



TORQ Analysis of Textile Bleaching and Dyeing Machine Operators and Tenders to Mixing and Blending Machine Setters, Operators, and Tenders

ANALYSIS INPUT					
Transfer	Title	O* NET	Filters		
From Title:	Textile Bleaching and Dyeing Machine Operators and Tenders	51-6061.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Mixing and Blending Machine Setters, Operators, and Tenders	51-9023.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

TORQ RESULTS					
Grand TORQ:					91
Ability TORQ		Skills TORQ		Knowledge TORQ	
Level	 90	Level	 88	Level	 95

Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt
Depth Perception	44	14	50	Quality Control Analysis	55	10	70	No Knowledge Upgrades Required!			
Far Vision	46	11	53	Active Learning	57	9	72				
Visual Color Discrimination	50	11	53	Equipment Selection	55	9	70				
Manual Dexterity	50	9	62	Operation and Control	65	6	86				
Speech Recognition	41	6	50	Troubleshooting	61	7	72				
Near Vision	50	4	62	Reading Comprehension	57	6	71				
Multilimb Coordination	42	3	56	Operation Monitoring	67	5	77				
Oral Comprehension	51	3	53	Equipment Maintenance	61	4	80				
Written Comprehension	44	3	53	Active Listening	51	4	75				
Written Expression	37	3	53								
Information Ordering	46	2	59								
Rate Control	44	2	56								
Oral Expression	48	2	53								

LEVEL and IMPT (IMPORTANCE) refer to the Target Mixing and Blending Machine Setters, Operators, and Tenders. GAP refers to level difference between Textile Bleaching and Dyeing Machine Operators and Tenders and Mixing and Blending Machine Setters, Operators, and Tenders.

ASK ANALYSIS



Ability Level Comparison - Abilities with importance scores over 50

Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Mixing and Blending Machine Setters, Operators, and Tenders	Importance
Problem Sensitivity	44	42	62
Arm-Hand Steadiness	46	44	62
Manual Dexterity	41	50	62
Near Vision	46	50	62
Information Ordering	44	46	59
Perceptual Speed	44	44	59
Finger Dexterity	46	42	59
Control Precision	50	48	59
Multilimb Coordination	39	42	56
Rate Control	42	44	56
Oral Comprehension	48	51	53
Written Comprehension	41	44	53
Oral Expression	46	48	53
Written Expression	34	37	53
Deductive Reasoning	41	41	53
Flexibility of Closure	44	39	53
Reaction Time	46	44	53
Far Vision	35	46	53
Visual Color Discrimination	39	50	53
Speech Clarity	37	35	53
Selective Attention	48	44	50
Depth Perception	30	44	50
Speech Recognition	35	41	50

Skill Level Comparison - Abilities with importance scores over 69

Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Mixing and Blending Machine Setters, Operators, and Tenders	Importance
Operation and Control	59	65	86
Equipment Maintenance	57	61	80
Operation Monitoring	62	67	77
Active Listening	47	51	75
Active Learning	48	57	72
Troubleshooting	54	61	72
Reading Comprehension	51	57	71
Equipment Selection	46	55	70
Quality Control Analysis	45	55	70

Knowledge Level Comparison - Knowledge with importance scores over 69



Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Mixing and Blending Machine Setters, Operators, and Tenders	Importance
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Experience & Education Comparison

Related Work Experience Comparison				Required Education Level Comparison		
Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Mixing and Blending Machine Setters, Operators, and Tenders		Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Mixing and Blending Machine Setters, Operators, and Tenders
10+ years	0%	0%		Doctoral	0%	0%
8-10 years	0%	0%		Professional Degree	5%	0%
6-8 years	0%	0%		Post-Masters Cert	0%	0%
4-6 years	4%	0%		Master's Degree	0%	0%
2-4 years	0%	10%		Post-Bachelor Cert	0%	0%
1-2 years	5%	18%		Bachelors	10%	0%
6-12 months	6%	16%		AA or Equiv	0%	5%
3-6 months	0%	2%		Some College	0%	11%
1-3 months	6%	11%		Post-Secondary Certificate	0%	1%
0-1 month	33%	15%		High School Diploma or GED	46%	73%
None	42%	24%		No HSD or GED	36%	7%
Textile Bleaching and Dyeing Machine Operators and Tenders				Mixing and Blending Machine Setters, Operators, and Tenders		
Most Common Educational/Training Requirement:						
Moderate-term on-the-job training				Moderate-term on-the-job training		
Job Zone Comparison						
1 - Job Zone One: Little or No Preparation Needed				1 - Job Zone One: Little or No Preparation Needed		
No previous work-related skill, knowledge, or experience is needed for these occupations. For example, a person can become a cashier even if he/she has never worked before.				No previous work-related skill, knowledge, or experience is needed for these occupations. For example, a person can become a cashier even if he/she has never worked before.		
These occupations may require a high school diploma or GED certificate. Some may require a formal training course to obtain a license.				These occupations may require a high school diploma or GED certificate. Some may require a formal training course to obtain a license.		
Employees in these occupations need anywhere from a few days to a few months of training. Usually, an experienced worker could show you how to do the job.				Employees in these occupations need anywhere from a few days to a few months of training. Usually, an experienced worker could show you how to do the job.		

Tasks

Textile Bleaching and Dyeing Machine Operators and Tenders	Mixing and Blending Machine Setters, Operators, and Tenders
Core Tasks	Core Tasks
Generalized Work Activities:	Generalized Work Activities:
<ul style="list-style-type: none"> Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles). Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things. Monitor Processes, Materials, or 	<ul style="list-style-type: none"> Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects. Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles). Documenting/Recording Information -



Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.

- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.

Specific Tasks

Occupation Specific Tasks:

- Add dyes, water, detergents, or chemicals to tanks to dilute or strengthen solutions, according to established formulas and solution test results.
- Adjust equipment controls to maintain specified heat, tension, and speed.
- Confer with coworkers to get information about order details, processing plans, or problems that occur.
- Creel machines with bobbins or twine.
- Examine and feel products to identify defects and variations from coloring and other processing standards.
- Inspect machinery to determine necessary adjustments and repairs.
- Install, level, and align components such as gears, chains, dies, cutters, and needles.
- Key in processing instructions to program electronic equipment.
- Monitor factors such as temperatures and dye flow rates to ensure that they are within specified ranges.
- Mount rolls of cloth on machines, using hoists, or place textile goods in machines or pieces of equipment.
- Notify supervisors or mechanics of equipment malfunctions.
- Observe display screens, control panels, equipment, and cloth entering or exiting processes to determine if equipment is operating correctly.
- Perform machine maintenance, such as cleaning and oiling equipment; and repair or replace worn or defective parts.
- Prepare dyeing machines for production runs, and conduct test runs of machines to ensure their proper operation.
- Ravel seams that connect cloth ends when processing is completed.
- Record production information such as fabric yardage processed, temperature readings, fabric tensions, and machine speeds.
- Remove dyed articles from tanks and machines for drying and further processing.
- Sew ends of cloth together, by hand or using machines, to form endless lengths of cloth to facilitate processing.
- Soak specified textile products for

Entering, transcribing, recording, storing, or maintaining information in written or electronic/magnetic form.

- Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.

Specific Tasks

Occupation Specific Tasks:

- Add or mix chemicals and ingredients for processing, using hand tools or other devices.
- Clean and maintain equipment, using hand tools.
- Collect samples of materials or products for laboratory testing.
- Compound and process ingredients or dyes according to formulas.
- Dislodge and clear jammed materials or other items from machinery and equipment, using hand tools.
- Dump or pour specified amounts of materials into machinery and equipment.
- Examine materials, ingredients, or products visually or with hands, in order to ensure conformance to established standards.
- Observe production and monitor equipment to ensure safe and efficient operation.
- Open valves to drain slurry from mixers into storage tanks.
- Operate or tend machines to mix or blend any of a wide variety of materials such as spices, dough batter, tobacco, fruit juices, chemicals, livestock feed, food products, color pigments, or explosive ingredients.
- Read work orders to determine production specifications and information.
- Record operational and production data on specified forms.
- Start machines to mix or blend ingredients; then allow them to mix for specified times.
- Stop mixing or blending machines when specified product qualities are obtained, and open valves and start pumps to transfer mixtures.
- Tend accessory equipment such as pumps and conveyors to move materials or ingredients through production processes.
- Test samples of materials or products to ensure compliance with specifications, using test equipment.
- Transfer materials, supplies, and products between work areas, using moving equipment and hand tools.
- Unload mixtures into containers or onto conveyors for further processing.
- Weigh or measure materials, ingredients, and products to ensure conformance to



designated times.

- Start and control machines and equipment to wash, bleach, dye, or otherwise process and finish fabric, yarn, thread, and/or other textile goods.
- Study guides, charts, and specification sheets, and confer with supervisors to determine machine setup requirements.
- Test solutions used to process textile goods to detect variations from standards.
- Thread ends of cloth or twine through specified sections of equipment prior to processing.
- Weigh ingredients to be mixed together for use in textile processing.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- calculate weights or proportions of pigments required to make dye
- clean equipment or machinery
- confer with engineering, technical or manufacturing personnel
- distinguish colors
- dye fabric or leather articles
- examine products or work to verify conformance to specifications
- load or unload material or workpiece into machinery
- maintain consistent production quality
- maintain production or work records
- measure, weigh, or count products or materials
- mix paint, ingredients, or chemicals, according to specifications
- monitor production machinery/equipment operation to detect problems
- operate hoist, winch, or hydraulic boom
- operate sewing machine
- operate textile production equipment/machinery
- perform safety inspections in manufacturing or industrial setting
- program operation of computerized manufacturing equipment/machinery
- sew by hand
- test manufactured products or materials
- understand technical operating, service or repair manuals
- use chemical testing or analysis procedures

requirements.

Detailed Tasks

Detailed Work Activities:

- clean equipment or machinery
- collect samples for testing
- examine products or work to verify conformance to specifications
- load or unload material or workpiece into machinery
- load, unload, or stack containers, materials, or products
- maintain consistent production quality
- maintain or repair industrial or related equipment/machinery
- maintain production or work records
- measure, weigh, or count products or materials
- mix paint, ingredients, or chemicals, according to specifications
- monitor production machinery/equipment operation to detect problems
- operate chemical processing equipment
- operate food processing production equipment/machinery
- operate glass or stone working equipment/machinery
- operate mix or blending machine
- operate power driven pumps
- operate pulp or paper making equipment
- operate textile production equipment/machinery
- perform safety inspections in manufacturing or industrial setting
- read work order, instructions, formulas, or processing charts
- set up production equipment or machinery
- test manufactured products or materials
- use hand or power tools
- use precision measuring tools or equipment

Tools - Examples

- Adjustable wrenches
- Gram scales
- Measuring sticks
- Desktop computers
- Dollies
- Platform scales
- Forklifts
- Safety goggles



- Claw hammers
- Handtrucks
- Tuggers
- Hydrometers
- Hydraulic lifts
- Locking pliers
- Safety masks
- Pallet movers
- Personal computers
- pH indicators
- Power drills
- Steam cleaning equipment
- Safety gloves
- Remote reading electronic thermometers
- Phillips head screwdrivers
- Viscosity meters
- Wire brushes
- Overhead cranes

Labor Market Comparison

Maine Department of Labor.

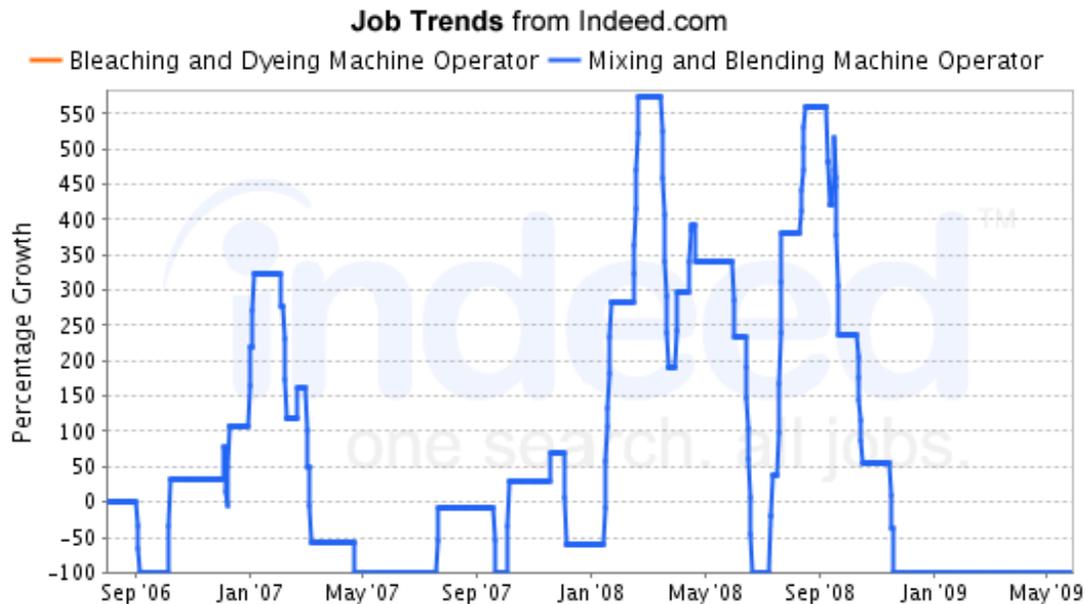
Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Mixing and Blending Machine Setters, Operators, and Tenders	Difference
Median Wage	\$ 26,480	\$ 36,040	\$ 9,560
10th Percentile Wage	\$ 19,210	\$ 25,750	\$ 6,540
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 30,290	\$ 46,520	\$ 16,230
90th Percentile Wage	\$ 34,070	\$ 55,710	\$ 21,640
Mean Wage	\$ 26,310	\$ 38,110	\$ 11,800
Total Employment - 2581	150	420	270
Employment Base - 2006	162	429	267
Projected Employment - 2590	135	389	254
Projected Job Growth - 2006-2590	-16.7 %	-9.3 %	7.3 %



Projected Annual Openings - 2006-2590	2	7	5
Special			
Special Occupations:			

National Job Posting Trends

Trend for Textile Bleaching and Dyeing Machine Operators and Tenders and Mixing and Blending Machine Setters, Operators, and Tenders



Data from [Indeed](http://Indeed.com)

Programs

Related Programs

Agricultural and Food Products Processing Operatio

Agricultural and Food Products Processing. A program that prepares individuals to receive, inspect, store, process, and package agricultural products in the form of human food consumables, animal or plant food, or other industrial products. Includes instruction in the nutrient and industrial properties of various agricultural products; logistics and storage procedures; chemical and mechanical processing operations; packaging; safety and health requirements; and related technical and business principles.

No information on schools for the program

Maine Statewide Promotion Opportunities for Textile Bleaching and Dyeing Machine Operators and Tenders

O*NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
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51-6061.00	Textile Bleaching and Dyeing Machine Operators and Tenders	100	1	150	\$26,480.00	\$0.00	-17%	2
51-9023.00	Mixing and Blending Machine Setters, Operators, and Tenders	91	1	420	\$36,040.00	\$9,560.00	-9%	7
51-4191.00	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	89	2	40	\$32,470.00	\$5,990.00	-6%	1
51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	89	2	910	\$38,230.00	\$11,750.00	-26%	23
51-9051.00	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	89	2	300	\$32,980.00	\$6,500.00	-18%	9
51-9032.00	Cutting and Slicing Machine Setters, Operators, and Tenders	89	2	710	\$31,350.00	\$4,870.00	-23%	12
53-7063.00	Machine Feeders and Offbearers	88	1	480	\$26,820.00	\$340.00	-22%	9
51-9041.00	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	88	2	260	\$28,330.00	\$1,850.00	-7%	5



51-9121.00	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	87	2	850	\$38,860.00	\$12,380.00	-26%	19	
51-9061.00	Inspectors, Testers, Sorters, Samplers, and Weighers	86	2	1,700	\$29,700.00	\$3,220.00	-14%	26	
51-4121.07	Solderers and Brazers	86	2	1,610	\$38,030.00	\$11,550.00	7%	49	★
51-5021.00	Job Printers	86	3	140	\$31,890.00	\$5,410.00	-10%	2	
51-9191.00	Cementing and Gluing Machine Operators and Tenders	86	1	80	\$27,620.00	\$1,140.00	-15%	2	
51-2091.00	Fiberglass Laminators and Fabricators	85		440	\$33,960.00	\$7,480.00	5%	11	
47-4041.00	Hazardous Materials Removal Workers	85	2	210	\$29,630.00	\$3,150.00	-1%	5	

Special Occupations:

Top Industries for Mixing and Blending Machine Setters, Operators, and Tenders

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Other chemical product and preparation manufacturing	325900	9.63%	13,758	10,823	-21.33%
Soap, cleaning compound, and toilet preparation manufacturing	325600	8.07%	11,534	11,082	-3.92%
Pharmaceutical and medicine manufacturing	325400	7.45%	10,643	13,413	26.03%
Paint, coating, and adhesive manufacturing	325500	7.40%	10,566	9,923	-6.08%
Cement and concrete product manufacturing	327300	5.52%	7,879	8,552	8.55%
Plastics product manufacturing	326100	4.45%	6,360	6,067	-4.60%
Basic chemical manufacturing	325100	3.95%	5,637	4,754	-15.67%
Bakeries and tortilla manufacturing	311800	3.52%	5,030	5,138	2.15%
Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing	325200	3.41%	4,874	3,913	-19.73%



Animal food manufacturing	311100	3.15%	4,494	3,899	-13.26%
Rubber product manufacturing	326200	2.67%	3,820	2,698	-29.39%
Petroleum and coal products manufacturing	324100	2.67%	3,820	2,884	-24.51%
Pesticide, fertilizer, and other agricultural chemical manufacturing	325300	2.63%	3,754	2,970	-20.88%
Other food manufacturing	311900	2.60%	3,719	3,899	4.85%
Fruit and vegetable preserving and specialty food manufacturing	311400	1.97%	2,820	2,557	-9.33%

Top Industries for Textile Bleaching and Dyeing Machine Operators and Tenders

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Textile and fabric finishing and fabric coating mills	313300	46.67%	9,063	5,589	-38.33%
Fabric mills	313200	18.93%	3,676	2,596	-29.38%
Textile furnishings mills	314100	8.44%	1,639	1,485	-9.40%
Apparel knitting mills	315100	6.69%	1,299	812	-37.50%
Fiber, yarn, and thread mills	313100	3.63%	705	594	-15.78%
Cut and sew apparel manufacturing	315200	2.31%	448	189	-57.77%
Employment services	561300	1.26%	246	311	26.56%
Other textile product mills	314900	1.19%	230	207	-10.18%
Apparel accessories and other apparel manufacturing	315900	0.93%	180	126	-30.10%



TORQ Analysis of Textile Bleaching and Dyeing Machine Operators and Tenders to Food Batchmakers

ANALYSIS INPUT

Transfer	Title	O*NET	Filters		
From Title:	Textile Bleaching and Dyeing Machine Operators and Tenders	51-6061.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Food Batchmakers	51-3092.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

TORQ RESULTS

Grand TORQ:

90

Ability TORQ		Skills TORQ		Knowledge TORQ	
Level	89	Level	89	Level	91

Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt
Oral Expression	53	7	53	No Skills Upgrade Required!				No Knowledge Upgrades Required!			
Auditory Attention	42	7	50								
Near Vision	50	4	62								

LEVEL and IMPT (IMPORTANCE) refer to the Target Food Batchmakers. GAP refers to level difference between Textile Bleaching and Dyeing Machine Operators and Tenders and Food Batchmakers.

ASK ANALYSIS

Ability Level Comparison - Abilities with importance scores over 50

Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Food Batchmakers	Importance
Information Ordering	44	42	68
Near Vision	46	50	62
Manual Dexterity	41	39	59
Control Precision	50	44	59
Trunk Strength	42	42	59
Problem Sensitivity	44	39	56
Oral Expression	46	53	53
Category Flexibility	41	39	53
Oral Comprehension	48	46	50
Written Comprehension	41	37	50
Deductive Reasoning	41	37	50



Arm-Hand Steadiness	46	30	50
Auditory Attention	35	42	50
Speech Recognition	35	34	50
Skill Level Comparison - Abilities with importance scores over 69			
Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Food Batchmakers	Importance
Knowledge Level Comparison - Knowledge with importance scores over 69			
Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Food Batchmakers	Importance

Experience & Education Comparison					
Related Work Experience Comparison			Required Education Level Comparison		
Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Food Batchmakers	Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Food Batchmakers
10+ years	0%	0%	Doctoral	0%	0%
8-10 years	0%	0%	Professional Degree	5%	0%
6-8 years	0%	0%	Post-Masters Cert	0%	0%
4-6 years	4%	0%	Master's Degree	0%	0%
2-4 years	0%	0%	Post-Bachelor Cert	0%	0%
1-2 years	5%	0%	Bachelors	10%	0%
6-12 months	6%	7%	AA or Equiv	0%	0%
3-6 months	0%	11%	Some College	0%	0%
1-3 months	6%	6%	Post-Secondary Certificate	0%	0%
0-1 month	33%	32%	High School Diploma or GED	46%	66%
None	42%	42%	No HSD or GED	36%	33%
Textile Bleaching and Dyeing Machine Operators and Tenders			Food Batchmakers		
Most Common Educational/Training Requirement:					
Moderate-term on-the-job training			Short-term on-the-job training		
Job Zone Comparison					
1 - Job Zone One: Little or No Preparation Needed			2 - Job Zone Two: Some Preparation Needed		
No previous work-related skill, knowledge, or experience is needed for these occupations. For example, a person can become a cashier even if he/she has never worked before.			Some previous work-related skill, knowledge, or experience may be helpful in these occupations, but usually is not needed. For example, a teller might benefit from experience working directly with the public, but an inexperienced person could still learn to be a teller with little difficulty.		
These occupations may require a high school diploma or GED certificate. Some may require a formal training course to obtain a license.			These occupations usually require a high school diploma and may require some vocational training or job-related course work. In some cases, an associate's or bachelor's degree could be needed.		
Employees in these occupations need anywhere from a few days to a few months of training. Usually, an experienced worker could show you how to do the job.			Employees in these occupations need anywhere from a few months to one year of working with experienced employees.		

Tasks

Textile Bleaching and Dyeing Machine Operators
and Tenders

Core Tasks

Generalized Work Activities:

- Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
- Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.
- Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.

Specific Tasks

Occupation Specific Tasks:

- Add dyes, water, detergents, or chemicals to tanks to dilute or strengthen solutions, according to established formulas and solution test results.
- Adjust equipment controls to maintain specified heat, tension, and speed.
- Confer with coworkers to get information about order details, processing plans, or problems that occur.
- Creel machines with bobbins or twine.
- Examine and feel products to identify defects and variations from coloring and other processing standards.
- Inspect machinery to determine necessary adjustments and repairs.
- Install, level, and align components such as gears, chains, dies, cutters, and needles.
- Key in processing instructions to program electronic equipment.
- Monitor factors such as temperatures and dye flow rates to ensure that they are within specified ranges.
- Mount rolls of cloth on machines, using hoists, or place textile goods in machines or pieces of equipment.
- Notify supervisors or mechanics of equipment malfunctions.
- Observe display screens, control panels, equipment, and cloth entering or exiting processes to determine if equipment is operating correctly.
- Perform machine maintenance, such as cleaning and oiling equipment; and repair or replace worn or defective parts.

Food Batchmakers

Core Tasks

Generalized Work Activities:

- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
- Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.
- Identifying Objects, Actions, and Events - Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events.

Specific Tasks

Occupation Specific Tasks:

- Clean and sterilize vats and factory processing areas.
- Cool food product batches on slabs or in water-cooled kettles.
- Determine mixing sequences, based on knowledge of temperature effects and of the solubility of specific ingredients.
- Examine, feel, and taste product samples during production to evaluate quality, color, texture, flavor, and bouquet, and document the results.
- Fill processing or cooking containers, such as kettles, rotating cookers, pressure cookers, or vats, with ingredients, by opening valves, by starting pumps or injectors, or by hand.
- Follow recipes to produce food products of specified flavor, texture, clarity, bouquet, or color.
- Formulate or modify recipes for specific kinds of food products.
- Give directions to other workers who are assisting in the batchmaking process.
- Grade food products according to government regulations or according to type, color, bouquet, and moisture content.
- Homogenize or pasteurize material to prevent separation or to obtain prescribed butterfat content, using a homogenizing device.
- Inspect and pack the final product.
- Inspect vats after cleaning to ensure that fermentable residue has been removed.



- Prepare dyeing machines for production runs, and conduct test runs of machines to ensure their proper operation.
- Ravel seams that connect cloth ends when processing is completed.
- Record production information such as fabric yardage processed, temperature readings, fabric tensions, and machine speeds.
- Remove dyed articles from tanks and machines for drying and further processing.
- Sew ends of cloth together, by hand or using machines, to form endless lengths of cloth to facilitate processing.
- Soak specified textile products for designated times.
- Start and control machines and equipment to wash, bleach, dye, or otherwise process and finish fabric, yarn, thread, and/or other textile goods.
- Study guides, charts, and specification sheets, and confer with supervisors to determine machine setup requirements.
- Test solutions used to process textile goods to detect variations from standards.
- Thread ends of cloth or twine through specified sections of equipment prior to processing.
- Weigh ingredients to be mixed together for use in textile processing.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- calculate weights or proportions of pigments required to make dye
- clean equipment or machinery
- confer with engineering, technical or manufacturing personnel
- distinguish colors
- dye fabric or leather articles
- examine products or work to verify conformance to specifications
- load or unload material or workpiece into machinery
- maintain consistent production quality
- maintain production or work records
- measure, weigh, or count products or materials
- mix paint, ingredients, or chemicals, according to specifications
- monitor production machinery/equipment operation to detect problems
- operate hoist, winch, or hydraulic boom
- operate sewing machine
- operate textile production equipment/machinery
- perform safety inspections in manufacturing or industrial settings

- Manipulate products, by hand or using machines, to separate, spread, knead, spin, cast, cut, pull, or roll products.
- Mix or blend ingredients, according to recipes, using a paddle or an agitator, or by controlling vats that heat and mix ingredients.
- Modify cooking and forming operations based on the results of sampling processes, adjusting time cycles and ingredients to achieve desired qualities, such as firmness or texture.
- Observe and listen to equipment to detect possible malfunctions, such as leaks or plugging, and report malfunctions or undesirable tastes to supervisors.
- Observe gauges and thermometers to determine if the mixing chamber temperature is within specified limits, and turn valves to control the temperature.
- Operate refining machines to reduce the particle size of cooked batches.
- Place products on carts or conveyors to transfer them to the next stage of processing.
- Press switches and turn knobs to start, adjust, and regulate equipment such as beaters, extruders, discharge pipes, and salt pumps.
- Record production and test data for each food product batch, such as the ingredients used, temperature, test results, and time cycle.
- Select and measure or weigh ingredients, using English or metric measures and balance scales.
- Set up, operate, and tend equipment that cooks, mixes, blends, or processes ingredients in the manufacturing of food products, according to formulas or recipes.
- Test food product samples for moisture content, acidity level, specific gravity, or butter-fat content, and continue processing until desired levels are reached.
- Turn valve controls to start equipment and to adjust operation to maintain product quality.

Detailed Tasks

Detailed Work Activities:

- compute production, construction, or installation specifications
- examine products or work to verify conformance to specifications
- grade, classify, or sort products according to specifications
- load or unload material or workpiece into machinery
- maintain production or work records
- measure, weigh, or count products or materials
- operate food processing production



or industrial setting

- program operation of computerized manufacturing equipment/machinery
- sew by hand
- test manufactured products or materials
- understand technical operating, service or repair manuals
- use chemical testing or analysis procedures

equipment/machinery

- perform safety inspections in manufacturing or industrial setting
- set up production equipment or machinery
- signal directions or warnings to coworkers
- understand food processing directions
- use precision measuring tools or equipment

Labor Market Comparison

Maine Department of Labor.

Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Food Batchmakers	Difference
Median Wage	\$ 26,480	\$ 25,410	\$(1,070)
10th Percentile Wage	\$ 19,210	\$ 16,840	\$(2,370)
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 30,290	\$ 29,620	\$(670)
90th Percentile Wage	\$ 34,070	\$ 32,900	\$(1,170)
Mean Wage	\$ 26,310	\$ 25,070	\$(1,240)
Total Employment - 2581	150	640	490
Employment Base - 2006	162	562	400
Projected Employment - 2590	135	520	385
Projected Job Growth - 2006-2590	-16.7 %	-7.5 %	9.2 %
Projected Annual Openings - 2006-2590	2	14	12
Special			

Special Occupations:

National Job Posting Trends

Trend for Textile Bleaching and Dyeing Machine Operators and Tenders and Food Batchmakers



Programs

Related Programs

Agricultural and Food Products Processing Operatio

Agricultural and Food Products Processing. A program that prepares individuals to receive, inspect, store, process, and package agricultural products in the form of human food consumables, animal or plant food, or other industrial products. Includes instruction in the nutrient and industrial properties of various agricultural products; logistics and storage procedures; chemical and mechanical processing operations; packaging; safety and health requirements; and related technical and business principles.

No information on schools for the program

Foodservice Systems Administration/Management

Foodservice Systems Administration/Management. A program that focuses on the principles and practices relating to the administration of food service systems in institutional settings, and that prepares individuals to manage such operations in public and private facilities. Includes instruction in human nutrition, food safety, the design and organization of food service systems, purchasing, personnel management, and related business practices.

No information on schools for the program

Maine Statewide Promotion Opportunities for Textile Bleaching and Dyeing Machine Operators and Tenders

O*NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
51-6061.00	Textile Bleaching and Dyeing Machine Operators and Tenders	100	1	150	\$26,480.00	\$0.00	-17%	2	



51-9023.00	Mixing and Blending Machine Setters, Operators, and Tenders	91	1	420	\$36,040.00	\$9,560.00	-9%	7
51-4191.00	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	89	2	40	\$32,470.00	\$5,990.00	-6%	1
51-9032.00	Cutting and Slicing Machine Setters, Operators, and Tenders	89	2	710	\$31,350.00	\$4,870.00	-23%	12
51-9051.00	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	89	2	300	\$32,980.00	\$6,500.00	-18%	9
51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	89	2	910	\$38,230.00	\$11,750.00	-26%	23
51-9041.00	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	88	2	260	\$28,330.00	\$1,850.00	-7%	5
53-7063.00	Machine Feeders and Offbearers	88	1	480	\$26,820.00	\$340.00	-22%	9
51-9121.00	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	87	2	850	\$38,860.00	\$12,380.00	-26%	19



51-9061.00	Inspectors, Testers, Sorters, Samplers, and Weighers	86	2	1,700	\$29,700.00	\$3,220.00	-14%	26	
51-4121.07	Solderers and Brazers	86	2	1,610	\$38,030.00	\$11,550.00	7%	49	★
51-5021.00	Job Printers	86	3	140	\$31,890.00	\$5,410.00	-10%	2	
51-9191.00	Cementing and Gluing Machine Operators and Tenders	86	1	80	\$27,620.00	\$1,140.00	-15%	2	
51-2091.00	Fiberglass Laminators and Fabricators	85		440	\$33,960.00	\$7,480.00	5%	11	
47-4041.00	Hazardous Materials Removal Workers	85	2	210	\$29,630.00	\$3,150.00	-1%	5	

Special Occupations:

Top Industries for Food Batchmakers					
Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Bakeries and tortilla manufacturing	311800	21.01%	19,946	22,412	12.36%
Other food manufacturing	311900	12.34%	11,715	13,512	15.34%
Fruit and vegetable preserving and specialty food manufacturing	311400	10.88%	10,325	10,298	-0.27%
Dairy product manufacturing	311500	10.71%	10,167	11,064	8.82%
Sugar and confectionery product manufacturing	311300	8.85%	8,400	7,782	-7.35%
Animal slaughtering and processing	311600	8.01%	7,601	9,543	25.54%
Grocery stores	445100	6.94%	6,585	7,903	20.02%
Grocery and related product wholesalers	424400	4.24%	4,021	4,836	20.28%
Grain and oilseed milling	311200	3.62%	3,437	3,297	-4.07%
Animal food manufacturing	311100	2.08%	1,973	1,882	-4.58%
Self-employed workers, primary job	000601	1.72%	1,636	1,917	17.19%
Limited-service eating places	722200	1.66%	1,574	1,888	19.89%
Employment services	561300	1.66%	1,574	2,192	39.22%
Specialty food stores	445200	1.03%	975	1,020	4.60%



Seafood product preparation and packaging	311700	0.92%	869	852	-1.88%
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Top Industries for Textile Bleaching and Dyeing Machine Operators and Tenders

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Textile and fabric finishing and fabric coating mills	313300	46.67%	9,063	5,589	-38.33%
Fabric mills	313200	18.93%	3,676	2,596	-29.38%
Textile furnishings mills	314100	8.44%	1,639	1,485	-9.40%
Apparel knitting mills	315100	6.69%	1,299	812	-37.50%
Fiber, yarn, and thread mills	313100	3.63%	705	594	-15.78%
Cut and sew apparel manufacturing	315200	2.31%	448	189	-57.77%
Employment services	561300	1.26%	246	311	26.56%
Other textile product mills	314900	1.19%	230	207	-10.18%
Apparel accessories and other apparel manufacturing	315900	0.93%	180	126	-30.10%



TORQ Analysis of Textile Bleaching and Dyeing Machine Operators and Tenders to Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders

ANALYSIS INPUT					
Transfer	Title	O* NET	Filters		
From Title:	Textile Bleaching and Dyeing Machine Operators and Tenders	51-6061.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	51-9051.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

TORQ RESULTS													
Grand TORQ:												89	
Ability TORQ				Skills TORQ				Knowledge TORQ					
Level				90	Level				89	Level			89
Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add					
Ability	Level	Gap	Imp	Skill	Level	Gap	Imp	Knowledge	Level	Gap	Imp		
Near Vision	53	7	59	Operation Monitoring	72	10	84	Production and Processing	69	22	75		
Oral Expression	53	7	53										
Perceptual Speed	50	6	53										
Oral Comprehension	53	5	56										
Written Comprehension	46	5	50										
Problem Sensitivity	48	4	62										
Reaction Time	50	4	50										
Selective Attention	51	3	56										
Multilimb Coordination	41	2	50										
LEVEL and IMPT (IMPORTANCE) refer to the Target Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders. GAP refers to level difference between Textile Bleaching and Dyeing Machine Operators and Tenders and Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders.													

ASK ANALYSIS			
Ability Level Comparison - Abilities with importance scores over 50			
Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	Importance
Problem Sensitivity	44	48	62



Control Precision	50	50	62
Near Vision	46	53	59
Oral Comprehension	48	53	56
Selective Attention	48	51	56
Oral Expression	46	53	53
Perceptual Speed	44	50	53
Written Comprehension	41	46	50
Information Ordering	44	44	50
Arm-Hand Steadiness	46	39	50
Manual Dexterity	41	39	50
Multilimb Coordination	39	41	50
Reaction Time	46	50	50
Speech Recognition	35	35	50

Skill Level Comparison - Abilities with importance scores over 69

Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	Importance
Operation Monitoring	62	72	84

Knowledge Level Comparison - Knowledge with importance scores over 69

Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	Importance
Production and Processing	47	69	75

Experience & Education Comparison

Related Work Experience Comparison				Required Education Level Comparison		
Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders		Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders
10+ years	0%	0%		Doctoral	0%	0%
8-10 years	0%	0%		Professional Degree	5%	0%
6-8 years	0%	0%		Post-Masters Cert	0%	0%
4-6 years	4%	0%		Master's Degree	0%	0%
2-4 years	0%	19%		Post-Bachelor Cert	0%	0%
1-2 years	5%	19%		Bachelors	10%	0%
6-12 months	6%	34%		AA or Equiv	0%	0%
3-6 months	0%	17%		Some College	0%	0%
1-3 months	6%	0%		Post-Secondary Certificate	0%	3%
0-1 month	33%	3%		High School Diploma or GED	46%	96%
None	42%	4%		No HSD or GED	36%	0%



Textile Bleaching and Dyeing Machine Operators and Tenders	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders
Most Common Educational/Training Requirement:	
Moderate-term on-the-job training	Moderate-term on-the-job training
Job Zone Comparison	
1 - Job Zone One: Little or No Preparation Needed	2 - Job Zone Two: Some Preparation Needed
No previous work-related skill, knowledge, or experience is needed for these occupations. For example, a person can become a cashier even if he/she has never worked before.	Some previous work-related skill, knowledge, or experience may be helpful in these occupations, but usually is not needed. For example, a teller might benefit from experience working directly with the public, but an inexperienced person could still learn to be a teller with little difficulty.
These occupations may require a high school diploma or GED certificate. Some may require a formal training course to obtain a license.	These occupations usually require a high school diploma and may require some vocational training or job-related course work. In some cases, an associate's or bachelor's degree could be needed.
Employees in these occupations need anywhere from a few days to a few months of training. Usually, an experienced worker could show you how to do the job.	Employees in these occupations need anywhere from a few months to one year of working with experienced employees.

Tasks

Textile Bleaching and Dyeing Machine Operators and Tenders	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders
Core Tasks	Core Tasks
<p>Generalized Work Activities:</p> <ul style="list-style-type: none"> • Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles). • Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things. • Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems. • Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources. • Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects. 	<p>Generalized Work Activities:</p> <ul style="list-style-type: none"> • Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles). • Performing General Physical Activities - Performing physical activities that require considerable use of your arms and legs and moving your whole body, such as climbing, lifting, balancing, walking, stooping, and handling of materials. • Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person. • Documenting/Recording Information - Entering, transcribing, recording, storing, or maintaining information in written or electronic/magnetic form. • Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.
Specific Tasks	Specific Tasks
<p>Occupation Specific Tasks:</p> <ul style="list-style-type: none"> • Add dyes, water, detergents, or chemicals to tanks to dilute or strengthen solutions, according to established formulas and solution test results. • Adjust equipment controls to maintain specified heat, tension, and speed. • Confer with coworkers to get information about order details, processing plans, or problems that occur. • Creel machines with bobbins or twine. • Examine and feel products to identify defects and variations from coloring and other processing standards. 	<p>Occupation Specific Tasks:</p> <ul style="list-style-type: none"> • Calculate amounts of materials to be loaded into furnaces, adjusting amounts as necessary for specific conditions. • Clean, lubricate, and adjust equipment, using scrapers, solvents, air hoses, oil, and hand tools. • Confer with supervisors or other equipment operators in order to report equipment malfunctions or to resolve production problems.



- Inspect machinery to determine necessary adjustments and repairs.
- Install, level, and align components such as gears, chains, dies, cutters, and needles.
- Key in processing instructions to program electronic equipment.
- Monitor factors such as temperatures and dye flow rates to ensure that they are within specified ranges.
- Mount rolls of cloth on machines, using hoists, or place textile goods in machines or pieces of equipment.
- Notify supervisors or mechanics of equipment malfunctions.
- Observe display screens, control panels, equipment, and cloth entering or exiting processes to determine if equipment is operating correctly.
- Perform machine maintenance, such as cleaning and oiling equipment; and repair or replace worn or defective parts.
- Prepare dyeing machines for production runs, and conduct test runs of machines to ensure their proper operation.
- Ravel seams that connect cloth ends when processing is completed.
- Record production information such as fabric yardage processed, temperature readings, fabric tensions, and machine speeds.
- Remove dyed articles from tanks and machines for drying and further processing.
- Sew ends of cloth together, by hand or using machines, to form endless lengths of cloth to facilitate processing.
- Soak specified textile products for designated times.
- Start and control machines and equipment to wash, bleach, dye, or otherwise process and finish fabric, yarn, thread, and/or other textile goods.
- Study guides, charts, and specification sheets, and confer with supervisors to determine machine setup requirements.
- Test solutions used to process textile goods to detect variations from standards.
- Thread ends of cloth or twine through specified sections of equipment prior to processing.
- Weigh ingredients to be mixed together for use in textile processing.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- calculate weights or proportions of pigments required to make dye
- clean equipment or machinery
- confer with engineering, technical or manufacturing personnel

- Direct crane operators and crew members to load vessels with materials to be processed.
- Examine or test samples of processed substances, or collect samples for laboratory testing, in order to ensure conformance to specifications.
- Feed fuel, such as coal and coke, into fireboxes or onto conveyors, and remove ashes from furnaces, using shovels and buckets.
- Load equipment receptacles or conveyors with material to be processed, by hand or using hoists.
- Melt or refine metal before casting, calculating required temperatures; and observe metal color and adjust controls as necessary in order to maintain required temperatures.
- Monitor equipment operation, gauges, and panel lights in order to detect deviations from standards.
- Press and adjust controls in order to activate, set, and regulate equipment according to specifications.
- Read and interpret work orders and instructions in order to determine work assignments, process specifications, and production schedules.
- Record gauge readings, test results, and shift production in log books.
- Remove products from equipment, manually or using hoists, and prepare them for storage, shipment, or additional processing.
- Replace worn or defective equipment parts, using hand tools.
- Sprinkle chemicals on the surface of molten metal in order to bring impurities to surface and remove impurities, using strainers.
- Stop equipment and clear blockages or jams, using fingers, wire, or hand tools.
- Transport materials and products to and from work areas, manually or using carts, handtrucks, or hoists.
- Weigh or measure specified amounts of ingredients or materials for processing, using devices such as scales and calipers.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- apply cleaning solvents
- clean equipment or machinery
- collect samples for testing
- confer with engineering, technical or manufacturing personnel
- examine products or work to verify conformance to specifications
- load or unload material or workpiece into machinery



- distinguish colors
- dye fabric or leather articles
- examine products or work to verify conformance to specifications
- load or unload material or workpiece into machinery
- maintain consistent production quality
- maintain production or work records
- measure, weigh, or count products or materials
- mix paint, ingredients, or chemicals, according to specifications
- monitor production machinery/equipment operation to detect problems
- operate hoist, winch, or hydraulic boom
- operate sewing machine
- operate textile production equipment/machinery
- perform safety inspections in manufacturing or industrial setting
- program operation of computerized manufacturing equipment/machinery
- sew by hand
- test manufactured products or materials
- understand technical operating, service or repair manuals
- use chemical testing or analysis procedures

- maintain consistent production quality
- maintain or repair industrial or related equipment/machinery
- maintain production or work records
- measure, weigh, or count products or materials
- monitor production machinery/equipment operation to detect problems
- move or fit heavy objects
- operate chemical processing equipment
- operate glass or stone working equipment/machinery
- operate hoist, winch, or hydraulic boom
- operate laundering or dry cleaning equipment
- operate metal or plastic fabricating equipment/machinery
- operate ore refining/foundry equipment/machinery
- operate pulp or paper making equipment
- operate textile production equipment/machinery
- operate woodworking equipment/machinery
- read work order, instructions, formulas, or processing charts
- test manufactured products or materials
- understand technical operating, service or repair manuals
- use hand or power tools
- use precision measuring tools or equipment

Labor Market Comparison

Maine Department of Labor.

Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	Difference
Median Wage	\$ 26,480	\$ 32,980	\$ 6,500
10th Percentile Wage	\$ 19,210	\$ 22,430	\$ 3,220
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 30,290	\$ 37,570	\$ 7,280
90th Percentile Wage	\$ 34,070	\$ 51,800	\$ 17,730
Mean Wage	\$ 26,310	\$ 34,280	\$ 7,970
Total Employment - 2581	150	300	150
Employment Base - 2006	162	314	152
Projected Employment - 2590	135	259	124
Projected Job Growth - 2006-2590	-16.7 %	-17.5 %	-0.8 %
Projected Annual Openings - 2006-2590	2	9	7



Special

Special Occupations:

National Job Posting Trends

Trend for Textile Bleaching and Dyeing Machine Operators and Tenders and Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders

Data from [Indeed](http://Indeed.com)**Programs**

No information on programs or the occupation.

Maine Statewide Promotion Opportunities for Textile Bleaching and Dyeing Machine Operators and Tenders

O*NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
51-6061.00	Textile Bleaching and Dyeing Machine Operators and Tenders	100	1	150	\$26,480.00	\$0.00	-17%	2	
51-9023.00	Mxing and Blending Machine Setters, Operators, and Tenders	91	1	420	\$36,040.00	\$9,560.00	-9%	7	



51-4191.00	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	89	2	40	\$32,470.00	\$5,990.00	-6%	1	
51-9051.00	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	89	2	300	\$32,980.00	\$6,500.00	-18%	9	
51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	89	2	910	\$38,230.00	\$11,750.00	-26%	23	
51-9032.00	Cutting and Slicing Machine Setters, Operators, and Tenders	89	2	710	\$31,350.00	\$4,870.00	-23%	12	
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51-9061.00	Inspectors, Testers, Sorters, Samplers, and Weighers	86	2	1,700	\$29,700.00	\$3,220.00	-14%	26	
51-4121.07	Solderers and Brazers	86	2	1,610	\$38,030.00	\$11,550.00	7%	49	



51-5021.00	Job Printers	86	3	140	\$31,890.00	\$5,410.00	-10%	2
51-9191.00	Cementing and Gluing Machine Operators and Tenders	86	1	80	\$27,620.00	\$1,140.00	-15%	2
51-2091.00	Fiberglass Laminators and Fabricators	85		440	\$33,960.00	\$7,480.00	5%	11
51-2021.00	Coil Winders, Tapers, and Finishers	85	2	90	\$31,910.00	\$5,430.00	-53%	1

Special Occupations:

Top Industries for Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Self-employed workers, primary job	000601	14.95%	4,723	5,032	6.54%
Rubber product manufacturing	326200	10.31%	3,259	2,301	-29.39%
Clay product and refractory manufacturing	327100	9.28%	2,933	2,686	-8.41%
Glass and glass product manufacturing	327200	9.22%	2,913	2,542	-12.76%
Veneer, plywood, and engineered wood product manufacturing	321200	4.59%	1,449	1,578	8.89%
Sawmills and wood preservation	321100	4.43%	1,399	1,122	-19.82%
Pulp, paper, and paperboard mills	322100	3.81%	1,204	835	-30.64%
Other wood product manufacturing	321900	3.57%	1,127	1,062	-5.77%
Cement and concrete product manufacturing	327300	3.32%	1,049	1,138	8.55%
Aerospace product and parts manufacturing	336400	2.15%	681	693	1.84%
Foundries	331500	2.07%	654	474	-27.49%
Nonmetallic mineral mining and quarrying	212300	1.91%	604	648	7.32%
Nonferrous metal (except aluminum) production and processing	331400	1.78%	564	394	-30.05%
Iron and steel mills and ferroalloy manufacturing	331100	1.44%	456	307	-32.68%
Plastics product manufacturing	326100	1.31%	413	438	6.00%

Top Industries for Textile Bleaching and Dyeing Machine Operators and Tenders



Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Textile and fabric finishing and fabric coating mills	313300	46.67%	9,063	5,589	-38.33%
Fabric mills	313200	18.93%	3,676	2,596	-29.38%
Textile furnishings mills	314100	8.44%	1,639	1,485	-9.40%
Apparel knitting mills	315100	6.69%	1,299	812	-37.50%
Fiber, yarn, and thread mills	313100	3.63%	705	594	-15.78%
Cut and sew apparel manufacturing	315200	2.31%	448	189	-57.77%
Employment services	561300	1.26%	246	311	26.56%
Other textile product mills	314900	1.19%	230	207	-10.18%
Apparel accessories and other apparel manufacturing	315900	0.93%	180	126	-30.10%



TORQ Analysis of Textile Bleaching and Dyeing Machine Operators and Tenders to Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic

ANALYSIS INPUT					
Transfer	Title	O*NET	Filters		
From Title:	Textile Bleaching and Dyeing Machine Operators and Tenders	51-6061.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	51-4191.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

TORQ RESULTS					
Grand TORQ:					89
Ability TORQ		Skills TORQ		Knowledge TORQ	
Level	85	Level	89	Level	94

Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Imp	Skill	Level	Gap	Imp	Knowledge	Level	Gap	Imp
Response Orientation	46	16	50	Quality Control Analysis	54	5	80	No Knowledge Upgrades Required!			
Depth Perception	42	12	50								
Far Vision	46	11	53								
Reaction Time	55	9	62								
Static Strength	50	9	62								
Category Flexibility	51	10	53								
Hearing Sensitivity	41	9	53								
Stamina	41	7	56								
Multilimb Coordination	44	5	68								
Selective Attention	53	5	62								
Manual Dexterity	46	5	62								
Written Comprehension	46	5	56								
Gross Body Coordination	35	5	53								
Trunk Strength	46	4	59								
Information Ordering	48	4	56								
Speech Recognition	39	4	50								



Control Precision	53	3	59
Deductive Reasoning	44	3	50
Near Vision	48	2	62
Perceptual Speed	46	2	59
Oral Expression	48	2	50
Speech Clarity	39	2	50

LEVEL and IMPT (IMPORTANCE) refer to the Target Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic. GAP refers to level difference between Textile Bleaching and Dyeing Machine Operators and Tenders and Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic.

ASK ANALYSIS

Ability Level Comparison - Abilities with importance scores over 50

Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	Importance
Arm-Hand Steadiness	46	39	68
Multilimb Coordination	39	44	68
Problem Sensitivity	44	44	62
Selective Attention	48	53	62
Manual Dexterity	41	46	62
Reaction Time	46	55	62
Static Strength	41	50	62
Near Vision	46	48	62
Perceptual Speed	44	46	59
Finger Dexterity	46	41	59
Control Precision	50	53	59
Rate Control	42	42	59
Trunk Strength	42	46	59
Written Comprehension	41	46	56
Information Ordering	44	48	56
Stamina	34	41	56
Category Flexibility	41	51	53
Gross Body Coordination	30	35	53
Far Vision	35	46	53
Hearing Sensitivity	32	41	53
Oral Expression	46	48	50
Deductive Reasoning	41	44	50
Flexibility of Closure	44	41	50
Response Orientation	30	46	50
Extent Flexibility	42	42	50
Depth Perception	30	42	50
Speech Recognition	35	39	50
Speech Clarity	37	39	50



Skill Level Comparison - Abilities with importance scores over 69

Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	Importance
Quality Control Analysis	49	54	80

Knowledge Level Comparison - Knowledge with importance scores over 69

Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	Importance
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Experience & Education Comparison

Related Work Experience Comparison				Required Education Level Comparison		
Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic		Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic
10+ years	0%	0%		Doctoral	0%	0%
8-10 years	0%	0%		Professional Degree	5%	0%
6-8 years	0%	0%		Post-Masters Cert	0%	0%
4-6 years	4%	0%		Master's Degree	0%	0%
2-4 years	0%	0%		Post-Bachelor Cert	0%	0%
1-2 years	5%	10%		Bachelors	10%	0%
6-12 months	6%	21%		AA or Equiv	0%	0%
3-6 months	0%	21%		Some College	0%	8%
1-3 months	6%	9%		Post-Secondary Certificate	0%	14%
0-1 month	33%	11%		High School Diploma or GED	46%	67%
None	42%	24%		No HSD or GED	36%	9%

Textile Bleaching and Dyeing Machine Operators and Tenders

Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic

Most Common Educational/Training Requirement:

Moderate-term on-the-job training

Moderate-term on-the-job training

Job Zone Comparison

1 - Job Zone One: Little or No Preparation Needed

2 - Job Zone Two: Some Preparation Needed

No previous work-related skill, knowledge, or experience is needed for these occupations. For example, a person can become a cashier even if he/she has never worked before.

Some previous work-related skill, knowledge, or experience may be helpful in these occupations, but usually is not needed. For example, a teller might benefit from experience working directly with the public, but an inexperienced person could still learn to be a teller with little difficulty.

These occupations may require a high school diploma or GED certificate. Some may require a formal training course to obtain a license.

These occupations usually require a high school diploma and may require some vocational training or job-related course work. In some cases, an associate's or bachelor's degree could be needed.

Employees in these occupations need anywhere from a few days to a few months of training. Usually, an experienced worker could show you how to do the job.

Employees in these occupations need anywhere from a few months to one year of working with experienced employees.

Tasks



Textile Bleaching and Dyeing Machine Operators and Tenders

Core Tasks

Generalized Work Activities:

- Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
- Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.
- Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.

Specific Tasks

Occupation Specific Tasks:

- Add dyes, water, detergents, or chemicals to tanks to dilute or strengthen solutions, according to established formulas and solution test results.
- Adjust equipment controls to maintain specified heat, tension, and speed.
- Confer with coworkers to get information about order details, processing plans, or problems that occur.
- Creel machines with bobbins or twine.
- Examine and feel products to identify defects and variations from coloring and other processing standards.
- Inspect machinery to determine necessary adjustments and repairs.
- Install, level, and align components such as gears, chains, dies, cutters, and needles.
- Key in processing instructions to program electronic equipment.
- Monitor factors such as temperatures and dye flow rates to ensure that they are within specified ranges.
- Mount rolls of cloth on machines, using hoists, or place textile goods in machines or pieces of equipment.
- Notify supervisors or mechanics of equipment malfunctions.
- Observe display screens, control panels, equipment, and cloth entering or exiting processes to determine if equipment is operating correctly.
- Perform machine maintenance, such as cleaning and oiling equipment; and repair or replace worn or defective parts.

Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic

Core Tasks

Generalized Work Activities:

- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
- Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.
- Evaluating Information to Determine Compliance with Standards - Using relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards.
- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.

Specific Tasks

Occupation Specific Tasks:

- Adjust controls to maintain temperatures and heating times, using thermal instruments and charts, dials and gauges of furnaces, and color of stock in furnaces to make setting determinations.
- Attach wire or metal to winding mechanisms that will pull parts through furnaces.
- Clean oxides and scales from parts or fittings, using steam sprays or chemical and water baths.
- Cover parts with charcoal before inserting them in furnaces, in order to prevent discoloration caused by rapid heating.
- Determine flame temperatures, current frequencies, heating cycles, and induction heating coils needed, based on degree of hardness required and properties of stock to be treated.
- Determine types and temperatures of baths and quenching media needed to attain specified part hardness, toughness, and ductility, using heat-treating charts and knowledge of methods, equipment, and metals.
- Examine parts to ensure metal shades and colors conform to specifications, utilizing knowledge of metal heat-treating.
- Heat billets, bars, plates, rods, and other stock to specified temperatures preparatory to forging, rolling, or processing, using oil, gas, or electrical furnaces.
- Instruct new workers in machine operation.
- Load parts into containers and place



- Prepare dyeing machines for production runs, and conduct test runs of machines to ensure their proper operation.
- Ravel seams that connect cloth ends when processing is completed.
- Record production information such as fabric yardage processed, temperature readings, fabric tensions, and machine speeds.
- Remove dyed articles from tanks and machines for drying and further processing.
- Sew ends of cloth together, by hand or using machines, to form endless lengths of cloth to facilitate processing.
- Soak specified textile products for designated times.
- Start and control machines and equipment to wash, bleach, dye, or otherwise process and finish fabric, yarn, thread, and/or other textile goods.
- Study guides, charts, and specification sheets, and confer with supervisors to determine machine setup requirements.
- Test solutions used to process textile goods to detect variations from standards.
- Thread ends of cloth or twine through specified sections of equipment prior to processing.
- Weigh ingredients to be mixed together for use in textile processing.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- calculate weights or proportions of pigments required to make dye
- clean equipment or machinery
- confer with engineering, technical or manufacturing personnel
- distinguish colors
- dye fabric or leather articles
- examine products or work to verify conformance to specifications
- load or unload material or workpiece into machinery
- maintain consistent production quality
- maintain production or work records
- measure, weigh, or count products or materials
- mix paint, ingredients, or chemicals, according to specifications
- monitor production machinery/equipment operation to detect problems
- operate hoist, winch, or hydraulic boom
- operate sewing machine
- operate textile production equipment/machinery
- perform safety inspections in manufacturing or industrial settings

Load parts into containers and place containers on conveyors to be inserted into furnaces, or insert parts into furnaces.

- Mount fixtures and industrial coils on machines, using hand tools.
- Mount workpieces in fixtures, on arbors, or between centers of machines.
- Move controls to light gas burners and to adjust gas and water flow and flame temperature.
- Place completed workpieces on conveyors, using cold rods, tongs, or chain hoists, or signal crane operators to transport them to subsequent stations.
- Place parts on carts, connect vacuum lines to vacuum tubes, and smooth bags around parts to ensure vacuum.
- Position parts in plastic bags, and seal bags with irons.
- Position plastic sheets and molds in plastic bags, heat material under lamps, and force confrontation of sheets to molds by vacuum pressure.
- Position stock in furnaces, using tongs, chain hoists, or pry bars.
- Read production schedules and work orders to determine processing sequences, furnace temperatures, and heat cycle requirements for objects to be heat-treated.
- Record times that parts are removed from furnaces to document that objects have attained specified temperatures for specified times.
- Reduce heat when processing is complete in order to allow parts to cool in furnaces or machinery.
- Remove parts from furnaces after specified times, and air dry or cool parts in water, oil brine, or other baths.
- Repair, replace, and maintain furnace equipment as needed, using hand tools.
- Set and adjust speeds of reels and conveyors for prescribed time cycles in order to pass parts through continuous furnaces.
- Set up and operate die-quenching machines to prevent parts from warping.
- Set up and operate or tend machines, such as furnaces, baths, flame-hardening machines, and electronic induction machines, that harden, anneal, and heat-treat metal.
- Signal forklift operators to deposit or extract containers of parts into and from furnaces and quenching rinse tanks.
- Stamp heat-treatment identification marks on parts, using hammers and punches.
- Start conveyors and open furnace doors to uncover soaking pits and lower ingots into them.
- Test parts for hardness, using hardness testing equipment, or by examining and feeling samples.



or industrial setting

- program operation of computerized manufacturing equipment/machinery
- sew by hand
- test manufactured products or materials
- understand technical operating, service or repair manuals
- use chemical testing or analysis procedures

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- attach or mark identification onto products or containers
- clean equipment or machinery
- demonstrate or explain assembly or use of equipment
- examine products or work to verify conformance to specifications
- fabricate, assemble, or disassemble manufactured products by hand
- install equipment or attachments on machinery or related structures
- load or unload material or workpiece into machinery
- load, unload, or stack containers, materials, or products
- maintain or repair industrial or related equipment/machinery
- maintain production or work records
- move or fit heavy objects
- operate hoist, winch, or hydraulic boom
- operate metal or plastic fabricating equipment/machinery
- perform safety inspections in manufacturing or industrial setting
- read work order, instructions, formulas, or processing charts
- recognize characteristics of alloys
- recognize characteristics of metals
- set up production equipment or machinery
- signal directions or warnings to coworkers
- test manufactured products or materials
- understand technical operating, service or repair manuals
- use non-destructive test equipment
- use power or hand tools in metals processing
- use precision measuring tools or equipment
- use x-ray or magnetic inspection techniques

Labor Market Comparison

Maine Department of Labor.

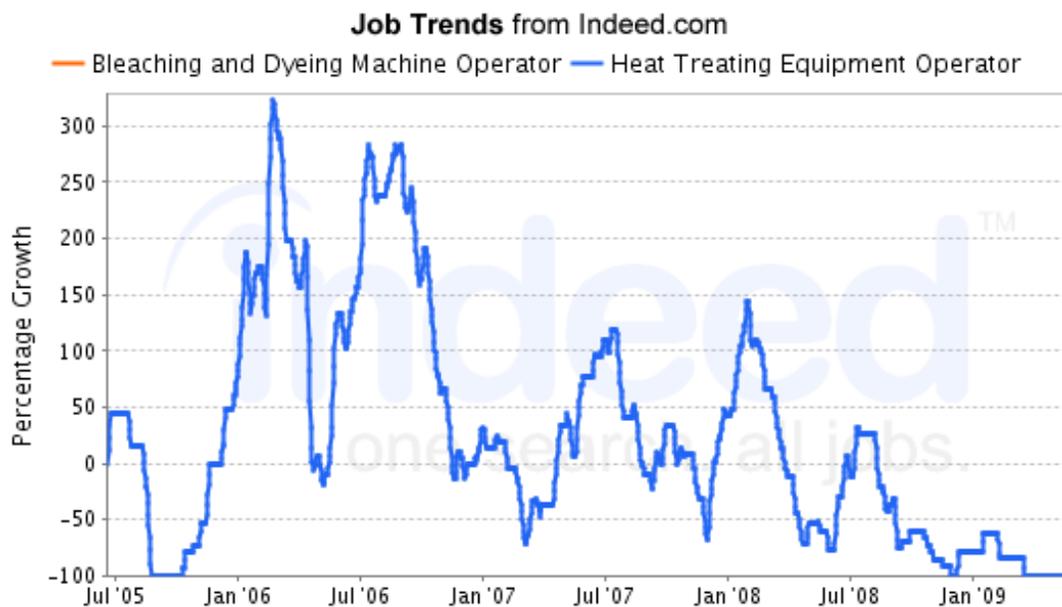
Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	Difference
Median Wage	\$ 26,480	\$ 32,470	\$ 5,990
10th Percentile Wage	\$ 19,210	\$ 22,720	\$ 3,510
25th Percentile Wage	N/A	N/A	N/A



75th Percentile Wage	\$ 30,290	\$ 40,960	\$ 10,670
90th Percentile Wage	\$ 34,070	\$ 47,700	\$ 13,630
Mean Wage	\$ 26,310	\$ 33,890	\$ 7,580
Total Employment - 2581	150	40	-110
Employment Base - 2006	162	36	-126
Projected Employment - 2590	135	34	-101
Projected Job Growth - 2006-2590	-16.7 %	-5.5 %	11.1 %
Projected Annual Openings - 2006-2590	2	1	-1
Special			
Special Occupations:			

National Job Posting Trends

Trend for Textile Bleaching and Dyeing Machine Operators and Tenders and Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic



Data from [Indeed](#)

Programs

Related Programs

Machine Shop Assistant

Machine Shop Technology/Assistant. A program that prepares individuals to apply technical knowledge and skills to fabricate and modify metal parts in support of other manufacturing, repair or design activities, or as an independent business.



No information on schools for the program

Machinist/Machine Technologist

Machine Tool Technology/Machinist. A program that prepares individuals to apply technical knowledge and skills to plan, manufacture, assemble, test, and repair parts, mechanisms, machines, and structures in which materials are cast, formed, shaped, molded, heat treated, cut, twisted, pressed, fused, stamped or worked.

Institution	Address	City	URL
Central Maine Community College	1250 Turner St	Auburn	www.cmcc.edu
Central Maine Community College	1250 Turner St	Auburn	www.cmcc.edu
Eastern Maine Community College	354 Hogan Rd	Bangor	www.emcc.edu
Eastern Maine Community College	354 Hogan Rd	Bangor	www.emcc.edu
Kennebec Valley Community College	92 Western Ave	Fairfield	www.kvcc.me.edu
Kennebec Valley Community College	92 Western Ave	Fairfield	www.kvcc.me.edu
Northern Maine Community College	33 Edgemont Dr	Presque Isle	www.nmcc.edu
Southern Maine Community College	2 Fort Road	South Portland	www.smccME.edu

Precision Metal Workers, Other

Precision Metal Working, Other. Any instructional program in precision metal work not listed above.

No information on schools for the program

Maine Statewide Promotion Opportunities for Textile Bleaching and Dyeing Machine Operators and Tenders

O* NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
51-6061.00	Textile Bleaching and Dyeing Machine Operators and Tenders	100	1	150	\$26,480.00	\$0.00	-17%	2	
51-9023.00	Mxing and Blending Machine Setters, Operators, and Tenders	91	1	420	\$36,040.00	\$9,560.00	-9%	7	
51-4191.00	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	89	2	40	\$32,470.00	\$5,990.00	-6%	1	



51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	89	2	910	\$38,230.00	\$11,750.00	-26%	23	
51-9051.00	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	89	2	300	\$32,980.00	\$6,500.00	-18%	9	
51-9032.00	Cutting and Slicing Machine Setters, Operators, and Tenders	89	2	710	\$31,350.00	\$4,870.00	-23%	12	
53-7063.00	Machine Feeders and Offbearers	88	1	480	\$26,820.00	\$340.00	-22%	9	
51-9041.00	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	88	2	260	\$28,330.00	\$1,850.00	-7%	5	
51-9121.00	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	87	2	850	\$38,860.00	\$12,380.00	-26%	19	
51-9061.00	Inspectors, Testers, Sorters, Samplers, and Weighers	86	2	1,700	\$29,700.00	\$3,220.00	-14%	26	
51-4121.07	Solderers and Brazers	86	2	1,610	\$38,030.00	\$11,550.00	7%	49	★
51-5021.00	Job Printers	86	3	140	\$31,890.00	\$5,410.00	-10%	2	
51-9191.00	Cementing and Gluing Machine Operators and Tenders	86	1	80	\$27,620.00	\$1,140.00	-15%	2	



51-2091.00	Fiberglass Laminators and Fabricators	85		440	\$33,960.00	\$7,480.00	5%	11
47-4041.00	Hazardous Materials Removal Workers	85	2	210	\$29,630.00	\$3,150.00	-1%	5

Special Occupations:

Top Industries for Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Coating, engraving, heat treating, and allied activities	332800	23.03%	6,246	5,120	-18.03%
Plastics product manufacturing	326100	9.74%	2,641	2,799	6.00%
Motor vehicle parts manufacturing	336300	7.58%	2,057	1,638	-20.39%
Iron and steel mills and ferroalloy manufacturing	331100	6.47%	1,756	1,238	-29.51%
Other fabricated metal product manufacturing	332900	4.66%	1,263	1,119	-11.39%
Aerospace product and parts manufacturing	336400	4.48%	1,216	1,238	1.84%
Foundries	331500	4.26%	1,155	838	-27.49%
Forging and stamping	332100	4.13%	1,119	876	-21.75%
Steel product manufacturing from purchased steel	331200	4.01%	1,088	963	-11.51%
Nonferrous metal (except aluminum) production and processing	331400	3.64%	988	691	-30.05%
Alumina and aluminum production and processing	331300	3.08%	837	582	-30.40%
Engine, turbine, and power transmission equipment manufacturing	333600	2.12%	574	482	-16.07%
Turned product and screw, nut, and bolt manufacturing	332720	1.95%	530	384	-27.52%
Cutlery and handtool manufacturing	332200	1.70%	460	346	-24.85%
Architectural and structural metals manufacturing	332300	1.69%	459	490	6.80%

Top Industries for Textile Bleaching and Dyeing Machine Operators and Tenders

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Textile and fabric finishing and fabric coating mills	313300	46.67%	9,063	5,589	-38.33%
Fabric mills	313200	18.93%	3,676	2,596	-29.38%



Textile furnishings mills	314100	8.44%	1,639	1,485	-9.40%
Apparel knitting mills	315100	6.69%	1,299	812	-37.50%
Fiber, yarn, and thread mills	313100	3.63%	705	594	-15.78%
Cut and sew apparel manufacturing	315200	2.31%	448	189	-57.77%
Employment services	561300	1.26%	246	311	26.56%
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TORQ Analysis of Textile Bleaching and Dyeing Machine Operators and Tenders to Cutting and Slicing Machine Setters, Operators, and Tenders

ANALYSIS INPUT					
Transfer	Title	O* NET	Filters		
From Title:	Textile Bleaching and Dyeing Machine Operators and Tenders	51-6061.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Cutting and Slicing Machine Setters, Operators, and Tenders	51-9032.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

TORQ RESULTS					
Grand TORQ:					89
Ability TORQ		Skills TORQ		Knowledge TORQ	
Level		91	Level		80
			Level		95

Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Imp't	Skill	Level	Gap	Imp't	Knowledge	Level	Gap	Imp't
Depth Perception	41	11	50	Quality Control Analysis	62	17	75	Mechanical	42	2	69
Multilimb Coordination	48	9	59	Mathematics	76	15	74				
Response Orientation	39	9	50	Equipment Maintenance	68	11	80				
Visualization	44	7	53	Judgment and Decision Making	55	12	69				
Finger Dexterity	51	5	65	Troubleshooting	63	9	76				
Category Flexibility	46	5	59	Instructing	59	8	75				
Manual Dexterity	46	5	59	Operation and Control	63	4	76				
Wrist-Finger Speed	39	5	50								
Information Ordering	48	4	53								
Far Vision	39	4	50								
Written Comprehension	44	3	53								
Arm-Hand Steadiness	48	2	65								
Near Vision	48	2	65								
Oral Expression	48	2	56								
Perceptual Speed	46	2	53								
Reaction Time	48	2	53								
Deductive Reasoning	42	1	59								



Inductive Reasoning

42

1

50

LEVEL and IMPT (IMPORTANCE) refer to the Target Cutting and Slicing Machine Setters, Operators, and Tenders. GAP refers to level difference between Textile Bleaching and Dyeing Machine Operators and Tenders and Cutting and Slicing Machine Setters, Operators, and Tenders.

ASK ANALYSIS

Ability Level Comparison - Abilities with importance scores over 50

Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Cutting and Slicing Machine Setters, Operators, and Tenders	Importance
Control Precision	50	50	72
Arm-Hand Steadiness	46	48	65
Finger Dexterity	46	51	65
Near Vision	46	48	65
Oral Comprehension	48	48	62
Problem Sensitivity	44	44	62
Deductive Reasoning	41	42	59
Category Flexibility	41	46	59
Manual Dexterity	41	46	59
Multilimb Coordination	39	48	59
Rate Control	42	42	59
Oral Expression	46	48	56
Selective Attention	48	46	56
Written Comprehension	41	44	53
Information Ordering	44	48	53
Perceptual Speed	44	46	53
Visualization	37	44	53
Reaction Time	46	48	53
Inductive Reasoning	41	42	50
Response Orientation	30	39	50
Wrist-Finger Speed	34	39	50
Static Strength	41	35	50
Trunk Strength	42	41	50
Extent Flexibility	42	41	50
Far Vision	35	39	50
Depth Perception	30	41	50
Speech Clarity	37	37	50

Skill Level Comparison - Abilities with importance scores over 69

Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Cutting and Slicing Machine Setters, Operators, and Tenders	Importance
Equipment Maintenance	57	68	80
Operation and Control	59	63	76



Troubleshooting	54	63	76
Instructing	51	59	75
Quality Control Analysis	45	62	75
Mathematics	61	76	74
Judgment and Decision Making	43	55	69
Knowledge Level Comparison - Knowledge with importance scores over 69			
Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Cutting and Slicing Machine Setters, Operators, and Tenders	Importance
Mechanical	40	42	69

Experience & Education Comparison					
Related Work Experience Comparison			Required Education Level Comparison		
Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Cutting and Slicing Machine Setters, Operators, and Tenders	Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Cutting and Slicing Machine Setters, Operators, and Tenders
10+ years	0%	0%	Doctoral	0%	0%
8-10 years	0%	0%	Professional Degree	5%	0%
6-8 years	0%	0%	Post-Masters Cert	0%	0%
4-6 years	4%	1%	Master's Degree	0%	0%
2-4 years	0%	13%	Post-Bachelor Cert	0%	0%
1-2 years	5%	23%	Bachelors	10%	0%
6-12 months	6%	1%	AA or Equiv	0%	0%
3-6 months	0%	12%	Some College	0%	10%
1-3 months	6%	1%	Post-Secondary Certificate	0%	1%
0-1 month	33%	10%	High School Diploma or GED	46%	60%
None	42%	36%	No HSD or GED	36%	27%
Textile Bleaching and Dyeing Machine Operators and Tenders			Cutting and Slicing Machine Setters, Operators, and Tenders		
Most Common Educational/Training Requirement:					
Moderate-term on-the-job training			Moderate-term on-the-job training		
Job Zone Comparison					
1 - Job Zone One: Little or No Preparation Needed			2 - Job Zone Two: Some Preparation Needed		
No previous work-related skill, knowledge, or experience is needed for these occupations. For example, a person can become a cashier even if he/she has never worked before.			Some previous work-related skill, knowledge, or experience may be helpful in these occupations, but usually is not needed. For example, a teller might benefit from experience working directly with the public, but an inexperienced person could still learn to be a teller with little difficulty.		
These occupations may require a high school diploma or GED certificate. Some may require a formal training course to obtain a license.			These occupations usually require a high school diploma and may require some vocational training or job-related course work. In some cases, an associate's or bachelor's degree could be needed.		



Employees in these occupations need anywhere from a few days to a few months of training. Usually, an experienced worker could show you how to do the job.

Employees in these occupations need anywhere from a few months to one year of working with experienced employees.

Tasks

Textile Bleaching and Dyeing Machine Operators and Tenders

Core Tasks

Generalized Work Activities:

- Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
- Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.
- Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.

Specific Tasks

Occupation Specific Tasks:

- Add dyes, water, detergents, or chemicals to tanks to dilute or strengthen solutions, according to established formulas and solution test results.
- Adjust equipment controls to maintain specified heat, tension, and speed.
- Confer with coworkers to get information about order details, processing plans, or problems that occur.
- Creel machines with bobbins or twine.
- Examine and feel products to identify defects and variations from coloring and other processing standards.
- Inspect machinery to determine necessary adjustments and repairs.
- Install, level, and align components such as gears, chains, dies, cutters, and needles.
- Key in processing instructions to program electronic equipment.
- Monitor factors such as temperatures and dye flow rates to ensure that they are within specified ranges.
- Mount rolls of cloth on machines, using hoists, or place textile goods in machines or pieces of equipment.
- Notify supervisors or mechanics of equipment malfunctions.
- Observe display screens, control panels,

Cutting and Slicing Machine Setters, Operators, and Tenders

Core Tasks

Generalized Work Activities:

- Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
- Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.
- Performing General Physical Activities - Performing physical activities that require considerable use of your arms and legs and moving your whole body, such as climbing, lifting, balancing, walking, stooping, and handling of materials.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.

Specific Tasks

Occupation Specific Tasks:

- Adjust machine controls to alter position, alignment, speed, or pressure.
- Change or replace saw blades, cables, cutter heads, and grinding wheels, using hand tools.
- Clean and lubricate cutting machines, conveyors, blades, saws, or knives, using steam hoses, scrapers, brushes, or oil cans.
- Cut stock manually to prepare for machine cutting, using tools such as knives, cleavers, handsaws, or hammers and chisels.
- Direct workers on cutting teams.
- Examine, measure, and weigh materials or products to verify conformance to specifications, using measuring devices such as rulers, micrometers, or scales.
- Feed stock into cutting machines, onto conveyors, or under cutting blades, by threading, guiding, pushing, or turning handwheels.
- Maintain production records, such as quantities, types, and dimensions of materials produced.
- Mark cutting lines or identifying information on stock, using marking pencils, rulers, or



- equipment, and cloth entering or exiting processes to determine if equipment is operating correctly.
- Perform machine maintenance, such as cleaning and oiling equipment; and repair or replace worn or defective parts.
- Prepare dyeing machines for production runs, and conduct test runs of machines to ensure their proper operation.
- Ravel seams that connect cloth ends when processing is completed.
- Record production information such as fabric yardage processed, temperature readings, fabric tensions, and machine speeds.
- Remove dyed articles from tanks and machines for drying and further processing.
- Sew ends of cloth together, by hand or using machines, to form endless lengths of cloth to facilitate processing.
- Soak specified textile products for designated times.
- Start and control machines and equipment to wash, bleach, dye, or otherwise process and finish fabric, yarn, thread, and/or other textile goods.
- Study guides, charts, and specification sheets, and confer with supervisors to determine machine setup requirements.
- Test solutions used to process textile goods to detect variations from standards.
- Thread ends of cloth or twine through specified sections of equipment prior to processing.
- Weigh ingredients to be mixed together for use in textile processing.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- calculate weights or proportions of pigments required to make dye
- clean equipment or machinery
- confer with engineering, technical or manufacturing personnel
- distinguish colors
- dye fabric or leather articles
- examine products or work to verify conformance to specifications
- load or unload material or workpiece into machinery
- maintain consistent production quality
- maintain production or work records
- measure, weigh, or count products or materials
- mix paint, ingredients, or chemicals,

scribes.

- Monitor operation of cutting or slicing machines to detect malfunctions or to determine whether supplies need replenishment.
- Move stock or scrap to and from machines manually, or by using carts, handtrucks, or lift trucks.
- Operate cranes, or signal crane operators to position or remove stone from cars or saw beds.
- Position stock along cutting lines, or against stops on beds of scoring or cutting machines.
- Position width gauge blocks between blades, and level blades and insert wedges into frames to secure blades to frames.
- Press buttons, pull levers, or depress pedals to start and operate cutting and slicing machines.
- Remove completed materials or products from cutting or slicing machines, and stack or store them for additional processing.
- Remove defective or substandard materials from machines, and readjust machine components so that products meet standards.
- Review work orders, blueprints, specifications, or job samples to determine components, settings, and adjustments for cutting and slicing machines.
- Select and install machine components such as cutting blades, rollers, and templates, according to specifications, using hand tools.
- Set up, operate, or tend machines that cut or slice materials, such as glass, stone, cork, rubber, tobacco, food, paper, or insulating material.
- Sharpen cutting blades, knives, or saws, using files, bench grinders, or honing stones.
- Stack and sort cut material for packaging, further processing, or shipping, according to types and sizes of material.
- Start machines to verify setups, and make any necessary adjustments.
- Start pumps to circulate water and abrasives onto blades or cables during cutting.
- Tighten pulleys or add abrasives to maintain cutting speeds.
- Turn cranks or press buttons to activate winches that move cars under sawing cables or saw frames.
- Type instructions on computer keyboards, push buttons to activate computer programs, or manually set cutting guides, clamps, and knives.
- Wash stones, using water hoses.

Detailed Tasks



according to specifications

- monitor production machinery/equipment operation to detect problems
- operate hoist, winch, or hydraulic boom
- operate sewing machine
- operate textile production equipment/machinery
- perform safety inspections in manufacturing or industrial setting
- program operation of computerized manufacturing equipment/machinery
- sew by hand
- test manufactured products or materials
- understand technical operating, service or repair manuals
- use chemical testing or analysis procedures

Detailed Work Activities:

- adjust production equipment/machinery setup
- attach or mark identification onto products or containers
- clean equipment or machinery
- cut or shape stone, tile, brick, or related material
- direct and coordinate activities of workers or staff
- examine products or work to verify conformance to specifications
- install equipment or attachments on machinery or related structures
- load or unload material or workpiece into machinery
- load, unload, or stack containers, materials, or products
- maintain consistent production quality
- maintain or repair industrial or related equipment/machinery
- maintain production or work records
- measure, weigh, or count products or materials
- monitor production machinery/equipment operation to detect problems
- operate forklift
- operate glass or stone working equipment/machinery
- operate hoist, winch, or hydraulic boom
- operate metal or plastic fabricating equipment/machinery
- operate woodworking equipment/machinery
- perform safety inspections in manufacturing or industrial setting
- read blueprints
- read specifications
- read technical drawings
- read work order, instructions, formulas, or processing charts
- set up production equipment or machinery
- signal directions or warnings to coworkers
- sort manufacturing materials or products
- understand technical operating, service or repair manuals
- use hand or power tools
- use hand or power woodworking tools
- use precision measuring tools or equipment
- work as a team member

Labor Market Comparison

Maine Department of Labor.



Description	Textile Bleaching and Dyeing Machine Operators and Tenders	Cutting and Slicing Machine Setters, Operators, and Tenders	Difference
Median Wage	\$ 26,480	\$ 31,350	\$ 4,870
10th Percentile Wage	\$ 19,210	\$ 23,000	\$ 3,790
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 30,290	\$ 43,790	\$ 13,500
90th Percentile Wage	\$ 34,070	\$ 49,280	\$ 15,210
Mean Wage	\$ 26,310	\$ 34,670	\$ 8,360
Total Employment - 2581	150	710	560
Employment Base - 2006	162	767	605
Projected Employment - 2590	135	593	458
Projected Job Growth - 2006-2590	-16.7 %	-22.7 %	-6.0 %
Projected Annual Openings - 2006-2590	2	12	10
Special			
Special Occupations:			

National Job Posting Trends

Trend for Textile Bleaching and Dyeing Machine Operators and Tenders and Cutting and Slicing Machine Setters, Operators, and Tenders



Programs



Related Programs

Cabinet Maker and Millworker

Cabinetmaking and Millwork/Milwright. A program that prepares individuals to apply technical knowledge and skills to set up, operate and repair industrial woodworking machinery, and to use such machinery to design and fabricate wooden components and complete articles.

No information on schools for the program

Maine Statewide Promotion Opportunities for Textile Bleaching and Dyeing Machine Operators and Tenders

O*NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
51-6061.00	Textile Bleaching and Dyeing Machine Operators and Tenders	100	1	150	\$26,480.00	\$0.00	-17%	2	
51-9023.00	Mixing and Blending Machine Setters, Operators, and Tenders	91	1	420	\$36,040.00	\$9,560.00	-9%	7	
51-4191.00	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	89	2	40	\$32,470.00	\$5,990.00	-6%	1	
51-9051.00	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	89	2	300	\$32,980.00	\$6,500.00	-18%	9	
51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	89	2	910	\$38,230.00	\$11,750.00	-26%	23	
51-9032.00	Cutting and Slicing Machine Setters, Operators, and Tenders	89	2	710	\$31,350.00	\$4,870.00	-23%	12	



53-7063.00	Machine Feeders and Offbearers	88	1	480	\$26,820.00	\$340.00	-22%	9	
51-9041.00	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	88	2	260	\$28,330.00	\$1,850.00	-7%	5	
51-9121.00	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	87	2	850	\$38,860.00	\$12,380.00	-26%	19	
51-9061.00	Inspectors, Testers, Sorters, Samplers, and Weighers	86	2	1,700	\$29,700.00	\$3,220.00	-14%	26	
51-4121.07	Solderers and Brazers	86	2	1,610	\$38,030.00	\$11,550.00	7%	49	★
51-5021.00	Job Printers	86	3	140	\$31,890.00	\$5,410.00	-10%	2	
51-9191.00	Cementing and Gluing Machine Operators and Tenders	86	1	80	\$27,620.00	\$1,140.00	-15%	2	
51-2091.00	Fiberglass Laminators and Fabricators	85		440	\$33,960.00	\$7,480.00	5%	11	
51-2021.00	Coil Winders, Tapers, and Finishers	85	2	90	\$31,910.00	\$5,430.00	-53%	1	

Special Occupations:

Top Industries for Cutting and Slicing Machine Setters, Operators, and Tenders

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Converted paper product manufacturing	322200	15.71%	12,381	10,390	-16.08%
Printing and related support activities	323100	12.36%	9,738	7,716	-20.77%



Plastics product manufacturing	326100	8.03%	6,327	6,707	6.00%
Pulp, paper, and paperboard mills	322100	5.55%	4,376	3,036	-30.64%
Animal slaughtering and processing	311600	5.30%	4,180	4,770	14.13%
Rubber product manufacturing	326200	4.91%	3,867	2,731	-29.39%
Glass and glass product manufacturing	327200	4.39%	3,461	3,020	-12.76%
Fruit and vegetable preserving and specialty food manufacturing	311400	2.17%	1,712	1,552	-9.33%
Other food manufacturing	311900	1.83%	1,441	1,511	4.85%
Bakeries and tortilla manufacturing	311800	1.60%	1,262	1,289	2.15%
Self-employed workers, primary job	000601	1.56%	1,230	1,311	6.54%
Dairy product manufacturing	311500	1.52%	1,197	1,185	-1.07%
Other chemical product and preparation manufacturing	325900	1.41%	1,108	872	-21.33%
Fabric mills	313200	1.06%	833	588	-29.38%
Veneer, plywood, and engineered wood product manufacturing	321200	0.81%	637	694	8.89%

Top Industries for Textile Bleaching and Dyeing Machine Operators and Tenders

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Textile and fabric finishing and fabric coating mills	313300	46.67%	9,063	5,589	-38.33%
Fabric mills	313200	18.93%	3,676	2,596	-29.38%
Textile furnishings mills	314100	8.44%	1,639	1,485	-9.40%
Apparel knitting mills	315100	6.69%	1,299	812	-37.50%
Fiber, yarn, and thread mills	313100	3.63%	705	594	-15.78%
Cut and sew apparel manufacturing	315200	2.31%	448	189	-57.77%
Employment services	561300	1.26%	246	311	26.56%
Other textile product mills	314900	1.19%	230	207	-10.18%
Apparel accessories and other apparel manufacturing	315900	0.93%	180	126	-30.10%

Industry & Occupational Data Sources

TORQ Results: The TORQ Scores is based upon an proprietary algorithm applied against Knowledge, Skills and Ability levels and importance derived from O*NET 12.

ASK Analysis, Experience & Education Levels and Tasks: O*Net 12

Labor Market Comparisons Occupational Projections data from Maine Department of Labor

National Posting Trends Indeed.com

Labor Pool & Promotions Opportunities: Occupational Projections data from Maine Department of Labor

Top Industries: Occupational Employment Statistics program (U.S. Bureau of Labor Statistics)