Textile, Apparel, and Furnishings Occupations

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Significant Points

- Most workers learn through on-the-job training.
- Employment is expected to decline in most detailed occupations in this group, due primarily to increased imports, the increased use of laborsaving machinery, and the creation of new fabrics that do not need as much processing.
- Earnings of most workers are low.

Nature of the Work

Textiles and leather clothe our bodies, cover our furniture, and adorn our homes. Textile, apparel, and furnishings workers produce these materials and fashion them into a wide range of products that we use in our daily lives. Jobs range from those which employ computers, to those in which the worker operates large industrial machinery and smaller power equipment, to those which involve substantial handwork.

Textile machine operators. Textile machine operators run machines that make textile products from fibers. Textiles are the basis of towels, bed linens, hosiery and socks, and nearly all clothing, but they also are a key ingredient of products ranging from roofing to tires. The first step in manufacturing textiles is preparing the natural or synthetic fibers. *Extruding and forming machine operators, synthetic and glass fibers* set up and operate machines that extrude—or force—liquid synthetic material such as rayon, fiberglass, or liquid polymers out through small holes and draw out filaments. Other operators put natural fibers such as cotton, wool, flax, or hemp through carding and combing machines that clean and align them into short lengths called "sliver." When sliver is produced, different types of natural fibers and synthetics filaments may be combined to give the product a desired texture, durability, or other characteristics. *Textile winding, twisting, and drawing-out machine operators* take the sliver and draw out, twist, and wind it to produce yarn, taking care to repair any breaks.

Textile bleaching and dyeing machine operators control machines that wash, bleach, or dye either yarn or finished fabrics and other products. *Textile knitting and weaving machine operators* put the yarn on machines that weave, knit, loop, or tuft it into a product. Woven fabrics are used to make apparel and other goods, while some knitted products (such as hosiery) and tufted products (such as carpeting) emerge in near-finished form. Different types of machines are used for these processes, but operators perform similar tasks, repairing breaks in the yarn and monitoring the yarn supply, while tending many machines at once. *Textile cutting machine operators* trim the fabric into various widths and lengths, depending on its intended use.

Apparel workers. Apparel workers cut fabric and other materials and sew it into clothing and related products. Workers in a variety of occupations fall under the heading of apparel workers. *Tailors, dressmakers, and sewers* make custom clothing and alter and repair garments for individuals. However, workers in most apparel occupations are found in manufacturing, performing specialized tasks in the production of large numbers of garments that are shipped to retail establishments for sale to the public.

Fabric and apparel patternmakers convert a clothing designer's original model of a garment into a pattern of separate parts that can be laid out on a length of fabric. After discussing the item with the designer, these skilled workers usually use a computer to outline the parts and draw in details to indicate the positions of pleats, buttonholes, and other features. (In the past, patternmakers laid out the parts on paper, using pencils and drafting instruments such as rulers.) Patternmakers then alter the size of the pieces in the pattern to produce garments of various sizes, and they may "mark" the fabric to show the best layout of pattern pieces to minimize waste of material.

Once an item's pattern has been made and marked, mass production of the garment begins. Cutters and trimmers take the patterns and cut out material, paying close attention to their work because mistakes are costly. Following the outline of the pattern, they place multiple layers of material on the cutting table and use an electric knife or other cutting tools to cut out the various pieces of the garment; delicate materials may be cut by hand. In some companies, computer-controlled machines do the cutting.

Sewing machine operators join the parts of a garment together, reinforce seams, and attach buttons, hooks, zippers, and accessories to produce clothing. After the product is sewn, other workers remove lint and loose threads and inspect and package the garments.

Shoe and leather workers. Shoe and leather workers are employed either in manufacturing or in personal services. In shoe manufacturing, *shoe machine operators and tenders* operate a variety of specialized machines that perform cutting, joining, and finishing functions. In personal services, s*hoe and leather workers and repairers* perform a variety of repairs and custom leatherwork for members of the general public. They construct, decorate, or repair shoes, belts, purses, saddles, luggage, and other leather products. They also may repair some products made of canvas or plastic. When making custom shoes or modifying existing footwear for people with foot problems or special needs, shoe and leather workers and repairers cut pieces of leather, shape them over a form shaped like a foot, and sew them together. They then attach soles and heels, using sewing machines or cement and nails. They also dye and polish the items, utilizing a buffing wheel for a smooth surface and lustrous shine. When making luggage, they fasten leather to a frame and attach handles and other hardware. They also cut and secure linings inside the frames and sew or stamp designs onto the exterior of the luggage. In addition to performing all of the preceding steps, saddle makers often apply leather dyes and liquid topcoats to produce a glossy finish on a saddle. They also may decorate the surface of the saddle by hand stitching or by stamping the leather with

Shoe machine operators and other apparel and textile workers will see fewer jobs in the future as more work is outsourced abroad.

decorative patterns and designs. Shoe and leather workers and repairers who own their own shops keep records and supervise other workers.

Upholsterers. *Upholsterers* make, fix, and restore furniture that is covered with fabric. Using hammers and tack pullers upholsterers who restore furniture remove old fabric and stuffing to get back down to the springs and wooden frame. Then they reglue loose sections of the frame and refinish exposed wood. The springs sit on a cloth mat, called webbing, that is attached to the frame. Upholsterers replace torn webbing, examine the springs, and replace broken or bent ones.

Upholsterers who make new furniture start with a bare wooden frame. First, they install webbing, tacking it to one side of the frame, stretching it tight, and tacking it to the other side. Then, they tie each spring to the webbing and to its neighboring springs. Next, they cover the springs with filler, such as foam, a polyester batt, or similar fibrous batting material, to form a smooth, rounded surface. Then they measure and cut fabric for the arms, backs, seats, sides, and other surfaces, leaving as little waste as possible. Finally, sewing the fabric pieces together and attaching them to the frame with tacks, staples, or glue, they affix any ornaments, such as fringes, buttons, or rivets. Sometimes, upholsterers pick up and deliver the furniture they work on. They also help customers pick new coverings by providing samples of fabrics and pictures of finished pieces.

Laundry and drycleaning workers. *Laundry and drycleaning workers* clean cloth garments, linens, draperies, blankets, and other articles. They also may clean leather, suede, furs, and rugs. When necessary, they treat spots and stains on articles before laundering or drycleaning. They tend machines during cleaning and ensure that items are not lost or misplaced with those of another customer. *Pressers, textile, garment, and related materials* shape and remove wrinkles from items after steam pressing them or ironing them by hand. Workers then assemble each customer's items, box or bag them, and prepare an itemized bill for the customer.

Working Conditions

Most persons in textile, apparel, and furnishings occupations work a standard 5-day, 35- to 40-hour week. Evenings and weekend work is common for shoe and leather workers, laundry and drycleaning workers, and tailors, dressmakers, and sewers employed in retail stores. In manufacturing, some employers add second shifts to justify the expense of new machinery. Many textile and fiber mills often use rotating schedules of shifts so that employees do not continuously work nights or days. But these rotating shifts sometimes cause workers to have sleep disorders and stress-related problems.

While much of the work in apparel manufacturing still is based on a piecework system that allows for little interpersonal contact, some apparel firms are placing more emphasis on teamwork and cooperation. Under this new system, individuals work closely with one another, and each team or module often governs itself, increasing the overall responsibility of each operator.

Working conditions vary by establishment and by occupation. In manufacturing, machinery in textile mills often is noisy, as are areas in which sewing and pressing are performed in apparel factories; patternmaking and spreading areas tend to be much quieter. Many older factories are cluttered, hot, and poorly lit and ventilated, but more modern facilities usually have more workspace and are well lit and ventilated. Textile machinery operators use protective glasses and masks that cover their noses and mouths to protect against airborne materials. Many machines operate at high speeds, and textile machinery workers must be careful not to wear clothing or jewelry that could get caught in moving parts. In addition, extruding and forming machine operators wear protective shoes and clothing when working with certain chemical compounds.

Work in apparel production can be physically demanding. Some workers sit for long periods, and others spend many hours on their feet, leaning over tables and operating machinery. Operators must be attentive while running sewing machines, pressers, automated cutters, and the like. A few workers wear protective devices such as gloves. In some instances, new machinery and production techniques have decreased the physical demands upon workers. For example, newer pressing machines are operated by foot pedals or computer controls and do not require much strength to operate them.

Laundries and drycleaning establishments often are hot and noisy; those in retail stores, however, tend to be less noisy and more comfortable. Areas in which shoe and leather workers make or repair shoes and other leather items can be noisy, and odors from leather dyes and stains frequently are present. Workers need to pay close attention when working with machines, in order to avoid punctures, lacerations, and abrasions.

Upholstery work is not dangerous, but upholsterers usually wear protective gloves and clothing when using sharp tools and lifting and handling furniture or springs. Upholsterers stand most of the workday and may do a lot of bending and heavy lifting. They also may work in awkward positions for short periods.

Employment

Textile, apparel, and furnishings workers held over 1.1 million jobs in 2002. Employment in the detailed occupations that make up this group was distributed as follows:

Sewing machine operators	315,000
Laundry and drycleaning workers	231,000
Pressers, textile, garment, and related materials	91,000
Textile winding, twisting, and drawing out machine setters, operators, and tenders	66,000
All other textile, apparel, and furnishings workers	61,000
Upholsterers	56,000
Tailors, dressmakers, and sewers	53,000
Textile knitting and weaving machine setters, operators, and tenders	53,000
Textile cutting machine setters, operators, and tenders	34,000
Extruding and forming machine setters, operators, and tenders, synthetic and glass fibers	27,000
Textile bleaching and dyeing machine operators and tenders	27,000
Shoe and leather workers and repairers	16,000
Fabric and apparel patternmakers	11,000
Shoe machine operators and tenders	6,600

Manufacturing jobs are concentrated in California, New York, North Carolina, Pennsylvania, Tennessee, and Georgia. Jobs in reupholstery, shoe repair and custom leatherwork, and laundry and drycleaning establishments are found in cities and towns throughout the Nation. Overall, about 10 percent of all workers in textile, apparel, and furnishings occupations were self-employed; however, more than one-third of tailors, dressmakers, and sewers and more than one-quarter of upholsterers were self-employed.

Training, Other Qualifications, and Advancement

Most employers prefer to hire high school graduates for jobs in textile, apparel, and furnishings occupations. Entrants with postsecondary vocational training or previous work experience in apparel production usually have a better chance of getting a job and advancing to a supervisory position. Regardless of the setting, workers usually begin by performing simple tasks.

In manufacturing, textile and apparel workers need good hand-eye coordination, manual dexterity, physical stamina, and the abil-

ity to perform repetitive tasks for long periods. Machine operators usually are trained on the job by more experienced employees or by machinery manufacturers' representatives. As they gain experience, these workers are assigned more difficult operations. Further advancement is limited, however. Some production workers may become first-line supervisors, but most can advance only to more skilled operator jobs. As machinery in the industry continues to become more complex, knowledge of the basics of computers and electronics will increasingly be an asset. In addition, the trends toward cross-training of operators and working in teams will increase the time needed to become fully trained on all machines and require interpersonal skills to work effectively with others.

Retailers prefer to hire custom tailors, dressmakers, and sewers with previous experience in apparel manufacture, design, or alteration. Knowledge of fabrics, design, and construction is very important. Custom tailors sometimes learn these skills through courses in high school or a community college. A few private schools and colleges offer advanced training in sewing, draping, patternmaking, and design. Some experienced custom tailors open their own tailoring shop. Custom tailoring is a highly competitive field, however, and training in small-business operations can mean the difference between success and failure. Although laundries and drycleaners prefer entrants with previous work experience, they routinely hire inexperienced workers.

Precision shoe and leather workers and repairers generally learn their skills on the job. Manual dexterity and the mechanical aptitude to work with handtools and machines are important in shoe repair and leatherworking. Shoe and leather workers who produce custom goods should have artistic ability as well. Beginners start as helpers for experienced workers, but, in manufacturing, they may attend more formal in-house training programs. Beginners gradually take on more tasks until they are fully qualified workers, a process that takes about 2 years in an apprenticeship program or as a helper in a shop. In a vocational training program, it can take 6 months to a year. Learning to make saddles takes longer. Shoe repairers need to keep their skills up to date in order to work with the rapidly changing footwear styles and materials. Some do this by attending trade shows, while others attend specialized training seminars and workshops in custom shoe making, shoe repair, and other leatherwork sponsored by associations. Skilled workers who produce and modify prescription footwear may become certified as *pedorthists* by the Pedorthic Footwear Association after completing 120 hours of training and passing an examination. Some in the shoe and leather working occupations begin as workers or repairers and advance to salaried supervisory and managerial positions. Some open their own shop, but knowledge of business practices and management and a pleasant manner when dealing with customers are needed to stay in business.

Most upholsterers learn their skills on the job, but a few do so through apprenticeships. Inexperienced persons also may take training in basic upholstery in vocational schools and some community colleges. Upholsterers should have manual dexterity, good coordination, and the strength needed to lift heavy furniture. An eye for detail, a flair for color, and the ability to use fabrics creatively also are helpful. The length of training may vary from 6 weeks to 3 years. Upholsterers who work on custom-made pieces may train for 8 to 10 years. The primary forms of advancement for upholsterers are opening their own shop or moving into management. The upholstery business is highly competitive, so operating a shop successfully is difficult. In large shops and factories, experienced or highly skilled upholsterers may become supervisors or samplemakers.

Job Outlook

Employment of textile, apparel, and furnishings workers is expected to decline through 2012. Apparel workers have been among the most rapidly declining occupational groups in the economy, and increasing imports, the use of offshore assembly, and greater productivity through new automation will contribute to additional job losses. Also, many new textiles require less production and processing. Because of the large size of this occupation, however, many thousands of job openings will arise each year from the need to replace persons who transfer to other occupations, retire, or leave the occupation for other reasons.

Employment in the domestic textile and apparel industries has declined in recent years as foreign producers have gained a greater share of the U.S. market. Domestic production—especially of apparel—will continue to move abroad, and imports to the U.S. market will increase. Declines in U.S. apparel production will cause reductions in domestic textile production because the apparel industry is the largest consumer of American-made textiles. Fierce competition in the market for apparel will keep domestic apparel and textile firms under intense pressure to cut costs and produce more with fewer workers.

The textile industry already is highly automated, but it will continue to seek to increase worker productivity through the introduction of laborsaving machinery and the invention of new fibers and fabrics that reduce production costs. Despite advances in technology, the apparel industry has had difficulty employing automated equipment extensively due to the soft properties of textile products. The industry produces a wide variety of apparel items that change frequently with changes in style and season. Technological developments, such as computer-aided marking and grading, computer-controlled cutters, semiautomatic sewing and pressing machines, and automated material-handling systems have increased output while reducing the need for some workers in larger firms. However, assembly and sewing continues to be the most labor-intensive step in the production of apparel, and increasing numbers of sewing machine operator jobs are expected to be lost to lower wage workers abroad. Still, improvements in productivity will allow many of the presewing functions of design, patternmaking, marking, and cutting to continue be done domestically, and employment of workers who perform these functions will not be as adversely affected.

Outside of the manufacturing sector, tailors, dressmakers, and sewers—the most skilled apparel workers—also are expected to experience declining employment. Demand for their services will continue to lessen as consumers become increasingly likely to buy new, mass-produced apparel instead of purchasing custom-made apparel or having clothes altered or repaired.

Employment of shoe and leather workers is expected to decline through 2012 due to growing imports of less expensive shoes and leather goods, increasing productivity of U.S. manufacturers, and the more frequent tendency to buy new shoes rather than repair worn or damaged ones. However, declines are expected to be somewhat offset as more people invest in expensive leather shoes that they will want repaired. Also, as the population continues to age, more people will need custom shoes for health reasons.

Employment of upholsterers is expected to decline through 2012 as new furniture and automotive seats use more durable coverings and as manufacturing firms continue to become more automated and efficient. Demand for the reupholstery of furniture also is expected to decline as the increasing manufacture of new, relatively inexpensive upholstered furniture causes many people simply to replace old, worn furniture. However, demand will continue to be steady for upholsterers who restore very valuable furniture. Most reupholstery work is labor intensive and not easily automated. Job

opportunities for experienced upholsterers should be good because few young people enter the occupation and few shops offer training.

Earnings

Earnings of textile, apparel, and furnishings workers vary by occupation. Because many production workers in apparel manufacturing are paid according to the number of acceptable pieces they or their group produce, their total earnings depend on skill, speed, and accuracy. Workers covered by union contracts tend to have higher earnings. Median hourly earnings by occupation in 2002 were as follows:

Extruding and forming machine setters, operators, and tenders, synthetic and glass fibers	$13.22
Fabric and apparel patternmakers	12.67
Upholsterers	11.86
Textile knitting and weaving machine setters, operators, and tenders	11.05
Tailors, dressmakers, and custom sewers	10.68
Textile winding, twisting, and drawing out machine setters, operators, and tenders	10.54
Textile bleaching and dyeing machine operators and tenders	10.00
Shoe machine operators and tenders	9.90
Textile cutting machine setters, operators, and tenders	9.77
Shoe and leather workers and repairers	9.14
All other textile, apparel, and furnishings workers	9.01
Sewers, hand	8.69
Sewing machine operators	8.39
Pressers, textile, garment, and related materials	8.21
Laundry and drycleaning workers	8.07

Benefits also vary. A few large employers, for example, include childcare in their benefits package. Apparel workers in retail trade also may receive a discount on their purchases from the company for which they work. In addition, some of the larger manufacturers operate company stores from which employees can purchase apparel products at significant discounts. Some small firms, however, offer only limited benefits.

Related Occupations

Textile, apparel, and furnishings workers apply their knowledge of textiles and leathers to fashion products with use of handtools and machinery. Other occupations that produce products by means of handtools, machines, and their knowledge of the materials with which they work include assemblers and fabricators, dental laboratory technicians, food-processing workers, jewelers and precious stone and metal workers, and woodworkers.

Sources of Additional Information

Information about job opportunities in textile, apparel, and furnishings occupations is available from local employers and local offices of the State employment service.

For general information on careers, technology, and trade regulations in the textile industry, contact

➤ American Textile Manufacturers Institute, Inc., 1130 Connecticut Ave. NW., Suite 1200, Washington, DC 20036-3954.

To receive a list of technical schools with accredited programs in upholstery, contact

➤ Accrediting Commission of Career Schools and Colleges of Technology, 2101 Wilson Blvd., Suite 302, Arlington, VA 22201. Internet: **http://www.accsct.org**