



TORQ Analysis of Inspectors, Testers, Sorters, Samplers, and Weighers to Order Fillers, Wholesale and Retail Sales

ANALYSIS INPUT					
Transfer	Title	O*NET	Filters		
From Title:	Inspectors, Testers, Sorters, Samplers, and Weighers	51-9061.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Order Fillers, Wholesale and Retail Sales	43-5081.04	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

TORQ RESULTS											
Grand TORQ:					85						
Ability TORQ		Skills TORQ		Knowledge TORQ							
Level	88	Level	87	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
No Critical Gaps Recorded!				No Skills Upgrade Required!				No Knowledge Upgrades Required!			
<p>LEVEL and IMPT (IMPORTANCE) refer to the Target Order Fillers, Wholesale and Retail Sales. GAP refers to level difference between Inspectors, Testers, Sorters, Samplers, and Weighers and Order Fillers, Wholesale and Retail Sales.</p>											

ASK ANALYSIS			
Ability Level Comparison - Abilities with importance scores over 50			
Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Order Fillers, Wholesale and Retail Sales	Importance
Written Comprehension	50	42	56
Near Vision	50	46	53
Oral Comprehension	53	46	50
Information Ordering	42	35	50
Skill Level Comparison - Abilities with importance scores over 69			
Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Order Fillers, Wholesale and Retail Sales	Importance
Knowledge Level Comparison - Knowledge with importance scores over 69			
Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Order Fillers, Wholesale and Retail Sales	Importance



Experience & Education Comparison

Related Work Experience Comparison			Required Education Level Comparison		
Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Order Fillers, Wholesale and Retail Sales	Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Order Fillers, Wholesale and Retail Sales
10+ years	3%	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	12%	1%	Master's Degree	0%	0%
2-4 years	1%	0%	Post-Bachelor Cert	0%	0%
1-2 years	14%	7%	Bachelors	0%	0%
6-12 months	23%	12%	AA or Equiv	3%	9%
3-6 months	3%	5%	Some College	5%	8%
1-3 months	6%	2%	Post-Secondary Certificate	22%	0%
0-1 month	10%	2%	High School Diploma or GED	61%	24%
None	24%	66%	No HSD or GED	7%	56%

Inspectors, Testers, Sorters, Samplers, and Weighers

Order Fillers, Wholesale and Retail Sales

Most Common Educational/Training Requirement:

Moderate-term on-the-job training

Short-term on-the-job training

Job Zone Comparison

2 - Job Zone Two: Some Preparation Needed

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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.

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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.

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

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Tasks

Inspectors, Testers, Sorters, Samplers, and Weighers

Order Fillers, Wholesale and Retail Sales

Core Tasks

Core Tasks

Generalized Work Activities:

Generalized Work Activities:

- Documenting/Recording Information - Entering, transcribing, recording, storing, or maintaining information in written or electronic/magnetic form.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- Inspecting Equipment, Structures, or

- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
- Coordinating the Work and Activities of Others- Getting members of a group to work together to accomplish tasks.
- Establishing and Maintaining Interpersonal Relationships - Developing constructive and cooperative working relationships with others, and maintaining them over time.



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:

- Adjust, clean, or repair products or processing equipment to correct defects found during inspections.
- Administer tests to engineers and operators to assess whether they are qualified to use equipment.
- Analyze and interpret blueprints, data, manuals, and other materials to determine specifications, inspection and testing procedures, adjustment and certification methods, formulas, and measuring instruments required.
- Analyze test data and make computations as necessary to determine test results.
- Check arriving materials to ensure that they match purchase orders and submit discrepancy reports when problems are found.
- Clean, maintain, repair, and calibrate measuring instruments and test equipment such as dial indicators, fixed gauges, and height gauges.
- Collect or select samples for testing or for use as models.
- Compare colors, shapes, textures, or grades of products or materials with color charts, templates, or samples to verify conformance to standards.
- Compute defect percentages or averages, using formulas and calculators, and prepare reports of inspection or test findings.
- Compute usable amounts of items in shipments and determine prices, based on quantities and grade assessments.
- Disassemble defective parts and components, such as inaccurate or worn gauges and measuring instruments, using hand tools.
- Discard or reject products, materials, and equipment not meeting specifications.
- Discuss inspection results with those responsible for products, and recommend necessary corrective actions.
- Fabricate, install, position, or connect components, parts, finished products, or instruments for testing or operational purposes.
- Grade, classify, and sort products according to sizes, weights, colors, or other specifications.
- Inspect, test, or measure materials, products, installations, and work for

- Organizing, Planning, and Prioritizing Work - Developing specific goals and plans to prioritize, organize, and accomplish your work.
- Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.

Specific Tasks

Occupation Specific Tasks:

- Change the price of books in a warehouse.
- Compare printed price tickets with entries on purchase orders to verify accuracy and notify supervisor of discrepancies.
- Indicate item size, style, color, and inspection results on tags, tickets, and labels, using rubber stamp or writing instrument.
- Keep records of production, returned goods, and related transactions.
- Mark selling price by hand on boxes containing merchandise.
- Pin, paste, sew, tie, or staple tickets, tags, or labels to article.
- Put price information on tickets, marking by hand or using ticket-printing machine.
- Record number and types of articles marked and pack articles in boxes.
- Record price, buyer, and grade of product on tickets attached to products auctioned.

Detailed Tasks

Detailed Work Activities:

- attach or mark identification onto products or containers
- complete record of production
- fill out business or government forms
- maintain records, reports, or files
- manage inventories or supplies
- measure, weigh, or count products or materials
- package goods for shipment or storage
- perform clerical duties including typing, accepting orders, or sorting mail
- price merchandise
- process returned merchandise
- retrieve or place goods from/into storage
- stock or organize goods
- use computers to enter, access or retrieve data
- use inventory control procedures
- use oral or written communication techniques
- verify completeness or accuracy of data

Technology - Examples



conformance to specifications.

- Interpret legal requirements, provide safety information, and recommend compliance procedures to contractors, craft workers, engineers, and property owners.
- Make minor adjustments to equipment, such as turning setscrews to calibrate instruments to required tolerances.
- Mark items with details such as grade and acceptance or rejection status.
- Measure dimensions of products to verify conformance to specifications, using measuring instruments such as rulers, calipers, gauges, or micrometers.
- Notify supervisors and other personnel of production problems, and assist in identifying and correcting these problems.
- Observe and monitor production operations and equipment to ensure conformance to specifications and make or order necessary process or assembly adjustments.
- Position products, components, or parts for testing, or direct other workers to position them.
- Read dials and meters to verify that equipment is functioning at specified levels.
- Record inspection or test data, such as weights, temperatures, grades, or moisture content, and quantities inspected or graded.
- Remove defects, such as chips and burrs, and lap corroded or pitted surfaces.
- Set controls, start and monitor machines that automatically measure, sort, or inspect products.
- Stack and arrange tested products for further processing, shipping, or packaging and transport products to other work stations as necessary.
- Supervise testing or drilling activities.
- Weigh materials, products, containers, or samples to verify packaging weights and ingredient quantities, or to determine sorting.
- Write test and inspection reports describing results, recommendations, and needed repairs.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- attach or mark identification onto products or containers
- collect samples for testing
- communicate technical information
- compare findings with specifications to ensure conformance to standards
- compute product or materials test results
- conduct performance testing
- confer with vendors



- determine specifications
- determine specifications or testing procedures
- direct and coordinate activities of workers or staff
- distinguish colors
- evaluate material specifications
- examine products or work to verify conformance to specifications
- fabricate, assemble, or disassemble manufactured products by hand
- follow manufacturing methods or techniques
- follow statistical process control procedures
- grade, classify, or sort products according to specifications
- inspect manufactured products or materials
- install/connect electrical equipment to power circuit
- load, unload, or stack containers, materials, or products
- maintain consistent production quality
- maintain inspection tools or equipment
- maintain records, reports, or files
- maintain safe work environment
- mark items for acceptance or rejection, according to conformance to specifications
- measure, weigh, or count products or materials
- modify electrical or electronic equipment or products
- monitor production machinery/equipment operation to detect problems
- monitor repairs or maintenance to enforce standards
- move materials or goods between work areas
- operate industrial or nondestructive testing equipment
- operate packaging or banding machine or equipment
- operate pneumatic test equipment
- operate precision test equipment
- package goods for shipment or storage
- perform safety inspections in industrial, manufacturing or repair setting
- prepare reports
- prepare safety reports
- prepare technical reports or related documentation
- read blueprints
- read production layouts
- read specifications
- read technical drawings
- read work order, instructions, formulas, or processing charts
- recognize characteristics of alloys



- recognize characteristics of metals
- recognize characteristics of pulps
- recognize wood species characteristics
- record test results, test procedures, or inspection data
- sort manufacturing materials or products
- test manufactured products or materials
- understand engineering data or reports
- understand measuring devices
- understand technical operating, service or repair manuals
- use computers to enter, access or retrieve data
- use electrical or electronic test devices or equipment
- use hand or power tools
- use hazardous materials information
- use interpersonal communication techniques
- use knowledge of investigation techniques
- use knowledge of metric system
- use long or short term production planning techniques
- use oral or written communication techniques
- use precision measuring tools or equipment
- use quality assurance techniques
- use research methodology procedures within manufacturing or commerce
- use spreadsheet software
- use technical information in manufacturing or industrial activities
- use x-ray or magnetic inspection techniques

Technology - Examples

Analytical or scientific software

- Data analysis software
- Design of experiments DOE software
- Minitab software
- Tolerance analysis software

Computer aided manufacturing CAM software

- Computer-aided inspection software

Industrial control software

- Coordinate measuring machine software
- CyberMetrics GAGETrak Calibration Management Software
- Statistical process control SPC data collection devices
- Wilcox Associates PC-DMIS Inspection Planner

Label making software



- Inspection marking systems

Optical character reader OCR or scanning software

- Label inspection systems

Spreadsheet software

- Microsoft Excel

Word processing software

- Microsoft Word

Tools - Examples

- Accelerometers

- Ammeters

- Industrial bench scales

- Beta gauges

- Measuring microscopes

- Digital resistance meters

- Calipers

- Continuity testers

- Optical comparators

- Compression testers

- Conductivity meters

- Coordinate measuring machines CMM

- Creep and stress relaxation testers

- Depth gauges

- Ductility testers

- Eddy current flaw detectors

- Frequency meters

- Fatigue testers

- Force transducers

- Forklifts

- Frequency counters

- Functional gauges

- Hardness testers

- Height gauges

- Hipot testers



- Hydraulic pumps
- Impact hammers
- Impact toughness testers
- Return loss calibrator RLC passive component testers
- Backplane testers
- Holographic interferometers
- Laser shearography flaw detectors
- Bubble leak testers
- Pulse generators
- Hydraulic lifts
- Penetrant flaw detectors
- Magnetic particle flaw detectors
- Metallurgical microscopes
- Micrometers
- Moisture meters
- Digital multimeters
- Bit error rate BER testers
- Sampling oscilloscopes
- Personal computers
- Plotters
- Direct current DC power testers
- Gloss meters
- Environmental chambers
- Digital thermometers
- Pi tapes
- Shear testers
- Shock testers
- Linear or mixed signal equipment
- Function generators
- Sorting machines
- Color spectrometers
- Strain gauges



- Tensile testers
- Laser thickness gauges
- Thread gauges
- Overhead cranes
- Ultrasonic flaw detectors
- Vibration and shaker systems
- Viscometers
- Digital voltmeters DVM
- Radiographic flaw detectors

Labor Market Comparison

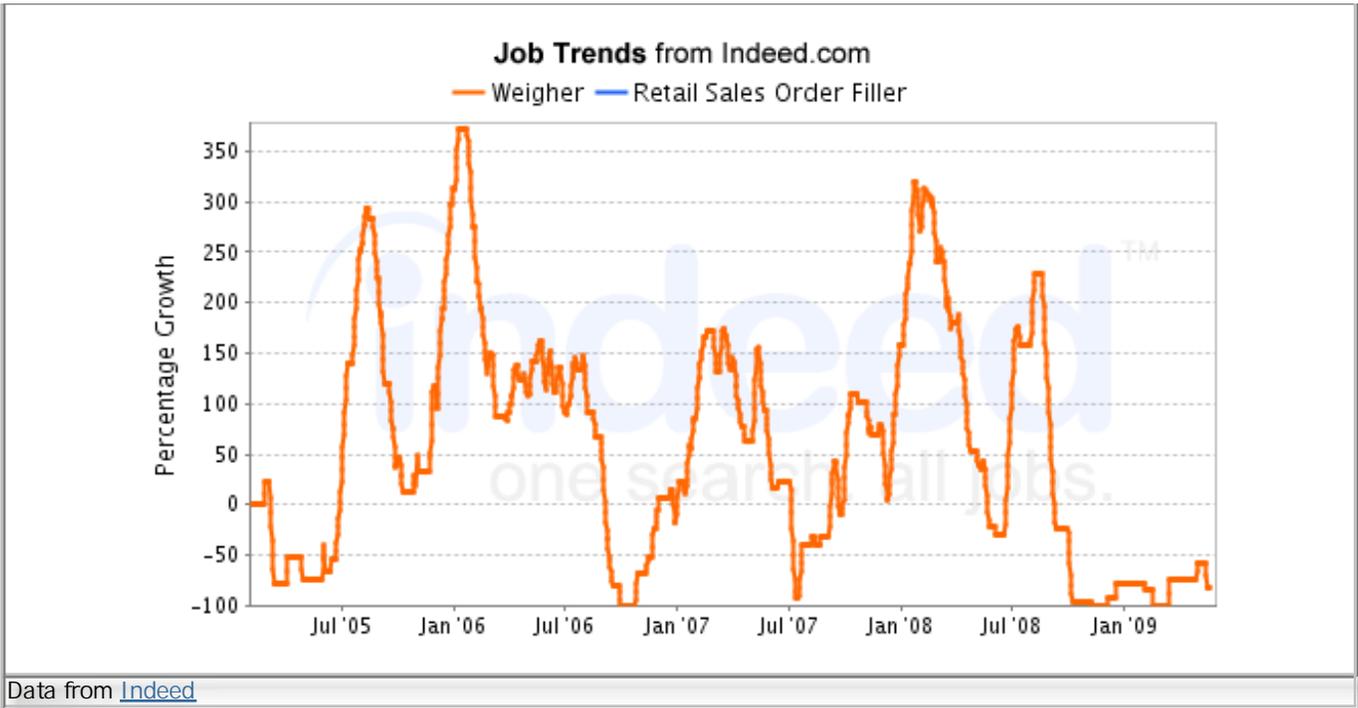
Maine Department of Labor.

Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Order Fillers, Wholesale and Retail Sales	Difference
Median Wage	\$ 29,700	\$ 19,860	\$(9,840)
10th Percentile Wage	\$ 19,620	\$ 15,330	\$(4,290)
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 40,300	\$ 24,350	\$(15,950)
90th Percentile Wage	\$ 48,960	\$ 30,370	\$(18,590)
Mean Wage	\$ 31,870	\$ 21,410	\$(10,460)
Total Employment - 2608	1,700	7,670	5,970
Employment Base - 2006	1,720	7,601	5,881
Projected Employment - 2617	1,473	6,921	5,448
Projected Job Growth - 2006-2617	-14.4 %	-8.9 %	5.4 %
Projected Annual Openings - 2006-2617	26	180	154
Special			

Special Occupations:

National Job Posting Trends

Trend for Inspectors, Testers, Sorters, Samplers, and Weighers and Order Fillers, Wholesale and Retail Sales



Programs

Related Programs

General Office/Clerical and Typing Services

General Office Occupations and Clerical Services. A program that prepares individuals to provide basic administrative support under the supervision of office managers, administrative assistants, secretaries, and other office personnel. Includes instruction in typing, keyboarding, filing, general business correspondence, office equipment operation, and communications skills.

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

Retailing and Retail Operations

Retailing and Retail Operations. A program that prepares individuals to perform operations associated with retail sales in a variety of settings. Includes instruction in over-the-counter and other direct sales operations in business settings, basic bookkeeping principles, customer service, team/staff leadership and supervision, floor management, and applicable technical skills.

No information on schools for the program

Maine Statewide Promotion Opportunities for Inspectors, Testers, Sorters, Samplers, and Weighers

O*NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
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51-9061.00	Inspectors, Testers, Sorters, Samplers, and Weighers	100	2	1,700	\$29,700.00	\$0.00	-14%	26	
51-4121.07	Solderers and Brazers	87	2	1,610	\$38,030.00	\$8,330.00	7%	49	
51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	85	2	910	\$38,230.00	\$8,530.00	-26%	23	
43-5053.00	Postal Service Mail Sorters, Processors, and Processing Machine Operators	84	2	970	\$41,950.00	\$12,250.00	-12%	10	
51-2021.00	Coil Winders, Tapers, and Finishers	82	2	90	\$31,910.00	\$2,210.00	-53%	1	
19-4011.02	Food Science Technicians	82	3	20	\$32,000.00	\$2,300.00	-3%	1	
43-9031.00	Desktop Publishers	82	3	130	\$32,200.00	\$2,500.00	14%	5	
51-9032.00	Cutting and Slicing Machine Setters, Operators, and Tenders	80	2	710	\$31,350.00	\$1,650.00	-23%	12	
51-5023.00	Printing Machine Operators	79	2	790	\$29,710.00	\$10.00	-3%	18	
43-5061.00	Production, Planning, and Expediting Clerks	79	2	1,320	\$38,490.00	\$8,790.00	-1%	35	
51-5021.00	Job Printers	79	3	140	\$31,890.00	\$2,190.00	-10%	2	



51-9051.00	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	79	2	300	\$32,980.00	\$3,280.00	-18%	9
19-4031.00	Chemical Technicians	78	3	160	\$34,890.00	\$5,190.00	-7%	6
51-4032.00	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	78	2	100	\$33,030.00	\$3,330.00	-22%	2
43-5041.00	Meter Readers, Utilities	78	1	90	\$31,240.00	\$1,540.00	-11%	3

Special Occupations:

Top Industries for Order Fillers, Wholesale and Retail Sales

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Grocery stores	445100	23.82%	406,079	370,728	-8.71%
Department stores	452100	16.56%	282,337	232,482	-17.66%
Other general merchandise stores	452900	9.11%	155,334	175,987	13.30%
Warehousing and storage	493100	3.42%	58,300	65,157	11.76%
Employment services	561300	2.57%	43,742	46,324	5.90%
Clothing stores	448100	2.50%	42,692	37,499	-12.16%
Grocery and related product wholesalers	424400	2.26%	38,557	35,278	-8.50%
Pharmacies and drug stores	446110	1.85%	31,599	29,366	-7.07%
General medical and surgical hospitals, public and private	622100	1.51%	25,696	23,804	-7.36%
Miscellaneous nondurable goods merchant wholesalers	424900	1.11%	18,994	17,279	-9.03%
Electronics and appliance stores	443100	0.97%	16,458	13,754	-16.43%
Wholesale electronic markets and agents and brokers	425100	0.95%	16,236	15,416	-5.05%
Office supplies, stationery, and gift stores	453200	0.91%	15,522	10,716	-30.97%
Motor vehicle and motor vehicle parts and supplies merchant wholesalers	423100	0.82%	14,032	13,402	-4.49%



Local government, excluding education and hospitals	939300	0.80%	13,602	12,785	-6.00%
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Top Industries for Inspectors, Testers, Sorters, Samplers, and Weighers

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Employment services	561300	7.50%	36,864	43,994	19.34%
Motor vehicle parts manufacturing	336300	4.66%	22,903	17,193	-24.93%
Plastics product manufacturing	326100	4.23%	20,797	20,787	-0.05%
Semiconductor and other electronic component manufacturing	334400	3.70%	18,159	14,967	-17.58%
Aerospace product and parts manufacturing	336400	3.32%	16,315	15,667	-3.97%
Navigational, measuring, electromedical, and control instruments manufacturing	334500	2.17%	10,680	9,641	-9.72%
Medical equipment and supplies manufacturing	339100	1.87%	9,177	8,852	-3.55%
Pharmaceutical and medicine manufacturing	325400	1.80%	8,824	10,486	18.84%
Animal slaughtering and processing	311600	1.79%	8,815	9,486	7.62%
Other fabricated metal product manufacturing	332900	1.78%	8,731	7,295	-16.45%
Rubber product manufacturing	326200	1.70%	8,331	5,547	-33.41%
Testing laboratories	541380	1.48%	7,249	8,416	16.10%
Self-employed workers, primary job	000601	1.48%	7,279	7,313	0.46%
Foundries	331500	1.45%	7,125	4,872	-31.63%
Printing and related support activities	323100	1.40%	6,856	5,122	-25.29%



TORQ Analysis of Inspectors, Testers, Sorters, Samplers, and Weighers to Mail Clerks and Mail Machine Operators, Except Postal Service

ANALYSIS INPUT					
Transfer	Title	O*NET	Filters		
From Title:	Inspectors, Testers, Sorters, Samplers, and Weighers	51-9061.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Mail Clerks and Mail Machine Operators, Except Postal Service	43-9051.00	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				Level				Level				
Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add				
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt	
Speech Recognition	37	2	50	No Skills Upgrade Required!				No Knowledge Upgrades Required!				
<p>LEVEL and IMPT (IMPORTANCE) refer to the Target Mail Clerks and Mail Machine Operators, Except Postal Service. GAP refers to level difference between Inspectors, Testers, Sorters, Samplers, and Weighers and Mail Clerks and Mail Machine Operators, Except Postal Service.</p>												

ASK ANALYSIS			
Ability Level Comparison - Abilities with importance scores over 50			
Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Mail Clerks and Mail Machine Operators, Except Postal Service	Importance
Near Vision	50	41	59
Category Flexibility	46	41	53
Selective Attention	42	39	53
Oral Comprehension	53	44	50
Problem Sensitivity	41	37	50
Information Ordering	42	37	50
Finger Dexterity	41	41	50
Speech Recognition	35	37	50
Skill Level Comparison - Abilities with importance scores over 69			



Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Mail Clerks and Mail Machine Operators, Except Postal Service	Importance
Knowledge Level Comparison - Knowledge with importance scores over 69			
Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Mail Clerks and Mail Machine Operators, Except Postal Service	Importance

Experience & Education Comparison			
Related Work Experience Comparison		Required Education Level Comparison	
Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Description	Inspectors, Testers, Sorters, Samplers, and Weighers
			Mail Clerks and Mail Machine Operators, Except Postal Service
10+ years	3%	Doctoral	0%
8-10 years	0%	Professional Degree	0%
6-8 years	0%	Post-Masters Cert	0%
4-6 years	12%	Master's Degree	0%
2-4 years	1%	Post-Bachelor Cert	0%
1-2 years	14%	Bachelors	0%
6-12 months	23%	AA or Equiv	3%
3-6 months	3%	Some College	5%
1-3 months	6%	Post-Secondary Certificate	22%
0-1 month	10%	High School Diploma or GED	61%
None	24%	No HSD or GED	7%
			63%
Inspectors, Testers, Sorters, Samplers, and Weighers		Mail Clerks and Mail Machine Operators, Except Postal Service	
Most Common Educational/Training Requirement:			
Moderate-term on-the-job training		Short-term on-the-job training	
Job Zone Comparison			
2 - Job Zone Two: Some Preparation Needed		1 - Job Zone One: Little or No Preparation Needed	
<p>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.</p> <p>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.</p> <p>Employees in these occupations need anywhere from a few months to one year of working with experienced employees.</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>	

Tasks	
Inspectors, Testers, Sorters, Samplers, and Weighers	Mail Clerks and Mail Machine Operators, Except Postal Service
Core Tasks	Core Tasks



Generalized Work Activities:

- Documenting/Recording Information - Entering, transcribing, recording, storing, or maintaining information in written or electronic/magnetic form.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- 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:

- Adjust, clean, or repair products or processing equipment to correct defects found during inspections.
- Administer tests to engineers and operators to assess whether they are qualified to use equipment.
- Analyze and interpret blueprints, data, manuals, and other materials to determine specifications, inspection and testing procedures, adjustment and certification methods, formulas, and measuring instruments required.
- Analyze test data and make computations as necessary to determine test results.
- Check arriving materials to ensure that they match purchase orders and submit discrepancy reports when problems are found.
- Clean, maintain, repair, and calibrate measuring instruments and test equipment such as dial indicators, fixed gauges, and height gauges.
- Collect or select samples for testing or for use as models.
- Compare colors, shapes, textures, or grades of products or materials with color charts, templates, or samples to verify conformance to standards.
- Compute defect percentages or averages, using formulas and calculators, and prepare reports of inspection or test findings.
- Compute usable amounts of items in shipments and determine prices, based on quantities and grade assessments.
- Disassemble defective parts and components, such as inaccurate or worn gauges and measuring instruments, using hand tools.
- Discard or reject products, materials, and

Generalized Work Activities:

- Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.
- Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
- Performing General Physical Activities - Performing physical activities that require considerable use of your arms and legs and moving your whole body, such as climbing, lifting, balancing, walking, stooping, and handling of materials.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Evaluating Information to Determine Compliance with Standards - Using relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards.

Specific Tasks

Occupation Specific Tasks:

- Accept and check containers of mail or parcels from large volume mailers, couriers, and contractors.
- Add ink, fill paste reservoirs, and change machine ribbons when necessary.
- Adjust guides, rollers, loose card inserters, weighing machines, and tying arms, using rules and hand tools.
- Affix postage to packages or letters by hand, or stamp materials, using postage meters.
- Answer inquiries regarding shipping or mailing policies.
- Clear jams in sortation equipment.
- Contact delivery or courier services to arrange delivery of letters and parcels.
- Determine manner in which mail is to be sent, and prepare it for delivery to mailing facilities.
- Fold letters or circulars and insert them in envelopes.
- Insert material for printing or addressing into loading racks on machines, select type or die sizes, and position plates, stencils, or tapes in machine magazines.
- Inspect mail machine output for defects; determine how to eliminate causes of any defects.
- Lift and unload containers of mail or parcels onto equipment for transportation to sortation stations.
- Mail merchandise samples or promotional literature in response to requests.
- Operate computer-controlled keyboards or voice recognition equipment in order to direct items according to established routing



equipment not meeting specifications.

- Discuss inspection results with those responsible for products, and recommend necessary corrective actions.
- Fabricate, install, position, or connect components, parts, finished products, or instruments for testing or operational purposes.
- Grade, classify, and sort products according to sizes, weights, colors, or other specifications.
- Inspect, test, or measure materials, products, installations, and work for conformance to specifications.
- Interpret legal requirements, provide safety information, and recommend compliance procedures to contractors, craft workers, engineers, and property owners.
- Make minor adjustments to equipment, such as turning setscrews to calibrate instruments to required tolerances.
- Mark items with details such as grade and acceptance or rejection status.
- Measure dimensions of products to verify conformance to specifications, using measuring instruments such as rulers, calipers, gauges, or micrometers.
- Notify supervisors and other personnel of production problems, and assist in identifying and correcting these problems.
- Observe and monitor production operations and equipment to ensure conformance to specifications and make or order necessary process or assembly adjustments.
- Position products, components, or parts for testing, or direct other workers to position them.
- Read dials and meters to verify that equipment is functioning at specified levels.
- Record inspection or test data, such as weights, temperatures, grades, or moisture content, and quantities inspected or graded.
- Remove defects, such as chips and burrs, and lap corroded or pitted surfaces.
- Set controls, start and monitor machines that automatically measure, sort, or inspect products.
- Stack and arrange tested products for further processing, shipping, or packaging and transport products to other work stations as necessary.
- Supervise testing or drilling activities.
- Weigh materials, products, containers, or samples to verify packaging weights and ingredient quantities, or to determine sorting.
- Write test and inspection reports describing results, recommendations, and needed repairs.

Detailed Tasks

schemes.

- Operate embossing machines or typewriters to make corrections, additions, and changes to address plates.
- Place incoming or outgoing letters or packages into sacks or bins based on destination or type, and place identifying tags on sacks or bins.
- Read production orders to determine types and sizes of items scheduled for printing and mailing.
- Release packages or letters to customers upon presentation of written notices or other identification.
- Remove containers of sorted mail/parcels, and transfer them to designated areas according to established procedures.
- Remove from machines printed materials such as labeled articles, postmarked envelopes or tape, and folded sheets.
- Seal or open envelopes, by hand or by using machines.
- Sell mail products, and accept payment for products and mailing charges.
- Sort and route incoming mail, and collect outgoing mail, using carts as necessary.
- Stamp dates and times of receipt of incoming mail.
- Start machines that automatically feed plates, stencils, or tapes through mechanisms, and observe machine operations in order to detect any malfunctions.
- Use equipment such as forklifts and automated "trains" to move containers of mail.
- Verify that items are addressed correctly, marked with the proper postage, and in suitable condition for processing.
- Weigh packages or letters to determine postage needed, using weighing scales and rate charts.
- Wrap packages or bundles by hand, or by using tying machines.

Detailed Tasks

Detailed Work Activities:

- answer customer or public inquiries
- demonstrate or explain assembly or use of equipment
- distribute correspondence or mail
- fill out business or government forms
- insert mail into slots of mail rack
- inspect mail preparation or handling machine output for defects
- inspect outgoing mail for conformance to standards or accuracy
- maintain inventory of office forms
- maintain records, reports, or files



Detailed Work Activities:

- adjust production equipment/machinery setup
- attach or mark identification onto products or containers
- collect samples for testing
- communicate technical information
- compare findings with specifications to ensure conformance to standards
- compute product or materials test results
- conduct performance testing
- confer with vendors
- determine specifications
- determine specifications or testing procedures
- direct and coordinate activities of workers or staff
- distinguish colors
- evaluate material specifications
- examine products or work to verify conformance to specifications
- fabricate, assemble, or disassemble manufactured products by hand
- follow manufacturing methods or techniques
- follow statistical process control procedures
- grade, classify, or sort products according to specifications
- inspect manufactured products or materials
- install/connect electrical equipment to power circuit
- load, unload, or stack containers, materials, or products
- maintain consistent production quality
- maintain inspection tools or equipment
- maintain records, reports, or files
- maintain safe work environment
- mark items for acceptance or rejection, according to conformance to specifications
- measure, weigh, or count products or materials
- modify electrical or electronic equipment or products
- monitor production machinery/equipment operation to detect problems
- monitor repairs or maintenance to enforce standards
- move materials or goods between work areas
- operate industrial or nondestructive testing equipment
- operate packaging or banding machine or equipment
- operate pneumatic test equipment
- operate precision test equipment
- package goods for shipment or storage
- perform safety inspections in industrial,

- maintain records, reports, or files
- measure, weigh, or count products or materials
- monitor operation of document sorting machine
- monitor operation of mail preparation or handling machines
- operate alpha or numeric mail sorting systems
- operate business machines
- operate printing equipment/machinery
- package goods for shipment or storage
- process mail through postage machine
- process orders for merchandise
- proofread printed or written material
- provide customer service
- provide customer service in postal or mail service setting
- read work order, instructions, formulas, or processing charts
- set up production equipment or machinery
- sort mail letters or packages
- use computers to enter, access or retrieve data
- use oral or written communication techniques

Technology - Examples



manufacturing or repair setting

- prepare reports
- prepare safety reports
- prepare technical reports or related documentation
- read blueprints
- read production layouts
- read specifications
- read technical drawings
- read work order, instructions, formulas, or processing charts
- recognize characteristics of alloys
- recognize characteristics of metals
- recognize characteristics of pulps
- recognize wood species characteristics
- record test results, test procedures, or inspection data
- sort manufacturing materials or products
- test manufactured products or materials
- understand engineering data or reports
- understand measuring devices
- understand technical operating, service or repair manuals
- use computers to enter, access or retrieve data
- use electrical or electronic test devices or equipment
- use hand or power tools
- use hazardous materials information
- use interpersonal communication techniques
- use knowledge of investigation techniques
- use knowledge of metric system
- use long or short term production planning techniques
- use oral or written communication techniques
- use precision measuring tools or equipment
- use quality assurance techniques
- use research methodology procedures within manufacturing or commerce
- use spreadsheet software
- use technical information in manufacturing or industrial activities
- use x-ray or magnetic inspection techniques

Technology - Examples

Analytical or scientific software

- Data analysis software
- Design of experiments DOE software
- Minitab software
- Tolerance analysis software

Computer aided manufacturing CAM software



- Computer-aided inspection software

Industrial control software

- Coordinate measuring machine software
- CyberMetrics GAGETrak Calibration Management Software
- Statistical process control SPC data collection devices
- Wilcox Associates PC-DMIS Inspection Planner

Label making software

- Inspection marking systems

Optical character reader OCR or scanning software

- Label inspection systems

Spreadsheet software

- Microsoft Excel

Word processing software

- Microsoft Word

Tools - Examples

- Accelerometers
- Ammeters
- Industrial bench scales
- Beta gauges
- Measuring microscopes
- Digital resistance meters
- Calipers
- Continuity testers
- Optical comparators
- Compression testers
- Conductivity meters
- Coordinate measuring machines CMM
- Creep and stress relaxation testers
- Depth gauges
- Ductility testers
- Eddy current flaw detectors
- Frequency meters
- Fatigue testers



- Force transducers
- Forklifts
- Frequency counters
- Functional gauges
- Hardness testers
- Height gauges
- Hipot testers
- Hydraulic pumps
- Impact hammers
- Impact toughness testers
- Return loss calibrator RLC passive component testers
- Backplane testers
- Holographic interferometers
- Laser shearography flaw detectors
- Bubble leak testers
- Pulse generators
- Hydraulic lifts
- Penetrant flaw detectors
- Magnetic particle flaw detectors
- Metallurgical microscopes
- Micrometers
- Moisture meters
- Digital multimeters
- Bit error rate BER testers
- Sampling oscilloscopes
- Personal computers
- Plotters
- Direct current DC power testers
- Gloss meters
- Environmental chambers
- Digital thermometers
- Pi tapes



- Shear testers
- Shock testers
- Linear or mixed signal equipment
- Function generators
- Sorting machines
- Color spectrometers
- Strain gauges
- Tensile testers
- Laser thickness gauges
- Thread gauges
- Overhead cranes
- Ultrasonic flaw detectors
- Vibration and shaker systems
- Viscometers
- Digital voltmeters DVM
- Radiographic flaw detectors

Labor Market Comparison

Maine Department of Labor.

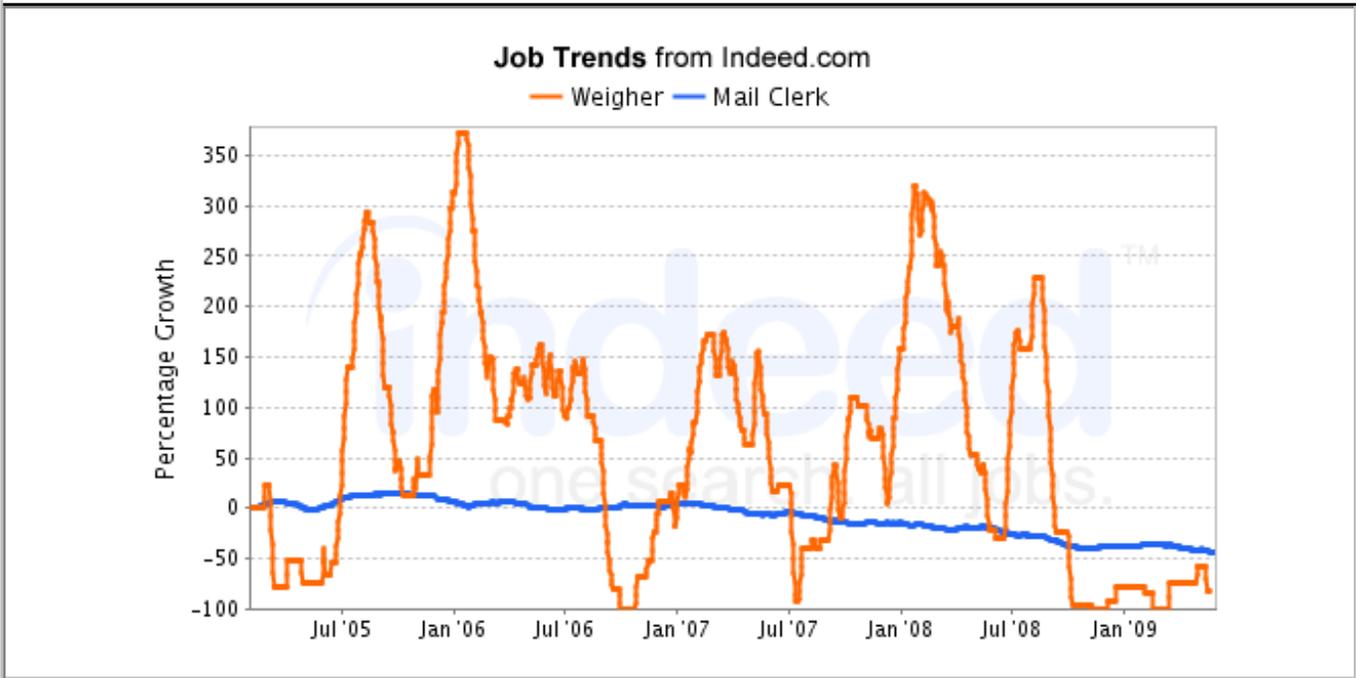
Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Mail Clerks and Mail Machine Operators, Except Postal Service	Difference
Median Wage	\$ 29,700	\$ 23,250	\$(6,450)
10th Percentile Wage	\$ 19,620	\$ 15,120	\$(4,500)
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 40,300	\$ 28,470	\$(11,830)
90th Percentile Wage	\$ 48,960	\$ 33,170	\$(15,790)
Mean Wage	\$ 31,870	\$ 23,730	\$(8,140)
Total Employment - 2608	1,700	490	-1,210
Employment Base - 2006	1,720	485	-1,235
Projected Employment - 2617	1,473	395	-1,078
Projected Job Growth - 2006-2617	-14.4 %	-18.5 %	-4.2 %
Projected Annual Openings - 2006-2617	26	13	-13



Special			
Special Occupations:			

National Job Posting Trends

Trend for Inspectors, Testers, Sorters, Samplers, and Weighers and Mail Clerks and Mail Machine Operators, Except Postal Service



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

Programs

Related Programs

General Office/Clerical and Typing Services

General Office Occupations and Clerical Services. A program that prepares individuals to provide basic administrative support under the supervision of office managers, administrative assistants, secretaries, and other office personnel. Includes instruction in typing, keyboarding, filing, general business correspondence, office equipment operation, and communications skills.

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

Maine Statewide Promotion Opportunities for Inspectors, Testers, Sorters, Samplers, and Weighers

O*NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
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51-9061.00	Inspectors, Testers, Sorters, Samplers, and Weighers	100	2	1,700	\$29,700.00	\$0.00	-14%	26	
51-4121.07	Solderers and Brazers	87	2	1,610	\$38,030.00	\$8,330.00	7%	49	★
51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	85	2	910	\$38,230.00	\$8,530.00	-26%	23	
43-5053.00	Postal Service Mail Sorters, Processors, and Processing Machine Operators	84	2	970	\$41,950.00	\$12,250.00	-12%	10	
51-2021.00	Coil Winders, Tapers, and Finishers	82	2	90	\$31,910.00	\$2,210.00	-53%	1	
43-9031.00	Desktop Publishers	82	3	130	\$32,200.00	\$2,500.00	14%	5	
19-4011.02	Food Science Technicians	82	3	20	\$32,000.00	\$2,300.00	-3%	1	
51-9032.00	Cutting and Slicing Machine Setters, Operators, and Tenders	80	2	710	\$31,350.00	\$1,650.00	-23%	12	
51-5023.00	Printing Machine Operators	79	2	790	\$29,710.00	\$10.00	-3%	18	
43-5061.00	Production, Planning, and Expediting Clerks	79	2	1,320	\$38,490.00	\$8,790.00	-1%	35	
51-5021.00	Job Printers	79	3	140	\$31,890.00	\$2,190.00	-10%	2	



51-9051.00	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	79	2	300	\$32,980.00	\$3,280.00	-18%	9
19-4031.00	Chemical Technicians	78	3	160	\$34,890.00	\$5,190.00	-7%	6
51-4032.00	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	78	2	100	\$33,030.00	\$3,330.00	-22%	2
43-9041.02	Insurance Policy Processing Clerks	78	2	1,810	\$31,380.00	\$1,680.00	-8%	22

Special Occupations:

Top Industries for Mail Clerks and Mail Machine Operators, Except Postal Service

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Advertising and related services	541800	13.09%	19,902	20,577	3.39%
Employment services	561300	6.47%	9,834	9,148	-6.98%
Newspaper publishers	511110	5.47%	8,311	5,233	-37.03%
Federal government, excluding postal service	919999	4.85%	7,382	5,130	-30.52%
Management of companies and enterprises	551100	3.77%	5,728	4,853	-15.27%
Religious organizations	813100	3.71%	5,649	4,983	-11.79%
Data processing, hosting, and related services	518200	3.58%	5,446	5,411	-0.64%
Colleges, universities, and professional schools, public and private	611300	3.16%	4,809	3,954	-17.77%
Printing and related support activities	323100	2.83%	4,298	2,503	-41.76%
Couriers	492100	2.30%	3,494	2,760	-21.02%
Direct insurance (except life, health, and medical) carriers	524120	2.24%	3,403	2,615	-23.18%
Depository credit intermediation	522100	2.16%	3,284	2,461	-25.06%
Electronic shopping and mail-order houses	454100	1.84%	2,798	2,572	-8.06%
Legal services	541100	1.82%	2,760	2,228	-19.27%
Insurance agencies and brokerages	524210	1.42%	2,165	1,800	-16.86%



Top Industries for Inspectors, Testers, Sorters, Samplers, and Weighers

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Employment services	561300	7.50%	36,864	43,994	19.34%
Motor vehicle parts manufacturing	336300	4.66%	22,903	17,193	-24.93%
Plastics product manufacturing	326100	4.23%	20,797	20,787	-0.05%
Semiconductor and other electronic component manufacturing	334400	3.70%	18,159	14,967	-17.58%
Aerospace product and parts manufacturing	336400	3.32%	16,315	15,667	-3.97%
Navigational, measuring, electromedical, and control instruments manufacturing	334500	2.17%	10,680	9,641	-9.72%
Medical equipment and supplies manufacturing	339100	1.87%	9,177	8,852	-3.55%
Pharmaceutical and medicine manufacturing	325400	1.80%	8,824	10,486	18.84%
Animal slaughtering and processing	311600	1.79%	8,815	9,486	7.62%
Other fabricated metal product manufacturing	332900	1.78%	8,731	7,295	-16.45%
Rubber product manufacturing	326200	1.70%	8,331	5,547	-33.41%
Testing laboratories	541380	1.48%	7,249	8,416	16.10%
Self-employed workers, primary job	000601	1.48%	7,279	7,313	0.46%
Foundries	331500	1.45%	7,125	4,872	-31.63%
Printing and related support activities	323100	1.40%	6,856	5,122	-25.29%



TORQ Analysis of Inspectors, Testers, Sorters, Samplers, and Weighers to Solderers and Brazers

ANALYSIS INPUT					
Transfer	Title	O*NET	Filters		
From Title:	Inspectors, Testers, Sorters, Samplers, and Weighers	51-9061.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Solderers and Brazers	51-4121.07	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	88		Level	86		Level	87				
Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt
Arm-Hand Steadiness	48	11	59	Science	27	2	78	No Knowledge Upgrades Required!			
Manual Dexterity	46	9	62								
Control Precision	46	11	50								
Finger Dexterity	46	5	62								

LEVEL and IMPT (IMPORTANCE) refer to the Target Solderers and Brazers. GAP refers to level difference between Inspectors, Testers, Sorters, Samplers, and Weighers and Solderers and Brazers.

ASK ANALYSIS			
Ability Level Comparison - Abilities with importance scores over 50			
Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Solderers and Brazers	Importance
Near Vision	50	50	65
Manual Dexterity	37	46	62
Finger Dexterity	41	46	62
Oral Comprehension	53	46	59
Arm-Hand Steadiness	37	48	59
Oral Expression	51	44	56
Problem Sensitivity	41	37	53
Information Ordering	42	39	50
Control Precision	35	46	50



Skill Level Comparison - Abilities with importance scores over 69

Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Solderers and Brazers	Importance
Science	25	27	78

Knowledge Level Comparison - Knowledge with importance scores over 69

Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Solderers and Brazers	Importance
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Experience & Education Comparison

Related Work Experience Comparison			Required Education Level Comparison		
Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Solderers and Brazers	Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Solderers and Brazers
10+ years	3%	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	12%	0%	Master's Degree	0%	0%
2-4 years	1%	5%	Post-Bachelor Cert	0%	0%
1-2 years	14%	12%	Bachelors	0%	0%
6-12 months	23%	10%	AA or Equiv	3%	0%
3-6 months	3%	20%	Some College	5%	3%
1-3 months	6%	7%	Post-Secondary Certificate	22%	11%
0-1 month	10%	9%	High School Diploma or GED	61%	65%
None	24%	32%	No HSD or GED	7%	18%

Inspectors, Testers, Sorters, Samplers, and Weighers

Solderers and Brazers

Most Common Educational/Training Requirement:

Moderate-term on-the-job training

Long-term on-the-job training

Job Zone Comparison

2 - Job Zone Two: Some Preparation Needed
 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 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 months to one year of working with experienced employees.

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Tasks

Inspectors, Testers, Sorters, Samplers, and Weighers

Solderers and Brazers



Core Tasks

Generalized Work Activities:

- Documenting/Recording Information - Entering, transcribing, recording, storing, or maintaining information in written or electronic/magnetic form.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- 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:

- Adjust, clean, or repair products or processing equipment to correct defects found during inspections.
- Administer tests to engineers and operators to assess whether they are qualified to use equipment.
- Analyze and interpret blueprints, data, manuals, and other materials to determine specifications, inspection and testing procedures, adjustment and certification methods, formulas, and measuring instruments required.
- Analyze test data and make computations as necessary to determine test results.
- Check arriving materials to ensure that they match purchase orders and submit discrepancy reports when problems are found.
- Clean, maintain, repair, and calibrate measuring instruments and test equipment such as dial indicators, fixed gauges, and height gauges.
- Collect or select samples for testing or for use as models.
- Compare colors, shapes, textures, or grades of products or materials with color charts, templates, or samples to verify conformance to standards.
- Compute defect percentages or averages, using formulas and calculators, and prepare reports of inspection or test findings.
- Compute usable amounts of items in shipments and determine prices, based on quantities and grade assessments.
- Disassemble defective parts and components, such as inaccurate or worn gauges and measuring instruments, using

Core Tasks

Generalized Work Activities:

- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
- Identifying Objects, Actions, and Events - Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events.
- 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.
- Evaluating Information to Determine Compliance with Standards - Using relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards.

Specific Tasks

Occupation Specific Tasks:

- Adjust electric current and timing cycles of resistance welding machines to heat metals to bonding temperature.
- Align and clamp workpieces together, using rules, squares, or hand tools, or position items in fixtures, jigs, or vises.
- Brush flux onto joints of workpieces or dip braze rods into flux, to prevent oxidation of metal.
- Clean equipment parts, such as tips of soldering irons, using chemical solutions or cleaning compounds.
- Clean joints of workpieces with wire brushes or by dipping them into cleaning solutions.
- Clean workpieces to remove dirt and excess acid, using chemical solutions, files, wire brushes, or grinders.
- Connect hoses from torches to regulator valves and cylinders of oxygen and specified gas fuels.
- Cut carbon electrodes to specified sizes and shapes, using cutoff saws.
- Dip workpieces into molten solder, or place solder strips between seams and heat seams with irons, to bond items together.
- Examine seams for defects, and rework defective joints or broken parts.
- Grind, cut, buff, or bend edges of workpieces to be joined to ensure snug fit, using power grinders and hand tools.
- Guide torches and rods along joints of workpieces to heat them to brazing temperature, melt braze alloys, and bond workpieces together.



hand tools.

- Discard or reject products, materials, and equipment not meeting specifications.
- Discuss inspection results with those responsible for products, and recommend necessary corrective actions.
- Fabricate, install, position, or connect components, parts, finished products, or instruments for testing or operational purposes.
- Grade, classify, and sort products according to sizes, weights, colors, or other specifications.
- Inspect, test, or measure materials, products, installations, and work for conformance to specifications.
- Interpret legal requirements, provide safety information, and recommend compliance procedures to contractors, craft workers, engineers, and property owners.
- Make minor adjustments to equipment, such as turning setscrews to calibrate instruments to required tolerances.
- Mark items with details such as grade and acceptance or rejection status.
- Measure dimensions of products to verify conformance to specifications, using measuring instruments such as rulers, calipers, gauges, or micrometers.
- Notify supervisors and other personnel of production problems, and assist in identifying and correcting these problems.
- Observe and monitor production operations and equipment to ensure conformance to specifications and make or order necessary process or assembly adjustments.
- Position products, components, or parts for testing, or direct other workers to position them.
- Read dials and meters to verify that equipment is functioning at specified levels.
- Record inspection or test data, such as weights, temperatures, grades, or moisture content, and quantities inspected or graded.
- Remove defects, such as chips and burrs, and lap corroded or pitted surfaces.
- Set controls, start and monitor machines that automatically measure, sort, or inspect products.
- Stack and arrange tested products for further processing, shipping, or packaging and transport products to other work stations as necessary.
- Supervise testing or drilling activities.
- Weigh materials, products, containers, or samples to verify packaging weights and ingredient quantities, or to determine sorting.
- Write test and inspection reports describing results, recommendations, and needed repairs.

Detailed Tasks

workpieces together.

- Heat soldering irons or workpieces to specified temperatures for soldering, using gas flames or electric current.
- Melt and apply solder along adjoining edges of workpieces to solder joints, using soldering irons, gas torches, or electric-ultrasonic equipment.
- Melt and apply solder to fill holes, indentations, and seams of fabricated metal products, using soldering equipment.
- Melt and separate brazed or soldered joints to remove and straighten damaged or misaligned components, using hand torches, irons or furnaces.
- Place solder bars into containers, and turn knobs to specified positions to melt solder and regulate its temperature.
- Remove workpieces from fixtures, using tongs, and cool workpieces, using air or water.
- Remove workpieces from molten solder and hold parts together until color indicates that solder has set.
- Select torch tips, flux, and brazing alloys from data charts or work orders.
- Smooth soldered areas with alternate strokes of paddles and torches, leaving soldered sections slightly higher than surrounding areas for later filing.
- Sweat together workpieces coated with solder.
- Turn dials to set intensity and duration of ultrasonic impulses, according to work order specifications.
- Turn valves to start flow of gases, and light flames and adjust valves to obtain desired colors and sizes of flames.

Detailed Tasks

Detailed Work Activities:

- adjust welding equipment
- apply cleaning solvents
- apply flux to workpiece before soldering or brazing
- braze metal parts or components together
- clean or degrease weld, or parts to be welded or soldered
- examine products or work to verify conformance to specifications
- fabricate, assemble, or disassemble manufactured products by hand
- file, sand, grind, or polish metal or plastic objects
- identify properties of metals for repair or fabrication activities
- load or unload material or workpiece into machinery
- monitor the quantity of assembly output
- move or fit heavy objects
- perform safety inspections in industrial,



Detailed Work Activities:

- adjust production equipment/machinery setup
- attach or mark identification onto products or containers
- collect samples for testing
- communicate technical information
- compare findings with specifications to ensure conformance to standards
- compute product or materials test results
- conduct performance testing
- confer with vendors
- determine specifications
- determine specifications or testing procedures
- direct and coordinate activities of workers or staff
- distinguish colors
- evaluate material specifications
- examine products or work to verify conformance to specifications
- fabricate, assemble, or disassemble manufactured products by hand
- follow manufacturing methods or techniques
- follow statistical process control procedures
- grade, classify, or sort products according to specifications
- inspect manufactured products or materials
- install/connect electrical equipment to power circuit
- load, unload, or stack containers, materials, or products
- maintain consistent production quality
- maintain inspection tools or equipment
- maintain records, reports, or files
- maintain safe work environment
- mark items for acceptance or rejection, according to conformance to specifications
- measure, weigh, or count products or materials
- modify electrical or electronic equipment or products
- monitor production machinery/equipment operation to detect problems
- monitor repairs or maintenance to enforce standards
- move materials or goods between work areas
- operate industrial or nondestructive testing equipment
- operate packaging or banding machine or equipment
- operate pneumatic test equipment
- operate precision test equipment
- package goods for shipment or storage
- perform safety inspections in industrial.

manufacturing or repair setting

- position, clamp or assemble workpiece prior to welding
- preheat metal before welding, brazing, or soldering
- read blueprints
- read production layouts
- read technical drawings
- read work order, instructions, formulas, or processing charts
- sharpen metal objects
- solder metal parts or components together
- understand technical operating, service or repair manuals
- use acetylene welding/cutting torch
- use braze-welding equipment
- use hand or power tools
- use soldering equipment

Technology - Examples

Analytical or scientific software

- Fred's Tip Cartridge Picker
- Value Analysis

Tools - Examples

- Pliers
- Wrenches
- Vises
- Oxyacetylene torches
- Deburring tools
- Desktop computers
- Files
- Brazing equipment
- Hammers
- Clamps
- Heating coils
- Lathes
- Notebook computers
- Jigs
- Potentiometers
- Power grinders
- Cutoff saws



manufacturing or repair setting

- prepare reports
- prepare safety reports
- prepare technical reports or related documentation
- read blueprints
- read production layouts
- read specifications
- read technical drawings
- read work order, instructions, formulas, or processing charts
- recognize characteristics of alloys
- recognize characteristics of metals
- recognize characteristics of pulps
- recognize wood species characteristics
- record test results, test procedures, or inspection data
- sort manufacturing materials or products
- test manufactured products or materials
- understand engineering data or reports
- understand measuring devices
- understand technical operating, service or repair manuals
- use computers to enter, access or retrieve data
- use electrical or electronic test devices or equipment
- use hand or power tools
- use hazardous materials information
- use interpersonal communication techniques
- use knowledge of investigation techniques
- use knowledge of metric system
- use long or short term production planning techniques
- use oral or written communication techniques
- use precision measuring tools or equipment
- use quality assurance techniques
- use research methodology procedures within manufacturing or commerce
- use spreadsheet software
- use technical information in manufacturing or industrial activities
- use x-ray or magnetic inspection techniques

- Waterproof gloves
- Surface contact pyrometers
- Rulers
- Welding lenses
- Hacksaws
- Screwdrivers
- Scribes
- Shears
- Soldering irons
- Squares
- Tape measures
- Templates
- Tin snips
- Tongs
- Tube benders
- Utility knives
- Electrodes
- Welding shields
- Torch tips
- Wire brushes
- Cranes
- Drill presses

Technology - Examples

Analytical or scientific software

- Data analysis software
- Design of experiments DOE software
- Minitab software
- Tolerance analysis software

Computer aided manufacturing CAM software



- Computer-aided inspection software

Industrial control software

- Coordinate measuring machine software
- CyberMetrics GAGETrak Calibration Management Software
- Statistical process control SPC data collection devices
- Wilcox Associates PC-DMIS Inspection Planner

Label making software

- Inspection marking systems

Optical character reader OCR or scanning software

- Label inspection systems

Spreadsheet software

- Microsoft Excel

Word processing software

- Microsoft Word

Tools - Examples

- Accelerometers
- Ammeters
- Industrial bench scales
- Beta gauges
- Measuring microscopes
- Digital resistance meters
- Calipers
- Continuity testers
- Optical comparators
- Compression testers
- Conductivity meters
- Coordinate measuring machines CMM
- Creep and stress relaxation testers
- Depth gauges
- Ductility testers
- Eddy current flaw detectors
- Frequency meters
- Fatigue testers



- Force transducers
- Forklifts
- Frequency counters
- Functional gauges
- Hardness testers
- Height gauges
- Hipot testers
- Hydraulic pumps
- Impact hammers
- Impact toughness testers
- Return loss calibrator RLC passive component testers
- Backplane testers
- Holographic interferometers
- Laser shearography flaw detectors
- Bubble leak testers
- Pulse generators
- Hydraulic lifts
- Penetrant flaw detectors
- Magnetic particle flaw detectors
- Metallurgical microscopes
- Micrometers
- Moisture meters
- Digital multimeters
- Bit error rate BER testers
- Sampling oscilloscopes
- Personal computers
- Plotters
- Direct current DC power testers
- Gloss meters
- Environmental chambers
- Digital thermometers
- Pi tapes



- Shear testers
- Shock testers
- Linear or mixed signal equipment
- Function generators
- Sorting machines
- Color spectrometers
- Strain gauges
- Tensile testers
- Laser thickness gauges
- Thread gauges
- Overhead cranes
- Ultrasonic flaw detectors
- Vibration and shaker systems
- Viscometers
- Digital voltmeters DVM
- Radiographic flaw detectors

Labor Market Comparison

Maine Department of Labor.

Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Solderers and Brazers	Difference
Median Wage	\$ 29,700	\$ 38,030	\$ 8,330
10th Percentile Wage	\$ 19,620	\$ 22,680	\$ 3,060
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 40,300	\$ 46,190	\$ 5,890
90th Percentile Wage	\$ 48,960	\$ 50,780	\$ 1,820
Mean Wage	\$ 31,870	\$ 38,260	\$ 6,390
Total Employment - 2608	1,700	1,610	-90
Employment Base - 2006	1,720	1,691	-29
Projected Employment - 2617	1,473	1,816	343
Projected Job Growth - 2006-2617	-14.4 %	7.4 %	21.8 %
Projected Annual Openings - 2006-2617	26	49	23
Special			



Special Occupations:

National Job Posting Trends

Trend for Inspectors, Testers, Sorters, Samplers, and Weighers and Solderers and Brazers



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

Programs

Related Programs

Welder/Welding Technologist

Welding Technology/Welder. A program that prepares individuals to apply technical knowledge and skills to join or cut metal surfaces. Includes instruction in arc welding, resistance welding, brazing and soldering, cutting, high-energy beam welding and cutting, solid state welding, ferrous and non-ferrous materials, oxidation-reduction reactions, welding metallurgy, welding processes and heat treating, structural design, safety, and applicable codes and standards.

Institution	Address	City	URL
Eastern Maine Community College	354 Hogan Rd	Bangor	www.emcc.edu
Eastern Maine Community College	354 Hogan Rd	Bangor	www.emcc.edu
Eastern Maine Community College	354 Hogan Rd	Bangor	www.emcc.edu
Washington County Community College	One College Drive	Calais	www.wccc.me.edu

Maine Statewide Promotion Opportunities for Inspectors, Testers, Sorters, Samplers, and Weighers

O*NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
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51-9061.00	Inspectors, Testers, Sorters, Samplers, and Weighers	100	2	1,700	\$29,700.00	\$0.00	-14%	26	
51-4121.07	Solderers and Brazers	87	2	1,610	\$38,030.00	\$8,330.00	7%	49	★
51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	85	2	910	\$38,230.00	\$8,530.00	-26%	23	
43-5053.00	Postal Service Mail Sorters, Processors, and Processing Machine Operators	84	2	970	\$41,950.00	\$12,250.00	-12%	10	
51-2021.00	Coil Winders, Tapers, and Finishers	82	2	90	\$31,910.00	\$2,210.00	-53%	1	
43-9031.00	Desktop Publishers	82	3	130	\$32,200.00	\$2,500.00	14%	5	
19-4011.02	Food Science Technicians	82	3	20	\$32,000.00	\$2,300.00	-3%	1	
51-9032.00	Cutting and Slicing Machine Setters, Operators, and Tenders	80	2	710	\$31,350.00	\$1,650.00	-23%	12	
51-5023.00	Printing Machine Operators	79	2	790	\$29,710.00	\$10.00	-3%	18	
43-5061.00	Production, Planning, and Expediting Clerks	79	2	1,320	\$38,490.00	\$8,790.00	-1%	35	
51-5021.00	Job Printers	79	3	140	\$31,890.00	\$2,190.00	-10%	2	



51-9051.00	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	79	2	300	\$32,980.00	\$3,280.00	-18%	9
19-4031.00	Chemical Technicians	78	3	160	\$34,890.00	\$5,190.00	-7%	6
51-4032.00	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	78	2	100	\$33,030.00	\$3,330.00	-22%	2
43-9041.02	Insurance Policy Processing Clerks	78	2	1,810	\$31,380.00	\$1,680.00	-8%	22

Special Occupations:

Top Industries for Solderers and Brazers

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Architectural and structural metals manufacturing	332300	11.33%	46,347	52,658	13.62%
Agriculture, construction, and mining machinery manufacturing	333100	6.36%	26,009	25,834	-0.67%
Self-employed workers, primary job	000601	5.26%	21,505	24,372	13.33%
Motor vehicle body and trailer manufacturing	336200	5.12%	20,924	21,779	4.09%
Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	811300	4.38%	17,916	20,168	12.57%
Other general purpose machinery manufacturing	333900	3.83%	15,672	15,050	-3.97%
Boiler, tank, and shipping container manufacturing	332400	3.10%	12,686	12,161	-4.14%
Motor vehicle parts manufacturing	336300	3.03%	12,410	10,511	-15.31%
Machine shops	332710	3.03%	12,381	10,895	-12.00%
Other fabricated metal product manufacturing	332900	2.73%	11,163	10,522	-5.74%
Employment services	561300	2.58%	10,544	14,196	34.64%
Ship and boat building	336600	2.51%	10,285	12,246	19.07%
Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing	333400	2.39%	9,762	9,553	-2.14%



Nonresidential building construction	236200	2.03%	8,323	9,921	19.20%
Industrial machinery manufacturing	333200	1.31%	5,341	4,655	-12.85%

Top Industries for Inspectors, Testers, Sorters, Samplers, and Weighers

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Employment services	561300	7.50%	36,864	43,994	19.34%
Motor vehicle parts manufacturing	336300	4.66%	22,903	17,193	-24.93%
Plastics product manufacturing	326100	4.23%	20,797	20,787	-0.05%
Semiconductor and other electronic component manufacturing	334400	3.70%	18,159	14,967	-17.58%
Aerospace product and parts manufacturing	336400	3.32%	16,315	15,667	-3.97%
Navigational, measuring, electromedical, and control instruments manufacturing	334500	2.17%	10,680	9,641	-9.72%
Medical equipment and supplies manufacturing	339100	1.87%	9,177	8,852	-3.55%
Pharmaceutical and medicine manufacturing	325400	1.80%	8,824	10,486	18.84%
Animal slaughtering and processing	311600	1.79%	8,815	9,486	7.62%
Other fabricated metal product manufacturing	332900	1.78%	8,731	7,295	-16.45%
Rubber product manufacturing	326200	1.70%	8,331	5,547	-33.41%
Testing laboratories	541380	1.48%	7,249	8,416	16.10%
Self-employed workers, primary job	000601	1.48%	7,279	7,313	0.46%
Foundries	331500	1.45%	7,125	4,872	-31.63%
Printing and related support activities	323100	1.40%	6,856	5,122	-25.29%



TORQ Analysis of Inspectors, Testers, Sorters, Samplers, and Weighers to Team Assemblers

ANALYSIS INPUT					
Transfer	Title	O*NET	Filters		
From Title:	Inspectors, Testers, Sorters, Samplers, and Weighers	51-9061.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Team Assemblers	51-2092.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

TORQ RESULTS											
Grand TORQ:								85			
Ability TORQ			Skills TORQ				Knowledge TORQ				
Level			84	Level			84	Level			
Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt
Control Precision	44	9	53	No Skills Upgrade Required!				No Knowledge Upgrades Required!			
Speech Recognition	41	6	50								
Manual Dexterity	41	4	62								
Speech Clarity	41	4	50								
Arm-Hand Steadiness	39	2	56								
Finger Dexterity	42	1	56								
LEVEL and IMPT (IMPORTANCE) refer to the Target Team Assemblers. GAP refers to level difference between Inspectors, Testers, Sorters, Samplers, and Weighers and Team Assemblers.											

ASK ANALYSIS			
Ability Level Comparison - Abilities with importance scores over 50			
Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Team Assemblers	Importance
Oral Comprehension	53	51	62
Manual Dexterity	37	41	62
Oral Expression	51	48	59
Information Ordering	42	42	56
Arm-Hand Steadiness	37	39	56
Finger Dexterity	41	42	56



Near Vision	50	44	56
Problem Sensitivity	41	41	53
Control Precision	35	44	53
Written Expression	42	37	50
Deductive Reasoning	44	41	50
Speech Recognition	35	41	50
Speech Clarity	37	41	50

Skill Level Comparison - Abilities with importance scores over 69

Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Team Assemblers	Importance
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Knowledge Level Comparison - Knowledge with importance scores over 69

Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Team Assemblers	Importance
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Experience & Education Comparison

Related Work Experience Comparison			Required Education Level Comparison		
Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Team Assemblers	Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Team Assemblers
10+ years	3%	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	12%	0%	Master's Degree	0%	0%
2-4 years	1%	4%	Post-Bachelor Cert	0%	0%
1-2 years	14%	6%	Bachelors	0%	0%
6-12 months	23%	10%	AA or Equiv	3%	0%
3-6 months	3%	2%	Some College	5%	1%
1-3 months	6%	6%	Post-Secondary Certificate	22%	11%
0-1 month	10%	17%	High School Diploma or GED	61%	63%
None	24%	50%	No HSD or GED	7%	22%

Inspectors, Testers, Sorters, Samplers, and Weighers

Team Assemblers

Most Common Educational/Training Requirement:

Moderate-term on-the-job training

Moderate-term on-the-job training

Job Zone Comparison

2 - Job Zone Two: Some Preparation Needed

2 - Job Zone Two: Some Preparation Needed

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.

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 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.

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

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Tasks

Inspectors, Testers, Sorters, Samplers, and Weighers

Core Tasks

Generalized Work Activities:

- Documenting/Recording Information - Entering, transcribing, recording, storing, or maintaining information in written or electronic/magnetic form.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- 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:

- Adjust, clean, or repair products or processing equipment to correct defects found during inspections.
- Administer tests to engineers and operators to assess whether they are qualified to use equipment.
- Analyze and interpret blueprints, data, manuals, and other materials to determine specifications, inspection and testing procedures, adjustment and certification methods, formulas, and measuring instruments required.
- Analyze test data and make computations as necessary to determine test results.
- Check arriving materials to ensure that they match purchase orders and submit discrepancy reports when problems are found.
- Clean, maintain, repair, and calibrate measuring instruments and test equipment such as dial indicators, fixed gauges, and height gauges.
- Collect or select samples for testing or for use as models.
- Compare colors, shapes, textures, or grades of products or materials with color charts, templates, or samples to verify conformance to standards.
- Compute defect percentages or averages, using formulas and calculators, and prepare

Team Assemblers

Core Tasks

Generalized Work Activities:

- Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.
- Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
- Identifying Objects, Actions, and Events - Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events.

Specific Tasks

Occupation Specific Tasks:

- Determine work assignments and procedures.
- Operate heavy equipment such as forklifts.
- Provide assistance in the production of wiring assemblies.
- Rotate through all the tasks required in a particular production process.
- Shovel and sweep work areas.

Detailed Tasks

Detailed Work Activities:

- confer with engineering, technical or manufacturing personnel
- direct and coordinate activities of workers or staff
- examine products or work to verify conformance to specifications
- fabricate, assemble, or disassemble manufactured products by hand
- perform safety inspections in manufacturing or industrial setting
- read work order, instructions, formulas, or processing charts
- use computers to enter, access or retrieve data



reports of inspection or test findings.

- Compute usable amounts of items in shipments and determine prices, based on quantities and grade assessments.
- Disassemble defective parts and components, such as inaccurate or worn gauges and measuring instruments, using hand tools.
- Discard or reject products, materials, and equipment not meeting specifications.
- Discuss inspection results with those responsible for products, and recommend necessary corrective actions.
- Fabricate, install, position, or connect components, parts, finished products, or instruments for testing or operational purposes.
- Grade, classify, and sort products according to sizes, weights, colors, or other specifications.
- Inspect, test, or measure materials, products, installations, and work for conformance to specifications.
- Interpret legal requirements, provide safety information, and recommend compliance procedures to contractors, craft workers, engineers, and property owners.
- Make minor adjustments to equipment, such as turning setscrews to calibrate instruments to required tolerances.
- Mark items with details such as grade and acceptance or rejection status.
- Measure dimensions of products to verify conformance to specifications, using measuring instruments such as rulers, calipers, gauges, or micrometers.
- Notify supervisors and other personnel of production problems, and assist in identifying and correcting these problems.
- Observe and monitor production operations and equipment to ensure conformance to specifications and make or order necessary process or assembly adjustments.
- Position products, components, or parts for testing, or direct other workers to position them.
- Read dials and meters to verify that equipment is functioning at specified levels.
- Record inspection or test data, such as weights, temperatures, grades, or moisture content, and quantities inspected or graded.
- Remove defects, such as chips and burrs, and lap corroded or pitted surfaces.
- Set controls, start and monitor machines that automatically measure, sort, or inspect products.
- Stack and arrange tested products for further processing, shipping, or packaging and transport products to other work stations as necessary.
- Supervise testing or drilling activities.

- use hand or power tools
- work as a team member

Technology - Examples

Computer aided design CAD software

- Computer aided design CAD software

Data base user interface and query software

- Data entry software

Office suite software

- Microsoft Office

Spreadsheet software

- Microsoft Excel
- Spreadsheet software

Word processing software

- Microsoft Word
- Word processing software

Tools - Examples

- Adjustable wrenches
- Bearing installation tools
- Bench vises
- Welding torches
- Dial calipers
- Metal chisels
- Dividers
- Burring tools
- Desktop computers
- Protective ear muffs
- Protective ear plugs
- Engine repair stands
- Fiber reinforced polymer FRP rollers
- Feeler gauges
- Hand files
- Torque angle meters
- Forklifts
- Arc welding equipment



- Weigh materials, products, containers, or samples to verify packaging weights and ingredient quantities, or to determine sorting.
- Write test and inspection reports describing results, recommendations, and needed repairs.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- attach or mark identification onto products or containers
- collect samples for testing
- communicate technical information
- compare findings with specifications to ensure conformance to standards
- compute product or materials test results
- conduct performance testing
- confer with vendors
- determine specifications
- determine specifications or testing procedures
- direct and coordinate activities of workers or staff
- distinguish colors
- evaluate material specifications
- examine products or work to verify conformance to specifications
- fabricate, assemble, or disassemble manufactured products by hand
- follow manufacturing methods or techniques
- follow statistical process control procedures
- grade, classify, or sort products according to specifications
- inspect manufactured products or materials
- install/connect electrical equipment to power circuit
- load, unload, or stack containers, materials, or products
- maintain consistent production quality
- maintain inspection tools or equipment
- maintain records, reports, or files
- maintain safe work environment
- mark items for acceptance or rejection, according to conformance to specifications
- measure, weigh, or count products or materials
- modify electrical or electronic equipment or products
- monitor production machinery/equipment operation to detect problems
- monitor repairs or maintenance to enforce standards
- move materials or goods between work areas

- Dial indicators
- Vacuum bags
- Grinding machines
- Material guiding jigs
- Claw hammers
- Hand clamps
- Heat guns
- Pin protrusion gauges
- Allen wrenches
- Power hoists
- Ring squeezers
- Hydraulic press frames
- Power wrenches
- Heating furnaces
- Threaded insert tools
- Hand jacks
- Heat lamps
- Ladders
- Lathes
- Transits
- Locking pliers
- End milling machines
- Plastic mallets
- Metal inert gas MG welders
- Electrochemical etching devices
- Micrometers
- Computerized numerical control CNC metal-cutting machines
- Milling machines
- Needlenose pliers
- Nut drivers
- Paint application brushes
- Paint application rollers



- operate industrial or nondestructive testing equipment
- operate packaging or banding machine or equipment
- operate pneumatic test equipment
- operate precision test equipment
- package goods for shipment or storage
- perform safety inspections in industrial, manufacturing or repair setting
- prepare reports
- prepare safety reports
- prepare technical reports or related documentation
- read blueprints
- read production layouts
- read specifications
- read technical drawings
- read work order, instructions, formulas, or processing charts
- recognize characteristics of alloys
- recognize characteristics of metals
- recognize characteristics of pulps
- recognize wood species characteristics
- record test results, test procedures, or inspection data
- sort manufacturing materials or products
- test manufactured products or materials
- understand engineering data or reports
- understand measuring devices
- understand technical operating, service or repair manuals
- use computers to enter, access or retrieve data
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- use interpersonal communication techniques
- use knowledge of investigation techniques
- use knowledge of metric system
- use long or short term production planning techniques
- use oral or written communication techniques
- use precision measuring tools or equipment
- use quality assurance techniques
- use research methodology procedures within manufacturing or commerce
- use spreadsheet software
- use technical information in manufacturing or industrial activities
- use x-ray or magnetic inspection techniques

- High-volume low-pressure HVLP spray guns
- Curing ovens
- Assembly robots
- Rotating mandrels
- Tube cutters
- Flame cutters
- Pneumatic drills
- First assembly jigs
- Power chippers
- Cordless drills
- Bench grinders
- Edge planers
- Belt sanders
- Cutoff saws
- Power drivers
- Anti-vibration gloves
- Protractors
- Pry bars
- Gear pullers
- Center punches
- Ratchets
- Line reamers
- Chopper guns
- Respirators
- Snap ring pliers
- Alligator jaw compression riveters
- Steel rules
- Safety glasses
- Scaffolding
- Straight screwdrivers
- Scribes
- Adhesive application robots
- Reversely shears

Technology - Examples

Analytical or scientific software



- Data analysis software
- Design of experiments DOE software
- Minitab software
- Tolerance analysis software

Computer aided manufacturing CAM software

- Computer-aided inspection software

Industrial control software

- Coordinate measuring machine software
- CyberMetrics GAGETrak Calibration Management Software
- Statistical process control SPC data collection devices
- Wilcox Associates PC-DMIS Inspection Planner

Label making software

- Inspection marking systems

Optical character reader OCR or scanning software

- Label inspection systems

Spreadsheet software

- Microsoft Excel

Word processing software

- Microsoft Word

Tools - Examples

- Accelerometers
- Ammeters
- Industrial bench scales
- Beta gauges
- Measuring microscopes
- Digital resistance meters
- Calipers
- Continuity testers
- Optical comparators
- Compression testers
- Conductivity meters
- Coordinate measuring machines CMM
- Creep and stress relaxation testers

- Socket wrenches

- Soldering guns

- Spanner wrenches

- Case wrenches

- Timing lights

- Layout squares

- Squeegees

- Bearing staking tools

- Measuring tapes

- Taps

- Drafting templates

- Tensiometers

- Fuel control wrenches

- Beading tools

- Crimping tools

- Lapping tools

- Tungsten inert gas TIG welding equipment

- Turnbuckles

- Radial drills

- Ultrasonic inspection equipment

- Trimming knives

- Vacuum pumps

- Wedges

- Tack welding equipment

- Welding hoods

- Welding robots

- Spot welding equipment

- Cable cutters

- Jib cranes

- Brakes



- Depth gauges
- Ductility testers
- Eddy current flaw detectors
- Frequency meters
- Fatigue testers
- Force transducers
- Forklifts
- Frequency counters
- Functional gauges
- Hardness testers
- Height gauges
- Hipot testers
- Hydraulic pumps
- Impact hammers
- Impact toughness testers
- Return loss calibrator RLC passive component testers
- Backplane testers
- Holographic interferometers
- Laser shearography flaw detectors
- Bubble leak testers
- Pulse generators
- Hydraulic lifts
- Penetrant flaw detectors
- Magnetic particle flaw detectors
- Metallurgical microscopes
- Micrometers
- Moisture meters
- Digital multimeters
- Bit error rate BER testers
- Sampling oscilloscopes
- Personal computers
- Plotters



- Direct current DC power testers
- Gloss meters
- Environmental chambers
- Digital thermometers
- Pi tapes
- Shear testers
- Shock testers
- Linear or mixed signal equipment
- Function generators
- Sorting machines
- Color spectrometers
- Strain gauges
- Tensile testers
- Laser thickness gauges
- Thread gauges
- Overhead cranes
- Ultrasonic flaw detectors
- Vibration and shaker systems
- Viscometers
- Digital voltmeters DVM
- Radiographic flaw detectors

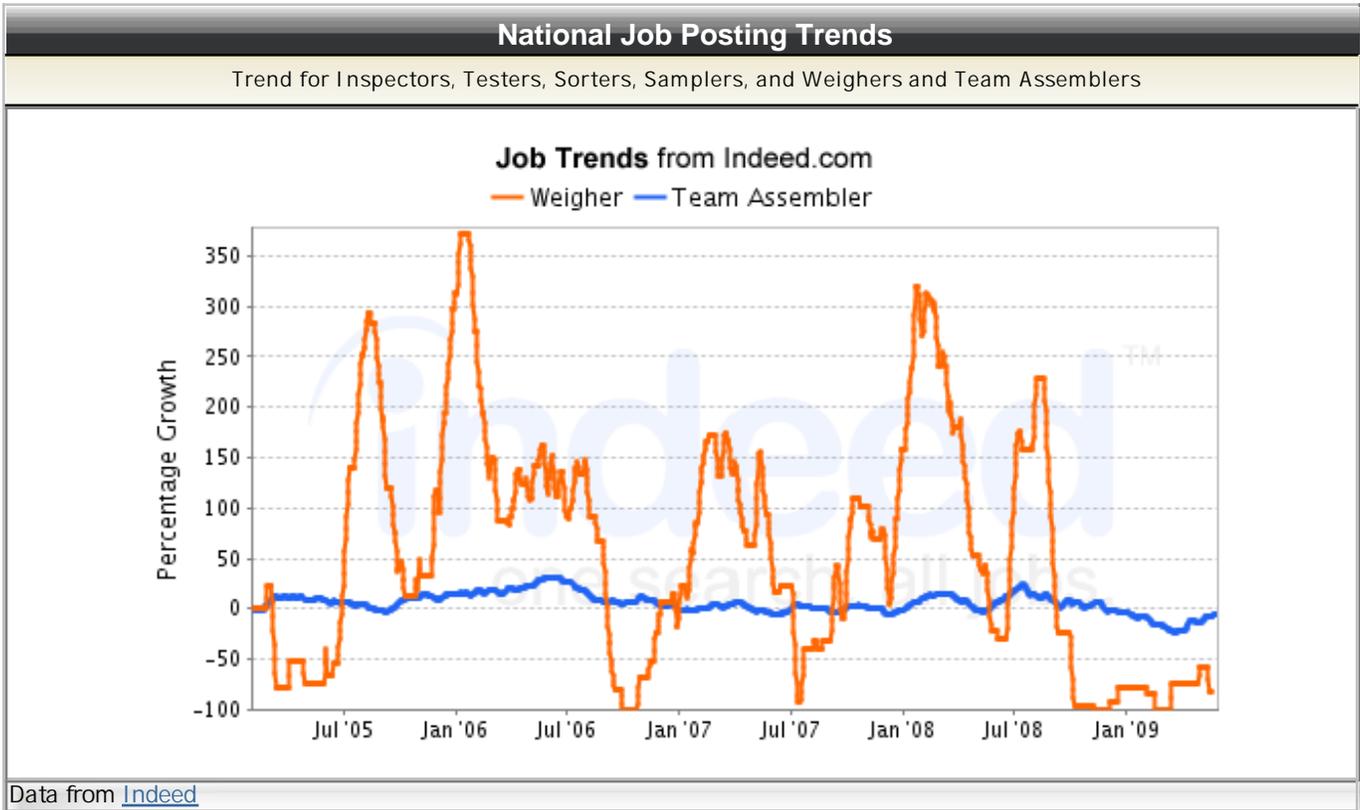
Labor Market Comparison

Maine Department of Labor.

Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Team Assemblers	Difference
Median Wage	\$ 29,700	\$ 23,730	\$(5,970)
10th Percentile Wage	\$ 19,620	\$ 18,550	\$(1,070)
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 40,300	\$ 28,380	\$(11,920)
90th Percentile Wage	\$ 48,960	\$ 32,810	\$(16,150)
Mean Wage	\$ 31,870	\$ 25,040	\$(6,830)
Total Employment - 2608	1,700	3,850	2,150



Employment Base - 2006	1,720	3,958	2,238
Projected Employment - 2617	1,473	3,691	2,218
Projected Job Growth - 2006-2617	-14.4 %	-6.7 %	7.6 %
Projected Annual Openings - 2006-2617	26	82	56
Special			
Special Occupations:			



Programs			
Related Programs			
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
Shoe, Boot and Leather Repairer			



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

No information on schools for the program

Window Treatment Maker and Installer

Electromechanical Technology/Electromechanical Engineering Technology. A program that prepares individuals to apply basic engineering principles and technical skills in support of engineers engaged in developing and testing automated, servomechanical, and other electromechanical systems. Includes instruction in prototype testing, manufacturing and operational testing, systems analysis and maintenance procedures, and report preparation.

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

Maine Statewide Promotion Opportunities for Inspectors, Testers, Sorters, Samplers, and Weighers

O*NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
51-9061.00	Inspectors, Testers, Sorters, Samplers, and Weighers	100	2	1,700	\$29,700.00	\$0.00	-14%	26	
51-4121.07	Solderers and Brazers	87	2	1,610	\$38,030.00	\$8,330.00	7%	49	★
51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	85	2	910	\$38,230.00	\$8,530.00	-26%	23	
43-5053.00	Postal Service Mail Sorters, Processors, and Processing Machine Operators	84	2	970	\$41,950.00	\$12,250.00	-12%	10	
51-2021.00	Coil Winders, Tapers, and Finishers	82	2	90	\$31,910.00	\$2,210.00	-53%	1	
43-9031.00	Desktop Publishers	82	3	130	\$32,200.00	\$2,500.00	14%	5	



19-4011.02	Food Science Technicians	82	3	20	\$32,000.00	\$2,300.00	-3%	1
51-9032.00	Cutting and Slicing Machine Setters, Operators, and Tenders	80	2	710	\$31,350.00	\$1,650.00	-23%	12
51-5023.00	Printing Machine Operators	79	2	790	\$29,710.00	\$10.00	-3%	18
43-5061.00	Production, Planning, and Expediting Clerks	79	2	1,320	\$38,490.00	\$8,790.00	-1%	35
51-5021.00	Job Printers	79	3	140	\$31,890.00	\$2,190.00	-10%	2
51-9051.00	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	79	2	300	\$32,980.00	\$3,280.00	-18%	9
19-4031.00	Chemical Technicians	78	3	160	\$34,890.00	\$5,190.00	-7%	6
51-4032.00	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	78	2	100	\$33,030.00	\$3,330.00	-22%	2
43-9041.02	Insurance Policy Processing Clerks	78	2	1,810	\$31,380.00	\$1,680.00	-8%	22

Special Occupations:

Top Industries for Team Assemblers

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Employment services	561300	15.68%	199,847	252,932	26.56%
Motor vehicle parts manufacturing	336300	7.79%	99,321	80,278	-19.17%
Motor vehicle manufacturing	336100	4.50%	57,395	57,191	-0.35%



Other wood product manufacturing	321900	3.65%	46,477	43,797	-5.77%
Motor vehicle body and trailer manufacturing	336200	3.47%	44,237	44,350	0.25%
Plastics product manufacturing	326100	3.40%	43,379	45,983	6.00%
Architectural and structural metals manufacturing	332300	2.80%	35,620	38,043	6.80%
Medical equipment and supplies manufacturing	339100	2.66%	33,860	34,635	2.29%
Other fabricated metal product manufacturing	332900	2.47%	31,442	27,859	-11.39%
Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing	333400	2.41%	30,715	28,255	-8.01%
Other general purpose machinery manufacturing	333900	2.36%	30,035	27,113	-9.73%
Navigational, measuring, electromedical, and control instruments manufacturing	334500	1.84%	23,417	22,419	-4.26%
Agriculture, construction, and mining machinery manufacturing	333100	1.79%	22,809	21,297	-6.63%
Household appliance manufacturing	335200	1.65%	21,088	15,957	-24.33%
Semiconductor and other electronic component manufacturing	334400	1.65%	21,011	18,365	-12.59%

Top Industries for Inspectors, Testers, Sorters, Samplers, and Weighers

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Employment services	561300	7.50%	36,864	43,994	19.34%
Motor vehicle parts manufacturing	336300	4.66%	22,903	17,193	-24.93%
Plastics product manufacturing	326100	4.23%	20,797	20,787	-0.05%
Semiconductor and other electronic component manufacturing	334400	3.70%	18,159	14,967	-17.58%
Aerospace product and parts manufacturing	336400	3.32%	16,315	15,667	-3.97%
Navigational, measuring, electromedical, and control instruments manufacturing	334500	2.17%	10,680	9,641	-9.72%
Medical equipment and supplies manufacturing	339100	1.87%	9,177	8,852	-3.55%
Pharmaceutical and medicine manufacturing	325400	1.80%	8,824	10,486	18.84%
Animal slaughtering and processing	311600	1.79%	8,815	9,486	7.62%
Other fabricated metal product manufacturing	332900	1.78%	8,731	7,295	-16.45%
Rubber product manufacturing	326200	1.70%	8,331	5,547	-33.41%
Testing laboratories	541380	1.48%	7,249	8,416	16.10%
Self-employed workers, primary job	000601	1.48%	7,279	7,313	0.46%
Foundries	331500	1.45%	7,125	4,872	-31.63%
Printing and related support activities	323100	1.40%	6,856	5,122	-25.29%



TORQ Analysis of Inspectors, Testers, Sorters, Samplers, and Weighers to Sewing Machine Operators

ANALYSIS INPUT					
Transfer	Title	O*NET	Filters		
From Title:	Inspectors, Testers, Sorters, Samplers, and Weighers	51-9061.00	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:					85						
Ability TORQ		Skills TORQ			Knowledge TORQ						
Level	77	Level	88	Level	89						
Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt
Rate Control	39	16	59	No Skills Upgrade Required!				No Knowledge Upgrades Required!			
Arm-Hand Steadiness	51	14	65								
Visual Color Discrimination	46	11	56								
Control Precision	42	7	62								
Multilimb Coordination	37	7	53								
Manual Dexterity	42	5	62								
Finger Dexterity	44	3	56								
<p>LEVEL and IMPT (IMPORTANCE) refer to the Target Sewing Machine Operators. GAP refers to level difference between Inspectors, Testers, Sorters, Samplers, and Weighers and Sewing Machine Operators.</p>											

ASK ANALYSIS			
Ability Level Comparison - Abilities with importance scores over 50			
Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Sewing Machine Operators	Importance
Arm-Hand Steadiness	37	51	65
Manual Dexterity	37	42	62
Control Precision	35	42	62
Rate Control	23	39	59
Information Ordering	42	37	56



Finger Dexterity	41	44	56
Near Vision	50	48	56
Visual Color Discrimination	35	46	56
Problem Sensitivity	41	39	53
Multilimb Coordination	30	37	53
Deductive Reasoning	44	35	50
Visualization	39	39	50
Skill Level Comparison - Abilities with importance scores over 69			
Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Sewing Machine Operators	Importance
Knowledge Level Comparison - Knowledge with importance scores over 69			
Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Sewing Machine Operators	Importance

Experience & Education Comparison					
Related Work Experience Comparison			Required Education Level Comparison		
Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Sewing Machine Operators	Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Sewing Machine Operators
10+ years	3%	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	12%	8%	Master's Degree	0%	0%
2-4 years	1%	13%	Post-Bachelor Cert	0%	0%
1-2 years	14%	9%	Bachelors	0%	2%
6-12 months	23%	11%	AA or Equiv	3%	0%
3-6 months	3%	0%	Some College	5%	8%
1-3 months	6%	5%	Post-Secondary Certificate	22%	2%
0-1 month	10%	0%	High School Diploma or GED	61%	12%
None	24%	51%	No HSD or GED	7%	73%
Inspectors, Testers, Sorters, Samplers, and Weighers			Sewing Machine Operators		
Most Common Educational/Training Requirement:					
Moderate-term on-the-job training			Moderate-term on-the-job training		
Job Zone Comparison					
2 - Job Zone Two: Some Preparation Needed			1 - Job Zone One: Little or No Preparation Needed		
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.			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 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.

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 months to one year of working with experienced employees.

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

Inspectors, Testers, Sorters, Samplers, and Weighers

Core Tasks

Generalized Work Activities:

- Documenting/Recording Information - Entering, transcribing, recording, storing, or maintaining information in written or electronic/magnetic form.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- 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:

- Adjust, clean, or repair products or processing equipment to correct defects found during inspections.
- Administer tests to engineers and operators to assess whether they are qualified to use equipment.
- Analyze and interpret blueprints, data, manuals, and other materials to determine specifications, inspection and testing procedures, adjustment and certification methods, formulas, and measuring instruments required.
- Analyze test data and make computations as necessary to determine test results.
- Check arriving materials to ensure that they match purchase orders and submit discrepancy reports when problems are found.
- Clean, maintain, repair, and calibrate measuring instruments and test equipment such as dial indicators, fixed gauges, and height gauges.
- Collect or select samples for testing or for use as models.
- Compare colors, shapes, textures, or grades

Sewing Machine Operators

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



of products or materials with color charts, templates, or samples to verify conformance to standards.

- Compute defect percentages or averages, using formulas and calculators, and prepare reports of inspection or test findings.
- Compute usable amounts of items in shipments and determine prices, based on quantities and grade assessments.
- Disassemble defective parts and components, such as inaccurate or worn gauges and measuring instruments, using hand tools.
- Discard or reject products, materials, and equipment not meeting specifications.
- Discuss inspection results with those responsible for products, and recommend necessary corrective actions.
- Fabricate, install, position, or connect components, parts, finished products, or instruments for testing or operational purposes.
- Grade, classify, and sort products according to sizes, weights, colors, or other specifications.
- Inspect, test, or measure materials, products, installations, and work for conformance to specifications.
- Interpret legal requirements, provide safety information, and recommend compliance procedures to contractors, craft workers, engineers, and property owners.
- Make minor adjustments to equipment, such as turning setscrews to calibrate instruments to required tolerances.
- Mark items with details such as grade and acceptance or rejection status.
- Measure dimensions of products to verify conformance to specifications, using measuring instruments such as rulers, calipers, gauges, or micrometers.
- Notify supervisors and other personnel of production problems, and assist in identifying and correcting these problems.
- Observe and monitor production operations and equipment to ensure conformance to specifications and make or order necessary process or assembly adjustments.
- Position products, components, or parts for testing, or direct other workers to position them.
- Read dials and meters to verify that equipment is functioning at specified levels.
- Record inspection or test data, such as weights, temperatures, grades, or moisture content, and quantities inspected or graded.
- Remove defects, such as chips and burrs, and lap corroded or pitted surfaces.
- Set controls, start and monitor machines that automatically measure, sort, or inspect products.
- Stack and arrange tested products for further processing, shipping, or packaging and transport products to other work

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.
- 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



and transport products to other work stations as necessary.

- Supervise testing or drilling activities.
- Weigh materials, products, containers, or samples to verify packaging weights and ingredient quantities, or to determine sorting.
- Write test and inspection reports describing results, recommendations, and needed repairs.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- attach or mark identification onto products or containers
- collect samples for testing
- communicate technical information
- compare findings with specifications to ensure conformance to standards
- compute product or materials test results
- conduct performance testing
- confer with vendors
- determine specifications
- determine specifications or testing procedures
- direct and coordinate activities of workers or staff
- distinguish colors
- evaluate material specifications
- examine products or work to verify conformance to specifications
- fabricate, assemble, or disassemble manufactured products by hand
- follow manufacturing methods or techniques
- follow statistical process control procedures
- grade, classify, or sort products according to specifications
- inspect manufactured products or materials
- install/connect electrical equipment to power circuit
- load, unload, or stack containers, materials, or products
- maintain consistent production quality
- maintain inspection tools or equipment
- maintain records, reports, or files
- maintain safe work environment
- mark items for acceptance or rejection, according to conformance to specifications
- measure, weigh, or count products or materials
- modify electrical or electronic equipment or products
- monitor production machinery/equipment operation to detect problems
- monitor repairs or maintenance to enforce

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

Technology - Examples



standards

- move materials or goods between work areas
- operate industrial or nondestructive testing equipment
- operate packaging or banding machine or equipment
- operate pneumatic test equipment
- operate precision test equipment
- package goods for shipment or storage
- perform safety inspections in industrial, manufacturing or repair setting
- prepare reports
- prepare safety reports
- prepare technical reports or related documentation
- read blueprints
- read production layouts
- read specifications
- read technical drawings
- read work order, instructions, formulas, or processing charts
- recognize characteristics of alloys
- recognize characteristics of metals
- recognize characteristics of pulps
- recognize wood species characteristics
- record test results, test procedures, or inspection data
- sort manufacturing materials or products
- test manufactured products or materials
- understand engineering data or reports
- understand measuring devices
- understand technical operating, service or repair manuals
- use computers to enter, access or retrieve data
- use electrical or electronic test devices or equipment
- use hand or power tools
- use hazardous materials information
- use interpersonal communication techniques
- use knowledge of investigation techniques
- use knowledge of metric system
- use long or short term production planning techniques
- use oral or written communication techniques
- use precision measuring tools or equipment
- use quality assurance techniques
- use research methodology procedures within manufacturing or commerce
- use spreadsheet software
- use technical information in manufacturing or industrial activities
- use x-ray or magnetic inspection techniques



Technology - Examples

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- Return loss calibrator RLC passive component testers
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- Magnetic particle flaw detectors
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- Micrometers
- Moisture meters
- Digital multimeters
- Bit error rate BER testers
- Sampling oscilloscopes
- Personal computers



- Plotters
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- Gloss meters
- Environmental chambers
- Digital thermometers
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- Linear or mixed signal equipment
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- Thread gauges
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- Vibration and shaker systems
- Viscometers
- Digital voltmeters DVM
- Radiographic flaw detectors

Labor Market Comparison

Maine Department of Labor.

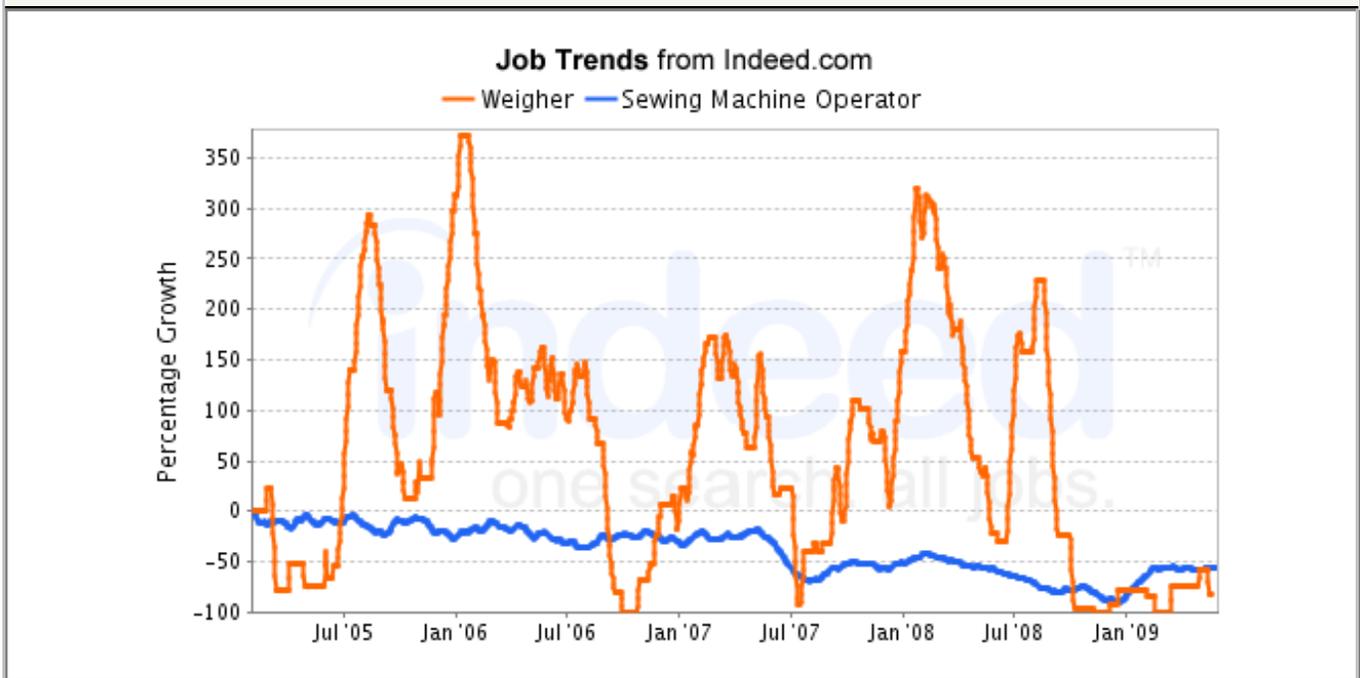
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Employment Base - 2006	1,720	1,077	-643
Projected Employment - 2617	1,473	990	-483
Projected Job Growth - 2006-2617	-14.4 %	-8.1 %	6.3 %
Projected Annual Openings - 2006-2617	26	10	-16
Special			
Special Occupations:			

National Job Posting Trends

Trend for Inspectors, Testers, Sorters, Samplers, and Weighers and Sewing Machine Operators



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

Programs

No information on programs or the occupation.

Maine Statewide Promotion Opportunities for Inspectors, Testers, Sorters, Samplers, and Weighers

O*NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
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51-9061.00	Inspectors, Testers, Sorters, Samplers, and Weighers	100	2	1,700	\$29,700.00	\$0.00	-14%	26	
51-4121.07	Solderers and Brazers	87	2	1,610	\$38,030.00	\$8,330.00	7%	49	
51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	85	2	910	\$38,230.00	\$8,530.00	-26%	23	
43-5053.00	Postal Service Mail Sorters, Processors, and Processing Machine Operators	84	2	970	\$41,950.00	\$12,250.00	-12%	10	
51-2021.00	Coil Winders, Tapers, and Finishers	82	2	90	\$31,910.00	\$2,210.00	-53%	1	
43-9031.00	Desktop Publishers	82	3	130	\$32,200.00	\$2,500.00	14%	5	
19-4011.02	Food Science Technicians	82	3	20	\$32,000.00	\$2,300.00	-3%	1	
51-9032.00	Cutting and Slicing Machine Setters, Operators, and Tenders	80	2	710	\$31,350.00	\$1,650.00	-23%	12	
51-5023.00	Printing Machine Operators	79	2	790	\$29,710.00	\$10.00	-3%	18	
43-5061.00	Production, Planning, and Expediting Clerks	79	2	1,320	\$38,490.00	\$8,790.00	-1%	35	
51-5021.00	Job Printers	79	3	140	\$31,890.00	\$2,190.00	-10%	2	



51-9051.00	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	79	2	300	\$32,980.00	\$3,280.00	-18%	9
19-4031.00	Chemical Technicians	78	3	160	\$34,890.00	\$5,190.00	-7%	6
51-4032.00	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	78	2	100	\$33,030.00	\$3,330.00	-22%	2
43-9041.02	Insurance Policy Processing Clerks	78	2	1,810	\$31,380.00	\$1,680.00	-8%	22

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%
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Top Industries for Inspectors, Testers, Sorters, Samplers, and Weighers

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Employment services	561300	7.50%	36,864	43,994	19.34%
Motor vehicle parts manufacturing	336300	4.66%	22,903	17,193	-24.93%
Plastics product manufacturing	326100	4.23%	20,797	20,787	-0.05%
Semiconductor and other electronic component manufacturing	334400	3.70%	18,159	14,967	-17.58%
Aerospace product and parts manufacturing	336400	3.32%	16,315	15,667	-3.97%
Navigational, measuring, electromedical, and control instruments manufacturing	334500	2.17%	10,680	9,641	-9.72%
Medical equipment and supplies manufacturing	339100	1.87%	9,177	8,852	-3.55%
Pharmaceutical and medicine manufacturing	325400	1.80%	8,824	10,486	18.84%
Animal slaughtering and processing	311600	1.79%	8,815	9,486	7.62%
Other fabricated metal product manufacturing	332900	1.78%	8,731	7,295	-16.45%
Rubber product manufacturing	326200	1.70%	8,331	5,547	-33.41%
Testing laboratories	541380	1.48%	7,249	8,416	16.10%
Self-employed workers, primary job	000601	1.48%	7,279	7,313	0.46%
Foundries	331500	1.45%	7,125	4,872	-31.63%
Printing and related support activities	323100	1.40%	6,856	5,122	-25.29%

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)