Report to Congress:

The Past, Present and Future of Employment in the Textile and Apparel Industries: An Overview

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Submitted by:

U.S. Department of Labor

Table of Contents

Executive summary

The U.S. Department of Labor was directed by Congress in the FY 2003 Omnibus Appropriations Act to conduct a comprehensive study of labor market trends in the textile and apparel industries. This report contains the findings of that study. As requested by Congress, the report includes: (i) a review of training programs designed to assist textile and apparel workers adversely affected by labor market developments transition into new careers; (ii) a study of past, present, and future employment levels in the industries; (iii) a review of the impact of layoffs on the workers in the industries; and, (iv) a subnational analysis of the recent labor market trends in the textile and apparel industries. The Bureau of Labor Statistics coordinated with other agencies in drafting the report, and used data from a range of sources in conducting the research for this study. Data in this report was the most recent available at the time of writing. More recent data may have become available since that time, and in most cases is available at the Bureau of Labor Statistics Web site at http://www.bls.gov/ . The Employment and Training Administration summarized the availability of government-sponsored training programs for laid-off or displaced textile and apparel workers and the Department of Commerce provided information on the future prospects of the textile and apparel industries.

Availability of training programs for textile and apparel workers

The Employment and Training Administration of the U.S. Department of Labor, in cooperation with the States, has put in place an extensive workforce investment system

designed to ease the transition of workers who have lost their jobs into new employment. This system is made up of a range of programs in the workforce investment system, and these programs have been used widely by laid-off and displaced textile and apparel workers in recent years. President Bush has proposed reforms to the overall workforce investment system that would create a single funding stream for funds provided under the Workforce Investment Act (WIA), reduce overhead costs to free up more funds for job training, and create Innovation Training Accounts to give workers more choice about their job training. The President's goal through these reforms is to double the number of adults who receive training through these WIA State grants.

Past, present, and future employment in the textile and apparel industries

Employment in the textile and apparel industries has been on a downward trend for decades. Data through 2003 show this trend continuing. However, U.S. textile and apparel companies are striving hard to compete, focusing on developing innovative fibers, fabrics, creative designs, and blends. Cutting edge production technology is being adopted both to cut costs and to permit the production of high tech, differentiated products.

Impact of layoffs on the workers in the industries

In the same way, the unemployment rate for textile and apparel workers has risen steadily for years. In 2002, the jobless rate for textile workers reached 9.2 percent, and the rate

for apparel workers was 10.3 percent, both reflecting the long-term decline in the textile and apparel industries.

Recent labor market trends in regions, States, and local communities

Employment in the textile industry is concentrated in the South. Roughly half of textile employment is located in North Carolina, Georgia, and South Carolina. Apparel industry employment is more evenly spread across the regions of the country, with large shares in California, New York, North Carolina, and Texas. All States for which there are current employment data available have recorded long-term employment declines in these two industries.

Introduction

This report responds to a Congressional directive[1] that the U.S. Department of Labor:

> [C]onduct a comprehensive study on the composition (including past and present numbers, as well as future projections) of the U.S. textile and apparel industry labor force, including the availability of training and textile related engineering and manufacturing programs. The study should include a significant review of the impact of lay-offs on the industry, the workers, the local communities, and the States and regions involved. The Committee expects the Department of Labor to coordinate with the Department of Commerce in designing the preparation of this report.

This study looks at government-sponsored programs designed to assist workers in the textile and apparel industries who are adversely affected by labor market conditions transition into new careers. It includes a review of the historical and current labor market in the textile and apparel industries, and looks at the demographic and socioeconomic characteristics of the workers in these industries. Subnational labor market data for textiles and apparel are also examined.

The Department of Labor's (DOL) Bureau of Labor Statistics (BLS) coordinated with other agencies, including the Employment and Training Administration and the Department of Commerce in writing this report. Although BLS is an independent Federal statistical agency and is not responsible for economic policy-making or evaluation, BLS is the principal fact-finding agency in the broad field of labor economics and statistics. Thus, BLS is responsible for collecting, processing, analyzing, and disseminating a wide range of employment and unemployment data germane to this study. DOL's Employment and Training Administration (ETA) also made a major

contribution to this report, focusing on the various government-sponsored training and related programs targeting laid-off and displaced workers and those who might be adversely affected by labor market difficulties in the textile and apparel industries.

During the time in which this study was conducted, the Commerce Department's Bureau of Industry and Security (BIS) was independently preparing a Congressionally-mandated study concentrating on other aspects of the textile and apparel industries, and BLS communicated with the Department of Commerce as necessary to procure information for the DOL study. In addition, BLS was actively involved in reviewing draft versions of the BIS study.

Data sources and issues

A range of survey and administrative data were used in this report. Administrative statistics from the Employment and Training Administration were assembled to evaluate the extent to which various training and related programs have been used to assist textile and apparel workers. Several BLS business establishment (employer-based) surveys and programs were used to evaluate labor market trends in the textile and apparel industries, including the Current Employment Statistics (CES) survey, the Occupational Employment Statistics (OES) survey, the Quarterly Census of Employment and Wages (QCEW) program (formerly known as the Covered Employment and Wages (CEW) program), and the Mass Layoff Statistics (MLS) program. Data from the Bureau's main household survey, the Current Population Survey (CPS), also were widely used in this

study to examine unemployment among textile and apparel workers as well as other personal and socioeconomic characteristics. The Bureau's Local Area Unemployment Statistics (LAUS) program provided regional estimates of unemployment. These data sources are discussed in greater detail in the body of the report.

Currently, most major statistical programs use the North American Industry Classification System (NAICS) to code data by industry. Under NAICS, the textile and apparel industries fall into three major pieces, defined as follows:

Textile mills (NAICS 313)—Textile mills include establishments that transform a basic fiber (like wool, cotton or polyester) into a product, such as yarn or fabric. They may further fabricate the textiles into non-apparel products.

Textile product mills (NAICS 314)—Establishments within textile product mills make non-apparel products from purchased fabric, such as curtains, sheets, towels, and canvas products. Carpet and rug manufacturers are also found within textile product mills.

Apparel (NAICS 315)—Apparel manufacturers are either "cut and sew" establishments (they purchase fabric and perform cutting and sewing activities to make a garment), or they knit fabric and then cut and sew the fabric into a garment.

The NAICS coding system replaces the Standard Industry Classification (SIC) system. Under the SIC system, the textile and apparel industries were found within Textile mill

products (SIC 22) and Apparel (SIC 23). Not all BLS programs had converted over to the NAICS system at the time this study was undertaken; as a result, the most recent data from some programs were coded on a SIC basis. Moreover, although most surveys and programs converted at least some of their time series history to a NAICS basis when the new industry classification system was adopted, data limitations and resource constraints precluded recoding all available time series data. Thus, it was necessary to use SIC-based data for some historical comparisons. Though awkward at times, the shift back and forth between NAICS- and SIC-coded data is carefully documented in the text. More importantly, for this study of the textile and apparel industries, the findings are not materially affected by the use of different industry classification systems.

[1] 149 Cong. Rec. S608 (daily ed. Jan. 15, 2003). The Conference Report accompanying the Consolidated Appropriations Resolution, 2003, H. J. Res. 2, Pub. L. No. 108-7 (2003), directed the Department of Labor to comply with this request of the Senate Appropriations Committee and to submit the study to Congress. H. R. Conf. Rep. No. 108-10, at 1054 (2003).

I. Easing the transition of textile and apparel workers—availability of training and other programs

A. Introduction

One of the roles of the workforce investment system is to help workers who have lost jobs gain new skills and new career opportunities. This section of the report highlights efforts by the U.S. Department of Labor and States, through the workforce investment system, to assist workers in the textile and apparel industries. A major objective of some of these programs is to work with businesses and employees to help prepare workers for transition to new employment. Some programs, such as the Trade Adjustment Assistance program, have certain requirements that must be met before a certification can be granted allowing persons who are laid off to receive special services. Other programs, such as the Rapid Response Services and Worker Adjustment and Retraining Notification (WARN) system, are intended to provide some services in advance of any plant shutdowns or layoffs. These programs work together as part of a comprehensive workforce investment system and support workers who have lost jobs in the textile and apparel sectors.

President Bush has proposed reforms to the Nation's workforce investment system that are intended to double the number of adults who receive training through the WIA State grant programs and to close the skills gap so that every job in a high-growth industry can be filled by a well-trained American worker. The President proposed to reduce the

amount of money spent on overhead costs to allow more funding to go toward training. In addition, the President proposed consolidating four major WIA training and employment grant programs totaling $4 billion into a single grant to Governors. Further, the President proposed to give workers more choice about their job training through "Innovation Training Accounts (ITAs)." ITAs would allow workers considerable flexibility to tailor job training to meet their individual needs. In addition to these reforms, the President proposed $50 million for a pilot program of "Personal Reemployment Accounts" of up to $3,000 for those unemployed workers who have the most difficulty finding jobs to use toward job training, transportation, childcare, or other assistance in obtaining a new job. Workers who find a job quickly would be able to keep the balance of the account as a reemployment bonus.

In addition to these proposals, in 2002, the Employment and Training Administration launched a High-Growth Job Training Initiative (HGJTI) that focuses on establishing partnerships with businesses and working with high-growth industries. Textile and apparel workers may benefit from this initiative, which seeks to train workers for careers in high-growth industries through partnerships between businesses, educators and the workforce investment system. President Bush, in his State of the Union Address, proposed expanding on the HGJTI through the "Jobs for the 21st Century Initiative." This initiative includes $250 million for Community-Based Job Training Grants to help America's community colleges train 100,000 additional workers for the industries that are creating the most new jobs.

The major programs available currently through the workforce investment system to assist textile and apparel workers are described in the following pages and include:

1. Trade Adjustment Assistance
2. Rapid Response Services
3. Dislocated Worker programs
4. Unemployment Insurance
5. National Emergency Grants
6. Worker Adjustment and Retraining Notification

B. Detailed staffing patterns

Programs to help transition textile and apparel workers into new careers must take into account the industry staffing patterns for these industries.[1] (See table I-1.) In the apparel sector, five occupations account for just over half of all employment (see columns 1 and 2), with sewing machine operators making up nearly 40 percent of all employment in the industry. Sewing machine operators also are concentrated in the apparel sector, as shown comparing columns (1) and (4) [total number of sewing machine operators employed across all industries]. About two-thirds of all sewing machine operators are employed in the apparel sector. The workforce investment programs must be prepared to work with these customers to find alternative job opportunities. For some of the other occupations, there may be opportunities in other industry sectors for similar jobs, since employment in these occupations makes up a relatively small amount of total employment in the occupation across all industries.

Table I-1. Occupational employment and mean annual wages in the apparel manufacturing industry, 2001

Occupation	Apparel			Total, all industries	
	Employment (1)	Percent of total (2)	Mean annual wages (3)	Employment (4)	Mean annual wages (5)
Sewing Machine Operators	204,300	39.83	$17,060	308,380	$18,050
First-Line Supervisors/Managers of Production and Operating Workers	17,710	3.45	$35,090	733,410	$44,740
Team Assemblers	16,420	3.20	$20,430	1,189,840	$24,250
Packers and Packagers, Hand	16,290	3.18	$17,210	951,960	$17,730
Inspectors, Testers, Sorters, Samplers, and Weighers	15,590	3.11	$19,980	525,540	$29,210
Textile Cutting Machine Setters, Operators, and Tenders	14,210	2.77	$19,970	37,250	$20,630

Source: Bureau of Labor Statistics, Occupational Employment Statistics program

Employment in the textile industry is not as concentrated among a few key occupations as it is in the apparel sector, but there still is cause for concern. Thirteen occupations account for about 53 percent of employment in textiles. (See table I-2.) Most significantly, the three largest occupations relating to textile machinery operation exist almost exclusively in the textile sector. These three occupations account for 30 percent of employment in the textile industry. Looking across all industries, 83 percent of employment in these three occupations is in the textile industry. However, there is some hope that many of the skills used in the industry can be applied elsewhere, as noted in a 2002 South Carolina Employment Security Commission report[2]:

"Operating textile machines requires a variety of skills that may be transferable to other industries such as the following:

- *Fabricated Metal Products*
- *Industrial Machinery and Equipment*

- *Chemicals and Allied Products*
- *Electronic and Other Electrical Equipment*
- *Trucking and Warehousing*
- *Paper and Allied Products*
- *Transportation Equipment*
- *Wholesale and Retail Trade"*

Table I-2. Occupational employment and mean annual wages in the textile manufacturing industry, 2001

Occupation	Textiles			Total, all industries	
	Employment	Percent of total	Mean annual wages	Employment	Mean annual wages
Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	56,700	12.97	$21,240	68,530	$22,150
Textile Knitting and Weaving Machine Setters, Operators and Tenders	50,290	11.50	$22,770	57,830	$22,690
Textile Bleaching and Dyeing Machine Operators and Tenders	24,140	5.52	$21,380	31,650	$20,560
Sewing Machine Operators	20,000	4.57	$18,720	308,380	$18,050
Inspectors, Testers, Sorters, Samplers, and Weighers	19,180	4.39	$22,190	525,540	$29,210
First-Line Supervisors/Managers of Production and Operating Workers	16,190	3.70	$39,620	733,410	$44,740
Industrial Machinery Mechanics	12,250	2.80	$29,890	187,750	$38,880
Laborers and Freight, Stock, and Material Movers, Hand	11,750	2.69	$19,800	2,098,180	$21,170
Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fiber	11,240	2.57	$25,480	30,370	$27,340
Maintenance and Repair Workers, General	10,480	2.40	$28,710	1,232,280	$30,230
Industrial Truck and Tractor Operators	9,150	2.09	$22,770	591,790	$27,040
Packers and Packagers, Hand	8,850	2.02	$18,560	951,960	$17,730
Helpers--Production Workers	8,840	2.02	$20,250	459,440	$20,410

Source: Bureau of Labor Statistics, Occupational Employment Statistics program

C. Programs to serve textile and apparel industry workers

Many of the programs that serve textile and apparel workers are part of, or work in conjunction with, the Workforce Investment Act of 1998 (WIA). WIA was authorized through September 30, 2003, and the Congress is considering proposals to reauthorize it. The purpose of this Act is "to consolidate, coordinate, and improve employment, training, literacy, and vocational rehabilitation programs in the United States, and for other purposes."[3] Local One-Stop Career Centers throughout each State are intended to provide the focal point for services to customers and play an important role in coordinating services to displaced workers, including those from the textile and apparel industries. There are more than 3,500 One-Stop Career Centers nationwide, almost 2,000 of which are "comprehensive" in the services that they provide.

Through WIA, the U.S. Department of Labor "provides guidance for statewide and local workforce investment systems that increase the employment, retention and earnings of participants, and increase occupational skill attainment by participants, and as a result, improve the quality of the workforce, reduce welfare dependency, and enhance the productivity and competitiveness of the Nation."[4] The Administration has proposed significant reforms to WIA so that the workforce investment system can respond more quickly to dislocated workers' needs and provide them greater choice in seeking employment assistance and job training.

C.1. Trade Adjustment Assistance

The Trade Adjustment Assistance (TAA) for workers program, established by the Trade Act of 1974, has been significant in serving many textile and apparel workers who have lost their jobs. The TAA program provides training, income support, and other reemployment and supportive services to certified workers who lost their jobs or had their work hours or salary reduced because of increased imports or shifts in production to foreign countries. Recent changes in the program require close coordination with WIA-funded services.[5]

- All workers, even those not certified under the TAA program, have access to rapid response services and appropriate intensive and core services. Such services may include information on unemployment insurance (UI) benefits, job search assistance, local area job openings, and job training, through a local One-Stop Career Center or rapid response team.
- If a worker needs additional assistance, group career workshops and other assistance such as skills assessment, stress management workshops, and one-on-one job counseling may be available. In addition, TAA certified workers may be eligible for financial assistance for out-of-area job search and relocation.
- Training services for TAA-certified workers, including on-the-job training (OJT), occupational skills improvement, and remedial education, such as English as a second language (ESL), may be available. One-Stop Career Centers have lists of approved training programs with descriptions and costs to help guide the

decision-making process. TAA-certified workers can receive income support in the form of trade readjustment allowances (TRA) if they enroll in an approved training program within a specified time. TRA may be provided for up to 104 weeks to complete a full-time training program. Training must be full-time and conclude within 104 weeks. However, if remedial education is needed, a total of 130 weeks of training and TRA are possible.

Not everyone who is eligible to participate in the TAA program or WIA-funded programs needs training. Dislocated workers will work with staff in the One-Stop Career Center to determine the type of services needed and whether or not training is needed to find a new job. The TAA program spells out specific criteria for approval of training. Under the Trade Act of 2002, the amount of funds available annually for training under the worker TAA program has doubled to $220 million. The total appropriation for the entire worker TAA program in FY 2003 was $972.2 million.

The recently revised TAA program also includes a temporary, five-year program of Alternative Trade Adjustment Assistance (ATAA) for older workers. Under this program, and where a petition has been certified, workers in firms with a significant number of workers over the age of 50 who are without easily transferable skills may choose, in lieu of the other benefits available under the TAA program, to receive payments of 50 percent of the difference between pre-layoff wages and their reemployment wages. A worker could receive payments for up to a two-year period, but the maximum amount paid may not exceed $10,000. In order to qualify, the worker must

be at least 50 years of age, become reemployed within 26 weeks of separation, and be reemployed at annual wages of less than $50,000 in a full-time job that is not the job from which he/she was laid off.

Additional help is available to dislocated textile and apparel workers who may be eligible for a new Health Coverage Tax Credit (HCTC), administered by the Internal Revenue Service. The HCTC provides that certain eligible individuals, who do not have other specified coverage such as Medicare, can receive assistance in covering up to 65 percent of the cost of qualified health insurance. The individuals eligible for such assistance include: (1) eligible TAA recipients who are receiving extended income support under the TAA program or who would be eligible to receive such income support except they have not exhausted their UI benefits; (2) eligible ATAA recipients; and (3) individuals age 55 and older who are receiving pension benefits paid by the Pension Benefit Guaranty Corporation.

A major U.S. Department of Labor accomplishment has been implementation of the recent amendments to the TAA program, which included expanded eligibility provisions and several new benefits and services available for eligible program participants. TAA has been a significant tool to assist workers in the textile and apparel industry sectors. Table I-3 highlights data on TAA and NAFTA-TAA[6] certifications for the January 2002 – July 2003 period.

At the same time, because TAA has strict eligibility requirements and time-intensive application procedures, many workers avail themselves of retraining and financial

support benefits provided under the Workforce Investment Act, which are easier for individual workers to access quickly.

Table I-3. TAA and NAFTA-TAA certifications for apparel and textile, January 2002-July 2003

	Number of certifications		Number of employees covered by certifications	
	Number	Percent	Number	Percent
TAA Certifications				
Total All Industries	2,839		367,278	
Apparel	445	15.67	47,988	13.07
Textile	218	7.68	23,911	6.51
Total Textile and Apparel	663	23.35	71,899	19.58
NAFTA-TAA Certifications				
Total All Industries	767		109,150	
Apparel	118	15.38	21,162	19.39
Textile	63	8.21	11,525	10.56
Total Textile and Apparel	181	23.60	32,687	29.95

Note: The NAFTA-TAA and TAA totals are not additive since there is some overlap between the two. It is estimated that 60 percent of workers covered by NAFTA-TAA certifications also are covered by TAA certifications. Using this as a guide, the total number of textile and apparel workers covered by TAA and NAFTA certifications between January 2002 and July 2003 was about 85,000 [71,899 + 40% x 32,687 = 84,974].

Source: Employment and Training Administration, Office of National Response

During this period, the textile and apparel industries accounted for nearly one-quarter of all TAA and NAFTA-TAA certifications. Textile and apparel workers covered by certifications made up nearly one-fifth of all covered employees, while under NAFTA-TAA the percentage was even higher; almost 30 percent of all employees covered by NAFTA-TAA certifications were in the textile and apparel industry sectors.

Table I-4 shows the number of certifications for both textile and apparel sectors and the estimated number of workers covered by the certifications over the January 1991 – July

2003 period. The last four columns indicate the percentage of total textile and apparel certifications and covered workers for each State. A comparison of certifications for the textile and apparel sectors with certifications for all industries (and a comparison of workers covered) is shown at the bottom of the table.[7]

Table I-4. TAA certifications, January 1991-July 2003, in textiles and apparel by State (and for Puerto Rico), with comparisons to all industries at the national level

States	Number of certifications		Estimated number of workers		Percent of certifications		Percent of workers	
	Textile	Apparel	Textile	Apparel	Textile	Apparel	Textile	Apparel
Alabama	20	241	3,611	35,488	2.72	6.53	4.11	9.47
Alaska	0	1	0	25	0.00	0.03	0.00	0.01
Arizona	1	10	4	872	0.14	0.27	0.00	0.23
Arkansas	3	66	870	8,384	0.41	1.79	0.99	2.24
California	4	66	93	10,020	0.54	1.79	0.11	2.67
Colorado	0	11	0	592	0.00	0.30	0.00	0.16
Connecticut	3	13	244	1,120	0.41	0.35	0.28	0.30
Delaware	0	1	0	175	0.00	0.03	0.00	0.05
Dist. Of Col.	0	0	0	0	0.00	0.00	0.00	0.00
Florida	3	73	123	6,535	0.41	1.98	0.14	1.74
Georgia	46	282	7,819	33,789	6.26	7.64	8.90	9.01
Hawaii	0	1	0	2	0.00	0.03	0.00	0.00
Idaho	0	7	0	246	0.00	0.19	0.00	0.07
Illinois	1	15	400	751	0.14	0.41	0.46	0.20
Indiana	2	25	285	2,306	0.27	0.68	0.32	0.62
Iowa	0	19	0	1,333	0.00	0.51	0.00	0.36
Kansas	0	7	0	520	0.00	0.19	0.00	0.14
Kentucky	5	109	203	16,649	0.68	2.95	0.23	4.44
Louisiana	2	28	1,020	5,789	0.27	0.76	1.16	1.54
Maine	23	17	1,656	1,863	3.13	0.46	1.89	0.50
Maryland	1	26	150	4,158	0.14	0.70	0.17	1.11
Massachusetts	17	55	1,030	6,649	2.31	1.49	1.17	1.77
Michigan	4	16	429	2,648	0.54	0.43	0.49	0.71
Minnesota	6	15	725	649	0.82	0.41	0.83	0.17
Mississippi	8	142	1,374	19,608	1.09	3.85	1.56	5.23
Missouri	3	107	77	9,908	0.41	2.90	0.09	2.64
Montana	0	5	0	172	0.00	0.14	0.00	0.05
Nebraska	2	9	15	688	0.27	0.24	0.02	0.18
Nevada	0	3	0	274	0.00	0.08	0.00	0.07
New Hampshire	5	6	373	183	0.68	0.16	0.42	0.05
New Jersey	35	235	2,042	13,200	4.76	6.36	2.32	3.52
New Mexico	1	3	350	1,252	0.14	0.08	0.40	0.33

States	Number of certifications		Estimated number of workers		Percent of certifications		Percent of workers	
	Textile	Apparel	Textile	Apparel	Textile	Apparel	Textile	Apparel
New York	77	346	3,206	16,142	10.48	9.37	3.65	4.31
North Carolina	200	248	29,030	28,293	27.21	6.72	33.05	7.55
North Dakota	0	0	0	0	0.00	0.00	0.00	0.00
Ohio	5	24	166	3,219	0.68	0.65	0.19	0.86
Oklahoma	1	39	72	3,607	0.14	1.06	0.08	0.96
Oregon	6	14	120	503	0.82	0.38	0.14	0.13
Pennsylvania	63	538	5,711	33,824	8.57	14.57	6.50	9.02
Puerto Rico	0	10	0	2,126	0.00	0.27	0.00	0.57
Rhode Island	19	4	1,109	259	2.59	0.11	1.26	0.07
South Carolina	75	104	13,745	13,175	10.20	2.82	15.65	3.51
South Dakota	1	6	27	511	0.14	0.16	0.03	0.14
Tennessee	26	292	2,112	31,509	3.54	7.91	2.40	8.41
Texas	13	218	1,518	32,467	1.77	5.90	1.73	8.66
Utah	0	18	0	1,519	0.00	0.49	0.00	0.41
Vermont	0	6	0	316	0.00	0.16	0.00	0.08
Virginia	42	156	6,802	16,663	5.71	4.22	7.74	4.44
Washington	7	12	328	1,378	0.95	0.32	0.37	0.37
West Virginia	1	22	400	1,709	0.14	0.60	0.46	0.46
Wisconsin	4	21	603	1,802	0.54	0.57	0.69	0.48
Wyoming	0	1	0	7	0.00	0.03	0.00	0.00
U.S. Total	735	3,693	87,842	374,877	100.00	100.00	100.00	100.00

US total	Number of certifications	Estimated number of workers
Textile and apparel	4,428	462,719
Total, all industries	14,355	1,467,714
Textile and apparel as a percent of all industries	30.85	31.53

Note: This table illustrates the distribution of TAA certifications of textile and apparel workers by State. The table includes only TAA certifications because NAFTA-TAA data were not available by State. If NAFTA-TAA data were included, the number of certifications and workers would be larger, and their distribution by State might vary.

Source: Employment and Training Administration, Office of National Response

As highlighted at the bottom of the table, the textile and apparel industries combined accounted for nearly 31 percent of all TAA certifications and over 31 percent of the estimated number of workers covered over the last 12 1/2 years. A significant proportion of TAA goes to workers in these sectors. The fifteen States with the largest estimated

number of textile and apparel workers covered by TAA certifications are shown in table I-5.

Table I-5. States with the largest numbers of textile and apparel workers certified under the TAA

For Textile (January 1991 – July 2003)		**For Apparel (January 1991 – July 2003)**	
State	Estimated Workers Covered by Certification	State	Estimated Workers Covered by Certification
• North Carolina	29,030	• Alabama	35,488
• South Carolina	13,745	• Pennsylvania	33,824
• Georgia	7,819	• Georgia	33,789
• Virginia	6,802	• Texas	32,467
• Pennsylvania	5,711	• Tennessee	31,509
• Alabama	3,611	• North Carolina	28,293
• New York	3,206	• Mississippi	19,608
• Tennessee	2,112	• Virginia	16,663
• New Jersey	2,042	• Kentucky	16,649
• Maine	1,656	• New York	16,142
• Texas	1,518	• New Jersey	13,200
• Mississippi	1,374	• South Carolina	13,175
• Rhode Island	1,109	• California	10,020
• Massachusetts	1,030	• Missouri	9,908
• Louisiana	1,020	• Arkansas	8,384

Note: This table includes only TAA certifications because NAFTA-TAA data were not available by State.

Source: Employment and Training Administration, Office of National Response

The southeastern States, where most textile employment is concentrated,[8] as well as significant numbers of apparel enterprises, clearly have the largest number of workers who have been covered under TAA certifications during this period.

New Features Under Amendments to the Worker TAA Program Implemented in 2002-2003. The Department of Labor, in cooperation with the States, has implemented new eligibility requirements and new services for workers certified by TAA. These new provisions include:

- Consolidating NAFTA-TAA and TAA after November 4, 2002, with all new certifications being issued under TAA;
- Expanding eligibility to more worker groups, including secondary workers[9];
- Increasing existing benefits and providing tax credits for qualified health insurance coverage;
- Implementing the ATAA program for older workers; and
- Distributing training funds to States using improved methodologies.

Many of these newly implemented provisions assist textile and apparel workers covered by TAA certifications, including the health insurance coverage tax credit and the ATAA program for older workers.

C.2. Rapid Response Services

Rapid Response Services provide immediate aid to workers affected by announcements of plant closings and large layoffs, typically 50 or more workers. Each State has a designated Rapid Response Coordinator, through its dislocated worker unit. In certain layoff situations, the dislocated worker offices may send one or more representatives to the affected work site to coordinate with workers before the layoff occurs. Rapid Response Services have been used extensively to serve workers facing layoffs in the textile and apparel sectors.

During rapid response, specialists in helping workers cope with job change assemble information on workers' needs and begin to organize the services necessary to help the individuals get back to work. These services may include: career counseling; job search assistance; and information about education and training opportunities. In addition, other services that may also be available to workers who are about to lose their jobs include:

- Use of computers, telephones, and fax machines for job search purposes;
- Financial planning and stress management workshops;
- Financial support for training;
- Income support if the worker's job was lost due to foreign trade; *and*
- Special services for veterans and adults with disabilities.[10]

The sooner that Rapid Response Services begin, the better the chances that workers will be able "to overcome their fears and begin their re-entry into the workforce. Early intervention allows employers and workers to communicate about worker concerns, to take advantage of worker transition committee opportunities, to initiate peer worker projects, and to identify, design and oversee layoff aversion and incumbent worker strategies. Having time available to undertake these activities can lead to improved morale and productivity and lower worker absenteeism due to reduced stress. There may also be fewer problems associated with workplace sabotage. In addition, the workers may be able to begin services, including training, before they are laid off."[11]

Rapid Response Services provide immediate aid to workers affected by announcements of plant closings and large layoffs and are critical in organizing assistance and helping the community to provide effective support to workers. One-Stop Career Centers may send one or more representatives to the work site to coordinate the provision of services before a layoff occurs. During rapid response, specialists in helping workers cope with job change will gather information on workers' needs and begin to organize the services necessary to help them find new employment.

C.3. Dislocated worker programs

Because TAA has time-intensive application procedures, many workers avail themselves of retraining and financial support benefits provided under the Workforce Investment

Act, which are comparatively much more flexible and easier for individual workers to access quickly.

Many workers in the apparel and textile business sectors received services as "dislocated workers" under the WIA, administered by the U.S. Department of Labor. Generally, an employee who is laid off permanently, or one who has received a notice of termination or layoff from employment is considered a dislocated worker. Over 3.3 million people are laid off from their jobs each year, with many of these individuals served by federal, State and local career services.[12]

Examples of dislocated workers include: dislocated workers with outdated skills; individuals who have lost their jobs due to import competition or to a shift in production outside this country; farmers who have lost their farms; self-employed individuals who are unemployed as a result of economic conditions in their area; and workers who have been dislocated by a mass layoff and/or closure.[13] Most employees who are laid off in the textile and apparel sectors qualify for services under the dislocated worker program.

Under WIA, three types of no-cost services are available to dislocated workers to help get them back to work. First, all workers have access to core services through a local One-Stop Career Center. Individuals who are part of a larger layoff may receive this or similar information through a Rapid Response team.

Example Core Services:

- Unemployment Insurance

- Job Search Assistance
- Job Referral
- Local Area Job Openings
- Resume Assistance
- Job Training

In addition to core services, the individual may be eligible for one-on-one assistance, group career workshops, and other assistance such as:

- Assessment of their skills and abilities
- Resume writing classes
- Help in planning how to get back to work
- Stress and financial management workshops
- One-on-One job counseling

Third, if an individual qualifies, a broad range of training services may be available to help them acquire a good job. The local One-Stop Career Centers have a list of training programs, descriptions, and costs to help guide individuals in the decision-making process as well as to help them identify sources of financial assistance to help pay for training. Many textile and apparel workers may qualify for these more intensive services because of the permanent loss of many jobs in those industries. Examples of services are listed below:

- Occupational Skills Training
- On-the-Job Training

- Skills Improvement
- GED Preparation
- English as a Second Language (ESL)
- Math and Reading Training

Eligibility requirements may exist for some dislocated workers services. The State Dislocated Worker Unit or local One-Stop Career Centers have this information. Services vary from State-to-State in an effort to meet the needs of the local area. Therefore, some locations may have different services available from those described above.[14]

C.4. Unemployment Insurance

The Federal-State unemployment insurance (UI) program, created by the Social Security Act of 1935, offers the first economic line of defense against the effects of unemployment. Through payments made directly to eligible, unemployed workers, it provides partial replacement of lost earnings during unemployment. It is designed to provide benefits to most individuals out of work, generally through no fault of their own, for periods between jobs. In order to be eligible for benefits, jobless workers must demonstrate workforce attachment, usually measured by wages earned and/or weeks of work, and must be able and available for work.

Most States currently pay up to a maximum of 26 weeks of regular State benefits. In periods of very high and rising unemployment in individual States, extended benefits are payable for up to 13 additional weeks (20 in some cases), for a maximum of 39 weeks (or 46). Further, in periods of national downturns, when all States are impacted by high and sustained unemployment, federally funded programs of supplemental benefits have occasionally been adopted. Under one such program, the Temporary Extended Unemployment Compensation (TEUC) program, up to 13 weeks of benefits are payable in all States, and up to an additional 13 weeks (for a TEUC total of 26) in States with high unemployment. Most apparel and textile workers who have lost their jobs over the past several years have been eligible for regular State benefits and many have been eligible for TEUC.

C.5. National Emergency Grants

National Emergency Grants (NEG) are awarded at the discretion of the Secretary of Labor. These funds provide employment and training assistance to workers affected by major dislocations, such as plant closings and mass layoffs, or closures and realignments of military installations. In addition, these funds provide assistance to the Governor of any State that has suffered an emergency or disaster. They provide disaster relief employment in the affected area, as well as provide additional assistance to a State or local board that has expended their dislocated worker funds.[15]

The U.S. Department of Labor awards National Emergency Grants to States experiencing economic difficulty due to plant closings and mass layoffs including those in the textile and apparel industries. For example, in 2001, the State of Georgia received a grant award of $584,700 to provide re-employment services to 110 dislocated workers who lost their jobs when Wilkins Industries, Inc. and Amercord, Inc. closed. Workers were dislocated from occupations that include sewing machine operators, mechanics, management, and clerical.

In Program Year 2002, funding of $2,654,012 was awarded from NEG funds for a regional consortium led by the Western Piedmont Council of Governments in North Carolina. This was the second grant awarded to the Western Piedmont Council of Governments to assist workers. The current total funding for the project is $3,844,530. This Grant supports employment transition-related assistance for approximately 1,240 workers laid off from employers in the textile, furniture and product manufacturing sectors of Southwestern North Carolina. Services include transition-related assistance including assessment, case management, training, job development, job placement, and supportive services, such as child-care and transportation costs to attend training.[16]

In Mississippi, in Program Year 2002, a grant of up to $3,288,733 (a total commitment of $1,644,366 was awarded immediately) was awarded to the State to provide employment transition-related assistance to workers dislocated from Burlington Industries, A&B Component Parts, and Quitman Knitting Mills, as well as workers indirectly impacted by

these layoffs. Approximately 850 dislocated workers will receive re-employment services.[17]

During Program Year 2002, Tennessee was awarded up to $8,684,379 in National Emergency Grant funds, of which $2,100,000 was released initially, to assist approximately 2,907 workers affected by plant closures and mass layoffs. These funds will supplement resources available under Trade Adjustment Assistance for those workers whose dislocations were determined to have been impacted by foreign trade. Participants will receive the following types of services: core and intensive services; on-the-job training; classroom training; career counseling; and support services.[18]

While each NEG has specific objectives, grants like those listed above generally provided funds to cover many types of services, such as comprehensive assessment, individual or group counseling, career planning, pre-vocational services, case management, follow-up services, occupational training, on-the-job training, skill upgrading and retraining, workplace training, adult education, and literacy and job readiness training. Supportive services include transportation, childcare, and meal assistance payments.[19]

C.6. Worker Adjustment and Retraining Notification

Early intervention is facilitated by the Worker Adjustment and Retraining Notification (WARN) Act.[20] With certain exceptions, the WARN Act requires employers with 100 or more employees[21] to give at least 60 days advance notice of plant closings and mass layoffs. An employer must give notice to the affected employees or their labor union

representative, the State Rapid Response Dislocated Worker Unit, and the appropriate unit of local government.[22] Such early response allows the workforce investment system to begin to work with employees and businesses in advance of a potential closure. Employees entitled to notice under WARN include hourly and salaried workers as well as managerial and supervisory employees. However, business partners, consultant or contract employees who have a separate employment relationship and paid by another employer, and the self-employed are not entitled to WARN notices.

The following are three conditions under which the notification period may be reduced to less than 60 days. However, notice must be provided as soon as practicable:

1. Faltering Company—When prior to a plant closing, a company is actively seeking capital or business and reasonably in good faith believes that advance notice would have precluded the employer's ability to obtain such capital or business, and this new capital or business would allow the employer to avoid or postpone a shutdown for a reasonable period;

2. Unforeseeable Business Circumstances—When the closing or mass layoff is caused by business circumstances that were not reasonably foreseeable at the time that 60-day notice would have been required (i.e., a business circumstance that is caused by some sudden, dramatic, and unexpected action or conditions outside the employer's control); and,

3. Natural Disaster—When a plant closing or mass layoff is the direct result of a natural disaster such as flood, earthquake, drought, storm, tidal wave, or similar events caused by nature.

For plant closings, an employer must give notice if an employment site, one or more facilities or operating units, will be shut down causing employment loss for 50 or more employees during any 30-day period. For mass layoffs, a situation in which the plant will not be closing, an employer must give notice if the resulting loss in employment at the site during any 30-day period affects: a) 500 or more employees; or b) 50-499 employees if they make up at least 33 percent of the employer's active workforce.

In addition, for employment losses that occur over a 90-day period, an employer is required to give advance notice if it has a series of small terminations or layoffs, none of which individually would be covered under WARN but which add up to numbers that would require WARN notice. The employer is not required to give notice if it can show that the individual events occurred as a result of separate and distinct actions and causes and are not an attempt to evade WARN.[23]

For the sale of a business, the following guidelines are provided: 1) an employer is always responsible for giving notice; 2) if the sale results in a plant or mass layoff, the seller is responsible for providing notice of any plant closing or mass layoff which occurs up to and including the date and time of the sale and the buyer is responsible for providing notice of any plant closing or mass layoff which occurs after the date and time of the sale; and 3) for purposes of WARN, on the day and time of the sale, employees of

the seller become employees of the buyer immediately following the sale. This provision preserves the notice rights of the employees of a business that is sold.[24]

Enforcement of the WARN requirements is through the United States district courts. Workers' representatives of employees and units of local government may bring individual or class action suits. In any suit, the court, at its discretion, may allow the prevailing party a reasonable attorney's fee as part of the costs.[25]

C.7. Putting it all together: the Pillowtex example

An example of how these programs work in conjunction to assist workers faced with layoffs occurred in North Carolina. On September 9, 2003, the U.S. Department of Labor announced TAA certification for many laid-off workers from the Pillowtex Corporation. The U.S. Department of Labor has certified approximately 5,000 workers laid off from Pillowtex in North Carolina, Virginia, Mississippi, Pennsylvania, California, Alabama, Illinois, Texas, and South Carolina as eligible to apply for Trade Adjustment Assistance services and benefits. In making the announcement, U.S. Secretary of Labor Elaine L. Chao stated:

"This Administration is committed to getting help as quickly as possible to the workers who worked at Pillowtex. On top of the $20.6 million that has already been given in national emergency grants, this certification means up to two years of training, up to 104 weeks of weekly income support, job search and relocation benefits, and a health

coverage tax credit that covers up to 65 percent of monthly health premiums for workers and their families."[26]

Certification enables eligible Pillowtex workers to apply for TAA program benefits and services. At local One-Stop Career Centers, they will obtain a broad range of re-employment and retraining services, including career counseling, job placement assistance, job search and relocation allowances and income support during approved training. The Labor Department also offers information about pension and health benefit protections.

The Pillowtex certification covers the period from August 2002 to August 2005. Workers who were laid off or had their hours reduced significantly during this time period may be eligible for Trade Adjustment Assistance.

In addition to certifying Pillowtex workers for Trade Adjustment Assistance benefits, the U.S. Department of Labor also certified approximately 350 workers from Kannapolis, N.C. and Easley, S.C. as impacted secondary workers making them eligible for the same benefits as the former Pillowtex workers.[27]

In addition to the TAA certification, the California Employment Development Department customized a product, “Skills Match: Put Your Pillowtex Corporation Skills to Work…”, to assist Pillowtex workers in obtaining employment in other businesses.[28]

Rapid Response efforts were put in place in North Carolina to serve employees in the Pillowtex plants. Rapid response team meetings were implemented in several areas, including Rowan, Rockingham, and Cabarrus counties, to provide information on the

various services provided including WIA dislocated worker programs, TAA programs, and services supported through National Emergency Grants.[29] The Pillowtex shutdown led to several workforce investment centers organizing special efforts to serve Pillowtex employees. For example, Rockingham County organized information on a special Web site at its Displaced Worker Resource Center for Pillowtex employees.[30] The site included information and links for financial assistance, short-term assistance, training and reemployment, human services and counseling, referral information, and medical assistance and health insurance information.

National Emergency Grants were also used to assist Pillowtex workers. U.S. Secretary of Labor Elaine L. Chao visited Kannapolis, NC, site of the largest Pillowtex plant, and announced a $20.6 million NEG -- $13 million for retraining, job search assistance, and other services, and $7.6 million to help pay for worker health insurance policies.[31] The Secretary of Labor also approved a $3.2 million NEG grant to Virginia to assist displaced Pillowtex workers in Martinsville and Henry Counties.[32]

In addition to the Department of Labor, a number of other federal agencies collaborated in providing services to Pillowtex workers, including the Departments of Housing and Urban Development, Commerce, Agriculture, Education, Health and Human Services, and Treasury, along with the Small Business Administration and the Social Security Administration.

Taken together, the combined use of these programs provides a blueprint for how federal programs can be used to assist transitioning workers, not just in textile and apparel, but in other industries as well.

E. Summary

The workforce investment system administered by the Department of Labor and the States includes a range of programs designed to assist workers affected by layoffs and displacement. These programs have been used extensively to help thousands of workers affected by adverse labor market developments in the textile and apparel industries, and remain in place to help workers affected by future labor market difficulties transition into new careers. The Department of Labor's High-Growth Job Training Initiative, when combined with State and local efforts and the Administration's proposed reforms to job training programs, will augment the effectiveness and success of these programs and provide jobs with long-term value and potential for former textile and apparel workers.

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[1] Data in tables I-1 and I-2 are from the BLS Occupational Employment Statistics program, available on the Internet at: http://stats.bls.gov/oes/home.htm .
[2] *South Carolina Workforce Trends, May 2003 Special Edition*, South Carolina Employment Security Commission, Labor Market Information.
[3] Workforce Investment Act of 1998, Public Law 105-220, August 7, 1998.
[4] *Federal Register*, Vol. 65, No. 156, (page 49294), Friday, August 11, 2000, Rules and Regulations.
[5] The TAA program, established by the Trade Act of 1974 (19 USC 2271 et Seq.), was recently reauthorized and revised significantly by the Trade Act of 2002 (Public Law No. 107-210, August, 2002).
[6] The NAFTA-TAA program, established as a distinct program to assist workers adversely affected by trade with Mexico or Canada, was consolidated with the TAA program by the Trade Act of 2002.
[7] Data in table I-5 are unpublished and have been compiled for this report by staff in the Trade Adjustment Assistance program.
[8] In 1997, 70 percent of the textile employment is in the southeastern States according to BLS. See the *Monthly Labor Review, Editor's Desk*, March 1999; available on the Internet at: http://www.bls.gov/opub/ted/1999/mar/wk3/art04.htm .
[9] Secondary workers are certain upstream, or downstream workers at firms that may not be directly affected by increased imports but have declining sales or production to a firm that is determined to be adversely affected by increased imports.

[10] U.S. Department of Labor, Employment and Training Administration, "Rapid Response: Services for large layoffs and plant closings," available on the Internet at: http://www.doleta.gov/layoff/rapid.cfm .
[11] U.S. Department of Labor, Employment and Training Admininstration, Office of Adult Services, Division of Adult and Dislocated Workers, National Dislocated Worker Workgroup, "Quality Rapid Response Principles," September 2001.
[12] Department of Labor, Employment and Training Administration, "Dislocated Workers." Available on the Internet at: http://www.doleta.gov/layoff/ .
[13] U.S. Department of Labor, Employment and Training Administration, "Just Laid Off? About to Experience a Layoff? There's help available...," available on the Internet at: http://www.doleta.gov/layoff/workers01.cfm .
[14] "Just Laid Off? About to Experience a Layoff? There's help available..."
[15] Workforce Investment Act of 1998. Sec. 173. National Emergency Grants.
[16] U.S. Department of Labor, Employment and Training Administration, Office of National Emergency Grants, "Talking Point Funding Summary." 2003.
[17] "Talking Point Funding Summary, 2003."
[18] "Talking Point Funding Summary, 2003."
[19] U.S. Department of Labor, Employment and Training Administration, Office of National Emergency Grants, "Talking Point Funding Summary." 2001.
[20] The Worker Adjustment and Retraining Notification (WARN) Act was enacted on August 4, 1988 and became effective on February 4, 1989.
[21] The 100 employees do not include employees who have worked less than 6 months in the last 12 months or an average of less than 20 hours a week.
[22] Department of Labor, Employment and Training Administration, "The Worker Adjustment and Retraining Notification Act: A Guide to Advance Notice of Closings and Layoffs." Available on the Internet at: http://www.doleta.gov/programs/factsht/warn.asp .
[23] "The Worker Adjustment and Retraining Notification Act: A Guide to Advance Notice of Closings and Layoffs."
[24] "The Worker Adjustment and Retraining Notification Act: A Guide to Advance Notice of Closings and Layoffs."
[25] "The Worker Adjustment and Retraining Notification Act: A Guide to Advance Notice of Closings and Layoffs."
[26] U.S. Department of Labor News Release, USDL 03-479, September 9, 2003.
[27] U.S. Department of Labor News Release, September 9, 2003; available on the Internet at: http://www.dol.gov/opa/media/press/eta/ETA2003479.htm .
[28] A copy of the resource can be found at the National Association of Workforce Agencies (NASWA), available on the Internet at: http://www.workforceatm.org/sections/pdf/2003/Pillowtex.pdf .
[29] U.S. Department of Labor News Release, August 15, 2003; available on the Internet at: http://www.dol.gov/opa/media/press/eta/ETA2003436.htm .
[30] Available on the Internet at: http://www.co.rockingham.nc.us/displaced.htm .
[31] The Charlotte Observer, August 16, 2003.
[32] U.S. Department of Labor News Release, August 19, 2003; available on the Internet at: http://www.dol.gov/opa/media/press/eta/ETA2003445.htm .

II. National employment

A. Introduction

This chapter examines employment in the textile and apparel industries, including a review of the composition of employment within the major industries. The chapter uses data from the Bureau of Labor Statistics' Current Employment Statistics (CES) survey, a sample survey representing approximately 400,000 business establishments conducted each month as part of a Federal-State cooperative program. The CES program produces national and State-level statistics on employment, hours, and earnings in nonagricultural industries. CES industry statistics currently are based on the North American Industrial Classification system (NAICS). Under NAICS, the textile and apparel industries fall into the following categories: NAICS 313—Textile mills, NAICS 314—Textile product mills, and NAICS 315—Apparel.

At the national level, the CES converted from the Standard Industrial Classification (SIC) system to NAICS in June 2003 with the release of data for May. Under the SIC system used previously, there essentially were two industry components covering textiles and apparel—Textile mill products (SIC 22), and Apparel and other textile products (SIC 23). SIC-based data series for both of these groups began in 1939 and ended in April 2003. The change in the industrial classification system affected all series, including those for textiles and apparel, and the data under the two classification systems are not strictly comparable.[1] Historical data were reconstructed after the NAICS conversion to the

extent possible, but the data under NAICS do not go back as far as they did under the SIC system. BLS reconstructed CES data for all textile and apparel series back to 1990 (except fiber, yarn, and thread mills, which begins in 1958.) The latest national CES data as of this writing are for September 2003 (CES data for the latest 2 months are preliminary). More recent data may have become available and can be accessed at http://www.bls.gov/ . The analysis in this section concentrates on the NAICS data series, the official and current series published by the BLS. Therefore, emphasis is placed on the most current years with a more limited discussion of earlier SIC-based data.

B. Historical trends

As of September 2003, the textile and apparel industries employed less than 750,000 workers, representing about 6 percent of total factory employment in the U.S. The number of workers in the industries and their share of the manufacturing workforce both have been declining for decades from the levels that existed just before World War II, when the earliest comparable data became available. In 1939, employment in the textile and apparel industries (SIC 22 and 23) totaled 2.1 million, accounting for about one-fifth of manufacturing employment. In the context of total nonfarm employment, about one out of every 20 workers in the American economy was employed in textiles and apparel in 1939; today the figure is about one in 200.

Although the textile and apparel industries are so clearly intertwined that they often are analyzed as one entity, historical employment trends in the industries differ somewhat.

Textiles employment held at about 1.2 million during the 1940s, but then began to drift down, to just under 1 million for most of the 1950s and 1960s. Employment in apparel, on the other hand, rose from a little over 900,000 in 1939 to more than 1.4 million by the late 1960s, peaking at above 1.4 million in 1973. The year 1973 often is viewed as sort of a "high water" mark for textiles and apparel employment, for it is clear that a long-term downward trend in the number of workers in both industries began at about that time.

Over the past decade or more, (with January 1990 as the starting point for NAICS-based data for textiles and apparel) manufacturing employment overall contracted by 3.2 million. Despite their small share of manufacturing employment (less than 10 percent), the textiles and apparel industries (NAICS 313, 314, and 315 added together) accounted for almost one-third of the total contraction in manufacturing over that period. (See table II-1.)

Table II-1. Employment in manufacturing and in textiles and apparel (seasonally adjusted)

Industry	Employment (in thousands)			Percent change	Share of loss in mfg. emp. since Jan. 1990
	Jan. 1990	Sept. 2003	Change		
Manufacturing	17,796.0	14,556.0	-3,240.0	-18%	
Textiles and apparel (NAICS 313,4,5)	1,681.9	731.2	-950.7	-57%	29%
Textile mills (NAICS 313)	503.3	257.3	-246.0	-49%	8%
Textile product mills (NAICS 314)	215.7	179.8	-35.9	-17%	1%
Apparel (NAICS 315)	962.9	294.1	-668.8	-69%	21%

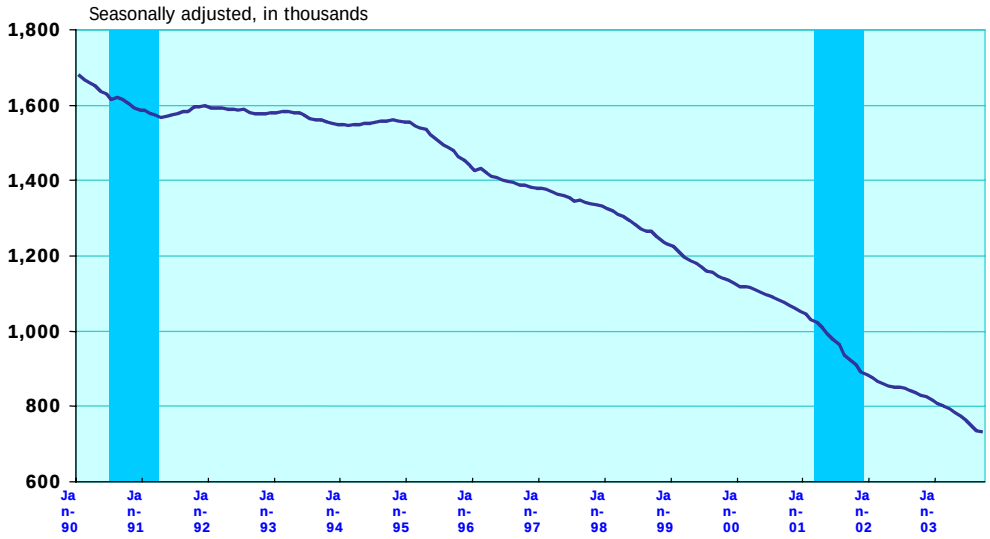
Source: Bureau of Labor Statistics, Current Employment Statistics survey

C. Recent developments

The long-term downward trend in textiles and apparel employment that started several decades ago has been punctuated by several periods when job losses in the industries were sharper, mostly during cyclical downturns in the overall economy.

Such was the case during the 2001 recession.[2] Textiles and apparel employment (NAICS-based) in September 2003 stood at about 731,000, less than half of what it was when the series began in January 1990. (See chart II-1.)

Chart II 1. Employment in textiles and apparel (NAICS 313, 314, 315)
1990-2003



Source: Bureau of Labor Statistics, Current Employment Statistics Survey
Note: Shaded areas denote recessions.

Looking at the decade of the 1990s, from January 1990 through March 1991, textiles and apparel together shed about 107,000 jobs; these losses were especially sharp due to the downturn in the economy that occurred during the early 1990s. After the recession ended in March 1991, employment stabilized for a while, but steady monthly losses began to mount again in 1995, and textiles and apparel lost about 116,000 jobs by the end of that

year, a decline of 7.4 percent. The textiles and apparel industries continued to lose jobs at a fairly steady pace each year from 1996-2000; during this period, the average decline per month was 6,400 jobs.

During 2001, the textiles and apparel industries were impacted by the general downturn in the economy. Over the year, employment fell by 169,000, or 16 percent. This trend continued in 2002, with an average decline of 5,800 jobs per month, and 2003, with an average drop of about 9,000 jobs per month. (See table II-2.)

Table II-2. Over-the-year change and average monthly change in textiles and apparel industries, 1998-2003
(in thousands, seasonally adjusted)

	Textiles and apparel (NAICS 313,4,5)		Textile mills (NAICS 313)		Textile product mills (NAICS 314)		Apparel (NAICS 315)	
Year	Over-the-year change	Average monthly change	Over-the-year change	Average monthly change	Over-the-year change	Average monthly change	Over-the-year change	Average monthly change
1998	-99.7	-8.3	-23.6	-2.0	0.8	0.1	-76.9	-6.4
1999	-103.7	-8.6	-25.0	-2.1	0.4	0.0	-79.1	-6.6
2000	-74.0	-6.2	-20.1	-1.7	-3.1	-0.3	-50.8	-4.2
2001	-168.8	-14.1	-61.3	-5.1	-16.3	-1.4	-91.2	-7.6
2002	-69.3	-5.8	-20.7	-1.7	-4.6	-0.4	-44.0	-3.7
2003 (through Sept.)	-84.6	-9.4	-27.6	-3.1	-13.9	-1.5	-43.1	-4.8

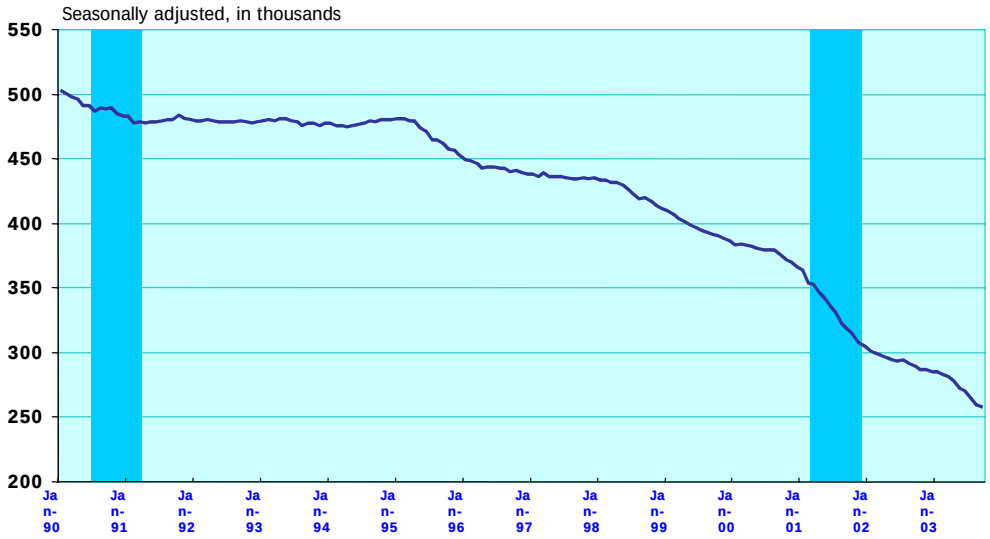
Note: Changes from December of prior year.
Source: Bureau of Labor Statistics, Current Employment Statistics survey

C.1. Textile mills (NAICS 313)

Since the beginning of the current data series in 1990 (again, the start of NAICS-based data), employment in textile mills has fallen by 49 percent. Employment declined steadily through 1990 but, with the end of the recession in March 1991, stopped falling and was relatively stable until mid-1995, when job losses resumed. (See chart II-2.)

Employment in textile mills dropped by 224,000, or 46 percent, from its peak employment level in February 1995 through September 2003. During the 2001 recession, textile mills' employment dropped by 16.7 percent and job losses averaged 5,100 a month. This trend continued in 2002 and 2003. The average workweek of production workers in textile mills has also drifted down over the past decade. In September 2003, textile workers averaged about 39.2 hours per week.

Chart II2. Employment in textile mills (NAICS 313)
1990-2003



Source: Bureau of Labor Statistics, Current Employment Statistics Survey
Note: Shaded areas denote recessions.

In terms of earnings, production workers in textile mills earned an average of $11.73 an hour in 2002; in comparison, average hourly earnings for overall manufacturing were $15.29. The textile and apparel industries (along with the leather industry) are the lowest-paid industries within manufacturing. Many of these factories (particularly textile makers) are located in the southern region of the U.S., where wages tend to be lower than

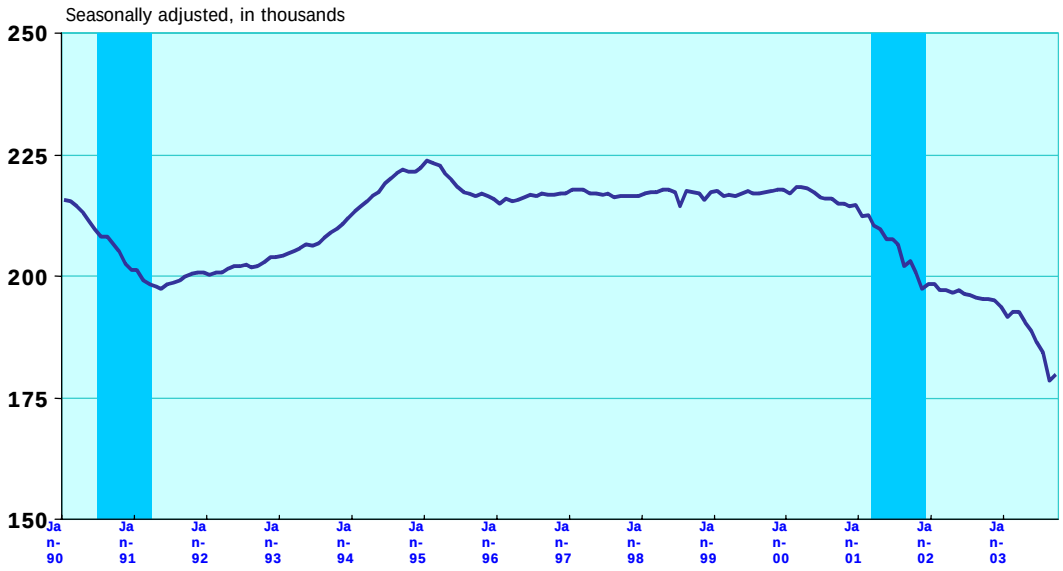
in other regions of the country. Also, some of the occupations in these industries are considered less skilled and thus associated with lower pay relative to more highly skilled fields.[3]

Trends in component industries. The textile mills industry is divided into *fiber, yarn and thread mills; fabric mills;* and *textile and fabric finishing mills*. The largest component, fabric mills, has accounted for the majority of the job loss in textile mills. During the 1990-2003 time period, fabric mills employment dropped by about one-half. The other components also showed weakness over the period.

C.2. Textile product mills (NAICS 314)

The smallest of the textile and apparel industries, this subsector posted small monthly losses from the beginning of 1990 through mid-1991. (See chart II-3.) Following the end of the recession early that year, this industry began to slowly add jobs--until February 1995. Employment declined through the remainder of 1995 and then remained relatively stable until March 2000, when the trend again turned down. Textile product mills employment has declined by about 39,000, or 18 percent, since reaching a peak in March 2000. (See table II-3.) Until quite recently, the textile product mills industry has not shown employment weakness to the degree experienced by textile mills. This industry was likely helped by strong housing sales, since most of the output of this industry is home furnishings. For example, shipments of cut and sew home furnishings and carpeting rose approximately 7 percent in 2002.[4]

Chart II3. Employment in textile product mills (NAICS 314) 1990-2003



Source: Bureau of Labor Statistics, Current Employment Statisti cs Survey
Note: Shaded areas denote recessions.

Average weekly hours worked by production workers in this industry (40.7 in September 2003) have changed little since 1990. Workers in this industry earned an average of $10.96 per hour in 2002, again one of the lowest hourly earnings figures among the major manufacturing components.

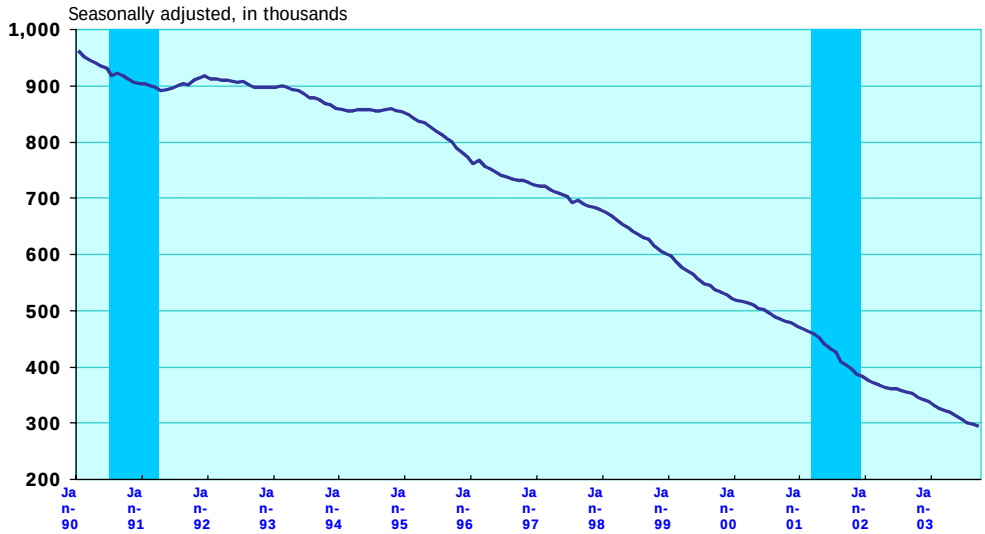
Trends in component industries. Textile product mills make carpets and rugs and household textile products, such as curtains. Employment in *carpet and rug mills* was generally stable during the 1990s, unlike other textile and apparel industries. Carpet and rug mills employment has been influenced by the robust housing market. The industry also is capital and research intensive, which may enhance its ability to remain

competitive.[5] In contrast, *curtain and linen mills* employment has declined by about a fifth since 1990. The *textile bag and canvas mills* industry, a small component of textile product mills, maintained its employment level over the period.

C.3. Apparel (NAICS 315)

Over the past decade, the steepest employment declines in the textiles and apparel group generally have been in apparel manufacturing. In September 2003, employment in apparel stood at just under one-third of what it was in January 1990. (See chart II-4.) Like textile mills and textile product mills, apparel recovered a bit after the 1990-91 recession ended and added jobs until December 1991, which was its last employment peak. Since that time, employment has dropped by about 624,000. Apparel is more labor-intensive than the textile industries.[6] It alone has been responsible for just under three-fourths of the drop in textiles and apparel employment since January 1990; in absolute terms, apparel lost more jobs than any other 3-digit (NAICS-coded) manufacturing industry. Apparel employment dropped by 69 percent, also more than any other 3-digit industry in manufacturing. (See table II-4.)

Chart II4. Employment in apparel (NAICS 315)
1990-2003



Source: Bureau of Labor Statistics, Current Employment Statistics Survey
Note: Shaded areas denote recessions.

Average weekly hours in this industry have held fairly steady since 1990; in September 2003, hours for production workers averaged 35.3 per week. Apparel production workers earned an average of $9.10 per hour in 2002, the lowest wage among the 3-digit NAICS industries in manufacturing. Data from the Occupational Employment Statistics (OES) program show that sewing machine operators, which make up a large part of the apparel industry, are among the lowest paid workers within the "production" occupations group.[7]

Trends in component industries. Apparel is composed of *apparel knitting mills*, *cut and sew apparel*, and *accessories and other apparel* manufacturers. Although all components in apparel showed weakness, the majority of the job loss has occurred in cut and sew apparel, which shed about half a million jobs from January 1990 through September 2003. Cut and sew apparel is separated between *cut and sew apparel contractors*, or

those manufacturers that cut materials owned by others and/or sew material owned by others, and those that are not contractors. The non-contractor apparel manufacturers have been responsible for about three-fifths of the jobs lost in cut and sew apparel since 1990.

D. Summary

Employment in textiles and apparel has trended downward over the past several decades. In general, job losses have been most pronounced in apparel, but declines have also occurred in the textile industries. During the 1990-91 recession, employment in these industries fell sharply but recovered a bit after the recession ended. Employment also fell during the recent recession, and this trend has continued after the official end of the downturn in November 2001.

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[1] There are a number of differences in how the textile and apparel industries are classified between SIC and NAICS. For example, the following activities under NAICS were previously not classified separately under the SIC: managing establishments such as corporate headquarters, and warehousing and storage establishments that exist only to serve other establishments within the same company. Management offices moved to a new sector in NAICS called *Management of companies and enterprises*, and all warehousing activities moved to the *Warehousing and storage* subsector. Like all manufacturing industries, these types of employees shifted out of the textile and apparel industries. There were also some movements out of textiles and apparel to transportation equipment (motor vehicle seating and trim), printing activities (screen printing), and professional and technical services such as advertising and computer systems design.

[2] The National Bureau of Economic Research (NBER) is the unofficial arbiter of business cycle peaks and troughs. NBER determined that a recession started in March 2001 and ended in November 2001. In the early 1990s, the recession began in July 1990 and ended in March 1991.

[3] *Career Guide to Industries*, Bureau of Labor Statistics.

[4] U.S. Census Bureau, Department of Commerce, available on the Internet at: http://www.census.gov/indicator/www/m3/hist/naicshist.htm .

[5] "Three Industries Navigating in a Competitively Charged Environment," *San Francisco Regional Outlook, First Quarter 2001*, The Federal Deposit Insurance Corporation (FDIC).

[6] Lauren A. Murray, "Unraveling Employment Trends in Textiles and Apparel," *Monthly Labor Review*, August 1995. Available on the Internet at: http://www.bls.gov/opub/mlr/1995/08/art6full.pdf .

[7] See the 2001 National Occupational Employment and Wage Estimates, available on the Internet at: http://www.bls.gov/oes/2001/oes_nat.htm .

III. Projections

A. Introduction

This chapter examines the long-term outlook for employment in the textile and apparel industries. It reviews industry projections and their limitations, the outlook for the occupational composition of the textile and apparel industries, and it provides an overview of the various factors that have affected the textile and apparel industries over the past several decades, with emphasis on those that are expected to figure importantly in future employment developments in the industries. Detailed attention is given to past productivity developments in the industries, as it is anticipated that technological advances in both textiles and apparel will continue to lead to marked gains in labor productivity.

The projections data are based on the Bureau of Labor Statistics' Employment Projections program. This program develops medium-to-long-term projections of likely employment patterns in the U.S. economy. At the time this report was written, long-term projections data (10 years ahead) went out to 2010. The 2012 outlook has since been released and is available at http://www.bls.gov/emp/home.htm. Projecting long-term industry employment trends is challenging. First, the future size and composition of the labor force must be projected based on population growth forecasts and expectations as to labor force participation. Figures for aggregate economic growth over the 10-year period must then be developed. Key assumptions are made regarding labor productivity,

taxation and government spending, international developments, and the various structural factors at work shaping the U.S. economy and labor market, as well as the nature of any cyclical downturn in the economy that could occur over the projection period. Models are then used to determine the final demand for industry output, and this information is translated into detailed industry employment projections. Occupational employment projections are developed based on existing staffing patterns in the industries and anticipated changes in occupational requirements for each industry.

This chapter also discusses productivity data from the Bureau of Labor Statistics' Office of Productivity and Technology. Productivity data are developed using inputs from several BLS surveys and data from other Federal statistical agencies. A range of output and productivity measures are discussed in examining past productivity trends in the textile and apparel industries. At the time this report was written, both the projections and productivity data were classified according to the Standard Industry Classification (SIC) system.

B. Industry outlook

According to the Bureau of Labor Statistics' 2000-2010 projections, total employment was expected to increase by 15 percent over the projection period, slightly less than the 17 percent growth during the previous decade.[1] Manufacturing employment overall was projected to grow by only 3 percent over the ten-year period and employment in both the

textile mill products and the apparel and other textile products industries was projected to decline.

Specifically, BLS projected that employment in the textile mill products (SIC 22) industry would decline by 0.6 percent annually, or 5.5 percent over the ten-year period. This equated to an overall loss of about 29,000 jobs, as shown in table III-1. A more rapid employment decline was projected in the apparel and other textile products industry (SIC 23). Job losses over the 2000-2010 period were projected to total 103,000 in the industry, a decline of 1.8 percent annually, or 16.3 percent over the ten-year period.

Table III-1. Employment and output in textile mill products and apparel and other textile products by industry, 1990, 2000, and projected 2010

		Employment						
		Thousands of jobs			Change		Average annual rate of change	
SIC[1]	Industry	1990	2000	2010	1990-2000	2000-2010	1990-2000	2000-2010
22	Textile mill products	692	529	500	-163	-29	-2.7	-0.6
23	Apparel and other textile products	1036	633	530	-403	-103	-4.8	-1.8

[1] All industry data associated with the Bureau's 2000-10 projections are classified according to the Standard Industrial Classification. The forthcoming 2002-12 projections will be classified according to the 2002 North American Industry Classification System.

Source: Bureau of Labor Statistics, Office of Occupational Statistics and Employment Projections

C. Occupational composition and outlook

The projected 2010 staffing patterns shown in tables III-2 and III-3, which show fairly modest changes over the decade, were developed as part of the BLS 2000-10 economic projections.[2]

Table III-2. Employment of wage and salary workers in textile mill products by occupation, 1990 and 1998, 2000 and

(Employment in thousands)

	Employment [1]				Percent of industry employment				Percent change,
	1990	1998	2000	2010	1990	1998	2000	2010	2000-10
All occupations	692	598	529	500	100.0	100.0	100.0	100.0	-5.4
Management, business, and financial	30	26	27	26	4.4	4.4	5.2	5.2	-4.8
Professional and related	13	13	11	11	2.0	2.2	2.1	2.2	-1.2
Computer specialists	3	2	3	3	0.4	0.4	0.5	0.6	13.1
Engineers and engineering technicians	5	5	4	3	0.7	0.8	0.7	0.7	-9.8
Service	10	8	6	6	1.5	1.3	1.1	1.1	-5.1
Sales and related	8	7	6	5	1.1	1.2	1.1	1.1	-4.3
Office and administrative support	57	44	43	39	8.2	7.3	8.2	7.8	-9.7
Installation, maintenance, and repair	45	42	40	37	6.5	7.0	7.6	7.4	-7.8
Production, transportation, and material moving	524	455	392	372	75.8	76	74.1	74.5	-4.9
Production	na	na	341	326	na	na	64.6	65.3	-4.4
Extruding and forming machine setters, operators, and tenders, synthetic and glass fibers	3	10	15	18	0.5	1.7	2.9	3.7	18.4
Sewing machine operators	49	37	27	23	7.1	6.1	5.0	4.7	-12.4
Textile machine setters, operators, and tenders	na	na	168	162	na	na	31.8	32.4	-3.7
Inspectors, testers, sorters, samplers, and weighers	31	25	20	16	4.5	4.2	3.8	3.1	-22.2
Transportation and material moving	na	na	50	46	na	na	9.6	9.2	-8.6
Industrial truck and tractor operators	na	na	10	9	na	na	1.8	1.8	-7.0
Laborers and freight, stock, and material movers, hand	na	na	15	13	na	na	2.9	2.7	-11.0
Machine feeders and offbearers	na	na	8	7	na	na	1.6	1.3	-19.7
Packers and packagers, hand	na	na	11	11	na	na	2.1	2.2	-1.1

Note: May not add to totals due to omission of occupations with small employment.

[1] Occupational employment is based on industry occupational staffing patterns collected by the Bureau's Occupational Employment Statistics (OES) Survey. Beginning in 1999, data collected by the OES Survey were classified according to the 2000 Standard Occupational Classification. Earlier data collected by the OES Survey were classified based on the 1980 Standard Occupational Classification.

Source: Bureau of Labor Statistics, Office of Occupational Statistics and Employment Projections

Table III-3. Employment of wage and salary workers in apparel and other textile products by occupation, 1990 and 1998, 2000 and projected 2010

(Employment in thousands)

	Employment[1]				Percent of industry employment				Percent change,
	1990	1998	2000	2010	1990	1998	2000	2010	2000-10
All occupations	1036	763	633	530	100	100	100	100	-16.3
Management, business, and financial	40	35	33	29	3.9	4.6	5.1	5.5	-11.3
Professional and related	13	12	12	12	1.3	1.7	1.9	2.4	1.5
Designers	6	5	5	5	0.6	0.7	0.8	1	8.3
Computer specialists	2	3	3	3	0.2	0.4	0.5	0.6	5.5
Service	10	7	6	5	1	0.9	0.9	1	-10.3
Sales and related	19	17	15	13	1.8	2.2	2.3	2.4	-12.5
Office and administrative support	92	69	69	57	8.9	9	10.9	10.7	-17.8
Shipping, receiving, and traffic clerks	na	na	14	12	na	na	2.2	2.2	-17
Stock clerks and order fillers	na	na	8	7	na	na	1.3	1.4	-10.6
Installation, maintenance, and repair	19	15	10	9	1.8	1.9	1.6	1.7	-9.7
Production, transportation and material moving	842	607	488	404	81.3	79.5	77.1	76.2	-17.3
Production	na	na	438	360	na	na	69.2	67.9	-17.9
Sewing machine operators	482	287	265	209	46.6	37.6	41.8	39.5	-20.9
Inspectors, testers, sorters, samplers, and weighers	31	24	20	15	3	3.1	3.2	2.8	-27.3
Transportation and material moving	na	na	50	44	na	na	7.8	8.3	-11.2
Packers and packagers, hand	na	na	20	19	na	na	3.2	3.5	-6.9

Note: May not add to totals due to omission of occupations with small employment.

[1] Occupational employment is based on industry occupational staffing patterns collected by the Bureau's Occupational Employment Statistics (OES) Survey. Beginning in 1999, data collected by the OES Survey were classified according to the 2000 Standard Occupa Classification. Earlier data collected by the OES Survey were classified based on the 1980 Standard Occupational Classification.

Source: Bureau of Labor Statistics, Office of Occupational Statistics and Employment Projections

Persons employed in production, transportation, and material moving occupations combined in 2000 made up about three-fourths of total employment in textiles and four-fifths of employment in apparel, compared to about three-fifths in manufacturing overall. The largest occupations in 2000 in textiles were textile machine setters, operators, and tenders (32 percent) and in apparel, sewing machine operators (42 percent). The highly mechanized textile industry has a large proportion of installation, maintenance, and repair occupations, compared to all manufacturing, while apparel, which is more labor-intensive, has a lower proportion of workers in these fields. Both industries have

proportions of management and of professional occupations well below the 9 percent average for each of these major occupational groups in manufacturing.

Production, transportation, and material moving occupations in the textile industry, as in overall manufacturing, have been and are projected to remain a fairly constant percentage of the total. In apparel, on the other hand, they are projected to decline modestly. A factor in this decline is the decrease in the proportion of sewing machine operators. The number of sewing machine operators also is expected to decline in textiles, but their impact on sewing machine operators overall is much smaller. Inspectors, testers, sorters, samplers, and weighers are projected to decline in both industries due to the growing use of automated inspection technology and the redistribution of quality control responsibilities from inspectors to production workers—a trend occurring throughout manufacturing. In textiles, textile machine setters, operators, and tenders are projected to remain a fairly constant proportion of employment in the industry. However, extruding and forming machine setters, operators, and tenders had very large absolute and relative growth from 1990-98 and this growth is projected to continue through 2010, reflecting a shift to synthetic materials produced by the machines these workers operate. The proportion of material moving occupations is projected to decline as a result of growing automation of material handling; however, that for hand packers and packagers in both industries is projected to remain unchanged because their duties are more difficult to automate.

Office and administrative support occupations is the second largest occupational group—about 11 percent of apparel and 8 percent of textiles in 2000. Its proportion is projected to decline, following the economy-wide trend in office automation.

Management and professional occupations are projected to remain a fairly constant proportion of the textile industry, as they are in overall manufacturing, but are projected to increase their share in apparel. Despite automation and development of new products, the share of employment in both industries accounted for by the professional and related occupations group—which includes engineers, scientists, technicians and computer specialists—has been and is projected to remain quite small.

D. Factors affecting textile and apparel employment: yesterday, today, and tomorrow

Declining employment in the textile and apparel industries reflects a range of factors. While the economic downturn in 2001 contributed to lower employment, most factors affecting employment in these two industries have been contributing to job loss for many years. These factors, which include global economic trends, workplace restructuring, industrial mergers, and technological innovation, are expected to impact employment in coming years. As in the past, they will affect each industry in different ways, however. It seems likely that these factors, discussed in detail in the following section, will be associated with continued employment declines in the textile and apparel industries.

D.1. Global economic trends

Global economic trends are important factors in explaining the rapid decline in textile and apparel employment in recent years. The trade deficit in textiles and apparel continued to grow over the period from 2000 to 2002 (by 6 percent), as export levels declined by 14.5 percent and import levels rose by just 0.6 percent.[3] Competition from abroad will undoubtedly continue over the next decade.

Trade preference programs and free trade agreements may help domestic producers cope with imports from countries that do not benefit from tariff preferences. The North American Free Trade Agreement (NAFTA), which was signed into law by President Clinton and took effect in 1994, eliminated quotas and tariffs on textile and apparel products within North America. Since NAFTA was implemented, Mexico has become the leading exporter of apparel goods to the U.S. market, increasing total apparel exports from $1.8 billion in 1994 to $7.7 billion in 2002.[4] Although apparel imports from Mexico have fallen somewhat since 2002, the agreement will continue to have an important impact on the domestic labor market for apparel. On the other hand, U.S. textile exports more than doubled under NAFTA from 1994-2001. This increase is due, in part, to NAFTA's rules of origin, which encourage U.S. inputs.

Another key trade program having an impact on domestic employment is the Caribbean Basin Initiative (CBI), created by Congress and signed into law by President Clinton in May 2000. The CBI initially offered duty reductions for apparel products that were

assembled in a CBI country out of domestically produced and cut fabric. In May 2000, the United States-Caribbean Trade Partnership Act (CBTPA) provided both duty- and quota-free treatment for apparel from a number of Caribbean and Central American countries that use fabric made in the U.S. Between 2000 and 2002, U.S. yarn exports to CBTPA beneficiaries increased by 83% and U.S. fabric imports increased by 198%. This Act was intended to restore some balance to producers in the Caribbean, who were at a competitive disadvantage with apparel producers in Mexico after NAFTA. The advantages granted to CBI countries, combined with their proximity to the U.S. market, will continue to affect the labor market in coming years.[5]

As evidenced by the above-cited export statistics, while NAFTA and the CBI have likely played a role in the job losses in the apparel industry, these and other trade agreements likely helped to preserve some jobs in the textile industry as well. A large share of apparel imports from NAFTA and CBI nations are made from U.S. components, because NAFTA's basic rule of origin requires the yarn and fabric to come from Parties to the agreement and because CBI's rules of origin require all the inputs to come from U.S. producers. Indeed, all U.S. free trade agreements and free trade agreements currently under negotiations, except the 1996 FTA with Jordan, require qualifying apparel to contain originating yarn and fabric, creating an incentive for our FTA partner countries to source from the substantial supply in the U.S.

The CBI and NAFTA have helped to make textile and apparel companies more competitive with Asian producers, who use practically no U.S. components in their apparel and textiles. To the extent that apparel producers in Mexico and the CBI are able

to compete with producers from Asia, this will be positive for the textile companies and for some functions in apparel.

However, the challenge facing textile and apparel producers in the Americas is likely to become more difficult. On January 1, 2005, all quotas are scheduled to be eliminated in textile and apparel trade for the 144 member nations of the WTO, pursuant to the 1995 Agreement on Textiles and Clothing, effectively ending a quota system that has been in place for 40 years. To the extent that China and other Asian producers continue to penetrate the U.S. market, employment in both the textile and apparel industries will likely be negatively affected.

Some U.S. textile mills are beginning to invest in production abroad in order to better compete both in the United States and particularly in the region against Asian textile and apparel production. Under NAFTA, for example, benefits are offered on textile products originating within North America, not just within the United States, as is the case in the CBI. This appears to be a trend that is likely to continue in the foreseeable future as companies attempt to provide a wider range of services to retailers and distributors.

Of course, trade agreements also will provide new export opportunities to domestic textile and apparel producers. The recently-concluded Central American Free Trade Agreement, for example, contains rules of origin that encourage the use of U.S. yarn and fabric in most qualifying apparel. As other agreements are fully implemented over the

projection cycle, U.S. exporters may be able to take advantage of markets to retain production and some employment levels.

D.2. Vertical integration and niche markets

To become more competitive, domestic textile and apparel producers will continue to merge and reduce costs by eliminating redundancies. This also will help producers increase their bargaining power with retailers and have greater access to capital for investment. Mergers also may become more common as a way to promote the vertical integration of many aspects of production, such as fabric manufacturing, cutting, design, and apparel assembly. Verticalization allows firms to become full-package producers that can quickly respond to orders, control quality, and build better relationships with retailers. This trend also is being extended to apparel retailers that are becoming more involved in manufacturing, and producers who are now retailing to increase control of supply-chains. This trend has become especially visible in Mexico. It is also becoming more common in other developing nations where firms wish to become more involved in the higher value-added areas of production.

To succeed in this increasingly difficult market, producers will need to find niche markets and anticipate changing consumption patterns. In textiles, this will mean a focus on the production of carpets, rugs, and home furnishings to take advantage of a strong domestic housing market. Also, the development of new fabrics/fibers and high-end products, including bulletproof vests and flame-resistant clothing, will help producers expand

market share. Other promising possibilities include material for airbags in autos and for high-performance sportswear, medical uses, and "smart" textiles that can change colors in reaction to some external stimulus. Growth in these products will help to maintain employment in the carpets and rugs and miscellaneous textile products sectors, but remaining ahead of the competition will require research and constant reinvention.

D.3. Technological innovation and productivity gains

Another major factor in declining textile and apparel employment has been the rapid implementation of new technology to reduce costs by raising productivity. Labor productivity in these industries has increased much faster than in manufacturing overall, and multifactor productivity increased faster in textiles than in manufacturing for the last half of the 20th century.[6] Labor productivity, multifactor productivity, output, labor input (hours), capital input (capital services), and other intermediate input trends for the textile and apparel industries are summarized below.[7]

Long-term trends in productivity. Over the second half of the 20th century, labor productivity (the ratio of output per hour) in both the textile and apparel industries (SIC 22 and 23) increased at a faster average annual rate of growth than that for overall manufacturing.[8] Labor productivity in the textile industry (SIC 22) increased at an average annual rate of 4.1 percent from 1949 to 2000. (See table III-4.) Labor productivity in the apparel industry (SIC 23) increased by 3.1 percent per year for the

same period. During this time labor productivity in overall manufacturing increased at an average annual rate of 2.8 percent and, in nondurable manufacturing, by 2.5 percent.

Table III-4. Productivity and related measures for manufacturing, nondurable manufacturing, textiles, and apparel: 1949 to 2000

(Average annual percent change)

Industry	Labor productivity	Multifactor productivity	Output	Hours	Capital services	Energy	Intermediate materials	Purchased services
Textiles								
1949-2000	4.1	2.3	2.5	-1.4	1.0	1.2	1.6	1.8
1949-1973	4.3	2.3	3.9	-0.4	1.1	3.0	3.6	3.8
1973-1979	5.2	3.3	2.6	-2.5	0.5	-1.5	0.7	0.3
1979-1990	3.4	2.1	1.1	-2.2	0.2	-0.5	-0.6	0.9
1990-2000	3.6	1.8	1.0	-2.5	1.7	0.6	0.0	-1.2
Apparel								
1949-2000	3.1	0.9	1.9	-1.1	3.0	3.0	2.0	2.8
1949-1973	2.0	0.7	2.8	0.8	4.2	5.5	2.7	2.6
1973-1979	2.8	1.9	0.9	-1.8	2.8	-0.5	-0.7	-1.3
1979-1990	2.5	0.6	0.8	-1.7	1.3	-1.1	0.9	3.7
1990-2000	6.6	1.0	1.7	-4.6	2.4	3.6	2.9	4.6
Manufacturing								
1949-2000	2.8	1.2	3.3	0.5	3.7	2.7	3.0	3.8
1949-1973	2.6	1.5	4.0	1.4	4.0	4.9	2.3	5.1
1973-1979	2.2	-0.6	2.5	0.3	4.7	0.8	6.2	5.4
1979-1990	2.6	1.1	2.0	-0.7	2.8	0.3	1.7	1.7
1990-2000	3.8	1.7	3.6	-0.2	3.2	1.2	4.0	2.2
Nondurable manufacturing								
1949-2000	2.5	0.7	2.6	0.1	3.1	2.8	2.4	3.5
1949-1973	2.8	1.3	3.5	0.7	3.3	4.7	2.4	4.4
1973-1979	2.1	-0.6	1.9	-0.2	4.3	1.0	3.6	3.4
1979-1990	1.9	0.3	1.7	-0.1	2.4	1.0	1.8	3.1
1990-2000	2.7	0.4	1.9	-0.7	2.7	1.3	2.5	1.9

Note: Data are classified according to the Standard Industrial Classification (SIC) system.

Source: Bureau of Labor Statistics, Office of Productivity and Technology

A study of a more comprehensive measure of productivity, multifactor productivity, reveals a somewhat similar pattern. Multifactor productivity is the ratio of output to the combined inputs of worker hours, capital services, and intermediate inputs including

energy, materials, and purchased services. Multifactor productivity in the textile industry increased at an average rate of 2.3 percent per year, 1949 to 2000, and in the apparel industry it increased at an average rate of 0.9 percent per year for the period. This compares to an average rate of increase of 1.2 percent per year for overall manufacturing, and 0.7 percent per year for nondurable manufacturing for the same period.

While labor productivity growth in these two industries increased at a higher rate than for the more aggregate sectors of manufacturing, the rate of increase in output was not as rapid for either industry as compared to total or nondurable manufacturing. Real output of all goods produced in the textile industry increased at an average rate of 2.5 percent per year, 1949 to 2000. Output in the apparel industry increased at an average rate of 1.9 percent per year for the same period. In comparison, output in total manufacturing and nondurable manufacturing increased at average rates of 3.3 and 2.6 percent per year, respectively, from 1949 to 2000.

The increase in productivity in the textile and apparel industries primarily reflects slower growth or declines in factor inputs, particularly labor input (hours) but also, when looking at multifactor productivity, capital services and the other intermediate factors of production (energy, materials and purchased services). Total worker hours decreased, on average, for both the textile industry and the apparel industry, 1949 to 2000: 1.4 percent per year for textiles and 1.1 percent per year for apparel. In manufacturing and nondurable manufacturing, hours of all workers showed a slight increase over the same

period: 0.5 percent per year for manufacturing as a whole and 0.1 percent per year for nondurable manufacturing.

Shorter time periods. The overall trends in productivity, output, labor and other production inputs have not been constant over the past half century. In fact, there have been major fluctuations during this period. Table III-4 shows the average annual percent changes for all the factors of production for shorter time periods. The end points (years) of the selected time periods are years in which the business cycle reached its peak. The percentage changes are the peak-to-peak rates of change. Studying changes from one peak to another is a common procedure for removing cyclical influences from the trend rates.

Labor productivity in the textile industry increased at a faster rate than in manufacturing and nondurable manufacturing for every period shown, with the exception of total manufacturing for the most recent period. During the overall period that is considered to be the "productivity slowdown" era, 1973 to 1990, the average growth in labor and multifactor productivity in textiles far exceeded the average productivity growth in nondurable manufacturing and total manufacturing. Again, as shown for the overall time period, 1949 to 2000, strong productivity growth for all the shorter periods occurred with relatively small growth in output, reflecting even slower growth in factor inputs, especially labor input. For the textile industry, output grew at a faster rate than for all manufacturing only for the period 1973 to 1979 (2.6 percent per year for textiles, versus

2.5 percent per year for total manufacturing). The earliest period, 1949 to 1973, was the period with the least amount of decrease in hours in textiles; hours decreased at an average rate of 0.4 percent per year. For the later periods hours decreased at a much faster rate and output grew at a slower rate in textiles as compared to either total manufacturing or nondurable manufacturing.

Labor productivity in the apparel industry increased faster than in nondurable manufacturing for all the post-war economic periods except the 1949 to 1973 period. Similarly, multifactor productivity in the apparel industry increased at a greater rate than in nondurable manufacturing for all periods except the 1949 to 1973 period. Labor productivity increased more during the most current period, 1990 to 2000, than at any other time--an average annual rate of 6.6 percent. This was more than double the rate of increase in labor productivity for nondurable manufacturing (2.7 percent) and substantially more than the rate in total manufacturing (3.8 percent). The increases in productivity for this time period reflect an average rate of increase in output of 1.7 percent per year coupled with an average decrease in hours of 4.6 percent per year. The average increase in output for this period was the highest since the 1949 to 1973 period. The strong growth in labor productivity in this industry over the 1990s is partly explained by strong growth in nonlabor inputs. Thus, multifactor productivity growth, while still stronger than that for all nondurable industries, was less than that for total manufacturing.

One explanation for increasing labor productivity growth that often is cited is an increase in the capital/labor ratio, the amount of capital services per hour of labor input. The

annual percent change in the capital/labor ratio is simply the difference in the percent change in capital services and the percent change in hours. As shown in table III-4, capital services in the textile and apparel industries did not increase as fast as capital services did in nondurable manufacturing or total manufacturing. The percent increase in the capital/labor ratio for both of these industries however, is greater, for most time periods, than for either nondurable manufacturing or total manufacturing. For the 1990 to 2000 period, the capital/labor ratio increased at an average rate of 4.2 percent for textiles, and 7.0 percent for apparel. The capital/labor ratio increased at an average rate of 3.4 percent for both nondurable manufacturing and total manufacturing during this same period.

Detailed industries: 1990 to 2000. Both the textile and apparel industries can be separated into nine separate industries (on a SIC basis) for further analysis. A look at labor productivity growth for the more detailed industries that make up the textiles and apparel industries for the most current time period, 1990-2000, reveals a similar story to that for these industries as a whole.[9] Labor productivity increased from 1990 to 2000 in all nine of the separate industries within textiles. (See table III-5.) The largest increases in labor productivity for the period occurred in two broadwoven-fabric mill industries, manmade and wool. The average annual productivity increase in each of these industries was 4.2 percent. The lowest rate of increase in productivity occurred in the carpets and rugs industry (1.0 percent per year). Output grew at a faster rate in the carpets and rugs industry than in most of the other industries within textiles (1.9 percent per year), but hours also increased (0.9 percent per year). Carpets and rugs was one of only two textile

industries with increasing hours for the period; the other was miscellaneous textile goods, which showed an increase in hours of 0.4 percent per year.

Table III-5. Labor productivity, output, and hours for textile and apparel industries: 1990 to 2000

(Average annual percent change)

SIC	Industry	Labor productivity	Output	Hours
Textiles				
221	Broadwoven fabric mills, cotton	3.1	-0.4	-3.4
222	Broadwoven fabric mills, manmade	4.2	0.8	-3.2
223	Broadwoven fabric mills, wool	4.2	-2.4	-6.3
224	Narrow fabric mills	2.0	0.2	-1.7
225	Knitting mills	3.8	-1.1	-4.7
226	Textile finishing, except wool	1.5	0.9	-0.7
227	Carpets and rugs	1.0	1.9	0.9
228	Yarn and thread mills	3.5	1.6	-1.8
229	Miscellaneous textile goods	2.1	2.6	0.4
Apparel				
231	Men's and boys' suits and coats	4.2	-4.2	-8.1
232	Men's and boys' furnishings	7.0	-0.4	-6.9
233	Women's and misses' outerwear	6.2	0.7	-5.1
234	Women's and children's undergarments	13.2	0.8	-11.0
235	Hats, caps, and millinery	1.7	1.1	-0.6
236	Girls' and children's outerwear	9.3	-3.3	-11.6
237	Fur goods	-2.3	-11.9	-9.8
238	Miscellaneous apparel and accessories	2.1	-2.0	-4.0
239	Miscellaneous fabricated textile products	2.9	3.6	0.7

Note: Data are classified according to the Standard Industrial Classification (SIC) system.

Source: Bureau of Labor Statistics, Office of Productivity and Technology

Labor productivity growth in the nine apparel industries for the period 1990 to 2000 varied from a high of 13.2 percent per year for women's and children's undergarments to a low of -2.3 percent per year for fur goods. Labor productivity increased at an average rate greater than 5.0 percent for four industries in textiles: along with women's and

children's undergarments were men's and boys' furnishings (7.0 percent per year), women's and misses' outerwear (6.2 percent), and girls' and children's outerwear (9.3 percent). For two of these four industries with high rates of increases in labor productivity, output decreased over the decade. Output decreased at an average rate of 0.4 percent per year in men's and boys' furnishings and 3.3 percent per year in girls' and children's outerwear. Fur goods had the largest rate of decrease in output (-11.9 percent per year) for the period.

Productivity gains projected to continue. The solid gains in productivity in the textiles and apparel industries are expected to continue, and this ultimately means that there will be less and less demand, all other things remaining equal, for labor to meet output requirements. There is ample evidence that the industries still are investing heavily in technology to make their manufacturing processes more efficient. This has been particularly true in the textile industry. According to figures from the American Textile Manufacturers Institute, the textile industry has invested approximately $2 billion annually in new technology over the past decade. New air-jet looms, open-end spinning, CAD/CAM, and the application of robotics have dramatically reduced the amount of time required to produce textiles. The next generation of equipment, including laser-guided looms, will allow even fewer workers to produce more. Although textile investment has reportedly fallen over the past two years, it is expected that textile firms will continue to rely on technology to help them develop new materials and counteract a domestic wage disadvantage. Some producers may also continue to reduce the labor component of

production by focusing on new textiles that minimize the more labor-intensive spinning and weaving operations.

Many apparel firms also are relying on technology and workplace reorganization to significantly increase productivity. These steps have been part of the apparel industry's strategy to focus on high-fashion items and improve their ability to have Quick Response (QR) to changes in the domestic market.[10] By pursuing this strategy, the industry can best take advantage of its proximity to the world's largest apparel market and keep inventory levels low.

These strategies will help to preserve some domestic production over the coming projection cycle, but foreign producers are also adapting. For example, competitors in the textile industry are rapidly adopting new technologies and increasing productivity. Similarly, advanced communication equipment allows apparel designs to rapidly travel abroad. Foreign producers are thus able to take advantage of decreasing air transportation costs to respond quickly to market changes in certain lines.

E. Summary

Demographics are working against the domestic industry, as much of the world's population growth is likely to occur in the developing world, where local producers have an advantage. Fierce price competition also will continue, spurred on by consumer demand for higher quality products at lower prices as well as the rising power of retailers

vis-à-vis producers.[11] This will continue to restrain profits for many domestic textile and apparel firms.

[1] The BLS projections were completed prior to the tragic events of September 11. While there have been numerous immediate economic impacts, the nature and severity of longer-term impacts remains unclear. At this time it is impossible to know how individual industries or occupations may be affected over the next decade. BLS will continue to review its projections and as the long-term consequences of September 11 become clearer will incorporate these effects in subsequent releases of the industrial and occupational outlook.

[2] Tables III-2 and III-3 show the occupational composition of employment for the industries, both for the 1990-98 period, and as projected for 2000-2010. Because of changes in occupational classification between 1998 and 2000, there are problems linking data for these two years. Occupational employment is based on industry occupational staffing patterns collected by the Bureau's Occupational Employment Statistics (OES) survey. Beginning in 1999, data collected by the OES survey were classified according to the 2000 Standard Occupational Classification system. Earlier data collected by the OES survey were classified based on the 1980 Standard Occupational Classification system. Therefore, historical data are not shown for some occupations and data for production occupations have been combined with that for transportation and material moving occupations to create a reasonably consistent time series.

[3] Department of Commerce, International Trade Administration, Office of Textiles and Apparel. Recent data available on the Internet at: http://otexa.ita.doc.gov/tbrimp.htm .

[4] Department of Commerce, International Trade Administration, Office of Textiles and Apparel.

[5] Other trade agreements similarly extended preferential treatment of textile and apparel and certain other manufactured products to additional foreign nations. Their impact to date on the textile and apparel industries has been minor when compared to the agreements mentioned above. The African Growth and Opportunity Act (AGOA) of 1993 authorized the President, subject to certain eligibility requirements and criteria, to designate selected types of manufactured products of a number of sub-Saharan African countries for preferential treatment. The Andean Trade Promotion and Drug Eradication Act (ATPDEA) of 2002 also authorized the President to designate textile and apparel and other selected products of Bolivia, Colombia, Ecuador, and Peru for preferential U.S. duty treatment.

[6] For a somewhat different view see Levinsohn and Petropoulos, "Creative Destruction or Just Plain Destruction?: The U.S. Textile and Apparel Industries since 1972."

[7] See *BLS Handbook of Methods,* Bulletin 2490, Bureau of Labor Statistics, Washington, D.C., April 1997, pp. 89-109, for a description of the calculation methods for these data series.

[8] The industries in this study are classified according to the Standard Industrial Classification (SIC) system.

[9] Data on multifactor productivity growth for these detailed industries are available on the BLS website at http://stats.bls.gov/mfp/home.htm .

[10] U.S. Bureau of Labor Statistics, The 2002-03 Career Guide to Industries, in the outlook section of the Apparel and Other Textile Products statement.

[11] The Consumer Price Index (CPI) for apparel commodities fell 8.3 percent during the 10 year time period from October 1993 to October 2003. Comparatively, the all items U.S. CPI-U rose 27.0 percent during the same time period. Women's apparel, the most heavily weighted expenditure class within apparel commodities, is primarily responsible for the long-term decline. The women's apparel price index peaked in 1993 and has since trended downward. However, all expenditure classes in apparel commodities are experiencing long-term price declines.

From October 1993 to October 2003, the Producer Price Index (PPI) for Textile mill products (SIC 22) increased by 2.6 percent, while that for Apparel (SIC 23) increased by 4.8 percent. These rates of

increase are significantly smaller than the 16.8 percent increase in the PPI for All finished goods over the same period. For both textiles and apparel, slow price growth over the entire 1993 – 2003 period is the net result of moderate price increases throughout most of the 1990s, followed more recently by price deflation. The PPI for Textile mill products rose by 4.9 percent between October 1993 and February 1998, then fell by 2.3 percent from February 1998 to October 2003. Producer prices for SIC 23, Apparel, peaked in October 2000, somewhat later than those for textiles. Between October 1993 and October 2000, the PPI for SIC 23 rose by 5.6 percent, then fell by 0.8 percent between October 2000 and October 2003.

Import and export price indexes for textile and apparel products have shown similar trends over the past ten years. Prices trended upwards from 1993 until 1998, then reversed movement and declined from 1999 through 2002. (Note that import prices do not include duties.)

IV. National unemployment and worker characteristics

A. Introduction

This part of the report uses data from the Bureau's Current Population Survey (CPS) to evaluate unemployment among textile and apparel workers and look at a range of demographic and other characteristics of workers in the industries. The CPS is a monthly nationwide sample survey of about 60,000 households best known for providing the nation's official statistics on unemployment. Because it is a sample survey of households rather than of employers, it is uniquely suited to obtain timely information on the employment status of the population and cross-classify those data by a wide range of personal and other characteristics. CPS industry data currently are classified according to a system derived from NAICS, but NAICS-based data are only available back to 2000 and in some cases are not available separately for the textile and apparel industries. For these reasons, much of the data in this section are coded using a system based largely on the Standard Industry Classification (SIC) system. At the end of this chapter there is a section covering mass layoff data collected in the Mass Layoff Statistics (MLS) program; these data are NAICS-coded.

B. Unemployment among textile and apparel workers

In 2002, 109,000 experienced workers in the textile and apparel industries (SIC 22 and 23) were unemployed.[1] In the textile industry, the unemployment rate was 9.2 percent in

2002. This is higher than the 7.2 percent unemployment rate reached in 1993, the high point reached after the labor market downturn of the early 1990s. In apparel, the unemployment rate was 10.3 percent of the experienced labor force in 2002, up from the recent low of 7.9 percent in 2000. In 1993, following the labor market downturn of the early 1990s, the jobless rate in apparel peaked at 11.7 percent.

Slightly less than half of experienced unemployed persons in textiles and apparel had been unemployed for 15 weeks or more in 2002, about the same proportion as that in the manufacturing sector. About 27 percent were unemployed for 27 weeks or more, compared with 24 percent in manufacturing overall. Those unemployed for 5 to 14 weeks and less than 5 weeks each accounted for just below 30 percent of the experienced unemployed in both manufacturing and the textiles and apparel group.[2]

Displaced workers and persons who completed temporary jobs made up about 68 percent of the experienced unemployed in the apparel industry in 2002. (The other reason for unemployment categories include job leavers—persons who quit or otherwise terminated their employment voluntarily and immediately began looking for work; reentrants—persons who previously worked but were out of the labor force prior to beginning their job search; and new entrants—persons who had never worked.) The proportion was larger among textile workers, with three-quarters of unemployed textile workers falling into the displaced worker category. This was roughly in line with the level for the manufacturing sector overall.

The displaced worker group can be broken down into two subcategories—those on temporary layoff and expecting recall, and those who have permanently lost jobs. About one out of every 4 displaced workers in each of these industries was on temporary layoff in 2002 (they had some expectation of being called back to work); the majority of those who had lost their textile and apparel jobs did not expect recall. This may reflect, in part, the historical trend away from temporary layoffs, especially in manufacturing.[3]

C. Displaced workers

National estimates from the biennial Displaced Worker Supplement to the Current Population Survey provide an additional measure of job loss among workers in textiles and apparel manufacturing. The most recent Displaced Worker survey as of the time this report was written was conducted in January 2002, and covers the period from 1999-2001. Displaced workers are persons 20 years of age and older who lost or left jobs because their plant or company closed or moved, there was insufficient work for them to do, or their position or shift was abolished.

During the 1999-2001 period, there were 9.9 million workers displaced from their jobs. Among these displaced workers, 2.5 million, or about 25 percent, lost factory jobs. In textile mills, 84,000 lost a job at some time during 1999-2001, and 146,000 lost jobs in apparel and other textile product manufacturing.[4]

In general, workers displaced from manufacturing jobs are more likely than workers in other major industries to cite plant or company closings or moves as the reason for losing their job. Among all manufacturing workers displaced during the 1999-2001 period, 44 percent attributed their job loss to a plant closing. Workers displaced from jobs in the textile and apparel industries were particularly likely to report a plant or company closing or move—84 percent and 65 percent, respectively.

The overall reemployment rate—the proportion of displaced workers employed at the time of the survey—was 64 percent in January 2002, and 58 percent among displaced manufacturing workers. In textiles and apparel, reemployment rates were 54 percent and 50 percent, respectively.

D. Demographic and other characteristics

In 2002, there were about 1 million persons employed in the textile and apparel industries (as measured in the CPS).[5] Compared to manufacturing as a whole, women make up a relatively large share of workers in textiles and apparel. In manufacturing, men accounted for more than two-thirds of employment in 2002. For the textile and apparel components, this proportion is much different, with women making up about half of employment in the industries (combined). Women represented just under half of those employed in textiles in 1990, and this share has shown little definitive change over the past decade. In apparel, where nearly three-quarters of those employed in the industry were female in 1990, the share has declined markedly, particularly over the past five

years. By 2002, it had fallen to about three-fifths, though this still is relatively high for a manufacturing industry. (See table IV-1.)

Table IV-1. Percent of total employed by industry, sex, race, and Hispanic ethnicity, 1990-2002 annual averages

Industry	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Manufacturing													
Men	67.6	67.3	67.1	67.8	67.9	68.4	68.0	67.9	68.2	68.0	67.4	68.1	69.3
Women	32.4	32.7	32.9	32.2	32.1	31.6	32.0	32.1	31.8	32.0	32.6	31.9	30.7
White	86.0	85.4	85.2	85.7	85.5	84.9	84.7	84.5	84.4	84.3	83.9	84.1	84.1
Black	10.2	10.4	10.6	10.2	10.1	10.4	10.5	10.4	10.5	10.6	10.1	9.7	9.6
Hispanic	9.7	9.4	9.6	9.9	9.9	10.2	10.1	11.2	11.2	11.2	13.0	13.3	13.3
Textiles													
Men	52.5	52.6	51.4	53.3	52.9	55.2	54.1	57.4	54.6	57.1	51.7	52.9	54.5
Women	47.6	47.4	48.6	46.7	47.1	44.8	45.8	42.6	45.4	43.0	48.3	47.0	45.5
White	72.6	69.4	68.2	73.3	71.9	70.9	74.0	74.6	71.6	74.4	75.1	77.7	75.8
Black	25.4	29.0	28.6	24.0	25.1	25.8	23.1	20.2	22.7	21.8	19.8	18.2	19.9
Hispanic	7.1	6.6	5.0	7.0	6.6	6.4	8.1	10.9	6.6	10.6	11.4	13.8	15.9
Apparel													
Men	26.3	24.4	25.8	29.1	28.6	29.9	29.9	29.3	33.6	32.5	35.8	36.9	38.7
Women	73.8	75.6	74.1	70.9	71.4	70.1	70.1	70.6	66.4	67.5	64.1	63.0	61.3
White	76.6	75.7	74.3	74.3	74.7	73.7	73.5	70.2	70.2	74.6	76.4	76.1	73.1
Black	14.3	15.4	16.4	15.2	15.2	15.0	14.6	16.2	14.7	10.7	11.9	10.1	12.4
Hispanic	23.9	21.9	22.3	23.4	21.4	24.0	24.5	26.3	25.9	30.4	36.1	33.4	33.5

Note: Data are classified according to the 1990 Census Industrial Classification system.
This system was based largely on the Standard Industrial Classification (SIC) system.
Data for 2000-2002 have been revised to incorporate Census 2000-based population controls.

Source: Bureau of Labor Statistics, Current Population Survey

The race/ethnic makeup of workers in the textile and apparel industries has shifted in recent years, in some ways mimicking trends in manufacturing and the overall economy. The portion of manufacturing jobs held by whites and blacks declined between 1990 and 2002. Over the same period, there was a growing presence of Hispanics in the Nation's factories. In 1990, about 10 percent of manufacturing jobs were held by Hispanics. By 2002, this proportion had grown to about 13 percent. (By way of comparison, Hispanics

made up about 12 percent of total employment in the U.S. in 2002.) Hispanic employment in the textile industry also increased between 1990 and 2002, from roughly 7 to 16 percent of the total. At the same time, the proportion of whites employed in textiles rose slightly while the share of blacks fell. In apparel, the Hispanic share of employment typically has been much greater than in manufacturing overall. Their share of apparel employment rose to about one-third over the period, while the share of jobs held by blacks edged down. (See table IV-1.)

Minority workers generally are overrepresented among key textile and apparel occupations. Blacks account for nearly one-fifth of those employed as textile, apparel, and furnishings machine operators, and Hispanic workers make up more than a third of the category. Almost half of those who work in this occupational group are employed as textile sewing machine operators, and Hispanic workers account for 2 of every 5 persons who work in this trade.

In 2002, the median age of workers in the textile industry was 42.6 years. The median age within the apparel industry was 41.9 years. In the two industries combined, 72 percent of the workers were between the ages of 25 and 54. In comparison, in other manufacturing industries the median age of workers was 41.7 years and 78 percent were between the ages of 25 and 54.[6]

About 30 percent of textile and apparel workers did not have a high school diploma in 2002, more than double the share for manufacturing (about 13 percent). Workers who

had graduated from high school, but had no college experience, accounted for about 40 percent of those employed in textiles and apparel, roughly in line with the proportion for all factory workers. About 17 percent of textile and apparel workers had some college or an associate degree, and 13 percent had at least a bachelor's degree. In manufacturing, the proportions of workers with some college or at least a bachelor's degree were much higher; about 26 percent had some college or an associate degree, and just under 23 percent had at least a bachelor's degree.[7]

Self-employment makes up a very small share of employment in the textile and apparel industries. In 2002, less than 2 percent of textile workers were classified as self-employed (unincorporated), compared with about 4 percent of apparel workers. For manufacturing overall, the figure was about 2 percent. These figures have shown little change since 1990.

In 2002, about 5 percent of textile workers, and 8 percent of those employed in the apparel industry, were members of (or were represented by) unions. This compares to nearly 16 percent of workers in other manufacturing industries.[8]

E. Mass Layoff Actions

The Mass Layoff Statistics (MLS) program is a Federal-State program that uses a standardized, automated approach to identifying, describing, and tracking the effects of major job cutbacks, using data from each State's unemployment insurance database.

Establishments that have at least 50 initial claims filed against them during a consecutive 5-week period are contacted by the State agency to determine whether these separations are of at least 31 days duration and, if so, information is obtained on the total number of persons separated and the reasons for these separations. Establishments are identified according to industry classification and location, and unemployment insurance claimants are identified by such demographic factors as age, race, sex, ethnic group, and place of residence. The program yields information on an individual's entire spell of unemployment, to the point when regular unemployment insurance benefits are exhausted. Each month, BLS reports on the number of mass layoff actions by employers, and each quarter there is a separate report on the number and characteristics of those mass layoffs that last more than 30 days (extended mass layoffs).

MLS data show that in 1996-2002 (1996 is the first full year of data for the program), textile and apparel manufacturers laid off 327,926 workers in 1,890 extended mass layoff actions. Most of the layoff activity occurred in apparel manufacturing (primarily in cut and sew apparel manufacturing), followed by textile mills (largely in fabric mills). Mass layoffs have been fairly steady, with between 36,000 to 56,000 workers losing their jobs each year as part of mass layoff actions. In 2002, the number of textile and apparel worker separations declined from the 2001 peak for the series. (See table IV-2.)

Table IV-2. Extended mass layoff events, separations, and initial claimants for unemployment insurance in apparel, textile mills, and textile product mills manufacturing, 1996-2002

Year and industry	Layoff events	Separations	Initial claimants for unemployment insurance
Total, textiles and apparel			
1996	319	52,520	47,808
1997	276	42,921	45,810
1998	283	49,816	48,619
1999	236	44,268	48,379
2000	218	36,378	36,957
2001	316	56,148	57,826
2002	242	45,875	50,384
Textile mills			
1996	47	10,416	9,575
1997	37	5,149	6,220
1998	57	10,168	11,324
1999	55	11,335	13,396
2000	43	9,027	10,985
2001	96	20,184	21,898
2002	75	13,151	17,554
Textile product mills			
1996	28	3,600	3,321
1997	23	2,795	2,969
1998	26	3,736	3,166
1999	18	1,870	2,233
2000	18	2,573	2,067
2001	28	3,636	4,338
2002	21	4,932	5,886
Apparel			
1996	244	38,504	34,912
1997	216	34,977	36,621
1998	200	35,912	34,129
1999	163	31,063	32,750
2000	157	24,778	23,905
2001	192	32,328	31,590
2002	146	27,792	26,944

Note: Data are classified according to the North American Industrial Classification System (NAICS).

Source: Bureau of Labor Statistics, Mass Layoff Statistics program

Import competition was cited by employers most often as the reason for the mass layoffs, followed by slack work and reorganization within the company. (See table IV-3.)

Table IV-3. Reason for layoff: Extended mass layoff events and separations in apparel, textile mills, and textile product mills manufacturing, 1996-2002

Reason for layoff	Layoff events	Separations
Total	1,890	327,926
Automation	3	475
Bankruptcy	73	14,800
Business Ownership Change	53	8,499
Contract Cancellation	44	5,514
Contract Completed	25	3,022
Domestic Relocation	24	3,637
Energy-related	([1])	([1])
Environment-related	([1])	([1])
Financial Difficulty	115	21,521
Import Competition	316	63,089
Labor Dispute	6	1,340
Material Shortage	7	862
Model Changeover	([1])	([1])
Natural Disaster	5	1,166
Non-natural disaster	([1])	([1])
Overseas Relocation	99	22,920
Plant or Machine Repair	3	302
Product Line Discontinued	26	3,948
Reorganization Within Company	209	50,950
Seasonal Work	210	30,520
Slack Work	495	59,123
Vacation Period	13	2,107
Other	86	17,374
Not reported	73	16,281

[1] Data do not meet BLS or State agency disclosure standards.

Note: Data are classified according to the North American Industrial Classification System (NAICS).

Source: Bureau of Labor Statistics, Mass Layoff Statistics program

Thirty-seven percent of the textile and apparel employers who had an extended mass layoff during 1996-2002 expected to recall at least some of the laid-off workers. The proportion of employers who anticipate recalling laid-off workers has fallen in almost every year since 1996, although the rate did increase somewhat in 2002. During 1996-

2002, permanent worksite closures occurred in 38 percent of events and affected 148,893 workers. (See table IV-4.)

Table IV-4. Permanent worksite closures: Extended mass layoff events and separations in apparel, textile mills, and textile product mills manufacturing, 1996-2002

Year	Events			Separations		
	Closures	Total	Percent	Closures	Total	Percent
1996	105	319	32.9	20,004	52,520	38.1
1997	76	276	27.5	15,306	42,921	35.7
1998	97	283	34.3	18,618	49,816	37.4
1999	99	236	41.9	24,378	44,268	55.1
2000	96	218	44.0	19,355	36,378	53.2
2001	155	316	49.1	32,737	56,148	58.3
2002	87	242	36.0	18,495	45,875	40.3
1996-2002	715	1,890	37.8	148,893	327,926	45.4

Note: Data are classified according to the North American Industrial Classification System (NAICS).
Source: Bureau of Labor Statistics, Mass Layoff Statistics program

In 1996-2002, there were 335,783 initial claimants for unemployment insurance (UI) associated with extended mass layoff events in textile and apparel manufacturing. Sixty-nine percent of the claimants were women and 36 percent were between the ages of 30 to 44. For all extended mass layoffs in manufacturing during that time, there were 2,976,705 initial claimants of whom 41 percent were women and 40 percent were 30 to 44 years of age.

During the six-year period between 1996-2002, twenty-four percent of initial claimants who filed against textile and apparel establishments exhausted their UI benefits compared to a 20 percent benefit exhaustion rate in total manufacturing. By age, the older the

claimant, the more likely he or she was to exhaust benefits. Black claimants and those who were American Indian or Alaskan Native had higher benefit exhaustion rates than other race and ethnic groups. Women had higher exhaustion rates than men.

F. Summary

In 2002, the unemployment rate for workers formerly employed in the textile industry was 9.2 percent. The jobless rate for apparel workers, at 10.3 percent, also has risen over the past several years, but in 2002 it was slightly below the peak levels of the early 1990s. (The overall rate for the nation in 2002 was 5.8 percent.) In 2002, the vast majority of unemployed textile and apparel workers who had lost their jobs did not expect recall. Most textile and apparel workers who had been displaced from their jobs during the 1999-2001 period cited a plant closing as the reason for losing their job. Data from the Mass Layoff Statistics program show that, in general, import competition was cited most often by textile and apparel employers as the reason for mass layoff actions over the 1996-2002 period.

Roughly half of all workers in the textile and apparel industries are women, a much higher share than for manufacturing overall. Hispanic workers make up a large and growing proportion of employment in the industries, and they account for about two-fifths of all workers in some key occupations related to the industries. Persons employed in the textile and apparel industries tend to have completed less schooling than the average factory worker.

[1] Most of the data in this section are coded using a Census Industrial Classification system based largely on the Standard Industry Classification (SIC) system. Data relate to the "experienced" unemployed—persons without previous work experience are excluded.
[2] Duration data are NAICS-based; leather and footwear products are combined with textiles and apparel into one category.
[3] For a more detailed discussion of this trend, see David S. Langdon, Terence M. McMenamin and Thomas J. Krolik, "U.S. labor market in 2001: economy enters a recession," *Monthly Labor Review*, February 2002, pp. 26-27, available on the Internet at: http://stats.bls.gov/opub/mlr/2002/02/art1full.pdf .
[4] Displacement data are SIC-based.
[5] CPS employment data may differ significantly from Current Establishment Survey (CES) data, mainly due to conceptual and methodological differences between the surveys.
[6] Data on age are NAICS-based.
[7] Education data are NAICS-based; leather and footwear products are combined with textiles and apparel into one category.
[8] Unpublished calculations using CPS data based on 1990 Census-weights. All self-employed, whether incorporated or unincorporated, are excluded.

V. Subnational employment and unemployment

A. Introduction

This chapter reviews textile and apparel industry employment and unemployment at the subnational level. Comprehensive industry employment data come from the Bureau's Quarterly Census of Employment and Wages (QCEW) program. At the time this report was written, the latest available data were for 2002. For a limited number of States, more current data on textile and apparel employment are available from the Current Employment Statistics (CES) program and are discussed. (See Chapter I for information on the CES.) All industry employment data in this chapter are classified on a NAICS basis.

The annual average data on industry unemployment rates for geographic *regions* and *divisions* over the 2000-2002 period come from the Current Population Survey and are classified on an SIC basis.[1] At the end of this chapter, there is a section covering mass layoff data for States collected in the Mass Layoff Statistics (MLS) program; these data are NAICS-coded.

B. State employment

Nationally, textile manufacturing (textile mills and textile product mills combined) accounted for well under 1 percent of total covered employment in 2002.[2] Although employment in the industries could be found all over the country, it nonetheless is highly

localized. Three States in the South Atlantic division accounted for nearly half of all jobs in the U.S.—North Carolina (20.0 percent), Georgia (17.3 percent), and South Carolina (11.5 percent). Two additional States, Alabama and California, also had shares above 5 percent. Meanwhile, the 24 States with the lowest shares of textile employment, plus the District of Columbia, contained less than 5 percent of total textile employment across the Nation.

All States reported at least some employment in the textile industries in 2002. By State, South Carolina had the largest percentage of its employment engaged in textile manufacturing, at 3.2 percent, followed by North Carolina and Georgia, at 2.6 and 2.2 percent, respectively. The only other States for which textiles accounted for more than 1.0 percent of all jobs in the State were Alabama and Rhode Island. In 16 States and the District of Columbia, textiles represented less than 0.1 percent of total covered employment, and, in 25 additional States, the concentration of textile jobs was below the national average of 0.4 percent.

Apparel manufacturing also accounted for well below 1 percent of U.S. total covered employment in 2002. The 4 States with the largest numbers of apparel jobs accounted for more than 55 percent of total U.S. apparel employment. These were California (26.8 percent), New York (12.8 percent), North Carolina (9.6 percent), and Texas (5.9 percent). One should keep in mind that California, Texas, and New York are the 3 most populous States, and the ones with the largest numbers of total jobs. To put the apparel numbers in context, California's share of total covered employment in the U.S. was 11.6 percent in

2002, while New York's was 6.4 percent. Although it may be unremarkable for 2 of the 3 biggest States to report the largest shares of U.S. employment for any given industry, the concentrations of apparel manufacturing jobs in these States are disproportionately high. The share of apparel jobs in Texas, on the other hand, is not out of line with that State's share of total U.S. employment. (Texas posted a 7.2-percent share of U.S. covered employment in 2002.) Alabama and Pennsylvania also each had shares of the total apparel employment exceeding 5 percent in 2002. The 26 States with the lowest shares of apparel jobs, plus the District of Columbia, accounted for less than 5 percent combined of the nationwide employment in the industry.

As with textiles, apparel manufacturing could be found in all States in 2002. Alabama and North Carolina registered the heaviest concentrations of jobs in apparel, with the industry accounting for 1.0 and 0.9 percent, respectively, of total covered employment in those States. Three other States—California, Kentucky, and Mississippi—also recorded apparel concentrations more than double that of the U.S. as a whole. The 4 other States with above-national concentrations included the remaining State in the East South Central division (Tennessee), 2 of the 3 in the Middle Atlantic (New York and Pennsylvania), and another in the South Atlantic (South Carolina). Of the 41 States with below-national average concentrations, apparel accounted for less than 0.1 percent of total jobs in 23.

Through the second quarter of 2003, the 5 States for which current nonfarm payroll employment data are available for both the textile mills and textile product mills

industries—Alabama, California, North Carolina, South Carolina, and Tennessee—have posted employment declines in textiles since at least the fourth quarter of 2000.[3] North Carolina has recorded annual job losses since the fourth quarter of 1994. Only twice in its quarterly series, which began in 1990, has that State experienced an expansion of textile employment on an over-the-year basis. South Carolina and Tennessee have registered declines in textile manufacturing continuously since the second quarter of 1995 and the third quarter of 1997, respectively. (See table V-1.)

Table V-1. Over-the-year percent change in employment for the textile and apparel industries, selected States, 2001-2003 quarterly averages, not seasonally adjusted

Industry and State	2001				2002				2003	
	I	II	III	IV	I	II	III	IV	I	II
Textiles										
Alabama	-4.8	-9.6	-11.4	-12.4	-10.9	-8.4	-6.1	-4.4	-2.5	-3.2
California	-6.3	-8.9	-11.0	-11.1	-8.5	-4.1	-4.9	-3.9	-4.2	-6.2
North Carolina	-9.9	-15.0	-17.0	-17.6	-16.0	-12.1	-8.9	-6.3	-4.8	-6.3
South Carolina	-5.7	-11.1	-14.2	-17.9	-18.1	-14.0	-10.6	-6.7	-3.3	-4.0
Tennessee	-6.7	-10.0	-14.8	-16.2	-15.0	-12.6	-14.6	-12.7	-11.4	-11.1
Apparel										
Alabama	-10.3	-10.9	-13.1	-21.1	-28.1	-29.0	-25.2	-15.1	-6.6	-5.3
Arkansas	-10.6	-20.3	-28.4	-30.7	-44.7	-40.0	-36.6	-34.7	-11.2	-10.3
California	-9.1	-12.0	-15.7	-17.6	-15.0	-11.4	-7.0	-0.3	0.9	-0.1
Illinois	-3.9	-7.6	-8.4	-9.7	-13.0	-10.7	-11.3	-11.2	-8.4	-10.2
Kentucky	-4.6	-9.9	-15.0	-21.9	-20.0	-16.1	-12.7	-6.0	-5.4	-6.9
Mississippi	-19.4	-22.1	-27.2	-28.3	-28.0	-29.1	-24.6	-22.8	-18.8	-11.1
New Jersey	-11.8	-13.3	-16.6	-15.9	-22.3	-23.3	-24.6	-25.6	-17.9	-16.4
New York	-15.1	-17.0	-17.1	-19.8	-18.8	-14.9	-15.5	-12.7	-14.2	-16.7
North Carolina	-10.8	-13.4	-15.9	-16.3	-19.8	-16.3	-13.3	-13.4	-12.1	-13.1
Oklahoma	-18.3	-18.1	-22.7	-16.8	-22.3	-15.8	-13.0	-7.9	-8.8	-16.3
Pennsylvania	-11.7	-15.9	-18.0	-20.6	-20.3	-19.5	-17.3	-16.4	-17.8	-16.6
South Carolina	-15.1	-17.8	-24.5	-26.4	-29.0	-22.0	-14.7	1.0	3.1	-1.0
Tennessee	-16.9	-19.6	-21.7	-21.6	-23.9	-20.0	-23.7	-26.7	-20.8	-22.6
Texas	-14.2	-14.9	-19.9	-21.1	-25.2	-21.0	-17.3	-19.3	-20.9	-27.3

Note: This table is exhaustive of the States for which monthly data are available.
Data are classified according to the North American Industrial Classification System (NAICS).

Source: Bureau of Labor Statistics, Current Employment Statistics program

Current nonfarm payroll employment series for apparel manufacturing are available for 14 States, including all those in the Middle Atlantic and East South Central divisions.

Employment declined in all but 4 in the second quarter of 2003. Texas and Tennessee experienced the most rapid contractions at that time. By contrast, California—which has the largest State share of U.S. apparel jobs—registered only a marginal decline.

C. Unemployment in textiles and apparel by region and division

Unemployment rates are available for textile and apparel workers on an annual basis (most recently for 2002) for some Census regions and divisions. (Unemployment rates for the textile and apparel industries are not available by State.)[4] Textile workers experienced unemployment rates of 8.3 and 15.3 percent in the South and Northeast regions, respectively, in 2002. Both regions exhibited substantial variations across their constituent divisions. Within the South, textile workers in the East South Central and South Atlantic divisions were unemployed at rates of 2.3 and 8.7 percent, respectively. Within the Northeast, New England and the Middle Atlantic reported unemployment rates of 9.2 and 19.4 percent for their respective textile workers. The South's industry unemployment rate was unchanged from 2001, while the Northeast recorded a 5.4-percentage point increase in its rate, propelled by a nearly twofold increase in the Middle Atlantic division rate. (See table V-2.)

Table V-2. Unemployment rates for experienced[1] workers in the textile and apparel industries by census region, 2000-2002 annual averages

Region	Textile mill products			Apparel and other textile products		
	2000	2001	2002	2000	2001	2002
Northeast	3.6	9.9	15.3	10.3	8.0	11.5
Midwest	[2]	[2]	[2]	[2]	6.9	6.1
South	3.9	8.3	8.3	7.9	12.7	13.6
West	[2]	[2]	[2]	7.4	9.2	7.5

[1] Excludes persons with no previous work experience.
[2] Data are not shown when the labor force does not meet BLS publication standards of reliability for the particular area, based on the sample in that area.
Note: Data are classified according to the Standard Industrial Classification (SIC) system.

Source: Bureau of Labor Statistics, Current Population Survey

Unemployment rates for apparel workers were available for all regions in 2002. These ranged from 6.1 percent in the Midwest to 13.6 percent in the South. Compared to a year earlier, the South's rate was up 0.9 percentage point, while the Northeast's rate increased by 3.5 points. The increase reported in the South was due in large measure to a 4.7-percentage point jump in the rate for the South Atlantic—the division where apparel manufacturing is most heavily concentrated. Meanwhile, jobless rates in the Midwest and West were down from 2001, by 0.8 percentage point and 1.7 points, respectively. (See table V-2.)

E. Mass Layoff Actions

Data from the Mass Layoff Statistics program (described in Chapter IV) show that North Carolina accounted for the largest number of laid off workers affected by mass layoff events in textiles and apparel in 1996-2002 (45,648), followed by Texas (37,042), Georgia (30,185), California (25,480), Pennsylvania (21,504), and Alabama (21,355).

F. Summary

Employment in the textile industry is concentrated in the South Atlantic division of the country, with roughly half of total employment in the industry in three States—North Carolina, Georgia, and South Carolina. Apparel industry employment is more widespread across the country. No States for which there are current employment data available have been immune to employment declines in the industries.

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[1] The four census regions and nine divisions are composed of the following States (including the District of Columbia): Northeast: *New England division*—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; *Middle Atlantic division*—New Jersey, New York, Pennsylvania; Midwest: *East North Central division*—Illinois, Indiana, Michigan, Ohio, Wisconsin; *West North Central division*—Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota; South: *South Atlantic division*—Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia; *East South Central division*—Alabama, Kentucky, Mississippi, Tennessee; *West South Central division*—Arkansas, Louisiana, Oklahoma, Texas; West: *Mountain division*—Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming; *Pacific division*—Alaska, California, Hawaii, Oregon, Washington.

[2] Data on State shares and concentrations of textile and apparel employment reflect universe counts of jobs subject to (covered by) unemployment insurance laws from the Quarterly Census of Employment and Wages (QCEW) program, available on a 2002 NAICS basis for 2001 and 2002 as of this writing.

[3] Data on State nonfarm payroll employment trends come from the Current Employment Statistics (CES) survey, which uses the QCEW counts for benchmarking. The CES data were placed on a 2002 NAICS basis from 1990 forward at the beginning of 2003.

[4] Unemployment rates are tabulated from annual subsamples of the Current Population Survey (CPS). These are published in the *Geographic Profile* bulletin only when the underlying labor force level meets the minimum base for statistical reliability. The region and division data for industries are still on a 1987 Standard Industrial Classification basis. They exclude persons with no previous work experience.

VI. The Future of the Textile and Apparel Industries

Despite the challenges, there are emerging opportunities for the textile and apparel industries and their workers. The Administration has focused on ways in which conditions in the industry may be effectively addressed, both in terms of measures specific to textiles and apparel, as well as those included as part of a broader manufacturing initiative. At the same time, it is important for industry to transform and integrate into the global supply chain.

A key factor in the success of any company is the ability to be nimble enough to seek out and pursue opportunities when they are viable. U.S. textile and apparel companies not only must be creative and innovative in the products they sell, but also in the networks they create to reach customers. In short, the future success of the U.S. textile and apparel industry is not just about making international trade work for this sector, or even about simply funding training programs and retraining initiatives. It is about helping a vital component of our nation's manufacturing base transform to succeed in the commercial environment of the 21st century.

U.S. textile and apparel companies are striving hard to succeed, focusing on developing innovative fibers, fabrics, creative designs, and blends. Firms recognize the need to de-emphasize commodity products. Cutting edge production technology is being adopted both to cut costs and to permit the production of high tech, differentiated products. For instance, new developments in nano-technology based fabrics that dramatically improve

stain resistance; breakthroughs in anti-bacterials that inhibit bacterial growth in fabrics; and advances in stretchwear are just a few of the technological developments that enable firms to develop and expand into niche markets. Technology is also helping textile and apparel firms dramatically enhance supply chain management and quality control monitoring.

Many U.S. companies are responding to globalization by becoming global operations themselves, including making a serious commitment to exporting. Further, reciprocal market access, special rules of origin, special customs enforcement procedures, and special textile safeguards are a feature of all of the Administration's free trade agreements, including the Free Trade Agreements (FTAs) with Singapore, Chile, Australia, Central America, and Morocco. These provisions aim to bolster U.S. exports and domestic textile production, as well provide strengthening enforcement capabilities, which will assist and benefit the domestic industry and its workers.

Textile and furniture companies may also benefit from the re-building of Iraq. Although it is early to identify specific opportunities, the Commerce department is working with U.S. AID and other federal agencies to ensure that infrastructure development includes U.S.-made products and services including American textiles. The Commerce Department is also sponsoring export promotion events elsewhere in the Middle East, as well as in Europe and Japan, to develop opportunities for products such as textile furnishings for the contract and hospitality markets.

While certain segments of the textile industry (for example, carpets and other home furnishings, and textiles for industrial uses) are less vulnerable to import competition than the labor intensive apparel sector and textile inputs to apparel production, the Import Administration at the Department of Commerce is aggressively pursuing unfair competition from foreign textile imports. The newly formed Unfair Trade Practices Task Force is already targeting the top 30 imports from China and Korea, and will be closely monitoring textile and apparel imports across the board.

Enforcement of trade agreements and making sure other countries play by the rules is a top priority of the Administration. An example is the Center for Applied Textile Technology in Belmont, North Carolina, which has received funds to develop a CD-ROM training program for U.S. Customs and Border Protection personnel at the ports of entry on the Free Trade Agreement requirements and regulations. Another example is the enforcement of rule of origin requirements in import preference programs. The Commerce Department contracted with the Oak Ridge Laboratories to identify potential "marker" systems to help make origin determinations. Three technologies were determined by Oak Ridge to show promise: UV fluorescence; nanophosphors; and DNA based systems. Congress has appropriated $1 million in funding to conduct further work to develop these technologies. In addition to the Oak Ridge project, the Department of Agriculture's Cotton Quality Research Station has been working on a method of tagging domestically produced cotton yarn and fabric.

As part of the Commerce Department's new Standards Initiative, outreach efforts with the textile industry have increased. The Administration continues to aggressively

investigate textile market access and compliance cases, giving special attention to compliance issues with India, Indonesia, Egypt, Japan, Pakistan, China, Venezuela, and Nigeria to determine their conformance with WTO rules. The Office of the U.S. Trade Representative (USTR) filed a request at the WTO on December 23, 2003, for consultations with Egypt regarding Egypt's tariffs on textiles and apparel products. This action prompted Egypt to reduce the tariffs to levels consistent with its WTO commitments. Administration officials are involved in building a relationship with the EU Commission to address areas of possible cooperation in third country textile trade compliance problems. For the Doha Development Agenda negotiations, the United States is seeking reciprocal market access for textiles and apparel consistent with the Congressionally mandated negotiating objective to obtain competitive opportunities for U.S. textile and apparel substantially equivalent to those afforded foreign exports to the United States. The United States supports a sectoral initiative for textile and apparel tariffs, such as harmonization or elimination of tariffs, as a means to achieve this objective. The United States also suggested textile and apparel as a possible priority area for a single industry, or vertical, non-tariff agreement that would allow textile-specific issues to be bundled together, making it easier to manage the negotiating process and to directly address industry's foreign market access concerns.

The economic challenges facing the textile and apparel industries have developed over several decades. By taking advantage of new technologies and emerging markets, U.S. textile and apparel companies have an opportunity to meet these challenges and succeed in a competitive global economy.