
Textile, Apparel, and Furnishings Occupations

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Significant Points

- Most workers learn through on-the-job training.
- This group ranks among the rapidly declining occupations because of increases in imports, offshore assembly, productivity gains from automation, and new fabrics that do not need as much processing.
- Earnings of most workers are low.

Nature of the Work

Textile, apparel, and furnishings workers produce fibers, cloth, and upholstery, and fashion them into a wide range of products that we use in our daily lives. Textiles are the basis of towels, bed linens, hosiery and socks, and nearly all clothing, but they also are a key ingredient in products ranging from roofing to tires. Jobs range from those that involve programming computers to those in which the worker operates large industrial machinery and to those that require substantial handwork.

Textile machine setters, operators, and tenders run machines that make textile products from fibers. 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 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 collectively called “sliver.” In making sliver, operators may combine different types of natural fibers and synthetic filaments to give the product a desired texture, durability, or other characteristic. *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, whereas 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 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.

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 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 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, *shoe and leather workers and repairers* perform a variety of repairs and custom leatherwork for 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, using a



Textile machine setters, operators, and tenders tend machines that weave yarn into apparel.

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

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 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 provide pickup and delivery of the furniture they work on. They also help customers select new coverings by providing samples of fabrics and pictures of finished pieces.

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.

Work environment. Most people in textile, apparel, and furnishings occupations work a standard 5-day, 35- to 40-hour week. Working on evenings and weekends is common for shoe and leather workers, laundry and drycleaning workers, and tailors, dressmakers, and sewers employed in retail stores. 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.

Although 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, individu-

als 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 is often 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 particles. 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 on workers. For example, newer pressing machines are controlled by foot pedals or by computer and do not require much strength to operate.

Laundries and drycleaning establishments are often hot and noisy. Employees also may be exposed to harsh solvents, but newer environmentally-friendly and less toxic cleaning solvents are improving the work environment in these establishments. 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, 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. During most of the workday, upholsterers stand and may do a lot of bending and heavy lifting. They also may work in awkward positions for short periods.

Training, Other Qualifications, and Advancement

A high school diploma is sufficient for most jobs in textile, apparel, and furnishings occupations. Most people learn their jobs by working alongside more experienced workers.

Education and training. Most workers in these jobs have a high school diploma or less education. However, applicants with postsecondary vocational training or previous work experience may have a better chance of getting a more skilled job and advancing to a supervisory position.

Machine operators usually are trained on the job by more experienced employees or by machinery manufacturers' representatives. Operators begin with simple tasks and are assigned more difficult operations as they gain experience.

Projections data from the National Employment Matrix

Occupational Title	SOC Code	Employment, 2006	Projected employment, 2016	Change, 2006-16	
				Number	Percent
Textile, apparel, and furnishings occupations.....	51-6000	873,000	777,000	-97,000	-11
Laundry and dry-cleaning workers	51-6011	239,000	262,000	23,000	10
Pressers, textile, garment, and related materials	51-6021	77,000	74,000	-3,400	-4
Sewing machine operators	51-6031	233,000	170,000	-63,000	-27
Shoe and leather workers	51-6040	20,000	17,000	-3,100	-16
Shoe and leather workers and repairers	51-6041	16,000	14,000	-1,600	-10
Shoe machine operators and tenders.....	51-6042	4,100	2,600	-1,500	-36
Tailors, dressmakers, and sewers	51-6050	77,000	76,000	-1,800	-2
Sewers, hand	51-6051	23,000	21,000	-2,900	-12
Tailors, dressmakers, and custom sewers.....	51-6052	54,000	55,000	1,000	2
Textile machine setters, operators, and tenders.....	51-6060	122,000	88,000	-34,000	-28
Textile bleaching and dyeing machine operators and tenders...	51-6061	19,000	14,000	-5,900	-30
Textile cutting machine setters, operators, and tenders	51-6062	19,000	14,000	-5,100	-27
Textile knitting and weaving machine setters, operators, and tenders.....	51-6063	40,000	28,000	-12,000	-31
Textile winding, twisting, and drawing out machine setters, operators, and tenders	51-6064	43,000	33,000	-11,000	-24
Miscellaneous textile, apparel, and furnishings workers	51-6090	106,000	92,000	-14,000	-13
Extruding and forming machine setters, operators, and tenders, synthetic and glass fibers	51-6091	18,000	15,000	-3,100	-18
Fabric and apparel patternmakers	51-6092	9,200	6,600	-2,600	-29
Upholsterers	51-6093	55,000	50,000	-4,900	-9
Textile, apparel, and furnishings workers, all other.....	51-6099	24,000	21,000	-3,600	-15

NOTE: Data in this table are rounded. See the discussion of the employment projections table in the *Handbook* introductory chapter on *Occupational Information Included in the Handbook*.

Precision shoe and leather workers and repairers generally also 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. Other workers spend 6 months to a year in a vocational training program. Learning to make saddles takes longer. Shoe repairers need to keep their skills up to date to work with the rapidly changing footwear styles and materials. Some attend trade shows or specialized training seminars and workshops in custom shoemaking, shoe repair, and other leatherwork sponsored by associations.

Custom tailors, dressmakers, and sewers often have previous experience in apparel production, 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. 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.

Laundry and dry cleaning workers usually learn on the job also. Although laundries and drycleaners prefer entrants with

previous work experience, they routinely hire inexperienced workers.

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. 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.

Other qualifications. In manufacturing, textile and apparel workers need good hand-eye coordination, manual dexterity, physical stamina, and the ability to perform repetitive tasks for long periods. 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.

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.

Advancement. Some production workers may become first-line supervisors, but most can advance only to more skilled operator jobs. Some in the shoemaking and leatherworking occupations begin as workers or repairers and advance to salaried supervisory and managerial positions. Some open their own shop. They are more likely to succeed if they understand

business practices and management and offer good customer service in addition to their technical skills.

Upholsterers, too, can open their own shops. The upholstery business is highly competitive, however, so operating a shop successfully is difficult. Some experienced or highly skilled upholsterers may become supervisors or sample makers in large shops and factories.

Employment

Textile, apparel, and furnishings workers held 873,000 jobs in 2006. Employment in the detailed occupations that make up this group was distributed as follows:

Laundry and dry-cleaning workers	239,000
Sewing machine operators	233,000
Pressers, textile, garment, and related materials	77,000
Upholsterers	55,000
Tailors, dressmakers, and custom sewers.....	54,000
Textile winding, twisting, and drawing out machine setters, operators, and tenders	43,000
Textile knitting and weaving machine setters, operators, and tenders	40,000
Sewers, hand	23,000
Textile bleaching and dyeing machine operators and tenders	19,000
Textile cutting machine setters, operators, and tenders	19,000
Extruding and forming machine setters, operators, and tenders, synthetic and glass fibers	18,000
Shoe and leather workers and repairers	16,000
Fabric and apparel patternmakers	9,200
Shoe machine operators and tenders	4,100
All other textile, apparel, and furnishings workers.....	24,000

Manufacturing jobs are concentrated in California, North Carolina, Georgia, New York, Texas, and South Carolina. Jobs in reupholstery, shoe repair and custom leatherwork, and laundry and drycleaning establishments are found in cities and towns throughout the Nation. Overall, about 12 percent of all workers in textile, apparel, and furnishings occupations were self-employed; however, about half of all tailors, dressmakers, and sewers and about a quarter of all upholsterers were self-employed.

Job Outlook

Overall employment of textile, apparel, and furnishings workers is expected to decline rapidly through 2016, but some openings will be created by the need to replace workers who leave the occupation.

Employment change. Employment in textile, apparel, and furnishing occupations is expected to decline by 11 percent between 2006 and 2016. Apparel workers have been among the most rapidly declining occupational groups in the economy. Increasing imports, the use of offshore assembly, and greater productivity through automation will contribute to additional job losses. Also, many new textiles require less production and processing.

Domestic production of apparel and textiles will continue to move abroad, and imports to the U.S. market are expected

to increase. 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. Although the textile industry already is highly automated, it will continue to seek to increase worker productivity through the introduction of labor-saving machinery and the invention of new fibers and fabrics that reduce production costs. 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.

Despite advances in technology, the apparel industry has had difficulty employing automated equipment for many assembly tasks because of the delicate properties of many textiles. Also, the industry produces a wide variety of apparel items that change frequently with changes in style and season. Even so, increasing numbers of sewing machine operator jobs are expected to be lost to low-wage workers abroad.

Outside of the manufacturing sector, tailors, dressmakers, and sewers—the most skilled apparel workers—are expected to experience little to no change in employment. Most of these workers are self-employed or work in clothing stores. The demand for custom home furnishings and tailored clothes is diminishing in general, but remains steady in upscale stores and by certain clients. Designer apparel and other handmade goods also appeal to people looking for one-of-a-kind items.

Employment of shoe and leather workers is expected to decline rapidly through 2016 as a result of growing imports of less expensive shoes and leather goods and of increasing productivity of U.S. manufacturers. Also, buying new shoes often is cheaper than repairing worn or damaged ones. However, declines might be offset somewhat as the population continues to age and more people need custom shoes for health reasons.

Employment of upholsterers is expected to decline moderately through 2016 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 consumers 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 prospects. Even though the overall number of jobs in this occupation is decreasing, job openings do arise each year from the need to replace some of the many workers who transfer to other occupations, retire, or leave the occupation for other reasons.

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 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 May 2006 were as follows:

Fabric and apparel patternmakers	\$15.74
Extruding and forming machine setters, operators, and tenders, synthetic and glass fibers	13.78
Upholsterers	13.09
Textile knitting and weaving machine setters, operators, and tenders	11.68
Textile bleaching and dyeing machine operators and tenders	11.20
Textile winding, twisting, and drawing out machine setters, operators, and tenders	11.08
All other textile, apparel, and furnishings workers	11.03
Tailors, dressmakers, and custom sewers	11.01
Shoe machine operators and tenders	10.54
Textile cutting machine setters, operators, and tenders	10.39
Shoe and leather workers and repairers	9.83
Sewers, hand	9.79
Sewing machine operators	9.04
Laundry and dry-cleaning workers	8.58
Pressers, textile, garment, and related materials	8.56

Benefits vary by size of company and work that is done. Large employers typically offer all usual benefits. 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 and drycleaning establishments, however, offer only limited benefits. Self-employed workers generally have to purchase their own insurance.

Related Occupations

Textile, apparel, and furnishings workers apply their knowledge of textiles and leathers to fashion products with the use of handtools and machinery. Others who produce products using handtools, machines, and their knowledge of the materials with which they work include assemblers and fabricators; 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 State employment services.