



TORQ Analysis of Cementing and Gluing Machine Operators and Tenders to Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders

ANALYSIS INPUT					
Transfer	Title	O*NET	Filters		
From Title:	Cementing and Gluing Machine Operators and Tenders	51-9191.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	51-9041.00	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		93	Level		93	Level		84			
Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Imp	Skill	Level	Gap	Imp	Knowledge	Level	Gap	Imp
Visualization	53	11	53	Active Listening	50	7	72	No Knowledge Upgrades Required!			
Auditory Attention	50	8	56								
Perceptual Speed	50	6	65								
Finger Dexterity	48	6	59								
Far Vision	46	5	62								
Hearing Sensitivity	42	5	56								
Information Ordering	46	4	56								
Depth Perception	42	3	53								
Speech Clarity	37	3	53								
Manual Dexterity	46	2	59								
Near Vision	46	2	59								
Selective Attention	46	2	56								
Speech Recognition	41	2	56								
Oral Comprehension	46	2	50								
Deductive Reasoning	41	2	50								
Problem Sensitivity	42	1	56								



LEVEL and IMPT (IMPORTANCE) refer to the Target Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders. GAP refers to level difference between Cementing and Gluing Machine Operators and Tenders and Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders.

ASK ANALYSIS			
Ability Level Comparison - Abilities with importance scores over 50			
Description	Cementing and Gluing Machine Operators and Tenders	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	Importance
Rate Control	46	46	72
Perceptual Speed	44	50	65
Reaction Time	55	51	65
Arm-Hand Steadiness	44	44	62
Far Vision	41	46	62
Manual Dexterity	44	46	59
Finger Dexterity	42	48	59
Control Precision	48	46	59
Multilimb Coordination	50	46	59
Near Vision	44	46	59
Problem Sensitivity	41	42	56
Information Ordering	42	46	56
Selective Attention	44	46	56
Hearing Sensitivity	37	42	56
Auditory Attention	42	50	56
Speech Recognition	39	41	56
Visualization	42	53	53
Static Strength	48	46	53
Visual Color Discrimination	37	37	53
Depth Perception	39	42	53
Speech Clarity	34	37	53
Oral Comprehension	44	46	50
Oral Expression	46	44	50
Deductive Reasoning	39	41	50
Category Flexibility	41	37	50
Trunk Strength	42	42	50
Stamina	35	34	50
Skill Level Comparison - Abilities with importance scores over 69			
Description	Cementing and Gluing Machine Operators and Tenders	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	Importance
Active Listening	43	50	72
Knowledge Level Comparison - Knowledge with importance scores over 69			



Description	Cementing and Gluing Machine Operators and Tenders	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	Importance
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Experience & Education Comparison

Related Work Experience Comparison			Required Education Level Comparison		
Description	Cementing and Gluing Machine Operators and Tenders	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	Description	Cementing and Gluing Machine Operators and Tenders	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders
10+ years	12%	4%	Doctoral	0%	0%
8-10 years	0%	0%	Professional Degree	0%	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%	4%	Post-Bachelor Cert	0%	0%
1-2 years	23%	28%	Bachelors	0%	0%
6-12 months	3%	44%	AA or Equiv	0%	0%
3-6 months	11%	0%	Some College	0%	0%
1-3 months	6%	0%	Post-Secondary Certificate	0%	9%
0-1 month	4%	0%	High School Diploma or GED	80%	77%
None	32%	18%	No HSD or GED	19%	13%

Cementing and Gluing Machine Operators and Tenders	Extruding, Forming, Pressing, and Compacting 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

Cementing and Gluing Machine Operators and Tenders	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders
Core Tasks	Core Tasks



Generalized Work Activities:

- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- 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.
- 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.

Specific Tasks

Occupation Specific Tasks:

- Adjust machine components according to specifications such as widths, lengths, and thickness of materials and amounts of glue, cement, or adhesive required.
- Align and position materials being joined in order to ensure accurate application of adhesive or heat sealing.
- Clean and maintain gluing and cementing machines, using solutions, lubricants, brushes, and scrapers.
- Depress pedals to lower electrodes that heat and seal edges of material.
- Examine and measure completed materials or products to verify conformance to specifications, using measuring devices such as tape measures, gauges, or calipers.
- Fill machines with glue, cement, or adhesives.
- Maintain production records such as quantities, dimensions, and thicknesses of materials processed.
- Measure and mix ingredients to prepare glue.
- Monitor machine operations to detect malfunctions; report or resolve problems.
- Mount or load material such as paper, plastic, wood, or rubber in feeding mechanisms of cementing or gluing machines.
- Observe gauges, meters, and control panels to obtain information about equipment temperatures and pressures, or the speed of feeders or conveyors.
- Perform test production runs and make adjustments as necessary to ensure that completed products meet standards and specifications.

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).
- Identifying Objects, Actions, and Events - Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events.
- 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.
- 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:

- Activate machines to shape or form products such as candy bars, light bulbs, balloons, or insulation panels.
- Adjust machine components to regulate speeds, pressures, and temperatures, and amounts, dimensions, and flow of materials or ingredients.
- Clean dies, arbors, compression chambers, and molds, using swabs, sponges, or air hoses.
- Clear jams, and remove defective or substandard materials or products.
- Complete work tickets, and place them with products.
- Couple air and gas lines to machines to maintain plasticity of material and to regulate solidification of final products.
- Disassemble equipment to repair it or to replace parts such as nozzles, punches, and filters.
- Examine, measure, and weigh materials or products to verify conformance to standards, using measuring devices such as templates, micrometers, or scales.
- Feed products into machines by hand or conveyor.
- Ignite burners to preheat products, or use torches to apply heat.
- Install, align, and adjust neck rings, press plungers, and feeder tubes.
- Measure arbors and dies to verify sizes specified on work tickets.
- Measure, mix, cut, shape, soften, and join materials and ingredients such as powder, cornmeal, or rubber in order to prepare them for machine processing.
- Monitor machine operations and observe



- Read work orders and communicate with coworkers in order to determine machine and equipment settings and adjustments, and supply and product specifications.
- Remove and stack completed materials or products, and restock materials to be joined.
- Remove jammed materials from machines and readjust components as necessary to resume normal operations.
- Start machines, and turn valves or move controls to feed, admit, apply, or transfer materials and adhesives, and to adjust temperature, pressure, and time settings.
- Transport materials, supplies, and finished products between storage and work areas, using forklifts.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- apply adhesives, caulking, sealants, or coatings
- clean equipment or machinery
- confer with engineering, technical or manufacturing personnel
- examine products or work to verify conformance to specifications
- load or unload material or workpiece into machinery
- 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 forklift
- operate glass or stone working equipment/machinery
- operate metal or plastic fabricating equipment/machinery
- operate printing equipment/machinery
- operate pulp or paper making equipment
- operate textile production equipment/machinery
- operate woodworking equipment/machinery
- perform safety inspections in manufacturing or industrial setting
- prepare building surfaces for paint, finishes, wallpaper, or adhesives
- read work order, instructions, formulas, or processing charts
- use hand or power tools
- use precision measuring tools or equipment

lights and gauges in order to detect malfunctions.

- Move materials, supplies, components, and finished products between storage and work areas, using work aids such as racks, hoists, and handtrucks.
- Notify supervisors when extruded filaments fail to meet standards.
- Pour, scoop, or dump specified ingredients, metal assemblies, or mixtures into sections of machine prior to starting machines.
- Press control buttons to activate machinery and equipment.
- Record and maintain production data such as meter readings, and quantities, types, and dimensions of materials produced.
- Remove materials or products from molds or from extruding, forming, pressing, or compacting machines, and stack or store them for additional processing.
- Remove molds, mold components, and feeder tubes from machinery after production is complete.
- Review work orders, specifications, or instructions to determine materials, ingredients, procedures, components, settings, and adjustments for extruding, forming, pressing, or compacting machines.
- Select and install machine components such as dies, molds, and cutters, according to specifications, using hand tools and measuring devices.
- Send product samples to laboratories for analysis.
- Swab molds with solutions to prevent products from sticking.
- Synchronize speeds of sections of machines when producing products involving several steps or processes.
- Thread extruded strips through water tanks and hold-down bars, or attach strands to wires and draw them through tubes.
- Turn controls to adjust machine functions, such as regulating air pressure, creating vacuums, and adjusting coolant flow.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- clean equipment or machinery
- collect samples for testing
- confer with engineering, technical or manufacturing personnel
- construct molds
- 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
- 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 hoist, winch, or hydraulic boom
- operate metal or plastic fabricating equipment/machinery
- operate pulp or paper making equipment
- operate woodworking equipment/machinery
- read specifications
- 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

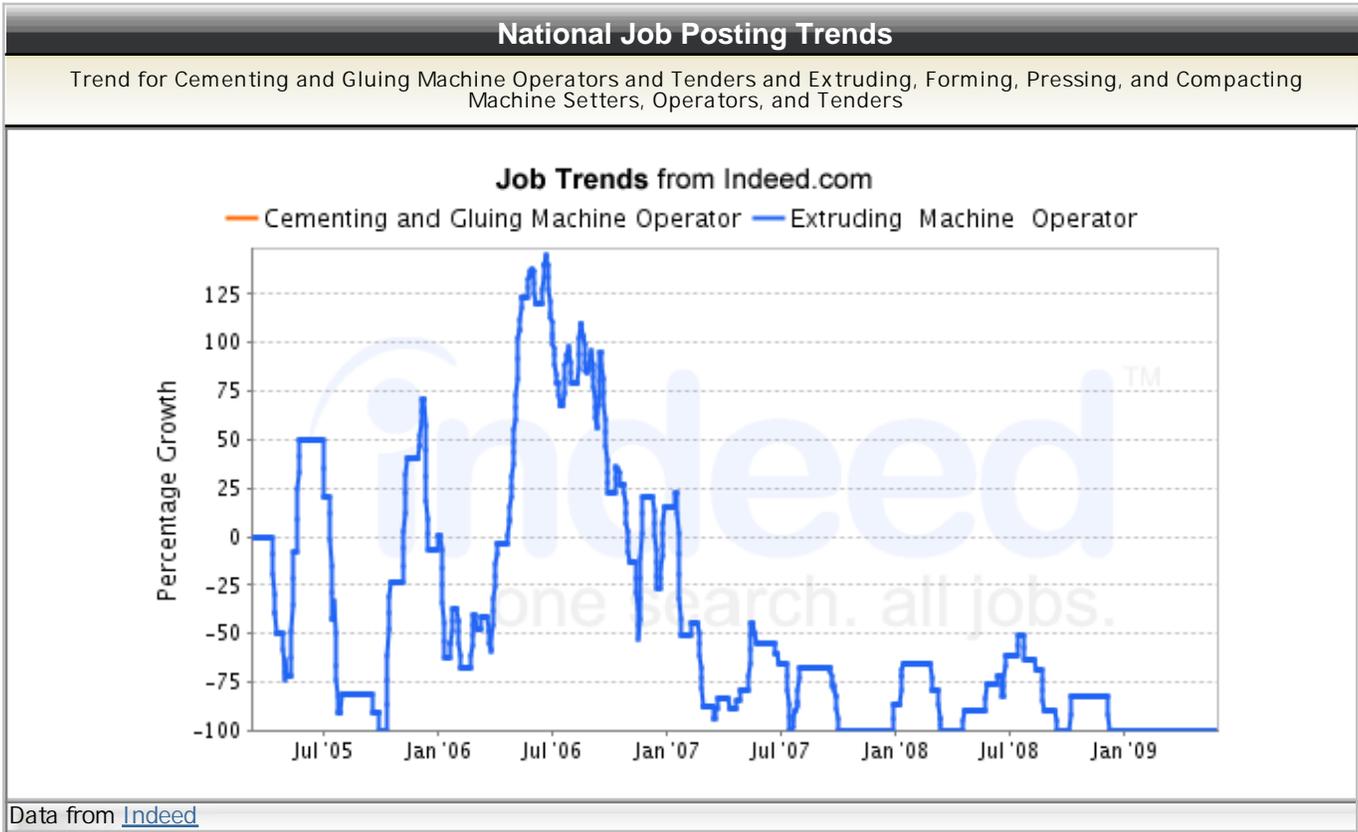
Labor Market Comparison

Maine Department of Labor.

Description	Cementing and Gluing Machine Operators and Tenders	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	Difference
Median Wage	\$ 27,620	\$ 28,330	\$ 710
10th Percentile Wage	\$ 20,120	\$ 17,200	\$(2,920)
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 30,470	\$ 35,290	\$ 4,820
90th Percentile Wage	\$ 32,670	\$ 44,260	\$ 11,590
Mean Wage	\$ 26,990	\$ 29,370	\$ 2,380
Total Employment - 2619	80	260	180
Employment Base - 2006	78	272	194
Projected Employment - 2628	66	252	186
Projected Job Growth - 2006-2628	-15.4 %	-7.4 %	8.0 %



Projected Annual Openings - 2006-2628	2	5	3
Special			
Special Occupations:			



Programs

Related Programs

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

Sheet Metal Worker

Sheet Metal Technology/Sheetworking. A program that prepares individuals to apply technical knowledge and skills to form, shape, bend and fold extruded metals, including the creation of new products, using hand tools and machines such as cornice brakes, forming rolls, and squaring shears.

Institution	Address	City	URL
Northern Maine Community College	33 Edgemont Dr	Presque Isle	www.nmcc.edu

Maine Statewide Promotion Opportunities for Cementing and Gluing Machine Operators and Tenders

O*NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
51-9191.00	Cementing and Gluing Machine Operators and Tenders	100	1	80	\$27,620.00	\$0.00	-15%	2	
51-9041.00	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	90	2	260	\$28,330.00	\$710.00	-7%	5	
51-9032.00	Cutting and Slicing Machine Setters, Operators, and Tenders	88	2	710	\$31,350.00	\$3,730.00	-23%	12	
51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	87	2	910	\$38,230.00	\$10,610.00	-26%	23	
51-9121.00	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	87	2	850	\$38,860.00	\$11,240.00	-26%	19	



51-5023.00	Printing Machine Operators	86	2	790	\$29,710.00	\$2,090.00	-3%	18	
51-5021.00	Job Printers	85	3	140	\$31,890.00	\$4,270.00	-10%	2	
51-2021.00	Coil Winders, Tapers, and Finishers	84	2	90	\$31,910.00	\$4,290.00	-53%	1	
51-2031.00	Engine and Other Machine Assemblers	84	3	20	\$29,010.00	\$1,390.00	-45%	1	
51-4034.00	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	84	3	110	\$34,350.00	\$6,730.00	-9%	2	
51-9023.00	Mixing and Blending Machine Setters, Operators, and Tenders	84	1	420	\$36,040.00	\$8,420.00	-9%	7	
51-4022.00	Forging Machine Setters, Operators, and Tenders, Metal and Plastic	82	2	20	\$28,330.00	\$710.00	-18%	1	
51-9021.00	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	82	1	110	\$31,320.00	\$3,700.00	-28%	2	
51-4121.06	Welders, Cutters, and Welder Fitters	82	2	1,610	\$38,030.00	\$10,410.00	7%	49	



51-4191.00	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	82	2	40	\$32,470.00	\$4,850.00	-6%	1
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Special Occupations:

Top Industries for Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Rubber product manufacturing	326200	18.33%	14,883	10,510	-29.39%
Cement and concrete product manufacturing	327300	11.55%	9,375	10,176	8.55%
Plastics product manufacturing	326100	8.23%	6,685	7,086	6.00%
Glass and glass product manufacturing	327200	5.04%	4,093	3,571	-12.76%
Clay product and refractory manufacturing	327100	4.14%	3,358	3,075	-8.41%
Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing	325200	3.99%	3,237	2,599	-19.73%
Converted paper product manufacturing	322200	3.67%	2,982	2,502	-16.08%
Pharmaceutical and medicine manufacturing	325400	3.01%	2,444	3,080	26.03%
Animal slaughtering and processing	311600	2.87%	2,329	2,658	14.13%
Soap, cleaning compound, and toilet preparation manufacturing	325600	2.17%	1,763	1,694	-3.92%
Veneer, plywood, and engineered wood product manufacturing	321200	2.10%	1,703	1,854	8.89%
Bakeries and tortilla manufacturing	311800	1.66%	1,350	1,379	2.15%
Sugar and confectionery product manufacturing	311300	1.59%	1,292	1,088	-15.77%
Pulp, paper, and paperboard mills	322100	1.56%	1,265	877	-30.64%
Other chemical product and preparation manufacturing	325900	1.36%	1,106	870	-21.34%

Top Industries for Cementing and Gluing Machine Operators and Tenders

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Converted paper product manufacturing	322200	26.71%	6,240	5,237	-16.08%
Plastics product manufacturing	326100	12.37%	2,891	3,064	6.00%
Printing and related support activities	323100	10.88%	2,542	2,014	-20.77%
Veneer, plywood, and engineered wood product manufacturing	321200	7.53%	1,759	1,916	8.89%



Other wood product manufacturing	321900	7.01%	1,639	1,544	-5.77%
Rubber product manufacturing	326200	4.68%	1,094	773	-29.39%
Household and institutional furniture manufacturing	337120	3.71%	866	659	-23.91%
Wood kitchen cabinet and countertop manufacturing	337110	2.74%	640	708	10.72%
Office furniture (including fixtures) manufacturing	337200	2.26%	529	497	-5.97%
Pulp, paper, and paperboard mills	322100	1.68%	392	272	-30.64%
Motor vehicle body and trailer manufacturing	336200	1.57%	366	358	-2.15%
Cut and sew apparel manufacturing	315200	1.03%	240	101	-57.77%
Other furniture related product manufacturing	337900	0.97%	226	236	4.40%
Pharmaceutical and medicine manufacturing	325400	0.90%	211	266	26.03%
Footwear manufacturing	316200	0.89%	208	97	-53.16%



TORQ Analysis of Cementing and Gluing Machine Operators and Tenders to Cutting and Slicing Machine Setters, Operators, and Tenders

ANALYSIS INPUT					
Transfer	Title	O* NET	Filters		
From Title:	Cementing and Gluing Machine Operators and Tenders	51-9191.00	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:	88

Ability TORQ		Skills TORQ		Knowledge TORQ	
Level	91	Level	91	Level	83

Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Imp	Skill	Level	Gap	Imp	Knowledge	Level	Gap	Imp
Finger Dexterity	51	9	65	Equipment Maintenance	80	7	75	No Knowledge Upgrades Required!			
Information Ordering	48	6	53	Mathematics	53	5	76				
Category Flexibility	46	5	59	Instructing	59	5	75				
Arm-Hand Steadiness	48	4	65	Active Listening	48	5	74				
Near Vision	48	4	65								
Wrist-Finger Speed	39	5	50								
Oral Comprehension	48	4	62								
Problem Sensitivity	44	3	62								
Deductive Reasoning	42	3	59								
Inductive Reasoning	42	3	50								
Speech Clarity	37	3	50								
Control Precision	50	2	72								
Manual Dexterity	46	2	59								
Oral Expression	48	2	56								
Selective Attention	46	2	56								
Written Comprehension	44	2	53								



Perceptual Speed	46	2	53
Visualization	44	2	53
Depth Perception	41	2	50

LEVEL and IMPT (IMPORTANCE) refer to the Target Cutting and Slicing Machine Setters, Operators, and Tenders. GAP refers to level difference between Cementing and Gluing 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	Cementing and Gluing Machine Operators and Tenders	Cutting and Slicing Machine Setters, Operators, and Tenders	Importance
Control Precision	48	50	72
Arm-Hand Steadiness	44	48	65
Finger Dexterity	42	51	65
Near Vision	44	48	65
Oral Comprehension	44	48	62
Problem Sensitivity	41	44	62
Deductive Reasoning	39	42	59
Category Flexibility	41	46	59
Manual Dexterity	44	46	59
Multilimb Coordination	50	48	59
Rate Control	46	42	59
Oral Expression	46	48	56
Selective Attention	44	46	56
Written Comprehension	42	44	53
Information Ordering	42	48	53
Perceptual Speed	44	46	53
Visualization	42	44	53
Reaction Time	55	48	53
Inductive Reasoning	39	42	50
Response Orientation	42	39	50
Wrist-Finger Speed	34	39	50
Static Strength	48	35	50
Trunk Strength	42	41	50
Extent Flexibility	50	41	50
Far Vision	41	39	50
Depth Perception	39	41	50
Speech Clarity	34	37	50
Skill Level Comparison - Abilities with importance scores over 69			
Description	Cementing and Gluing Machine Operators and Tenders	Cutting and Slicing Machine Setters, Operators, and Tenders	Importance
Mathematics	48	53	76



Instructing	54	59	75
Equipment Maintenance	73	80	75
Active Listening	43	48	74
Knowledge Level Comparison - Knowledge with importance scores over 69			
Description	Cementing and Gluing Machine Operators and Tenders	Cutting and Slicing Machine Setters, Operators, and Tenders	Importance

Experience & Education Comparison			
Related Work Experience Comparison		Required Education Level Comparison	
Description	Cementing and Gluing Machine Operators and Tenders	Description	Cementing and Gluing Machine Operators and Tenders
			Cutting and Slicing Machine Setters, Operators, and Tenders
10+ years	12%	0%	0%
8-10 years	0%	0%	0%
6-8 years	0%	0%	0%
4-6 years	4%	1%	13%
2-4 years	0%	0%	23%
1-2 years	23%	0%	1%
6-12 months	3%	0%	10%
3-6 months	11%	0%	1%
1-3 months	6%	0%	1%
0-1 month	4%	80%	60%
None	32%	19%	27%
Cementing and Gluing 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	
Cementing and Gluing Machine Operators and Tenders	Cutting and Slicing Machine Setters, Operators, and Tenders



Core Tasks

Generalized Work Activities:

- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- 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.
- 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.

Specific Tasks

Occupation Specific Tasks:

- Adjust machine components according to specifications such as widths, lengths, and thickness of materials and amounts of glue, cement, or adhesive required.
- Align and position materials being joined in order to ensure accurate application of adhesive or heat sealing.
- Clean and maintain gluing and cementing machines, using solutions, lubricants, brushes, and scrapers.
- Depress pedals to lower electrodes that heat and seal edges of material.
- Examine and measure completed materials or products to verify conformance to specifications, using measuring devices such as tape measures, gauges, or calipers.
- Fill machines with glue, cement, or adhesives.
- Maintain production records such as quantities, dimensions, and thicknesses of materials processed.
- Measure and mix ingredients to prepare glue.
- Monitor machine operations to detect malfunctions; report or resolve problems.
- Mount or load material such as paper, plastic, wood, or rubber in feeding mechanisms of cementing or gluing machines.
- Observe gauges, meters, and control panels to obtain information about equipment temperatures and pressures, or the speed of feeders or conveyors.
- Perform test production runs and make

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 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.



adjustments as necessary to ensure that completed products meet standards and specifications.

- Read work orders and communicate with coworkers in order to determine machine and equipment settings and adjustments, and supply and product specifications.
- Remove and stack completed materials or products, and restock materials to be joined.
- Remove jammed materials from machines and readjust components as necessary to resume normal operations.
- Start machines, and turn valves or move controls to feed, admit, apply, or transfer materials and adhesives, and to adjust temperature, pressure, and time settings.
- Transport materials, supplies, and finished products between storage and work areas, using forklifts.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- apply adhesives, caulking, sealants, or coatings
- clean equipment or machinery
- confer with engineering, technical or manufacturing personnel
- examine products or work to verify conformance to specifications
- load or unload material or workpiece into machinery
- 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 forklift
- operate glass or stone working equipment/machinery
- operate metal or plastic fabricating equipment/machinery
- operate printing equipment/machinery
- operate pulp or paper making equipment
- operate textile production equipment/machinery
- operate woodworking equipment/machinery
- perform safety inspections in manufacturing or industrial setting
- prepare building surfaces for paint, finishes, wallpaper, or adhesives
- read work order, instructions, formulas, or processing charts

- 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

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



- use hand or power tools
- use precision measuring tools or equipment

- 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	Cementing and Gluing Machine Operators and Tenders	Cutting and Slicing Machine Setters, Operators, and Tenders	Difference
Median Wage	\$ 27,620	\$ 31,350	\$ 3,730
10th Percentile Wage	\$ 20,120	\$ 23,000	\$ 2,880
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 30,470	\$ 43,790	\$ 13,320
90th Percentile Wage	\$ 32,670	\$ 49,280	\$ 16,610
Mean Wage	\$ 26,990	\$ 34,670	\$ 7,680



Total Employment - 2619	80	710	630
Employment Base - 2006	78	767	689
Projected Employment - 2628	66	593	527
Projected Job Growth - 2006-2628	-15.4 %	-22.7 %	-7.3 %
Projected Annual Openings - 2006-2628	2	12	10
Special			
Special Occupations:			

National Job Posting Trends

Trend for Cementing and Gluing Machine Operators and Tenders and Cutting and Slicing Machine Setters, Operators, and Tenders



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

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 Cementing and Gluing Machine Operators and Tenders



O* NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
51-9191.00	Cementing and Gluing Machine Operators and Tenders	100	1	80	\$27,620.00	\$0.00	-15%	2	
51-9041.00	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	90	2	260	\$28,330.00	\$710.00	-7%	5	
51-9032.00	Cutting and Slicing Machine Setters, Operators, and Tenders	88	2	710	\$31,350.00	\$3,730.00	-23%	12	
51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	87	2	910	\$38,230.00	\$10,610.00	-26%	23	
51-9121.00	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	87	2	850	\$38,860.00	\$11,240.00	-26%	19	
51-5023.00	Printing Machine Operators	86	2	790	\$29,710.00	\$2,090.00	-3%	18	
51-5021.00	Job Printers	85	3	140	\$31,890.00	\$4,270.00	-10%	2	
51-2021.00	Coil Winders, Tapers, and Finishers	84	2	90	\$31,910.00	\$4,290.00	-53%	1	
51-2031.00	Engine and Other Machine Assemblers	84	3	20	\$29,010.00	\$1,390.00	-45%	1	



51-4034.00	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	84	3	110	\$34,350.00	\$6,730.00	-9%	2	
51-9023.00	Mixing and Blending Machine Setters, Operators, and Tenders	84	1	420	\$36,040.00	\$8,420.00	-9%	7	
51-4022.00	Forging Machine Setters, Operators, and Tenders, Metal and Plastic	82	2	20	\$28,330.00	\$710.00	-18%	1	
51-9021.00	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	82	1	110	\$31,320.00	\$3,700.00	-28%	2	
51-4121.06	Welders, Cutters, and Welder Fitters	82	2	1,610	\$38,030.00	\$10,410.00	7%	49	★
51-4191.00	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	82	2	40	\$32,470.00	\$4,850.00	-6%	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 Cementing and Gluing Machine Operators and Tenders

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Converted paper product manufacturing	322200	26.71%	6,240	5,237	-16.08%
Plastics product manufacturing	326100	12.37%	2,891	3,064	6.00%
Printing and related support activities	323100	10.88%	2,542	2,014	-20.77%
Veneer, plywood, and engineered wood product manufacturing	321200	7.53%	1,759	1,916	8.89%
Other wood product manufacturing	321900	7.01%	1,639	1,544	-5.77%
Rubber product manufacturing	326200	4.68%	1,094	773	-29.39%
Household and institutional furniture manufacturing	337120	3.71%	866	659	-23.91%
Wood kitchen cabinet and countertop manufacturing	337110	2.74%	640	708	10.72%
Office furniture (including fixtures) manufacturing	337200	2.26%	529	497	-5.97%
Pulp, paper, and paperboard mills	322100	1.68%	392	272	-30.64%
Motor vehicle body and trailer manufacturing	336200	1.57%	366	358	-2.15%
Cut and sew apparel manufacturing	315200	1.03%	240	101	-57.77%
Other furniture related product manufacturing	337900	0.97%	226	236	4.40%
Pharmaceutical and medicine manufacturing	325400	0.90%	211	266	26.03%
Footwear manufacturing	316200	0.89%	208	97	-53.16%



TORQ Analysis of Cementing and Gluing Machine Operators and Tenders to Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders

ANALYSIS INPUT					
Transfer	Title	O*NET	Filters		
From Title:	Cementing and Gluing Machine Operators and Tenders	51-9191.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	51-6064.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

TORQ RESULTS	
Grand TORQ:	88

Ability TORQ		Skills TORQ		Knowledge TORQ	
Level	92	Level	88	Level	83

Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Imp	Skill	Level	Gap	Imp	Knowledge	Level	Gap	Imp
Arm-Hand Steadiness	59	15	68	No Skills Upgrade Required!				No Knowledge Upgrades Required!			
Visual Color Discrimination	50	13	59								
Finger Dexterity	53	11	59								
Hearing Sensitivity	44	7	53								
Near Vision	50	6	56								
Problem Sensitivity	46	5	59								
Manual Dexterity	48	4	62								
Far Vision	44	3	53								
Perceptual Speed	46	2	59								
Control Precision	50	2	59								
Trunk Strength	44	2	59								
Flexibility of Closure	41	2	53								
Visualization	44	2	53								
Gross Body Coordination	39	2	53								
Auditory Attention	44	2	53								
Depth Perception	41	2	50								



Speech Clarity	35	1	50
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LEVEL and IMPT (IMPORTANCE) refer to the Target Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders. GAP refers to level difference between Cementing and Gluing Machine Operators and Tenders and Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders.

ASK ANALYSIS			
Ability Level Comparison - Abilities with importance scores over 50			
Description	Cementing and Gluing Machine Operators and Tenders	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Importance
Arm-Hand Steadiness	44	59	68
Reaction Time	55	53	65
Manual Dexterity	44	48	62
Multilimb Coordination	50	44	62
Problem Sensitivity	41	46	59
Perceptual Speed	44	46	59
Finger Dexterity	42	53	59
Control Precision	48	50	59
Rate Control	46	42	59
Trunk Strength	42	44	59
Visual Color Discrimination	37	50	59
Near Vision	44	50	56
Flexibility of Closure	39	41	53
Visualization	42	44	53
Static Strength	48	41	53
Gross Body Coordination	37	39	53
Far Vision	41	44	53
Hearing Sensitivity	37	44	53
Auditory Attention	42	44	53
Oral Expression	46	39	50
Information Ordering	42	37	50
Category Flexibility	41	41	50
Selective Attention	44	42	50
Stamina	35	35	50
Extent Flexibility	50	50	50
Depth Perception	39	41	50
Speech Clarity	34	35	50
Skill Level Comparison - Abilities with importance scores over 69			
Description	Cementing and Gluing Machine Operators and Tenders	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Importance
Knowledge Level Comparison - Knowledge with importance scores over 69			



Description	Cementing and Gluing Machine Operators and Tenders	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Importance
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Experience & Education Comparison

Related Work Experience Comparison				Required Education Level Comparison		
Description	Cementing and Gluing Machine Operators and Tenders	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders		Description	Cementing and Gluing Machine Operators and Tenders	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders
10+ years	12%	0%	0%	Doctoral	0%	0%
8-10 years	0%	0%	0%	Professional Degree	0%	0%
6-8 years	0%	0%	0%	Post-Masters Cert	0%	0%
4-6 years	4%	11%	0%	Master's Degree	0%	0%
2-4 years	0%	0%	0%	Post-Bachelor Cert	0%	0%
1-2 years	23%	5%	0%	Bachelors	0%	0%
6-12 months	3%	2%	0%	AA or Equiv	0%	0%
3-6 months	11%	0%	0%	Some College	0%	0%
1-3 months	6%	19%	0%	Post-Secondary Certificate	0%	1%
0-1 month	4%	10%	0%	High School Diploma or GED	80%	78%
None	32%	50%	0%	No HSD or GED	19%	19%

Cementing and Gluing Machine Operators and Tenders	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders
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Most Common Educational/Training Requirement:

Moderate-term on-the-job training	Moderate-term on-the-job training
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Job Zone Comparison	
<p>1 - Job Zone One: Little or No Preparation Needed</p> <p>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.</p> <p>These occupations may require a high school diploma or GED certificate. Some may require a formal training course to obtain a license.</p> <p>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.</p>	<p>3 - Job Zone Three: Medium Preparation Needed</p> <p>Previous work-related skill, knowledge, or experience is required for these occupations. For example, an electrician must have completed three or four years of apprenticeship or several years of vocational training, and often must have passed a licensing exam, in order to perform the job.</p> <p>Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree. Some may require a bachelor's degree.</p> <p>Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers.</p>

Tasks

Cementing and Gluing Machine Operators and Tenders	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders
Core Tasks	Core Tasks



Generalized Work Activities:

- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- 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.
- 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.

Specific Tasks

Occupation Specific Tasks:

- Adjust machine components according to specifications such as widths, lengths, and thickness of materials and amounts of glue, cement, or adhesive required.
- Align and position materials being joined in order to ensure accurate application of adhesive or heat sealing.
- Clean and maintain gluing and cementing machines, using solutions, lubricants, brushes, and scrapers.
- Depress pedals to lower electrodes that heat and seal edges of material.
- Examine and measure completed materials or products to verify conformance to specifications, using measuring devices such as tape measures, gauges, or calipers.
- Fill machines with glue, cement, or adhesives.
- Maintain production records such as quantities, dimensions, and thicknesses of materials processed.
- Measure and mix ingredients to prepare glue.
- Monitor machine operations to detect malfunctions; report or resolve problems.
- Mount or load material such as paper, plastic, wood, or rubber in feeding mechanisms of cementing or gluing machines.
- Observe gauges, meters, and control panels to obtain information about equipment temperatures and pressures, or the speed of feeders or conveyors.
- Perform test production runs and make adjustments as necessary to ensure that completed products meet standards and specifications.

Generalized Work Activities:

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

Specific Tasks

Occupation Specific Tasks:

- Adjust machine settings such as speed or tension to produce products that meet specifications.
- Clean, oil, and lubricate machines, using air hoses, cleaning solutions, rags, oilcans, and grease guns.
- Inspect machinery to determine whether repairs are needed.
- Inspect products to verify that they meet specifications and to determine whether machine adjustment is needed.
- Install, level, and align machine components such as gears, chains, guides, dies, cutters, and/or needles to set up machinery for operation.
- Measure bobbins periodically, using gauges; and turn screws to adjust tension if bobbins are not of specified size.
- Notify supervisors or mechanics of equipment malfunctions.
- Observe bobbins as they are winding; and cut threads to remove loaded bobbins, using knives.
- Observe operations to detect defects, malfunctions, or supply shortages.
- Operate machines for test runs to verify adjustments and to obtain product samples.
- Place bobbins on spindles and insert spindles into bobbin-winding machines.
- Record production data such as numbers and types of bobbins wound.
- Remove spindles from machines and bobbins from spindles.



- Read work orders and communicate with coworkers in order to determine machine and equipment settings and adjustments, and supply and product specifications.
- Remove and stack completed materials or products, and restock materials to be joined.
- Remove jammed materials from machines and readjust components as necessary to resume normal operations.
- Start machines, and turn valves or move controls to feed, admit, apply, or transfer materials and adhesives, and to adjust temperature, pressure, and time settings.
- Transport materials, supplies, and finished products between storage and work areas, using forklifts.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- apply adhesives, caulking, sealants, or coatings
- clean equipment or machinery
- confer with engineering, technical or manufacturing personnel
- examine products or work to verify conformance to specifications
- load or unload material or workpiece into machinery
- 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 forklift
- operate glass or stone working equipment/machinery
- operate metal or plastic fabricating equipment/machinery
- operate printing equipment/machinery
- operate pulp or paper making equipment
- operate textile production equipment/machinery
- operate woodworking equipment/machinery
- perform safety inspections in manufacturing or industrial setting
- prepare building surfaces for paint, finishes, wallpaper, or adhesives
- read work order, instructions, formulas, or processing charts
- use hand or power tools
- use precision measuring tools or equipment

- Repair or replace worn or defective parts or components, using hand tools.
- Replace depleted supply packages with full packages.
- Start machines, monitor operation, and make adjustments as needed.
- Stop machines when specified amount of products has been produced.
- Study guides, samples, charts, and specification sheets, or confer with supervisors or engineering staff to determine setup requirements.
- Tend machines that twist together two or more strands of yarn or insert additional twists into single strands of yarn to increase strength, smoothness, and/or uniformity of yarn.
- Tend machines that wind wire onto bobbins, preparatory to formation of wire netting used in reinforcing sheet glass.
- Tend machines with multiple winding units that wind thread onto shuttle bobbins for use on sewing machines or other kinds of bobbins for sole-stitching, knitting, or weaving machinery.
- Tend spinning frames that draw out and twist roving or sliver into yarn.
- Thread yarn, thread, and/or fabric through guides, needles, and rollers of machines.
- Unwind lengths of yarn, thread, or twine from spools and wind onto bobbins.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- clean equipment or machinery
- confer with engineering, technical or manufacturing personnel
- examine products or work to verify conformance to specifications
- inspect machinery or equipment to determine adjustments or repairs needed
- load or unload material or workpiece into machinery
- maintain consistent production quality
- maintain or repair industrial or related equipment/machinery
- monitor production machinery/equipment operation to detect problems
- move or fit heavy objects
- operate textile production equipment/machinery
- perform safety inspections in manufacturing or industrial setting
- read specifications
- read work order, instructions, formulas, or processing charts
- recognize characteristics of cloth or fabric
- set up production equipment or machinery



- 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	Cementing and Gluing Machine Operators and Tenders	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Difference
Median Wage	\$ 27,620	\$ 25,840	\$(1,780)
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25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 30,470	\$ 29,370	\$(1,100)
90th Percentile Wage	\$ 32,670	\$ 31,830	\$(840)
Mean Wage	\$ 26,990	\$ 25,210	\$(1,780)
Total Employment - 2619	80	290	210
Employment Base - 2006	78	N/A	N/A
Projected Employment - 2628	66	N/A	N/A
Projected Job Growth - 2006-2628	-15.4 %	0.0 %	15.4 %
Projected Annual Openings - 2006-2628	2	0	-2
Special			

Special Occupations:

National Job Posting Trends

Trend for Cementing and Gluing Machine Operators and Tenders and Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders



Programs			
Related Programs			
Industrial Machinery Main. and Repairer			
Industrial Mechanics and Maintenance Technology. A program that prepares individuals to apply technical knowledge and skills to repair and maintain industrial machinery and equipment such as cranes, pumps, engines and motors, pneumatic tools, conveyor systems, production machinery, marine deck machinery, and steam propulsion, refinery, and pipeline-distribution systems.			
Institution	Address	City	URL
Kennebec Valley Community College	92 Western Ave	Fairfield	www.kvcc.me.edu

Maine Statewide Promotion Opportunities for Cementing and Gluing Machine Operators and Tenders									
O*NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
51-9191.00	Cementing and Gluing Machine Operators and Tenders	100	1	80	\$27,620.00	\$0.00	-15%	2	



51-9041.00	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	90	2	260	\$28,330.00	\$710.00	-7%	5
51-9032.00	Cutting and Slicing Machine Setters, Operators, and Tenders	88	2	710	\$31,350.00	\$3,730.00	-23%	12
51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	87	2	910	\$38,230.00	\$10,610.00	-26%	23
51-9121.00	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	87	2	850	\$38,860.00	\$11,240.00	-26%	19
51-5023.00	Printing Machine Operators	86	2	790	\$29,710.00	\$2,090.00	-3%	18
51-5021.00	Job Printers	85	3	140	\$31,890.00	\$4,270.00	-10%	2
51-2021.00	Coil Winders, Tapers, and Finishers	84	2	90	\$31,910.00	\$4,290.00	-53%	1
51-2031.00	Engine and Other Machine Assemblers	84	3	20	\$29,010.00	\$1,390.00	-45%	1
51-4034.00	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	84	3	110	\$34,350.00	\$6,730.00	-9%	2



51-9023.00	Mixing and Blending Machine Setters, Operators, and Tenders	84	1	420	\$36,040.00	\$8,420.00	-9%	7	
51-4022.00	Forging Machine Setters, Operators, and Tenders, Metal and Plastic	82	2	20	\$28,330.00	\$710.00	-18%	1	
51-9021.00	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	82	1	110	\$31,320.00	\$3,700.00	-28%	2	
51-4121.07	Solderers and Brazers	82	2	1,610	\$38,030.00	\$10,410.00	7%	49	★
51-9051.00	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	82	2	300	\$32,980.00	\$5,360.00	-18%	9	

Special Occupations:

Top Industries for Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Fiber, yarn, and thread mills	313100	45.53%	19,735	15,068	-23.65%
Fabric mills	313200	19.64%	8,510	5,609	-34.09%
Textile furnishings mills	314100	15.93%	6,906	5,947	-13.89%
Other textile product mills	314900	5.53%	2,395	2,088	-12.83%
Textile and fabric finishing and fabric coating mills	313300	4.29%	1,860	1,107	-40.47%
Apparel knitting mills	315100	0.96%	418	213	-49.01%
Glass and glass product manufacturing	327200	0.92%	397	283	-28.82%
Employment services	561300	0.64%	277	286	3.27%
Management of companies and enterprises	551100	0.40%	174	163	-5.94%



Top Industries for Cementing and Gluing Machine Operators and Tenders

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Converted paper product manufacturing	322200	26.71%	6,240	5,237	-16.08%
Plastics product manufacturing	326100	12.37%	2,891	3,064	6.00%
Printing and related support activities	323100	10.88%	2,542	2,014	-20.77%
Veneer, plywood, and engineered wood product manufacturing	321200	7.53%	1,759	1,916	8.89%
Other wood product manufacturing	321900	7.01%	1,639	1,544	-5.77%
Rubber product manufacturing	326200	4.68%	1,094	773	-29.39%
Household and institutional furniture manufacturing	337120	3.71%	866	659	-23.91%
Wood kitchen cabinet and countertop manufacturing	337110	2.74%	640	708	10.72%
Office furniture (including fixtures) manufacturing	337200	2.26%	529	497	-5.97%
Pulp, paper, and paperboard mills	322100	1.68%	392	272	-30.64%
Motor vehicle body and trailer manufacturing	336200	1.57%	366	358	-2.15%
Cut and sew apparel manufacturing	315200	1.03%	240	101	-57.77%
Other furniture related product manufacturing	337900	0.97%	226	236	4.40%
Pharmaceutical and medicine manufacturing	325400	0.90%	211	266	26.03%
Footwear manufacturing	316200	0.89%	208	97	-53.16%



TORQ Analysis of Cementing and Gluing Machine Operators and Tenders to Sewing Machine Operators

ANALYSIS INPUT

Transfer	Title	O*NET	Filters		
From Title:	Cementing and Gluing Machine Operators and Tenders	51-9191.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Sewing Machine Operators	51-6031.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

TORQ RESULTS

Grand TORQ:

87

Ability TORQ		Skills TORQ		Knowledge TORQ	
Level	89	Level	87	Level	85

Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt
Visual Color Discrimination	46	9	56	No Skills Upgrade Required!				No Knowledge Upgrades Required!			
Arm-Hand Steadiness	51	7	65								
Near Vision	48	4	56								
Finger Dexterity	44	2	56								

LEVEL and IMPT (IMPORTANCE) refer to the Target Sewing Machine Operators. GAP refers to level difference between Cementing and Gluing Machine Operators and Tenders and Sewing Machine Operators.

ASK ANALYSIS

Ability Level Comparison - Abilities with importance scores over 50

Description	Cementing and Gluing Machine Operators and Tenders	Sewing Machine Operators	Importance
Arm-Hand Steadiness	44	51	65
Manual Dexterity	44	42	62
Control Precision	48	42	62
Rate Control	46	39	59
Information Ordering	42	37	56
Finger Dexterity	42	44	56
Near Vision	44	48	56
Visual Color Discrimination	37	46	56
Problem Sensitivity	41	39	53



Multilimb Coordination	50	37	53
Deductive Reasoning	39	35	50
Visualization	42	39	50
Skill Level Comparison - Abilities with importance scores over 69			
Description	Cementing and Gluing Machine Operators and Tenders	Sewing Machine Operators	Importance
Knowledge Level Comparison - Knowledge with importance scores over 69			
Description	Cementing and Gluing Machine Operators and Tenders	Sewing Machine Operators	Importance

Experience & Education Comparison					
Related Work Experience Comparison			Required Education Level Comparison		
Description	Cementing and Gluing Machine Operators and Tenders	Sewing Machine Operators	Description	Cementing and Gluing Machine Operators and Tenders	Sewing Machine Operators
10+ years	12%	0%	Doctoral	0%	0%
8-10 years	0%	0%	Professional Degree	0%	0%
6-8 years	0%	0%	Post-Masters Cert	0%	0%
4-6 years	4%	8%	Master's Degree	0%	0%
2-4 years	0%	13%	Post-Bachelor Cert	0%	0%
1-2 years	23%	9%	Bachelors	0%	2%
6-12 months	3%	11%	AA or Equiv	0%	0%
3-6 months	11%	0%	Some College	0%	8%
1-3 months	6%	5%	Post-Secondary Certificate	0%	2%
0-1 month	4%	0%	High School Diploma or GED	80%	12%
None	32%	51%	No HSD or GED	19%	73%
Cementing and Gluing Machine Operators and Tenders			Sewing Machine Operators		
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	
Cementing and Gluing Machine Operators and Tenders	Sewing Machine Operators



Core Tasks

Generalized Work Activities:

- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- 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.
- 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.

Specific Tasks

Occupation Specific Tasks:

- Adjust machine components according to specifications such as widths, lengths, and thickness of materials and amounts of glue, cement, or adhesive required.
- Align and position materials being joined in order to ensure accurate application of adhesive or heat sealing.
- Clean and maintain gluing and cementing machines, using solutions, lubricants, brushes, and scrapers.
- Depress pedals to lower electrodes that heat and seal edges of material.
- Examine and measure completed materials or products to verify conformance to specifications, using measuring devices such as tape measures, gauges, or calipers.
- Fill machines with glue, cement, or adhesives.
- Maintain production records such as quantities, dimensions, and thicknesses of materials processed.
- Measure and mix ingredients to prepare glue.
- Monitor machine operations to detect malfunctions; report or resolve problems.
- Mount or load material such as paper, plastic, wood, or rubber in feeding mechanisms of cementing or gluing machines.
- Observe gauges, meters, and control panels to obtain information about equipment temperatures and pressures, or the speed of feeders or conveyors.
- Perform test production runs and make

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.
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
- 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:

- Attach buttons, hooks, zippers, fasteners, or other accessories to fabric, using feeding hoppers or clamp holders.
- Attach tape, trim, appliques, or elastic to specified garments or garment parts, according to item specifications.
- Baste edges of material to align and temporarily secure parts for final assembly.
- Cut excess material or thread from finished products.
- Cut materials according to specifications, using blades, scissors, or electric knives.
- Draw markings or pin appliques on fabric to obtain variations in design.
- Examine and measure finished articles to verify conformance to standards, using rulers.
- Fold or stretch edges or lengths of items while sewing, in order to facilitate forming specified sections.
- Guide garments or garment parts under machine needles and presser feet to sew parts together.
- Inspect garments, and examine repair tags and markings on garments to locate defects or damage, and mark errors as necessary.
- Match cloth pieces in correct sequences prior to sewing them, and verify that dye lots and patterns match.
- Monitor machine operation to detect problems such as defective stitching, breaks in thread, or machine malfunctions.
- Mount attachments, such as needles, cutting blades, or pattern plates, and adjust machine guides according to specifications.



adjustments as necessary to ensure that completed products meet standards and specifications.

- Read work orders and communicate with coworkers in order to determine machine and equipment settings and adjustments, and supply and product specifications.
- Remove and stack completed materials or products, and restock materials to be joined.
- Remove jammed materials from machines and readjust components as necessary to resume normal operations.
- Start machines, and turn valves or move controls to feed, admit, apply, or transfer materials and adhesives, and to adjust temperature, pressure, and time settings.
- Transport materials, supplies, and finished products between storage and work areas, using forklifts.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- apply adhesives, caulking, sealants, or coatings
- clean equipment or machinery
- confer with engineering, technical or manufacturing personnel
- examine products or work to verify conformance to specifications
- load or unload material or workpiece into machinery
- 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 forklift
- operate glass or stone working equipment/machinery
- operate metal or plastic fabricating equipment/machinery
- operate printing equipment/machinery
- operate pulp or paper making equipment
- operate textile production equipment/machinery
- operate woodworking equipment/machinery
- perform safety inspections in manufacturing or industrial setting
- prepare building surfaces for paint, finishes, wallpaper, or adhesives
- read work order, instructions, formulas, or processing charts

- Perform equipment maintenance tasks such as replacing needles, sanding rough areas of needles, or cleaning and oiling sewing machines.
- Perform specialized or automatic sewing machine functions, such as buttonhole making or tacking.
- Place spools of thread, cord, or other materials on spindles, insert bobbins, and thread ends through machine guides and components.
- Position and mark patterns on materials to prepare for sewing.
- Position items under needles, using marks on machines, clamps, templates, or cloth as guides.
- Position material or articles in clamps, templates, or hoop frames prior to automatic operation of machines.
- Record quantities of materials processed.
- Remove holding devices and finished items from machines.
- Repair or alter items by adding replacement parts or missing stitches.
- Select supplies such as fasteners and thread, according to job requirements.
- Start and operate or tend machines, such as single or double needle serging and flat-bed felling machines, to automatically join, reinforce, or decorate material or articles.
- Tape or twist together thread or cord to repair breaks.
- Turn knobs, screws, and dials to adjust settings of machines, according to garment styles and equipment performance.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- clean equipment or machinery
- cut or trim fabric or leather
- 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
- maintain consistent production quality
- maintain production or work records
- monitor production machinery/equipment operation to detect problems
- operate sewing machine
- perform safety inspections in manufacturing or industrial setting
- read work order, instructions, formulas, or processing charts
- repair tears or defects in fabrics, garments, or leather products



- use hand or power tools
- use precision measuring tools or equipment

- sew by hand
- use hand or power tools
- use portable electric fabric cutter

Labor Market Comparison

Maine Department of Labor.

Description	Cementing and Gluing Machine Operators and Tenders	Sewing Machine Operators	Difference
Median Wage	\$ 27,620	\$ 22,440	\$(5,180)
10th Percentile Wage	\$ 20,120	\$ 16,350	\$(3,770)
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 30,470	\$ 27,200	\$(3,270)
90th Percentile Wage	\$ 32,670	\$ 31,710	\$(960)
Mean Wage	\$ 26,990	\$ 23,030	\$(3,960)
Total Employment - 2619	80	1,080	1,000
Employment Base - 2006	78	1,077	999
Projected Employment - 2628	66	990	924
Projected Job Growth - 2006-2628	-15.4 %	-8.1 %	7.3 %
Projected Annual Openings - 2006-2628	2	10	8
Special			

Special Occupations:

National Job Posting Trends

Trend for Cementing and Gluing Machine Operators and Tenders and Sewing Machine Operators

Data from [Indeed](#)

Programs

No information on programs or the occupation.

Maine Statewide Promotion Opportunities for Cementing and Gluing Machine Operators and Tenders

O* NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
51-9191.00	Cementing and Gluing Machine Operators and Tenders	100	1	80	\$27,620.00	\$0.00	-15%	2	
51-9041.00	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	90	2	260	\$28,330.00	\$710.00	-7%	5	
51-9032.00	Cutting and Slicing Machine Setters, Operators, and Tenders	88	2	710	\$31,350.00	\$3,730.00	-23%	12	



51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	87	2	910	\$38,230.00	\$10,610.00	-26%	23
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51-5021.00	Job Printers	85	3	140	\$31,890.00	\$4,270.00	-10%	2
51-2021.00	Coil Winders, Tapers, and Finishers	84	2	90	\$31,910.00	\$4,290.00	-53%	1
51-2031.00	Engine and Other Machine Assemblers	84	3	20	\$29,010.00	\$1,390.00	-45%	1
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51-4022.00	Forging Machine Setters, Operators, and Tenders, Metal and Plastic	82	2	20	\$28,330.00	\$710.00	-18%	1



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51-9051.00	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	82	2	300	\$32,980.00	\$5,360.00	-18%	9	

Special Occupations:

Top Industries for Sewing Machine Operators

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Cut and sew apparel manufacturing	315200	37.46%	87,218	36,829	-57.77%
Other textile product mills	314900	8.50%	19,797	17,782	-10.18%
Textile furnishings mills	314100	7.91%	18,422	16,690	-9.40%
Self-employed workers, primary job	000601	7.29%	16,967	18,076	6.54%
Household and institutional furniture manufacturing	337120	6.35%	14,794	12,383	-16.30%
Apparel accessories and other apparel manufacturing	315900	2.75%	6,400	4,026	-37.09%
Apparel knitting mills	315100	2.14%	4,987	2,805	-43.75%
Medical equipment and supplies manufacturing	339100	2.01%	4,674	4,781	2.29%
Other furniture related product manufacturing	337900	1.88%	4,384	4,577	4.40%
Printing and related support activities	323100	1.73%	4,029	3,192	-20.77%
Motor vehicle parts manufacturing	336300	1.48%	3,443	2,741	-20.39%
Fabric mills	313200	1.36%	3,162	2,233	-29.38%
Drycleaning and laundry services	812300	1.35%	3,133	3,133	0.01%
Clothing stores	448100	1.31%	3,053	2,973	-2.63%
Footwear manufacturing	316200	0.92%	2,134	1,000	-53.16%

Top Industries for Cementing and Gluing Machine Operators and Tenders



Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Converted paper product manufacturing	322200	26.71%	6,240	5,237	-16.08%
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Other wood product manufacturing	321900	7.01%	1,639	1,544	-5.77%
Rubber product manufacturing	326200	4.68%	1,094	773	-29.39%
Household and institutional furniture manufacturing	337120	3.71%	866	659	-23.91%
Wood kitchen cabinet and countertop manufacturing	337110	2.74%	640	708	10.72%
Office furniture (including fixtures) manufacturing	337200	2.26%	529	497	-5.97%
Pulp, paper, and paperboard mills	322100	1.68%	392	272	-30.64%
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Cut and sew apparel manufacturing	315200	1.03%	240	101	-57.77%
Other furniture related product manufacturing	337900	0.97%	226	236	4.40%
Pharmaceutical and medicine manufacturing	325400	0.90%	211	266	26.03%
Footwear manufacturing	316200	0.89%	208	97	-53.16%



TORQ Analysis of Cementing and Gluing Machine Operators and Tenders to Paper Goods Machine Setters, Operators, and Tenders

ANALYSIS INPUT

Transfer	Title	O*NET	Filters		
From Title:	Cementing and Gluing Machine Operators and Tenders	51-9191.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Paper Goods Machine Setters, Operators, and Tenders	51-9196.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

TORQ RESULTS

Grand TORQ:



87

Ability TORQ		Skills TORQ		Knowledge TORQ	
Level	90	Level	88	Level	82

Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt
Near Vision	48	4	56	Critical Thinking	60	10	74	English Language	40	8	71
Auditory Attention	46	4	50	Time Management	71	6	70				

LEVEL and IMPT (IMPORTANCE) refer to the Target Paper Goods Machine Setters, Operators, and Tenders. GAP refers to level difference between Cementing and Gluing Machine Operators and Tenders and Paper Goods Machine Setters, Operators, and Tenders.

ASK ANALYSIS

Ability Level Comparison - Abilities with importance scores over 50

Description	Cementing and Gluing Machine Operators and Tenders	Paper Goods Machine Setters, Operators, and Tenders	Importance
Problem Sensitivity	41	39	59
Arm-Hand Steadiness	44	42	59
Selective Attention	44	44	56
Control Precision	48	48	56
Near Vision	44	48	56
Oral Comprehension	44	44	53
Information Ordering	42	42	53
Manual Dexterity	44	41	53
Finger Dexterity	42	42	53
Oral Expression	46	42	50
Deductive Reasoning	39	37	50



Auditory Attention	42	46	50
Skill Level Comparison - Abilities with importance scores over 69			
Description	Cementing and Gluing Machine Operators and Tenders	Paper Goods Machine Setters, Operators, and Tenders	Importance
Critical Thinking	50	60	74
Time Management	65	71	70
Knowledge Level Comparison - Knowledge with importance scores over 69			
Description	Cementing and Gluing Machine Operators and Tenders	Paper Goods Machine Setters, Operators, and Tenders	Importance
English Language	32	40	71

Experience & Education Comparison					
Related Work Experience Comparison			Required Education Level Comparison		
Description	Cementing and Gluing Machine Operators and Tenders	Paper Goods Machine Setters, Operators, and Tenders	Description	Cementing and Gluing Machine Operators and Tenders	Paper Goods Machine Setters, Operators, and Tenders
10+ years	12%	0%	Doctoral	0%	0%
8-10 years	0%	3%	Professional Degree	0%	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	23%	41%	Bachelors	0%	0%
6-12 months	3%	1%	AA or Equiv	0%	0%
3-6 months	11%	5%	Some College	0%	0%
1-3 months	6%	16%	Post-Secondary Certificate	0%	0%
0-1 month	4%	3%	High School Diploma or GED	80%	74%
None	32%	27%	No HSD or GED	19%	24%
Cementing and Gluing Machine Operators and Tenders			Paper Goods 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

Cementing and Gluing Machine Operators and Tenders

Core Tasks

Generalized Work Activities:

- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- 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.
- 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.

Specific Tasks

Occupation Specific Tasks:

- Adjust machine components according to specifications such as widths, lengths, and thickness of materials and amounts of glue, cement, or adhesive required.
- Align and position materials being joined in order to ensure accurate application of adhesive or heat sealing.
- Clean and maintain gluing and cementing machines, using solutions, lubricants, brushes, and scrapers.
- Depress pedals to lower electrodes that heat and seal edges of material.
- Examine and measure completed materials or products to verify conformance to specifications, using measuring devices such as tape measures, gauges, or calipers.
- Fill machines with glue, cement, or adhesives.
- Maintain production records such as quantities, dimensions, and thicknesses of materials processed.
- Measure and mix ingredients to prepare glue.
- Monitor machine operations to detect malfunctions; report or resolve problems.
- Mount or load material such as paper, plastic, wood, or rubber in feeding mechanisms of cementing or gluing machines.

Paper Goods 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).
- 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.
- Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.

Specific Tasks

Occupation Specific Tasks:

- Adjust guide assemblies, forming bars, and folding mechanisms according to specifications, using hand tools.
- Cut products to specified dimensions, using hand or power cutters.
- Disassemble machines to maintain, repair, or replace broken or worn parts, using hand or power tools.
- Examine completed work to detect defects and verify conformance to work orders, and adjust machinery as necessary to correct production problems.
- Fill glue and paraffin reservoirs, and position rollers to dispense glue onto paperboard.
- Install attachments to machines for gluing, folding, printing, or cutting.
- Lift tote boxes of finished cartons, and dump cartons into feed hoppers.
- Load automatic stapling mechanisms.
- Measure, space, and set saw blades, cutters, and perforators, according to product specifications.
- Monitor finished cartons as they drop from forming machines into rotating hoppers and then into gravity feed chutes, in order to prevent jamming.
- Observe operation of various machines to detect and correct machine malfunctions such as improper forming, glue flow, or pasteboard tension.
- Place rolls of paper or cardboard on



- Observe gauges, meters, and control panels to obtain information about equipment temperatures and pressures, or the speed of feeders or conveyors.
- Perform test production runs and make adjustments as necessary to ensure that completed products meet standards and specifications.
- Read work orders and communicate with coworkers in order to determine machine and equipment settings and adjustments, and supply and product specifications.
- Remove and stack completed materials or products, and restock materials to be joined.
- Remove jammed materials from machines and readjust components as necessary to resume normal operations.
- Start machines, and turn valves or move controls to feed, admit, apply, or transfer materials and adhesives, and to adjust temperature, pressure, and time settings.
- Transport materials, supplies, and finished products between storage and work areas, using forklifts.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- apply adhesives, caulking, sealants, or coatings
- clean equipment or machinery
- confer with engineering, technical or manufacturing personnel
- examine products or work to verify conformance to specifications
- load or unload material or workpiece into machinery
- 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 forklift
- operate glass or stone working equipment/machinery
- operate metal or plastic fabricating equipment/machinery
- operate printing equipment/machinery
- operate pulp or paper making equipment
- operate textile production equipment/machinery
- operate woodworking equipment/machinery
- perform safety inspections in manufacturing or industrial setting

machine feedtracks, and thread paper through gluing, coating, and slitting rollers.

- Remove finished cores, and stack or place them on conveyors for transfer to other work areas.
- Stamp products with information such as dates, using hand stamps or automatic stamping devices.
- Start machines and move controls to regulate tension on pressure rolls, to synchronize speed of machine components, and to adjust temperatures of glue or paraffin.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- 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
- monitor production machinery/equipment operation to detect problems
- move or fit heavy objects
- operate pulp or paper making equipment
- read specifications
- read work order, instructions, formulas, or processing charts
- set up production equipment or machinery
- understand technical operating, service or repair manuals
- use hand or power tools
- use precision measuring tools or equipment



- prepare building surfaces for paint, finishes, wallpaper, or adhesives
- read work order, instructions, formulas, or processing charts
- use hand or power tools
- use precision measuring tools or equipment

Labor Market Comparison

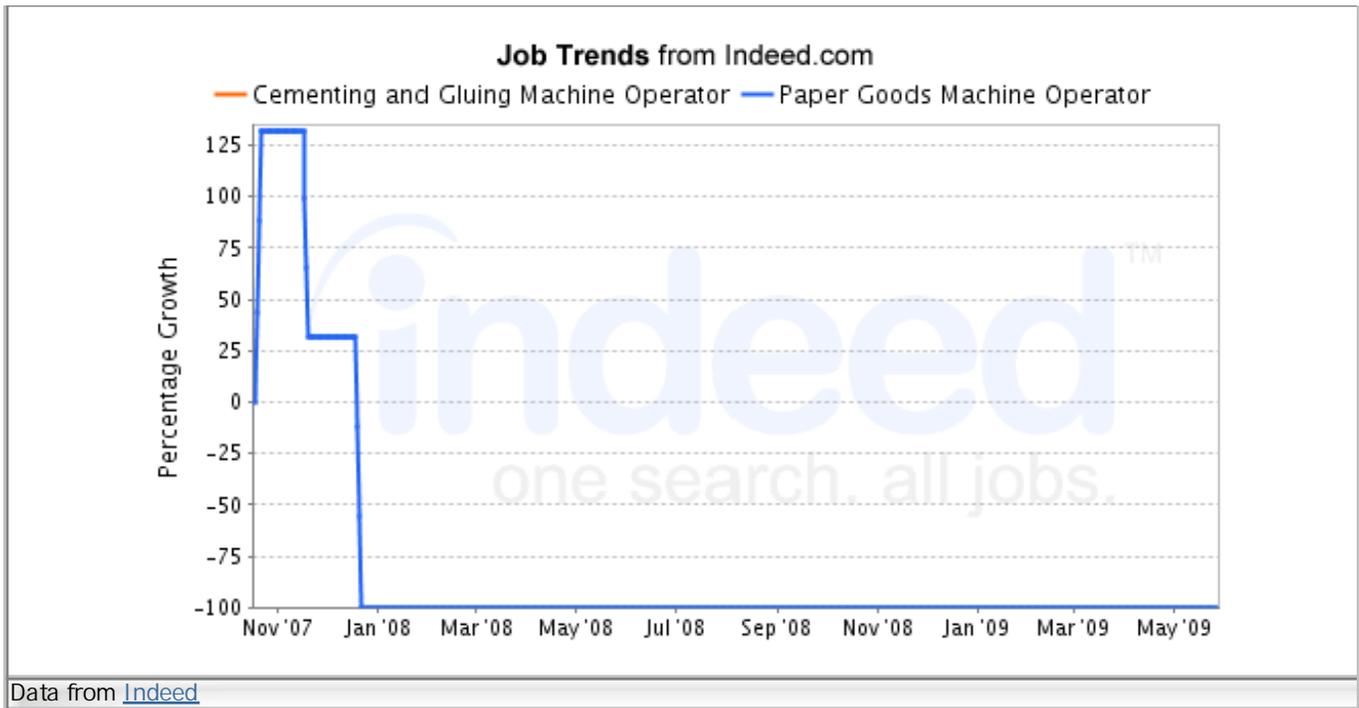
Maine Department of Labor.

Description	Cementing and Gluing Machine Operators and Tenders	Paper Goods Machine Setters, Operators, and Tenders	Difference
Median Wage	\$ 27,620	\$ 38,230	\$ 10,610
10th Percentile Wage	\$ 20,120	\$ 25,850	\$ 5,730
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 30,470	\$ 45,200	\$ 14,730
90th Percentile Wage	\$ 32,670	\$ 51,680	\$ 19,010
Mean Wage	\$ 26,990	\$ 38,330	\$ 11,340
Total Employment - 2619	80	910	830
Employment Base - 2006	78	951	873
Projected Employment - 2628	66	700	634
Projected Job Growth - 2006-2628	-15.4 %	-26.4 %	-11.0 %
Projected Annual Openings - 2006-2628	2	23	21
Special			

Special Occupations:

National Job Posting Trends

Trend for Cementing and Gluing Machine Operators and Tenders and Paper Goods Machine Setters, Operators, and Tenders



Programs

No information on programs or the occupation.

Maine Statewide Promotion Opportunities for Cementing and Gluing Machine Operators and Tenders

O* NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
51-9191.00	Cementing and Gluing Machine Operators and Tenders	100	1	80	\$27,620.00	\$0.00	-15%	2	
51-9041.00	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	90	2	260	\$28,330.00	\$710.00	-7%	5	
51-9032.00	Cutting and Slicing Machine Setters, Operators, and Tenders	88	2	710	\$31,350.00	\$3,730.00	-23%	12	



51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	87	2	910	\$38,230.00	\$10,610.00	-26%	23
51-9121.00	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	87	2	850	\$38,860.00	\$11,240.00	-26%	19
51-5023.00	Printing Machine Operators	86	2	790	\$29,710.00	\$2,090.00	-3%	18
51-5021.00	Job Printers	85	3	140	\$31,890.00	\$4,270.00	-10%	2
51-2021.00	Coil Winders, Tapers, and Finishers	84	2	90	\$31,910.00	\$4,290.00	-53%	1
51-2031.00	Engine and Other Machine Assemblers	84	3	20	\$29,010.00	\$1,390.00	-45%	1
51-4034.00	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	84	3	110	\$34,350.00	\$6,730.00	-9%	2
51-9023.00	Mixing and Blending Machine Setters, Operators, and Tenders	84	1	420	\$36,040.00	\$8,420.00	-9%	7
51-4022.00	Forging Machine Setters, Operators, and Tenders, Metal and Plastic	82	2	20	\$28,330.00	\$710.00	-18%	1



51-9021.00	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	82	1	110	\$31,320.00	\$3,700.00	-28%	2	
51-4121.07	Solderers and Brazers	82	2	1,610	\$38,030.00	\$10,410.00	7%	49	★
51-9051.00	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	82	2	300	\$32,980.00	\$5,360.00	-18%	9	

Special Occupations:

Top Industries for Paper Goods Machine Setters, Operators, and Tenders

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Converted paper product manufacturing	322200	60.48%	68,412	57,411	-16.08%
Pulp, paper, and paperboard mills	322100	21.93%	24,800	17,202	-30.64%
Printing and related support activities	323100	8.22%	9,293	7,363	-20.77%
Newspaper publishers	511110	1.36%	1,536	1,316	-14.33%
Plastics product manufacturing	326100	1.27%	1,439	1,525	6.00%
Wholesale electronic markets and agents and brokers	425100	0.67%	762	865	13.48%
Employment services	561300	0.55%	618	783	26.56%
Animal slaughtering and processing	311600	0.46%	521	595	14.13%
Advertising and related services	541800	0.40%	448	505	12.83%
Paper and paper product merchant wholesalers	424100	0.39%	440	470	6.83%
Other general purpose machinery manufacturing	333900	0.19%	219	198	-9.73%
Miscellaneous durable goods merchant wholesalers	423900	0.09%	100	114	14.81%
Warehousing and storage	493100	0.07%	76	101	33.58%
Other electrical equipment and component manufacturing	335900	0.06%	69	64	-7.34%
Fruit and vegetable preserving and specialty food manufacturing	311400	0.05%	61	55	-9.33%



Top Industries for Cementing and Gluing Machine Operators and Tenders

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Converted paper product manufacturing	322200	26.71%	6,240	5,237	-16.08%
Plastics product manufacturing	326100	12.37%	2,891	3,064	6.00%
Printing and related support activities	323100	10.88%	2,542	2,014	-20.77%
Veneer, plywood, and engineered wood product manufacturing	321200	7.53%	1,759	1,916	8.89%
Other wood product manufacturing	321900	7.01%	1,639	1,544	-5.77%
Rubber product manufacturing	326200	4.68%	1,094	773	-29.39%
Household and institutional furniture manufacturing	337120	3.71%	866	659	-23.91%
Wood kitchen cabinet and countertop manufacturing	337110	2.74%	640	708	10.72%
Office furniture (including fixtures) manufacturing	337200	2.26%	529	497	-5.97%
Pulp, paper, and paperboard mills	322100	1.68%	392	272	-30.64%
Motor vehicle body and trailer manufacturing	336200	1.57%	366	358	-2.15%
Cut and sew apparel manufacturing	315200	1.03%	240	101	-57.77%
Other furniture related product manufacturing	337900	0.97%	226	236	4.40%
Pharmaceutical and medicine manufacturing	325400	0.90%	211	266	26.03%
Footwear manufacturing	316200	0.89%	208	97	-53.16%

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)