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EMPLOYMENT IN THE COTTON TEXTILE INDUSTRY IN
ALABAMA, GEORGIA, AND SOUTH CAROLINA

Preliminary Report

February , 1936

J-2

Preface

This report is the second in a series presenting the results of a detailed study of combined farming-industrial employment undertaken by the Research Section, Division of Research, Statistics and Finance, F.E.R.A., in cooperation with the Land Policy Section, Division of Program Planning of the A.A.A. Since the study was begun the former agency has become the Division of Social Research, W.P.A. and the latter has become the Land Use Planning Section, Land Utilization Division, Resettlement Administration. The study has been continued by these agencies. The application of the findings of this report to combined farming-industrial employment will be found in W.P.A. Research Bulletin J-1, entitled "Combined Farming-Industrial Employment in the Cotton Textile Subregion of Alabama, Georgia, and South Carolina".

Part I of this report seeks to answer the question: Will employment in the cotton mills of Georgia, Alabama, and South Carolina tend to be greater or less in the future than in recent years? An examination of the trends and problems of the industry is undertaken to point the answer. Part II discusses those features of the industry which must be considered in any combination of farming with cotton mill employment.

All of the statistical data and some of the other information contained herein were drawn from official reports and other publications; the remainder was gathered from interviews with mill executives and inspections of mills and mill villages made in the summer of 1935.

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Summary of Part I

During recent years the cotton textile industry has undergone a striking shift from New England to the South. Attracted primarily by low labor costs, manufacturers built numbers of new mills in the South in the period from about 1880 until 1930. This loaded the industry with excess capacity and resulted in the decline of the industry in New England, beginning in 1923.

The year 1923 was the peak year of employment for the industry as a whole. In the South, however, average employment in 1933 was slightly higher than the previous peak in 1929.

Domestic consumption of cotton cloths has varied between about 55 and 72 square yards per capita per year in the last 10 years, but shows no well defined trend.

Exports of cotton cloths varied between 464 million and 587 million square yards in the years from 1922 to 1929, and fell sharply to 223 million square yards in 1934.

Until 1935 imported cotton cloths were mostly fine fabrics from Great Britain or Switzerland. In 1935 Japan became the principal source of imports, mainly bleached goods of print cloth construction. Their volume is not large when compared to total United States production, but it is large when compared to the domestic production of competing cloths.

Cotton competes with silk, rayon, wool, linen, paper, and jute. The use of rayon has been steadily increasing, and the paper has made some inroads on the market for cotton goods.

Factors affecting future employment demand are the probable retirement of excess or obsolete mills and equipment, increased efficiency, loss of export markets to Japan and other low cost producing countries, competition by other materials, and possible failure to maintain N.R.A. hour standards. In view of these trends and problems facing the industry it seems probable that total employment in southern cotton mills in the immediate future will be somewhat less than it was in 1934.

PART I. FACTORS AFFECTING EMPLOYMENT DEMAND

The Industry. The cotton textile industry, or "cotton goods" industry, as defined in the Census of Manufactures includes those mills engaged in preparing raw cotton for spinning, in spinning cotton yarn, or in weaving cotton or cotton-mixed piece goods. Its relative importance in the textile group, of which it forms a part, is indicated in the following table.

Table A. U. S. Textile Industries, Value of Products, 1933a/

Textile Industries	Value of Products (in millions of dollars)
Total	4,811
Cotton goods	861
Cotton small wares	39
Lace goods	17
Knit goods	498
Silk and rayon goods	291
Woolen goods	148
Worsted goods	301
Carpets and rugs	72
Dyeing and finishing	279
Other	167
Wearing apparel made from purchased fabrics	1,793
Other articles made from purchased fabrics	340

a/ "Cotton Textile Industry," 74th Congress, Senate Doc. # 126, p. 35.

The industry includes over a thousand separate establishments. Some mills do spinning only, producing yarns for sale primarily to weavers of specialty products and to knitting mills. Those mills which weave only usually produce specialty fabrics such as small wares or upholstery and drapery fabrics. Most of the mills do both spinning and weaving, approximately 80 percent of all spindles and 96 percent of all looms being in such establishments in 1929.^{1/}

The industry produces a wide variety of cotton fabrics for both industrial and household or personal use. It has been estimated that more than half of the total quantity of cotton goods consumed in this country is now used for industrial and farm purposes, and that industrial use of cotton has been increasing while there has been a decrease in use for clothing and household purposes in the last 25 years.^{2/}

^{1/}U. S. Census of Manufactures, 1929, Vol. II, p. 262.

^{2/}"Cotton Textile Industry", 74th Congress, Senate Doc. #126, p. 36.

The mills specialize in production of certain types and weights of fabric and most of them are equipped with the machinery best adapted to the type of goods made. With modern machinery, shifts can be made from some types of products to others with little expense, but with obsolete or highly specialized machines it cannot be done.

Table 1 shows the production of various types of woven cotton goods in the United States in 1929 and 1933. While there was only a five percent decrease in total yardage from 1929 to 1933, comparison of the data for the two years marked changes in certain items, reflecting changes in styles and in industrial use.

Few mills are equipped to finish the goods they produce. Most of the product is sold, directly or through brokers, to converters. Converters design the fabrics, buy the unfinished or "grey" goods required from the mills, and have it shipped to finishing mills which process the cloth according to the converters' specifications. Finishers work on a contract or commission basis.

The Shift to the South: Numbers Employed, Spindles and Production. There are two important areas of cotton goods manufacture, New England and the Southeast. The rapid decline of the industry in New England since 1923, and its rise in the South, constituting a shift or "migration" southward, are outstanding and much discussed features. This shift and the resulting change in rank of the various states as producers of cotton goods can be seen in Table 2.

Growth in the South started about 1880, and continued steadily until 1930. The principal factors attracting the industry to the South were an immense supply of cheap labor, relatively low taxation and cheap electric power. Power represents about five percent of production cost. Nearness to raw material is of insignificant advantage to the southern mills because difference in freight costs is slight, (water rates from Galveston or New Orleans to New England are low) and most of the grey goods must be shipped north to be finished.

Southern mills make the cheaper, heavier grades of cloth, while the bulk of the fine goods comes from New England. In 1933 the cotton-growing states produced about 87 percent of all sheetings made in the United States, 94 percent of print cloths, 95 percent of drills, 73 percent of twills and sateens, 78 percent of reps, poplins, and broadcloths, 95 percent of denims, 85 percent of gingham, and only 26 percent of lawns, nainsocks, and cambrics.^{1/} Production of fine goods requires a more skilled type of labor, which is one reason for the wage differential between the South and New England.

In recent years the cost differential between the southern and the northern branches has been narrowed. The N.R.A. set a differential of \$1.00 per week in the minimum wage rate, but the principal purpose of this was to offset the low rents charged in southern company villages.^{2/}

^{1/}U. S. Census of Manufactures, 1933, "Cotton Goods, Cotton Small Wares, etc.," Special Bul., 1935, p.4.

^{2/}N.R.A. Code for the Cotton Textile Industry, Letter of Transmittal.

Taxes have been increasing in the South, and many northern communities have been forced by the sad plight of their mills to reduce the tax burden on them.

One result of the attraction of new units to the low cost area in the South has been that since the war the industry has found itself with an excess capacity. This excess capacity has caused the closing of many New England mills, particularly the older, more obsolete ones, and a drying up of profits in the South. The year 1923 was the last year of prosperity for the New England branch of the industry. While other industries were booming from 1923 to 1929, New England cotton mills were closing their doors and selling or junking machinery. The rapid decline in spindleage is shown in Figure 1, which gives both number of spindles in place and active spindles. The figures for active spindles are yearly averages of monthly numbers of spindles that were active at some time during the month. Active spindles underwent an even more drastic decline than spindles in place.

While New England mills were shutting down there was a steady increase of installations in the South up to 1930. Substantial growth ceased in North Carolina in 1927-28, in South Carolina in 1930-31, in Georgia in 1932. In Alabama it continued to the end of 1934.^{1/}

The peak year of employment in the industry was 1923 when average wage earners reached 471,000. Figure 2 shows production and wage earners for the Census years from 1921 to 1933. The low point of employment was reached in 1932 which, unfortunately, is not a Census year, and hence does not show on the chart. The decline in wage earners took place only in New England, however, employment in the South in 1933 being slightly higher than the previous high in 1929. The steady increase in relative importance of South Carolina, Georgia, and Alabama is shown by the rising curve of wage earners expressed as a percentage of the United States total.

The output of cotton cloth in the past 12 years has varied between about 7 billion and 9 billion yards, with 1927 as the peak year. The quantity available for domestic consumption (production plus imports less exports) was 63.6 square yards per capita in 1925, 71.7 in 1927, 66.1 in 1929, 54.9 in 1931, and 62.4 in 1933, and is estimated at about 55 yards in 1934.^{2/} These figures show considerable fluctuation from year to year, but no well defined trend.

The N.R.A. Code. The N.R.A. code for the cotton textile industry, effective July 17, 1933, was the first code adopted. It provided for a maximum 40-hour week, and limited machine hours to two 40-hour shifts. The minimum wage was set at \$12 per week for the South and \$13 per week for the North, except for learners, who were exempted from this provision for a period of six weeks, and outside employees. An amendment approved December 27, 1933 set the rate for outside employees and cleaners at not less than 75 percent of the minimum wage. The code provided that differences existing prior to July 17, 1933 between rates paid various classes

^{1/} "Cotton Textile Industry", 74th Congress, Senate Doc. #126, p. 46.
^{2/} Association of Cotton Textile Merchants of New York.

of employees should not be decreased, and that in no event should anyone be paid less for the 40-hour week than he was receiving for the longer week of 48 or more hours prevailing prior to July 17, 1933. Employment of any minor less than 16 years of age was prohibited.

The effect of the code was to increase the wage bill of the industry by approximately 65 percent^{1/} and to spread this payment to a greater number of employees. The greatest increases in rates were in the lower paid brackets.

Since the N.R.A. was declared unconstitutional, May 27, 1935, evidence indicates that a great majority of the cotton goods manufacturers have voluntarily continued to adhere to the code hour and wage provisions.^{2/} Some of the smaller mills have not done this, but these include only a small part of the industry. Many of the mill executives interviewed during the summer of 1935 thought it would be possible to maintain these standards indefinitely, but others feared that the pressure of competition would sooner or later gradually force a lowering of wage rates and an increase in hours.

Exports and Imports. A fact of great importance in international trade in textiles is the recent growth of the industry in the Orient, particularly Japan. From 1926 to 1934, while spindleage declined 45 percent in New England and 19 percent in Great Britain, Japan increased her spindles by 63 percent, China by 38 percent, and India by 13 percent.^{3/}

Figure 3 shows cotton consumption for the United States, Great Britain, and Japan for the crop years 1912-13 to 1933-34. The tide of cotton goods manufacture passed its crest in the United Kingdom prior to 1912, in New England during the war, in the cotton-growing states during the late twenties. It is now rising rapidly in Japan.

United States exports of cotton cloths varied between 464 million and 587 million square yards in the years from 1922 to 1929. In 1929 the amount exported was 539 million, falling from that figure to 223 million in 1934. The Philippine Islands, Cuba, Central America, and Canada were the principal foreign markets in these years, while before the war China was one of the largest consumers. In 1934 exports to the Philippines dropped sharply while those to Cuba increased.^{4/}

Imports were about 219 million square yards in 1923, 109 million in 1925, and dropped to about 40 million in 1934. In the first five months of 1935, 32 million square yards came in. From 1922 to 1930 most of the imports were fine goods from the United Kingdom. From 1931 to 1934 Switzerland was the leading supplier, mostly of fine-yarn fabrics. During 1935 Japan became the principal source of imports.^{5/}

^{1/}Bureau of Labor Statistics, "Wage Rates and Weekly Earnings in the Cotton Goods Industry from July 1933 to August 1934", mimeographed report, 2nd edition with minor corrections, p. 12.

^{2/}From statements of trade association and mill executives (July, 1935).

See also "Cotton Textile Industry", 74th Congress, Senate Doc. #126, p. 127

^{3/}Ibid., p. 43.

^{4/}Ibid., p. 102.

^{5/}Ibid., p. 100.

These Japanese cloths are mainly bleached goods of print cloth construction. While their volume has not been large when compared to the total U. S. production, it is large when compared to the amounts of the particular cloth constructions with which they compete. Cotton mill men claim that the prices at which Japanese goods are sold force a lowering of domestic prices of competitive goods.

Bleached goods containing yarns averaging number 40's count pay a duty of 27 percent ad valorem, and colored goods 30 percent ad valorem, while the ad valorem duty on unfinished goods may run as high as 60 percent. The low wages paid Japanese labor and the depreciation of the yen have enabled the Japanese to surmount this tariff wall and to become strong competitors of American cotton goods manufacturers in foreign markets.

The cotton processing tax did not affect exports or imports because the amount of the tax was rebated on all goods exported, and a compensatory tax equal to the processing tax was levied on all imports in addition to the regular duty.^{1/}

Competing Materials. Cotton yarns and fabrics compete with silk, rayon, wool, linen, and paper in wearing apparel and household articles, and with paper and jute in the industrial field. For household purposes, wool is used in blankets, silk and rayon are used for draperies, and paper for handkerchiefs, towels, napkins, and window shades. Most of the jute is used for bags; some is used for bagging cotton and for cordage. Paper bags and cartons, and gummed paper tape compete with cotton products. The shift of the cement industry from cotton to paper containers for a large proportion of its product is an example of a loss of market for cotton products to another material.

Figure 4 gives a comparison of the consumption of the five principal fibers, cotton, silk, rayon, wool, and jute, expressed as percentages of the total United States consumption of these fibers. This shows that cotton has maintained its relative position at around 70 to 74 percent of the total, while wool had a slight downward trend until 1925 and rayon shows a steady rise. The effect of paper competition on the consumption of cotton goods is not taken into account in this comparison.

The Problems of the Industry. In the course of a field investigation during the summer of 1935 several cotton mill executives in Greenville, South Carolina, Macon and Carrollton, Georgia, and Birmingham, Alabama, were interviewed and asked their opinions as to the outlook for the future of the industry. Most were gloomy as to the prospects and were of the opinion that employment in the cotton mills of the South would tend to decrease. Nearly all cited the processing tax on cotton and competition from Japanese imports as the principal troubles. Other difficulties

^{1/}The cotton processing tax, amounting to 4.2 cents per pound net weight, was in effect from May, 1933 until declared unconstitutional by the U. S. Supreme Court on January 6, 1936.

mentioned were uncertainty as to the loan price on cotton, taxes, "government interference", "lack of confidence", and loss of business to competing materials. One executive, while "optimistic for the long pull", said he considered that cotton growing in the South was doomed; that Brazil could and eventually would produce large quantities of both raw cotton and cloth for the world market more cheaply than the South could do it.

There was released on August 21, 1935 a report on the Cotton Textile Industry by a committee of cabinet members appointed by the President to investigate the industry and submit recommendations.^{1/} This report discussed at length the troubles mentioned above and other problems. The findings and recommendations of the committee were briefly as follows:

(1) Excess capacity and obsolescence. Finding that excess capacity and obsolescence were serious problems, the committee recommended legislation to deal with them by (a) limiting machine hours, (b) a leasing system for retiring surplus equipment, (c) the purchase and retirement of the most obsolete units after a probationary period under the leasing system.

"Such withdrawals of excess equipment, financed by the industry, should be controlled by adequate regulation in the public interest, having due regard to the importance of gradual but persistent elimination of inefficient units and to the necessity of making adequate provision for the displaced workers."

(2) Imports. Finding that the domestic market had recently been disturbed by imports from Japan, the committee recommended that steps be taken to control the imports, preferably by voluntary and friendly agreement with Japan.

(3) Exports. The committee disapproved a suggestion for an export subsidy.

"Furthermore, stabilization of the currencies of the world, a reduction in trade barriers at home and abroad, and attention to the special needs of foreign markets by American producers should lead to a recovery of at least some part of the foreign textile markets which have been lost."

(4) Government purchases of cotton goods. It was recommended that government buy cotton goods during periods of slack demand.

(5) Increasing use of cotton. Finding that utilization of cotton products had not in recent years been increasing, the committee recommended the promotion of research to develop new uses.

^{1/}"Cotton Textile Industry", 74th Congress, Senate Doc. #126.

(6) Net weight trading. The committee recommended trading in cotton on a net weight basis.

(7) Cotton loan policy. "The cotton-loan policy is of concern to the cotton textile industry primarily through its stabilizing effect."

"We recommend an investigation of the hedging requirements of mills looking toward desirable revisions or additions to the functions of the cotton futures markets."

(8) Processing tax. "--we recommend against the discontinuance of the processing tax."

(9) Merchandizing and marketing.^{1/} "It appears from the facts before us that much of the present system for the merchandizing and marketing of cotton textiles is wasteful and involves undue hazards. We recommend that a study be made for the purpose of devising proposals for improving merchandizing and marketing methods--."

(10) Labor standards. "We commend the attempt of the industry to maintain the labor standards provided in the code."

(11) Continuing committee. The formation of a committee to formulate methods of carrying out above recommendations and to examine and report on the long-time problems of the industry was recommended.

The Outlook for Employment. In view of the situation of the industry and its problems, as discussed above, it seems probable that the general trend of employment in the industry will be downward for some time to come. The principal factors tending to decrease future employment may be summarized as follows:

(1) The probable retirement of excess and obsolete mills and equipment and an increase of efficiency by others. Increasing efficiency means less labor per unit of output. Modern textile equipment runs faster and produces more goods with the same or less labor than do old machines. There are also new labor-saving machines now in the experimental stage, - the long-draft roving frame, for instance, which will displace the present slubber, intermediate frame, and speeder.

(2) Loss of export markets to Japan and other low-cost producing countries.

(3) Loss of part of home market to other materials, - rayon, paper, jute, etc. Cotton mills can shift to rayon weaving, but this means discarding the entire carding and spinning departments.

^{1/}A full discussion of the marketing organization of the industry will be found in King Cotton is Sick by Claudius T. Murchison, University of North Carolina Press, 1930.

(4) A possible failure to maintain the 40-hour week. An increase in hours per shift would decrease the numbers employed, but would not affect the total amount of work to be done.

To offset these depressing factors, there is the possibility that new industrial uses for cotton fabrics will be developed. For example, experiments on the use of cotton cloth as a tensile element in asphalt surfaced sand or gravel roads have been under way for some time, but it will be several years before it can be demonstrated conclusively whether or not such use of cotton cloth is economical.

Such reduction in employment as may occur is likely to be largely the result of shutdowns of the mills that are less well financed and managed. The well managed mills with ample financial resources will weather the storm and continue to employ a normal working force.

Summary of Part II

In Alabama, Georgia, and South Carolina the cotton textile industry is located principally in the Piedmont area. Northwestern South Carolina, particularly Greenville, Spartanburg, and Anderson Counties, is the area of greatest concentration.

The labor force of the mills is drawn from the native white stock, Negroes (mainly employed in outside and non-skilled work) making up less than seven percent of the total. Women make up about 35 percent of the force. Most of the work calls for manual dexterity rather than physical strength, and is of a semi-skilled type requiring a rather short learning period. Most employees are young, 61.5 percent being under 35 years of age, according to the 1930 Census.

Prior to the N.R.A. the usual working week was 55 hours, 10 hours per day for five days and five hours on Saturday. Since N.R.A. a 40-hour week of five 8-hour days is standard.

Available evidence indicates that a large majority of the mills have continued to adhere to N.R.A. wage and hour standards. Most operatives are paid on a piece-work basis. Weekly full time wages vary from the code minimum, \$12.00 for all except sweepers and outside help (\$9.00 for these), up to \$25.00 or more for highly skilled workers. The average is about \$14.00 to \$16.50 depending on the type of goods made by the mill and the proportion of skilled workers.

There is some seasonal swing in output, with a dull period usually in the summer, but there is not much regular seasonal variation in the labor force.

The low rents charged and the facilities furnished by the company-owned mill villages represent an addition to the real income of those workers housed in the villages.

PART II. FACTORS AFFECTING COMBINED FARMING-TEXTILE EMPLOYMENT

Location. In South Carolina and Georgia the cotton mills are located mostly in the Piedmont region. In Alabama the important cotton mill counties are Madison, Talladega, Chambers, Tallapoosa, and Calhoun. Figure 5 shows the number of spindles by counties. Note the concentration in northwestern South Carolina, particularly in Spartanburg and Greenville Counties. The cotton textile subregion^{1/} takes in all of the counties having more than 100,000 spindles, except Calhoun and Talladega Counties in the coal and iron subregion, and Madison County in the Tennessee Valley. There are no mills on the Atlantic coast, and while there are mills in many of the counties of the lumber and naval stores subregions, they are comparatively small and unimportant, except in Bibb County, Georgia.

Labor. The labor force of the southern cotton mills is drawn from the native-born white stock of the farms of the South. Negroes are employed only as sweepers and outside help and make up less than seven percent of the total force. There are very few foreign-born workers employed, the mill executives being wary of "labor agitators" among them.

Work in the mills calls for manual dexterity rather than physical strength, so women and boys (over 16 years old) can be used. Spinners, spooler tenders, creelers, warper tenders, drawers-in, and inspectors are usually women; weavers, speeder tenders, and drawing frame tenders may be either men or women; loom fixers, doffers, slasher tenders, picker tenders, card tenders, and card grinders are usually men. The percentage of women among the employees varies from mill to mill but averages about 35 percent in the South.

Most tasks in the mill do not require a high degree of skill. Only loom fixers are skilled workers; about 75 percent of the workers are classified as semi-skilled, and about 15 percent unskilled.^{2/} The N.R.A. code for the industry allowed a period of exemption from minimum wage requirements of six weeks for learners, but many mill operators claim that this is too short a period and that it takes about six months to train a new operative. When necessary the southern mills can always recruit new labor from the nearby farms or from the mountain districts.

Much has been written of child labor in the cotton mills. The N.R.A. established 16 years as the minimum age for employment in the mills, but for several years prior to adoption of the code it had been illegal to employ any child under 14 years of age in the cotton mills.^{3/} Figure 6 shows the age distribution of all workers in the industry according to the 1930 Census: 37.4 percent were under 25, and 61.5 percent were under 35 years of age.

^{1/}See "Combined Farming-Industrial Employment in the Cotton-Textile Sub-region of Alabama, Georgia and South Carolina", W.P.A. Research Bulletin J-1, for a discussion of the industrial subregions of this area.

^{2/}Any classification of workers by skills is to some extent arbitrary. The classification used here follows Dr. Alba M. Edwards' social-economic groups. See Journal of American Statistical Assn., December 1933, pp. 377-387.

^{3/}Alabama - Code of 1923, Section 3494; Georgia - Code of 1926; Civil, Section 3149 (1); South Carolina - Code of Laws 1922, Vol. 2, Criminal, Chapter 7, Section 413. See also Child Labor Facts and Figures, U. S. Dept. of Labor, Children's Bureau, Publication No. 197, p. 56, 57.

Hours and Wages. Prior to adoption of the N.R.A. code the standard working week in southern cotton mills varied from 55 to 60 hours. South Carolina law limits hours to 10 per day and 55 per week, Georgia to 10 per day and 60 per week, while in Alabama there is no legal restriction except for those under 16 years old. In a study of hours and wages in the industry in 1928, the Bureau of Labor Statistics^{1/} found that all of the mills studied in Alabama and South Carolina worked 55 hours per shift, while 16 Georgia mills, four worked 60 hours, one 56, and eleven 55 hours. The 55-hour week was usually made up of 10 hours per day from Monday to Friday and five hours on Saturday.

It is customary in the South for most of the mills to operate two shifts. When a mill operates on a two-shift basis and curtailment of production is necessary, it is done by cutting down the hours per shift or the number of workers, but the two shifts are usually retained.

Most employees are paid on a piece work basis while those whose output cannot be directly measured, such as loom fixers, are paid hourly rates. Table 3, showing average hourly and weekly earnings during a sample pay period, is taken from the Bureau of Labor Statistics study referred to above. The difference between full time and actual earnings was quite marked. For instance, male weavers in South Carolina worked on the average only 69 percent of full time, those in Georgia 77 percent, and in Alabama 79 percent.

Between 1928 and July 1933 wages declined. In August 1933, the adoption of the N.R.A. code caused a sudden jump in wage rates. In 1935 the Bureau of Labor Statistics published another wage study of the Industry.^{2/} Table 4 gives the average hourly rates for workers in the southern mills covered in this study for the months of July 1933, August 1933, and August 1934. Note the increases of August 1933 over July of the same year. Comparison of this table with Table 3 will indicate the amounts by which rates decreased between 1928 and 1933. In August 1934, average (median) hourly earnings were 33.9 cents per hour for males and 32.1 cents per hour for females in the southern mills.

Seasonal Variations in Employment Demand. There seems to be very little demand for regular seasonal part-time employment in cotton mills. In some lines, blankets, for instance, there is a seasonal swing in output, but this is often overshadowed by periods of activity or depression due to market conditions. Some of the mills experience a dull period in the summer which is met first by curtailment of hours and then by some reduction in labor force. Peak loads are taken care of by spare hands living in the village (usually other members of regular workers' families) or by floaters, who are laid off at the first opportunity. Mills making staple goods, such as print cloths, frequently tide over periods of low demand by manufacturing for stock.

^{1/}"Wages and Hours of Labor in Cotton-Goods Manufacturing, 1910 to 1928", Bureau of Labor Statistics, Bulletin No. 492.

^{2/}"Wage Rates and Weekly Earnings in the Cotton Textile Industry, 1933-34", Monthly Labor Review, March 1935.

The Mill Villages. No discussion of incomes of cotton mill workers would be complete without some consideration of the services and facilities furnished them by the company-owned mill villages. These vary widely from mill to mill in quality of housing, in the medical, recreational, and other facilities furnished by the management, and in rates charged. What is furnished depends on the financial resources of the individual mill and on the sense of social responsibility and the ability of its management. The villages vary from a collection of shacks badly in need of repair and with only the most primitive sanitary facilities to well maintained homes with electric lights, water, sewerage, and gardens in a community with good schools, medical care, and recreational facilities.^{1/}

The rental charged is frequently 25 cents per room per week. The houses contain three to six rooms. Ralph E. Loper and Company in a study^{2/} of 50 southern mill villages found the average rental to be 33 cents per room per week, including lights and water. The average cost for fuel was 9.2 cents per room per week. The average number of rooms per operative housed was found to be 1.86, making the average rental per operative about 61.5 cents per week. The net cost to the mill of operating the village, including cost of administration, welfare and medical services, 6 percent interest on investment, 2.9 percent depreciation, and after deducting rentals received, was found to be \$1.95 per week per worker housed. The number of workers living in the company villages was 69.5 percent of the total number employed.

Rents outside of the mill villages are substantially higher than those charged by the mills for comparable housing. The difference represents an addition to the real income of the company-housed worker. When the mills shut down temporarily the employees are frequently allowed to occupy the houses rent free. In 1933 South Carolina enacted a law forbidding any textile mill renting houses to employees to collect anything from them for house rent, water, or electric light service during temporary shut-down periods exceeding two weeks.^{3/}

The better mills make provision for adequate medical care of the employees at low cost. Sometimes this is done by providing office space and equipment for private physicians in return for low rates to employees, sometimes a free clinic is operated by the mill, and in at least one case the company runs a completely equipped small hospital.

Community houses, gymnasiums, swimming pools, baseball diamonds, and occasionally a golf course are some of the recreational facilities provided for the enjoyment of cotton mill workers in the best villages.

^{1/}Welfare Work in Mill Villages by Harriet L. Herring (University of North Carolina Press, 1929) is a comprehensive study of North Carolina mill villages. The general features of the picture presented would apply in South Carolina, Georgia, and Alabama as well.

^{2/}From address by President William D. Anderson before the American Cotton Manufacturers Association, April 25, 1935 (Pamphlet).

^{3/}South Carolina Acts of 1933, Act No. 269.

The mill villages were at first necessities. Mills erected in isolated communities or on the outskirts of the larger towns were forced to provide housing for their employees. Now the workers have come to expect the company to provide them with houses at the customary low rentals.

A provision was inserted in the N.R.A. code for the industry setting up an agency "to consider the question of plans for eventual employee ownership of homes in mill villages". However, the southern mill owners object to disposing of their village houses to employees because they fear resale to undesirable persons.

APPENDIX A

TABLES

Table 1. Production of Cotton Goods in the United States^{a/}, 1929 and 1933

Class	Thousands of Square Yards	
	1929	1933
Numbered duck (except tire)	35,868	19,519
Ounce duck (except tire)	188,058	132,730
Osnaburgs	145,745	130,887
Sheetings	1,693,167	1,680,323
Pillow tubings	21,264	9,646
Drills	324,041	191,987
Twills and sateens	284,117	274,153
Print cloths	1,703,025	1,709,960
Tobacco, cheese, bunting, and bandage cloths	617,411	634,499
Pajama checks	122,109	55,389
Reps, poplins, and broadcloths	308,620	456,328
Lawns, nainsooks, cambrics, etc.	226,554	295,441
Crepes	36,660	16,426
Voiles	157,449	77,901
Napped fabrics	323,140	377,791
Cottonnades and cotton worsteds	34,838	57,892
Denims	249,891	268,788
Tickings	42,411	47,285
Ginghams	147,120	69,569
Draperies	171,118	191,508
Shirtings, wholly of cotton	265,830	271,259
Mosquito netting and tarlatan	33,298	6,001
Other woven goods (over 12 inches in width)	304,591	335,313
Tire duck	22,277	12,273
Tire fabric, other than duck (including cord fabric)	280,588	133,935
Cotton table damask	35,868	15,818
Tapestries	9,810	9,978
Pile fabrics other than terry	80,002	42,821
Terry-woven fabrics, other than towels	1,506	141
Shirtings, silk or rayon striped	51,215	7,090
Draperies, chief value cotton, containing silk or rayon	31,262	9,484
Other cotton cloths containing silk or rayon	151,560	52,346
Bags and bagging	10,486	
Blankets	94,061	103,165
Quilts and bedspreads	27,182	35,016
Turkish towels and toweling	82,415	78,970
Towels and toweling, other	87,280	70,963
Bath mats	1,181	1,731
Rugs	2,851	1,788
Total woven cotton goods	8,405,869	7,886,114
Draperies, chief value rayon	24,292	10,111
Quilts and bedspreads, chief value rayon	25,720	15,455
Other fabrics, wholly or in chief value of rayon	85,664	177,166
Total woven rayon goods	135,676	202,732
Grand total woven goods produced in cotton-goods industry	8,541,545	8,088,846

^{a/} U.S. Census of Manufactures, 1929 and 1933.

Table 2. Wage Earners in the Cotton Goods Industry, 1921-1933^{a/}

	1921	1923	1925	1927	1929	1931	1933
U. S. Total	412,058	471,503	445,184	467,596	424,916	329,962	379,445
Total-5 New England States	185,941	194,891	164,074	154,634	127,041	90,127	90,596
Massachusetts	106,337	113,707	96,182	90,875	70,788	46,990	45,418
Rhode Island	29,328	33,993	29,276	26,203	21,833	13,089	13,077
New Hampshire	32,733	18,516	14,745	14,722	13,769	10,663	10,988
Connecticut	14,279	14,865	12,020	12,639	10,789	10,165	9,667
Maine	13,264	13,810	11,851	10,195	9,862 ^{b/}	9,230	11,446
Total-5 Southern States	178,732	219,207	228,771	260,713	254,839	208,664	256,838
North Carolina	66,316	81,041	84,139	95,786	91,844	73,508	87,709
South Carolina	51,509	62,479	66,378	75,069	71,731	59,777	74,593
Georgia	35,237	47,479	48,612	56,607	55,368	44,102	57,238
Alabama	18,275	20,325	21,607	24,825	27,724	24,097	28,762
Virginia	7,395	7,883	8,035	8,426	7,672	7,180	8,536
All Others	47,385	57,405	52,339	52,249	43,036	31,171	32,011

^{a/} U.S. Census of Manufactures, 1921-1933.

^{b/} Includes 3 establishments in Vermont, 15 in Maine.

Table 3. Earnings in Selected Occupations in Cotton Mills, in Alabama, Georgia and South Carolina, by Sex, 1928^{a/}

Occupation and Sex	Alabama			Georgia			South Carolina		
	Per Hour	Per Week Full Time	Per Week Actual Time	Per Hour	Per Week Full Time	Per Week Actual Time	Per Hour	Per Week Full Time	Per Week Actual Time
Loom fixers, male	\$0.395	\$21.73	\$19.82	\$0.379	\$21.30	\$18.94	\$0.377	\$20.74	\$16.44
Card grinders, male	0.365	20.08	17.60	0.349	19.72	18.32	0.359	19.75	16.87
Warp-tying machine tenders, male	0.348	19.14	17.88	0.336	18.85	18.49	0.354	19.47	15.86
Drawing-in machine tenders, male	0.318	17.49	15.45	0.341	19.40	19.08	0.351	19.31	16.50
Weavers, male	0.311	17.11	13.50	0.309	17.33	13.41	0.313	17.22	11.79
Weavers, female	0.299	16.45	12.39	0.292	16.35	11.97	0.277	15.24	10.09
Slubber tenders, male	0.286	15.73	11.74	0.317	17.82	13.99	0.311	17.11	11.07
Speeder tenders, male	0.276	15.18	10.94	0.307	17.16	12.79	0.296	16.28	10.48
Speeder tenders, female	0.258	14.19	10.31	0.294	16.55	12.87	0.274	15.07	10.30
Slasher tenders, male	0.286	15.73	12.50	0.304	17.12	15.87	0.286	15.73	12.02
Doffers, male	0.264	14.52	10.30	0.282	15.88	12.35	0.270	14.85	9.63
Warper tenders, female	0.269	14.80	11.35	0.251	14.01	11.59	0.287	15.79	11.40
Drawers-in-hand, female	0.216	11.88	9.30	0.284	15.68	14.01	0.266	14.63	8.98
Card tenders and strippers, male	0.234	12.87	9.31	0.248	14.01	10.25	0.262	14.41	9.34
Drawing-frame tenders, male	0.235	12.93	8.53	0.245	13.82	9.91	0.256	14.08	9.40
Drawing-frame tenders, female	0.195	10.73	7.80	0.208	11.63	8.26	-	-	-
Spinners, (Frame) female	0.215	11.83	8.60	0.222	12.45	9.09	0.215	11.83	7.09
Picker tenders, male	0.213	11.72	8.52	0.218	12.36	10.00	0.210	11.55	7.79
Creelers, female	0.205	11.28	8.26	0.201	11.30	8.94	0.212	11.66	7.51
Spooler tenders, female	0.183	10.07	7.53	0.210	11.68	9.29	0.186	10.23	6.74
Trimmers or inspectors, female	0.180	9.90	7.88	0.202	11.31	9.61	0.188	10.34	7.78

^{a/} "Wages and Hours of Labor in Cotton-Goods Manufacturing, 1910 to 1928", Bureau of Labor Statistics, Bulletin No. 492.

Table 4. Average Hourly Pay in Selected Occupations
in Southern Cotton Mills, by Sex, 1933-1934^{a/}

Occupation	Sex	Average hourly earnings (cents)		
		July 1933	August 1933	August 1934
Loom fixers	Male	32.4	49.9	50.7
Card grinders	Male	27.3	44.0	44.3
Warp-tying machine tenders	Male	25.5	42.4	43.6
Weavers	Male	23.5	39.5	40.1
Weavers	Female	21.5	38.4	38.2
Slubber tenders	Male	21.3	37.2	37.4
Speeder tenders	Male	21.5	36.5	36.8
Speeder tenders	Female	19.6	34.6	35.3
Doffers	Male	19.5	34.4	34.9
Warper tenders	Female	19.4	34.0	33.3
Drawers-in hand	Female	23.2	38.3	38.8
Card tenders and strippers	Male	19.4	32.4	32.5
Drawing-frame tenders	Male	19.1	32.8	33.8
Drawing-frame tenders	Female	18.0	31.5	30.9
Spinners, (frame)	Female	16.1	32.2	32.1
Picker tenders	Male	17.3	30.9	31.3
Creelers	Female	16.0	31.5	31.0
Spooler tenders	Female	16.2	32.8	33.4
Trimmers and inspectors	Female	16.0	30.9	31.0

^{a/} "Wage Rates and Weekly Earnings in the Cotton Textile Industry, 1933-34",
Monthly Labor Review, March 1935

APPENDIX B.

FIGURES

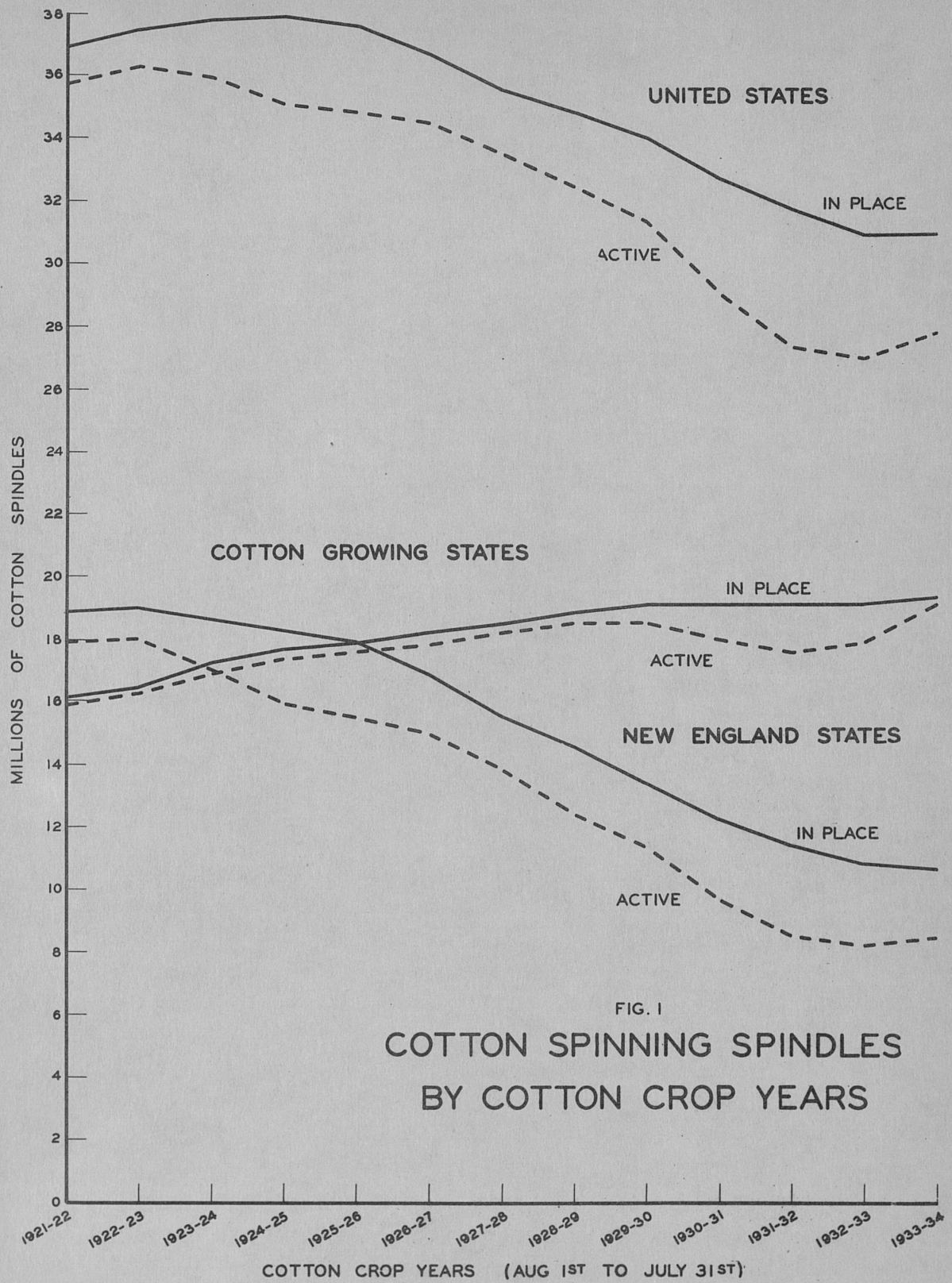


FIG. 1
 COTTON SPINNING SPINDLES
 BY COTTON CROP YEARS

SOURCE: COTTON TEXTILE INDUSTRY
 74TH CONGRESS 1ST SESSION
 SENATE DOCUMENT NO. 126

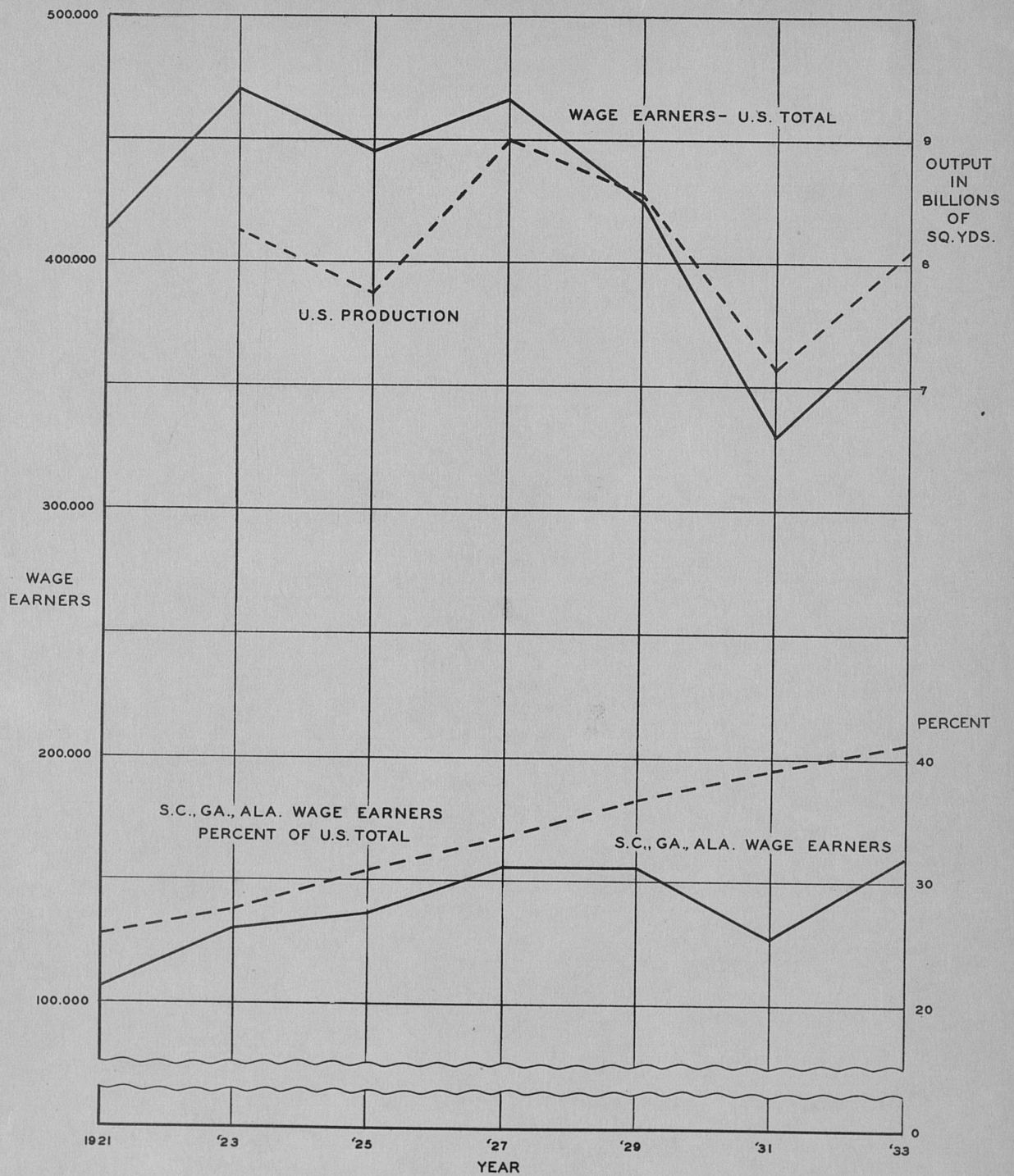
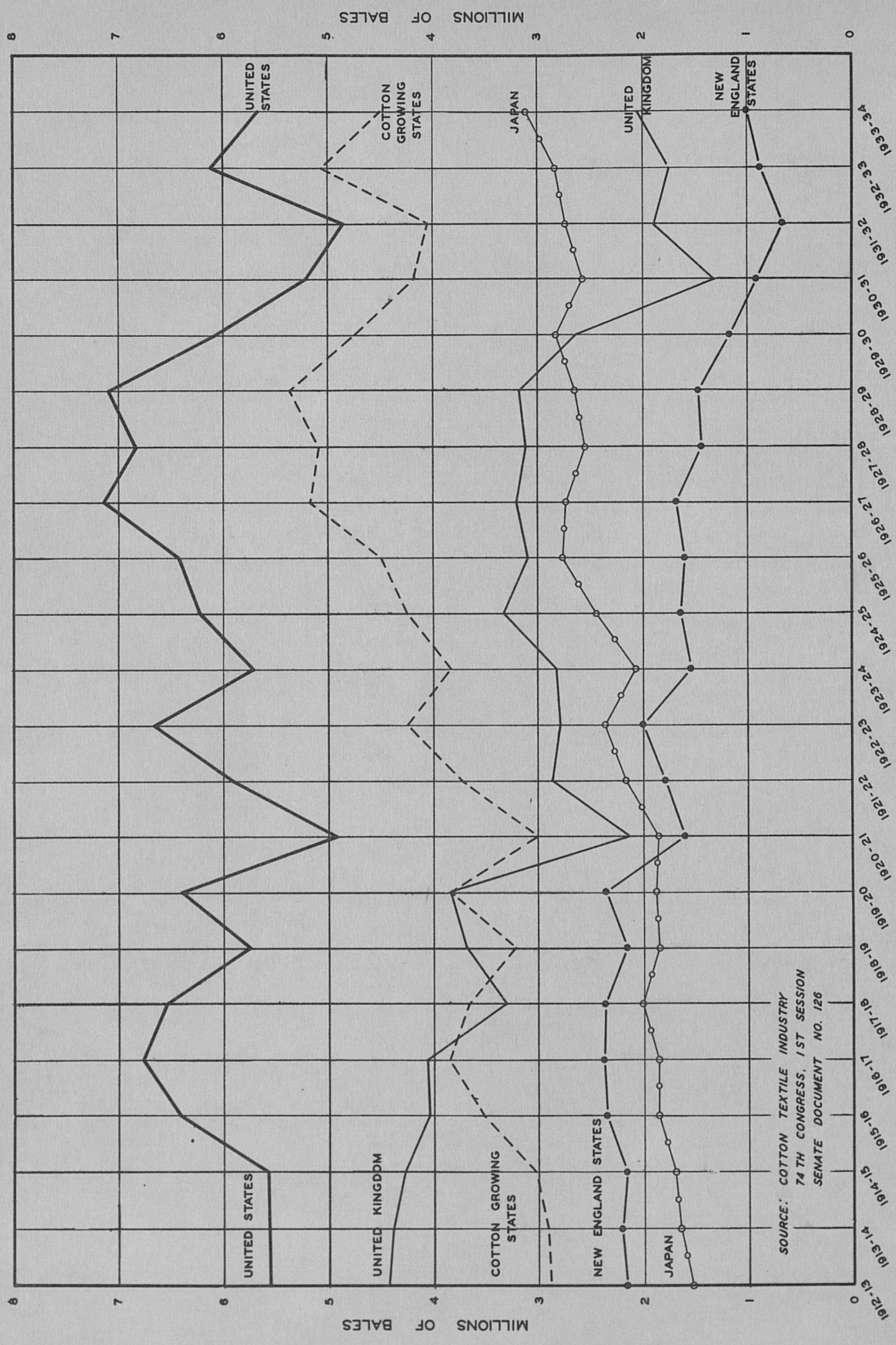


FIG. 2
COTTON TEXTILES
WAGE EARNERS AND PRODUCTION

SOURCE: U.S. CENSUS OF MANUFACTURES



(COTTON CROP YEARS AUG. 1ST TO JULY 31ST)

FIG. 3

GENERAL TREND OF COTTON CONSUMPTION IN MILLIONS OF BALES
CROP YEARS 1912-13 TO 1933-34

SOURCE: COTTON TEXTILE INDUSTRY
74TH CONGRESS, 1ST SESSION
SENATE DOCUMENT NO. 126

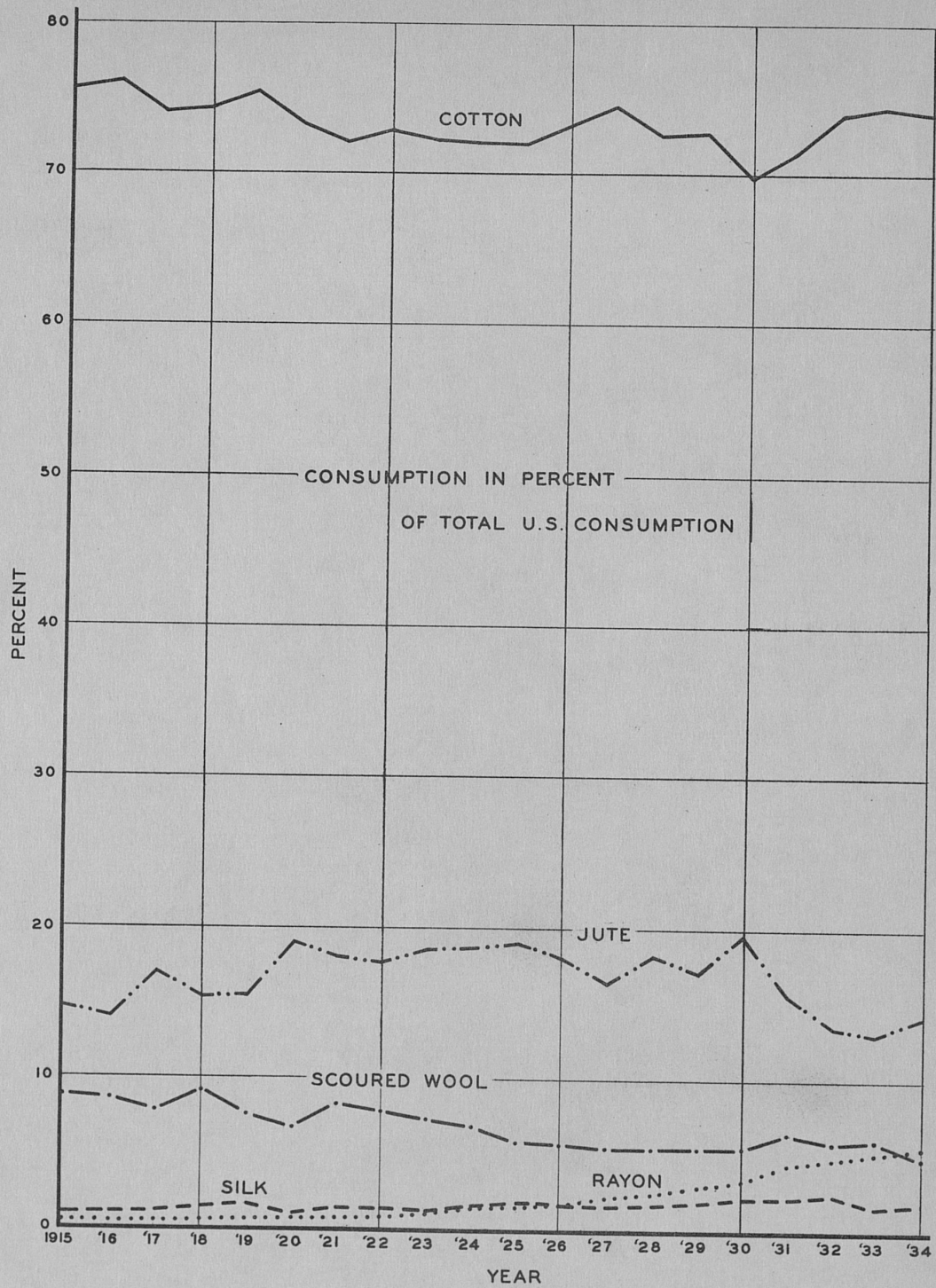
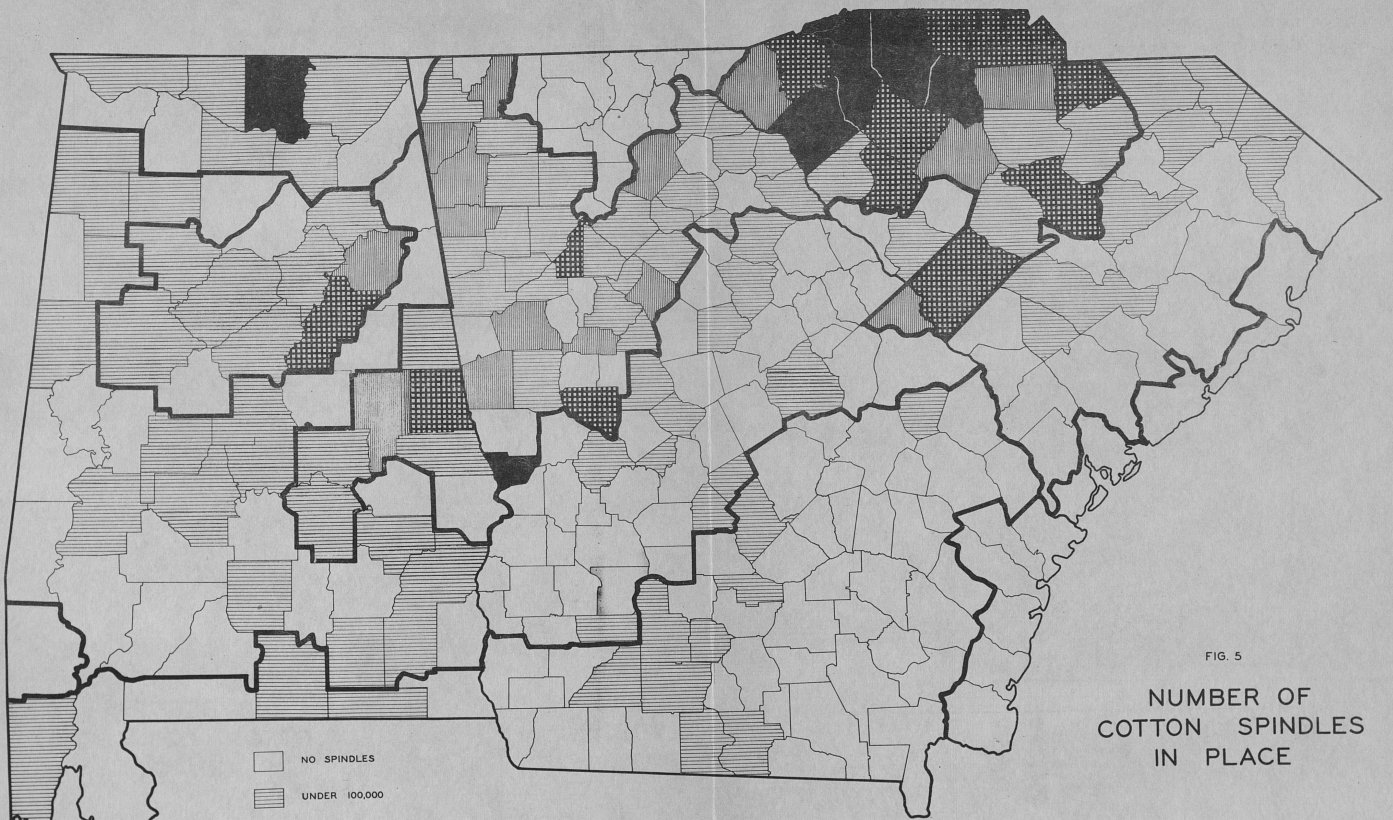


FIG. 4
CONSUMPTION BY UNITED STATES
OF FIVE TEXTILE FIBERS

SOURCE: COTTON TEXTILE INDUSTRY
74TH CONGRESS, 1ST SESSION
SENATE DOCUMENT NO. 126



- NO SPINDLES
- ▨ UNDER 100,000
- ▩ 100,000 TO 200,000
- ▧ 200,000 TO 300,000
- 300,000 AND OVER

FIG. 5
 NUMBER OF
 COTTON SPINDLES
 IN PLACE

DATA FROM U.S. DEPT. OF COMMERCE BULLETIN #171, "COTTON PRODUCTION AND CONSUMPTION, YEAR 1933-1934," FOR THOSE COUNTIES WITH MORE THAN 100,000 SPINDLES. COUNTIES WITH LESS THAN 100,000 SPINDLES ARE TAKEN FROM DAVIDSON'S TEXTILE BLUE BOOK, 1933.

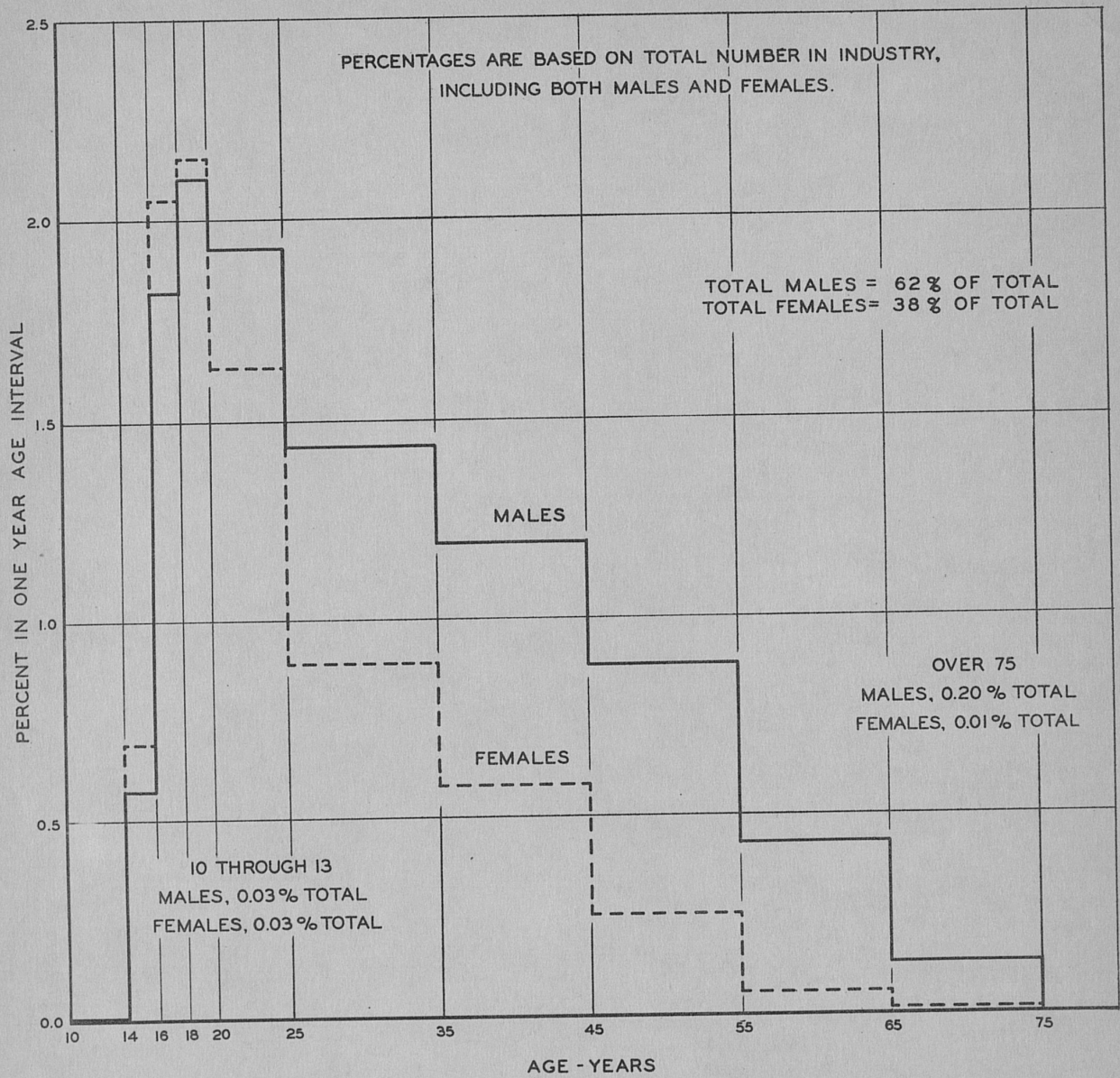


FIG. 6
AGE DISTRIBUTION OF
COTTON MILL EMPLOYEES
IN THE UNITED STATES, 1930

SOURCE: U.S. CENSUS OF POPULATION - 1930

APPENDIX C

Descriptions of Mill Villages

In the course of a field investigation in the summer of 1935 visits were made to two mill villages which illustrate the wide variation in the facilities available to workers who live in southern cotton mill villages. A brief description of each is included here.

The figures and some of the facts quoted about the first community were furnished by the president of the company.

The description of the second one is based on observations by Grant Hayes, Field Supervisor of the part-time farming study, who took survey schedules of many families in this community.

The First Mill Community

The Mills. The company has plants located at seven different towns in the state. The total number of employees is approximately 7,500.

The plant described here is the largest of the group. It has about 120,000 spindles and 1,600 looms, and employs about 3,000 people when operating two shifts at full capacity. It produces yarns, hosiery yarns, sheetings, chambrays, colored goods, and cotton blankets.

The mills pay the N.R.A. wage scale and are retaining the 40-hour maximum week.

The company is a family affair. It was formed in 1897 and has always been controlled by the same family, which owns a large majority of the stock. Relations between the management and employees have always been conducted on a basis of personal knowledge and contact.

The Mill Village. The mill village consists of about 600 company-owned houses. All have electric lights, running water, and sewerage. All houses have been recently painted, an unusual feature for cotton mill homes. Rent is about \$1 per room per month. A separate small company village is provided for the Negroes.

Most of the homes have flower gardens and many of the workers also raise vegetables. The company maintains a nursery for the raising of plants and shrubbery which are furnished the employees free of charge. Watermelon-pink crepe myrtle is a favorite.

Near the mill is a completely equipped small hospital. It has an operating room, medical clinic, dental clinic, a men's ward and a women's ward of four beds each, a few private rooms, a kitchen, and a nursery where mothers can leave small children while at work in the mill. The staff consists of a surgeon, two dentists, and nurses. This is the smallest hospital in the state that is permitted to train and graduate nurses. Charges are much less than in other hospitals, the aim of the management being just to break even on the operating expenses. An X-ray costs \$3.00. The nursery charge is 10 cents per day per child, which covers cost of one meal as well as supervision.

The building for the elementary school and kindergarten is provided by the company. Salaries of teachers are paid by the state, but are supplemented by the company. Although there is a high school in a nearby town of about 4,000 people, the company has in its village a high school for the children of its employees. Because no state funds are available for such high schools, the entire expense is borne by the company.

Recreational facilities in this community are the equal of many a country club. A small stream has been dammed to form a lake for swimming. There is a gymnasium, a golf course, and a community house. The employees pay nothing for these privileges. In Florida, on the Gulf Coast, is a summer camp owned and operated by the company for the benefit of the employees. Here a mill worker can spend a two week's vacation for an outlay of about 30 cents per day.

The company operates a farm near the mill village for raising produce which is sold to employees at the company store. At the farm is a poultry house and a dairy herd, about seventy cows being housed in a sanitary barn. Milk sells for eight cents a quart. All transactions with employees are for cash. Near another of its mills, seven miles from the first one, the company has another farm which it operates for the purpose of demonstrating to nearby farmers that a diversified farm program can be made profitable.

Part-time Farming. There is an interesting development of part-time farming which started here late in 1934. The company has bought a tract of good farm land on the outskirts of the mill community. Any steady employee who wishes to go into part-time farming may buy 5 to 10 acres at cost. The price is about \$10 per acre. The man then plans his home according to his own ideas, buys the material and erects the house by his own labor and with help of relatives and friends. The company finances the land and material costs, for which a 4 per cent interest charge is made. The principal is paid back at the rate of about \$15 per month. The cost of materials for a home ranges from about \$350 to \$700, depending on size. Where the site is close enough to town, city water and electric lights are available. Water costs about \$12 per year and the minimum charge for electricity is \$1 per month. For employees not located near the town water system, the company is drilling wells.

The Second Mill Community

The Mills. The mills manufacture tire yarns and fabrics and employ about 175 people.

The main mill, which was formerly used for pulp manufacture has been rebuilt. The machinery is new and modern. The mill was shut down for four years, and operations were not resumed until the latter part of 1933.

The Mill Village. The village is situated on three ridges, First Ridge, Middle Ridge, and Last Ridge, and they are truly ridges, the land sloping sharply on both sides. The village center, the general store, barber shop, post office, and the finishing mill are located at the junction of these ridges. The large mill is located in the valley three quarters of a mile down a steep hill.

There are approximately 90 houses containing about 165 white families. The houses are from 30 to 50 years of age and sadly in need of repair. The roofs leak; there are no screens; the floors are rotting. In the course of an interview an occupant of one of the houses threw himself on the bed with the result that one end of the bed broke through the floor. There are electric lights which are cut off at the plant at 9:30 in the morning and not turned on again until 4:30 in the afternoon. House rents are about 25 cents per room per week.

A meeting house was built for the use of the workers. It is a schoolhouse during the week and a church on Sunday. Its use as a school is limited to a class of backward and physically handicapped children in charge of a special instructor-nurse who is paid by the company. The normal children go by bus to school in a nearby town.

A doctor is available only when he makes his weekly trips from the county seat, 15 miles away. He also is paid by the company.

The only stores are company owned and operated.

The People. The mills are in an isolated community about a mile from a small town. There are only four automobiles in the village, and the only road is a dirt one. Hence there has not been much contact with the outside world.

Most of the workers were born in the village. Their fathers and mothers lived there before them, and their children are being reared there. They remained during the four-year shut-down period, raising what products they could and picking up odd jobs with the farmers. They were charged no rent during this time. They are not overly ambitious or inclined to neatness, but appear to be intelligent, particularly on political and governmental affairs.

Their schooling has been neglected, and for the most part they left school at the fifth grade.

Part-time Farming. The mills encourage gardening, but the steep slopes make cultivation difficult. Anyone who wishes can cultivate any patch of fairly level unused land without charge. The company has offered a large plot of land to the workers, but it is located a mile from the center of the village and the mill hands claim that after a hard day's labor they do not have the inclination to walk that distance to raise a problematical crop.

The few gardens that may be found are excellent ones, large and well cultivated.

