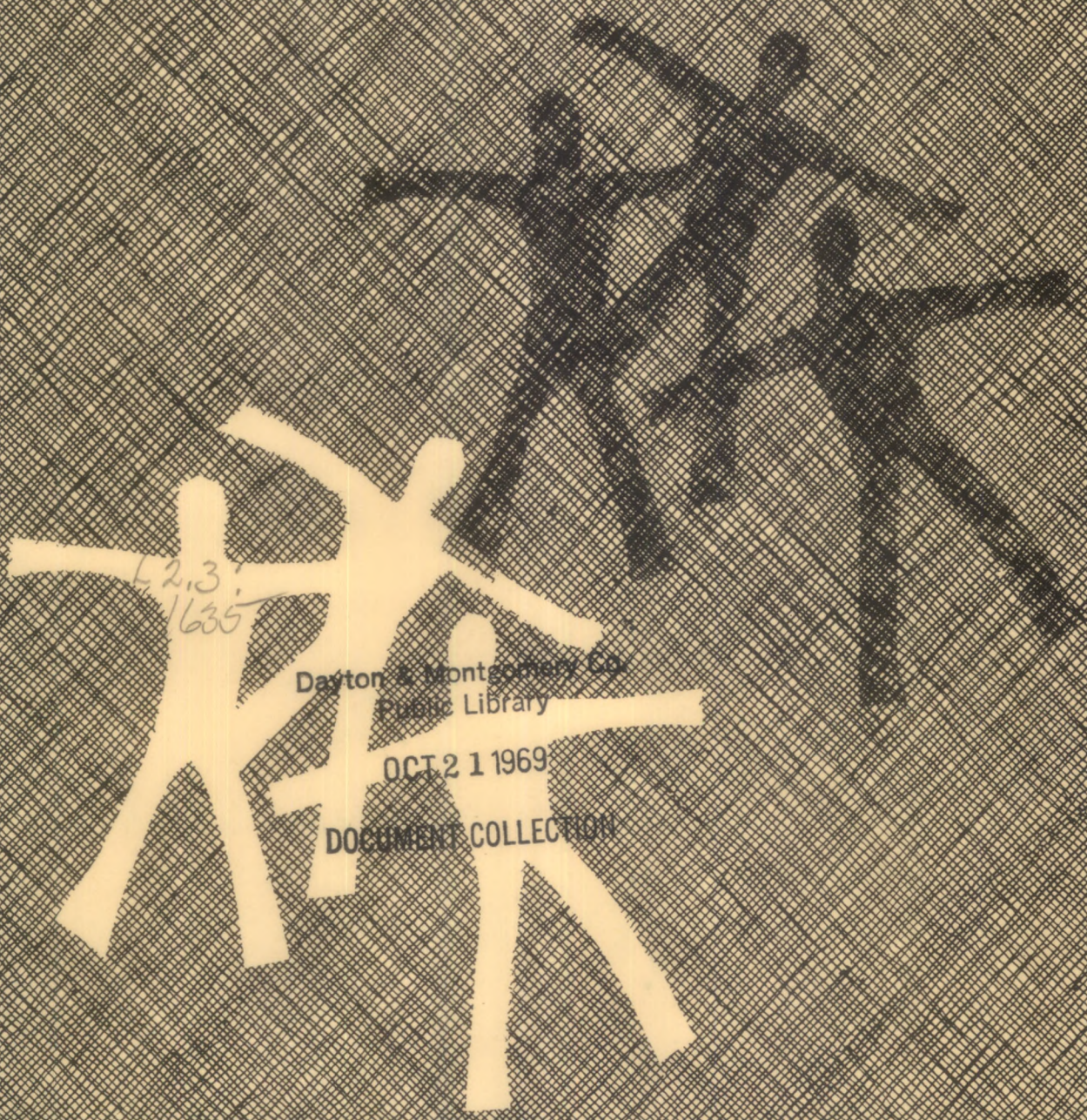
LABOR in the TEXTILE and APPAREL INDUSTRIES



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LABOR in the TEXTILE and APPAREL INDUSTRIES

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LABOR IN THE TEXTILE AND APPAREL INDUSTRIES

SUMMARY

Textiles and apparel are among the oldest manufacturing industries in the United States.[1/] Together they employ a significant fraction of the industrial labor force. Each industry consists of a comparatively large number of firms and establishments which are widely dispersed geographically. Either separately or in combination, the two industries account for a sizable proportion of factory employment in numerous small- and medium-sized communities. Employment in apparel is relatively important in several major metropolitan areas. In the United States market, both industries operate generally under conditions of intense product competition, including competition from imported yarns, fabrics, and garments from many parts of the world.

The purpose of the present report is to summarize available information on labor and related economic conditions in the two industries. The data presented are drawn largely from the Bureau of Labor Statistics, the Bureau of the Census, and other governmental agencies. Wherever possible, statistics are presented through 1968. It is hoped that the report, aside from such immediate interest as it may have, will provide a convenient source of background information for the appraisal of future labor developments in these industries.

1/ The textile industry, as used in this report, conforms to major industry groups 22 of the Standard Industrial Classification Manual; the apparel industry conforms to major industry group 23.

Employment and Unemployment

During 1968, the textile and apparel industries combined employed an average of 2.4 million workers -- 985,000 in textiles and 1,417,000 in apparel. The two industries together accounted for about one-eighth of all manufacturing employment.

Employment trends in the two industries differed significantly during the postwar period. Between 1947 and 1968, employment in textiles fell by 24 percent, with most of the decline occurring by 1958. The rate of decline slowed between 1958 and 1963 and was reversed in 1964 under the stimulus of rapid national economic growth. In the case of apparel, employment was almost 23 percent greater in 1968 than in 1947, with much of the increase occurring after 1961. In manufacturing as a whole, employment was about 27 percent greater in 1968 than in 1947.

The ratio of employment in apparel to that in all manufacturing--7.2 percent in 1968 -- has not changed markedly during the postwar period; on the other hand, the textile proportion declined from more than 8 percent in the late 1940's to 5 percent in 1968.

The unemployment rate in textiles generally has been somewhat higher than the manufacturing rate in recent years, and the rate in the apparel industry has been significantly higher. In 1968, average unemployment rates in manufacturing, textiles, and apparel were 3.2, 3.5, and 5.9, respectively.

Labor Turnover

Labor turnover rates (accessions and separations) have been substantially higher in apparel than in manufacturing as a whole since 1958, when these data first became available; in textiles, both separation and accession rates were lower than in manufacturing generally until 1965. The quit rate in both textiles and apparel has risen during the past several years, suggesting that alternative employment opportunities have widened.

Industry Location

The apparel industry is somewhat less concentrated regionally than the textile industry. Almost 70 percent of the textile labor force was employed in the South in 1968, and the remainder was found largely in the Northeast. More than half of all textile employment was accounted for by the three States of North Carolina, South Carolina, and Georgia.

To a highly unusual extent among manufacturing industries, textile employment is found in small communities. In 1967, the most recent year for which these data are available, about 61 percent of the textile workers were employed in nonmetropolitan areas. In some major textile States the proportion was considerably higher. For example, the proportion of textile employment in nonmetropolitan areas was 70 percent in Georgia, 77 percent in South Carolina, and 86 percent in North Carolina. Textiles provided somewhat more than half of all factory jobs in nonmetropolitan areas in North and South Carolina,

and about one-third in Georgia. Additionally, textiles provided one-fourth or more of all manufacturing jobs in a substantial number of metropolitan areas. The industry is thus of critical importance in the economic life of many small and of some larger communities.

Regionally, about 46 percent of apparel employment in 1968 was in the Northeast, 36 percent in the South, almost 11 percent in the North Central States, and the remainder in the West. Apparel is more of an urban industry than textiles. It is, of course, a major source of factory jobs in New York City, and a significant source of employment in a number of other large communities. However, about one-third of apparel employment is found in nonmetropolitan areas. In fact, apparel accounted for more than 15 percent of all factory jobs in the nonmetropolitan areas of six States: Pennsylvania, Missouri, Georgia, Tennessee, Alabama and Mississippi.

The two industries combined account for a very high proportion of all manufacturing jobs in some States. In South Carolina, for example, about 58 percent of manufacturing employment is found in these two industries; in North Carolina the proportion is almost half. Even in the industrially diversified State of New York, textiles and apparel combined provide more than 18 percent of manufacturing employment.

Establishment Size

Both industries consist of large numbers of establishments -- in 1967, textile establishments numbered 7,083 and apparel establishments 25,498.2/ The two industries combined accounted for about 11 percent of all manufacturing establishments.

2/ Based on Bureau of the Census, County Business Patterns, 1967.

In terms of establishment-size distribution by number of employees, textiles conformed much more closely than apparel to manufacturing as a whole. In 1967, 46 percent of the workers in manufacturing were employed in establishments with 500 or more employees. The proportion of workers in textiles in this establishment-size group was 45 percent and in apparel only 17 percent. On the other hand, almost 38 percent of the workers in apparel were in establishments with fewer than 100 employees; the proportion for textiles was approximately 15 percent. Very small establishments are numerous in both industries. In textiles, 37 percent of the establishments employed fewer than 19 workers; in apparel, 49 percent of the establishments were in this employment-size class. The proportion of total employment in these small establishments, however, was only 2.3 percent in textiles and 6.4 percent in apparel.

Labor Force Characteristics

a. Skill. Both the textile and apparel industries have unusually high proportions of semi-skilled (operatives and kindred) workers -- about 67 percent in textiles and 78 percent in apparel. These proportions reflect the nature of the production processes in the two industries, principally the existence of large numbers of highly specialized operations. In manufacturing generally, about 44 percent of the employees are in the semi-skilled category. Skilled workers account for about 12 percent of the employed labor force in textiles, 5 percent in apparel, and almost 19 percent in manufacturing as a whole.

b. Education. The educational attainment of workers in both industries, on the average, is below the level in manufacturing generally.

In 1960, the latest year for which this information is available, the median years of schooling completed by textile workers was slightly less than 8.0; by apparel workers, 9.7; and by workers in manufacturing as a whole, 11.0.

c. Race. In textiles, in 1968, whites constituted 90.5, and nonwhites 9.5 percent, of total employment. The nonwhite proportion in manufacturing generally was 9.7 percent. The proportion of nonwhite employment in textiles doubled between 1962 and 1968 for a relatively greater gain than in manufacturing as a whole, and the upward trend appears to be continuing into 1969. In absolute numbers, nonwhites held about 55,000 more jobs in textiles in 1968 than in 1962. By State, nonwhite employment in textiles in 1966, the most recent year for which State data are available, ranged from 2 percent in Massachusetts to 13 percent in New Jersey. In the important textile States of North Carolina, South Carolina, and Georgia, the range was from 8 to 10 percent.

In recent years, the employment of nonwhites has been proportionately greater in apparel than in manufacturing generally. Between 1962 and 1968, nonwhite workers increased from 9.3 to 12.7 percent of apparel employment -- a somewhat slower rate of increase than in textiles but greater than for all manufacturing. Preliminary data for early 1969 indicate that the nonwhite employment ratio continues to grow. In some labor markets, the apparel industry employs large numbers of workers of other minority groups, notably Puerto Ricans in New York City and Cubans in Miami. By State, nonwhite employment in 1966 ranged from 4 percent in Tennessee to 16 percent in South Carolina. The rate was 10 percent in New York.

d. Sex. The employment of women in both industries is relatively much greater than in manufacturing as a whole. In 1967, women constituted about 45 percent of the labor force in textiles, compared with approximately 27 percent in all manufacturing. The proportion of women employees in apparel is extraordinarily high -- almost 80 percent. The occupational requirements of these industries are such as to make each a major source of factory employment for women.

e. Age. In 1960, the median age of workers in manufacturing generally was 39.5 years. The median age in textiles was only moderately higher -- 40.7 years, largely reflecting the somewhat greater proportion of workers over 44 years of age (39 percent in textiles compared with 35 percent in all manufacturing).

The median age level of workers in apparel was 41.7 years, the highest for any major manufacturing industry. About 41 percent of the apparel workers were over 44 years of age in 1960, and a relatively high proportion -- 9.1 percent -- were over 59 years.

The relatively high proportion of women in the textile and apparel labor force probably has an effect on age distribution in these industries. Women tend to leave the labor force at about 25 years of age and to return soon after age 40, when family responsibilities become less burdensome. In the case of textiles, contracting employment during the 1950's presumably affected age composition. In apparel, the seasonal nature of the industry may provide an opportunity for some older workers to supplement their retirement incomes by employment during peak seasons.

Technological Change

During the past few years heavy capital expenditures in the textile industry have been made for the modernization of plant and equipment, and for additional capacity. Such expenditures are estimated at $4.6 billion over the period 1964-68. Improved managerial capacity and changes in industry organization also have affected manpower utilization. Although definitive data on productivity are lacking, man-hour output appears to have advanced substantially in recent years. Levels of performance among plants within the industry differ widely, reflecting differences in capital investment, age of equipment, plant size, and other factors.

In apparel, the scope for technological improvement and innovation appears more limited than in textiles. The industry's expenditures in recent years for new plant and equipment, although increasing, have been among the lowest per production worker among manufacturing industries. Research and development expenditures are on a small scale. The technology of apparel manufacture is comparatively simple and highly labor intensive. The capital-labor ratio in apparel, based on 1963 data, was about one-half of the ratio for textile mill products and about one-fourth of the all manufacturing ratio.

While intense competition results in severe pressure on costs, advances in mechanization remain difficult for the typical apparel firm. The tendency for production runs to be short complicates the problem. The use of mass production methods of standardization, simplification,

and specialization is limited by the demands of fashion for frequent changes of style. Reliance is placed largely on improved production engineering techniques and on comparatively small improvements in equipment to enhance efficiency in the use of manpower.

Wages and Industrial Relations

Production workers in textiles had straight-time average hourly earnings of about $2.15 in October 1968; including premium pay for overtime, earnings were $2.27 an hour. Weekly earnings averaged $94.00. Some sectors within the broad industry group had relatively large proportions of workers below the $1.60 Federal minimum wage, which was introduced February 1, 1968. Employee benefits, such as paid holidays, vacations, and insurance and pension plans, tend to be less liberal in textiles than in manufacturing generally.

Wage adjustments have accelerated in the textile industry in recent years. Six rounds of wage increases in southern textile mills occurred between 1963 and 1968. The first four each amounted to about 5 percent; the 1967 increase was 6 to 6 1/2 percent; and the 1968 adjustment averaged about 6 percent. Wages continued upward in 1969.

Unionization is not extensive in the dominant southern division of the textile industry. The incidence of industrial disputes has been comparatively low in recent years.

In apparel, production workers averaged $2.22 an hour in straight-time wages in October 1968; the addition of premium overtime pay raises the average by 5 cents. Average weekly earnings were about $83.00. As in

textiles, wages in some sectors of the apparel industry were significantly affected by the $1.60 Federal minimum wage. The length of the standard workweek in major divisions of the women's apparel industry is 35 hours; in men's apparel, the standard is typically 40 hours. Average actual weekly hours are subject to seasonal variation, but in recent years have tended to fall below the level in manufacturing generally. Employee benefit provisions vary considerably among industries in the apparel group.

The pace of wage adjustments in apparel began to quicken in 1965. Unionization is more extensive than in textiles, although some segments of apparel are not well organized. Work stoppages have not been extensive in recent years.

Puerto Rico

Average factory employment in textiles in Puerto Rico exceeded 7,000 workers in 1968; in apparel the average was 37,000. The two industries combined accounted for almost one-third of all factory employment on the Island. Puerto Rican textile employment was about 0.7 percent of textile employment on the mainland; in apparel, the proportion was about 2.6 percent.

In 1968, average hourly earnings in the Puerto Rican textile industry were $1.45 and in apparel $1.44. In percentage terms, wage differentials between Puerto Rico and the mainland have declined in both industries over the past decade; in cents-per-hour terms, differentials have widened somewhat in the past several years.

I. EMPLOYMENT, UNEMPLOYMENT AND LABOR TURNOVER

A. Textiles

Current Employment Situation

Employment in textile mills averaged 985,000 workers in 1968, when the industry accounted for 5.0 percent of manufacturing employment. This represented an increase of about 2.9 percent over average employment during 1967. During the same period, employment in manufacturing as a whole increased by 1.5 percent.

The unemployment rate in textiles decreased from 3.8 to 3.5 percent between 1967 and 1968, while the rate in all manufacturing declined from 3.6 to 3.2 percent.

The quit rate in textiles was slightly higher in November 1968 than in the corresponding month of 1967 -- 3.1 as against 2.8 --, possibly signifying that alternative employment opportunities for textile workers had experienced some improvement. However, the rate for new hires was about the same in November of both years, suggesting that the demand for workers had not altered.

Employment Trends

In 1967, nearly half of the total employment in textile mills was divided almost equally between the two largest industry groups--cotton broad woven fabrics and knit goods (including hosiery, fabric, outerwear and underwear). Three other industry groups combined--yarn and thread, silk and synthetic broad woven fabrics, and finishing textiles (except wool and knit)--accounted for nearly one-third of all workers. The four remaining industry groups--weaving and finishing broad woolens, floor covering, narrow fabrics and smallwares, and miscellaneous textile goods--together employed one-fifth of the industry's workers.

Employment in textile manufacturing establishments fell from about 1,300,000 in 1947 to approximately 985,000 in 1968, or by about 24 percent (Appendix table 1). During the same period, total manufacturing employment rose by 27 percent, to an all-time high of 19.7 million. As a result, the proportion of manufacturing employment accounted for by textiles fell from 8.4 percent to 5.0 percent. Most of the decline in employment in the textile industry took place between 1947 and 1958.

Among the factors leading to this decline in textile employment was a reorganization of the industry into larger, more efficient enterprises. The favorable business climate during the years immediately

after World War II led to considerable over-capacity, which in turn created intense price competition among the small firms then dominating the industry. This climate encouraged mergers and the continued migration of the industry to the South. The larger, more modern capital-intensive plants in the South tended to reduce labor requirements in the industry over the period.

Other factors contributing to reduced employment in the industry included the widespread acceptance and increased output of synthetic fabrics, for which production processes were generally more highly automatic than those used to manufacture textiles from natural fibers. Imports of textile products also increased over the period, having some influence on employment.

Between 1958 and 1963, employment in textile mills continued to decline, but at a slower rate. The rapid growth of the economy in the early 1960's blunted this decline, and in 1964 textile employment began to increase. Further stimulated by the Vietnam conflict, employment rose between 1964 and 1968 by about 100,000 employees. The only other period in the postwar era when the textile industry experienced employment growth of more than a year's duration was during the 1945-48 boom.

Employment rose in seven of the nine textile mill industry groups between 1958 and 1967.1/ However, significant employment declines in the two remaining groups--cotton broad woven goods and wool weaving and finishing--nearly offset these gains. Rising production and use of synthetic fabrics, as well as increasing consumer acceptance of blended synthetic and natural fiber fabrics, resulted in decreased demand for fabrics made solely of cotton or wool. As a result, employment in cotton and wool textile mills has tended to decline.

Employment in the second largest industry subgroup, knitting, declined between 1947 and 1958, from 242,000 to a low of 207,000. The introduction of nylon seamless hosiery after World War II contributed importantly to the decline, since the equipment used to make seamless hosiery was more automatic than that which it replaced. Nevertheless, by 1967 employment in knitting mills had returned to the level of the early 1950's, and accounted for about one-fourth of total industry employment, compared to less than one-fifth in 1947. This recent growth has been stimulated by increasing consumer preference for casual wear, including knitted outerwear such as shirts and sweaters.

1/ BLS employment (payroll) data prior to 1958 are available separately for only three industry groups--knitting; yarn and thread; and finishing textiles (except wool and knit).

Unemployment Trends

Textile workers experienced a relatively high rate of unemployment between 1958 and 1968 (Appendix table 2). The unemployment rate for textile workers was somewhat higher than that for all manufacturing for every year between 1958 and 1968, except 1961 and 1962, but there is no evidence of any significant change in the relationship over the years. The percentage of the textile labor force that was unemployed ranged from a high of 9.5 in 1958, to a low of 3.5 in 1968.

The high unemployment rates in the late 1950's undoubtedly reflected the sharp decline in textile employment during the decade ending in 1958, which left a relatively large pool of unemployed experienced textile workers. However, by 1968, many of these workers had either moved to other industries or had been absorbed back into textile employment in the tight labor markets of 1966-68. In recent years, some textile manufacturers appear to have experienced labor shortages, especially of male skilled workers. During 1968, the unemployment rate for male textile workers averaged 1.7 percent for the year. This was 0.7 of a percentage point lower than the unemployment rate for all male manufacturing workers in that year.

Labor Turnover

Separation rates in textile mills rose significantly between 1958 and 1967 (Appendix table 3). Although the layoff rate in 1967 was less than half the rate in 1958, the quit rate was more than 2 1/2 times higher. In 1967, the quit rate was higher in textile mills than in all manufacturing.

The high quit rates and low layoff rates in the textile industry in recent years appear to indicate that the industry's workers found alternative job opportunities increasingly abundant over the 1958 to 1967 period. Many of the industry's workers probably shifted to higher paying jobs, either in other industries or in other textile mills.

The accession rate2/ in the textile industry also rose substantially during the 1958-67 period, reflecting increasing labor requirements and the availability of additional workers. Many of the accessions during this period of growing employment probably represented workers moving from one textile establishment to another in search of more attractive jobs.

2/ The rate at which employees are hired.

B. Apparel

Current Employment Situation

In the apparel industry, an average of 1,417,000 workers were employed in 1968, an increase of 1.2 percent over 1967. The employment increase in manufacturing as a whole was 1.5 percent, as previously indicated. The apparel industry accounted for 7.2 percent of manufacturing employment in 1968, down from 7.5 percent in 1965.

The unemployment rate in apparel fell from 6.5 percent in 1967 to 5.9 percent in 1968. This was the lowest unemployment rate in the industry over the past decade. It remained, however, substantially higher than the rate for all manufacturing.

Voluntary quits in the apparel industry were at the same rate in November of both 1967 and 1968. Total accession and separation rates were slightly lower in November 1968 than a year earlier.

In apparel, as in textiles, no unusual change in the employment picture was evident as 1968 came to an end.

Employment Trends

In the apparel industry, more than 35 percent of the workers in 1967 were engaged in making clothing for men and boys, about 30 percent produced women's outerwear, and 12 percent turned out fabricated textile products, such as curtains and housefurnishings. The remaining workers (about 22 percent) were employed in establishments making women's and children's undergarments; girls' and children's outerwear; hats, caps, and millinery; and fur goods and miscellaneous apparel.

Employment in apparel manufacturing establishments increased from less than 1,200,000 to more than 1,400,000 between 1947 and 1968 (Appendix table 1). Apparel industry employment increased at the same average rate as all manufacturing over the period. However, significantly different growth rates were experienced by the industry from year to year. During the late 1940's and throughout most of the 1950's, the industry's employment remained relatively stable, fluctuating between 1,150,000 and 1,250,000 workers. Not until 1962, however, did apparel employment again achieve the high level reached in 1953, about 1,250,000 workers. Since 1958, apparel employment has increased by more than 250,000, or by more than one-fifth, only slightly less than the average growth for manufacturing as a whole.

Employment change varied considerably among the different apparel industry groups between 1947 and 1967, reflecting such factors as

changes in the age composition of the population and the trend toward casual wear. Employment increased most rapidly (nearly 50 percent) in the industry group producing girls', children's, and infants' outerwear. This rise was stimulated mainly by the increasing proportion of children in the population. Moreover, employment in the industry group manufacturing women's, misses', and junior's outerwear rose by 25 percent during this period. Another industry group with more than a proportionate growth in employment was men's and boys' furnishings, which increased by about 40 percent. In contrast, the industry group manufacturing men's and boys' suits and coats suffered an employment decline of nearly 15 percent, reflecting the relative decline in popularity of formal wear. The most rapid increase in apparel industry employment between 1958 and 1967[3/] occurred in miscellaneous fabricated textile products, whose products include curtains, draperies, and other textile house furnishings, where demand was stimulated by the growing number of young adults establishing new households.

Unemployment Trends

In the apparel industry, unemployment rates have been significantly above the level for all manufacturing in recent years, ranging from a high of 12.0 in 1958 to a low of 5.9 in 1968 (Appendix table 2). During this period the unemployment rate for apparel workers as well as all manufacturing workers fluctuated with changes in economic conditions; the rapid growth of the economy since 1961 has been reflected in significantly lower rates for both manufacturing and apparel. Nevertheless, the general nature of the apparel industry--many small firms, an easy-to-train labor force composed mostly of women, seasonality and other characteristics--has resulted in significantly higher unemployment rates for apparel workers than for other workers, even in periods of strong demand for apparel products. In addition, the ratio of apparel unemployment to that of all manufacturing has tended to rise in the past few years, mainly because the apparel rate has not fallen as rapidly as that of all manufacturing. This could indicate an inability of apparel workers to find alternative employment opportunities as easily as manufacturing workers in general. However, it could also indicate that the "frictional" unemployment rate in the apparel industry is considerably higher than in manufacturing, due mainly to the nature of the industry and its labor force. Consequently, it may be very difficult to achieve an unemployment rate in apparel corresponding at all closely with the rate for manufacturing as a whole, even in periods of high-level activity.

3/ BLS employment (payroll) data prior to 1958 are not available separately for three industry groups--miscellaneous fabricated textile products; fur goods and miscellaneous apparel; and hats, caps, and millinery.

Labor Turnover

Separation rates in the apparel industry, unlike in textile mills, rose little between 1958 and 1967 (Appendix table 3). However, the quit rate in the industry in 1967 was significantly higher than in 1958, indicating expanding job opportunities for the industry's workforce. Throughout the period, however, separation rates in the apparel industry have been considerably higher than in manufacturing generally, indicating relative instability in the industry. Much of this instability can be traced to the existence of numerous small firms, and the high rate of business mortality for such operations. In addition, seasonal fluctuations in activity, and the high proportion of women workers would tend to result in relatively high separation rates.

II. INDUSTRY LOCATION

A. Textiles

Regionally, the textile industry is heavily concentrated in the South and the Northeast. In 1968, almost 70 percent of the industry's workers were employed in the Southern States (Appendix table 4). Three Southern States--North Carolina, South Carolina, and Georgia--accounted for more than half of textile employment. The Northeast, however, also employed large numbers of textile workers, accounting for more than one-fourth of the industry's employment in 1968. Within the Northeast, New York and Pennsylvania had particularly large concentrations of textile workers (6 and 7 percent, respectively). The North Central and Pacific States together accounted for less than 5 percent of the industry's workers.

The textile industry is predominately located outside metropolitan areas, unlike the typical manufacturing industry. In 1967, 61 percent of the industry's employment was located in nonmetropolitan areas, as compared with about 21 percent of manufacturing employment (Appendix table 6). However, this proportion varies greatly by region and State (Appendix table 7). In the Northeast, textile employment in nonmetropolitan areas ranged from 2 percent in Massachusetts to 29 percent in Pennsylvania. In the South, however, most of the industry is located in nonmetropolitan areas. In the three Southern States containing over half the industry's workers, employment in nonmetropolitan areas ranged from 70 percent in Georgia to 86 percent in North Carolina.

Employment in 1967 in textiles and apparel, and in the two industries combined, as percentages of manufacturing employment, is shown in Appendix table 9 for selected States[1/] and, within these States, for all metropolitan areas, for selected specific metropolitan areas, and for nonmetropolitan areas. These data are highly significant, for they show the great importance of these industries as a source of employment in many areas. Together, the two industries account for more than 12 percent of total manufacturing employment.

The textile industry alone in 1967 provided almost 5 percent of employment in manufacturing as a whole. In South Carolina, the industry accounted for 46 percent of all jobs in manufacturing, and for slightly more than half of the factory jobs in the State's nonmetropolitan areas. In North Carolina, the proportions were 41 percent for the State as a whole and 47 percent for nonmetropolitan areas. About a quarter of all factory jobs in Georgia were in textiles, including almost a third of those in nonmetropolitan areas.

1/ The selected States represent 84 percent of total textile employment.

In a substantial number of specific metropolitan areas, textile employment represents 25 percent or more of all jobs in manufacturing. Such areas include Fayetteville, Greensboro-High Point, and Winston-Salem in North Carolina; Augusta and Greenville in South Carolina; and Albany, Columbus, and Macon in Georgia.

Textile industry payrolls are of particular importance to the economic health of many small communities in nonmetropolitan areas. Such communities, because of their relatively small size, their dependence on textile production, and their lack of industrial diversification may be adversely affected to a more marked extent than large areas by significant changes in textile output and employment.

B. Apparel

The apparel industry is somewhat less concentrated regionally than the textile industry. In 1968, about 46 percent of the apparel workers were employed in the Northeast, mostly in New York and Pennsylvania (Appendix table 5). The South accounted for 36 percent and the North Central States for 11 percent of the industry's workers. Within these two regions, however, no State accounted for more than 5 percent of total apparel employment. More than 6 percent of apparel industry employment was found in the West, with the largest concentration in California.

In terms of metropolitan areas, the location of the apparel industry more nearly than textiles approximates that of manufacturing as a whole (Appendix table 6). In 1967, about 35 percent of the apparel industry's workers were employed outside metropolitan areas, as compared with about 21 percent of manufacturing employment. In the South, however, as in the case of textiles, the apparel industry is located predominantly in nonmetropolitan areas (Appendix table 8).

The data in Appendix table 9 2/ show the great importance of apparel employment in 1967 in several major metropolitan areas--notably New York City, where apparel accounted for almost one-fourth of all jobs in manufacturing, and Jersey City, where the proportion was about 17 percent. It was also highly significant in a number of smaller metropolitan areas in both the North and South--for example, in Atlantic City, New Jersey, where apparel contributed 40 percent of manufacturing jobs; Binghamton, New York-Pennsylvania, 21 percent; Johnstown, Pennsylvania, 20 percent; Scranton and Wilkes-Barre-Hazleton, Pennsylvania, 32 and 38 percent, respectively; Wilmington, North Carolina, 22 percent; Greenville, South Carolina, 17 percent; and El Paso and Laredo, Texas, 57 and 24 percent, respectively.

2/ The table contains data for States with about 83 percent of total apparel employment.

In nonmetropolitan areas, apparel employment constituted a significant proportion of total manufacturing employment in many of the selected States represented in Appendix table 9. In fact, the proportion exceeded 10 percent in 10 of the 14 selected States, and 20 percent in 4 of those States. These figures clearly suggest that apparel manufacture constitutes a major source of employment in many small communities over a broad geographic area.

III. ESTABLISHMENT SIZE

A. Textiles

The distribution of textile workers by size of establishment did not differ markedly in 1967 from the distribution for manufacturing as a whole (Appendix table 10). A somewhat greater proportion of textile workers were employed in establishments with 100 to 499 workers than in manufacturing, and a slightly smaller proportion in establishments with 1 to 99 employees. About the same proportion of the industry's workers (45 percent) were employed in large establishments with 500 or more workers. The average textile mill, however, was considerably larger than the average manufacturing plant. Almost two-thirds of all manufacturing establishments in 1967 employed 19 or fewer workers, whereas in textiles only 37 percent of the establishments were of this size (Appendix table 11). Textile mills were almost three times as likely to have 500 or more employees than manufacturing plants in 1966.

One reason for the relatively large size of textile plants is that long production runs are possible for many of the products of the industry. Manufacturing plants that have long runs of standardized products tend to be large in size. Much of the output of the industry is sold to other manufacturers for further fabrication. In contrast, many manufacturing industries, especially those selling a large proportion of their products to consumers, cannot so readily take advantage of economies of scale. Another reason for the relatively large size of textile plants is that it is relatively simple to shift production runs among types of blended fabrics.

A trend toward larger-size establishments exists in manufacturing generally. Between 1962 and 1967, a period of rapid economic growth, the proportion of textile establishments with 1 to 19 employees fell 2.9 percentage points. A similar decline occurred in manufacturing as a whole. In both manufacturing and textiles the recent trend in establishment size is in the direction of plants with 250 or more employees. Between 1962 and 1967, textile plants with 250 or more workers increased from 12.6 percent to 14.4 percent of the total. In manufacturing the increase of these larger-size plants was from 4 to 4.8 percent.

B. Apparel

In the apparel industry, the distribution of workers by size of establishment is considerably different than in manufacturing. Apparel workers are much more likely to be employed in small establishments with between 20 and 99 workers (Appendix table 10). In 1967,

almost one-third of the industry's workers were employed in these small establishments, as compared with less than one-fifth in manufacturing. Moreover, only 1 of every 6 workers in the apparel industry was employed in establishments with 500 or more workers, as compared with almost 1 of every 2 workers in manufacturing generally.

Apparel plants tend to be relatively small for reasons the reverse of those making for comparatively large plants in textiles. Apparel plants produce a great variety of products, with fashion and design an important ingredient. Production runs are typically short. Moreover, technology in the apparel industry is simple. Often all that is needed to set up a plant is an idea and a small investment in equipment. Many employers begin production with only an investment in material inventories by utilizing the facilities of apparel industry contractors.

As in manufacturing and in the textile industry, apparel plants are becoming larger, but the trend is not as pronounced in apparel as in manufacturing, and considerably less so than in the textile industry. In 1967, a slightly larger proportion of apparel plants employed between 20 and 99 workers than in 1962 (Appendix table 11). The proportion of plants with 1 to 19 workers declined almost 3 percentage points (from 51.8 to 49.1 percent), whereas those with more than 250 employees increased from 3.0 to 4.2 percent of the total. These statistics seem to indicate that with the current state of technology and industry practice, relatively small 20-99 employee-size plants represent the predominant standard for the industry. There is some tendency toward the growth of large plants, and the very small plant is declining in importance.

The absolute number of establishments in the apparel and textile industries is impressive. In 1967, apparel establishments numbered 25,498 and textile establishments 7,083. The two industries combined accounted for about 11 percent of all manufacturing establishments.1/

1/ The data are from Bureau of the Census, County Business Patterns, 1967. Technically, the numbers refer to "reporting units" which for manufacturing are conceptually identical with "establishments" as used in censuses of manufactures.

IV. LABOR FORCE CHARACTERISTICS: SKILL, EDUCATION, RACE, SEX AND AGE

A. Textiles

Skill

Textile mills have a high proportion of semiskilled workers for a manufacturing industry (Appendix table 12). In 1968, two-thirds of the industry's work force were classified as operatives, as compared with less than 45 percent in all manufacturing. The proportions of textile mill workers in the remaining blue collar occupations--craftsmen and laborers--were below the average for manufacturing. Blue collar workers as a whole made up almost 85 percent of employment in the industry in 1968, as compared with only about 70 percent in manufacturing.

White collar workers (professional and technical, managers and officials, clerical and sales) made up about 14 percent of employment in textiles in 1968. In the same year, white collar workers in manufacturing made up about 30 percent of total employment. The small share of jobs held by professional workers is one reason for the low proportion of white collar workers in textiles. The proportion of professional workers was four times higher in manufacturing (almost 10 percent) than in textile mills (about 3 percent). Few scientists, engineers, and technicians were employed in the industry, reflecting the relatively low emphasis on research and development.

The high concentration of semiskilled workers in the textile industry is mainly a result of the nature of the production process. Although highly mechanized, the transformation of wool, cotton, and synthetic fibers into yarn and fabric involves many discrete operations, which require large numbers of machine tenders. Although skill levels have been rising in the textile industry in recent years, less skilled workers will continue to make up a relatively high proportion of the industry's work force in the foreseeable future.

Education

The educational attainment level of textile mill workers was significantly lower than that of manufacturing workers in 1960 (Appendix table 13). The median school years completed for textile workers was slightly less than 8.0 in 1960, as compared with 11.0 in manufacturing. The textile industry had a higher proportion of workers with 7 or fewer years of education, and a smaller proportion of workers with 4 years of high school or 1 or more years of college.

Many characteristics of the textile work force contribute to the low educational attainment in the industry. The skill requirements of

the industry are relatively low. The high proportion of operatives contributes significantly to the low educational attainment, as does the comparatively small proportion of professional and technical workers, who typically have some college education. The textile work force also tends to be older than that of the typical manufacturing industry, further contributing to the low educational attainment. Moreover, the industry is largely located outside metropolitan areas. In general, urban dwellers tend to have higher educational attainment than non-urban residents. An indication of the importance of the contribution of factors other than skill level to educational attainment is that operatives (n.e.c.), who made up almost half of the industry's workers in 1960, had an average educational attainment of 8.5 years, whereas operatives (n.e.c.) in manufacturing had 9.4 years.

Race

In 1968, nonwhite workers, as Appendix table 14 shows, made up about the same proportion of employment in textile mills (9.5 percent) as in manufacturing (9.7 percent). Nonwhite women, however, held a larger proportion of the jobs in textiles (3.6 percent) than in manufacturing (2.6 percent). For nonwhite men, the situation was reversed; a lower proportion of employment in textile mills was composed of nonwhite men (6.0 percent) than in manufacturing (7.1 percent).

In recent years, the proportion of nonwhite workers has been increasing in the textile industry, signaling some breaking down of employment barriers. Between 1962 and 1968, the proportion of nonwhite women in textiles more than tripled, from 1.1 to 3.6 percent. The change represents an increase of about 30,000 jobs over the period. Nonwhite men also increased their share of jobs in the industry in the same period, from about 3.7 to 6.0 percent. Taken together, nonwhite men and women held about 55,000 more jobs in textile mills in 1968 than in 1962. Over the 6-year period, gains for nonwhite women were steady, whereas most of the increase for nonwhite men occurred after 1965. Although increased participation of nonwhites was typical throughout manufacturing during the period, the trend was more pronounced in textiles. Between 1962 and 1968, the proportion of nonwhite workers increased from 7.4 to 9.7 percent in manufacturing, as compared with a gain of from 4.8 percent to 9.5 percent in textiles. The upward trend appears to be continuing into 1969.

Several factors may have contributed to the recent nonwhite gains in employment in textiles. The high level of economic activity in recent years may have encouraged some white textile workers to seek alternative employments. At the same time, the demand for workers by the industry was expanding. The market for textile workers tightened. In this situation, nonwhite workers, with typically lower labor force participation and higher unemployment rates, were available to fill

the pressing employment needs of the industry. In addition, the Civil Rights Act of 1964, government programs to end discrimination in hiring, and private initiatives, probably all contributed to the accelerated flow of nonwhite workers into the textile industry. Whether nonwhite workers can maintain and increase their representation in the industry remains to be seen. Current data indicate that nonwhite workers are continuing to move into the textile industry at a higher rate than into manufacturing generally.

Employment of Negroes accounted for a varying proportion of total textile employment by State in 1966.[1/] Negro employment ranged from about 2 percent of the textile work force in Massachusetts to about 13 percent in New Jersey (Appendix table 15). Negroes tended to make up a larger proportion of textile employment in metropolitan (10 percent) than in nonmetropolitan areas (7 percent). In the three largest textile manufacturing States, North Carolina, South Carolina, and Georgia, the employment of nonwhites ranged from 8 to 10 percent.

Women Workers

Women workers make up a much higher proportion of employment in the textile industry than in manufacturing. In 1967, about 45 percent of textile workers were women, as compared with approximately 27 percent in manufacturing (Appendix table 17). The high proportion of women in textiles can be attributed in part to the concentration of semiskilled workers in the industry. Women made up nearly one-half of semi-skilled workers (operatives) in nondurable manufacturing in 1960. Moreover, the nature of demand for the products of the industry may help to explain the high proportion of women. Textile production is responsive to wide seasonal and cyclical fluctuations in demand. Women, more easily than men, can provide a reservoir of labor to meet the peak labor needs of the industry. Finally, historical precedent may play a role in the high proportion of women in the industry.

Employment of women varied widely within the various components of the textile industry in 1967. Women workers ranged from 68 percent of employment in knitting mills to 25 percent of employment in textile finishing (except wool and knit). The uneven distribution of women in the industry can be partially explained by variations in the occupational structure of its various divisions. The proportion of women workers in the industry increased between 1960 and 1967.

1/ Based on Equal Employment Opportunity Commission data. Such data are contained in (1) reports from all employers subject to Title VII of the Civil Rights Act of 1964 (generally those with 100 or more employees) and from Federal Government contractors and subcontractors with 50 or more employees, and (2) voluntarily submitted reports by members of Plans for Progress.

Age

The median age of textile mill workers (40.7 years) was somewhat higher than that of all manufacturing workers (39.5 years) in 1960. The age differential was mainly caused by workers over 44 years of age (Appendix table 18). Nearly 39 percent of the textile workers were over 44 in 1960, as compared with 35 percent in manufacturing. This relatively high proportion of workers over 44 may reflect the contraction of employment in the industry by more than one-quarter between 1950 and 1960. Younger workers, either laid off or fearing layoffs, may have tended to find employment in other industries during this uncertain period. Another factor contributing to the high median age of textile workers may be the relatively high proportion of women in the industry. Women usually leave the labor force at about 25 years of age, and begin to return soon after age 40, when family responsibilities become less burdensome. The fact that the textile work force has a low proportion of workers between the ages of 25 and 44 would tend to emphasize the importance of women workers on the age structure of the industry. In addition, the historical population migration from rural to urban areas also influences the age composition of the industry. Located mainly in nonmetropolitan areas, the textile industry is probably more affected by the migration of younger workers than most other industries.

Youths under 19 years of age tended to hold a disproportionately low number of jobs in textile mills in 1960. The same phenomena was exhibited in 1950, although somewhat less markedly. However, the share of jobs held by youths under 25 years of age (13.9 percent) was similar to that for the same age group in manufacturing (14.1 percent). Although the work force of the textile industry grew older between 1950 and 1960, the age structure of all manufacturing also shifted upward. In 1960, 4.5 percent more workers in manufacturing were over 44 than in 1950, as compared with 8.9 percent in textiles.

B. Apparel

Skill

The apparel industry has the highest concentration of semi-skilled jobs of any manufacturing industry (Appendix table 12). In 1968, operatives made up almost 80 percent of employment in the industry, as compared with about 45 percent in manufacturing generally. It is estimated that nearly half of the operatives in the apparel industry were sewers, either sewing machine operators, who predominated, or hand stitchers.

In apparel, as in textiles, the nature of the manufacturing process accounts for the high concentration of comparatively low-skilled workers. The number of production operations on a garment is large, production

runs are typically short, and firms tend to be small and frequently undercapitalized. Such conditions are not conducive to widespread use of sophisticated production equipment. The industry is one of the least mechanized among manufacturing industries. For example, very few machines are in operation in the industry which link together various functions in the production process. As in the textile industry, the occupational patterns of the apparel industry will continue to favor the unskilled and semi-skilled worker in the foreseeable future.

Education

In the apparel industry, the educational attainment of workers was also significantly lower than for workers in all manufacturing, but somewhat higher than for workers in textiles. In 1960, the average schooling of apparel industry workers was 9.7 years, as compared with 11.0 years in manufacturing (Appendix table 13). As in the textile industry, a larger proportion of the apparel work force had 7 or less years of education, and a smaller proportion had 4 years of high school or 1 or more years of college, than for manufacturing workers as a whole.

Most of the factors that contributed to the low educational attainment of textile workers are found also in the apparel industry. As compared with textiles, however, the fact that the apparel industry is more heavily represented in metropolitan areas probably accounts for much of the difference in educational levels between the two industries.

Race

In the apparel industry, nonwhite workers in 1968 made up a somewhat larger share of employment (12.7 percent) than in all manufacturing (9.7 percent) (Appendix table 14). As in the textile industry, the proportion of jobs held by nonwhite workers has increased in recent years. Between 1962 and 1968, nonwhite employment increased from 9.3 to 12.7 percent in apparel, as compared with an increase from 7.4 to 9.7 percent in manufacturing. Practically all the gain in nonwhite penetration of the apparel industry occurred after 1965. Preliminary data indicate that the gain continued into 1969.

Nonwhite men in the apparel industry have actually declined slightly as a proportion over the years. The proportion was 2.8 percent in 1962 and 2.6 percent in 1968. In terms of numbers, nonwhite male employment in apparel was about the same in 1962 and 1968. Over the period, nonwhite male workers may have found more attractive alternative employment opportunities in the metropolitan areas where apparel firms are located.

The increased proportion of nonwhite women workers, which more than offset the proportionate decline of nonwhite men, probably resulted from

the generally tight labor market situation between 1965 and 1968. Alternative employment opportunities for white women may have widened, thus opening up opportunities for nonwhite women that would not otherwise have existed.

Negro employment by State in the apparel industry in 1966 ranged from about 4 percent in Tennessee to about 16 percent in South Carolina (Appendix table 16). As in textile mills, Negroes in apparel also tended to make up a larger share of employment in metropolitan than in nonmetropolitan areas. About 12 percent of apparel industry employment in metropolitan areas was composed of Negroes, as against only about 6 percent in nonmetropolitan areas. In the three largest apparel manufacturing States, Pennsylvania, New York, and Georgia, Negro employment ranged between 9 and 11 percent.

Women Workers

In the apparel industry, women make up an extremely high proportion of employment--nearly 80 percent in 1967 (Appendix table 17). Operative jobs predominate in the industry, and their nature helps largely to explain the concentration of women. The major occupational group comprises sewing machine operators and hand stitchers and is staffed almost entirely by women. Moreover, like the textile industry, the apparel industry is seasonal in nature and subject to cyclical swings, and women provide a flexible source of labor supply.

Between 1960 and 1967, the proportion of women workers in the apparel industry increased by about 2 percentage points. This increase in the female participation rate can be attributed to a more rapid growth of industry groups within the apparel industry that employ a larger than average proportion of women.

Age

Workers in apparel had the highest median age level of any major manufacturing industry in 1960--41.7 years, as compared with 39.5 years for workers in manufacturing (Appendix table 18). About 41 percent of apparel workers were over 44 years of age in 1960; the comparable figure in manufacturing was about 35 percent. As in the textile industry, the high proportion of women workers was probably the main cause of this peculiar age structure. A relatively high proportion of apparel industry workers were over 59 years of age (9.1 percent). This may be partly a reflection of wage levels in the industry, and partly of its seasonal nature, which provides an opportunity for many older workers to supplement their retirement incomes by employment during peak seasons.

Youths under 25 held a share of apparel employment equal to that in manufacturing. However, the apparel industry tended to serve more as a source of entry level jobs in 1950 than it did in 1960. Youths under 25 made up 2.5 percent more of the work force in apparel in 1950 than in manufacturing in 1950. In 1960, however, the differential had been reduced to 0.1 percent.

Although the work force of the apparel industry (like the textile industry) grew older between 1950 and 1960, the age structure of all manufacturing similarly shifted. Between 1950 and 1960, the proportion of workers over 44 years of age increased by 4.5 percent in manufacturing and by 7.8 percent in apparel.

V. TECHNOLOGICAL CHANGE

A. Textiles

Operating Characteristics

The basic production processes of the textile industry are carried out on highly mechanized power machinery such as semiautomatic spinning frames and automatic looms. Modern mills are laid out on one floor with work moving readily from one stage to the next. Many multistoried plants, however, still exist in the industry.

The work is machine rather than worker paced. The typical textile worker tends or minds long rows of identical machines in carding, spinning, weaving, and other rooms of a mill. Most of the work is physically light. The operative may feed yarn to and remove yarn from the machine when necessary and watch out for breaks in yarn which he must repair quickly. Tasks usually can be learned in a short time but proficiency comes with experience on the job.

Although textile production was among the first industries to be mechanized, the industry remains relatively labor intensive. Wages of production workers constituted 43 percent of value added, compared with 31 percent for manufacturing as a whole in 1966. Despite some increase since 1948, capital invested (book value) per production worker in 1963 (as estimated by the National Industrial Conference Board) was a little over half the ratio for all manufacturing. This relationship probably still holds true for recent years.

Manpower Utilization

Efforts to improve the utilization of manpower in the textile industry are constantly being made through changes in technology, management, and organization. The modernization of plant and equipment in recent years has been advanced by substantial capital investment, and by the emergence of vertically integrated companies with more professional management.

Definitive figures on trends in output per man-hour in the textile industry are not available. In addition to the usual problems of determining the best measure of output for individual products, assigning appropriate weights, and achieving reasonable comparability between man-hours and output, there are especially complex problems of accounting for changes in quality and product mix and in the degree of integration of production facilities.

A general view of changes in manpower utilization in recent years may be obtained from estimates of the rise in output and of the change

in man-hours. Rough estimates indicate an increase in the range of 36-46 percent in textile output between 1960 and 1966, and a rise in all employee man-hours in the neighborhood of 8 percent. These estimates relate to the textile industry as a whole. Among the individual sectors of the industry, substantial variations undoubtedly occurred.

Interplant Differences in Performance

Levels of performance differ widely among plants within the textile industry, because of differences in capital investment, age of equipment, managerial and employee skill, size, type of organization, and other factors. A rough gauge of the differences in performance is provided by Department of Commerce measures for more efficient and average mills. The "highest productivity establishments" are defined as those in approximately the first quartile of establishments ranked in ascending order of the ratio of payrolls to value added. In the cotton broadwoven fabric industry, for example, value added per employee for the "highest productivity establishments" was 60 percent greater than the industry average in 1963. Although the precise extent to which such differences reflect variations in product mix among plants in each industry is unknown, significant differences in performance probably accounted for most of the disparity.

Some Factors Affecting Industry Performance

Investment and Research. Advances in technology and efficiency over the next few years will be affected by the magnitude of recent expenditures on large-scale modernization of textile plant and equipment. In the period 1964-68, expenditures on new plant and equipment, as reported by SEC, amounted to a total of $4.6 billion, or an average of about $916 million annually. During the preceding five years, expenditures were a little more than half of this amount. In 1968, total expenditures on new plant and equipment were $820 million, considerably below the 1966 peak of $1.13 billion, but greater than any year prior to 1965. Estimates through 1970 anticipate gradually rising expenditures.

The bulk of capital expenditure since 1960 has been for modernization and replacement, but the proportion for additional capacity has been increasing. Textile capacity, according to McGraw-Hill reports, increased by 31 percent between 1962 and 1967. A much larger proportion of the industry's equipment is now five years old or less: 38 percent in December 1966 compared with 27 percent in spring 1962. This improvement in the textile industry's equipment compares favorably with advances made by manufacturing generally: about 36 percent of manufacturing capacity was five years old or less in 1966, compared with 33 percent in 1962. By the end of 1968, according to McGraw-Hill reports,

about 17 percent of the plant and equipment of larger textile companies was outmoded compared with 29 percent in 1962. It is likely that the proportion of out-of-date facilities for smaller companies would be considerably larger.

Increased expenditures on research and development are another facet of the industry's efforts to modernize its technology. According to National Science Foundation estimates, R and D expenditures by textile and apparel firms totaled $42 million in 1966, compared with $15 million in 1957. Most of these expenditures were by textile firms; research expenditures by apparel manufacturers were negligible. (These figures do not include expenditures by textile machinery manufacturers and chemical suppliers.) R and D expenditures in textiles and apparel as a percentage of sales are insignificant in comparison with expenditures by some other industries, such as paper, which also do not receive Federal funds for this purpose.

It should be noted that a high proportion of expenditures for new plant and equipment and for R and D is made by a relatively small number of large companies. About three-fourths of new capital expenditures in 1963 were made by multiplant companies, which included only about one-fourth of all establishments. Practically all of the R and D is done by large- and medium-sized companies. Small companies usually lack the financial resources for extensive capital investment or research and development programs.

Technological Changes. Capital investment whether for expansion or modernization provides opportunities for introducing the latest types of textile equipment. Most of the changes in textile technology involve improvements of existing machinery, and the introduction of auxiliary devices to improve output per man-hour.

1. Faster, Larger Capacity Machines. One of the most important sources of greater productivity is the introduction of faster machine speeds with larger packages. Such advances reduce the number of machines and the number of machine operatives and maintenance workers required for a given output. New carding machines, for example, operate at more than four times the speed of 10 years ago, drawing machines at six times the speed. Spindle speeds were 10,000 r.p.m. in 1950 and 13,500 today; 20,000 r.p.m. are now possible. Winding speeds are at least double those of 10 to 15 years ago. Conventional loom speeds increased 25 to 50 percent in the past 15 years and shuttleless looms may soon double the speed of weaving. Machine output of hosiery and other knitting equipment, due to multiple feeds, also is rising very significantly. Carpets are now produced mainly by high-speed tufting machinery, rather than by the slower weaving process.

These types of machine advances have been partly responsible for the decline in the amount of capital equipment needed for a given volume of production. Moreover, increased machinery utilization with three shift operations and better management have reduced the number of machines required for a given output. In 1967, for example, output of cotton and manmade fabric was about 25 percent above 1948, despite a 21 percent decline in the number of looms.

2. Mechanization of Materials Handling. Requirements for manual labor for materials handling are also reduced by improved conveyor systems and pneumatic chutes. More widespread adoption of mechanical transfer of goods between the many discrete textile processes is significant, since materials handling comprises 5 to 15 percent of production costs. Improved powered conveyors, hoists, monorails, tramrails, and forklift trucks are being utilized increasingly at all steps, from raw material to finished product. Mechanized handling is particularly important in improving process flow in the older multistory mills, and in handling heavier machine packages, such as 80 to 90 pound laps. Pneumatic stock conveyance, a more advanced method moves stock by air and greatly increases productivity but is costly and still limited in use.

3. Maintenance. Built-in maintenance reduces requirements for maintenance workers. Central lubrication and sealed antifriction bearings result in less downtime and practically eliminates manual lubrication. Roller bearings on new drawing frames require oiling only once every three years during overhaul, compared with once a week on older models. In at least one of the new mills, all production machines are equipped with an automatic lubrication system in which oil enters through lines in the floor and is pumped to lubrication points on each machine once every minute.

Automatic devices for cleaning and for atmospheric control, now gaining industry acceptance, free machine tenders for more productive duties. Cleaning may constitute as much as 20 percent of total labor costs in yarn mills. To reduce the amount of lint and fly on high speed machinery, suction devices are installed on the machine at points of discharge. In addition, a traveling monorail cleaner, which automatically blows residue off machine frames, vacuums the floor, and pneumatically carries the waste to the waste room, eliminates the need for maintenance laborers.

A potentially useful process, still limited to a few of the newest plants, is the system of total air cleaning. This system forces the air down from overhead ducts, carrying the lint laden air with it, to ducts under the floor. The air, filtered of waste, is returned to the overhead ducts. Plant efficiency is increased, but the system is said to be too costly for the average mill.

4. Instrumentation. Electronic instrumentation for control of operations is limited, but growing in importance. Such auxiliary devices as stop motion devices, and continuous recording and controlling instruments which replace visual scanning or other slower methods of inspection, reduce downtime, and permit more efficient quality control. Some of the newer electronic devices activate machine changes when a defect is detected. For example, yarn thickness is controlled by a photoelectric cell on a drawing machine which detects the difference in light passing through the yarn and signals an electromagnetic clutch which adjusts the machine automatically.

Mechanical and electronic counters and central monitoring systems are being utilized increasingly for cost and quality control. An electronic monitoring system, for example, which records the performance of every loom on a central console, visually and in printed reports, is now being utilized in the newest mills.

Computers are used by large companies for data processing, accounting, inventory and production control, and are being extended to control finishing processes. Uses in finishing involve control of continuous bleaching and dyeing operations, and dye color matching to determine the least expensive combination of dyestuffs to match colors, systematically rather than by trial and error.

5. Machine and Material Innovations. Several far-reaching innovations, such as automatic creeling and doffing increase productivity substantially but relatively high cost may limit their adoption. Progress is being made toward a system of continuous automatic production which would integrate several processes and reduce the number of operations performed by workers. An advanced system of continuous manufacture, first used in Japan, integrates operations from opening through carding and improves other operations. Claims of expected increases in output per man-hour range from 70 percent to 100 percent above conventional mills. This innovation, however, may be economically feasible only in highly specialized plants.

In addition to mechanical changes in production methods, innovations in fibers, fabrics, and finishes, such as stretch yarns and fabrics, laminated and coated fabrics, and nonwoven fabrics, could have an impact on textile production, opening new markets or displacing more conventional fabrics. Some new types of fabric formation (needle punch and bonded) bypass spinning, weaving, or knitting processes and have much lower labor requirements than woven fabrics.

Finally, continuing growth in use of manmade fibers, particularly noncellulosics, has an important effect on reducing manpower requirements. Manmade filament yarn, for example, does not require conventional preparatory mill operations. By 1975, manmade fibers are

expected to account for as much as 65 percent of total fiber consumption (cotton equivalent basis) compared with 57 percent in 1966.

Adjustments to Technological Change

Private Arrangements. Formal provisions for worker adjustment to technological change are found primarily in plants with union agreements and even these are few in number. Contracts usually provide for the principle of seniority as a measure of protection for the employee displaced by technological developments, although various limitations may be included. Some contracts contain provisions which require advance notice to the union, union review, or a trial period for the proposed technological change.

Technological changes which affect the pace of work--"speedup" (i.e., the installation of faster machines or the speeding up of old machines) and "stretchout" (i.e., increasing the number of machines assigned to the worker)--are a major topic of labor-management discussion. In some contracts, workload assignments are subject to a review by the union and may be submitted to arbitration.

Industry training or retraining generally involves the traditional method of learning on the job by assisting an experienced employee. Some mills, however, have adopted a more formal approach to training, involving the setting aside of training areas and the establishment of classes for instructional purposes. Machine manufacturers are also involved in training, particularly in the installation of radically new equipment.

Government Programs. Under the Manpower Development and Training Act of 1962 and the Area Redevelopment Act of 1961, the Federal Government has financed institutional and on-the-job training programs for under-employed and unemployed workers for existing job vacancies in textile mills in several localities. These programs include former textile workers, but are not limited to them, and no data are available on the proportion of trainees who were previously in the textile industry. Between August 1962, when the MDTA program began, and June 1968, almost 6,000 workers were trained for many textile occupations. Occupations for training are determined on the basis of current local requirements, and may (as in the case of laborers) be on the decline in the long run for the national industry. The number of trainees and the duration of training in occupations with over 100 trainees are presented in the following table:

Occupation	Number of trainees	Duration of training (weeks)
Weaver	1,273	5-39
Loom fixer	537	9-52
Spinner	907	4-30
Knitting machine operator.	347	4-26
Doffer	375	5-20
Laborer	276	4
Thrower	266	4-52
Yarn winder	108	4-20
Other	1,092	--

Labor shortages for particular occupations in some plants and localities continue to require training programs in spite of the prospect of declining employment for the industry as a whole. Also, since textile skills are not easily transferable to other industries, unemployed textile workers often need retraining in order to qualify for other types of work.

In view of the limited scope of formal industry arrangements for adjustment to technological change, government institutions for unemployment insurance, placement, and retraining play a major role in assisting the textile worker in the event of plant closings and mass layoffs.

B. Apparel

Operating Characteristics

Apparel manufacturing involves a series of cutting, sewing, pressing and packing operations performed primarily on manually operated single purpose machines. Some or all of these operations are carried on by manufacturers, jobbers or contractors who comprise the 25,900 establishments in the industry. About 73 percent had fewer than 50 employees. Numerous styles and sizes of a particular type of apparel are produced, generally in small lots.

The simple technology of apparel manufacturing--mainly sewing machines--is highly labor intensive. Each machine is operated by a worker. Capital invested per production worker in 1963 amounted to $5,653, about half the ratio for textile mill products and about a fourth of the manufacturing ratio. Wages of production workers as a proportion of value added in 1966 amounted to 44 percent, compared with 31 percent for manufacturing.

The apparel industry is marked by easy entry, both by workers and owners. Women of all ages can quickly acquire the skill needed to become sewing machine operators, the major occupational group. Since the equipment requires little engineering or technical knowledge, and the marketing and materials are handled by jobbers, it is relatively easy for an entrepreneur with a modest amount of capital to set up a plant as a contractor.

Manpower Utilization

Definitive figures are not available on output per man-hour in the apparel industry. In addition to the usual problems of determining the best measure of output of individual products, assigning appropriate weights, and achieving reasonable comparability between man-hours and output, there are especially complex problems of accounting for changes in quality and product mix.

A general view of the changes in manpower utilization in recent years may be obtained from estimates of the rise in output and of the change in man-hours. Rough estimates indicate an increase of the order of 30 to 34 percent in apparel output between 1960 and 1966 and a rise in all employee man-hours of less than 14 percent. These estimates relate to the apparel industry as a whole. Substantial variations undoubtedly occurred among the individual sectors of the industry.

Some Factors Affecting Industry Performance

Investment. The industry's expenditures for new plant and equipment, though increasing, is among the lowest per production worker among manufacturing industries. Expenditures averaged $144.6 million ($123 per production worker) over the 1962-66 period, compared with $89.7 million ($83 per production worker) for the 1957-61 period.

Research activities to improve apparel technology are on a very small scale. Only in recent years has the Federal Government given attention to the industry. The National Bureau of Standards of the U.S. Department of Commerce initiated a program in 1963 to assist the industry to improve production processes, expand the collection and dissemination of technical information, increase the technical training of personnel, and assist university research dealing with the apparel industry. In cooperation with the Apparel Research Foundation, a grant, combining Federal and industry funds, was awarded to an engineering firm which developed prototype equipment for the automatic conveying of multiple plys of limp fabric from stacks to the sewing machine, a process considered a bottleneck in the mechanization of sewing operations. The National Bureau of Standards also initiated a series of in-house projects and grants to universities to provide research studies for the apparel industry. The final objective of this joint effort is to develop

a technical research program that can then be sustained wholly by the industry, which so far has spent little for research and development.

Technological Changes. While intense competition results in severe pressure to reduce labor costs, mechanization remains difficult for the typical apparel firm and in some cases uneconomical, because of short production runs. The use of mass production methods of standardization, simplification and specialization is limited by demands of fashion for frequent changes of style. Recent trends in men's and women's apparel include many changes in colors and a wide range of woven and knit fabrics.

Technological change is likely to be more rapid among large-scale producers of standardized types of clothing. Firms making shirts, pajamas, underwear, work clothing, and similar staple goods, produce standardized goods for inventory as well as for order, enabling long production runs for which mechanized equipment can be economical. These firms, which tend to be larger than average, are among the most mechanized in the industry and are expected to continue to adopt improved equipment to raise their productivity.

1. Production Engineering Methods. Producers look chiefly to production engineering techniques rather than machine improvements to increase productivity. The need for exact positioning of work in the sewing machine and frequent stopping to adjust the cloth means that operators, not machines, largely determine the volume of output in the sewing department. Since machines are run about a third of total working time, changes in methods of handling and positioning the cloth and in moving the work from one operator to another may have a greater influence on output per man-hour than improvements in machine speeds. Producers seek labor-savings through time study methods, improving the arrangement of equipment for a single operation, and of the work flow of an entire process in order to use available machinery to better advantage. For example, in the production of styled garments such as suits and coats, a continuing shift is taking place from the traditional hand tailoring system, which uses many skilled workers, to section work which utilizes many semi-skilled sewing machine operators.

2. Equipment Changes. Mechanical changes involve principally small attachments to basic equipment and use of work handling aids rather than any basic modification of the sewing operation. Equipment such as needle positioners, automatic thread cutters, and parts stackers, which are designed to reduce time spent by sewing machine operators in positioning and adjusting tasks, are the principal means of improving productivity in basic sewing operations. In the cutting operations, electric cloth spreading machines and new systems of pattern making are being adopted to a limited extent.

3. Changes in Auxiliary Operations. A few large apparel firms are seeking greater efficiency through improvements in distribution and office work. Since fast distribution of apparel is of major importance in this competitive consumer industry, large multiplant firms have set up conveyorized order processing systems in warehouses. Many large apparel firms are using computers for business purposes, such as sales analysis, allowing firms to adjust production quickly to styles most in demand.

4. Permanent Press. Utilizing improved chemically treated fabrics and heat curing techniques, manufacturers are greatly expanding production of garments that can hold their shape through a number of washings without pressing. These new processes are widely used for such garments as men's and boys' trousers and shirts, men's casual wear and work clothing, and women's sportswear. The fabrics used are mainly cotton-synthetic blends, although research is underway to apply similar techniques to other fabrics. Present methods consist of treating the fabrics at the textile mill and curing either at the textile mill before the garment is manufactured (precure), or at the apparel firm after manufacture (postcure). Precure techniques are used mainly for light fabrics, such as those used in shirts; postcure methods are more applicable for heavier fabrics, such as those used for trousers. Apparel firms utilizing the postcure process are required to use special ovens or high temperature presses to cure garments. Increased production worker man-hours may be required for the manufacture of garments using the postcure process because of the additional operations needed.

Adjustment to Technological Change

Unions and management continue to cooperate in improving efficiency. Both major unions, the International Ladies' Garment Workers' Union (ILGWU) and the Amalgamated Clothing Workers of America (ACWA) have assisted in the introduction of new methods in unionized establishments, as part of a continuing program to promote sound business conditions in the industry. This policy of cooperation is stated specifically in the current master agreement between the ACWA and The Clothing Manufacturers' Association of the United States, covering most of the workers in the men's and boys' coats and suits branch of the industry. An example of cooperation between the ILGWU and manufacturers is the voluntary establishment in 1964 of a continuing labor relations committee by this union and a major women's sportswear firm. One of the topics of discussion on the agenda of this committee is the adoption of new production systems.

Labor-management contracts typically provide for measures to assure income protection and job security. Most of the contracts in force in 1968 between the two major unions and apparel manufacturers contained provisions assuring no reduction in wages and no loss of jobs because of technological change.

VI. WAGES AND INDUSTRIAL RELATIONS

A. Textiles

Wage and Benefit Levels

Earnings in the textile industries--hourly, weekly, or annual--are low compared with those in most other manufacturing industries.

The average textile production worker in October 1968 earned about $2.15 an hour at straight-time, or about $2.27 with overtime pay. Weekly earnings averaged about $94.00 a week. Hourly pay was approximately 75 cents and weekly pay about $30.00 below the average for all factory workers (Appendix table 19.1/ In 1964, the latest year for which information on annual earnings is available, the average annual earnings of workers regularly employed in the textile industries (that is, with earnings in each of four quarters) was about $4,300 a year (Appendix table 20). This was less than in any other manufacturing industry group except apparel. The data on annual earnings include both wage earners and salaried workers.

Earnings, of course, vary among textile industries and, within each industry, among occupations and areas. Among the industries shown in Appendix table 19, the level of straight-time average hourly earnings in October 1968 ranged from $1.98 in hosiery (other than women's hosiery) to $2.35 for miscellaneous textile goods, which includes a wide range of products not elsewhere classified. In the basic broad woven cotton and synthetic fabric industries, straight-time hourly earnings averaged $2.15 and $2.18, respectively. Among other important industry divisions, the average for wool textiles was $2.22, knit outerwear $2.23, and dyeing and finishing $2.28.

Part of the difference in earnings among textile industries--for example, between textile dyeing and finishing and the production of broad woven goods--reflects differences in occupational composition. Variations in industry earnings also reflect to some extent differences in location. Thus, the textile dyeing and finishing and wool textile industries are relatively more important outside the South than cotton or synthetic broad woven goods. Until recent years, earnings of textile workers tended to be somewhat lower in the South than elsewhere. However, earnings for workers doing the same type of work in cotton and man-made fiber industries are now at about the same level in the Southeast and New England; earnings are still about 10 to 20 cents lower in the Southwest.

On February 1, 1968, a minimum wage of $1.60 an hour became effective under the Fair Labor Standards Act. Prior to that date, an estimated 7 to 10 percent of the workers in textile dyeing and finishing,

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1/ Preliminary data indicate that in January 1969 average hourly and weekly earnings in textiles were 84 cents and $34.00, respectively, below the levels in all manufacturing.

8 to 12 percent in wool textiles, and more than 40 percent in men's and children's hosiery were earnings less than $1.60 an hour. In the large cotton textile industry, roughly one out of eight workers was earning less than the new minimum rate; and the proportion in synthetic textiles was only slightly higher. It is estimated that at least half of all production workers in textile industries (except textile dyeing and finishing) are currently earning between $1.60 and $2.00 an hour. The proportion ranges from an estimated 50 percent in cotton and wool textiles and women's hosiery to an estimated 65 to 75 percent in men's and children's hosiery.

The predominant scheduled workweek in most textile industries is 40 hours. Special surveys in cotton and synthetic textile manufacture in 1965 indicated that a majority of workers were on 48-hour schedules. Since that time, however, actual hours have declined, and in October 1968 the average workweek for all textile manufacture was slightly more than 41 hours, compared with about 42 hours in October 1965.

Paid leave and health and welfare benefits are less liberal in most textile industries than in manufacturing generally. A special survey in 1966 indicated that employer expenditures for paid leave and for private welfare plans averaged 13 percent of total compensation in manufacturing as a whole. In cotton and synthetic textiles, a similar study in 1965 indicated that employer expenditures for these benefits amounted to 5.5 percent.

Paid holidays--usually 7 or more a year--are common practice in most manufacturing industries, but a large proportion of textile workers receive fewer than 4 paid holidays. Only wool and the textile dyeing and finishing industries, of those for which information is available, provided most production workers with 4 or more paid holidays, and less than half of the workers in all industries, except wool, received 5 or more (Appendix table 22). As of the fall of 1967, from two-fifths to three-fourths of the workers in the hosiery industry received no paid holidays; there is no information indicating that there has been a substantial change in this industry since then.

In the manufacture of cotton and man-made fabrics, about one out of six workers, including one-third of those in the Southwest, received no paid holidays in September 1968, but only one out of ten workers in woolen textiles and in textile dyeing and finishing had no holidays with pay.

For those workers covered by holiday provisions, the most common number of days off with pay is four (three in the Southwest) in cotton and man-made fabrics production, and six or six and one-half (two in the Southeast) in the manufacture of woolen textiles. In hosiery, the number of holidays varies widely among establishments from one to seven or seven and one-half, and in textile dyeing and finishing, the number varies from one to nine or more.

Vacations are more common than holidays for textile workers. The vast majority of workers engaged in the production of cotton, man-made, or wool textiles, and textile dyeing and finishing, and from 70 to 85 percent of those engaged in the manufacture of hosiery receive paid vacations. The typical provision is 1 week after 1 year's service and 2 weeks after 5 years' service. In contrast to manufacturing as a whole, vacations of more than 2 weeks are unusual (Appendix table 23).

Life, hospital, and surgical insurance plans, financed at least in part by employers,are widespread in the textile industries. They apply to over nine-tenths of the workers employed in the cotton textile, synthetic textile, and dyeing and finishing industries (Appendix table 24). In the South, premiums are often paid for in part by the employees. Other types of insurance are less common.

In contrast to other benefits, New England lags behind the South in the provision of monthly pension benefits for cotton textile workers. Instead, New England manufacturers provide lump-sum payments on retirement. Monthly pension benefits are in effect for about seven out of ten southern cotton textile workers. In the textile dyeing and finishing industry, some kind of pension--either monthly benefits or lump-sum payments--apply to about three-fourths of the production workers in the Middle Atlantic region, two-thirds in New England, and about three-fifths in the Southeast, where the industry is now concentrated.

Wage and Benefit Trends

After a period of infrequent wage changes, wage activity in the cotton and synthetic textile industries increased during the 1960's, From November 1963 to July 1968 there were six rounds of wage increases in southern textile mills (Appendix table 25). Each of the southern wage increases since 1963, except those that went into effect in September 1967 and July 1968, amounted to about 5 percent. The 1967 increase amounted to 6 or 6 1/2 percent, and the 1968 increase averaged about 6 percent. Wages continued upward in 1969.

The acceleration of wage change apparently reflected the increased prosperity of the industry. This in turn was due to a number of factors, including the effect of the one-price cotton law, heavy demands for textile products, and substantial improvements in productivity. Southern difficulties in recruiting workers were also reported.

General wage changes since 1963 have been somewhat larger in southern than in the northern cotton and synthetic textile mills.

For cotton textiles, where comparisons of general wage changes and changes in hourly earnings are possible, the increase in the two measures

has been practically identical since 1958. Straight-time hourly earnings of all textile workers have increased by about 48 percent since 1958--more than the increases for all factory production workers. Because of a slightly greater increase in average weekly hours, both hourly earnings including premium pay for overtime and weekly earnings advanced slightly faster than straight-time hourly earnings. Changes in average annual earnings for workers with earnings in the textile industry in each of four quarters of a year are shown in Appendix table 26 from 1946 to 1964, the latest years for which these data are available. Over the whole period, average annual earnings increased by about 123 percent.

Earnings at straight-time rose at about the same rate in most textile industries between 1958 and 1968 (Appendix table 19). Exceptions were the manufacture of floor coverings, where hourly earnings excluding premium pay for overtime increased by only about 32 percent, and hosiery (except women's hosiery) and broad woven cotton fabrics, where they rose between 55 and 60 percent. Straight-time hourly earnings in floor coverings were highest of all textile industries (except miscellaneous textile goods) in 1958, and thus wage increases similar to those in other industries between 1958 and 1968 resulted in a relatively smaller percentage increase in straight-time average hourly earnings for this period. On the other hand, hourly earnings in men's and children's hosiery and cotton fabrics were relatively low in 1958, and the same cents per hour wage increases over these years would be higher in percentage terms.

Northern plants have continued to liberalize benefits, and since 1965, substantial numbers of southern cotton and synthetic plants have liberalized or introduced benefits, especially holiday and pension provisions.

Industrial Relations

Extent of Unionization. Union agreements govern the wages and working conditions of only a small minority of textile workers. In most manufacturing industries, union agreements cover from 60 to 65 percent of the production workers.[2/] As Appendix table 27 indicates, only in textile dyeing and finishing do union agreements cover more than a third of the production workers, and in the Southeastern States, as few as 1 or 2 percent of synthetic textile manufacturing and hosiery employees work under union contracts. The highest contract coverage in the Southeast is recorded in cotton textiles, where an estimated 14 percent of the

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2/ Data refer to 1966, the latest year for which this information is available. There has been relatively little change in unionization since these studies were made.

workers are under collective bargaining agreements, and in textile dyeing and finishing, where agreements apply to one out of four southern workers.

With the continued shift of textile employment to the South in the postwar period, unionization has actually declined in importance. During the 1960's, there has been little change in coverage of union agreements in these industries. Within the past two years unions have won bargaining elections in a number of southern textile plants, but very few of these plants have signed collective bargaining agreements.

Considering membership rather than the number of workers covered by union agreements, membership in major textile unions has declined proportionately more than employment. Between 1956 and 1966, textile production worker employment fell by about 87,000 workers--about 9.2 percent--while membership in the major textile unions declined by about 83,000 or 27 percent (Appendix table 28). Membership in the principal textile unions was about 33 percent of textile production worker employment in 1956 and 27 percent in 1966.3/

Bargaining Patterns. In recent years, the pattern of wage changes in cotton and synthetic textile manufacture has been established by non-union establishments in the South. In contrast to the years before the mid-1950's, when members of the New England Textile Manufacturers Association bargained as a unit, unionized companies now negotiate on an individual basis.

The frequency of bargaining and wage changes in the textile industries, particularly in the manufacture of broad woven goods, has accelerated in the 1960's as the industries' prosperity increased. With the economic difficulties and declines in employment in the 1950's, there were a number of years in which wages were not changed and one year in which they were reduced by unionized mills. Beginning in 1964, however, northern cotton textile manufacturers began to negotiate wage increases each year, and, in 1966, 3-year agreements provided not only for a wage increase in the first contract year but for deferred wage increases in the second and third years. This development paralleled an acceleration of wage changes in southern textile plants.

3/ A number of other unions have some membership in the textile industries. These include the Industrial Trades Union (independent), which represents some 1,700 employees of 16 woolen and worsted, dye, and knitting mills in the Woonsocket, Rhode Island area.

Strike Idleness. The number of man-days of idleness resulting from work stoppages in the textile industries has been proportionately smaller than the average for all industries. In each year except two between 1956 and 1967, less than a tenth of 1 percent of estimated working time has been lost because of work stoppages in textile industries (Appendix table 29).

Most textile stoppages have been concentrated in the Northeast. Despite the loss of union members and coverage of union agreements with the shift of the industry to the South, strikes to organize plants have not increased in number.

B. Apparel

Wage and Benefit Levels

Hourly earnings in the apparel industries are lower than in any other manufacturing group except textiles and leather. Because of relatively short hours, weekly and annual earnings of apparel workers are below those of all other major industry groups. The average apparel worker in October 1968 earned just over $2.20 an hour (about $2.27 if premium pay for overtime is included), or slightly more than $82.00 a week--about 70 cents an hour and more than $43.00 a week less than the average factory production worker (Appendix table 30).[4/] The annual earnings of workers regularly attached to the apparel industries (those with earnings in each of four quarters) averaged about $3,650 in 1964 (Appendix table 31).

In October 1968, estimated average straight time hourly earnings varied among apparel industries from a low of about $1.90 in the manufacture of such products as work clothing, shirts, trousers, and women's and children's underwear, to about $2.72 in the manufacture of women's coats and suits. Earnings varied among industries for the same occupation as well as for all occupations considered as a group. Thus, even for janitors, earnings in the men's and boys' suit and coat industry are substantially higher than those in men's and boys' shirt or work clothing factories (Appendix table 32). For production occupations, the differences in earnings are even greater.

Within an industry earnings vary substantially among occupations and areas. A survey of the women's and misses' dress industry in 11 major production centers in March 1966 recorded earnings ranging from $1.63 an hour in Dallas, Texas to $2.73 in New York City. At that time, in New York City, skilled cutters and markers earned an average of $3.55 an hour, while the largest occupational group in the industry--women sewing machine operators (single hand-tailor system) averaged $2.81. In the production of women's coats and suits, earnings in August 1965

4/ Preliminary data indicate that in January 1969 average hourly and weekly earnings in textiles were 83 cents and $45.00, respectively, below the levels in all manufacturing.

varied from $2.00 in Kansas City to $2.92 in New York City, with cutters averaging $3.90 and sewing machine operators (single hand-tailor system) $3.45 in New York City.5/

Prior to February 1, 1968, a substantial number of workers in the apparel industries earned less than $1.60--the minimum which went into effect for manufacturing establishments under the Fair Labor Standards Act on that date. In Appendix table 33, estimates of the proportion of workers currently earning less than $2.00 an hour are presented for three apparel industries. On a nationwide basis, the estimates range from 22 percent in the men's and boys' suits and coats industry to an estimated 70 percent in the manufacture of work clothing, and 80 percent in the shirt (except work shirts) and nightwear industry.

The scheduled workweek in most men's apparel industries is 40 hours, with few establishments reporting longer schedules. Work schedules in most major centers of the women's dress industry and all major centers of the women's coat and suit industry, as well as in unionized plants manufacturing infants' and children's wear, are typically 35 hours a week.6/ Most workers in other women's apparel industries are also on a 35-hour workweek. Average actual hours vary with the season in many apparel industries, but typically are below 40 a week, whereas in recent years the workweek in all manufacturing has averaged 40 hours or more.

Because in many apparel industries most establishments are small, employee benefits are often financed by industry-area funds to which unionized employers contribute specified amounts per man-hour worked. The limited information that is available indicates that employer contributions or direct expenditures for benefits were proportionately smaller in apparel manufacture than in manufacturing as a whole. Benefits are more generous in industries in which large numbers of establishments have been organized than in such industries as work clothing and shirt manufacturing, where union agreements cover only a minority of the workers.

In the women's apparel industries and in the production of men's coats and suits, most workers receive paid holidays, but in the manufacture of men's and boys' shirts, about a third of the workers did not receive any paid holidays as of 1964. (Available information does not indicate any substantial subsequent change in practice. The predominant number of paid holidays is 7, 7 1/2, or 8, except in work clothing, where 6 or 7 days are equally common.

5/ In the coat and suit industry, section system sewing machine operators were more numerous than tailor system operators and had lower earnings.

6/ The only major dress areas in which schedules in excess of 35 hours were common were mostly unorganized.

Most apparel workers receive paid vacations, but the length of vacations varies among industries. Employees of the men's suit and coat and shirt industries receive two weeks' vacation after a year's service and a third week after 1 1/2 years.7/ In the work clothing industry, most employees receive one week after a year's service and a second week is added after 3 or 5 years' service. Only about one-fourth of the workers in work clothing have 3 weeks' or more of paid vacation, usually after 10 or 15 years of service. Vacation benefits vary among major centers of the dress industry. In most areas, employees with a year's service receive 2 or 4 percent of their annual earnings as vacation benefits; this percentage does not vary with length of service. Vacation practices in the women's coat and suit industry varied, with payments ranging from 2 percent of annual earnings, or about one week's pay, to 3 3/4 percent, or pay for a second week. One year's service was generally required for payments.

In unionized plants in centers of women's coat and suit production, pensions of $50.00 or $65.00 a month are financed by employer payments of 2 1/2 to 6 1/2 percent of payrolls. Most unionized producers of dresses pay 4 1/2 percent of payrolls for pensions of $60.00 a month, and in men's apparel, most employers in the men's and boys' coats and suits industry contribute 4.5 percent of payrolls for pension benefits based on earnings and length of service, and in shirts and allied garments, 3.1 percent for pensions of $60.00 a month.

A number of apparel agreements provide for local medical care facilities, often clinics that provide a variety of medical care services. Other health benefits include hospitalization, ranging from full coverage for a semi-private room for workers in women's dresses and men's and boys' coats and suits to $30.00 a day for workers manufacturing women's coats and suits and men's shirts and cotton garments. Allowances for surgical expenses are generally $300.00 for workers in men's and boys' shirts and allied garments and as high as $500.00 in the women's dress industry, and in both the women's and men's coats and suits industries. Most union firms pay from 4 to 7 1/2 percent of gross payroll to finance health and welfare benefits.

Wage and Benefit Trends

Because of the fragmented nature of bargaining and the number of unilateral employer decisions, it is difficult to generalize about the size of general wage increases and changes in benefits in the apparel

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7/ Two weeks are given in the summer after 1 year of service and the third week is granted during Christmas week for employees with 1 year of service as of December 1. In effect then, only those employees with at least 1 1/2 years of service as of December 1 would receive the full 3 weeks of vacation for the year.

industries. Until 1965-66, wages were generally increased only once every two or three years, but beginning in 1965, wage activity increased. In 1965, after a lapse of two years, 1-year contracts negotiated for the shirt and other men's cotton garment industries provided wage increases. In 1966, 3-year contracts were negotiated providing for increases in both 1966 and 1967. Some work clothing plants put into effect negotiated or deferred increases during 1965, 1966, and 1967. There was a similar acceleration of wage changes in the women's apparel industries. Prior to the early 1960's, wage reopenings were often triggered by 5 percent increases in the Consumer Price Index, while recently this has been reduced to about 2 or 2 1/2 percent. In 1967 and 1968, many contracts in women's apparel were reopened for wage negotiations, based on an increase in the CPI. In general, provisions for deferred wage increases and new contract negotiations will raise the wage level in apparel in 1969.

Straight-time average hourly earnings increased by more than 40 percent in both the apparel industries and all manufacturing between October 1958 and October 1968.8/ The percentage rise in average weekly earnings was less in apparel than in all manufacturing, reflecting a larger rise in average hours in manufacturing. Annual earnings in these industries for regular workers rose less than in most other major manufacturing groups (Appendix table 34). The rise between 1946 and 1964 (the latest year for which data on annual earnings are available), was 67 percent; for the period 1959-64 the increase was 14 percent.

There has been a relatively little variation among apparel industries in the extent to which earnings have increased, with the exception of women's suits, skirts, coats, and millinery. In those industries, hourly earnings rose less than 30 percent between 1958 and 1968. Except for reductions in weekly schedules in the millinery and fur industries in 1958, there has been little change in hours of work in apparel industries in recent years.

Many recent union agreements have liberalized benefits and increased the percentage that employers contribute for vacations, holidays, and health and welfare benefits.

Industrial Relations

Extent of Unionization. The proportion of workers covered by union agreements varies widely among apparel industries, although generally it is much higher than in the textile industries. Among three of the major

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8/ The increase would be about the same if the average for 1958 were used as a base. October 1958 has been substituted because of seasonal variations in some apparel industries.

men's apparel industries for which data are available, coverage of union agreements varies from about two-fifths of the production workers in shirt manufacture to 90 percent in the manufacture of coats and suits. In 9 out of 11 major metropolitan areas in the women's dress industry and all areas studied in women's coat and suit production, about 7 out of 8 workers were covered by union agreements. (Exceptions were Dallas and Los Angeles, where fewer than one-tenth of the dress workers were covered by agreements.) Union agreements also apply extensively to workers in a number of other women's apparel industries.

Despite a growth in apparel employment, there has been no significant gain in union membership or coverage of union agreements in recent years. Membership in the four major apparel unions considered as a group actually declined slightly between 1956 and 1966. In the two largest unions, membership was stable. At the same time, annual average production worker employment in the apparel industries grew by 155,000. The failure of union membership or coverage of union agreements to keep pace with employment is apparently due to the fact that the growth has occurred mostly in areas that have proved difficult to organize. Membership in the principal apparel unions has fallen from about 84 percent of production worker employment in 1956 to 72 in 1966.

Bargaining Patterns. Large establishments are relatively rare in the apparel industries; hence, most collective bargaining agreements cover groups of establishments within metropolitan areas or, in some cases, even broader areas (Appendix table 35). Some agreements, for example, cover the New York metropolitan area or parts of several northeastern States. Typically, contracts are negotiated for a period of two or three years. Until the past several years, they normally provided for wage reopeners on a certain date or if a specified increase occurred in the Consumer Price Index. Specified deferred wage increases were not provided for. Generally, increases were put into effect less often than annually. In recent years, there has been a tendency to provide for specific deferred wage increases, although there are still provisions for reopeners in many Ladies' Garment Workers contracts if the CPI increases by a specified amount, or if the statutory minimum wage increases. Many of the women's garment contracts require that minimum occupational rates shall be maintained at a specified level above the statutory minimum.

Strike Idleness. Except in 1958, when more than 150,000 workers in the dress and millinery industries struck over new agreements, time lost because of work stoppages has been proportionately much smaller in apparel than the average for all industries (Appendix table 36). Despite the failure of union membership and coverage of union agreements to keep pace with the growth of employment in the industry, there has been no increase in strikes to organize new plants.

VII. TEXTILES AND APPAREL IN PUERTO RICO[1/]

Employment and Unemployment

In 1968, factory employment in Puerto Rico averaged 7,600 in textiles and 37,100 in apparel.[2/] Between 1957 and 1968, factory employment in textiles and apparel combined increased by 89 percent. In apparel, the gain was 97 percent; in textiles, 58 percent (Appendix table 37). In the balance of manufacturing industry, over the same period, employment rose by 85 percent, and in all nonagricultural industry (excluding textiles and apparel), by 62 percent.[3/] Among the individual textile and apparel industries, the largest single source of employment was in women's, misses', children's and infants' undergarments (Appendix table 38).

In 1968, almost one-third of all factory employment in Puerto Rico was accounted for by apparel and textiles, as compared with almost two-fifths in 1966.[4/] A significant aspect of the development of the apparel industry has been the shift from home needlework to factory work. In 1957, there were about 18,000 home needleworkers and 19,000 factory apparel workers, a total of about 37,000. By 1968, there were only about 2,000 home needleworkers, but factory employment had risen to 37,000 for a total employment only slightly greater than in 1957. These figures suggest that the development of a strong factory industry has gradually whittled away at the cottage industry, but this is probably only partially true. No definite information is available on the subsequent employment of the displaced needleworkers, but there are indications that some have become factory workers in apparel; others have left the labor force or become domestic workers; and still others have moved into

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1/ The definitions of the textile and apparel industries in Puerto Rico correspond broadly to those used for the mainland of the United States, but there are several major differences. Included in the children's dress and related products industry are establishments primarily engaged in the manufacture of dolls, and included in the hosiery and textile products industry are establishments primarily engaged in the manufacture of mattresses and bedsprings.

2/ Wherever data for 1968 are used, they represent the average for January through October unless otherwise specified.

3/ On the mainland, between 1957 and 1968, textile mill employment was virtually unchanged, but employment in apparel and in manufacturing as a whole rose by 15 and 17 percent, respectively.

4/ On the mainland, combined textile and apparel employment accounted for 12 percent of manufacturing employment (Appendix table 1).

home piecework for other industries, such as glove manufacturing. Possibly the single factor most influencing the reduction in the number of home needleworkers has been the dwindling importance, both in relative and absolute terms, of those apparel industries in which hand finishing was an important operation.

It is evident that, while the level of apparel employment has remained relatively stable, the shift from homework to factory work, as well as the shift in industry patterns, has resulted in a higher level of productivity, and consequently greater output for the industry.

Separate data are not available on unemployment in the textile and apparel industries in Puerto Rico. For all nonagricultural industries, unemployment over the last 12 years has averaged 11.2 percent, double the unemployment rate for the mainland (Appendix table 39). In October 1968, the rate was 11.3 percent, or about triple the mainland rate. With some variation--as low as 9.9 percent in 1960 and as high as 13.5 in 1958--nonagricultural unemployment has remained relatively steady over the entire decade. The female unemployment rate has generally been more favorable than the male rate. After a period of steady decline, followed by some upward movement, it dropped to a low point of 7.3 percent in October 1968.

In addition to unemployment, underemployment--those workers who work 34 hours or less per week for involuntary reasons--is also a serious problem. The rate for underemployment has been consistently high, approximately at the same level as unemployment.

While employment during the past 12 years increased by 30 percent, increases of 28 percent occurred in the civilian noninstitutional population and in the labor force. There has thus been a comparatively small gain in relative employment. This population growth has been influenced in the past several years by the return of a portion of the Puerto Rican population that had migrated to the mainland, mainly New York City, and, in returning, exerted additional pressure on job opportunities.

Unemployment among young people has been and continues to be a serious problem. Approximately half the unemployed on the island are less than 25 years old. The fact that the situation is not improving and is indeed worsening is indicated by the decrease of 4.8 years in the average age of the unemployed between 1960 and 1967. This is in part a reflection of the decreasing average age of the population.

More and more, as employment shifts from the "traditional" sector (agriculture, needlework, domestic service, self-employed merchants

and street peddlers, and sugar mill jobs) to the "modern" sector (manufacturing, construction, trade, government and services other than domestic), relatively low educational attainment becomes a vocational handicap for both the young and older Puerto Rican.

A more favorable aspect of the unemployment picture is the relatively short duration of most unemployment. Two-thirds of the persons seeking work stay unemployed for a period of 4 weeks or less. Only 6.2 percent of job seekers are unemployed for 3 1/2 months or more. Long-term unemployment is often a reflection of the shift from the traditional to the modern economy, from the disappearance of industries using relative unskilled labor to those with greater skill requirements.

Size of Establishment

Between 1957 and October 1967, the number of textile and apparel plants in Puerto Rico increased from 415 to 500, or 22 percent, accounting for about 20 percent of the island's manufacturing establishments (Appendix table 40). Between the two years, the average apparel plant increased in size from 51 to 83 workers, but the average textile plant remained about the same size--100 workers.

In 1957, 71 percent of the apparel plants had fewer than 50 employees, and 26 percent had between 50 and 250 (Appendix table 41). By October 1967, this had shifted to 48 percent in the smaller size, and 49 percent in the larger. Over this period the proportion of workers in small plants was cut more than half, from 24.5 percent in 1957 to 11.5 percent in October 1967. Unlike the situation on the mainland, the average apparel plant in Puerto Rico is larger than the average manufacturing establishment. Presumably this reflects the tendency of manufacturers of mass-produced articles, such as brassieres, to locate sizeable plants on the island.

Wage and Benefit Levels

In the period from 1957 through 1968, average hourly earnings in Puerto Rico's textile industry rose 88 percent, from 77 cents to $1.45; and in apparel by 118 percent, from 66 cents to $1.44 (Appendix table 42). The increase in apparel was at approximately the same rate as in Puerto Rican manufacturing generally until 1966, but by 1968 had substantially exceeded the manufacturing increase of 103 percent.

As a result of wage movements occurring during the past decade, differentials between mainland and island hourly earnings in textiles

and apparel have narrowed in percentage terms; however, they have remained about the same in terms of money (Appendix table 43). If anything, the gap in absolute terms has widened somewhat in recent years. Since 1957, hourly earnings in textiles in Puerto Rico have averaged about 68 cents less than on the mainland. In two of these years, they rose to within 63 cents of the mainland level, but since 1962, the gap has been increasing with indications that it will be about 74 cents for 1968. In apparel manufacturing, the difference averaged 75 cents over the 12-year span, with a 76-cent difference indicated for 1968.

Even more than on the mainland, minimum wage changes under the Fair Labor Standards Act have exerted a powerful influence on hourly earnings. Unlike the mainland's uniform minimum wage level, island minima are set on an industry-by-industry basis by industry committees, and are reviewed at approximately 1-year intervals. Much of the rise between 1967 and 1968 took place in the spring of 1968, after the Fair Labor Standards Act minimum of $1.60 per hour went into effect on the mainland (February 1). The Fair Labor Standards Act required a corresponding percentage increase in the island minimum. Except for the manufacture of handkerchiefs, for which a hardship exception was filed, this percentage increase went into effect in April 1968.

Average weekly earnings in apparel have risen from $21.98 in 1957 to $51.04 in 1968, an 11-year increase of 132 percent, as compared with 110 percent in all manufacturing. However, the level of average weekly earnings in 1968 was lower in apparel than in manufacturing by $5.98, or about 10 percent. While the gap in terms of dollars has grown somewhat since 1957, it has decreased in percentage terms by about one-half. Although weekly earnings in the much smaller textile industry rose by only 100 percent in the same period, their level was $5.59 higher than in apparel in 1968. About two-thirds of this difference was due to higher average weekly hours in textiles, and the remainder to a difference in average hourly earnings.

In manufacturing industries, island average weekly hours tend to be lower than on the mainland. This is particularly true in textiles; in apparel, the difference has been slight. However, it should be noted that on the mainland scheduled hours in apparel are often 35 per week, notably in the women's branch of the industry. On the island, they are 40, indicating that there is a substantial shortage of full-time work in the industry. Over the past 12 years, textile weekly hours have averaged 2.4 higher than in apparel.

In addition to legally required social security, unemployment insurance, and workmen's compensation coverage, female employees are entitled

by law to two months of maternity leave at half pay. Paid holidays, vacations, and medical insurance are provided for in union agreements and are found to some extent in unorganized plants. The payment of Christmas bonuses is not unusual.

Industrial Relations

Extent of Unionization. The Puerto Rican Department of Labor estimated that in October 1966 there were 13,000 union members in apparel, or 41 percent of persons employed, and 1,200 in textile mills, or 21 percent of persons employed. Information from other sources indicates that roughly 12,000 were in the International Ladies' Garment Workers' Union, AFL-CIO[5/]; 1,500 or more in the Amalgamated Clothing Workers of America, AFL-CIO[6/]; and another 1,200 in other unions.[7/]

Of 287 textile and apparel plants covered in economic analyses prepared in 1964 by the Wage and Hour and Public Contracts Divisions of the U.S. Department of Labor, 85, with 10,252 workers, or about one-third of the industry total, were covered by union-management contracts. These 85 plants averaged about 120 workers each, as compared with an average of 96 workers in plants not covered by contracts.

Industrial Disputes and Work Stoppages. In the course of the last decade there have been only three union-approved strikes in the apparel industry in Puerto Rico. These strikes were small and were organizational rather than economic in nature. In all the stoppages, the striking union has been the Amalgamated Clothing Workers of America, AFL-CIO. In addition, a small number of wildcat strikes, generally of short duration, have occurred.

5/ William Knowles, "Unionism and Politics in Puerto Rico" in Status of Puerto Rico, Selected Background Studies, prepared for the U.S.-Puerto Rico Commission on the Status of Puerto Rico, 1966.

6/ Informal estimate provided by the ACWA, AFL-CIO.

7/ Based on a 1964 estimate made by the U.S. Department of Labor, Wage and Hour and Public Contracts Divisions.

STATISTICAL APPENDIX

Table 1--Total Employment in Manufacturing, Textiles, and Apparel, 1947 to 1968 1/

(In thousands)

Year	Manufacturing	Textiles	Apparel	Ratios	
				Textiles to manufacturing	Apparel to manufacturing
1947	15,545	1,299	1,154	8.4	7.4
1948	15,582	1,332	1,190	8.6	7.6
1949	14,441	1,187	1,173	8.2	8.1
1950	15,241	1,256	1,202	8.2	7.9
1951	16,393	1,238	1,207	7.6	7.4
1952	16,632	1,163	1,216	7.0	7.3
1953	17,549	1,155	1,248	6.6	7.1
1954	16,314	1,042	1,184	6.4	7.3
1955	16,882	1,050	1,219	6.2	7.2
1956	17,243	1,032	1,223	6.0	7.1
1957	17,174	981	1,210	5.7	7.0
1958	15,945	919	1,172	5.8	7.3
1959	16,675	946	1,226	5.7	7.4
1960	16,796	924	1,233	5.5	7.3
1961	16,326	893	1,215	5.5	7.4
1962	16,853	902	1,264	5.4	7.5
1963	16,995	885	1,283	5.2	7.5
1964	17,274	892	1,303	5.2	7.5
1965	18,062	926	1,354	5.1	7.5
1966	19,214	964	1,402	5.0	7.3
1967	19,434	957	1,400	4.9	7.2
1968 2/	19,734	985	1,417	5.0	7.2

1/ Private wage and salary workers only.
2/ Preliminary.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Table 2--Unemployment Rates in Manufacturing, Textiles and Apparel, 1958 to 1968

Year	Manufacturing	Textiles	Apparel	Ratios	
				Textile to manufacturing	Apparel to manufacturing
1958	9.2	9.5	12.0	1.03	1.03
1959	6.0	7.2	9.6	1.20	1.60
1960	6.2	6.3	10.5	1.02	1.69
1961	7.7	6.8	11.4	.88	1.48
1962	5.8	5.2	9.8	.90	1.69
1963	5.7	6.7	9.6	1.18	1.68
1964	4.9	5.7	8.0	1.16	1.63
1965	4.0	4.3	7.3	1.08	1.83
1966	3.2	3.7	6.0	1.16	1.88
1967	3.6	3.8	6.5	1.06	1.81
1968	3.2	3.5	5.9	1.09	1.84

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Table 3--Labor Turnover Rates in Manufacturing, Textiles, and Apparel, 1958 to 1967 1/

Year	Manufacturing					Textiles					Apparel				
	Accessions		Separations			Accessions		Separations			Accessions		Separations		
	Total	New Hires	Total	Quits	Layoffs	Total	New Hires	Total	Quits	Layoffs	Total	New Hires	Total	Quits	Layoffs
1958	3.6	1.7	4.1	1.1	2.6	3.2	1.6	3.5	1.3	1.8	5.2	2.5	5.7	1.7	3.5
1959	4.2	2.6	4.1	1.5	2.0	3.5	2.4	3.5	1.7	1.3	5.7	3.6	5.6	2.3	2.7
1960	3.8	2.2	4.3	1.3	2.4	3.2	2.0	3.7	1.6	1.5	5.4	3.2	6.1	2.3	3.2
1961	4.1	2.2	4.0	1.2	2.2	3.5	2.2	3.4	1.6	1.3	5.7	3.1	5.8	2.0	3.1
1962	4.1	2.5	4.1	1.4	2.0	3.6	2.5	3.7	1.9	1.2	5.5	3.5	5.8	2.3	2.7
1963	3.9	2.4	3.9	1.4	1.8	3.6	2.5	3.8	1.9	1.2	5.3	3.3	5.5	2.2	2.6
1964	4.0	2.6	3.9	1.5	1.7	3.8	2.7	3.8	2.1	1.1	5.5	3.3	5.6	2.2	2.6
1965	4.3	3.1	4.1	1.9	1.4	4.3	3.3	4.1	2.5	.8	5.8	3.7	5.8	2.6	2.4
1966	5.0	3.8	4.6	2.6	1.2	5.1	4.1	5.1	3.5	.7	6.1	4.2	6.1	3.3	2.0
1967	4.4	3.3	4.6	2.3	1.4	4.9	3.8	5.0	3.4	.8	5.6	3.7	6.0	2.9	2.3

1/ Per hundred employees.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Table 4.--Employment in Textiles, by Region and State, March 1968 1/

State	Employment	Percent of total
Total	991,876	100.0
Northeast	261,414	26.4
Maine	12,689	1.3
Massachusetts	36,192	3.6
Rhode Island	22,614	2.3
Connecticut	13,834	1.4
New York	59,674	6.0
New Jersey	30,003	3.0
Pennsylvania	69,521	7.0
All other	16,887	1.7
North Central	31,941	3.2
Ohio	10,918	1.1
All other	21,023	2.1
South	686,216	69.2
Virginia	41,501	4.2
North Carolina	275,598	27.8
South Carolina	148,415	15.0
Georgia	116,026	11.7
Tennessee	32,857	3.3
Alabama	41,986	4.2
All other	29,833	3.0
West	12,305	1.2
California	8,933	.9
All other	3,372	.3

1/ Employment covered by unemployment insurance (excludes mainly self-employed workers).

Source: U.S. Department of Labor, Bureau of Employment Security.

Table 5.--Employment in Apparel, by Region and State, March 1968[1/]

State	Employment	Percent distribution
Total	1,442,330	100.0
Northeast	669,793	46.4
Massachusetts	55,496	3.8
Connecticut	15,606	1.1
New York	288,797	20.0
New Jersey	79,694	5.5
Pennsylvania	182,015	12.6
All other	48,185	3.3
North Central	154,595	10.7
Ohio	19,181	1.3
Illinois	39,057	2.7
Michigan	21,766	1.5
Missouri	33,920	2.4
All other	40,671	2.8
South	524,496	36.4
Maryland	24,813	1.7
Virginia	35,062	2.4
North Carolina	68,471	4.7
South Carolina	40,370	2.8
Georgia	67,375	4.7
Kentucky	28,914	2.0
Tennessee	67,030	4.6
Alabama	42,594	3.0
Mississippi	37,785	2.6
Texas	52,661	3.7
All other	59,421	4.1
West	93,446	6.5
California	72,162	5.0
All other	21,284	1.5

1/ Employment covered by unemployment insurance (excludes mainly self-employed workers).

Source: U.S. Department of Labor, Bureau of Employment Security.

Table 6.--Percent Distribution of Employment in Manufacturing, Textiles and Apparel, by Area, First Quarter 1967[1/]

Area	Manufacturing	Textiles	Apparel
Percent[2/]	100	100	100
Metropolitan area	79	39	65
Nonmetropolitan area ...	21	61	35

1/ Employment covered by old-age, survivors, and disability insurance (excludes mainly self-employed workers).

2/ Percents are rounded to nearest whole number.

Source: U.S. Department of Commerce, Bureau of the Census.

Table 7.--Percent Distribution of Employment in Textiles in Selected States, by Area, First Quarter 1967[1/]

State[2/]	Total	Metropolitan area	Nonmetropolitan area
New England			
Massachusetts	100	98	2
Middle Atlantic			
New York	100	91	9
New Jersey	100	92	8
Pennsylvania	100	71	29
South			
Alabama	100	10	90
Georgia	100	30	70
North Carolina	100	14	86
South Carolina	100	23	77
Tennessee	100	69	31
Virginia	100	9	91

1/ Employment covered by old-age, survivors, and disability insurance (excludes mainly self-employed workers).

2/ The selected States accounted for about 84 percent of employment in textile mills in 1967. (Percents are rounded to nearest whole number).

Source: U.S. Department of Commerce, Bureau of the Census.

Table 8.--Percent Distribution of Employment in Apparel in Selected States, by Area, First Quarter 1967 1/

State 2/	Total	Metropolitan area	Non-metropolitan area
New England			
Massachusetts	100	100	0
Middle Atlantic			
New York	100	96	4
New Jersey	100	85	15
Pennsylvania	100	76	24
North Central			
Illinois	100	72	28
Missouri	100	59	41
South			
Alabama	100	11	89
Georgia	100	18	82
Mississippi	100	2	98
North Carolina	100	24	76
South Carolina	100	35	65
Tennessee	100	16	84
Texas	100	74	26
Virginia	100	30	70
Pacific			
California	100	97	3

1/ Employment covered by old-age, survivors, and disability insurance (excludes mainly self-employed workers).

2/ The selected States accounted for about 83 percent of employment in the apparel industry in 1967. (Percents are rounded to nearest whole number).

Source: U.S. Department of Commerce, Bureau of the Census.

Table 9 --Employment in Textiles and Apparel, as Percent of Manufacturing Employment, by Selected States and Areas, First Quarter 1967 1/

States and areas	Total	Textiles	Apparel
United States	12.0	4.8	7.2
Massachusetts	12.5	4.7	7.8
Metropolitan areas	12.6	4.7	7.9
Boston, Lowell, Lawrence	9.4	3.2	6.2
Brockton	10.1	2.2	7.9
Fall River-New Bedford	35.4	9.7	25.7
Worcester	11.4	6.9	4.5
Non-metropolitan areas	9.4	8.6	.7
New York	18.4	2.9	15.5
Metropolitan areas	19.9	3.0	16.9
Albany-Schenectady-Troy	15.0	6.9	8.1
New York	27.3	3.7	23.6
Non-metropolitan areas	7.4	2.0	5.4
New Jersey	11.9	3.1	8.8
Metropolitan areas	12.5	3.5	9.0
Allentown-Beth.-Easton, Pa.-N.J. 2/	10.7	8.0	2.7
Atlantic City	39.9	0.0	39.9
Jersey City	21.1	3.9	17.2
Paterson-Clifton-Passaic	16.3	7.6	8.7
Non-metropolitan areas	9.7	1.5	8.2
Pennsylvania	15.7	4.2	11.5
Metropolitan areas	14.4	3.7	10.7
Allentown-Beth.-Easton, N.Y., Pa. 2/	27.3	5.5	21.8
Altoona	16.5	9.2	7.3
Binghamton, N.Y.-Pa. 2/	21.1	0.0	21.1
Harrisburg	16.3	3.9	12.4
Johnstown	20.0	0.0	20.0
Lancaster	14.6	3.4	11.2
Philadelphia, Pa.-N.J. 2/	14.9	4.1	10.8
Reading	25.9	16.7	9.2
Scranton	39.3	7.1	32.2
Wilkes-Barre-Hazleton	44.7	6.5	38.2
York	12.3	2.1	10.2
Non-metropolitan areas	21.5	6.5	15.0

Table 9 --Employment in Textiles and Apparel, as Percent of Manufacturing Employment, by Selected States and Areas, First Quarter 1967 1/ (continued)

States and areas	Total	Textiles	Apparel
Missouri 3/			7.7
Metropolitan areas			5.6
Non-metropolitan areas			16.5
Virginia	20.9	11.5	9.4
Metropolitan areas	9.0	2.4	6.6
Lynchburg	17.2	8.5	8.7
Roanoke	23.2	8.8	14.4
Non-metropolitan areas	29.9	18.3	11.6
North Carolina	49.8	39.6	10.2
Metropolitan areas	24.4	16.8	7.6
Asheville	26.7	15.6	11.1
Charlotte	26.4	19.6	6.8
Durham	25.1	21.2	4.0
Fayetteville	53.4	30.8	22.6
Greensboro-High Point	21.4	15.7	5.7
Raleigh	18.4	10.7	7.7
Wilmington	34.9	12.7	22.2
Non-metropolitan areas	62.1	50.7	11.4
South Carolina	58.3	45.6	12.7
Metropolitan areas	46.5	32.7	13.8
Augusta, Ga.-S.C. 2/	46.3	40.9	5.4
Charleston	22.5	8.8	13.7
Columbia	18.5	6.5	12.3
Greenville	61.1	44.3	16.8
Non-metropolitan areas	64.0	51.8	12.2
Georgia	40.4	25.0	15.4
Metropolitan areas	22.8	16.9	5.9
Albany	41.1	38.2	2.9
Atlanta	13.5	6.3	7.2
Augusta, Ga.-S.C. 2/	31.6	28.8	2.8
Chattanooga, Tenn.-Ga.	90.1	83.5	6.6
Columbus, Ga.-Ala. 2/	62.0	58.2	3.8
Macon	24.1	18.1	6.0
Savannah	2.3	0.0	2.3
Non-metropolitan areas	54.9	32.4	22.5

Table 9 --Employment in Textiles and Apparel, as Percent of Manufacturing Employment, by Selected States and Areas, First Quarter 1967 1/ (continued)

States and areas	Total	Textiles	Apparel
Tennessee	23.3	7.1	16.2
Metropolitan areas	14.9	9.8	5.1
Chattanooga, Tenn.-Ga. 2/	14.0	12.0	2.0
Knoxville	24.3	21.7	2.6
Nashville	14.8	5.5	9.3
Non-metropolitan areas	31.8	4.4	27.1
Alabama	27.0	13.6	13.4
Metropolitan areas	5.9	2.9	3.0
Columbus, Ga.-Ala. 2/	12.8	0.0	12.8
Montgomery	12.3	7.9	4.4
Non-metropolitan areas	46.4	23.4	23.0
Mississippi 3/			21.9
Metropolitan areas			4.8
Non-metropolitan areas			23.7
Texas 3/			8.2
Metropolitan areas			7.4
Abiline			9.4
Brownsville-Harlingen-San Benito			21.5
El Paso			56.6
Laredo			23.8
McAllen-Edinburg			10.8
San Antonio			15.4
Wichita Falls			14.1
Non-metropolitan areas			11.5
California 3/			4.4
Metropolitan areas			4.5
Non-metropolitan areas			3.3

1/ Employment covered by old-age, survivors, and disability insurance (excludes mainly self-employed workers).

2/ For metropolitan areas falling in two or more States, an attempt was made to distinguish employment for each State involved.

3/ Textile employment in Missouri, Mississippi, Texas, and California was relatively insignificant in 1967.

Source: U.S. Department of Commerce, Bureau of the Census.

Table 10.--Percent Distribution of Employees, by Employment-Size Class, by Selected Industry, First Quarter 1967 1/

Employment-size of establishments	Manufacturing	Textiles	Apparel
1 to 19	6.2	2.3	6.4
20 to 49	8.2	5.0	14.0
50 to 99	9.3	7.4	17.4
100 to 249	16.0	18.2	26.0
250 to 499	14.3	22.4	19.3
500 or more	46.0	44.9	16.9

1/ Employment covered by old-age, survivors, and disability insurance (excludes mainly self-employed workers).

Source: U.S. Department of Commerce, Bureau of the Census.

Table 11.--Percent Distribution of Establishments, by Employment Size-Class, by Selected Industry, First Quarter 1967 and 1962 1/

Employment-size of Establishments	Manufacturing		Textiles		Apparel	
	1967	1962	1967	1962	1967	1962
1 to 19	62.9	65.7	37.2	40.1	49.1	51.8
20 to 49	17.0	16.5	19.9	19.5	23.9	24.1
50 to 99	8.7	7.9	13.6	13.5	13.7	12.9
100 to 249	6.7	6.0	14.9	14.4	9.1	8.1
250 to 499	2.7	2.3	8.3	7.4	3.1	2.3
500 or more	2.1	1.7	6.1	5.2	1.1	0.7

1/ Employment covered by old-age, survivors, and disability insurance (excludes mainly self-employed workers).
Source: U.S. Department of Commerce, Bureau of the Census.

Table 12.--Percent Distribution of Employed Workers in Manufacturing, Textiles, and Apparel, by Broad Occupational Group, 1968

Occupational group	Manufacturing	Textiles	Apparel
Total	100.0	100.0	100.0
Professional, technical and kindred workers	9.6	2.7	1.0
Managers, officials, and proprietors	6.2	3.0	3.9
Clerical and kindred workers	12.5	8.0	7.6
Sales workers	2.4	.9	1.6
Craftsmen, foremen and kindred workers	18.9	12.1	5.2
Operatives and kindred workers	43.7	67.3	78.3
Service workers	1.5	1.7	1.0
Laborers, except farm	5.2	4.2	1.4

Source: U.S. Department of Labor, Bureau of Labor Statistics (unpublished).

Table 13. --Percent Distribution of Years of School Completed by the Experienced Civilian Labor Force in Manufacturing, Textiles, and Apparel, 1960

Years of school completed	Manufacturing	Textiles	Apparel
Total	100.0	100.0	100.0
Elementary			
Less than 5	4.7	9.4	7.4
5 to 7	12.8	25.1	17.2
8	16.8	16.8	21.8
High school			
1 to 3	24.1	24.0	26.1
4	27.7	18.9	22.0
College			
1 to 3	8.0	3.5	3.9
4	4.2	1.8	1.3
5 or more	1.7	0.4	0.4

Source: U.S. Department of Commerce, Bureau of the Census.

Table 14 --Percentage Distribution of Nonwhite Employment in Manufacturing, Textiles and Apparel, by Sex, 1962 to 1968

Year	Manufacturing			Textiles			Apparel		
	Total	Men	Women	Total	Men	Women	Total	Men	Women
1962	7.4	5.9	1.6	4.8	3.7	1.1	9.3	2.8	6.5
1963	7.3	5.8	1.5	4.9	3.5	1.4	9.4	2.2	7.1
1964	7.5	5.8	1.7	5.5	3.8	1.6	9.1	2.0	7.1
1965	8.2	6.4	1.8	6.3	4.4	1.9	9.7	2.6	7.1
1966	8.6	6.7	1.9	8.0	5.6	2.3	11.1	2.3	8.9
1967	9.3	7.0	2.3	8.7	5.8	2.9	12.4	2.6	9.8
1968	9.7	7.1	2.6	9.5	6.0	3.6	12.7	2.6	10.2

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Table 15. --Percent Employment of Negroes in the Textile Industry, by Selected States, 1966 1/

State	Total	Metropolitan area	Non-metropolitan area
Total	8	10	7
New England			
Massachusetts	2	2	2/
Middle Atlantic			
New York	5	7	2
New Jersey	13	13	13
South			
Alabama	8	10	7
Georgia	10	15	7
North Carolina	8	11	8
South Carolina	9	11	9
Tennessee	5	7	2
Virginia	10	14	9

1/ The selected States accounted for about 80 percent of employment in textile mills in 1966. (Percents are rounded to nearest whole number.)

2/ Less than 1 percent.

Source: Equal Employment Opportunity Commission (EEOC)

Table 16. --Percent Employment of Negroes in the Apparel Industry, by Selected States, 1966 1/

State	Total	Metropolitan area	Non-metropolitan area
Total.....	9	12	6
New England			
Massachusetts.....	6	6	2/
Middle Atlantic			
New York.....	10	11	4
New Jersey.....	14	15	10
Pennsylvania.....	11	11	2/
North Central			
Illinois.....	12	16	3
Missouri.....	7	13	1
South			
Alabama.....	6	13	5
Georgia.....	9	13	8
Mississippi.....	6	21	6
North Carolina.....	9	13	8
South Carolina.....	16	16	16
Tennessee.....	4	7	3
Texas.....	7	7	6
Virginia.....	14	23	9
Pacific			
California.....	11	11	3

1/ The selected States accounted for about 80 percent of employment in the apparel industry in 1966. (Percents are rounded to nearest whole number.)

2/ Less than 1 percent.

Source: Equal Employment Opportunity Commission (EEOC)

Table 17. --Employment of Women in Manufacturing and in Textile and Apparel Industries, 1960 and 1967[1/]

SIC	Industry	1967			1960		
		Number (000)		Percent distribution	Number (000)		Percent distribution
		Total	Women		Total	Women	
D	Manufacturing	19,434.0	5,348.0	27.5	16,796.0	4,372.0	26.0
22	Textile mill products	956.9	427.7	44.7	924.4	401.5	43.4
221	Weaving mills, cotton broad woven fabrics	236.2	92.7	39.2	254.0	98.3	38.7
222	Weaving mills, synthetics	101.1	36.1	35.7	84.4	28.8	34.1
223	Weaving and finishing mills, wool	43.4	15.7	36.2	55.6	18.8	33.8
224	Narrow fabric mills	30.5	17.4	57.0	27.6	14.7	53.3
225	Knitting mills	229.7	157.3	68.5	215.4	148.9	69.1
226	Textile finishing, except wool	78.5	19.6	25.0	77.0	16.5	21.4
227	Floor covering mills	45.9	15.0	32.7	37.6	11.8	31.4
228	Yarn and thread mills	114.4	52.0	45.5	102.5	44.7	43.6
229	Miscellaneous textile goods	77.2	21.9	28.4	70.2	18.9	26.9
23	Apparel and other textile products	1,400.4	1,118.5	79.9	1,233.2	962.2	78.0
231	Men's and boy's suits and coats	128.2	90.9	70.9	119.6	80.8	67.6
232	Men's and boy's furnishings	368.9	311.9	84.5	303.8	257.1	84.6
233	Women's and misses' outerwear	421.8	351.3	83.3	371.2	301.0	81.1
234	Women's and children's undergarments	125.1	108.7	86.9	117.7	101.9	86.6
235	Hats, caps, and millinery	25.2	16.8	66.7	34.6	21.9	63.3
236	Children's outerwear	78.1	66.8	85.5	76.7	64.7	84.4
237-8	Fur goods and miscellaneous apparel	81.4	59.4	73.0	69.9	49.2	70.4
239	Miscellaneous fabricated textile products	171.7	112.6	65.6	139.9	85.6	61.2

1/ Private wage and salary workers.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Table 18. --Percent Distribution of Employed Persons in Manufacturing, Textiles and Apparel, by Age, 1960 and 1950

Age	Manufacturing	Textiles	Apparel
	1960		
14 to 17	1.8	1.0	1.5
18 to 24	12.3	12.9	12.7
25 to 34	23.7	21.3	19.4
35 to 44	26.7	25.8	25.5
45 to 59	28.4	32.3	31.7
60 +	7.0	6.5	9.1
	1950		
14 to 17	1.4	1.0	1.5
18 to 24	15.6	16.7	18.0
25 to 34	27.3	26.0	23.7
35 to 44	24.7	26.5	23.9
45 to 59	23.4	23.0	25.2
60 +	7.5	6.9	7.8
	Differential 1950 to 1960		
14 to 17	0.4	--	--
18 to 24	-3.3	-3.8	-5.3
25 to 34	-3.6	-4.7	-4.3
35 to 44	2.0	-0.7	1.6
45 to 59	5.0	9.3	6.5
60 +	-0.5	-0.4	1.3

Source: U.S. Department of Commerce, Bureau of the Census.

Table 19--Changes in Average Hourly and Weekly Earnings and Average Weekly Hours of Production Workers in Textile Manufacturing, October 1958 to October 1968

Industry	SIC	Gross average hourly earnings			Gross average weekly earnings			Average weekly hours			Average hourly earnings excluding premium pay for overtime work		
		Oct. 1958	Oct. 1968	Percent change	Oct. 1958	Oct. 1968	Percent change	Oct. 1958	Oct. 1968	Percent change	Oct. 1958	Oct. 1968	Percent change
All manufacturing	19-39	$2.11	$3.06	45.0	$83.77	$125.77	50.1	39.7	41.1	3.5	$2.05	$2.92	42.4
All textiles	22	1.51	2.27	50.3	60.55	94.21	55.6	40.1	41.5	3.5	1.46	2.16	47.9
Broad woven cotton fabrics	221	1.43	2.26	58.0	57.63	93.79	62.7	40.3	41.5	3.0	1.38	2.15	55.8
Broad woven silk and synthetic fabrics	222	1.52	2.33	53.3	61.56	101.36	64.7	40.5	43.5	7.4	1.47	2.18	48.3
Weaving and finishing broad woolens	223	1.60	2.34	46.3	66.56	99.45	49.4	41.6	42.5	2.2	1.53	2.22	45.1
Narrow fabrics and smallwares	224	1.57	2.25	43.3	62.02	91.35	47.3	39.5	40.6	2.8	1.52	2.16	42.1
Knitting	225	1.47	2.18	48.3	57.48	86.33	50.2	39.1	39.6	1.3	1.43	2.10	46.9
Women's full and knee length hosiery	2251	1.55	2.19	41.3	61.07	86.72	42.0	39.4	39.6	0.5	1.52	2.14	40.8
All other hosiery	2252	1.27	2.01	58.3	47.88	75.98	58.7	37.7	37.8	0.3	1.25	1.98	58.4
Knit outerwear	2253	1.55	2.28	47.1	60.30	88.92	47.5	38.9	39.0	0.3	1.52	2.23	46.7
Knit underwear	2254	1.41	2.04	44.7	55.98	81.40	45.4	39.7	39.9	0.5	1.38	1.99	44.2
Finishing textiles, except wool and knit	226	1.67	2.41	44.3	70.14	101.46	44.7	42.0	42.1	0.2	1.60	2.28	42.5
Floor covering	227	1.70	2.31	35.9	71.57	100.25	40.1	42.1	43.4	3.1	1.64	2.17	32.3
Yarn and thread	228	1.41	2.12	50.4	55.13	87.77	59.2	39.1	41.4	5.9	1.37	2.02	47.4
Miscellaneous textile goods	229	1.71	2.49	45.6	69.26	106.82	54.2	40.5	42.9	5.9	1.65	2.35	42.4

Source: U.S. Department of Labor, Bureau of Labor Statistics

Table 20--Annual Earnings 1/ of Workers in the Textile Industry and Selected Branches, 1964 2/

Item	Textile mill products	Broadwoven fabric mills, cotton	Knitting mills
Number of workers (in thousands):			
Total	1,067.3	263	289.6
4 quarters	790.0	211	190.7
Annual earnings, 1/ United States:			
Mean	$4,295	$4,349	$3,722
Median	3,719	3,845	3,099
Middle range	2,973-4,755	3,256-4,681	2,481-4,146
Mean annual earnings 1/ in the:			
Southeast	$4,060	$4,364	$3,367
Southwest	3,782	3,733	3,637

1/ Includes all production and nonproduction workers employed in the industry in each of the 4 calendar quarters.

2/ Most current information from this source.

Source: Bureau of Labor Statistics, Division of Trends in Employee Compensation, from the Social Security Administration's 1-percent Continuous Work History Sample.

Table 21--Estimated Proportions of Production Workers Earning Less Than $2.00 an Hour in Selected Textile Industries, United States and Southeast, October 1968

Industry and region	SIC	No. of production workers (000's)	Date of most recent survey	Straight-time average hourly earnings as of date of survey--		Estimated general wage change since survey	Estimated current 1/ straight-time average hourly earnings--	
				All production workers	Percent earning less than -- $2.00		All production workers	Percent earning less than -- $2.00
Cotton:								
United States	2211; parts of 2281, 2282, 2284	2/201.2	Sept. 1968	$2.06	50.8	-	$2.06	50.8
Southeast		189.8	-	2.06	50.6	-	2.06	50.6
Synthetic:								
United States	2221; parts of 2281, 2282, 2284	3/139.0	Sept. 1968	2.06	54.7	-	2.06	54.7
Southeast		113.0	-	2.05	56.1	-	2.05	56.1
Wool:								
United States	Part of 2231; 2283	41.8	Nov. 1966	1.90	69.2	8.4%	2.06-2.12	44.7-52.0
Southeast		18.4	-	1.82	79.4	10.0	2.00	59.0
Women's Hosiery:								
United States	2251	44.5	Sept. 1967	1.89	66.5	9.7	2.07-2.11	49.0-51.9
Southeast		38.4	-	1.89	66.6	10.1	2.08-2.11	48.4-51.5
Men's Hosiery:								
United States	Part of 2252	20.1	Sept. 1967	1.71	81.9	11.4	1.90-1.94	66.0-69.6
Southeast		16.2	-	1.69	83.5	11.4	1.88-1.92	68.3-71.8
Children's Hosiery:								
United States	Part of 2252	15.3	Sept. 1967	1.66	87.2	11.4	1.85-1.89	71.4-75.0
Southeast		14.8	-	1.66	87.0	11.4	1.85-1.89	71.2-74.8
Textile dyeing and finishing:								
United States	226	54.8	Winter 1965-66	1.96	62.7	11.7	2.19-2.28	28.7-37.5
Southeast		31.7		1.83	79.8	12.4	2.06-2.13	39.0-49.4

1/ October 1968. Where general wage changes and changes in gross earnings differ substantially, two estimates of current earnings are presented; one computed by adjusting earnings as of the date of the survey by general wage changes, and the second by adjusting these earnings by the percent change in gross earnings.

2/ Excludes 19,564 workers in bleaching, cloth dyeing and finishing, and fabricating departments.

3/ Excludes 6,593 workers in bleaching, cloth dyeing and finishing, and fabricating departments.

Source: U.S. Department of Labor, Bureau of Labor Statistics

Table 22--Paid Holiday Provisions for Production Workers in Selected Textile Industries, United States and Selected Regions

Industry and selected regions	Date of most recent survey	Percent of workers covered by provisions for--										
		1 holiday	2 holidays	3 holidays	4 holidays	5 holidays	6 to 6½ holidays	7 to 7½ holidays	8 to 8½ holidays	9 holidays	Over 9 holidays	No holidays
TEXTILES												
Cotton and man-made:												
United States	Sept. 1968	4	17	15	31	6	7	2	1	1/	1/	15
Southeast		5	19	16	35	7	3	1/	-	-	-	16
Southwest		-	11	31	23	-	-	-	-	-	-	35
Wool:												
United States	Nov. 1966	3	22	2	3	8	34	10	7	1	-	11
Southeast		6	49	4	4	12	10	2	1	-	-	13
Women's hosiery:												
United States	Sept. 1967	5	18	12	2	16	1	4	-	-	-	43
Southeast		4	21	13	1/	16	-	1/	-	-	-	46
Men's hosiery:												
United States	Sept. 1967	-	14	5	1	7	4	6	-	-	-	62
Southeast		-	18	6	2	1	-	-	-	-	-	73
Children's hosiery:												
United States	Sept. 1967	7	4	9	4	-	1/	-	-	-	-	76
Southeast		7	4	9	4	-	-	-	-	-	-	76
Textile dyeing and finishing:												
United States	Winter 1965-66	8	8	16	7	3	9	13	9	14	1	11
Southeast		14	14	28	12	5	9	1	-	-	-	17

1/ Less than 0.5 percent.

Source: U.S. Department of Labor, Bureau of Labor Statistics

Table 23--Vacation Benefits in Selected Textile Industries, United States and Selected Regions

Industry and selected regions	Date of survey	Percent of workers receiving--				
		Paid vacations 1/	1 week or more vacation after 1 year's service	2 weeks or more after 1 year's service	2 weeks after 5 years' service	3 weeks after 15 years' service
TEXTILES						
Cotton and man-made fibers:						
United States	September 1968	96	95	3	74	7
Southeast		96	95	3	73	5
Southwest		87	80	-	76	-
Wool:						
United States	November 1966	97	93	6	76	18
Southeast		98	94	10	85	4
Women's hosiery:						
United States	September 1967	86	85	11	60	17
Southeast		85	85	13	61	16
Men's hosiery:						
United States	September 1967	70	61	1	45	10
Southeast		64	56	-	43	8
Children's hosiery:						
United States	September 1967	70	64	4	31	-
Southeast		69	63	4	30	-
Textile dyeing and finishing:						
United States	Winter 1965-66	96	96	4	86	22
Southeast		93	93	1	85	7

1/ Vacation payments such as percent of annual earnings and flat-sum amounts were converted to an equivalent time basis.

Source: U.S. Department of Labor, Bureau of Labor Statistics

Table 24--Health and Welfare Benefits for Production Workers in Selected Textile Industries, United States and Selected Regions

Industry and region	Date and scope of survey (SIC code)	Percent of workers covered by provisions paid for wholly or in part by employers--						
		Life insurance	Accidental death and dismemberment	Sickness and accident benefits (including paid sick leave)	Hospital benefits	Surgical benefits	Medical benefits	Pension plan
Cotton and man-made fibers:								
United States	September 1968 2211; parts of 2281; 2282; 2284	96	62	62	97	97	64	68
Southeast		97	63	61	97	97	63	72
Southwest		97	21	80	97	97	51	65
Wool:								
United States	November 1966 2231; 2283	91	60	74	95	94	62	40
Southeast		99	44	82	99	98	46	59
Women's hosiery:								
United States	September 1967 2251	88	70	41	91	92	61	28
Southeast		92	73	42	93	94	60	31
Men's hosiery:								
United States	September 1967 Part of 2252	76	51	32	69	68	32	21
Southeast		78	54	27	66	66	27	22
Children's hosiery:								
United States	September 1967 Part of 2252	74	51	28	80	80	39	-
Textile dyeing and finishing:								
United States	Winter 1965-66 226	93	52	70	98	98	50	57
Southeast		93	57	67	99	99	24	58

Source: U.S. Department of Labor, Bureau of Labor Statistics

Table 25--General Wage Increases, Cotton and Synthetic Textile Industries, North and South, 1950-68

Year	South		North	
	Period	Amount	Period	Amount
1968	Summer	Est. approx. 6%	April	3.5% (avg. approx. 7¢)
1967	September	Est. approx. 6%	April	3.1% (avg. approx. 6¢)
1966	Summer	Approx. 4½%-5%	April	10¢
1965	Summer	5%	April	5% (avg. approx. 8½¢)
1964	September	5%	April	5%
1963	November	5%		
1962	February	Est. approx. 5¢	April	3½%
1960	February	Approx. 5¢	April	5%
1959	February	Upward adjustment (est. approx. 10¢)	April	7%
1958			April	None
1957			April	None
1956	October	Avg. 10¢	April	6½%
1955	August	Avg. 5¢	April	None
1954			April	None
1953			April	None
1952			July	Avg. 8½¢ decrease Arbitrator's decision
1951	April	2%	March	6½% increase
1950	Fall	Approx. 8%	Sept.	10% (avg. 12½¢)
Total increase from--				
October 1958-October 1968		Approx. 78¢ or 56%		Approx. 64¢ or 43%
January 1950-October 1968		Approx. $1.04 or 92%		Approx. 83¢ or 64½%

Source: U.S. Department of Labor, Bureau of Labor Statistics

Table 26--Annual Earnings of Textile Workers, 1/ 1946-64 2/

Year	Median annual earnings
1946	$1,670
1947	2,030
1948	2,250
1949	2,140
1950	2,390
1951	2,450
1952	2,530
1953	2,580
1954	2,470
1955	2,730
1956	NA
1957	2,830
1958	2,810
1959	3,110
1960	NA
1961	3,180
1962	3,360
1963	3,430
1964	3,716
Percent increase:	
1946-64	122.5
1954-64	50.6
1959-64	19.6

1/ Includes all production and nonproduction workers employed in any industry in each of the 4 calendar quarters who had some employment in the textile industry during one or more quarters of the year.

2/ Most current information from this source.

Source: Bureau of Labor Statistics, Division of Trends in Employee Compensation, from the Social Security Administration's 1-percent Continuous Work History Sample.

Table 27--Proportion of Workers Covered by Union Agreements in Selected Textile Industries, United States and Selected Regions

Industry and region 1/	Scope of survey (SIC code)	Date of survey	Major Unions	Number of production workers in industry	Percent of workers covered by union agreements
TEXTILES					
Cotton:					
United States	2211; parts of 2281, 2282, 2284	Sept. 1968	Textile Workers Union of America -United Textile Workers of America	2/ 220,784	3/ 17
Southeast				189,808	3/ 14
Southwest				5,255	3/ 31
Synthetic:					
United States	2221; parts of 2281, 2282, 2284	Sept. 1968	Textile Workers Union of America	4/ 145,573	3/ 13
Southeast				113,264	3/ 1
Wool:					
United States	Parts of 2231; 2283	Nov. 1966	United Textile Workers of America Textile Workers Union of America	41,765	32
Southeast				18,409	9
Women's hosiery:					
United States	2251	Sept. 1967	Textile Workers Union of America	44,545	5
Southeast				38,428	4
Men's hosiery:					
United States	Part of 2252	Sept. 1967	Textile Workers Union of America	20,078	9
Southeast				16,238	2
Children's hosiery:					
United States	Part of 2252	Sept. 1967	Textile Workers Union of America	15,255	5
Southeast				14,755	5
Textile dyeing and finishing:					
United States	226	Winter 1965-66	Textile Workers Union of America	54,774	45
Southeast				31,651	26

1/ The regions include: Southeast - Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia; and Southwest - Arkansas, Louisiana, Oklahoma, and Texas.

2/ Includes 19,564 workers in bleaching, cloth dyeing and finishing, and fabricating departments.

3/ 1968 data on union coverage were not available when this table was prepared; figures are for September 1965--the date of the latest survey from which such data are available. Information indicates no substantial change in unionization since 1965.

4/ Includes 6,593 workers in bleaching, cloth dyeing and finishing, and fabricating departments.

Source: U.S. Department of Labor, Bureau of Labor Statistics

Table 28-- Membership of the Major Unions in the Textile and Apparel Industries, 1956, 1960, 1964 and 1966[1/]

Union [2/]	Total union membership				Estimated membership in the industries [3/]	
	1956	1960	1964	1966	1964	1966
Totals	1,232,982	1,138,262	1,109,978	1,126,945		
Amalgamated Clothing Workers of America	385,000	377,000	377,000	382,000	301,600	305,600
United Garment Workers of America	40,000	35,000	26,000	27,000	NA	27,000
International Ladies' Garment Workers' Union	450,802	446,554	442,318	455,164	434,072	448,000
United Hatters, Cap and Millinery Workers International Union	40,000	40,000	40,000	30,000	40,000	30,000
Amalgamated Lace Operatives of America	3,500	975	2,050	2,225	2,050	2,225
Machine Printers and Engravers Association of the United States	980	1,400	1,400	1,300	NA	1,300
Textile Foremen's Guild, Inc. [4/]			210	215	210	215
United Textile Workers of America	100,000	40,000	44,000	47,041	44,000	47,041
Textile Workers Union of America	202,700	192,000	177,000	182,000	168,150	172,900
American Federation of Hosiery Workers [5/]	10,000	5,333				

1/ Unions with a majority of their membership in these industries. From the biennial survey of union membership. Division of Industrial and Labor Relations, Bureau of Labor Statistics, U.S. Department of Labor.

2/ List omits plant unions.

3/ Data are computed from union percentage estimates of members in the industries. Such estimates were not available for 1956 and 1960.

4/ The Textile Foremen's Guild first became a National Union in 1962.

5/ The American Federation of Hosiery Workers merged with the Textile Workers Union of America on April 15, 1965.

Source: U.S. Department of Labor, Bureau of Labor Statistics

Table 29-- Work Stoppages in the United States, All Industries and Textiles, 1956-67

Year	All industries					Textile industries				
	Stoppages		Man-days idle during year			Stoppages		Man-days idle during year		
	Number	Workers involved	Number	Percent of estimated total private nonfarm working time	Per worker involved	Number	Workers involved	Number	Percent of estimated total working time	Per worker involved
1956	3,825	1,900,000	33,100,000	.29	17.4	70	18,200	426,000	.16	23.4
1957	3,673	1,390,000	16,500,000	.14	11.4	47	14,000	212,000	.08	15.1
1958	3,694	2,060,000	23,900,000	.22	11.6	51	6,370	111,000	.05	17.4
1959	3,708	1,880,000	69,000,000	.61	36.7	70	23,500	229,000	.09	9.7
1960	3,333	1,320,000	19,100,000	.17	14.5	30	4,770	34,000	.01	7.1
1961	3,367	1,450,000	16,300,000	.12	11.2	35	5,970	39,100	.02	6.5
1962	3,614	1,230,000	18,600,000	.16	15.0	50	6,990	99,900	.04	14.2
1963	3,362	941,000	16,100,000	.13	17.1	36	13,000	193,000	.09	14.8
1964	3,655	1,640,000	22,900,000	.18	14.0	37	8,440	124,000	.05	14.6
1965	3,963	1,550,000	23,300,000	.18	15.1	44	21,300	174,000	.07	8.1
1966	4,405	1,960,000	25,400,000	.18	12.9	56	25,700	195,000	.08	7.5
1967	4,595	2,870,000	42,100,000	.30	14.7	54	15,900	328,000	.14	20.6

Source: U.S. Department of Labor, Bureau of Labor Statistics

Table 30-- Changes in Average Hourly and Weekly Earnings and Average Weekly Hours of Production Workers in Apparel Manufacturing, October 1958 1/ to October 1968

Industry	SIC	Gross average hourly earnings			Gross average weekly earnings			Average weekly hours			Average hourly earnings excluding premium pay for overtime work		
		Oct. 1958	Oct. 1968	Percent change	Oct. 1958	Oct. 1968	Percent change	Oct. 1958	Oct. 1968	Percent change	Oct. 1958	Oct. 1968	Percent change
All manufacturing	19-39	$2.11	$3.06	45.0	$83.77	$125.77	50.1	39.7	41.1	3.5	$2.05	$2.92	42.4
All apparel	23	1.56	2.27	45.5	55.85	82.63	47.9	35.8	36.4	1.7	1.53	2.22	45.1
Men's and boys' coats and suits	231	1.75	2.68	53.1	60.90	103.18	69.4	34.8	38.5	10.6	1.74	2.61	50.0
Men's and boys' furnishings	232	1.30	1.95	50.0	42.84	71.96	68.0	36.8	36.9	0.3	1.28	1.92	50.0
Men's and boys' shirts and nightwear	2321	1.29	1.92	48.8	48.63	69.89	43.7	37.7	36.4	-3.4	1.22	1.90	55.7
Men's and boys' separate trousers	2327	1.31	1.94	48.1	46.90	72.36	54.3	35.8	37.3	4.2	1.27	1.91	50.4
Work clothing	2328	1.24	1.92	54.8	45.26	70.66	56.1	36.5	36.8	0.8	1.19	1.90	59.7
Women's, misses', and juniors' outerwear	233	1.76	2.45	39.2	58.43	83.30	42.6	33.2	34.0	2.4	1.73	2.41	39.3
Women's blouses, waists, and shirts	2331	1.45	2.09	44.1	49.74	71.90	44.6	34.3	34.4	0.3	1.45	2.04	40.7
Women's, misses', and juniors' dresses	2335	1.72	2.55	48.3	56.07	84.66	51.0	32.6	33.2	1.8	1.70	2.51	47.6
Women's suits, skirts, and coats	2337	2.17	2.78	28.1	70.96	95.08	34.0	32.7	34.2	4.6	2.14	2.72	27.1
Women's and misses' outerwear, not elsewhere classified	2339	1.42	2.08	46.5	51.12	74.05	44.9	36.0	35.6	-1.1	1.37	2.01	46.7
Women's and childrens' undergarments	234	1.43	2.06	44.1	53.77	76.43	42.1	37.6	37.1	-1.3	1.40	2.02	44.3
Women's and childrens' underwear	2341	1.39	2.01	44.6	52.96	75.17	41.9	38.1	37.4	-1.8	1.31	1.91	45.8
Corsets and allied garments	2342	1.51	2.16	43.0	55.12	79.06	43.4	36.5	36.6	0.3	1.45	2.07	42.8
Hats, caps, and millinery	235	1.75	2.12	21.1	61.25	75.26	22.9	35.0	35.5	1.4	1.70	2.08	22.4
Girls' and childrens' outerwear	236	1.42	2.07	45.8	51.69	74.93	45.0	36.4	36.2	-0.5	1.40	2.03	45.0
Childrens' dresses, blouses, and shirts	2361	1.40	2.04	45.7	49.42	72.62	46.9	35.3	35.6	0.8	1.36	1.97	44.9
Fur goods and miscellaneous apparel	237,8	1.74	2.38	36.8	64.90	87.58	34.9	37.3	36.8	-1.3	1.69	2.33	37.9
Miscellaneous fabricated textile products	239	1.53	2.39	56.2	59.82	93.21	55.8	39.1	39.0	-0.3	1.48	2.30	55.4
House furnishings	2391,2	1.41	2.01	42.6	54.00	77.59	43.7	38.3	38.6	0.8	1.33	1.97	48.1

1/ October 1958 is used rather than an annual average because of seasonality in some of the apparel industries. It is not possible to use an average for 1957-59 because information was not available for 1957.

Source: U.S. Department of Labor, Bureau of Labor Statistics

Table 31--Annual Earnings 1/ of Workers in Apparel Industry and Selected Branches, 1964 2/

Item	Apparel	Men's youths', and boys' furnishings, work clothing, and allied garments	Women's, misses', and juniors' outerwear
Number of workers (in thousands):			
Total	1,739.2	419.7	521.9
4 quarters	1,143.3	269.2	334.1
Annual earnings, 1/ United States:			
Mean	$3,663	$3,224	$3,765
Median	2,874	2,744	2,878
Middle range	2,295-3,819	2,296-3,309	2,250-3,828
Mean annual earnings 1/ in the:			
Southeast	$2,996	$2,928	$2,967
Southwest	3,457	3,046	3,506

1/ Includes all production and nonproduction workers employed in the industry in each of the 4 calendar quarters.

2/ Most current information from this source.

Source: Bureau of Labor Statistics, Division of Trends in Employee Compensation, from the Social Security Administration's 1-percent Continuous Work History Sample.

Table 32--Average Hourly Earnings[1/] in Selected Occupations, Selected Apparel Industries

Occupation and industry	Estimated number of workers	Date of survey	Average hourly earnings at date of survey	Estimated	
				General wage changes since survey	Current average hourly earnings [2/] (October 1968)
Markers:					
Men's and boys' suits and coats	441	April 1967	$3.06	$.389	$3.45-$3.50
Men's and boys' shirts	348	April-June 1964	1.88	.300	$2.18-$2.41
Work clothing	312	February 1968	2.25	.135	$2.29-$2.39
Inspectors, final:					
Men's and boys' suits and coats (coat fabrication)	942	April 1967	2.09	.350	$2.39-$2.44
Men's and boys' shirts (end thread trimmers)	3,850	April-June 1964	1.36	.300	$1.66-$1.74
Work clothing	2,730	February 1968	1.84	.110	$1.87-$1.95
Pressers, finish, machine:					
Men's and boys' suits and coats (coat fabrication)	4,370	April 1967	3.00	.350	$3.35-$3.44
Men's and boys' shirts	1,292	April-June 1964	1.51	.300	$1.81-$1.93
Work clothing	1,582	February 1968	1.92	.115	$1.95-$2.04
Sewing machine operators:					
Men's and boys' suits and coats (coat fabrication)	32,895	April 1967	2.31	.350	$2.64-$2.66
Men's and boys' shirts	57,237	April-June 1964	1.44	.300	$1.74-$1.84
Work clothing	44,363	February 1968	1.82	.109	$1.85-$1.93
Janitors:					
Men's and boys' suits and coats	735	April 1967	1.74	.350	$1.99-$2.09
Men's and boys' shirts	682	April-June 1964	1.33	.300	$1.63-$1.70
Work clothing	624	February 1968	1.68	.101	$1.71-$1.78

1/ Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.

2/ Where general wage changes and changes in gross earnings differ substantially, two estimates of current earnings are presented, one computed by adjusting earnings as of the date of the survey by general wage changes and the second by adjusting these earnings by the percent change in gross earnings. These estimates may differ from actual earnings because earnings levels change not only as a result of wage-rate increases but also because of changes in the distribution of employment among firms and in the average length of service. Earnings for piecework occupations also change with changes in output.

Source: U.S. Department of Labor, Bureau of Labor Statistics

Table 33--Estimated Proportions of Production Workers Earning Less than $2.00 an Hour in Selected Apparel Industries, United States and Selected Regions, October 1968

Industry and region	SIC	No. of production workers (000's)	Date of most recent survey	Straight-time average hourly earnings as of date of survey-- All production workers	Straight-time average hourly earnings as of date of survey-- Percent earning less than $2.00	Estimated general wage changes since survey	Estimated current 1/ straight-time average hourly earnings-- All production workers	Estimated current 1/ straight-time average hourly earnings-- Percent earning less than $2.00
Men's and boys' suits and coats:								
United States	2311	98.4	April 1967	$2.28	42.5	$.350	$2.63	21.8
Border States		13.7	-	2.11	48.3	.350	2.42-2.46	24.8-30.0
Southeast		8.9	-	1.83	71.3	.350	2.10-2.18	42.6-52.0
Men's and boys' shirts (except work shirts) and nightwear:								
United States	2321	96.9	April-June 1964	1.45	94.0	.300	1.75-1.86	76.2-85.1
Border States		8.7	June 1964	1.42	96.2	.300	1.72-1.82	79.7-88.1
Southeast		55.1	-	1.38	97.4	.300	1.68-1.77	85.7-92.4
Southwest		2.5	-	1.30	99.6	.300	1.60-1.66	95.5-97.8
Work clothing:								
United States	2328	62.8	Feb. 1968	1.84	77.6	.110	1.87-1.95	69.1-75.5
Border States		9.0	-	1.82	80.1	.109	1.85-1.93	71.4-77.8
Southeast		23.0	-	1.84	77.6	.110	1.87-1.95	69.0-75.4
Southwest		15.4	-	1.81	81.1	.109	1.84-1.92	73.7-79.3

1/ October 1968. Where general wage changes and changes in gross earnings differ substantially, two estimates of current earnings are presented, one computed by adjusting earnings as of the date of the survey by general wage changes, and the second by adjusting these earnings by the percent change in gross earnings.

Source: U.S. Department of Labor, Bureau of Labor Statistics

Table 34--Annual Earnings of Apparel Workers, 1/ 1946-64 2/

Year	Median annual earnings
1946	$1,720
1947	1,760
1948	1,860
1949	1,780
1950	1,860
1951	1,950
1952	2,110
1953	2,120
1954	2,090
1955	2,200
1956	NA
1957	2,340
1958	2,350
1959	2,520
1960	NA
1961	2,520
1962	2,680
1963	2,750
1964	2,870
Percent increase:	
1946-64	66.9
1954-64	37.3
1959-64	13.9

1/ Includes all production and nonproduction workers employed in any industry in each of the 4 calendar quarters who had some employment in the apparel industry during one or more quarters of the year.

2/ Most current information from this source.

Source: Bureau of Labor Statistics, Division of Trends in Employee Compensation, from the Social Security Administration's 1-percent Continuous Work History Sample.

Table 35--Major Collective Bargaining Agreements in the Apparel Industry1/

Company or association	Union	Estimated employment covered by agreement	Duration	Expiration date
Clothing Manufacturers Association of the U.S.A.	Clothing Workers	125,000	3 years	5/71
Cluett Peabody and Company, Arrow Division	Clothing Workers	9,000	3 years	8/69
Men's and Boys' Leisurewear Association	Clothing Workers	8,500	2 years	8/69
Affiliated Dress Manufacturers, Inc.; National Dress Manufacturers Association, Inc.; Popular Priced Dress Manufacturers' Group, Inc.; United Better Dress Manufacturers' Association, Inc.; Popular Price Dress Contractors' Association, Inc.	Ladies Garment Workers	80,000	3 years	1/70
National Skirt and Sportswear Association, Inc.; National Association of Blouse Manufacturers, Inc.; and Greater Blouse, Skirt, and Neckwear Contractors Association, Inc.	Ladies Garment Workers	33,000	3 years	5/70
New York Coat and Suit Association, Inc.; American Cloak and Suit Manufacturers Association; Infants' and Children's Coat Association	Ladies Garment Workers	42,000	3 years	5/70
Allied Underwear Association, Inc.; Lingerie Manufacturers Association of New York, Inc.; Negligee Manufacturers Association of New York, Inc.; United Underwear Contractors Association; and Undergarment Accessories Association, Inc.	Ladies Garment Workers	20,000	3 years	6/69
Associated Corset and Brassiere Manufacturers, Inc.	Ladies Garment Workers	6,500	3 years	12/71
American Millinery Manufacturers Association, Inc.	Hatters, Cap and Millinery Workers	7,000	3 years	12/71
Industrial Association of Juvenile Apparel Manufacturers, Inc.; Children's Dress, Cotton Dress, and Sportswear Contractors Association, Inc.; and New Jersey Apparel Contractors Association, Inc.	Ladies Garment Workers	15,000	3 years	1/70
Infants' and Children's Novelty Association, Inc.; Manufacturers of Snowsuits, Novelty Wear, and Infants' Coats, Inc.; and Infants' and Children's Coat Association, Inc.	Ladies Garment Workers	9,500	3 years	5/70
Fashion Apparel Manufacturers Association; and Philadelphia Apparel Producers Association	Ladies Garment Workers	11,000	3 years	1/3/69
Association of Rain Apparel Contractors, Inc.; and New York Raincoat Manufacturers Association	Ladies Garment Workers	5,000	3 years	7/70
Slate Belt Apparel Contractors Association	Ladies Garment Workers	15,000	3 years	5/70
Associated Fur Manufacturers, Inc.; and Master Furriers Guild	Amalgamated Meat Cutters	7,000	4 years	2/69
Pleaters, Stitchers and Embroiderers Association, Inc.; National Hand Embroidery and Novelty Manufacturers Association, Inc.; Associated Manufacturers, Tubular Pipings and Trimmings, Inc.; Covered Button Association of New York, Inc.; and Uniform Manufacturers Exchange, Inc.	Ladies Garment Workers	8,000	3 years	2/70
United Knitwear Manufacturers League, Inc.; Association of Knitted Fabrics Manufacturers, Inc.; Knitted Accessories Group; and Passementerie and Trimming Manufacturers Association	Ladies Garment Workers	15,000	3 years	7/70
Washable Suits, Novelties, and Sportswear Contractors, Inc.	Clothing Workers	8,000	3 years	12/69
Boston Apparel Guild; and New England Sportswear Manufacturers Association	Ladies Garment Workers	5,000	39 months	6/70
Jonathan Logan, Inc.	Ladies Garment Workers	5,000	3 years	3/69
New York Raincoat Manufacturers Association, The Association of Rain Apparel Contractors, and independent companies	Ladies Garment Workers	5,000	3 years	7/70

1/ Agreements covering 5,000 or more workers on file with the Division of Industrial Relations, Bureau of Labor Statistics, U.S. Department of Labor, in January 1969.

Source: U.S. Department of Labor, Bureau of Labor Statistics

Table 36--Work Stoppages in the United States, All Industries and Apparel, 1956-1967

Year	All industries					Apparel industries				
	Stoppages		Man-days idle during year			Stoppages		Man-days idle during year		
	Number	Workers involved	Number	Percent of estimated total private nonfarm working time	Per worker involved	Number	Workers involved	Number	Percent of estimated total working time	Per worker involved
1956 ...	3,825	1,900,000	33,100,000	.29	17.4	129	13,800	173,000	.06	12.5
1957 ...	3,673	1,390,000	16,500,000	.14	11.4	128	16,400	215,000	.07	13.1
1958 ...	3,694	2,060,000	23,900,000	.22	11.6	126	152,000	1,100,000	.37	7.2
1959 ...	3,708	1,880,000	69,000,000	.61	36.7	122	19,100	253,000	.08	13.2
1960 ...	3,333	1,320,000	19,100,000	.17	14.5	87	12,100	134,000	.04	11.0
1961 ...	3,367	1,450,000	16,300,000	.12	11.2	112	15,100	146,000	.05	9.6
1962 ...	3,614	1,230,000	18,600,000	.16	15.0	95	23,600	130,000	.04	5.5
1963 ...	3,362	941,000	16,100,000	.13	17.1	109	22,300	210,000	.06	9.4
1964 ...	3,655	1,640,000	22,900,000	.18	14.0	106	24,700	225,000	.07	9.1
1965 ...	3,963	1,550,000	23,300,000	.18	15.1	100	9,760	199,000	.06	20.3
1966 ...	4,405	1,960,000	25,400,000	.18	12.9	100	11,800	263,000	.07	22.2
1967 ...	4,595	2,870,000	42,100,000	.30	14.7	96	21,200	238,000	.07	11.2

Source: U.S. Department of Labor, Bureau of Labor Statistics

Table 37.-- Employment in Puerto Rico in All Manufacturing, Textiles, and Apparel, 1957-1967

(In thousands)

Year/Month	All manufacturing		Textile mill workers		Apparel workers		Home needle-workers
	Total	Female	Total	Female	Total	Female	
1957	71.4	32.6	4.8	2.6	18.8	16.5	18
1958	69.5	30.6	4.5	2.2	17.4	15.4	16
1959	77.2	35.2	5.2	2.6	19.6	17.4	15
1960	80.7	36.4	5.0	2.5	21.5	18.9	16
1961	85.2	38.8	4.8	2.3	22.4	19.6	13
1962	93.5	43.7	4.6	2.3	25.1	22.0	12
1963	96.6	44.4	4.6	2.3	25.8	22.6	12
1964	102.4	47.6	5.0	2.4	27.1	23.6	10
1965	110.4	51.5	5.6	2.6	29.2	25.6	9
1966	118.0	55.5	6.2	3.0	32.2	28.1	7
1967	124.2	59.3	6.5	3.2	34.3	29.9	2
Jan-Oct. 1968 average ..	132.9	64.4	7.6	3.9	37.1	32.3	1/ 2

1/ Estimated.

Source: Commonwealth of Puerto Rico, Department of Labor, Bureau of Labor Statistics, Employment Statistics Division, except for home needleworkers, for which the source is Work Experience in Puerto Rico.

Table 38.--Employment in Puerto Rico in Selected Textile and Apparel Industries, 1957-67

(In thousands)

October	Broadwoven fabric mills	Knitting mills	Men's, youths', and boys' suits and coats and furnishings	Women's, misses' and juniors' outerwear	Women's, misses' children's, and infants' undergarments	Girls' children's, and infants' outerwear
1957	516	3,361	3,953	2,130	6,571	1,231
1958	799	2,996	4,026	1,559	6,911	1,303
1959	720	3,721	4,005	2,571	8,438	1,282
1960	772	3,263	4,119	2,143	9,884	1,283
1961	562	3,509	4,407	2,573	10,813	1,249
1962	270	3,461	5,276	2,587	12,002	1,246
1963	335	2,679	5,153	2,974	13,838	1,052
1964	353	4,120	5,368	3,051	14,902	982
1965	334	4,562	6,307	3,100	16,378	927
1966	343	4,842	6,283	3,752	17,783	1,117
1967	261	5,439	7,919	4,117	18,538	1,124

Source: Puerto Rico Bureau of Labor Statistics, Census of Manufacturing Industries in Puerto Rico.

Table 39.--Employment, Underemployment and Unemployment in Puerto Rico, 1957-67
(Figures other than rates in thousands)

	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	Oct. 1967	Oct. 1968
Civilian noninstitutional population	1,341	1,363	1,377	1,398	1,424	1,484	1,545	1,617	1,623	1,650	1,681	1,693	1,723
Labor force	632	639	633	628	654	684	714	728	756	777	789	793	809
Employed	550	550	546	556	572	600	626	645	661	681	693	705	718
Underemployed	93	104	95	94	98	100	98	91	80	83	79	82	70
Unemployed	82	89	87	72	82	84	88	83	95	96	96	89	91
Male labor force	471	475	464	456	482	505	526	529	554	560	565	558	569
Employed	410	408	397	401	416	436	452	461	377	484	490	486	498
Underemployed	79	88	79	77	80	83	81	75	65	66	60	61	53
Unemployed	61	67	67	55	66	69	74	68	77	76	75	72	71
Female labor force	161	164	169	172	172	179	188	199	202	217	224	235	239
Employed	140	142	149	155	156	164	174	184	184	197	203	218	220
Underemployed	14	16	16	17	18	17	17	16	15	17	19	21	17
Unemployed	21	22	20	17	16	15	14	15	18	20	21	17	20
Rates													
Total:													
Unemployment	14.9	16.2	15.9	13.1	12.5	12.7	12.3	11.4	12.6	12.4	12.2	11.2	11.2
Underemployment	14.7	16.3	15.0	15.0	15.0	14.7	11.3	12.5	10.6	10.7	11.5	11.6	9.8
Nonagricultural industries:													
Unemployment	11.9	13.5	12.9	9.9	10.5	10.6	10.0	10.3	11.0	11.0	NA	NA	NA
Underemployment	NA	NA	7.6	7.8	7.8	7.5	7.4	6.9	6.5	6.8	8.4	8.1	7.0
Manufacturing industries:													
Unemployment	NA	NA	NA	NA	NA	NA	15.2	11.5	10.9	9.8	NA	NA	NA

Source: Commonwealth of Puerto Rico, Bureau of Labor Statistics, Full Employment and Underemployment in Puerto Rico and Employment and Unemployment in Puerto Rico.

Table 40.-- Employment and Number of Plants by Plant Size in Puerto Rico in Manufacturing, Textiles, and Apparel, 1957, 1966, and October 1967

Industry	1957			1966			1967		
	All plants	Plants with 1-49 workers	Plants with 50-249 workers	All plants	Plants with 1-49 workers	Plants with 50-249 workers	All plants	Plants with 1-49 workers	Plants with 50-249 workers
				Employment					
All manufacturing..	72,135	17,985	35,403	119,335	22,485	62,770	NA	NA	NA
Textile mills	4,904	464	3,065	6,196	662	2,813	6,809	458	3,631
Apparel	18,791	4,601	10,715	33,447	3,878	23,297	35,755	4,113	24,976
				Number of plants					
All manufacturing..	2,014	1,633	335	2,417	1,811	525	NA	NA	NA
Textile mills.....	49	17	28	62	31	24	69	29	33
Apparel	366	259	97	412	195	201	431	205	210
				Employees per plant					
All manufacturing..	36	11	106	49	12	120	NA	NA	NA
Textile mills	100	27	110	100	21	117	99	16	110
Apparel	51	18	110	81	20	116	83	20	119

NA - Not available.

Source: Puerto Rico Bureau of Labor Statistics, Census of Manufacturing Industries of Puerto Rico.

Table 41.-- Employment and Number of Plants by Plant Size in Puerto Rico in Manufacturing, Textiles, and Apparel, 1957 and 1966

(Percent)

Industry	1957			1966			1967		
	All plants	Plants with 1-49 workers	Plants with 50-249 workers	All plants	Plants with 1-49 workers	Plants with 50-249 workers	All plants	Plants with 1-49 workers	Plants with 50-249 workers
					Employment				
All manufacturing .	100.0	24.9	49.1	100.0	18.8	52.6	100.0	NA	NA
Textile mills	100.0	9.5	62.7	100.0	10.7	45.4	100.0	6.7	53.3
Apparel	100.0	24.5	57.0	100.0	11.6	69.7	100.0	11.5	69.9
					Number of plants				
All manufacturing .	100.0	81.1	16.6	100.0	41.8	29.0	100.0	NA	NA
Textile mills	100.0	34.7	57.1	100.0	50.0	38.7	100.0	42.0	47.8
Apparel	100.0	70.8	26.5	100.0	47.3	48.8	100.0	47.6	48.7

NA - Not available.

Source: Puerto Rico Bureau of Labor Statistics, Census of Manufacturing Industries of Puerto Rico.

Table 42.--Average Hourly and Weekly Earnings, and Average Weekly Hours, Manufacturing, Textiles, and Apparel, Puerto Rico, 1957-67

Year/Month	Average hourly earnings			Average weekly earnings			Average weekly hours		
	All manufacturing	Textiles	Apparel	All manufacturing	Textiles	Apparel	All manufacturing	Textiles	Apparel
1957	$ .76	$ .77	$ .66	$27.14	$28.33	$21.98	35.9	36.6	33.2
1958	.83	.85	.74	29.41	30.45	24.53	35.6	35.7	33.2
1959	.87	.90	.78	31.78	33.29	27.06	36.7	37.2	34.6
1960	.92	.93	.83	33.56	33.70	28.25	36.4	36.2	34.2
1961	.99	.98	.90	36.56	35.84	31.77	37.0	36.5	35.3
1962	1.06	1.05	.98	39.33	38.28	34.52	37.1	36.6	35.4
1963	1.13	1.08	1.04	40.99	38.77	36.12	36.4	36.0	34.7
1964	1.18	1.12	1.09	44.09	42.22	38.70	37.3	37.8	35.6
1965	1.24	1.19	1.14	45.57	44.74	40.28	36.9	37.6	35.3
1966	1.30	1.22	1.17	48.34	47.34	41.73	37.3	38.9	35.7
1967	1.39	1.33	1.27	52.14	51.63	44.87	37.4	38.7	35.3
Jan.-Oct. 1968 average.....	1.54	1.45	1.44	57.02	56.63	51.04	37.1	39.0	35.4

Source: Commonwealth of Puerto Rico Department of Labor, Bureau of Labor Statistics, Employment Statistics Division.

Table 43.--Average Hourly Earnings, Textiles and Apparel, Mainland and Puerto Rico 1957-1968

Year/Month	Mainland		Puerto Rico		Mainland-Puerto Rico difference	
	Textiles	Apparel	Textiles	Apparel	Textiles	Apparel
1957	$1.49	$1.51	$ .77	$ .66	$ .72	$ .85
1958	1.49	1.54	.85	.74	.64	.80
1959	1.56	1.56	.90	.78	.66	.78
1960	1.61	1.59	.93	.83	.68	.76
1961	1.63	1.64	.98	.90	.65	.74
1962	1.68	1.69	1.05	.98	.63	.71
1963	1.71	1.73	1.08	1.04	.63	.69
1964	1.79	1.79	1.12	1.09	.67	.70
1965	1.87	1.83	1.19	1.14	.68	.69
1966	1.96	1.89	1.22	1.17	.74	.72
1967	2.06	2.03	1.33	1.27	.73	.76
Jan.-Oct. 1968 average	2.19	2.20	1.45	1.44	.74	.76

Source: Mainland data: U.S. Department of Labor, Bureau of Labor Statistics, Employment and Earnings.

Puerto Rico Data: Commonwealth of Puerto Rico Department of Labor, Bureau of Labor Statistics, Employment Statistics Division.

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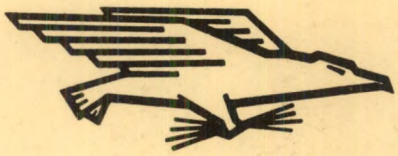

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