1,600              | 300<br>2,250   | 350<br>2,500     | 50<br>650      | 50<br>250      |
| Draftsman   | 300                | 400            | 500              | 100            | 100            |
| Electrical & Electronic Technician  | 100                | 100            | 100              | 0              | 0              |
| Laboratory Technician Scientist   | <i>7</i> 50<br>950 | 1,000<br>950   | 1,250            | 250            | 250            |
| Mathematical Scientist  | 300                | 350            | 1,100<br>400     | 0<br>50        | 150<br>50      |
| Psychologist, Guidance & Counseling   | 250                | . 350          | 400              | 100            | 50<br>50       |
| Medicine & Health   | 3,200              | 4,050          | 4,650            | 850            | 600            |
| Nurse, Registered  Medical Laboratory Assistant                             | 1,250              | 1,650          | 1,900            | 400            | 250            |
| Education   | 100<br>7,050       | 150<br>10,700  | 150<br>11,500    | 50<br>3,650    | 0<br>800       |
| Faculty Member, College or University                                       | 650                | 1,200          | 1,500            | 550            | 300            |
| School Administrator  | 300                | 450            | 450              | 150            | 0              |
| Teacher, Secondary School   |                    | , 3,350        | 3,450            | 1,050          | 100            |
| Teacher, Elementary School  |                    | -3,400<br>350  | 3,500<br>400     | 1,050          | 100            |
| Librarian   |                    | 350            | 400              | 100<br>100     | 50<br>50       |
| Entertainment & Recreation  | 700                | 750            | 850              | 50             | 100            |
| Managerial & Administration   |                    | 14,500         | 16,600           | 2,700          | 2,100          |
| Accountant & Auditor Purchasing Agent & Buyer                               | 700<br>- 300       | 850<br>350     | 1,000<br>· 400   | 150            | 150            |
| Sales, Manager  | 300                | 400            | 450              | 50<br>100      | 50<br>50       |
| investigator & inspector, Public Service                                    | 200                | 300            | 300              | 100            | 0              |
| Administrative Manager  | 750                | 1,000          | 1,150            | 250            | 150            |
| Plant Manager & Assistant Production Foreman                                | 400<br>400         | 500<br>450     | 600<br>550       | 100<br>50      | 100            |
| Retail & Wholesale Manager & Official                                       | 1,500              | 1,800          | 1,950            | 300            | 100<br>150     |
| Finance, Insurance, & Real Estate Executive                                 | 1,300              | 1,600          | 1,800            | 300            | 200            |
| Service Industry Executive  | 1,050              | 1,300          | 1,500            | 250            | 200            |
| Social Worker & Supervisor  CLERICAL & SALES OCCUPATIONS                    | 600<br>34,700      | 750<br>42,550  | 800              | 150            | 50             |
| Clerical Occupations  | 22,700             | 28,400         | 47,800<br>32,250 | 7,850<br>5,700 | 5,250<br>3,850 |
| Secretary & Stenographer  | 4,600              | 5,600          | 6,400            | 1,000          | 800            |
| Clerk-Typist  | 1,700              | 2,100          | 2,350            | 400            | 250            |
| General Clerk<br>Bookkeeper   | 1,050<br>1,950     | 1,350          | 1,550            | 300            | 200            |
| Cashier   | 800                | 2,400<br>1,050 | 2,750<br>1,150   | 450<br>250     | 350<br>100     |
| Teller  | 600                | 900            | 1,050            | 300            | 150            |
| Keypunch Operator   | 350                | 450            | 500              | 100            | 50             |
| General Office Clerk Accounting Clerk                                       | 2,100<br>450       | 2,650          | 3,000            | 550            | 350            |
| Shipping & Receiving Clerk  | 900 s              | 600<br>1,050   | 700<br>1,250     | 150<br>150     | 100<br>200     |
| Stock Clerk   | 1,500              | 1,900          | 2,150            | 400            | 250<br>250     |
| Post Office Clerk   | 950                | 1,100          | 1,100            | 150            | ű              |
| Mail Carrier  | 950                | 1,100          | 1,050            | 150            | <del>-50</del> |
| Telephone Operator Receptionist & Information Clerk                         | 1,000<br>400       | 1,350<br>550   | 1,700<br>600     | 350<br>150     | 350<br>50      |
| Salesman, Services  | 1,350              | 1,700          | 1,850            | 350            | 150            |
| Salesman, Insurance & Real Estate   | 1,050              | 1,250          | 1,300            | 200            | 50             |
| Salesman, Commodities   | 6,750              | 7,900          | 8,750            | 1,150          | 850            |
| Salesman, Food, Beverages & Tobacco<br>Salesman, Textile Products & Apparel | 350<br>1,600       | 400<br>1,850   | 500<br>2,050     | 50<br>250      | 100            |
| Salesman, House Furnishings   | 300                | 350            | 400              | 250<br>50      | 200<br>50      |
| Salesman, Industrial Equipment & Supplies                                   | 700                | 800            | 950              | 100            | 150            |
| Salesman, Transportation Equipment  | 600                | 700            | 750              | 100            | 50             |
| Salesman, General   | 2,000              | 2,400          | 2,650            | 400            | 250            |
| Merchandising   | 3,850              | 4,600          | 5,050            | 750            | 450            |

Occupational totals do not add to total employment by industry because of a number of exclusions such as student workers and employees of Neighburhood Youth Corps and Headstart projects.



|   | e des este e e e e e e e e e e e e e e e e | Employment      |                         |              |               |
|---|--|-----------------|-------------------------|--------------|---------------|
| Occupation                                      | Act  | tual            | Projected               | Net C        | hange         |
|   | 1965                                       | 1970            | 1975                    | 1965-1970    | 1970-1975     |
| Routeman  |  | 1,650           | 1,800                   | 250          | 150           |
| Manager, Department Store                       | 450  | 550             | 600                     | 100          | 50            |
| Cashier-Checker SERVICE OCCUPATIONS             | 550<br>19,350                              | 700<br>25,050   | 800<br>29,150           | 150<br>5,700 | 100<br>4,100  |
| Food Services                                   | 6,050                                      | 8,450           | 9,700                   | 2,400        | 1,250         |
| Waiter & Waitress                               | 2,300                                      | 3,200           | 3,600                   | 900          | 400           |
| Cook  | 1,550                                      | 2,250           | 2,500                   | 700          | 250           |
| Kitchen Helper                                  | 1,500<br>950                               | 2,100<br>1,350  | 2,300<br>1,750          | 600          | 200           |
| Lodging Services                                | 850<br>850                                 | 1,350           | 1,750                   | 400<br>300   | 400<br>300    |
| Barbering, Cosmetology & Related Services       | 650  | 650             | 790                     | 0            | 50            |
| Hair Stylist & Cosmetologist                    | 450  | 450             | 500                     | 0            | 50            |
| Amusements & Recreation Services                | 150  | 250             | 300                     | 100          | 50            |
| Personal Services                               | 2,900<br>250                               | 3,800<br>400    | 4,550<br>450            | 900<br>150   | 750<br>50     |
| Apparel & Furnishing Services                   | 1,950                                      | 2,050           | 2,250                   | 100          | 200           |
| Laundry Laborer                                 | 200  | 200             | 250                     | 0            | 50            |
| Presser, Apparel                                | 1,050                                      | 1,100           | 1,200                   | 50           | 100           |
| Protective Services Guard & Watchman            | 2,300<br>950                               | 2,950<br>1,350  | 3, <b>6</b> 00<br>1,700 | 650<br>400   | 650<br>350    |
| Policeman                                       | 600  | 750             | 900                     | 150          | 150           |
| Building Services                               | 4,300                                      | 5,500           | 6,250                   | 1,200        | 750           |
| Janitor & Porter                                | 4,300                                      | 5,500           | 6,250                   | 1,200        | 750           |
| AGRICULTURAL SERVICE OCCUPATIONS Groundskeeper  | 750<br>400                                 | 950<br>550      | 1,100<br>600            | 200<br>150   | 150<br>50     |
| PROCESSING OCCUPATIONS                          | 5,800                                      | 7,150           | 8,400                   | 1,350        | 1,250         |
| Metal Processing                                | 100  | 150             | 200                     | 50           | 50            |
| Foundry Processing                              | 100  | 150             | 200                     | 50           | 50            |
| Food Processing                                 | 1,050                                      | 1,300           | 1,400                   | 250          | 100           |
| Laborer, Food Processing Paper Processing       | 700<br>200                                 | 850<br>200      | 900<br>250              | 150<br>0     | 50<br>50      |
| Chemical Processing                             | 1,750                                      | 2,400           | 2,900                   | 650          | 500           |
| Chemical Machine Operator                       | 400  | 600             | 750                     | 200          | 150           |
| Chemical Machine Tender                         | 600  | 900             | 1,100                   | 300          | 200           |
| Wood Processing Stone, Clay, & Glass Processing | 100<br>1,100                               | 100<br>1,350    | 100<br>1,800            | ن<br>250     | 0<br>450      |
| Laborer, Forming                                |  | 400             | 550                     | 50           | 150           |
| Laborer, Concrete Plant                         | 350  | 400             | 550                     | 50           | 150           |
| Textile Processing                              | 1,350                                      | 1,450           | 1,500                   | 100          | 50            |
| Slasher Tender                                  | 200<br>250                                 | 200<br>300      | 200<br>300              | 0<br>50      | 0<br>0        |
| Back Tender                                     | 150  | 150             | 150                     | 0            | Ö             |
| Cloth Folder, Hand                              | 100  | 100             | 100                     | 0            | 0             |
| Cloth Processing Tender                         | 150  | 200             | 200                     | 50           | 0             |
| MACHINE TRADES OCCUPATIONS                      | 18,600<br>1,000                            | 21,000<br>1,400 | 22,750                  | 2,400        | 1,750         |
| Metal Machining                                 | 300  | 400             | 1,750<br>450            | . 400<br>100 | 350<br>50     |
| Production Machine Operator                     | 200  | 300             | 350                     | 100          | 50            |
| Metalworking                                    | 550  | 800             | . 1,100                 | 250          | 300           |
| Set Up Man                                      | 150<br>4,550                               | 200<br>. 5,700  | 250<br>6,500            | 50<br>1,150  | 50<br>800     |
| Mechanics & Machinery Repair                    | 300  | 350             | 400                     | 1,130<br>50  | 50            |
| Auto Mechanic                                   | 1,750                                      | 2,150           | 2,350                   | 40Ď          | 200           |
| Auto Mechanic Helper                            | 250  | 350             | 350                     | 100          | 0             |
| Refrigeration Mechanic                          | 200  | 300             | 350<br>1,700            | 100<br>300   | 50<br>300     |
| Maintenance Mechanic Paperworking               | 1,100<br>150                               | 1,400<br>150    | 200                     | 300<br>0     | 500<br>50     |
| Printing  | 400  | 500             | 550                     | 100          | 50            |
| Printing Press Operator                         | 150  | 200             | 200                     | 50           | 0             |
| Wood Machining                                  | 1,700                                      | 1,600           | 1,550                   | -100         | -50           |
| Saw Operator                                    | 1,000                                      | 900             | 850                     | -100         | <b>-</b> 50   |
| Stone, Clay, & Glass Machining                  | 100<br>10,050                              | 100<br>10.800   | 100<br>11,050           | 0<br>750     | 0<br>250      |
| Textiles Carding, Combing, & Drawing Tender     | 850  | 900             | 900                     | 750<br>50    | 250           |
| Machine Fixer                                   | 150  | 150             | 150                     | 0            | . 0           |
| Twister, Winder, & Warper                       | 700  | 800             | 800                     | 100          | 0             |
| Frame Spinner                                   | 850<br>650                                 | 900             | 900<br>700              | 50<br>50     | 0             |
| Loom Fixer                                      | 650<br>100                                 | 700<br>100      | 700<br>100              | 50<br>0      | 0<br><b>0</b> |
| FRÍC  | . 50                                       | .00             | . 50                    | v            | v             |

|   | Employment            |                    |                       | and the state of t |                   |
|---|-----------------------|--------------------|-----------------------|--|-------------------|
| Occupation  | Act                   |                    | Projected             | Net C  | Change            |
| ,   | 1965                  | 1970               | 1975                  | 1965-1970  | 1970-1975         |
| Weaver  | . 1,150               | 1,250              | 1,250                 | 100  | 0                 |
| Draw-in & Smash Hand  |                       | 250                | 300                   | 0 -  | 50                |
| Battery Filler  | 450                   | 500                | 500                   | 50   | 0                 |
| Section Man  Cloth Grader   | 350<br>. 250          | 400<br>250         | 400<br>250            | 50<br>0  | 0<br>0            |
| Cloth Grader Cloth Examiner, Machine                                |                       | 250<br>250         | • 250                 | 0  | 0                 |
| Cloth & Yarn Winder   | 450                   | 500                | 550                   | 50   | 50                |
| Doffer & Spooler  | . 1,500               | 1,600              | 1,600                 | 100  | Ō                 |
| Creeler   |                       | 250                | 250                   | 0  | 0                 |
| Machine Cleaner & Oiler   |                       | 350<br>10,450      | 400<br>12,400         | 0<br>1,400   | 50<br>1,950       |
| Fabrication, Assembly, & Repair of Metal Products                   | 450                   | 650                | 850                   | 200  | 200               |
| Fabrication & Repair of Medical & Scientific Products &             |                       |                    |                       | 200  | 200               |
| Photographic & Optical Goods  | 750                   | 950                | 1,150                 | 200  | 200               |
| Dental Laboratory Technician  | . 150                 | 250                | 300                   | 100  | 50                |
| Assembler, Photographic   | . 150<br>. 800        | 150<br>1,150       | 200<br>1,350          | 0<br>350   | 50<br>20 <b>0</b> |
| Assembler, Electrical Appliance                                     | . 150                 | 200                | 250                   | 50   | 50                |
| Assembler, Electronic   | . 150                 | 200                | 200                   | 50   | Ö                 |
| Fabrication & Repair of Products Made from Assorted                 |                       | 6.30               | 000                   |  |                   |
| Materials Finisher, Hand  |                       | 600<br>300         | 900<br>400            | 150<br>50  | 300               |
| Finisher, Hand Painting & Decorating                                |                       | 250                | 350                   | 50<br>50   | 100<br>100        |
| Spray Painter   | 150                   | 200                | 250                   | 50   | 50                |
| Fabrication & Repair of Wood Products                               | . 150                 | 150                | 150                   | 0  | 0                 |
| Fabrication & Repair of Stone, Clay, & Glass Products               |                       | 150                | 200                   | 50   | 50                |
| Fabrication & Repair of Textile & Related Products                  | 6,050<br>. 100        | 6,500<br>100       | 7,30 <b>0</b><br>100  | 450<br>0   | . 800<br>0        |
| Bundler & Draper  | . 100<br>. 200        | 200                | 250                   | 0  | 50                |
| Hand Sewer  | 150                   | 150                | 150                   | ŏ  | 0                 |
| Seamstress  | . 200                 | 250                | 250                   | 50   | 0                 |
| Sewing Machine Operator   |                       | 4,550              | 5,150                 | 300  | 600               |
| Garment Inspector Folder & Turner                                   |                       | 30 <b>0</b><br>250 | 350<br>250            | 0<br>50  | 50<br>· 0         |
| STRUCTURAL WORK OCCUPATIONS   |                       | 16,300             | 20,500                | 3,050  | 4,200             |
| Structural Metal Fabricating  | . ,                   | 1,550              | 2,050                 | 400  | 400               |
| Sheet Metal Worker  | . 400                 | 500                | 650                   | 100  | 150               |
| Automobile-Body Repairman   |                       | 300                | 300                   | 50   | 0                 |
| Welding & Flame Cutting   | . 850<br>. 500        | 1,100<br>700       | 1,5 <b>0</b> 0<br>950 | 250<br>200   | 400<br>250        |
| Electrical Assembling, Installing, & Repairing                      | 2,300                 | 3,150              | 3,900                 | 850  | 750               |
| Telephone Repairman   | 250                   | 350                | 450                   | 100  | 100               |
| Lineman, Telephone  | . 200                 | 250                | 300                   | 50   | 50                |
| Electrician   | 900                   | 1,200              | 1,500                 | 300  | 300               |
| Electrician Helper Painting, Plastering, Waterproofing, & Cementing | . <b>200</b><br>. 900 | 250<br>1,050       | 350<br>1,350          | 50<br>150  | 100<br>300        |
| Painter   |                       | 600                | 750                   | 100  | 150               |
| Excavating, Grading, & Paving                                       |                       | 1,950              | 2,250                 | 400  | 300               |
| Excavating Equipment Operator                                       |                       | 250                | 250                   | 50   | 0                 |
| Road Laborer  | . 750                 | 950                | 1,050                 | 200  | 100               |
| Operating Engineer Other Construction                               |                       | 550<br>6,500       | 650<br>8,300          | 100<br>800   | 100<br>1,800      |
| Carpenter   | ,                     | 1,200              | 1,550                 | 50   | 350               |
| Laborer, Carpentry  |                       | 450                | 550                   | - 0  | 100               |
| Bricklayer  | 300                   | 350                | 450                   | 50   | 100               |
| Pipefitter & Plumber  |                       | 800<br>250         | 1,050                 | 100  | 250               |
| Erector Construction Worker   |                       | 1,800              | 350<br>2,200          | 0<br>300   | 100<br>400        |
| Structural Maintenance  |                       | 1,000              | 1,150                 | 200  | 150               |
| Maintenance Man, Building   | . 300                 | 400                | 450                   | 100  | 50                |
| Maintenance Helper  | . 200                 | 250                | 250                   | 50   | - 0               |
| MISCELLANEOUS OCCUPATIONS   | . 15,550              | 18,900             | 21,650                | 3,350  | 2,750             |
| Motor Freight Tractor-Trailer Truck Driver                          | . 3,750<br>. 900      | 4,600<br>1,100     | 5,500<br>1,350        | 850<br>200   | 900<br>250        |
| Truck Driver, Heavy   | 1.150                 |                    | 1,600                 | 250<br>250   | 200               |
| Distributor Truck Driver  | . 650                 | 800                | 900                   | 150  | 100               |
| Van & Garbage Truck Driver  | . 350                 | 450                | 500                   | 100  | 50                |
| Transportation Occupations  | 2,500                 | 3,200              | 3,400                 | 700  | 200               |
| Bus & Taxicab Driver  | . 1,100               | 1,450 -            | 1,450                 | 350  | 0                 |

APPENDIX TABLE 8. AVERAGE NONFARM WAGE AND SALARY EMPLOYMENT FOR ECONOMIC AREA II IN SOUTH CAROLINA BY SELECTED OCCUPATIONS, 1965, 1970, AND PROJECTIONS TO 1975—Continued

|   |       | Employment |        |            |           |
|---|-------|------------|--------|------------|-----------|
| Occupation                              | Act   | Actual     |        | Net Change |           |
| ,                                       | 1965  | 1970       | 1975   | 1965-1970  | 1970-1975 |
| Automobile Service Station Attendant    | 600   | 700        | 750    | 100        | 50        |
| Cleaner                                 | 200   | 250        | 250    | 50         | 0         |
| Packaging & Materials Handling          | 7,400 | 8,850      | 10,100 | 1,450      | 1,250     |
| Packager, Machine                       | 250   | 300        | 350    | 50         | 50        |
| Packager, Hand                          | 1,600 | 1,900      | 2,150  | 300        | 250       |
| Industrial Truck Operator               | 500   | 600        | 700    | 100        | 100       |
| Laborer, Stores                         | 1,700 | 1,950      | 2,150  | 250        | 200       |
| Material Handler                        | 2,650 | 3,200      | 3,700  | 550        | 500       |
| Extraction of Minerals                  | 200   | 200        | 200    | 0          | 0         |
| Logging                                 | 450   | 400        | 400    | <b>-50</b> | Ŏ         |
| Logger                                  | 300   | 300        | 300    | 0          | Ď         |
| Utilities Production & Distribution     | 800   | 1,050      | 1,300  | 250        | 250       |
| Fireman & Humidifier Attendant          | 100   | 100        | 100    | 0          | 0         |
| Power Plant Operator                    | 300   | 400        | 500    | 100        | 100       |
| Amusement, Recreation, & Motion Picture | 50    | 100        | 100    | 50         | 0         |
| Graphic Art Work                        | 350   | 500        | 600    | 150        | 100       |
| Compositor                              | 150   | 200        | 200    | 50         | 0         |

NOTE: Refer to Appendix Table 7, footnote 1, for list of counties comprising Economic Area II.

#### APPENDIX TABLE 9. NONFARM WAGE AND SALARY EMPLOYMENT FOR ECONOMIC AREA III<sup>1</sup> IN SOUTH CAROLINA BY MAJOR INDUSTRY DIVISION AND SELECTED INDUSTRY GROUPS, 1965, 1970, AND PROJECTIONS TO 1975

|                      | Industry   | Annual | Average Emp  | oloyment     | Net_Change |             |  |
|----------------------|--|--------|--------------|--------------|------------|-------------|--|
| SIC                  | Name   | 1965   | 1970         | 1975         | 1965-1970  | 1970-1975   |  |
|                      | TOTAL <sup>2</sup>                                 | 89,900 | 110,100      | 125,200      | 20,300     | 15,200      |  |
| 0709                 | Agriculture, Forestry, & Fisheries                 | 200    | 300          | 300          | 100        | 0           |  |
| 10-14                | Mining   | 300    | 300          | 300          | . 0        | 0           |  |
| 15-17                | Contract Construction                              | 4,400  | 5,100        |              | * 700      | 1,500       |  |
| 15                   | Building Construction                              | 1,800  | 1,600        | 2,200        | -200       | 600         |  |
| 16                   | Heavy Construction Contractors                     | ່ 90 ປ | 1,300        | 1,500        | 400        | 200         |  |
| 17                   | Special Trade Contractors                          | 1,700  | 2,200        | 2,900        | 500        | 700         |  |
| 19-39                | Manufacturing                                      | 42,400 | 49,600       | 55,700       | 7,200      | 6,100       |  |
| 20                   | Food & Kindred Products                            | 3,400  | 4,100        | 4,300        | 700        | 200         |  |
| $\overline{22}$      | Textile Mill Products                              | 11,600 | 12,300       | 12,400       | 700        | 100         |  |
| 221                  | Broadwoven Cotton                                  | 1,100  | 1,200        | 1,200        | 100        | 0           |  |
| 222                  | Broadwoven Synthetics                              | 1,000  | 1,100        | 1,100        | 100        | ŏ           |  |
| 225                  | Knitting Mills                                     | 2,000  | 2,100        | 2,100        | 100        | ŏ           |  |
| 226                  | Dyeing & Finishing                                 | 3,000  | 3,200        | 3,300        | 200        | 100         |  |
| 228                  | Yarn Mills   | 1,600  | 1,700        | 1,700        | 100        | 0           |  |
| 23                   | Apparel & Other Finished Products                  | 7,600  | 8,000        | 9,100        | 400        | 1,100       |  |
| 24                   | Lumber & Wood Products                             | 4,200  | 3,800        | 3,600        | -400       | -200        |  |
| 25                   | Furniture & Fixtures                               | 2,500  | 2,700        | 3,200        | 200        | 500         |  |
| 26                   | Paper ' Allied Products                            | 3,100  | 3,800        | 4,500        | 700        | 700         |  |
| 28                   | Chemicals & Allied Products                        | 3,100  | 4,400        | 5,400        | 1,300      | 1,000       |  |
| 30                   | Rubber & Plastic Products                          | 400    | 700          | 900          | 300        | 200         |  |
| 32                   | Stone, Clay, & Glass Products                      | 600    | 800          | 1,000        | 200        | 200         |  |
| 33                   | Primary Metal Industries                           | 200    | 500          | 700          | 300        | 200         |  |
| 34                   | Fabricated Metal Products                          |        | 1,400        | 2.000        | 500        | 600         |  |
| 35                   |  | 600    | 1,000        | 1,300        | 400        | 300         |  |
| 36                   | Nonelectrical Machinery Electrical Machinery       | 3,000  | 4,200        | 5,000        | 1,200      | . 800       |  |
| .70<br>37            |  | 300    | 1,000        | 1,100        | 700        | 100         |  |
| 40-49                | Transportation Equipment                           | 300    | 1,000        | 1,100        | , 700      | 100         |  |
| 70-72                | Sanitary Services                                  | 2,200  | 3,200        | 3,900        | 1,000      | <i>7</i> 00 |  |
| 42                   | Trucking & Warehousing                             | 700    | 1,000        | 1,200        | 300        | 200         |  |
| 48                   | Communication                                      | 1,000  | 1,400        | 1,800        | 400        | 400         |  |
| 49                   | Electric, Gas, & Sanitary Services                 | 300    | 600          | 700          | 300        | 100         |  |
| 50-59                | Wholesale & Retail Trade                           | 15,900 | 19,400       | 21,400       | 3,500      | 2,000       |  |
| 50                   |  | 2,700  | 3,200        | 3,700        | 500        | 500         |  |
| 52                   | Wholesale Trade                                    | 2,700  | 3,200        | 3,700        | 300        | 300         |  |
| .) 4                 | Retail Building Materials & Farm Equipment Dealers | 1,300  | 1,400        | 1,500        | 100        | 100         |  |
| 53                   | Retail Trade General Merchandise                   | 2,700  | 3,300        | 3,700        | 600        | 400         |  |
| 53<br>54             | Retail Food Stores                                 | 2,000  | 2,500        | 2,800        | 500        | 300         |  |
| 5 <del>4</del><br>55 | Retail Automotive Dealers & Gas Stations           | 2,000  | 3,300        | 3,400        | 400        | 100         |  |
| 55<br>56             |  | 600    | 3,300<br>700 | 3,400<br>800 | 400<br>100 | 100         |  |
| 30                   | Retail Apparel & Accessory Stores                  | 600    | 700          | 000          | 100        | 100         |  |
|                      |  |        |              |              |            |             |  |

<sup>&</sup>lt;sup>1</sup> Economic Area III consists of Chesterfield, Clarendon, Darlington, Dillon, Florence, Kershaw, Lee, Marion, Marlboro, and Sumter.

Sum of the industry totals for the four economic areas do not add to the state total because some employees are not allocated to a specounty due to the nature of work.

# APPENDIX TABLE 9. NONFARM WAGE AND SALARY EMPOYMENT FOR ECONOMIC AREA III IN SOUTH CAROLINA BY MAJOR INDUSTRY DIVISION AND SELECTED INDUSTRY GROUPS, 1965, 1970, AND PROJECTIONS TO 1975 Continued

| Industry   |                                    |                | verage Emp | loyment | Net Change |             |  |
|------------|------------------------------------|----------------|------------|---------|------------|-------------|--|
| SIC        | Name                               | 1965           | 1970       | 1975    | 1965-1970  | 1970-1975   |  |
| 57         | Retail Home Furnishings Stores     | 700            | 800        | 800     | 100        | 0           |  |
| 58         | Eating & Drinking Place.           | 1,400          | 2,200      | 2,500   | 800        | 300         |  |
| 59         | Miscellaneous Retail Stores        | 1,6 <b>0</b> 0 | 2,000      | 2,200   | 400        | 200         |  |
| 60-67      | Finance, Insurance, & Real Estate  | 1,900          | 2,500      | 2,900   | 700        | 300         |  |
| 70–89      | Services                           | 9,700          | 12,200     | 14,800  | 2,500      | 2,600       |  |
| 70         | Hotels & Other Lodging Places      | 900            | 1,200      | 1,600   | 300        | 400         |  |
| 72         | Personal Services                  | 1,500          | 1,400      | 1,600   | 100        | 200         |  |
| 73         | Miscellaneous Business Services    | 400            | 700        | 1,000   | 300        | 300         |  |
| <i>7</i> 5 | Automobile Services & Repairs      | 500            | 800        | 900     | 300        | 100         |  |
| 80         | Medical & Health Services          | 3,100          | 4,600      | 5,800   | 1,500      | 1,200       |  |
| 82         | Educational Services               | 400            | 500        | 600     | 100        | 100         |  |
| 86         | Nonprofit Membership Organizations | 2,200          | 1,900      | 2,000   | -300       | 100         |  |
| . 91–93    | Government                         | 12,900         | 17,400     | 19,300  | 4,500      | 1,900       |  |
| 91         | Federal Government                 | 2,300          | 2,600      | 2,600   | 300        | 0           |  |
| 92         | State Government                   | 1,100          | 1,700      | 2,000   | 600        | 30 <b>0</b> |  |
| 93         | Local Government                   | 9,500          | 13,100     | 14,700  | 3,600      | 1,600       |  |

#### APPENDIX TABLE 10. AVERAGE NONFARM WAGE AND SALARY EMPLOYMENT FOR ECONOMIC AREA III IN SOUTH CAROLINA BY SELECTED OCCUPATIONS, 1965, 1970, AND PROJECTIONS TO 1975

| · · · · · · · · · · · · · · · · · · ·               |        |              |              |            |           |
|---|--------|--------------|--------------|------------|-----------|
| Occupation  | Ac     | tual         | Projected    | Net_Change |           |
|   | 1965   | 1970         | 1975         | 1965-1970  | 1970-1975 |
| TOTAL <sup>1</sup>                                  | 89,850 | 109,500      | 124,200      | 19,650     | 14,700    |
| PROFESSIONAL, TECHNICAL, & MANAGERIAL               |        |              |              |            |           |
| OCCUPATIONS   | 15,300 | 19,700       | 21,950       | 4,400      | 2,250     |
| Engineer  | 700    | 900          | 1,050        | 200        | 150       |
| Electrical Engineer                                 | 100    | 150          | 150          | 50         | 0         |
| Civil & Construction Engineer                       | 100    | 100          | 150          | 0          | 50        |
| Mechanical Engineer                                 |        | 200          | 250          | 50         | 50        |
| Industrial Engineer                                 |        | 250          | 300          | 50         | 50        |
| Technician  | 1,000  | 1,250        | 1,450        | 250        | 200       |
| Draftsman   |        | 150          | 200          | 0          | 50        |
| Laboratory Technician                               | 500    | 650          | 750          | 150        | 100       |
| Scientist   | 250    | 300          | 350          | 50         | 50        |
| Psychologist, Guidance & Counseling                 |        | 100          | 150          | 0          | 50        |
| Medicine & Health                                   |        | 2,800        | 3,400        | 800        | 600       |
| Pharmacist  |        | 150          | 200          | 0          | . 50      |
| Nurse, Registered                                   |        | 1,150        | 1,350        | 300        | 200       |
| Education   |        | 6,050<br>30つ | 6,200<br>300 | 1,800      | 150<br>0  |
| School Administrator                                |        | 2,350        | 2,350        | 100<br>700 | 0         |
| Teacher, Secondary SchoolTeacher, Elementary School |        | 2,400        | 2,400 ·      | 700        | 0         |
| Teacher's Aid                                       |        | 2,400        | 250          | 50         | 0         |
| Librarian   | ^      | 250          | 250<br>250   | 100        | 0         |
| Entertainment & Recreation                          |        | 500          | 500          | 50         | . ŏ       |
| Managerial & Administration                         |        | 6,750        | 7.850        | 1,300      | 1,100     |
| Accountant & Auditor                                | ·      | 300          | 300          | 50         | 1,100     |
| Purchasing Agent & Buyer                            |        | 200          | 250          | 0          | 50        |
| Administrative Manager                              | 500    | 600          | 700          | 100        | 100       |
| Plant Manager & Assistant                           |        | 400          | 450          | 50         | 50        |
| Production Foreman                                  |        | 500          | 600          | 100        | 100       |
| Retail & Wholesale Manager & Official               |        | 1,050        | 1,150        | 150        | 100       |
| Service Industry Executive                          |        | 600          | 700          | 100        | 100       |
| CLERICAL & SALES OCCUPATIONS                        | 17,250 | 21,100       | 23,650       | 3,850      | 2,550     |
| Clerical Occupations                                |        | 13,350       | 15,100       | 2,500      | 1,750     |
| Secretary & Stenographer                            | 2,050  | 2,250        | 2,650        | 200        | 400       |
| Clerk-Typist  |        | 900          | 1,050        | 150        | 150       |
| General Clerk                                       |        | 500          | 600          | 100        | 100       |
| Bookkeeper  |        | 1,400        | 1,550        | 250        | 150       |
| Teller  |        | 350          | 400          | 100        | 50        |
| Keypunch Operator                                   |        | 150          | 200          | 0          | 50        |
| Payroll Clerk                                       |        | 150          | 200          | 0          | 50        |
| General Office Clerk                                |        | 1,300        | 1,500        | 250        | 200       |
| Accounting Clerk                                    |        | 300          | 350          | 50         | 50        |

Occupational totals do not add to total employment by industry because of a number of exclusions such as student workers and employees of Neighborhood Youth Corps and Headstart projects.



|   |                | Employmen      | t              |              |             |
|---|----------------|----------------|----------------|--------------|-------------|
| Occupation  | Act            | ual            | Projected      | Net C        | hange       |
|   | 1965           | 1970           | 1975           | 1965-1970    | 1970-1975   |
| Shipping & Receiving Clerk                              | 800            | 950            | 1,050          | 150          | 100         |
| Stock Clerk   | 850            | 1,05C          | 1,200          | 200          | 150         |
| Post Office Clerk<br>Mail Carrier                       | 350<br>350     | 400<br>400     | 400<br>350     | 50           | 0           |
| Mail Carrier<br>Telephone Operator                      | 400            | 550            | 700            | 50<br>150    | 50<br>150   |
| Receptionist & Information Clerk                        | 250            | 350            | 400            | 100          | 50          |
| Salesman, Services                                      | 350            | 400            | 450            | 50           | 50          |
| Salesman, Insurance & Real Estate Salesman, Commodities | 250<br>3,950   | 300<br>4,750   | 300<br>5,200   | 50<br>800    | 0<br>450    |
| Salesman, Textile Products & Apparel                    | 900            | 1,100          | 1,200          | 200          | 100         |
| Salesman, Industrial Equipment & Supplies               | 400            | 450            | 500            | 50           | 50          |
| Salesman, Transportation Equipment                      | 400            | 500            | 500            | 100          | 0           |
| Salesman, General<br>Merchandising                      | 1,300<br>2,050 | 1,550<br>2,500 | 1,750<br>2,800 | 250<br>450   | 200<br>300  |
| Merchandising Salesperson, Food                         | 350            | 450            | 500            | 100          | 50          |
| Routeman  | 800            | 950            | 1,050          | 150          | 100         |
| Manager, Department Store                               | 250<br>350     | 300            | 350<br>550     | 50           | 50          |
| Cashier-Checker SERVICE OCCUPATIONS                     | 10,000         | 500<br>13,050  | 15,300         | 150<br>3,050 | 50<br>2,250 |
| Food Services   | 2,900          | 4,150          | 4,650          | 1,250        | 500         |
| Waiter & Waitress                                       | 1,000          | 1,450          | 1,650          | 450          | 200         |
| Cook  | 800<br>750     | 1,150<br>1,100 | 1,250<br>1,200 | 250          | 100         |
| Kitchen Helper Lodging Services                         | 600            | 850            | 1,200          | 350<br>250   | 100<br>250  |
| Maid  | 500            | 700            | 900            | 200          | 200         |
| Barbering, Cosmetology, & Related Services              | 300            | 300            | 300            | _0           | 0           |
| Amusement & Recreation Services                         | 100<br>1,450   | 150<br>2,050   | 150<br>2,650   | 50<br>600    | 0<br>600    |
| Personal Services Apparel & Furnishing Services         | 1,450          | 1,300          | 1,450          | 600<br>50    | 150         |
| Presser, Apparel  | 800            | 800            | 900            | 0            | 100         |
| Protective Services                                     | 1,050          | 1,400          | 1,650          | 350          | 250         |
| Guard & Watchman<br>Policeman                           | 400<br>300     | 600<br>350     | 700<br>400     | 200<br>50    | 100<br>50   |
| Building Services                                       | 2,350          | 2,850          | 3,300          | 500          | 450         |
| Janitor & Porter  | 2.300          | 2,800          | 3,050          | 500          | 250         |
| AGRICULTURAL SERVICE OCCUPATIONS                        | 350            | 450            | 500            | 100          | 50<br>50    |
| Groundskeeper PROCESSING OCCUPATIONS                    | 200<br>6,900   | 250<br>8,350   | 300<br>9,300   | 50<br>1,450  | 50<br>950   |
| Metal Processing  | 100            | 150            | 150            | 50           | 0           |
| Food Processing   | 1,850          | 2,200          | 2,300          | 350          | 100         |
| Laborer, Food Processing                                | 1,600          | 1,900          | 1,900          | 300          | 0           |
| Paper Processing Laborer, Paper Processing              | 1,000<br>700   | 1,200<br>900   | 1,400<br>1,050 | 200<br>200   | 200<br>150  |
| Chemical Processing                                     | 1,700          | 2,300          | -2,800         | 600          | 500         |
| Chemical Mixer  | 250<br>450     | 350            | 450<br>750     | 100          | 100         |
| Chemical Machine Operator Chemical Machine Tender       | 450<br>300     | 600<br>450     | 750<br>550     | 150<br>150   | 150<br>100  |
| Wood Processing   | 200            | 200            | 200            | 0            | 0           |
| Stone, Clay, & Glass Processing                         | 300            | 400            | 500            | 100          | 100         |
| Textile Processing                                      | 1,700          | 1,800          | 1,850          | 100          | 50          |
| Cloth Treater Tender Cloth Processing Tender            | 450<br>250     | 500<br>250     | 500<br>250     | 50<br>0      | 0<br>0      |
| MACHINE TRADES OCCUPATIONS                              | 12,850         | 14,900         | 16,200         | 2,050        | 1,300       |
| Metal Machining   | 900            | 1,350          | 1,650          | 450          | 300         |
| Machinist  Production Machine Operator                  | 250<br>250     | 300<br>400     | 400<br>450     | 50           | 100<br>50   |
| Production Machine Operator                             | 500<br>500     | 900            | 1,100          | 150<br>400   | 200         |
| Set Up Man  | 100            | 150            | 200            | 50           | 50          |
| Mechanics & Machinery Repair                            | 3,000          | 3,600          | 4,000          | 600          | 400         |
| Auto Mechanic  Auto Mechanic Helper                     | 950<br>150     | 1,150<br>200   | 1,250<br>200   | 200<br>50    | 100<br>0    |
| Maintenance Mechanic                                    | 900            | 1,100          | 1,200          | 200          | 100         |
| Maintenance Mechanic Helper                             | 250            | 300            | 300            | 50           | 0           |
| Sewing Machine Repairman                                | 150            | 150            | 150            | 0            | 0<br>400    |
| Paperworking Bag Machine Operator                       | 500<br>350     | 600<br>400     | 700<br>500     | 100<br>50    | 100<br>100  |
| Printing  | 350<br>350     | 400            | 400            | 50<br>50     | 0           |
| Cloth Printing Machine Operator                         | 150            | 150            | 150            | 0            | Õ           |
| Wood Machining  | 2,300          | 2,200          | 2,250          | -100         | 50          |
| _   |                |                |                |              |             |

| ***************************************  | Employment         |              |              |            |                    |  |
|--|--------------------|--------------|--------------|------------|--------------------|--|
| Occupation   | Act                | ual          | Projected    | Net C      | hange              |  |
| •  | 1965               | 1970         | 1975         | 1965-1970  | 1970-1975          |  |
| Foreman  | 200                | 150          | 200          | -50        | 50                 |  |
| Saw Operator   | 1,100              | 1,000        | 1,000        | -100       | 0                  |  |
| Laborer, Wood Machining  | 300                | 250          | 250          | <b>-50</b> | 0                  |  |
| Textiles<br>Foreman  | 5,300<br>200       | 5,850<br>200 | 6,100<br>200 | 550<br>0   | 250<br>0           |  |
| Carding, Combing, & Drawing Tender   | 550                | 600          | 650          | 50         | 50                 |  |
| Machine Fixer  | 100                | 100          | 100          | 0          | 0                  |  |
| Twister, Winder, & Warper  | 800                | 850          | 900          | 50         | 50                 |  |
| Frame Spinner Loom Fixer   | 300<br>150         | 350<br>150   | 350<br>150   | 50<br>0    | 0<br>0             |  |
| Weaver   | 300                | 350          | 350          | 50         | ő                  |  |
| Battery Filler Knitting Machine Operator   | 100                | 100          | 100          | 0          | 0                  |  |
| Knitting Machine Operator  | 150                | 150          | 150          | 0          | 0                  |  |
| Section Man Cloth Grader   | 250<br>50          | 250<br>100   | 250<br>100   | 0<br>50    | 0<br>0             |  |
| Cloth Examiner, Machine  | 100                | 100          | 100          | 0          | ő                  |  |
| Cloth & Yarn Winder  | 300                | 300          | 300          | 0          | 0                  |  |
| Doffer & Spooler   | 450                | 500          | 550          | 50         | 50                 |  |
| Creeler Machine Cleaners & Oilers  | 250<br>150         | 250<br>150   | 300<br>150   | 0          | 50<br><b>0</b>     |  |
| BENCH WORK OCCUPATIONS   | 9,650              | 11,000       | 12,500       | 1,350      | 1,500              |  |
| Fabrication, Assembly, & Repair of Metal Products  | 350                | 500          | 550          | 150        | 50                 |  |
| Assembler, Metal Products  | 200                | 300          | 400          | 100        | 100                |  |
| Fabrication & Repair of Medical & Scientific Products &  | 200                | 200          | 40Ô.         | 100        | 100                |  |
| Photographic & Optical Goods  Dental Laboratory Technician   | 200<br>100         | 300<br>200   | 400<br>250   | 100<br>100 | 100<br>50          |  |
| Assembly & Repair of Electrical Equipment  | 850                | 1,300        | 1,550        | 450        | 250                |  |
| Assembler, Electrical Equipment  | 150                | 250          | 300          | 100        | 50                 |  |
| Fabrication & Repair of Products Made from Assorted  | 450                | 200          | 200          | 5.0        | 0                  |  |
| Materials  | 150<br>300         | 200<br>350   | 200<br>450   | 50<br>50   | · 0<br>100         |  |
| Painting & Decorating Spray Painter Spray Pa | 150                | 150          | 200          | 0          | 50                 |  |
| Fabrication & Repair of Synthetics, Rubber, & Plastics   | 50                 | 50           | 50           | 0          | 0                  |  |
| Fabrication & Repair of Wood Products  | 800                | 800          | 950          | 0          | 150                |  |
| Sander   | 200<br>150         | 200<br>200   | 200<br>200   | 0<br>50    | 0<br>0             |  |
| Woodworking-Shop Hand  | 250                | 250          | 300          | 0          | 50                 |  |
| Fabrication & Repair of Textile & Related Products   | 6,950              | 7,400        | 8,250        | 450        | 850                |  |
| Foreman  | 200                | 200          | 250          | 0          | 50                 |  |
| Upholsterer, Production  | 150<br><b>2</b> 50 | 200<br>250   | 200<br>250   | 50<br>0    | 0<br>0             |  |
| Sewing Machine Operator  | 4,800              | 5,100        | 5,700        | 300        | 600                |  |
| Garment Inspector  | 300                | 300          | 350          | 0          | 50                 |  |
| STRUCTURAL WORK OCCUPATIONS  | 6,500              | 7,900        | 10,300       | 1,400      | 2,400              |  |
| Structural Metal Fabricating   | 700<br>150         | 1,050<br>250 | 1,250<br>300 | 350<br>100 | 200<br>50          |  |
| Sheet Metal Worker Automobile-Body Renairman   | 150                | 200          | 200          | 50         | 0                  |  |
| Welding & Flame Cutting  | 500                | 650          | 900          | 150        | 250                |  |
| Welder, Combination  | 350                | 450          | 600          | 100        | 150                |  |
| Electrical Assembling, Installing, & Repairing   | 1,200              | 1,550        | 1,950        | 350        | 400                |  |
| Electrician Electrician Helper   | 450<br>150         | 550<br>200   | 700<br>250   | 100ء<br>50 | 150<br>5 <b>0</b>  |  |
| Painting, Plastering, Waterproofing, & Cementing   | 400                | 450          | 600          | 50         | 15 <b>0</b>        |  |
| Painter  | 200                | 250          | 350          | 50         | 100                |  |
| Excavating, Grading, & Paving  | 500                | 650          | 750          | 150        | 100                |  |
| Excavating Equipment Operator  | 100                | 100          | 150          | 0          | 5 <b>0</b>         |  |
| Operating Engineer Other Construction  | 200<br>2,800       | 250<br>3,200 | 300<br>4,150 | 50<br>400  | 5 <b>0</b><br>950  |  |
| Carpenter  | 600                | 600          | 750          | 0          | 150                |  |
| Laborer, Carpentry   | 200                | 200          | 250          | .0         | 50                 |  |
| Bricklayer   | 100                | 150          | 200          | 50<br>50   | 50<br>100          |  |
| Pipefitter & Plumber Construction Worker   | 300<br>750         | 350<br>900   | 450<br>1,100 | 50<br>150  | 100<br>200         |  |
| Structural Maintenance   | 500                | 600          | 700          | 100        | 100                |  |
| Maintenance Man, Building  | 200                | 250          | 250          | 50         | 0                  |  |
| MISCELLANEOUS OCCUPATIONS  | 10,950             | 12,900       | 14,350       | 1,950      | 1,450              |  |
| Motor Freight  | 2,350              | 2,800        | 3,250        | 450<br>100 | 450<br>150         |  |
| Tractor-Trailer Truck Driverruck Driver, Heavy   | 700<br>650         | 800<br>800   | 950<br>900   | 100<br>150 | 150<br>10 <b>0</b> |  |
| ERIC STITE THE THE THE THE THE THE THE THE THE T   | 0.50               | 000          | 700          | 150        | , 00               |  |

APPENDIX TABLE 10. AVERAGE NONFARM WAGE AND SALARY EMPLOYMENT FOR ECONOMIC AREA III IN SOUTH CAROLINA BY SELECTED OCCUPATIONS, 1965, 1970, AND PROJECTIONS TO 1975—Continued

| Occupation                          |        | Employmen |           |            |           |
|-------------------------------------|--------|-----------|-----------|------------|-----------|
|                                     | Actual |           | Projected | Net Change |           |
|                                     | 1965   | 1970      | 1975      | 1965-1970  | 1970-1975 |
| Distributor Truck Driver            | 300    | 350       | 400       | 50         | 50        |
| Transportation Occupations          | 1,300  | 1,650     | 1,850     | 350        | 200       |
| Bus & Taxicab Driver                | 650    | 900       | 950       | 250        | 50        |
| Packaging & Materials Handling      | 6,000  | 7,050     | 7,750     | 1,050      | 700       |
| Packager, Hand                      | 1,300  | 1,550     | 1,700     | 250        | 150       |
| Industrial Truck Operator           | 450    | 450       | 500       | 0          | 50        |
| Laborer, Stores                     | 1,350  | 1,500     | 1,650     | 150        | 150       |
| Material Handler                    | 2,050  | 2,400     | 2,650     | 350        | 250       |
| Logging                             | 600    | 550       | 550       | <b>-50</b> | 0         |
| Logger                              | 450    | 400       | 400       | <b>—50</b> | 0         |
| Utilities Production & Distribution | 400    | 500       | 550       | 100        | 50        |
| Graphic Art Work                    | 150    | 150       | 200       | 0          | 50        |

NOTE: Refer to Appendix Table 9, footnote 1, for list of counties comprising Economic Area III.

APPENDIX TABLE 11. NONFARM WAGE AND SALARY EMPLOYMENT FOR ECONOMIC AREA IV<sup>1</sup> IN SOUTH CAROLINA BY MAJOR INDUSTRY DIVISION AND SELECTED INDUSTRY GROUPS, 1965, 1970, AND PROJECTIONS TO 1975

|           | Industry  | Annual A  | Average Emp | loyment | Net C           | Change    |
|-----------|---|-----------|-------------|---------|-----------------|-----------|
| SIC       | Name  | 1965      | 1970        | 1975    | 1965-1970       | 1970-1975 |
| ar :      | TOTAL <sup>2</sup>                              | . 121,200 | 152,300     | 171,300 | 31,100          | 19,000    |
| 07-09     | Agriculture, Forestry, & Fisheries              | . 700     | 900         | 1,000   | 200             | 100       |
| 10-14     | Mining  |           | 100         | 100     | 0               | 0         |
| 15–17     | Contract Construction                           |           | 9,200       | 12,000  | 1,200           | 2,800     |
| 15        | Building Construction                           | 3,700     | 3,400       | 4,600   | -300            | 1,200     |
| 16        | Heavy Construction Contractors                  |           | 1,900       | 2,200   | 600             | 300       |
| 17        | Special Trade Contractors                       |           | 3,900       | 5,200   | 900             | 1,300     |
| 19-39     | Manufacturing                                   |           | 33,900      | 38,500  | 7,000           | 4,600     |
| 20        | Food & Kindred Products                         | . 1,600   | 1,900       | 2,000   | 300             | 100       |
| 22        | Textile Mill Products                           |           | 3,000       | 3,000   | 200             | 0         |
| 23        | Apparel & Other Finished Products               | 5,400     | 5,700       | 6,400   | 300             | 700       |
| 24        | Lumber & Wood Products                          |           | 4,400       | 4,200   | <del></del> 500 | -200      |
| 26        | Paper & Allied Products                         |           | 3,500       | 4,100   | 600             | 600       |
| 28        | Chemicals & Allied Products                     | . 1,200   | 1,700       | 2,100   | 500             | 400       |
| 30        | Rubber & Plastic Products                       |           | 1,300       | 1,700   | 600             | 400       |
| 32        | Stone, Clay, & Glass Products                   |           | 1,800       | 2,500   | 300             | 700       |
| 33        | Primary Metal Industries                        | . ,       | 900         | .'      | 600             | 400       |
| 34        | Fabricated Metal Products                       |           | 800         | 1,100   | 300             | 300       |
| 36        | Electrical Machinery                            |           | 1,200       | 1,500   | 300             | 300       |
| 37        | Transportation Equipment                        |           | 4,500       | 5,100   | 3,200           | 600       |
| 40-49     | Transportation, Communication, Electric, Gas, & | . 1,500   | 4,500       | 3,100   | 3,200           | 000       |
| 40-45     | Sanitary Services                               | 5,200     | 7,400       | 9,100   | 2,200           | 1,700     |
| 42        | Trucking & Warehousing                          |           | 1,600       | 2,000   | 300             | 400       |
| 44        | Water Transportation                            |           | 1,900       | 2,500   | 700             | 600       |
| 48        | Communication                                   |           | 2,000       | 2,500   | 500             | 500       |
| 49        | Electric, Gas, & Sanitary Services              | ,         | 1,100       | 1,300   | 400             | 200       |
|           |   |           | 30.100      | 33,400  | 5,800           | 3,300     |
| 50-59     | Wholesale & Retail Trade                        | ,         | 4,700       | 5,400   | 800             | 700       |
| ·50<br>52 | Wholesale Trade                                 | . 3,500   | 4,700       | 3,400   | 000             | 700       |
| 32        | Retail Building Materials & Farm Equipment      | . 1,700   | 1,700       | 1.800   | 0               | 100       |
| F 2       | Dealers<br>Retail Trade General Merchandise     |           |             | /       | _               | 600       |
| 53        |   | 3,700     | 4,500       | 5,100   | 800             |           |
| 54        | Retail Food Stores                              |           | 4,200       | 4,70û   | 900             | 500       |
| 55        | Retail Automotive Dealers & Gas Stations        |           | 4,200       | 4,400   | 500             | 200       |
| 56        | Retail Apparel & Accessory Stores               |           | 1,500       | 1,600   | 300             | 100       |
| 57        | Retail Home Furnishings Stores                  | . 1,200   | 1,200       | 1,300   | 0               | 100       |
| 58        | Eating & Drinking Places                        | . 3,300   | 5,200       | 5,900   | 1,900           | 700       |
| 59        | Miscellaneous Retail Stores                     | . 2,300   | 2,900       | 3,200   | 600             | 300       |
| 60-67     | Finance, Insurance, & Real Estate               |           | 5,300       | 6,000   | 1,000           | 700       |
| 60        | Banking   |           | 1,300       | 1,600   | 400             | 300       |
| 61        | Credit Agencies Except Banks                    |           | 900         | 1,100   | 100             | 200       |
| 63        | Insurance Carriers                              |           | 1,100       | 1,100   | 200             | 0         |
| 65        | Real Estate                                     |           | 1,400       | 1,500   | 300             | 100       |
| 70-89     | Services  | . 14,300  | 17,600      | 20,500  | 3,300           | 2,900     |
| 70,       | Hotels & Other Lodging Places                   |           | 3,300       | 4,200   | 900             | 900       |
| 72        | Personal Services                               | . 2,600   | 2,600       | 2,800   | · 0             | 200       |

Economic Area IV consists of Beaufort, Berkeley, Charleston, Colleton, Dorchester, Georgetown, Hampton, Horry, Jasper, and Williamsburg.

Le sum of the industry totals for the four economic areas do not add to the state total because some employees are not allocated to a specic county due to the nature of work.

APPENDIX TABLE 11. NONFARM WAGE AND SALARY EMPLOYMENT FOR ECONOMIC AREA IV IN SOUTH CAROLINA BY MAJOR INDUSTRY DIVISION AND SELECTED INDUSTRY GROUPS, 1965, 1970, AND PROJECTIONS TO 1975 Continued

|       | Industry *                         | Annual Average Employment |        |        | dustry - Annual A |           |  | Net C | hange |
|-------|------------------------------------|---------------------------|--------|--------|-------------------|-----------|--|-------|-------|
| SIC   | Name                               | 1965                      | 1970   | 1975   | 1965-1970         | 1970-1975 |  |       |       |
| 73    | Miscellaneous Business Services    | 600                       | 1,200  | 1,700  | 600               | 500       |  |       |       |
| 75    | Automobile Services & Repairs      | 500                       | 700    | 800    | 200               | 100       |  |       |       |
| 79    | Amusement & Recreation             | 600                       | 1,000  | 1,100  | 400               | 100       |  |       |       |
| 80    | Medical & Health Services          | 1,600                     | 2,400  | 3,000  | 800               | 600       |  |       |       |
| 81    | Legal Services                     | 400                       | 500    | 600    | 100               | 100       |  |       |       |
| 82    | Educational Services               | 1,300                     | 1,900  | 2,000  | 600               | 100       |  |       |       |
| 86    | Nonprofit Membership Organizations | 3,500                     | 3,000  | 3,100  | -500              | 100       |  |       |       |
| 89    | Miscellaneous Services             | 400                       | 500    | 600    | 100               | 100       |  |       |       |
| 91-93 | Government                         | 37,400                    | 47,800 | 50,700 | 10,400            | 2,900     |  |       |       |
| 91    | Federal Government                 | 17,700                    | 20,500 | 20,000 | 2,800             | -500      |  |       |       |
| 92    | State Government                   | 6,700                     | 9,300  | 11,000 | 2,600             | 1,700     |  |       |       |
| 93    | Local Government                   | 13,000                    | 18,100 | 19,700 | 5,000             | 1,700     |  |       |       |

| Cecupation   |                  | Employment      | _               |                 |              |
|--|------------------|-----------------|-----------------|-----------------|--------------|
|  | Ac               | Actual          |                 | -<br>Net Change |              |
|  | 1965             | 1970            | 1975            | 1965-1970       | 1970-1975    |
| TOTAL¹   | 121,050          | 151,600         | 170,250         | 30,550          | 18,650       |
| PROFESSIONAL, TECHNICAL, & MANAGERIAL                              |                  |                 |                 |                 |              |
| OCCUPATIONS  | 24,350           | 31,500          | 34,350          | 7,150           | 2,900        |
| Engineer'  |                  | 1,600           | 1,750           | 400             | 150          |
| Electrical Engineer  |                  | 450             | 500             | 100             | 80           |
| Electrical & Electronic Engineer                                   |                  | 350             | 400             | 50              | 50           |
| Civil & Construction Engineer                                      |                  | 350             | 3750            | 50              | . 0          |
| Mechanical Engineer  |                  | 250             | 300             | 50              | 50           |
| Industrial Engineer  |                  | 300             | 300             | 150             | 0            |
| Technician   |                  | 1,550           | 1,650           | 300             | 100          |
| Draftsman  | 0-0              | 400             | 400             | 50              | 0            |
| Electrical & Electronic Technician                                 |                  | 700             | 700             | 100             | ŏ            |
|  |                  | 750<br>750      | 850             | 200             | 100          |
| Scientist  |                  | 250             | 250             | 100             | 0            |
| Mathematical Scientist   |                  | 250<br>250      | 300             | 50              | 50           |
| Psychologist, Guidance & Counseling                                |                  |                 |                 | 750             | 650          |
| Medicine & Health  | 3,200            | 3,950           | 4,600           | 100             | 0.50         |
| Pharmacist   |                  | 350             | 350             |                 | _            |
| Nurse, Registered  |                  | 1,650           | 1,850           | 350             | 200          |
| Education  |                  | 9,700           | 9,750           | 3,050           | 50           |
| Faculty Member, College or University                              |                  | 500             | 600             | 250             | 100          |
| Teacher, Secondary School  |                  | 3,400           | 3,500           | 1,000           | 100          |
| Teacher, Elementary School   |                  | 3,600           | 3,650           | 1,100           | 50           |
| Teacher's Aid  |                  | 350             | 400             | 100             | 50           |
| Librarian  |                  | 350             | 400             | 100             | 50           |
| Entertainment & Recreation   | 750              | 800             | 850             | 50              | 50           |
| Managerial & Administration  | 9,050            | 11,300          | 12,700          | 2,250           | 1,400        |
| Accountant & Auditor   |                  | 650             | 700             | 150             | 50           |
| Purchasing Agent & Buyer   | 300              | 350             | 400             | 50              | 50           |
| Administrative Manager   | 1,000            | 1,150           | .1,250          | 150             | 100          |
| Plant Manager & Assistant  |                  | 300             | 400             | 50              | 100          |
| Production Foreman   |                  | 350             | 400             | 100             | 50           |
| Transportation, Communication, & Public Utilities                  |                  |                 |                 | •               |              |
| Manager & Official   | 200              | 300             | 400             | 100             | 100          |
| Retail & Wholesale Manager & Official                              | 1,350            | 1,600           | 1,750 ·         | 250             | 150          |
| Finance, Insurance, & Real Estate Executive                        | <sup>′</sup> 750 | 950             | 1,050 `         | 200             | 100          |
| Service Industry Executive   |                  | 1,250           | 1,400           | 300             | 150          |
| Public Administration  |                  | 350             | 350             | . 50            | 0            |
| Social Worker & Supervisor   |                  | 400             | 450             | ` 50            | 50           |
| CLERICAL & SALES OCCUPATIONS                                       |                  | 35,950          | 39,750          | 6,600           | 3,800        |
| Clerical Occupations   |                  | 23,900          | 26,450          | 4,650           | 2,550        |
| Secretary & Stenographer   |                  | 4,300           | 4,800           | 800             | 500          |
| Clerk-Typist   |                  | 2,000           | 2,200           | 450             | 200          |
|  |                  | 850             | 1,000           | 150             | 150          |
| General Clerk  |                  | 2,050           |                 | 350             | 250          |
| Bookkeeper   | '                | 1,050           | 1,150           | 250             | 100          |
| Cashier  |                  | 500             | . 550           | 150             | 50           |
| Teller   |                  |                 |                 |                 |              |
| Occupational totals do not add to total employment by industry be- | cause of a numb  | er of exclusion | s such as stude | ent workers and | employees of |



Occupational totals do not add to total employment by industry because of a number of exclusions such as student workers and employees of Neighborhood Youth Corps and Headstart projects.

|   |                | _               |                 |               |              |
|---|----------------|-----------------|-----------------|---------------|--------------|
| Occupation  | Act            | ual             | Projected       | Net C         | hange        |
| -   | 1965           | 1970            | 1975            | 1965-1970     | 1970-1975    |
| Keypunch Operator   | 200            | 300             | 300             | 100           | 0            |
| Payroll Clerk   | 150            | 200             | 250             | 50            | 50           |
| General Office Clerk  | 1,450<br>400   | 1,800<br>500    | 2,050<br>550    | 350<br>100    | 250<br>50    |
| Accounting Clerk Production Clerk                               | 300            | 450             | 450             | 150           | 0            |
| Shipping & Receiving Clerk                                      | 600            | 750             | 850             | 150           | 100          |
| Stock Clerk   | 1,650          | 2,150           | 2,350           | 500           | 200          |
| Post Office Clerk   | 1,250<br>1,250 | 1,450<br>1,400  | 1,400<br>1,400  | 200<br>150    | 50<br>0      |
| Telephone Operator  | 550            | 800             | 950             | 250           | 150          |
| Receptionist & Information Clerk                                | 300            | 400             | 450             | 100           | 50           |
| Hotel Clerk   | 200<br>850     | 300<br>1,050    | 400<br>1,150    | 100<br>200    | 100<br>100   |
| Salesman, Services Salesman, Insurance & Real Estate            | 650            | 750             | 850             | 100           | 100          |
| Salesman, Commodities   | 6,050          | 7,100           | 7,850           | 1,050         | 750          |
| Salesman, Food, Beverage, & Tobacco                             | 300            | 350             | 400             | 50            | 50           |
| Salesman, Textile Products & Apparel Salesman, Chemical & Drugs | 1,400<br>250   | 1,700<br>300    | 1,850<br>350    | 300<br>50     | 150<br>50    |
| Salesman, House Furnishings                                     | 300            | 350             | 350             | 50            | 0            |
| Salesman, Industrial Equipment & Supplies                       | 550            | 650             | 700             | 100           | 50           |
| Salesman, Transportation Equipment                              | 550            | 650             | 650<br>2,700    | 100<br>400    | 0<br>200     |
| Salesman, General   | 2,100<br>3,200 | 2,500<br>3,900  | 4,300           | 700           | 400          |
| Salesman, Food  | 550            | 700             | 800             | 150           | 100          |
| Routeman  | 1,050          | 1,250           | 1,350           | 200           | 100          |
| Manager, Department Store                                       | 400<br>600     | 500<br>750      | 550<br>· 850    | 100<br>150    | 50<br>100    |
| Delivery Boy  | 200            | 250             | 250             | 50            | 0            |
| SERVICE OCCUPATIONS   | 18,650         | 24,150          | 27,700          | 5,500         | 3,550        |
| Food Services   | 6,450          | 9,150           | 10,100          | 2,700         | 950,<br>400  |
| Waiter & Waitress   | 2,600<br>1,600 | 3,650<br>2,300  | 4,050<br>2,550  | 1,050<br>700  | 400<br>250   |
| Meat Cutter   | 300            | 400             | 450             | 100           | 50           |
| Kitchen Helper  | 1,850          | 2,550           | 2,850           | 700           | 300          |
| Food Assembler Lodging Service                                  | 150<br>1,450   | 200<br>2,000    | 250<br>2,450    | 50<br>550     | 50<br>450    |
| Barbering, Cosmetology, & Related Service                       | 400            | 400             | 450             | 0             | 50           |
| Hair Stylist & Cosmetologist                                    | 300            | 300             | 350             | 0             | 50           |
| Amusement & Recreation Services                                 | 200<br>2,650   | 300<br>3,450    | 350<br>3,900    | 100<br>800    | 50           |
| Personal Services Apparel & Furnishing Services                 | 1,900          | 2,000           | 2,200           | 100           | 450<br>200   |
| Protective Services   | 1,800          | 2,250           | 3,200           | 450           | 950          |
| Guard & Watchman  | 550            | 700             | 900             | 150           | 200          |
| Fireman<br>Policeman  | 250<br>450     | 350<br>600      | 350<br>. 650    | 100<br>150    | 0<br>50      |
| Building Service  | 3,700          | 4,600           | 5,100           | 900           | 500          |
| Janitor & Porter  | 3,550          | 4,400           | 4,900           | 850           | 500          |
| Groundskeeper   | 550            | 700             | 800             | 150           | 100          |
| Fire Warden & LookoutAGRICULTURAL SERVICE OCCUPATIONS           | 50<br>850      | 100<br>1,100    | 100<br>1,250    | 50<br>250     | 0<br>150     |
| PROCESSING OCCUPATIONS  | 3,300          | 4,050           | 4,600           | 750           | 550          |
| Metal Processing  | 100            | 200             | 200             | 100           | . 0          |
| Foundry   | 100            | 250             | 300             | 150           | 50           |
| Food Processing Laborer, Food Processing Laborer                | 1,100<br>850   | 1,100<br>800    | 1,050<br>750    | 0<br>50       | -50<br>-50   |
| Paper Processing  | 600            | 700             | 800             | 100           | 100          |
| Chemical Processing   | 650            | 1,000           | 1,250           | 350           | 250          |
| Chemical Machine Tender   | 150<br>150     | 200<br>100      | 250<br>100      | 50<br>50      | 50<br>0      |
| Wood Processing Stone, Clay, & Glass Processing                 | 250            | 300             | 400             | 30<br>50      | 100          |
| Laborer, Concrete Plant   | 100            | 100             | 150             | 0             | 50           |
| Textile Processing  | 350            | 400             | 450 ·           | 50<br>2.7.0   | 50<br>1 100  |
| MACHINE TRADES OCCUPATIONS                                      | 9,550<br>1,300 | 12,250<br>1,850 | 13,350<br>2,050 | 2,7 )0<br>550 | 1,100<br>200 |
| Machinist   | 500            | 600             | 650             | 100           | 50           |
| Production Machine Operator                                     | 450            | 600             | 650             | 150           | 50           |
| Metalvorking  | 450<br>200     | 1,000<br>600    | 1,150<br>650    | 550<br>400    | 150<br>50    |
| Machine Operator  Mechanics & Machinery Repair                  | 3,650          | 4,850           | 5,400           | 1,200         | 550          |
|   | - /            | ,               | - ,             | ,             |              |



|   |                | Employment              |                |            |            |
|---|----------------|-------------------------|----------------|------------|------------|
| Occupation  | Ac             | tual                    | Projected      | Net C      | hange      |
|   | 1965           | 1970                    | 1975           | 1965-1970  | 1970-1975  |
| Foreman   | 200            | 300                     | 300            | 100        | 0 .        |
| Auto Mechanic   | 1,400          | ·1,700                  | 1,850          | .300       | 150        |
| Auto Mechanic Helper Refrigeration Mechanic                           | 200<br>300     | 250<br>- 350            | 250<br>400     | 50<br>50   | 0<br>50    |
| Maintenance Mechanic  | 500            | 700                     | 850            | 200        | 150        |
| Paperworking  | 150            | 200                     | 200            | 50         | 0          |
| Printing  | 150            | 200                     | 250            | 50         | 50         |
| Wood Machining  | 1,900          | 1,800                   | 1,850          | 100<br>50  | 50         |
| Saw Operator Textiles   | 1,050<br>1,950 | . 1,000<br>2,200        | 1,000<br>2,450 | 50<br>250  | 0<br>250   |
| Carding, Combing, & Drawing Tenders                                   | 1,550          | 200                     | 200            | 50         | 0          |
| Twister, Winder, & Warper   | 150            | 150                     | 150            | 0          | 0          |
| Frame Spinner   | 150            | 150                     | 150            | 0          | 0          |
| Weaver Knitting Machine Operator                                      | 200<br>150     | 250<br>150              | 300<br>150     | 50<br>0    | 50<br>0    |
| Section Man   | 100            | 100                     | 100            | ő          | ő          |
| Cloth & Yarn Winder   | 100            | 100                     | 100            | 0          | 0          |
| Doffer & Spooler  | 100            | 150                     | 150            | 50         | 0          |
| Creeler   | 100<br>100     | 100<br>100              | 100<br>150     | 0<br>0     | 0<br>50    |
| Machine Cleaner & Oiler   | 5,400          | 7,700                   | 8,700          | 1,300      | 1,000      |
| Fabrication, Assembly, & Repair of Metal Products                     | 350            | 850                     | 1,000          | 500        | 150        |
| Assembler, Metal Products   | 200            | . 350                   | 400            | 150        | 50         |
| Fabrication & Repair of Medical & Scientific Products &               | 0.50           | 2.50                    |                | 400        |            |
| Photographic & Optical Goods  | 250<br>100     | 350<br>150              | 400<br>150     | 100<br>50  | 50<br>0    |
| Dental Laboratory Technician  | 400            | 550                     | 65C            | 150        | 100        |
| Radio & Television Repairman  | 50             | 100                     | 100            | 50         | 0          |
| Assembler, Electricai Equipment                                       | 50             | 100                     | 150            | 50         | 50         |
| Fabrication & Repair of Products Made from Assorted                   | 100            | 150                     | 450            | - 50       | 0          |
| Material Painting & Decorating  | 100<br>100     | 150<br>150              | 150<br>150     | 50<br>50   | 0          |
| Fabrication & Repair of Synthetics, Rubber, & Plastics                | 200            | 350                     | 400            | 450        | 50         |
| Assembler, Plastic Products   | 150            | 250                     | 300            | 100        | 50         |
| Fabrication & Repair of Wood Products                                 | 200            | 200                     | 200            | 0          | 0          |
| Fabrication & Repair of Textile & Related Products                    | 4,800<br>150   | 5,100<br>150            | 5,700<br>150   | . 300      | 600<br>0   |
| Foreman<br>Upholsterer, Production                                    | 100            | 150                     | 150            | 50         | 0          |
| Bundler & Draper  | 100            | 100                     | 100            | 0          | Ō          |
| Cutter & Spreader   | 200            | 200                     | 200            | 0          | 0          |
| Hand Sewer<br>Seamstress  | 100<br>200     | 100<br>250              | 100<br>250     | 0<br>50    | . 0        |
| Seamstress Sewing Machine Operator                                    | 3,150          | 3,250                   | 3,800          | 100        | 550        |
| Garment Inspector   | 300            | 300                     | 300            | 0          | 0          |
| STRUCTURAL OCCUPATIONS  | 13,600         | 16,550                  | 19,900         | 2,950      | 3,350      |
| Structural Metal Fabricating  | 1,650          | 2,300                   | 2,550          | 650<br>150 | 250<br>150 |
| Sheet Metal Worker  | 450<br>150     | · 600<br>200            | 750<br>200     | 150<br>50  | 150<br>0   |
| Rigger  | 250            | 300                     | 300            | . 50       | . 0        |
| Assembler, Transportation Equipment                                   | 200            | 300                     | 300            | 100        | 0          |
| Automotive-Body Repairman   | 200            | 250                     | 250            | 50         | 0          |
| Welding & Flame Cutting   | 800<br>600     | <sup>1</sup> 950<br>750 | 1,200<br>850   | 150<br>150 | 250<br>100 |
| Welder, Combination<br>Electrical Assembling, Installing, & Repairing | 2,050          | 2,700                   | 3,200          | 650        | 500        |
| Foreman   | 150            | 200                     | 250            | 50         | 50         |
| Lineman, Power  | 150            |                         | 350            | 100        | 100        |
| Telephone Repairman   | 150<br>900     | 200                     | 250<br>1,250   | 50         | 50<br>150  |
| Electrician Electrician Helper  | 150            | 1,100<br>200            | 250            | 200<br>50  | . 50       |
| Painting, Plastering, Waterproofing, & Cementing                      | 950            | 1,150                   | 1,400          | 200        | 250        |
| Painter   | 600            | 700                     | 900            | 100        | 200        |
| Cement Mason  | 150            | 150                     | 200            | 0          | 50         |
| Excavating, Grading, & Paving   | 1,050          | 1,300                   | 1,550          | 250<br>50  | 250<br>50  |
| Excavating Equipment OperatorRoad Laborer                             | 150<br>350     | 200<br>400              | 250<br>450     | 50<br>50   | 50<br>50   |
| Operating Engineer  | 400            | 450                     | 550            | 50         | 100        |
| Other Construction Occupations  | 6,250          | 7,150                   | 8,750          | 900        | 1,600      |
| _ 🚱 _ Foreman   | 250            | 300                     | 350<br>1.750   | 50         | 50         |
| RIC Carpenter   | 1,350          | 1,400                   | 1,750          | 50         | 350        |

APPENDIX TABLE 12. AVERAGE NONFARM WAGE AND SALARY EMPLOYMENT FOR ECONOMIC AREA IV IN SOUTH CAROLINA BY SELECTED OCCUPATIONS, 1965, 1970, AND PROJECTIONS TO 1975—Continued

| Employment                          |        |        |                 |           |           |  |
|-------------------------------------|--------|--------|-----------------|-----------|-----------|--|
| Occupation                          | Act    | ual    | Projected Net C |           | Change    |  |
|                                     | 1965   | 1970   | 1975            | 1965-1970 | 1970-1975 |  |
| Carpenter, Rough                    | 200    | 200    | 250             | 0         | 50        |  |
| Laborer, Carpentry                  | 400    | 450    | 550             | 50        | 100       |  |
| Bricklayer                          | 300    | 350    | 450             | 50        | 100       |  |
| Bricklayer Helper                   | 250    | 250    | 350             | 0         | 100       |  |
| Pipefitter & Plumber                | 1,100  | 1,300  | 1,500           | 200       | 200       |  |
| Pipefitter & Plumber Helper         | 200    | 250    | 300             | 50        | 50        |  |
| Erector                             | 200    | 250    | 300             | 50        | 50        |  |
| Construction Worker                 | 1,450  | 1,700  | 2,050           | 250       | 350       |  |
| Structural Maintenance              | 850    | 1,000  | 1,200           | 150       | 200       |  |
| Foreman                             | 150    | 200    | 250             | 50        | . 50      |  |
| Maintenance Man, Building           | 450    | 550    | 600             | 100       | 50        |  |
| MISCELLANEOUS OCCUPATIONS           | 14,900 | 18,250 | 20,600          | 3,350     | 2,350     |  |
| Motor Freight                       | 3,300  | 3,900  | 4,550           | 600.      | 650       |  |
| Tractor-Trailer Truck Driver        | 950    | 1,100  | 1,250           | 150       | 150       |  |
| Truck Driver, Heavy                 | 1,100  | 1,300  | 1,450           | 200       | 150       |  |
| Distributor Truck Driver            | 450    | 550    | 600             | 100       | 50        |  |
| Van & Garbage Truck Driver          | 300    | 400    | 500             | 100       | 100       |  |
| Transportation Occupations          | 2,700  | 3,650  | 4,000           | 950       | 350       |  |
| Foreman                             | 150    | 250    | 300             | 100       | 50        |  |
| Bus & Taxicab Driver                | 950    | 1,300  | 1,350           | 350       | 50        |  |
| Packaging & Materials Handling      | 6,950  | 8,600  | 9,900           | 1,650     | 1,300     |  |
| foreman                             | 200    | 250    | 300             | 50        | 50        |  |
| Packager, Maclyine                  | 300    | 400    | 400             | 100       | 0         |  |
| Packager, Hand                      | 1,100  | 1,400  | 1,550           | 300       | 150       |  |
| Crane & Elevator Operator           | 200    | 300    | 350             | 100       | 50        |  |
| Industrial Truck Operator           | 250    | 550    | 600             | 300       | 50        |  |
| Laborer, Stores                     | 2,550  | 3,250  | 3,850           | . 700     | 600       |  |
| Tractor Operator                    | 250    | 200    | 200             | -50       | 0         |  |
| Material Handler                    | 1,700  | 2,100  | 2,400           | 400       | 300       |  |
| Logging                             | 1,050  | 950    | 950             | -100      | . 0       |  |
| Logger                              | 800    | 750    | 700             | 50        | 50        |  |
| Utilities Production & Distribution | 600    | 800    | 950             | 200       | 150       |  |
| Fireman & Humidifier Attendant      | 150    | 200    | 200             | 50        | 0         |  |
| Power Plant Operator                | 100    | 100    | 150             | 0         | 50        |  |
| Graphic Art Work                    | 200    | 250    | 300             | 50        | 50        |  |

NOTE: Refer to appendix table 11, footnote 1, for list of counties comprising Economic Area IV.

