



# TORQ Analysis of First-Line Supervisors/Managers of Mechanics, Installers, and Repairers to First-Line Supervisors/Managers of Construction Trades and Extraction Workers

ANALYSIS INPUT					
Transfer	Title	O*NET	Filters		
From Title:	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	49-1011.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	47-1011.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

TORQ RESULTS							
Grand TORQ:					92		
Ability TORQ		Skills TORQ		Knowledge TORQ			
Level	96	Level	91	Level	90		
Gaps To Narrow if Possible			Upgrade These Skills		Knowledge to Add		
Ability	Level	Gap	Imp	Skill	Level	Gap	Imp
No Critical Gaps Recorded!				Judgment and Decision Making	73	6	78
				Mathematics	66	5	71
Mathematics		Level	Gap	Imp			
		66	19	72			

LEVEL and IMPT (IMPORTANCE) refer to the Target First-Line Supervisors/Managers of Construction Trades and Extraction Workers. GAP refers to level difference between First-Line Supervisors/Managers of Mechanics, Installers, and Repairers and First-Line Supervisors/Managers of Construction Trades and Extraction Workers.

ASK ANALYSIS			
Ability Level Comparison - Abilities with importance scores over 50			
Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	Importance
Oral Comprehension	60	53	78
Oral Expression	66	55	75
Problem Sensitivity	60	48	75
Deductive Reasoning	60	50	65
Inductive Reasoning	57	44	65
Near Vision	55	48	65
Written Expression	51	48	62
Information Ordering	55	44	62
Written Comprehension	60	51	59
Selective Attention	51	42	59
Speech Recognition	53	39	59



Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	Importance
Speech Clarity	53	44	59
Visualization	59	48	56
Fluency of Ideas	48	42	53
Category Flexibility	53	42	53
Originality	53	42	50
Number Facility	44	41	50
Flexibility of Closure	50	37	50
Perceptual Speed	46	41	50
Skill Level Comparison - Abilities with importance scores over 69			
Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	Importance
Judgment and Decision Making	67	73	78
Mathematics	61	66	71
Knowledge Level Comparison - Knowledge with importance scores over 69			
Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	Importance
Mathematics	47	66	72

Experience & Education Comparison					
Related Work Experience Comparison			Required Education Level Comparison		
Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	First-Line Supervisors/Managers of Construction Trades and Extraction Workers
10+ years	22%	10%	Doctoral	0%	0%
8-10 years	8%	7%	Professional Degree	0%	0%
6-8 years	7%	8%	Post-Masters Cert	0%	0%
4-6 years	17%	14%	Master's Degree	7%	0%
2-4 years	19%	30%	Post-Bachelor Cert	0%	0%
1-2 years	16%	5%	Bachelors	11%	9%
6-12 months	6%	6%	AA or Equiv	29%	11%
3-6 months	0%	0%	Some College	5%	8%
1-3 months	0%	0%	Post-Secondary Certificate	33%	9%
0-1 month	0%	0%	High School Diploma or GED	10%	54%
None	1%	16%	No HSD or GED	0%	6%
First-Line Supervisors/Managers of Mechanics, Installers, and Repairers			First-Line Supervisors/Managers of Construction Trades and Extraction Workers		
Most Common Educational/Training Requirement:					
Work experience in a related occupation			Work experience in a related occupation		
Job Zone Comparison					
4 - Job Zone Four: Considerable Preparation Needed			3 - Job Zone Three: Medium Preparation Needed		



<p>A minimum of two to four years of work-related skill, knowledge, or experience is needed for these occupations. For example, an accountant must complete four years of college and work for several years in accounting to be considered qualified.</p>	<p>Previous work-related skill, knowledge, or experience is required for these occupations. For example, an electrician must have completed three or four years of apprenticeship or several years of vocational training, and often must have passed a licensing exam, in order to perform the job.</p>
<p>Most of these occupations require a four - year bachelor's degree, but some do not.</p>	<p>Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree. Some may require a bachelor's degree.</p>
<p>Employees in these occupations usually need several years of work-related experience, on-the-job training, and/or vocational training.</p>	<p>Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers.</p>

## Tasks

First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	First-Line Supervisors/Managers of Construction Trades and Extraction Workers
<p style="background-color: #e0e0e0; margin: 0; padding: 2px;">Core Tasks</p> <p>Generalized Work Activities:</p> <ul style="list-style-type: none"> <li>• Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.</li> <li>• Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.</li> <li>• Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.</li> <li>• Making Decisions and Solving Problems - Analyzing information and evaluating results to choose the best solution and solve problems.</li> <li>• Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.</li> </ul>	<p style="background-color: #e0e0e0; margin: 0; padding: 2px;">Core Tasks</p> <p>Generalized Work Activities:</p> <ul style="list-style-type: none"> <li>• Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.</li> <li>• Making Decisions and Solving Problems - Analyzing information and evaluating results to choose the best solution and solve problems.</li> <li>• Organizing, Planning, and Prioritizing Work - Developing specific goals and plans to prioritize, organize, and accomplish your work.</li> <li>• Coordinating the Work and Activities of Others- Getting members of a group to work together to accomplish tasks.</li> <li>• Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.</li> </ul>
<p style="background-color: #e0e0e0; margin: 0; padding: 2px;">Specific Tasks</p> <p>Occupation Specific Tasks:</p> <ul style="list-style-type: none"> <li>• Compile operational and personnel records, such as time and production records, inventory data, repair and maintenance statistics, and test results.</li> <li>• Compute estimates and actual costs of factors such as materials, labor, and outside contractors.</li> <li>• Conduct or arrange for worker training in safety, repair, and maintenance techniques, operational procedures, or equipment use.</li> <li>• Confer with personnel, such as management, engineering, quality control, customer, and union workers' representatives, to coordinate work activities, resolve employee grievances, and identify and review resource needs.</li> <li>• Counsel employees about work-related issues and assist employees to correct job-skill deficiencies.</li> <li>• Design equipment configurations to meet personnel needs.</li> <li>• Determine schedules, sequences, and assignments for work activities, based on</li> </ul>	<p style="background-color: #e0e0e0; margin: 0; padding: 2px;">Specific Tasks</p> <p>Occupation Specific Tasks:</p> <ul style="list-style-type: none"> <li>• Analyze worker and production problems and recommend solutions, such as improving production methods or implementing motivational plans.</li> <li>• Arrange for repairs of equipment and machinery.</li> <li>• Assign work to employees, based on material and worker requirements of specific jobs.</li> <li>• Confer with managerial and technical personnel, other departments, and contractors in order to resolve problems and to coordinate activities.</li> <li>• Coordinate work activities with other construction project activities.</li> <li>• Estimate material and worker requirements to complete jobs.</li> <li>• Examine and inspect work progress, equipment, and construction sites to verify safety and to ensure that specifications are met.</li> <li>• Locate, measure, and mark site locations and placement of structures and equipment, using measuring and marking equipment.</li> </ul>



work priority, quantity of equipment and skill of personnel.

- Develop and implement electronic maintenance programs and computer information management systems.
- Develop, implement, and evaluate maintenance policies and procedures.
- Examine objects, systems, or facilities, and analyze information to determine needed installations, services, or repairs.
- Inspect, test, and measure completed work, using devices such as hand tools and gauges to verify conformance to standards and repair requirements.
- Interpret specifications, blueprints, and job orders to construct templates and lay out reference points for workers.
- Investigate accidents and injuries, and prepare reports of findings.
- Meet with vendors and suppliers to discuss products used in repair work.
- Monitor employees' work levels and review work performance.
- Monitor tool inventories and the condition and maintenance of shops in order to ensure adequate working conditions.
- Participate in budget preparation and administration, coordinating purchasing and documentation, and monitoring departmental expenditures.
- Patrol and monitor work areas and examine tools and equipment in order to detect unsafe conditions or violations of procedures or safety rules.
- Perform skilled repair and maintenance operations, using equipment such as hand and power tools, hydraulic presses and shears, and welding equipment.
- Recommend or initiate personnel actions, such as hires, promotions, transfers, discharges, and disciplinary measures.
- Requisition materials and supplies, such as tools, equipment, and replacement parts.

Detailed Tasks

Detailed Work Activities:

- assign work to staff or employees
- conduct or attend staff meetings
- conduct training for personnel
- confer with customer representatives
- confer with engineering, technical or manufacturing personnel
- consult with managerial or supervisory personnel
- coordinate equipment or personnel in mechanical repair setting
- demonstrate or explain assembly or use of equipment
- determine installation, service, or repair needed
- develop budgets

- Order or requisition materials and supplies.
- Provide assistance to workers engaged in construction or extraction activities, using hand tools and equipment.
- Read specifications such as blueprints to determine construction requirements and to plan procedures.
- Record information such as personnel, production, and operational data on specified forms and reports.
- Suggest or initiate personnel actions such as promotions, transfers, and hires.
- Supervise, coordinate, and schedule the activities of construction or extractive workers.
- Train workers in construction methods, operation of equipment, safety procedures, and company policies.

Detailed Tasks

Detailed Work Activities:

- analyze organizational operating practices or procedures
- assign work to staff or employees
- conduct or attend staff meetings
- conduct training for personnel
- coordinate through subordinate supervisory personnel
- demonstrate or explain assembly or use of equipment
- develop staffing plan
- dictate correspondence
- direct and coordinate activities of workers or staff
- direct and coordinate construction of mine shafts or tunnels
- direct and coordinate mining operations
- establish employee performance standards
- estimate materials or labor requirements
- hire, discharge, transfer, or promote workers
- inspect project operations, or site to determine specification compliance
- maintain file of job openings
- maintain inventory of office equipment or furniture
- maintain job descriptions
- maintain production or work records
- monitor worker performance
- motivate workers to achieve work goals
- order or purchase supplies, materials, or equipment
- orient new employees
- oversee work progress to verify safety or conformance to standards
- perform safety inspections in construction or resource extraction setting
- plan construction of structures or facilities
- plan meetings or conferences



- develop maintenance schedules
- develop policies, procedures, methods, or standards
- develop staffing plan
- diagnose mechanical problems in machinery or equipment
- direct and coordinate activities of workers or staff
- discipline staff for infractions of rules or regulations
- establish employee performance standards
- estimate cost for repair services
- estimate materials or labor requirements
- evaluate performance of employees or contract personnel
- examine products or work to verify conformance to specifications
- hire, discharge, transfer, or promote workers
- inspect facilities to determine repair or replacement needs
- inspect machinery or equipment to determine adjustments or repairs needed
- modify work procedures or processes to meet deadlines
- monitor operations to verify conformance to standards
- monitor worker performance
- orient new employees
- oversee work progress to verify safety or conformance to standards
- perform safety inspections in manufacturing or industrial setting
- prepare or maintain employee records
- prepare reports
- read blueprints
- read schematics
- read specifications
- read technical drawings
- read work order, instructions, formulas, or processing charts
- recommend improvements to work methods or procedures
- recommend personnel actions, such as promotions, transfers, and dismissals
- recommend purchase or repair of furnishings or equipment
- requisition stock, materials, supplies or equipment
- resolve or assist workers to resolve work problems
- understand service or repair manuals
- understand technical operating, service or repair manuals

Technology - Examples

Accounting software

- plan or organize work
- prepare or maintain employee records
- prepare reports
- prepare safety reports
- read blueprints
- read specifications
- read tape measure
- read technical drawings
- read work order, instructions, formulas, or processing charts
- recommend improvements to work methods or procedures
- recommend personnel actions, such as promotions, transfers, and dismissals
- recommend purchase or repair of furnishings or equipment
- resolve or assist workers to resolve work problems
- resolve personnel problems or grievances
- schedule employee work hours
- set priorities for construction workers
- understand construction specifications
- use hand or power tools
- write employee orientation or training materials

Technology - Examples

Calendar and scheduling software

- FranklinCovey TabletPlanner
- Scheduling software

Computer aided design CAD software

- Autodesk AutoCAD software

Data base user interface and query software

- Data entry software
- M-Co M-Forms Client

Document management software

- Adobe Systems Adobe Acrobat software

Electronic mail software

- Microsoft Outlook

Facilities management software

- Facilities management software

Graphics or photo imaging software

- Graphics software

Inventory management software

- Inventory tracking software

Office suite software

- Microsoft Office



- Cost accounting software
- Calendar and scheduling software
  - Scheduling software
- Data base user interface and query software
  - Database software
  - Microsoft Access
  - Vehicle management software
- Electronic mail software
  - Email software
  - Microsoft Outlook
- Enterprise resource planning ERP software
  - Infor Syteline ERP
  - SAP software
  - WorkTech MAXIMO
- Facilities management software
  - Computerized maintenance management system CMMS software
  - Maintenance management software
- Industrial control software
  - Programmable logic controller PLC software
- Internet browser software
  - Internet browser software
  - Microsoft Internet Explorer
- Inventory management software
  - Automated inventory software
  - Inventory management software
- Office suite software
  - Microsoft Office
- Project management software
  - Recordkeeping software
- Spreadsheet software
  - Microsoft Excel
  - Spreadsheet software
- Time accounting software
  - Payroll software
- Word processing software
  - Microsoft Word
  - Word processing software

- Presentation software
  - Microsoft PowerPoint
- Project management software
  - Intuit QuickBase Project Management
  - Microsoft Project
  - Primavera Systems SureTrak Project Manager
  - Sage Timberline Office software
- Spreadsheet software
  - Microsoft Excel
- Video conferencing software
  - Microsoft NetMeeting
- Word processing software
  - Microsoft Word

Tools - Examples

- Insulated adjustable widemouth pliers
- Adjustable wrenches
- Air compressors
- Ammeters
- Backhoes
- Bench vises
- Biscuit joiners
- Blasting machines
- Caulking guns
- Chalk lines
- Clamp-on meters
- Steel chisels
- Concrete mixers
- Screeds
- Desktop computers
- Detonators
- Digital cameras
- Dump trucks
- Protective ear muffs
- Protective ear plugs



Tools - Examples

- Desktop computers
- Laser printers
- Mainframe computers
- Programmable logic controllers PLC
- Personal computers
- Two way radios

- Safety lanyards
- Files
- Fish tapes
- Flatbed truck trailers
- Concrete floats
- Flow meters
- Forklifts
- Gas-powered generators
- Acetylene welding equipment
- Glass cutters
- Safety goggles
- Claw hammers
- Allen wrenches
- Glass holders
- Humidity meters
- Pallet jacks
- Fuel-burning kettles
- Ladders
- Lathes
- Transits
- Bubble levels
- Glass lifters
- Refrigerant leak detectors
- Channel lock pliers
- Power lockouts
- Rubber mallets
- Aerial personnel lifts
- Surveying rods
- Metal inert gas MIG welding equipment
- Marking gauges
- Multimeters
- Nut drivers
- Megohm meters



- Personal computers
- Pipe benders
- Pipe cutters
- Pipe vises
- Pipe wrenches
- Planes
- Mortar mixers
- Plumb bobs
- Power polishers
- Power drills
- Power grinders
- Power nailers
- Power saws
- Pressure meters
- Power washers
- Glass gloves
- Crowbars
- Putty knives
- Refrigerant reclamation equipment
- Respirators
- Safety glasses
- Safety harnesses
- Hand saws
- Scaffolding
- Flat screwdrivers
- Scoring tools
- Skid steer loaders
- Spray guns
- Layout squares
- Hydraulic knock-out punches
- Wire strippers
- Vacuum cups



- Analog temperature analyzers
- Tablet computers
- Theodolites
- Pipe threaders
- Glass tongs
- Tracked excavators
- Trenchers
- Brick trowels
- Tungsten inert gas TIG welding equipment
- Two way radios
- Utility knives
- Vacuum pumps
- Voltmeters
- Wattmeters
- Welders
- Welding masks
- Wheeled bulldozers
- Wheeled loaders
- Wire cutters
- Hydraulic crimping tools
- Slickline fishing tools
- Wood chisels

### Labor Market Comparison

Maine Department of Labor.

Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	Difference
Median Wage	\$ 46,810	\$ 46,630	\$( 180)
10th Percentile Wage	\$ 29,560	\$ 31,990	\$ 2,430
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 59,530	\$ 57,710	\$( 1,820)
90th Percentile Wage	\$ 74,550	\$ 68,320	\$( 6,230)
Mean Wage	\$ 49,310	\$ 48,860	\$( 450)



Total Employment - 2491	2,490	3,190	700
Employment Base - 2006	2,530	4,627	2,097
Projected Employment - 2500	2,535	4,748	2,213
Projected Job Growth - 2006-2500	0.2 %	2.6 %	2.4 %
Projected Annual Openings - 2006-2500	60	77	17
Special	★	★	
Special Occupations:			

### National Job Posting Trends

Trend for First-Line Supervisors/Managers of Mechanics, Installers, and Repairers and First-Line Supervisors/Managers of Construction Trades and Extraction Workers



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

### Programs

#### Related Programs

Blasting/Blaster

**Blasting/Blaster.** A program that prepares individuals to apply technical knowledge and skills in using a variety of explosive materials to aid in the construction process. Includes instruction in safety procedures for storing, handling, placement, charge power determination, drilling, pounding building demolition preparing rocky surfaces for build foundations and demolition of explosives.

No information on schools for the program

Building/Construction Site Management/Manager



Building/Construction Site Management/Manager. A program that prepares individuals to supervise, manage, and inspect construction sites, buildings, and associated facilities. Includes instruction in site safety, personnel supervision, labor relations, diversity training, construction documentation, scheduling, resource and cost control, bid strategies, rework prevention, construction insurance and bonding, accident management and investigation, applicable law and regulations, and communication skills.

No information on schools for the program

Building/Home/Construction Inspection/Inspector

Building/Home/Construction Inspection/Inspector. A program that prepares individuals to apply industrial, labor, and governmental standards and laws to the oversight of construction projects and the maintenance of completed buildings and other structures. Includes instruction in construction processes and techniques, materials analysis, occupational safety and health, industry standards, building codes and specifications, blueprint interpretation, testing equipment and procedures, communication skills, accident investigation, and documentation.

No information on schools for the program

Building/Property Maintenance and Management

Building/Property Maintenance and Management. A program that prepares individuals to apply technical knowledge and skills to keep a building functioning, and to service a variety of structures including commercial and industrial buildings and mobile homes. Includes instruction in the basic maintenance and repair skills required to service building systems, such as air conditioning, heating, plumbing, electrical, major appliances, and other mechanical systems.

No information on schools for the program

Carpentry/Carpenter

Carpentry/Carpenter. A program that prepares individuals to apply technical knowledge and skills to lay out, cut, fabricate, erect, install, and repair wooden structures and fixtures, using hand and power tools. Includes instruction in technical mathematics, framing, construction materials and selection, job estimating, blueprint reading, foundations and roughing-in, finish carpentry techniques, and applicable codes and standards.

Institution	Address	City	URL
Northern Maine Community College	33 Edgemont Dr	Presque Isle	<a href="http://www.nmcc.edu">www.nmcc.edu</a>
Northern Maine Community College	33 Edgemont Dr	Presque Isle	<a href="http://www.nmcc.edu">www.nmcc.edu</a>
Northern Maine Community College	33 Edgemont Dr	Presque Isle	<a href="http://www.nmcc.edu">www.nmcc.edu</a>
Southern Maine Community College	2 Fort Road	South Portland	<a href="http://www.smccME.edu">www.smccME.edu</a>

Concrete Finishing/Concrete Finisher

Concrete Finishing/Concrete Finisher. A program that prepares individuals to prepare, construct, and finish buildings, components, and related structures using compound masonry mixtures of stone, gravel, sand, cement, and water. Includes instruction in site preparation, applied mathematics, mixing formulas and applications, job estimation, concrete design, finishing techniques, mold preparation, reinforcement installation, site safety, and equipment operation and maintenance.

No information on schools for the program

Construction and Building Finishers and Managers,

Building/Construction Finishing, Management, and Inspection, Other. Any instructional program in building/construction finishing, management, and inspection not listed above.

No information on schools for the program

Construction Trades, Other

Construction Trades, Other. Any instructional program in construction trades not listed above.

No information on schools for the program

Construction/Building Tech./Technician



Construction Engineering Technology/Technician. A program that prepares individuals to apply basic engineering principles and technical skills in support of engineers, engineering contractors and other professionals engaged in the construction of buildings and related structures. Includes instruction in basic structural engineering principles and construction techniques, building site inspection, site supervision, construction personnel supervision, plan and specification interpretation, supply logistics and procurement, applicable building codes, and report preparation.

Institution	Address	City	URL
Central Maine Community College	1250 Turner St	Auburn	<a href="http://www.cmcc.edu">www.cmcc.edu</a>
Central Maine Community College	1250 Turner St	Auburn	<a href="http://www.cmcc.edu">www.cmcc.edu</a>
Eastern Maine Community College	354 Hogan Rd	Bangor	<a href="http://www.emcc.edu">www.emcc.edu</a>
Eastern Maine Community College	354 Hogan Rd	Bangor	<a href="http://www.emcc.edu">www.emcc.edu</a>
Eastern Maine Community College	354 Hogan Rd	Bangor	<a href="http://www.emcc.edu">www.emcc.edu</a>

#### Drywall Installation/Drywaller

Drywall Installation/Drywaller. A program that prepares individuals to apply technical knowledge and skills to install, tape, and plaster drywall installations in interior and exterior construction jobs. Includes instruction in drywall handling and transport, cutting and mounting, taping and spackling, finishing, job analysis and estimation, site safety, tool operation and maintenance, blueprint and specification interpretation, and applicable codes and standards.

No information on schools for the program

#### Electrical and Power Transmission Installation/Installer, General

Electrical and Power Transmission Installation/Installer, General. A program that generally prepares individuals to apply technical knowledge and skills to install indoor and outdoor residential, commercial, and industrial electrical systems, and associated power transmission lines. Includes instruction in electricity, safety procedures, wiring, insulation and grounding, schematic blueprint interpretation, equipment operation and maintenance, and applicable codes and standards.

No information on schools for the program

#### Electrical and Power Transmission Installers, Other

Electrical and Power Transmission Installers, Other. Any instructional program in electrical and power transmission installation not listed above.

No information on schools for the program

#### Electrician

Electrician. A program that prepares individuals to apply technical knowledge and skills to install, operate, maintain, and repair electric apparatus and systems such as residential, commercial, and industrial electric-power wiring; and DC and AC motors, controls, and electrical distribution panels. Includes instruction in the principles of electronics and electrical systems, wiring, power transmission, safety, industrial and household appliances, job estimation, electrical testing and inspection, and applicable codes and standards.

Institution	Address	City	URL
Eastern Maine Community College	354 Hogan Rd	Bangor	<a href="http://www.emcc.edu">www.emcc.edu</a>
Washington County Community College	One College Drive	Calais	<a href="http://www.wccc.me.edu">www.wccc.me.edu</a>
Kennebec Valley Community College	92 Western Ave	Fairfield	<a href="http://www.kvcc.me.edu">www.kvcc.me.edu</a>
Kennebec Valley Community College	92 Western Ave	Fairfield	<a href="http://www.kvcc.me.edu">www.kvcc.me.edu</a>
Northern Maine Community College	33 Edgemont Dr	Presque Isle	<a href="http://www.nmcc.edu">www.nmcc.edu</a>
Northern Maine Community College	33 Edgemont Dr	Presque Isle	<a href="http://www.nmcc.edu">www.nmcc.edu</a>
Northern Maine Community College	33 Edgemont Dr	Presque Isle	<a href="http://www.nmcc.edu">www.nmcc.edu</a>
Southern Maine Community College	2 Fort Road	South Portland	<a href="http://www.smccME.edu">www.smccME.edu</a>



## Glazier

Glazier. A program that prepares individuals to apply technical knowledge and skills to install and repair fixtures, sheets, windows, and skylights made of glass, plexiglass, and other transparent materials. Includes instruction in site measurement, job analysis and estimation, material cutting and trimming, window and door installation, site safety, equipment operation and maintenance, specification interpretation, and applicable codes and standards.

No information on schools for the program

## Lineworker

Lineworker. A program that prepares individuals to apply technical knowledge and skills to install, operate, maintain and repair local, long-distance, and rural electric power cables and communication lines; erect and construct pole and tower lines; and install underground lines and cables. Includes instruction in cable installation and repair, fibre-optic technology, trenching, mobile equipment and crane operation, high-voltage installations, maintenance and inspection, safety, remote communications, and applicable codes and standards.

Institution	Address	City	URL
Kennebec Valley Community College	92 Western Ave	Fairfield	<a href="http://www.kvcc.me.edu">www.kvcc.me.edu</a>

## Mason/Masonry

Mason/Masonry. A program that prepares individuals to apply technical knowledge and skills in the laying and/or setting of brick, concrete block, hard tile, marble and related materials, using trowels, levels, hammers, chisels, and other hand tools. Includes instruction in technical mathematics, blueprint reading, structural masonry, decorative masonry, foundations, reinforcement, mortar preparation, cutting and finishing, and applicable codes and standards.

Institution	Address	City	URL
Southern Maine Community College	2 Fort Road	South Portland	<a href="http://www.smccME.edu">www.smccME.edu</a>
Southern Maine Community College	2 Fort Road	South Portland	<a href="http://www.smccME.edu">www.smccME.edu</a>

## Mining and Mineral Engineering

Mining and Mineral Engineering. A program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of mineral extraction, processing and refining systems, including open pit and shaft mines, prospecting and site analysis equipment and instruments, environmental and safety systems, mine equipment and facilities, mineral processing and refining methods and systems, and logistics and communications systems.

No information on schools for the program

## Mining and Petroleum Technol./Technicians, Other

Mining and Petroleum Technologies/Technicians, Other. Any instructional program in mining and petroleum engineering technologies not listed above.

No information on schools for the program

## Painting/Painter and Wall Coverer

Painting/Painter and Wall Coverer. A program that prepares individuals to apply technical knowledge and skills to finish exterior and interior structural surfaces by applying protective or decorative coating materials, such as paint, lacquer, and wallpaper. Includes instruction in surface preparation; selecting, preparing, and applying paints and other coatings; hanging wallpaper; equipment operation and maintenance; finish selection; safety and clean-up; environmental effects on finishes; adhesion properties; and applicable codes and standards.

No information on schools for the program

## Plumbing Technology/Plumber



Plumbing Technology/Plumber. A program that prepares individuals to practice as licensed plumbers by applying technical knowledge and skills to lay out, assemble, install, and maintain piping fixtures and systems for steam, natural gas, oil, hot water, heating, cooling, drainage, lubricating, sprinkling, and industrial processing systems in home and business environments. Includes instruction in source determination, water distribution, waster removal, pressure adjustment, basic physics, technical mathematics, blueprint reading, pipe installation, pumps, welding and soldering, plumbing inspection, and applicable codes and standards.

Institution	Address	City	URL
Wasington County Community College	One College Drive	Calais	<a href="http://www.wccc.me.edu">www.wccc.me.edu</a>
Northern Maine Community College	33 Edgemont Dr	Presque Isle	<a href="http://www.nmcc.edu">www.nmcc.edu</a>
Northern Maine Community College	33 Edgemont Dr	Presque Isle	<a href="http://www.nmcc.edu">www.nmcc.edu</a>
Northern Maine Community College	33 Edgemont Dr	Presque Isle	<a href="http://www.nmcc.edu">www.nmcc.edu</a>
Southern Maine Community College	2 Fort Road	South Portland	<a href="http://www.smccME.edu">www.smccME.edu</a>
Southern Maine Community College	2 Fort Road	South Portland	<a href="http://www.smccME.edu">www.smccME.edu</a>

**Roofer**

Roofer. A program that prepares individuals to apply technical knowledge and skills to prepare, install, and maintain exterior roofing materials and roofs. Includes instruction in building materials, flashing, lag bolts, site safety, equipment operation and maintenance, layering, site preparation, basic internal structural design, finishing, waterproofing, and applicable codes and standards.

No information on schools for the program

**Well Drilling/Driller**

Well Drilling/Driller. A program that prepares individuals to apply technical knowledge and skills to set up, maintain, repair, and operate well drilling equipment; locate, drill, construct, and develop water, gas, and oil wells; and test and monitor wells to ensure adequate flow. Includes applications to home, business, and industrial uses.

No information on schools for the program

**Maine Statewide Promotion Opportunities for First-Line Supervisors/Managers of Mechanics, Installers, and Repairers**

O*NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
49-1011.00	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	100	4	2,490	\$46,810.00	\$0.00	0%	60	★
11-9021.00	Construction Managers	87	3	970	\$72,320.00	\$25,510.00	4%	35	
11-3051.00	Industrial Production Managers	86	4	690	\$72,560.00	\$25,750.00	-12%	24	
11-3071.02	Storage and Distribution Managers	84	3	710	\$62,270.00	\$15,460.00	5%	25	★
17-3026.00	Industrial Engineering Technicians	84	3	370	\$51,700.00	\$4,890.00	6%	9	★



49-9012.00	Control and Valve Installers and Repairers, Except Mechanical Door	83	3	170	\$47,860.00	\$1,050.00	-9%	3	
49-9051.00	Electrical Power-Line Installers and Repairers	83	3	280	\$47,750.00	\$940.00	9%	12	★
49-2095.00	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	83	5	20	\$60,790.00	\$13,980.00	5%	1	
27-1021.00	Commercial and Industrial Designers	82	4	140	\$49,170.00	\$2,360.00	5%	5	
11-9011.01	Nursery and Greenhouse Managers	81	4	30	\$60,610.00	\$13,800.00	20%	15	
49-2094.00	Electrical and Electronics Repairers, Commercial and Industrial Equipment	81	3	440	\$49,450.00	\$2,640.00	-19%	15	
49-9052.00	Telecommunications Line Installers and Repairers	81	3	720	\$56,120.00	\$9,310.00	0%	19	
51-8013.00	Power Plant Operators	81	3	480	\$50,240.00	\$3,430.00	10%	21	★
11-3071.01	Transportation Managers	81	3	710	\$62,270.00	\$15,460.00	5%	25	★
13-1032.00	Insurance Appraisers, Auto Damage	80	3	40	\$49,950.00	\$3,140.00	5%	1	

Special Occupations:

### Top Industries for First-Line Supervisors/Managers of Construction Trades and Extraction Workers

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Self-employed workers, primary job	000601	22.64%	174,723	186,145	6.54%
Residential building construction	236100	11.37%	87,729	98,791	12.61%
Nonresidential building construction	236200	10.37%	80,055	89,701	12.05%
Other specialty trade contractors	238900	5.45%	42,078	46,506	10.52%
Electrical contractors	238210	5.00%	38,588	40,462	4.86%
Plumbing, heating, and air-conditioning contractors	238220	4.75%	36,688	41,431	12.93%
Local government, excluding education and hospitals	939300	3.93%	30,356	34,102	12.34%
Highway, street, and bridge construction	237300	3.38%	26,120	28,121	7.66%
Drywall and insulation contractors	238310	2.30%	17,779	18,964	6.66%



Poured concrete foundation and structure contractors	238110	2.10%	16,225	18,291	12.73%
Self-employed workers, secondary job	000602	1.73%	13,344	13,284	-0.45%
Support activities for mining	213100	1.59%	12,256	11,528	-5.93%
Masonry contractors	238140	1.55%	11,997	13,291	10.78%
Painting and wall covering contractors	238320	1.51%	11,627	12,938	11.27%
Roofing contractors	238160	1.49%	11,471	13,395	16.77%

### Top Industries for First-Line Supervisors/Managers of Mechanics, Installers, and Repairers

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Automobile dealers	441100	6.95%	32,287	36,627	13.44%
Automotive mechanical and electrical repair and maintenance	811110	5.50%	25,547	30,332	18.73%
Local government, excluding education and hospitals	939300	5.31%	24,681	27,727	12.34%
Plumbing, heating, and air-conditioning contractors	238220	3.15%	14,658	16,552	12.93%
Automotive parts, accessories, and tire stores	441300	2.86%	13,294	12,969	-2.44%
Automotive body, paint, interior, and glass repair	811120	2.85%	13,264	15,487	16.76%
Electric power generation, transmission and distribution	221100	2.79%	12,970	11,929	-8.03%
Federal government, excluding postal service	919999	2.45%	11,388	10,766	-5.47%
Wired telecommunications carriers	517100	2.42%	11,241	8,825	-21.49%
Lessors of real estate	531100	2.27%	10,546	11,619	10.18%
Electrical contractors	238210	1.83%	8,518	8,931	4.86%
State government, excluding education and hospitals	929200	1.66%	7,712	7,568	-1.87%
Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	811300	1.46%	6,774	7,168	5.82%
Elementary and secondary schools, public and private	611100	1.43%	6,655	7,013	5.38%
Activities related to real estate	531300	1.41%	6,543	8,339	27.44%



# TORQ Analysis of First-Line Supervisors/Managers of Mechanics, Installers, and Repairers to First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers

ANALYSIS INPUT					
Transfer	Title	O*NET	Filters		
From Title:	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	49-1011.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers	37-1012.00	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	
Manual Dexterity	42	5	53	Active Listening	85	12	80	Economics and Accounting	40	7	76	
Static Strength	41	2	50	Systems Analysis	60	7	72					
Multilimb Coordination	42	1	62	Instructing	70	5	86					
				Writing	65	6	70					
				Equipment Selection	68	4	78					
				Mathematics	66	3	72					
				Speaking	65	2	82					
				Equipment Maintenance	66	2	80					
				Coordination	74	2	78					
				Social Perceptiveness	63	2	77					
<p>LEVEL and IMPT (IMPORTANCE) refer to the Target First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers. GAP refers to level difference between First-Line Supervisors/Managers of Mechanics, Installers, and Repairers and First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers.</p>												

ASK ANALYSIS			
Ability Level Comparison - Abilities with importance scores over 50			
Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers	Importance
Oral Comprehension	60	53	78
Oral Expression	66	53	75



Problem Sensitivity	60	44	65
Multilimb Coordination	41	42	62
Speech Clarity	53	44	62
Written Comprehension	60	44	59
Written Expression	51	44	59
Deductive Reasoning	60	46	59
Arm-Hand Steadiness	42	42	59
Near Vision	55	46	59
Category Flexibility	53	42	56
Control Precision	44	42	56
Speech Recognition	53	41	56
Originality	53	42	53
Information Ordering	55	44	53
Visualization	59	42	53
Manual Dexterity	37	42	53
Inductive Reasoning	57	44	50
Selective Attention	51	37	50
Time Sharing	44	41	50
Finger Dexterity	48	39	50
Static Strength	39	41	50

Skill Level Comparison - Abilities with importance scores over 69

Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers	Importance
Instructing	65	70	86
Speaking	63	65	82
Active Listening	73	85	80
Equipment Maintenance	64	66	80
Coordination	72	74	78
Equipment Selection	64	68	78
Social Perceptiveness	61	63	77
Mathematics	63	66	72
Systems Analysis	53	60	72
Writing	59	65	70

Knowledge Level Comparison - Knowledge with importance scores over 69

Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers	Importance
Economics and Accounting	33	40	76

**Experience & Education Comparison**

Related Work Experience Comparison

Required Education Level Comparison



First-Line Supervisors/Managers of Mechanics, Installers, and Repairers		First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers	
Description		Description	
10+ years	22%	12%	
8-10 years	8%	0%	
6-8 years	7%	0%	
4-6 years	17%	9%	
2-4 years	19%	34%	
1-2 years	16%	25%	
6-12 months	6%	1%	
3-6 months	0%	11%	
1-3 months	0%	0%	
0-1 month	0%	0%	
None	1%	3%	
		0%	
		0%	
		0%	
		7%	0%
		0%	0%
		0%	0%
		11%	1%
		29%	32%
		5%	7%
		33%	3%
		10%	55%
		0%	0%

First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers
<b>Most Common Educational/Training Requirement:</b>	
Work experience in a related occupation	Work experience in a related occupation
<b>Job Zone Comparison</b>	
4 - Job Zone Four: Considerable Preparation Needed	2 - Job Zone Two: Some Preparation Needed
A minimum of two to four years of work-related skill, knowledge, or experience is needed for these occupations. For example, an accountant must complete four years of college and work for several years in accounting to be considered qualified.	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.
Most of these occupations require a four - year bachelor's degree, but some do not.	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 usually need several years of work-related experience, on-the-job training, and/or vocational training.	Employees in these occupations need anywhere from a few months to one year of working with experienced employees.

<b>Tasks</b>	
First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers
Core Tasks	Core Tasks
Generalized Work Activities:	Generalized Work Activities:
<ul style="list-style-type: none"> <li>• Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.</li> <li>• Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.</li> <li>• Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.</li> <li>• Making Decisions and Solving Problems - Analyzing information and evaluating results to choose the best solution and solve</li> </ul>	<ul style="list-style-type: none"> <li>• Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.</li> <li>• Operating Vehicles, Mechanized Devices, or Equipment - Running, maneuvering, navigating, or driving vehicles or mechanized equipment, such as forklifts, passenger vehicles, aircraft, or water craft.</li> <li>• Coordinating the Work and Activities of Others- Getting members of a group to work together to accomplish tasks.</li> <li>• Organizing, Planning, and Prioritizing Work - Developing specific goals and plans to prioritize, organize, and accomplish your work.</li> </ul>



problems.

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

Specific Tasks

Occupation Specific Tasks:

- Compile operational and personnel records, such as time and production records, inventory data, repair and maintenance statistics, and test results.
- Compute estimates and actual costs of factors such as materials, labor, and outside contractors.
- Conduct or arrange for worker training in safety, repair, and maintenance techniques, operational procedures, or equipment use.
- Confer with personnel, such as management, engineering, quality control, customer, and union workers' representatives, to coordinate work activities, resolve employee grievances, and identify and review resource needs.
- Counsel employees about work-related issues and assist employees to correct job-skill deficiencies.
- Design equipment configurations to meet personnel needs.
- Determine schedules, sequences, and assignments for work activities, based on work priority, quantity of equipment and skill of personnel.
- Develop and implement electronic maintenance programs and computer information management systems.
- Develop, implement, and evaluate maintenance policies and procedures.
- Examine objects, systems, or facilities, and analyze information to determine needed installations, services, or repairs.
- Inspect, test, and measure completed work, using devices such as hand tools and gauges to verify conformance to standards and repair requirements.
- Interpret specifications, blueprints, and job orders to construct templates and lay out reference points for workers.
- Investigate accidents and injuries, and prepare reports of findings.
- Meet with vendors and suppliers to discuss products used in repair work.
- Monitor employees' work levels and review work performance.
- Monitor tool inventories and the condition and maintenance of shops in order to ensure adequate working conditions.
- Participate in budget preparation and administration, coordinating purchasing and documentation, and monitoring departmental expenditures.
- Patrol and monitor work areas and examine tools and equipment in order to detect unsafe conditions or violations of procedures

- Making Decisions and Solving Problems - Analyzing information and evaluating results to choose the best solution and solve problems.

Specific Tasks

Occupation Specific Tasks:

- Answer inquiries from current or prospective customers regarding methods, materials, and price ranges.
- Confer with managers and landscape architects to develop plans and schedules for landscaping maintenance and improvement.
- Confer with other supervisors to coordinate work activities with those of other departments or units.
- Design and supervise the installation of sprinkler systems, calculating water pressure, and valve and pipe coverage needs.
- Direct activities of workers who perform duties such as landscaping, cultivating lawns, or pruning trees and shrubs.
- Direct and assist workers engaged in the maintenance and repair of equipment such as power tools and motorized equipment.
- Direct or perform mixing and application of fertilizers, insecticides, herbicides, and fungicides.
- Establish and enforce operating procedures and work standards that will ensure adequate performance and personnel safety.
- Identify diseases and pests affecting landscaping, and order appropriate treatments.
- Inspect completed work to ensure conformance to specifications, standards, and contract requirements.
- Install and maintain landscaped areas, performing tasks such as removing snow, pouring cement curbs, and repairing sidewalks.
- Inventory supplies of tools, equipment, and materials to ensure that sufficient supplies are available and items are in usable condition.
- Investigate work-related complaints in order to verify problems, and to determine responses.
- Maintain required records such as personnel information and project records.
- Monitor project activities to ensure that instructions are followed, deadlines are met, and schedules are maintained.
- Negotiate with customers regarding fees for landscaping, lawn service, or groundskeeping work.
- Order the performance of corrective work when problems occur, and recommend procedural changes to avoid such problems.
- Perform administrative duties such as authorizing leaves and processing time sheets.
- Perform personnel-related activities such as hiring workers, evaluating staff performance.



or safety rules.

- Perform skilled repair and maintenance operations, using equipment such as hand and power tools, hydraulic presses and shears, and welding equipment.
- Recommend or initiate personnel actions, such as hires, promotions, transfers, discharges, and disciplinary measures.
- Requisition materials and supplies, such as tools, equipment, and replacement parts.

Detailed Tasks

Detailed Work Activities:

- assign work to staff or employees
- conduct or attend staff meetings
- conduct training for personnel
- confer with customer representatives
- confer with engineering, technical or manufacturing personnel
- consult with managerial or supervisory personnel
- coordinate equipment or personnel in mechanical repair setting
- demonstrate or explain assembly or use of equipment
- determine installation, service, or repair needed
- develop budgets
- develop maintenance schedules
- develop policies, procedures, methods, or standards
- develop staffing plan
- diagnose mechanical problems in machinery or equipment
- direct and coordinate activities of workers or staff
- discipline staff for infractions of rules or regulations
- establish employee performance standards
- estimate cost for repair services
- estimate materials or labor requirements
- evaluate performance of employees or contract personnel
- examine products or work to verify conformance to specifications
- hire, discharge, transfer, or promote workers
- inspect facilities to determine repair or replacement needs
- inspect machinery or equipment to determine adjustments or repairs needed
- modify work procedures or processes to meet deadlines
- monitor operations to verify conformance to standards
- monitor worker performance
- orient new employees
- oversee work progress to verify safety or conformance to standards

training workers, evaluating staff performance, and taking disciplinary actions when performance problems occur.

- Plant and maintain vegetation through activities such as mulching, fertilizing, watering, mowing, and pruning.
- Prepare and maintain required records such as work activity and personnel reports.
- Prepare service estimates based on labor, material, and machine costs, and maintain budgets for individual projects.
- Provide workers with assistance in performing duties as necessary to meet deadlines.
- Recommend changes in working conditions or equipment use, in order to increase crew efficiency.
- Review contracts or work assignments to determine service, machine, and workforce requirements for jobs.
- Schedule work for crews depending on work priorities, crew and equipment availability, and weather conditions.
- Tour grounds such as parks, botanical gardens, cemeteries, or golf courses to inspect conditions of plants and soil.
- Train workers in tasks such as transplanting and pruning trees and shrubs, finishing cement, using equipment, and caring for turf.

Detailed Tasks

Detailed Work Activities:

- analyze operational or management reports or records
- answer customer or public inquiries
- assign work to staff or employees
- conduct or attend staff meetings
- consult with managerial or supervisory personnel
- demonstrate or explain assembly or use of equipment
- determine work priority, crew or equipment requirements
- develop staffing plan
- direct and coordinate activities of workers or staff
- establish employee performance standards
- estimate materials or labor requirements
- explain work orders, specifications, or work techniques to workers
- fell or buck trees
- finish concrete surfaces
- hire, discharge, transfer, or promote workers
- interview job applicants
- investigate customer complaints
- judge soil conditions
- maintain or repair construction machinery or equipment
- maintain or repair farm vehicles, machinery, or mechanical implements



- perform safety inspections in manufacturing or industrial setting
- prepare or maintain employee records
- prepare reports
- read blueprints
- read schematics
- read specifications
- read technical drawings
- read work order, instructions, formulas, or processing charts
- recommend improvements to work methods or procedures
- recommend personnel actions, such as promotions, transfers, and dismissals
- recommend purchase or repair of furnishings or equipment
- requisition stock, materials, supplies or equipment
- resolve or assist workers to resolve work problems
- understand service or repair manuals
- understand technical operating, service or repair manuals

Technology - Examples

Accounting software

- Cost accounting software

Calendar and scheduling software

- Scheduling software

Data base user interface and query software

- Database software
- Microsoft Access
- Vehicle management software

Electronic mail software

- Email software
- Microsoft Outlook

Enterprise resource planning ERP software

- Infor Syteline ERP
- SAP software
- WorkTech MAXIMO

Facilities management software

- Computerized maintenance management system CMMS software
- Maintenance management software

Industrial control software

- Programmable logic controller PLC software

- maintain production or work records
- make decisions
- make presentations
- mix paint, ingredients, or chemicals, according to specifications
- modify work procedures or processes to meet deadlines
- monitor worker performance
- operate agricultural equipment or machinery
- orient new employees
- oversee work progress to verify safety or conformance to standards
- perform safety inspections in agricultural, forestry, or fishing setting
- plan or organize work
- prepare cost estimates
- prepare or maintain employee records
- publicize job openings
- recognize plant diseases
- recommend improvements to work methods or procedures
- repair and maintain grounds keeping equipment and tools
- resolve landscaping problems
- resolve or assist workers to resolve work problems
- schedule employee work hours
- schedule facility or property maintenance
- supervise grounds keeping or landscaping workers
- understand second language
- use chain saws
- use hand or power tools
- use herbicides, fertilizers, pesticides or related products
- use oral or written communication techniques
- use plant or crop transplant techniques
- use power mower
- use truck-mounted hydraulic lifts or other accessories

Technology - Examples

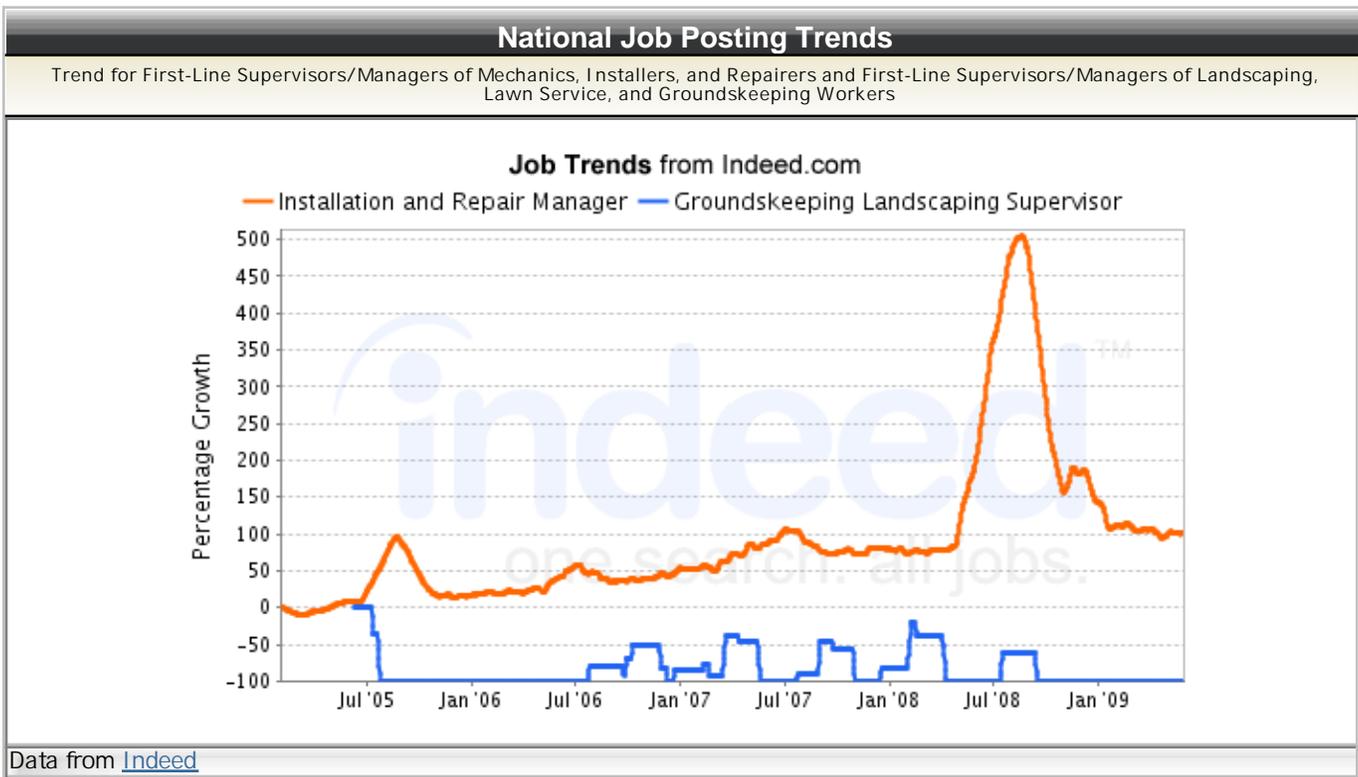


Internet browser software
<ul style="list-style-type: none"> <li>• Internet browser software</li> <li>• Microsoft Internet Explorer</li> </ul>
Inventory management software
<ul style="list-style-type: none"> <li>• Automated inventory software</li> <li>• Inventory management software</li> </ul>
Office suite software
<ul style="list-style-type: none"> <li>• Microsoft Office</li> </ul>
Project management software
<ul style="list-style-type: none"> <li>• Recordkeeping software</li> </ul>
Spreadsheet software
<ul style="list-style-type: none"> <li>• Microsoft Excel</li> <li>• Spreadsheet software</li> </ul>
Time accounting software
<ul style="list-style-type: none"> <li>• Payroll software</li> </ul>
Word processing software
<ul style="list-style-type: none"> <li>• Microsoft Word</li> <li>• Word processing software</li> </ul>
<b>Tools - Examples</b>
<ul style="list-style-type: none"> <li>• Desktop computers</li> <li>• Laser printers</li> <li>• Mainframe computers</li> <li>• Programmable logic controllers PLC</li> <li>• Personal computers</li> <li>• Two way radios</li> </ul>

<b>Labor Market Comparison</b>			
Maine Department of Labor.			
Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers	Difference
Median Wage	\$ 46,810	\$ 33,470	\$(13,340)
10th Percentile Wage	\$ 29,560	\$ 23,990	\$(5,570)
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 59,530	\$ 43,570	\$(15,960)
90th Percentile Wage	\$ 74,550	\$ 50,480	\$(24,070)



Mean Wage	\$ 49,310	\$ 35,790	\$(13,520)
Total Employment - 2491	2,490	620	-1,870
Employment Base - 2006	2,530	865	-1,665
Projected Employment - 2500	2,535	962	-1,573
Projected Job Growth - 2006-2500	0.2 %	11.2 %	11.0 %
Projected Annual Openings - 2006-2500	60	16	-44
Special	★	★	
Special Occupations:			



Programs
Related Programs
Agricultural Production Workers and Managers, Other
Agricultural Production Operations, Other. Any instructional program in agricultural production operations not listed above.
No information on schools for the program
Crop Production Operations and Management



Crop Production. A program that prepares individuals to cultivate grain, fiber, forage, oilseed, fruits and nuts, vegetables, and other domesticated plant products. Includes instruction in basic principles of plant science, health, and nutrition as applied to particular species and breeds; soil preparation and irrigation; pest management; planting and harvesting operations; product marketing; and applicable issues of safety, regulation, logistics, and supply.

No information on schools for the program

Horticulture Services Operations and Management, G

Applied Horticulture/Horticulture Operations, General. A program that focuses on the general production and processing of domesticated plants, shrubs, flowers, foliage, trees, groundcovers, and related plant materials; the management of technical and business operations connected with horticultural services; and the basic scientific principles needed to understand plants and their management and care.

Institution	Address	City	URL
University of Maine at Augusta	46 University Dr	Augusta	<a href="http://www.uma.maine.edu/">www.uma.maine.edu/</a>
Southern Maine Community College	2 Fort Road	South Portland	<a href="http://www.smccME.edu">www.smccME.edu</a>

Landscaping Operations and Management

Landscaping and Groundskeeping. A program that prepares individuals to manage and maintain indoor and/or outdoor ornamental and recreational plants and groundcovers and related conceptual designs established by landscape architects, interior designers, enterprise owners or managers, and individual clients. Includes instruction in applicable principles of horticulture, gardening, plant and soil irrigation and nutrition, turf maintenance, plant maintenance, equipment operation and maintenance, personnel supervision, and purchasing.

Institution	Address	City	URL
University of Maine		Orono	<a href="http://www.umaine.edu/">www.umaine.edu/</a>
University of Maine		Orono	<a href="http://www.umaine.edu/">www.umaine.edu/</a>
Unity College	90 Quaker Hill Road	Unity	<a href="http://www.unity.edu">www.unity.edu</a>

Ornamental Horticulture Operations and Management

Ornamental Horticulture. A program that focuses on domesticated plants and plant materials used for decorative and recreational applications and prepares individuals to breed, grow, and utilize ornamental plant varieties for commercial and aesthetic purposes. Includes instruction in applicable plant science subjects, the environmental design and artistic aspects of horticultural product usage, and the management of horticultural operations.

Institution	Address	City	URL
Unity College	90 Quaker Hill Road	Unity	<a href="http://www.unity.edu">www.unity.edu</a>
Unity College	90 Quaker Hill Road	Unity	<a href="http://www.unity.edu">www.unity.edu</a>

Turf Management

Turf and Turfgrass Management. A program that focuses on turfgrasses and related groundcover plants and prepares individuals to develop ornamental or recreational grasses and related products; plant, transplant, and manage grassed areas; and to produce and store turf used for transplantation. Includes instruction in applicable plant sciences, genetics of grasses, turf science, use analysis, turf management, and related economics.

No information on schools for the program



O*NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
49-1011.00	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	100	4	2,490	\$46,810.00	\$0.00	0%	60	★
11-9021.00	Construction Managers	87	3	970	\$72,320.00	\$25,510.00	4%	35	
11-3051.00	Industrial Production Managers	86	4	690	\$72,560.00	\$25,750.00	-12%	24	
11-3071.02	Storage and Distribution Managers	84	3	710	\$62,270.00	\$15,460.00	5%	25	★
17-3026.00	Industrial Engineering Technicians	84	3	370	\$51,700.00	\$4,890.00	6%	9	★
49-9012.00	Control and Valve Installers and Repairers, Except Mechanical Door	83	3	170	\$47,860.00	\$1,050.00	-9%	3	
49-9051.00	Electrical Power-Line Installers and Repairers	83	3	280	\$47,750.00	\$940.00	9%	12	★
49-2095.00	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	83	5	20	\$60,790.00	\$13,980.00	5%	1	
27-1021.00	Commercial and Industrial Designers	82	4	140	\$49,170.00	\$2,360.00	5%	5	
11-9011.01	Nursery and Greenhouse Managers	81	4	30	\$60,610.00	\$13,800.00	20%	15	
49-2094.00	Electrical and Electronics Repairers, Commercial and Industrial Equipment	81	3	440	\$49,450.00	\$2,640.00	-19%	15	
49-9052.00	Telecommunications Line Installers and Repairers	81	3	720	\$56,120.00	\$9,310.00	0%	19	
51-8013.00	Power Plant Operators	81	3	480	\$50,240.00	\$3,430.00	10%	21	★
11-3071.01	Transportation Managers	81	3	710	\$62,270.00	\$15,460.00	5%	25	★
13-1032.00	Insurance Appraisers, Auto Damage	80	3	40	\$49,950.00	\$3,140.00	5%	1	

Special Occupations:

### Top Industries for First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
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Self-employed workers, primary job	000601	40.83%	82,410	94,672	14.88%
Landscaping services	561730	26.71%	53,915	64,450	19.54%
Local government, excluding education and hospitals	939300	5.81%	11,721	13,593	15.98%
Self-employed workers, secondary job	000602	3.25%	6,552	6,734	2.78%
Colleges, universities, and professional schools, public and private	611300	1.57%	3,161	3,651	15.50%
Fitness and recreational sports centers	713940	1.21%	2,436	3,351	37.56%
Elementary and secondary schools, public and private	611100	1.03%	2,083	2,266	8.79%
Employment services	561300	0.99%	2,008	2,623	30.66%
Exterminating and pest control services	561710	0.94%	1,891	2,276	20.36%
Death care services	812200	0.86%	1,735	2,048	18.01%
Lessors of real estate	531100	0.83%	1,683	1,915	13.74%
Activities related to real estate	531300	0.73%	1,482	1,950	31.57%
Religious organizations	813100	0.72%	1,456	1,804	23.89%
State government, excluding education and hospitals	929200	0.63%	1,264	1,280	1.31%
Lawn and garden equipment and supplies stores	444200	0.50%	1,014	942	-7.11%

Top Industries for First-Line Supervisors/Managers of Mechanics, Installers, and Repairers					
Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Automobile dealers	441100	6.95%	32,287	36,627	13.44%
Automotive mechanical and electrical repair and maintenance	811110	5.50%	25,547	30,332	18.73%
Local government, excluding education and hospitals	939300	5.31%	24,681	27,727	12.34%
Plumbing, heating, and air-conditioning contractors	238220	3.15%	14,658	16,552	12.93%
Automotive parts, accessories, and tire stores	441300	2.86%	13,294	12,969	-2.44%
Automotive body, paint, interior, and glass repair	811120	2.85%	13,264	15,487	16.76%
Electric power generation, transmission and distribution	221100	2.79%	12,970	11,929	-8.03%
Federal government, excluding postal service	919999	2.45%	11,388	10,766	-5.47%
Wired telecommunications carriers	517100	2.42%	11,241	8,825	-21.49%
Lessors of real estate	531100	2.27%	10,546	11,619	10.18%
Electrical contractors	238210	1.83%	8,518	8,931	4.86%
State government, excluding education and hospitals	929200	1.66%	7,712	7,568	-1.87%
Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	811300	1.46%	6,774	7,168	5.82%
Elementary and secondary schools, public and private	611100	1.43%	6,655	7,013	5.38%



Activities related to real estate	531 300	1.41%	6,543	8,339	27.44%
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# TORQ Analysis of First-Line Supervisors/Managers of Mechanics, Installers, and Repairers to First-Line Supervisors/Managers of Production and Operating Workers

ANALYSIS INPUT					
Transfer	Title	O*NET	Filters		
From Title:	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	49-1011.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	First-Line Supervisors/Managers of Production and Operating Workers	51-1011.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

TORQ RESULTS											
Grand TORQ:										89	
Ability TORQ			Skills TORQ				Knowledge TORQ				
Level			97	Level			82	Level			88
Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt
Written Expression	53	2	59	Monitoring	72	6	75	Production and Processing	68	18	87
				Operation Monitoring	61	6	75	Sales and Marketing	20	3	75
				Active Listening	65	3	80				
				Persuasion	60	3	70				
				Critical Thinking	72	2	75				
LEVEL and IMPT (IMPORTANCE) refer to the Target First-Line Supervisors/Managers of Production and Operating Workers. GAP refers to level difference between First-Line Supervisors/Managers of Mechanics, Installers, and Repairers and First-Line Supervisors/Managers of Production and Operating Workers.											

ASK ANALYSIS			
Ability Level Comparison - Abilities with importance scores over 50			
Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	First-Line Supervisors/Managers of Production and Operating Workers	Importance
Oral Expression	66	57	78
Oral Comprehension	60	55	75
Problem Sensitivity	60	48	75
Written Comprehension	60	53	68
Speech Recognition	53	46	65
Speech Clarity	53	48	65
Deductive Reasoning	60	53	62
Written Expression	51	53	59
Inductive Reasoning	57	51	59



Near Vision	55	48	59
Originality	53	50	53
Information Ordering	55	50	53
Category Flexibility	53	42	53
Fluency of Ideas	48	48	50
Flexibility of Closure	50	44	50
Perceptual Speed	46	42	50

Skill Level Comparison - Abilities with importance scores over 69

Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	First-Line Supervisors/Managers of Production and Operating Workers	Importance
Active Listening	62	65	80
Critical Thinking	70	72	75
Monitoring	66	72	75
Operation Monitoring	55	61	75
Persuasion	57	60	70

Knowledge Level Comparison - Knowledge with importance scores over 69

Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	First-Line Supervisors/Managers of Production and Operating Workers	Importance
Production and Processing	50	68	87
Sales and Marketing	17	20	75

**Experience & Education Comparison**

Related Work Experience Comparison			Required Education Level Comparison		
Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	First-Line Supervisors/Managers of Production and Operating Workers	Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	First-Line Supervisors/Managers of Production and Operating Workers
10+ years	22%	2%	Doctoral	0%	0%
8-10 years	8%	5%	Professional Degree	0%	0%
6-8 years	7%	12%	Post-Masters Cert	0%	0%
4-6 years	17%	11%	Master's Degree	7%	0%
2-4 years	19%	33%	Post-Bachelor Cert	0%	1%
1-2 years	16%	21%	Bachelors	11%	13%
6-12 months	6%	3%	AA or Equiv	29%	17%
3-6 months	0%	2%	Some College	5%	17%
1-3 months	0%	3%	Post-Secondary Certificate	33%	20%
0-1 month	0%	0%	High School Diploma or GED	10%	26%
None	1%	4%	No HSD or GED	0%	3%

First-Line Supervisors/Managers of Mechanics, Installers, and Repairers

First-Line Supervisors/Managers of Production and Operating Workers

Most Common Educational/Training Requirement:



Work experience in a related occupation	Work experience in a related occupation
<b>Job Zone Comparison</b>	
<b>4 - Job Zone Four: Considerable Preparation Needed</b>	<b>3 - Job Zone Three: Medium Preparation Needed</b>
A minimum of two to four years of work-related skill, knowledge, or experience is needed for these occupations. For example, an accountant must complete four years of college and work for several years in accounting to be considered qualified.	Previous work-related skill, knowledge, or experience is required for these occupations. For example, an electrician must have completed three or four years of apprenticeship or several years of vocational training, and often must have passed a licensing exam, in order to perform the job.
Most of these occupations require a four - year bachelor's degree, but some do not.	Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree. Some may require a bachelor's degree.
Employees in these occupations usually need several years of work-related experience, on-the-job training, and/or vocational training.	Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers.

## Tasks

First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	First-Line Supervisors/Managers of Production and Operating Workers
Core Tasks	Core Tasks
<p>Generalized Work Activities:</p> <ul style="list-style-type: none"> <li>• Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.</li> <li>• Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.</li> <li>• Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.</li> <li>• Making Decisions and Solving Problems - Analyzing information and evaluating results to choose the best solution and solve problems.</li> <li>• Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.</li> </ul>	<p>Generalized Work Activities:</p> <ul style="list-style-type: none"> <li>• Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.</li> <li>• Making Decisions and Solving Problems - Analyzing information and evaluating results to choose the best solution and solve problems.</li> <li>• Coordinating the Work and Activities of Others- Getting members of a group to work together to accomplish tasks.</li> <li>• Guiding, Directing, and Motivating Subordinates - Providing guidance and direction to subordinates, including setting performance standards and monitoring performance.</li> <li>• Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.</li> </ul>
Specific Tasks	Specific Tasks
<p>Occupation Specific Tasks:</p> <ul style="list-style-type: none"> <li>• Compile operational and personnel records, such as time and production records, inventory data, repair and maintenance statistics, and test results.</li> <li>• Compute estimates and actual costs of factors such as materials, labor, and outside contractors.</li> <li>• Conduct or arrange for worker training in safety, repair, and maintenance techniques, operational procedures, or equipment use.</li> <li>• Confer with personnel, such as management, engineering, quality control, customer, and union workers' representatives, to coordinate work activities, resolve employee grievances, and identify and review resource needs.</li> <li>• Counsel employees about work-related issues and assist employees to correct job-skill deficiencies.</li> </ul>	<p>Occupation Specific Tasks:</p> <ul style="list-style-type: none"> <li>• Calculate labor and equipment requirements and production specifications, using standard formulas.</li> <li>• Confer with management or subordinates to resolve worker problems, complaints, or grievances.</li> <li>• Confer with other supervisors to coordinate operations and activities within or between departments.</li> <li>• Demonstrate equipment operations and work and safety procedures to new employees, or assign employees to experienced workers for training.</li> <li>• Determine standards, budgets, production goals, and rates, based on company policies, equipment and labor availability, and workloads.</li> <li>• Direct and coordinate the activities of</li> </ul>



- Design equipment configurations to meet personnel needs.
- Determine schedules, sequences, and assignments for work activities, based on work priority, quantity of equipment and skill of personnel.
- Develop and implement electronic maintenance programs and computer information management systems.
- Develop, implement, and evaluate maintenance policies and procedures.
- Examine objects, systems, or facilities, and analyze information to determine needed installations, services, or repairs.
- Inspect, test, and measure completed work, using devices such as hand tools and gauges to verify conformance to standards and repair requirements.
- Interpret specifications, blueprints, and job orders to construct templates and lay out reference points for workers.
- Investigate accidents and injuries, and prepare reports of findings.
- Meet with vendors and suppliers to discuss products used in repair work.
- Monitor employees' work levels and review work performance.
- Monitor tool inventories and the condition and maintenance of shops in order to ensure adequate working conditions.
- Participate in budget preparation and administration, coordinating purchasing and documentation, and monitoring departmental expenditures.
- Patrol and monitor work areas and examine tools and equipment in order to detect unsafe conditions or violations of procedures or safety rules.
- Perform skilled repair and maintenance operations, using equipment such as hand and power tools, hydraulic presses and shears, and welding equipment.
- Recommend or initiate personnel actions, such as hires, promotions, transfers, discharges, and disciplinary measures.
- Requisition materials and supplies, such as tools, equipment, and replacement parts.

Detailed Tasks

Detailed Work Activities:

- assign work to staff or employees
- conduct or attend staff meetings
- conduct training for personnel
- confer with customer representatives
- confer with engineering, technical or manufacturing personnel
- consult with managerial or supervisory personnel
- coordinate equipment or personnel in mechanical repair setting
- demonstrate or explain assembly or use of

- employees engaged in the production or processing of goods, such as inspectors, machine setters, and fabricators.
- Enforce safety and sanitation regulations.
- Inspect materials, products, or equipment to detect defects or malfunctions.
- Interpret specifications, blueprints, job orders, and company policies and procedures for workers.
- Maintain operations data such as time, production, and cost records, and prepare management reports of production results.
- Observe work, and monitor gauges, dials, and other indicators to ensure that operators conform to production or processing standards.
- Plan and develop new products and production processes.
- Plan and establish work schedules, assignments, and production sequences to meet production goals.
- Read and analyze charts, work orders, production schedules, and other records and reports, in order to determine production requirements and to evaluate current production estimates and outputs.
- Recommend or implement measures to motivate employees and to improve production methods, equipment performance, product quality, or efficiency.
- Recommend personnel actions such as hirings and promotions.
- Requisition materials, supplies, equipment parts, or repair services.
- Set up and adjust machines and equipment.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- analyze operational or management reports or records
- assign work to staff or employees
- communicate technical information
- compute production, construction, or installation specifications
- conduct or attend staff meetings
- confer with other departmental heads to coordinate activities
- consult with managerial or supervisory personnel
- coordinate production materials, activities or processes
- demonstrate or explain assembly or use of equipment
- determine factors affecting production processes
- develop maintenance schedules
- direct and coordinate activities of workers or staff
- establish employee performance standards



- determine installation, service, or repair needed
- develop budgets
- develop maintenance schedules
- develop policies, procedures, methods, or standards
- develop staffing plan
- diagnose mechanical problems in machinery or equipment
- direct and coordinate activities of workers or staff
- discipline staff for infractions of rules or regulations
- establish employee performance standards
- estimate cost for repair services
- estimate materials or labor requirements
- evaluate performance of employees or contract personnel
- examine products or work to verify conformance to specifications
- hire, discharge, transfer, or promote workers
- inspect facilities to determine repair or replacement needs
- inspect machinery or equipment to determine adjustments or repairs needed
- modify work procedures or processes to meet deadlines
- monitor operations to verify conformance to standards
- monitor worker performance
- orient new employees
- oversee work progress to verify safety or conformance to standards
- perform safety inspections in manufacturing or industrial setting
- prepare or maintain employee records
- prepare reports
- read blueprints
- read schematics
- read specifications
- read technical drawings
- read work order, instructions, formulas, or processing charts
- recommend improvements to work methods or procedures
- recommend personnel actions, such as promotions, transfers, and dismissals
- recommend purchase or repair of furnishings or equipment
- requisition stock, materials, supplies or equipment
- resolve or assist workers to resolve work problems
- understand service or repair manuals
- understand technical operating, service or repair manuals

- estimate materials or labor requirements
- examine products or work to verify conformance to specifications
- explain rules, policies or regulations
- explain work orders, specifications, or work techniques to workers
- maintain file of job openings
- maintain inventory of office equipment or furniture
- maintain job descriptions
- maintain production or work records
- maintain records, reports, or files
- manage inventories or supplies
- modify work procedures or processes to meet deadlines
- monitor production machinery/equipment operation to detect problems
- monitor worker performance
- motivate workers to achieve work goals
- orient new employees
- oversee work progress to verify safety or conformance to standards
- prepare or maintain employee records
- prepare reports
- read blueprints
- read technical drawings
- read work order, instructions, formulas, or processing charts
- recommend improvements to work methods or procedures
- requisition stock, materials, supplies or equipment
- resolve or assist workers to resolve work problems
- resolve personnel problems or grievances
- schedule activities, classes, or events
- schedule employee work hours
- set up production equipment or machinery
- understand second language
- understand technical operating, service or repair manuals
- use oral or written communication techniques

Technology - Examples

Data base user interface and query software

- Database software
- Oracle software

Electronic mail software

- Email software
- IBM Lotus Notes

- Microsoft Outlook

Enterprise resource planning ERP software



Technology - Examples

Accounting software

- Cost accounting software

Calendar and scheduling software

- Scheduling software

Data base user interface and query software

- Database software

- Microsoft Access

- Vehicle management software

Electronic mail software

- Email software

- Microsoft Outlook

Enterprise resource planning ERP software

- Infor SyteLine ERP

- SAP software

- WorkTech MAXIMO

Facilities management software

- Computerized maintenance management system CMMS software

- Maintenance management software

Industrial control software

- Programmable logic controller PLC software

Internet browser software

- Internet browser software

- Microsoft Internet Explorer

Inventory management software

- Automated inventory software

- Inventory management software

Office suite software

- Microsoft Office

Project management software

- Recordkeeping software

Spreadsheet software

- Microsoft Excel

- Spreadsheet software

Time accounting software

- Payroll software

Word processing software

- Bowen & Groves MI ERP

- Capterra Enterprise Resource Planning

- Encompix ERP

- Epicor Vantage ERP

- Epicor Vista ERP

- Giraffe Production Systems software

- Intacct ERP software

- Made2Manage software

- Microsoft Axapta

- NetSuite NetERP

- Resource planning software

- Retain Resource Planning

- SAP Business One

- SAP software

- SYSPRO software

- Technology Group International Enterprise 21 ERP

Human resources software

- GHG electronic employee management suite eEMS software

Internet browser software

- Netscape software

Inventory management software

- Inventory management software

Materials requirements planning logistics and supply chain software

- Integrated materials management systems

- Materials management software

- QA Software QMS Materials Management

Office suite software

- Microsoft Office

Presentation software

- Microsoft PowerPoint

Project management software

- Microsoft Total Quality Control Management

- Total quality management TQM software

Spreadsheet software



<ul style="list-style-type: none"> <li>• Microsoft Word</li> <li>• Word processing software</li> </ul>	<ul style="list-style-type: none"> <li>• Microsoft Excel</li> <li>• Spreadsheet software</li> </ul>
<p>Tools - Examples</p>	<p>Time accounting software</p>
<ul style="list-style-type: none"> <li>• Desktop computers</li> <li>• Laser printers</li> <li>• Mainframe computers</li> <li>• Programmable logic controllers PLC</li> <li>• Personal computers</li> <li>• Two way radios</li> </ul>	<ul style="list-style-type: none"> <li>• Kronos Workforce Timekeeper</li> <li>• Timekeeping software</li> <li>• Work Technology WorkTech Time</li> </ul>
	<p>Word processing software</p> <ul style="list-style-type: none"> <li>• Microsoft Word</li> <li>• Word processing software</li> </ul>
	<p>Tools - Examples</p>
	<ul style="list-style-type: none"> <li>• Desktop computers</li> <li>• Personal protective clothing</li> <li>• Laser printers</li> <li>• Notebook computers</li> <li>• Personal computers</li> <li>• Respirators</li> <li>• Safety glasses</li> <li>• Protective shoes</li> <li>• Laser scanners</li> <li>• Operator terminals</li> </ul>

### Labor Market Comparison

Maine Department of Labor.

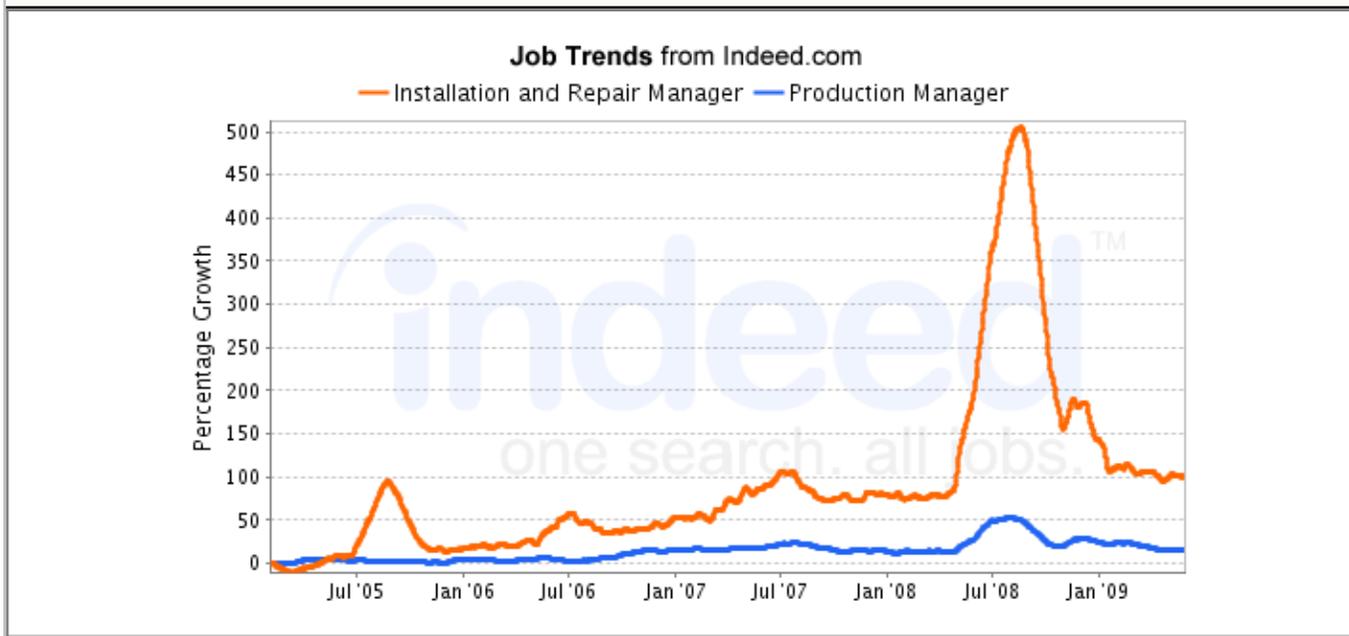
Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	First-Line Supervisors/Managers of Production and Operating Workers	Difference
Median Wage	\$ 46,810	\$ 45,510	\$( 1,300)
10th Percentile Wage	\$ 29,560	\$ 28,000	\$( 1,560)
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 59,530	\$ 58,890	\$( 640)
90th Percentile Wage	\$ 74,550	\$ 73,810	\$( 740)
Mean Wage	\$ 49,310	\$ 48,010	\$( 1,300)
Total Employment - 2491	2,490	3,750	1,260
Employment Base - 2006	2,530	3,893	1,363



Projected Employment - 2500	2,535	3,745	1,210
Projected Job Growth - 2006-2500	0.2 %	-3.8 %	-4.0 %
Projected Annual Openings - 2006-2500	60	65	5
Special	★		
Special Occupations:			

### National Job Posting Trends

Trend for First-Line Supervisors/Managers of Mechanics, Installers, and Repairers and First-Line Supervisors/Managers of Production and Operating Workers



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

### Programs

#### Related Programs

Operations Management and Supervision

Operations Management and Supervision. A program that prepares individuals to manage and direct the physical and/or technical functions of a firm or organization, particularly those relating to development, production, and manufacturing. Includes instruction in principles of general management, manufacturing and production systems, plant management, equipment maintenance management, production control, industrial labor relations and skilled trades supervision, strategic manufacturing policy, systems analysis, productivity analysis and cost control, and materials planning.

No information on schools for the program

### Maine Statewide Promotion Opportunities for First-Line Supervisors/Managers of Mechanics, Installers, and Repairers

O*NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
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17-2112.00	Industrial Engineers	80	4	580	\$68,350.00	\$21,540.00	11%	22	

Special Occupations:

Top Industries for First-Line Supervisors/Managers of Production and Operating Workers					
Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Plastics product manufacturing	326100	4.03%	28,154	29,844	6.00%
Printing and related support activities	323100	3.61%	25,224	19,985	-20.77%
Motor vehicle parts manufacturing	336300	3.08%	21,518	17,131	-20.39%



Architectural and structural metals manufacturing	332300	2.52%	17,595	18,792	6.80%
Self-employed workers, primary job	000601	2.40%	16,779	17,876	6.54%
Grocery stores	445100	2.37%	16,559	18,067	9.11%
Animal slaughtering and processing	311600	2.24%	15,642	17,851	14.13%
Local government, excluding education and hospitals	939300	2.07%	14,471	16,257	12.34%
Machine shops	332710	1.99%	13,948	11,538	-17.28%
Converted paper product manufacturing	322200	1.89%	13,212	11,088	-16.08%
Semiconductor and other electronic component manufacturing	334400	1.88%	13,126	11,473	-12.59%
Drycleaning and laundry services	812300	1.75%	12,216	12,217	0.01%
Other wood product manufacturing	321900	1.64%	11,463	10,802	-5.77%
Other fabricated metal product manufacturing	332900	1.57%	10,950	9,702	-11.39%
Other general purpose machinery manufacturing	333900	1.41%	9,879	8,918	-9.73%

### Top Industries for First-Line Supervisors/Managers of Mechanics, Installers, and Repairers

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Automobile dealers	441100	6.95%	32,287	36,627	13.44%
Automotive mechanical and electrical repair and maintenance	811110	5.50%	25,547	30,332	18.73%
Local government, excluding education and hospitals	939300	5.31%	24,681	27,727	12.34%
Plumbing, heating, and air-conditioning contractors	238220	3.15%	14,658	16,552	12.93%
Automotive parts, accessories, and tire stores	441300	2.86%	13,294	12,969	-2.44%
Automotive body, paint, interior, and glass repair	811120	2.85%	13,264	15,487	16.76%
Electric power generation, transmission and distribution	221100	2.79%	12,970	11,929	-8.03%
Federal government, excluding postal service	919999	2.45%	11,388	10,766	-5.47%
Wired telecommunications carriers	517100	2.42%	11,241	8,825	-21.49%
Lessors of real estate	531100	2.27%	10,546	11,619	10.18%
Electrical contractors	238210	1.83%	8,518	8,931	4.86%
State government, excluding education and hospitals	929200	1.66%	7,712	7,568	-1.87%
Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	811300	1.46%	6,774	7,168	5.82%
Elementary and secondary schools, public and private	611100	1.43%	6,655	7,013	5.38%
Activities related to real estate	531300	1.41%	6,543	8,339	27.44%



# TORQ Analysis of First-Line Supervisors/Managers of Mechanics, Installers, and Repairers to Construction Managers

ANALYSIS INPUT					
Transfer	Title	O* NET	Filters		
From Title:	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	49-1011.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Construction Managers	11-9021.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

TORQ RESULTS											
Grand TORQ:					87						
Ability TORQ		Skills TORQ		Knowledge TORQ							
Level	94	Level	83	Level	85						
Gaps To Narrow if Possible			Upgrade These Skills		Knowledge to Add						
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt
Information Ordering	57	2	65	Writing	66	7	84	Building and Construction	78	22	94
Written Expression	53	2	62	Critical Thinking	76	6	72	Mathematics	68	18	72
								Design	66	11	72
								Public Safety and Security	57	6	70
LEVEL and IMPT (IMPORTANCE) refer to the Target Construction Managers. GAP refers to level difference between First-Line Supervisors/Managers of Mechanics, Installers, and Repairers and Construction Managers.											

ASK ANALYSIS			
Ability Level Comparison - Abilities with importance scores over 50			
Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	Construction Managers	Importance
Oral Expression	66	60	81
Oral Comprehension	60	59	75
Problem Sensitivity	60	51	72
Inductive Reasoning	57	53	68
Written Comprehension	60	55	65
Deductive Reasoning	60	53	65
Information Ordering	55	57	65
Speech Recognition	53	44	65
Speech Clarity	53	46	65
Written Expression	51	53	62



Near Vision	55	55	62
Visualization	59	53	56
Fluency of Ideas	48	48	53
Skill Level Comparison - Abilities with importance scores over 69			
Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	Construction Managers	Importance
Writing	59	66	84
Critical Thinking	70	76	72
Knowledge Level Comparison - Knowledge with importance scores over 69			
Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	Construction Managers	Importance
Building and Construction	56	78	94
Design	55	66	72
Mathematics	50	68	72
Public Safety and Security	51	57	70

Experience & Education Comparison					
Related Work Experience Comparison			Required Education Level Comparison		
Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	Construction Managers	Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	Construction Managers
10+ years	22%	3%	Doctoral	0%	0%
8-10 years	8%	7%	Professional Degree	0%	0%
6-8 years	7%	4%	Post-Masters Cert	0%	0%
4-6 years	17%	19%	Master's Degree	7%	0%
2-4 years	19%	48%	Post-Bachelor Cert	0%	0%
1-2 years	16%	13%	Bachelors	11%	21%
6-12 months	6%	0%	AA or Equiv	29%	3%
3-6 months	0%	0%	Some College	5%	30%
1-3 months	0%	0%	Post-Secondary Certificate	33%	39%
0-1 month	0%	0%	High School Diploma or GED	10%	1%
None	1%	3%	No HSD or GED	0%	3%
First-Line Supervisors/Managers of Mechanics, Installers, and Repairers			Construction Managers		
Most Common Educational/Training Requirement:					
Work experience in a related occupation			Bachelor's degree		
Job Zone Comparison					
4 - Job Zone Four: Considerable Preparation Needed			3 - Job Zone Three: Medium Preparation Needed		
A minimum of two to four years of work-related skill, knowledge, or experience is needed for these occupations. For example, an accountant must complete four years of college and work for several years in accounting to be considered qualified.			Previous work-related skill, knowledge, or experience is required for these occupations. For example, an electrician must have completed three or four years of apprenticeship or several years of vocational training, and often must have passed a licensing exam, in order to perform the job.		



Most of these occupations require a four - year bachelor's degree, but some do not.

Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree. Some may require a bachelor's degree.

Employees in these occupations usually need several years of work-related experience, on-the-job training, and/or vocational training.

Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers.

### Tasks

#### First-Line Supervisors/Managers of Mechanics, Installers, and Repairers

#### Construction Managers

##### Core Tasks

##### Core Tasks

##### Generalized Work Activities:

##### Generalized Work Activities:

- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- Making Decisions and Solving Problems - Analyzing information and evaluating results to choose the best solution and solve problems.
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.

- Making Decisions and Solving Problems - Analyzing information and evaluating results to choose the best solution and solve problems.
- Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- Organizing, Planning, and Prioritizing Work - Developing specific goals and plans to prioritize, organize, and accomplish your work.
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
- Scheduling Work and Activities - Scheduling events, programs, and activities, as well as the work of others.

##### Specific Tasks

##### Specific Tasks

##### Occupation Specific Tasks:

##### Occupation Specific Tasks:

- Compile operational and personnel records, such as time and production records, inventory data, repair and maintenance statistics, and test results.
- Compute estimates and actual costs of factors such as materials, labor, and outside contractors.
- Conduct or arrange for worker training in safety, repair, and maintenance techniques, operational procedures, or equipment use.
- Confer with personnel, such as management, engineering, quality control, customer, and union workers' representatives, to coordinate work activities, resolve employee grievances, and identify and review resource needs.
- Counsel employees about work-related issues and assist employees to correct job-skill deficiencies.
- Design equipment configurations to meet personnel needs.
- Determine schedules, sequences, and assignments for work activities, based on work priority, quantity of equipment and skill of personnel.
- Develop and implement electronic maintenance programs and computer

- Confer with supervisory personnel, owners, contractors, and design professionals to discuss and resolve matters such as work procedures, complaints, and construction problems.
- Determine labor requirements and dispatch workers to construction sites.
- Develop and implement quality control programs.
- Direct acquisition of land for construction projects.
- Direct and supervise workers.
- Evaluate construction methods and determine cost-effectiveness of plans, using computers.
- Inspect and review projects to monitor compliance with building and safety codes, and other regulations.
- Interpret and explain plans and contract terms to administrative staff, workers, and clients, representing the owner or developer.
- Investigate damage, accidents, or delays at construction sites, to ensure that proper procedures are being carried out.
- Obtain all necessary permits and licenses.
- Plan, organize, and direct activities concerned with the construction and



information management systems.

- Develop, implement, and evaluate maintenance policies and procedures.
- Examine objects, systems, or facilities, and analyze information to determine needed installations, services, or repairs.
- Inspect, test, and measure completed work, using devices such as hand tools and gauges to verify conformance to standards and repair requirements.
- Interpret specifications, blueprints, and job orders to construct templates and lay out reference points for workers.
- Investigate accidents and injuries, and prepare reports of findings.
- Meet with vendors and suppliers to discuss products used in repair work.
- Monitor employees' work levels and review work performance.
- Monitor tool inventories and the condition and maintenance of shops in order to ensure adequate working conditions.
- Participate in budget preparation and administration, coordinating purchasing and documentation, and monitoring departmental expenditures.
- Patrol and monitor work areas and examine tools and equipment in order to detect unsafe conditions or violations of procedures or safety rules.
- Perform skilled repair and maintenance operations, using equipment such as hand and power tools, hydraulic presses and shears, and welding equipment.
- Recommend or initiate personnel actions, such as hires, promotions, transfers, discharges, and disciplinary measures.
- Requisition materials and supplies, such as tools, equipment, and replacement parts.

#### Detailed Tasks

##### Detailed Work Activities:

- assign work to staff or employees
- conduct or attend staff meetings
- conduct training for personnel
- confer with customer representatives
- confer with engineering, technical or manufacturing personnel
- consult with managerial or supervisory personnel
- coordinate equipment or personnel in mechanical repair setting
- demonstrate or explain assembly or use of equipment
- determine installation, service, or repair needed
- develop budgets
- develop maintenance schedules
- develop policies, procedures, methods, or standards
- 

maintenance of structures, facilities, and systems.

- Prepare and submit budget estimates and progress and cost tracking reports.
- Prepare contracts and negotiate revisions, changes and additions to contractual agreements with architects, consultants, clients, suppliers and subcontractors.
- Requisition supplies and materials to complete construction projects.
- Schedule the project in logical steps and budget time required to meet deadlines.
- Select, contract, and oversee workers who complete specific pieces of the project, such as painting or plumbing.
- Study job specifications to determine appropriate construction methods.
- Take actions to deal with the results of delays, bad weather, or emergencies at construction site.

#### Detailed Tasks

##### Detailed Work Activities:

- adhere to safety procedures
- assign work to staff or employees
- compile information on findings from investigation of accidents
- compute cost estimates of construction or engineering projects
- compute production, construction, or installation specifications
- confer with management or users
- consult with managerial or supervisory personnel
- direct and coordinate activities of workers or staff
- direct and coordinate construction of mine shafts or tunnels
- estimate costs of design materials or construction
- estimate materials or labor requirements
- estimate time or cost for installation, repair, or construction projects
- evaluate construction quality
- evaluate new construction industry practices
- explain government laws or regulations
- explain rules, policies or regulations
- inspect facilities or equipment for regulatory compliance
- inspect project operations, or site to determine specification compliance
- interpret maps for architecture, construction, or engineering project
- make decisions
- manage building maintenance projects
- manage contracts
- manage contracts
- monitor contract performance



- develop training plan
- diagnose mechanical problems in machinery or equipment
- direct and coordinate activities of workers or staff
- discipline staff for infractions of rules or regulations
- establish employee performance standards
- estimate cost for repair services
- estimate materials or labor requirements
- evaluate performance of employees or contract personnel
- examine products or work to verify conformance to specifications
- hire, discharge, transfer, or promote workers
- inspect facilities to determine repair or replacement needs
- inspect machinery or equipment to determine adjustments or repairs needed
- modify work procedures or processes to meet deadlines
- monitor operations to verify conformance to standards
- monitor worker performance
- orient new employees
- oversee work progress to verify safety or conformance to standards
- perform safety inspections in manufacturing or industrial setting
- prepare or maintain employee records
- prepare reports
- read blueprints
- read schematics
- read specifications
- read technical drawings
- read work order, instructions, formulas, or processing charts
- recommend improvements to work methods or procedures
- recommend personnel actions, such as promotions, transfers, and dismissals
- recommend purchase or repair of furnishings or equipment
- requisition stock, materials, supplies or equipment
- resolve or assist workers to resolve work problems
- understand service or repair manuals
- understand technical operating, service or repair manuals

Technology - Examples

Accounting software

- Cost accounting software

Calendar and scheduling software

- Scheduling software

- negotiate business contracts
- obtain information from individuals
- order or purchase supplies, materials, or equipment
- oversee execution of organizational or program policies
- perform safety inspections in construction or resource extraction setting
- plan or organize work
- prepare contract documents
- recognize construction industry codes or symbols on blueprints
- recommend action to ensure compliance
- recommend alterations in construction or specifications
- resolve customer or public complaints
- schedule employee work hours
- set priorities for construction workers
- understand construction specifications
- understand government construction contracting regulations
- use building or land use regulations
- use computers to enter, access or retrieve data
- use knowledge of investigation techniques
- use long or short term production planning techniques
- use negotiation techniques
- use project management techniques
- use quality assurance techniques

Technology - Examples

Accounting software

- SRC Cash Flow Forecasting

Analytical or scientific software

- ArenaSoft Estimating

Calendar and scheduling software

- AEC Software FastTrack Schedule
- Scheduling software

Charting software

- Microsoft Office Visio

Compliance software

- CSI WSE CodeBuddy

Computer aided design CAD software

- Autodesk AutoCAD software

Data base user interface and query software

- Database software
- Integrated construction management software

Microsoft Access



## Data base user interface and query software

- Database software
- Microsoft Access
- Vehicle management software

## Electronic mail software

- Email software
- Microsoft Outlook

## Enterprise resource planning ERP software

- Infor SyteLine ERP
- SAP software
- WorkTech MAXIMO

## Facilities management software

- Computerized maintenance management system CMMS software
- Maintenance management software

## Industrial control software

- Programmable logic controller PLC software

## Internet browser software

- Internet browser software
- Microsoft Internet Explorer

## Inventory management software

- Automated inventory software
- Inventory management software

## Office suite software

- Microsoft Office

## Project management software

- Recordkeeping software

## Spreadsheet software

- Microsoft Excel
- Spreadsheet software

## Time accounting software

- Payroll software

## Word processing software

- Microsoft Word
- Word processing software

## Tools - Examples

- Desktop computers
- Laser printers

- MICROSOFT ACCESS

## Document management software

- Axios Systems assyst
- Daily Manager
- Site Manager

## Electronic mail software

- Email software

## Human resources software

- Profitool software (human resources feature)

## Internet browser software

- Internet browser software
- Microsoft Internet Explorer

## Inventory management software

- Profitool GearWatch

## Office suite software

- Microsoft Office

## Presentation software

- Microsoft PowerPoint
- Presentation software

## Project management software

- Cadsoft Design/Build
- CBS ProLog Manager
- Explorer Engineer
- Intuit QuickBase
- ISS Construction Manager
- Jobber Computer Plus
- Microsoft Project
- Primavera Systems Expedition
- Primavera Systems software
- Primavera Systems SureTrak Project Manager
- Sage Software Sage Master Builder
- Sage Timberline Office software
- TERMINALFOUR Site Manager
- UDA Construction Office Construction Management
- Versa-Calc Jobber 6 Construction Calculator
- Virtual Boss software



- Mainframe computers
- Programmable logic controllers PLC
- Personal computers
- Two way radios

## Spreadsheet software

- Microsoft Excel

## Time accounting software

- Profitool software (time accounting feature)

## Web page creation and editing software

- IMPACT software

## Word processing software

- Microsoft Word

## Tools - Examples

- Laptop computers
- Personal computers
- Pocket personal computers PC
- Large-format scanners

## Labor Market Comparison

Maine Department of Labor.

Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	Construction Managers	Difference
Median Wage	\$ 46,810	\$ 72,320	\$ 25,510
10th Percentile Wage	\$ 29,560	\$ 39,770	\$ 10,210
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 59,530	\$ 93,040	\$ 33,510
90th Percentile Wage	\$ 74,550	\$122,070	\$ 47,520
Mean Wage	\$ 49,310	\$ 75,600	\$ 26,290
Total Employment - 2491	2,490	970	-1,520
Employment Base - 2006	2,530	1,825	-705
Projected Employment - 2500	2,535	1,892	-643
Projected Job Growth - 2006-2500	0.2 %	3.7 %	3.5 %
Projected Annual Openings - 2006-2500	60	35	-25
Special			

Special Occupations:

## National Job Posting Trends



Trend for First-Line Supervisors/Managers of Mechanics, Installers, and Repairers and Construction Managers



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

### Programs

#### Related Programs

Business Administration and Management, General

Business Administration and Management, General. A program that generally prepares individuals to plan, organize, direct, and control the functions and processes of a firm or organization. Includes instruction in management theory, human resources management and behavior, accounting and other quantitative methods, purchasing and logistics, organization and production, marketing, and business decision-making.

Institution	Address	City	URL
Central Maine Community College	1250 Turner St	Auburn	<a href="http://www.cmcc.edu">www.cmcc.edu</a>
Central Maine Community College	1250 Turner St	Auburn	<a href="http://www.cmcc.edu">www.cmcc.edu</a>
University of Maine at Augusta	46 University Dr	Augusta	<a href="http://www.uma.maine.edu/">www.uma.maine.edu/</a>
University of Maine at Augusta	46 University Dr	Augusta	<a href="http://www.uma.maine.edu/">www.uma.maine.edu/</a>
Eastern Maine Community College	354 Hogan Rd	Bangor	<a href="http://www.emcc.edu">www.emcc.edu</a>
Husson College	One College Circle	Bangor	<a href="http://www.husson.edu">www.husson.edu</a>
Husson College	One College Circle	Bangor	<a href="http://www.husson.edu">www.husson.edu</a>
Husson College	One College Circle	Bangor	<a href="http://www.husson.edu">www.husson.edu</a>
Beal College	99 Farm Road	Bangor	<a href="http://bealcollege.edu">bealcollege.edu</a>
University of New England	11 Hills Beach Rd	Biddeford	<a href="http://WWW.UNE.EDU">WWW.UNE.EDU</a>
Wasington County Community College	One College Drive	Calais	<a href="http://www.wccc.me.edu">www.wccc.me.edu</a>
University of Maine at Machias	9 O'Brien Ave	Machias	<a href="http://www.umm.maine.edu">www.umm.maine.edu</a>
University of Maine		Orono	<a href="http://www.umaine.edu/">www.umaine.edu/</a>
University of Maine		Orono	<a href="http://www.umaine.edu/">www.umaine.edu/</a>



University of Maine		Orono	<a href="http://www.umaine.edu/">www.umaine.edu/</a>
Andover College	901 Washington Ave	Portland	<a href="http://WWW.ANDOVERCOLLEGE.edu">WWW.ANDOVERCOLLEGE.edu</a>
University of Southern Maine	96 Falmouth St	Portland	<a href="http://www.usm.maine.edu">www.usm.maine.edu</a>
University of Southern Maine	96 Falmouth St	Portland	<a href="http://www.usm.maine.edu">www.usm.maine.edu</a>
University of Southern Maine	96 Falmouth St	Portland	<a href="http://www.usm.maine.edu">www.usm.maine.edu</a>
University of Southern Maine	96 Falmouth St	Portland	<a href="http://www.usm.maine.edu">www.usm.maine.edu</a>
Northern Maine Community College	33 Edgemont Dr	Presque Isle	<a href="http://www.nmcc.edu">www.nmcc.edu</a>
Southern Maine Community College	2 Fort Road	South Portland	<a href="http://www.smccME.edu">www.smccME.edu</a>
Southern Maine Community College	2 Fort Road	South Portland	<a href="http://www.smccME.edu">www.smccME.edu</a>
Saint Josephs College	278 Whites Bridge Rd	Standish	<a href="http://www.sjcme.edu">www.sjcme.edu</a>
Saint Josephs College	278 Whites Bridge Rd	Standish	<a href="http://www.sjcme.edu">www.sjcme.edu</a>
Saint Josephs College	278 Whites Bridge Rd	Standish	<a href="http://www.sjcme.edu">www.sjcme.edu</a>
Thomas College	180 W River Rd	Waterville	<a href="http://www.thomas.edu">www.thomas.edu</a>
Thomas College	180 W River Rd	Waterville	<a href="http://www.thomas.edu">www.thomas.edu</a>
Thomas College	180 W River Rd	Waterville	<a href="http://www.thomas.edu">www.thomas.edu</a>
York County Community College	112 College Drive	Wells	<a href="http://www.yccc.edu">www.yccc.edu</a>

#### Business/Commerce, General

Business/Commerce, General. A program that focuses on the general study of business, including the processes of interchanging goods and services (buying, selling and producing), business organization, and accounting as used in profit-making and nonprofit public and private institutions and agencies. The programs may prepare individuals to apply business principles and techniques in various occupational settings.

Institution	Address	City	URL
Beal College	99 Farm Road	Bangor	<a href="http://bealcollege.edu">bealcollege.edu</a>
University of Maine at Farmington	224 Main St	Farmington	<a href="http://www.umf.maine.edu">www.umf.maine.edu</a>
University of Maine at Fort Kent	23 University Drive	Fort Kent	<a href="http://www.umfk.maine.edu">www.umfk.maine.edu</a>
University of Maine at Presque Isle	181 Main St	Presque Isle	<a href="http://www.umpi.maine.edu">www.umpi.maine.edu</a>
University of Maine at Presque Isle	181 Main St	Presque Isle	<a href="http://www.umpi.maine.edu">www.umpi.maine.edu</a>
Thomas College	180 W River Rd	Waterville	<a href="http://www.thomas.edu">www.thomas.edu</a>

#### Construction and Building Finishers and Managers,

Building/Construction Finishing, Management, and Inspection, Other. Any instructional program in building/construction finishing, management, and inspection not listed above.

No information on schools for the program



Construction Engineering Technology/Technician			
<p>Construction Engineering Technology/Technician. A program that prepares individuals to apply basic engineering principles and technical skills in support of engineers, engineering contractors and other professionals engaged in the construction of buildings and related structures. Includes instruction in basic structural engineering principles and construction techniques, building site inspection, site supervision, construction personnel supervision, plan and specification interpretation, supply logistics and procurement, applicable building codes, and report preparation.</p>			
Institution	Address	City	URL
Central Maine Community College	1250 Turner St	Auburn	<a href="http://www.cmcc.edu">www.cmcc.edu</a>
Central Maine Community College	1250 Turner St	Auburn	<a href="http://www.cmcc.edu">www.cmcc.edu</a>
Eastern Maine Community College	354 Hogan Rd	Bangor	<a href="http://www.emcc.edu">www.emcc.edu</a>
Eastern Maine Community College	354 Hogan Rd	Bangor	<a href="http://www.emcc.edu">www.emcc.edu</a>
Eastern Maine Community College	354 Hogan Rd	Bangor	<a href="http://www.emcc.edu">www.emcc.edu</a>
Construction Trades, Other			
<p>Construction Trades, Other. Any instructional program in construction trades not listed above.</p> <p>No information on schools for the program</p>			
Construction/Building Inspector			
<p>Building/Home/Construction Inspection/Inspector. A program that prepares individuals to apply industrial, labor, and governmental standards and laws to the oversight of construction projects and the maintenance of completed buildings and other structures. Includes instruction in construction processes and techniques, materials analysis, occupational safety and health, industry standards, building codes and specifications, blueprint interpretation, testing equipment and procedures, communication skills, accident investigation, and documentation.</p> <p>No information on schools for the program</p>			
Operations Management and Supervision			
<p>Operations Management and Supervision. A program that prepares individuals to manage and direct the physical and/or technical functions of a firm or organization, particularly those relating to development, production, and manufacturing. Includes instruction in principles of general management, manufacturing and production systems, plant management, equipment maintenance management, production control, industrial labor relations and skilled trades supervision, strategic manufacturing policy, systems analysis, productivity analysis and cost control, and materials planning.</p> <p>No information on schools for the program</p>			

**Maine Statewide Promotion Opportunities for First-Line Supervisors/Managers of Mechanics, Installers, and Repairers**

O*NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
49-1011.00	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	100	4	2,490	\$46,810.00	\$0.00	0%	60	★
11-9021.00	Construction Managers	87	3	970	\$72,320.00	\$25,510.00	4%	35	
11-3051.00	Industrial Production Managers	86	4	690	\$72,560.00	\$25,750.00	-12%	24	
11-3071.02	Storage and Distribution Managers	84	3	710	\$62,270.00	\$15,460.00	5%	25	★



17-3026.00	Industrial Engineering Technicians	84	3	370	\$51,700.00	\$4,890.00	6%	9	★
49-9012.00	Control and Valve Installers and Repairers, Except Mechanical Door	83	3	170	\$47,860.00	\$1,050.00	-9%	3	
49-2095.00	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	83	5	20	\$60,790.00	\$13,980.00	5%	1	
49-9051.00	Electrical Power-Line Installers and Repairers	83	3	280	\$47,750.00	\$940.00	9%	12	★
27-1021.00	Commercial and Industrial Designers	82	4	140	\$49,170.00	\$2,360.00	5%	5	
51-8013.00	Power Plant Operators	81	3	480	\$50,240.00	\$3,430.00	10%	21	★
11-3071.01	Transportation Managers	81	3	710	\$62,270.00	\$15,460.00	5%	25	★
11-9011.01	Nursery and Greenhouse Managers	81	4	30	\$60,610.00	\$13,800.00	20%	15	
49-2094.00	Electrical and Electronics Repairers, Commercial and Industrial Equipment	81	3	440	\$49,450.00	\$2,640.00	-19%	15	
49-9052.00	Telecommunications Line Installers and Repairers	81	3	720	\$56,120.00	\$9,310.00	0%	19	
17-2112.00	Industrial Engineers	80	4	580	\$68,350.00	\$21,540.00	11%	22	

Special Occupations:

### Top Industries for Construction Managers

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Self-employed workers, primary job	000601	53.17%	258,957	300,164	15.91%
Nonresidential building construction	236200	9.46%	46,095	61,803	34.08%
Residential building construction	236100	8.57%	41,733	46,995	12.61%
Self-employed workers, secondary job	000602	3.13%	15,230	15,162	-0.45%
Electrical contractors	238210	2.59%	12,606	13,218	4.86%
Plumbing, heating, and air-conditioning contractors	238220	2.48%	12,099	13,663	12.93%
Other specialty trade contractors	238900	2.41%	11,743	12,979	10.52%
Highway, street, and bridge construction	237300	1.63%	7,928	8,536	7.66%
Local government, excluding education and hospitals	939300	1.50%	7,291	8,191	12.34%
Land subdivision	237200	0.89%	4,323	4,317	-0.15%



Drywall and insulation contractors	238310	0.79%	3,825	4,080	6.66%
Poured concrete foundation and structure contractors	238110	0.70%	3,430	3,866	12.73%
Roofing contractors	238160	0.57%	2,797	3,267	16.77%
Masonry contractors	238140	0.56%	2,724	3,017	10.78%
Power and communication line and related structures construction	237130	0.56%	2,732	2,874	5.20%

### Top Industries for First-Line Supervisors/Managers of Mechanics, Installers, and Repairers

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Automobile dealers	441100	6.95%	32,287	36,627	13.44%
Automotive mechanical and electrical repair and maintenance	811110	5.50%	25,547	30,332	18.73%
Local government, excluding education and hospitals	939300	5.31%	24,681	27,727	12.34%
Plumbing, heating, and air-conditioning contractors	238220	3.15%	14,658	16,552	12.93%
Automotive parts, accessories, and tire stores	441300	2.86%	13,294	12,969	-2.44%
Automotive body, paint, interior, and glass repair	811120	2.85%	13,264	15,487	16.76%
Electric power generation, transmission and distribution	221100	2.79%	12,970	11,929	-8.03%
Federal government, excluding postal service	919999	2.45%	11,388	10,766	-5.47%
Wired telecommunications carriers	517100	2.42%	11,241	8,825	-21.49%
Lessors of real estate	531100	2.27%	10,546	11,619	10.18%
Electrical contractors	238210	1.83%	8,518	8,931	4.86%
State government, excluding education and hospitals	929200	1.66%	7,712	7,568	-1.87%
Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	811300	1.46%	6,774	7,168	5.82%
Elementary and secondary schools, public and private	611100	1.43%	6,655	7,013	5.38%
Activities related to real estate	531300	1.41%	6,543	8,339	27.44%



# TORQ Analysis of First-Line Supervisors/Managers of Mechanics, Installers, and Repairers to Industrial Production Managers

ANALYSIS INPUT					
Transfer	Title	O*NET	Filters		
From Title:	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	49-1011.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Industrial Production Managers	11-3051.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

TORQ RESULTS													
Grand TORQ:												86	
Ability TORQ				Skills TORQ				Knowledge TORQ					
Level				96	Level				77	Level			85
Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add					
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt		
Written Expression	59	8	59	Active Listening	83	10	79	Economics and Accounting	44	11	77		
Mathematical Reasoning	53	7	56	Operations Analysis	64	7	73	Food Production	15	10	79		
Deductive Reasoning	64	4	72	Coordination	76	4	74						
Information Ordering	59	4	65	Judgment and Decision Making	68	3	81						
Oral Comprehension	62	2	78	Critical Thinking	66	2	79						
Problem Sensitivity	62	2	75	Social Perceptiveness	63	2	76						
Inductive Reasoning	59	2	75										
Perceptual Speed	48	2	59										
Originality	55	2	56										
LEVEL and IMPT (IMPORTANCE) refer to the Target Industrial Production Managers. GAP refers to level difference between First-Line Supervisors/Managers of Mechanics, Installers, and Repairers and Industrial Production Managers.													

ASK ANALYSIS			
Ability Level Comparison - Abilities with importance scores over 50			
Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	Industrial Production Managers	Importance
Oral Comprehension	60	62	78



Oral Expression	66	64	78
Written Comprehension	60	60	75
Problem Sensitivity	60	62	75
Inductive Reasoning	57	59	75
Deductive Reasoning	60	64	72
Speech Clarity	53	46	68
Information Ordering	55	59	65
Near Vision	55	55	65
Speech Recognition	53	50	65
Written Expression	51	59	59
Category Flexibility	53	53	59
Perceptual Speed	46	48	59
Originality	53	55	56
Mathematical Reasoning	46	53	56
Visualization	59	57	50
Selective Attention	51	41	50
Far Vision	48	42	50

Skill Level Comparison - Abilities with importance scores over 69

Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	Industrial Production Managers	Importance
Judgment and Decision Making	65	68	81
Active Listening	73	83	79
Critical Thinking	64	66	79
Social Perceptiveness	61	63	76
Coordination	72	76	74
Operations Analysis	57	64	73

Knowledge Level Comparison - Knowledge with importance scores over 69

Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	Industrial Production Managers	Importance
Food Production	5	15	79
Economics and Accounting	33	44	77

### Experience & Education Comparison

Related Work Experience Comparison			Required Education Level Comparison		
Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	Industrial Production Managers	Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	Industrial Production Managers
10+ years	22%	0%	Doctoral	0%	0%
8-10 years	8%	0%	Professional Degree	0%	0%
6-8 years	7%	28%			



0-6 years	17%	18%	Post-Masters Cert	0%	0%
4-6 years	19%	42%	Master's Degree	7%	1%
2-4 years	16%	0%	Post-Bachelor Cert	0%	4%
1-2 years	6%	7%	Bachelors	11%	18%
6-12 months	0%	0%	AA or Equiv	29%	16%
3-6 months	0%	0%	Some College	5%	12%
1-3 months	0%	0%	Post-Secondary Certificate	33%	26%
0-1 month	0%	0%	High School Diploma or GED	10%	20%
None	1%	1%	No HSD or GED	0%	0%

First-Line Supervisors/Managers of Mechanics, Installers, and Repairers      Industrial Production Managers

**Most Common Educational/Training Requirement:**

Work experience in a related occupation      Work experience in a related occupation

**Job Zone Comparison**

<p>4 - Job Zone Four: Considerable Preparation Needed</p> <p>A minimum of two to four years of work-related skill, knowledge, or experience is needed for these occupations. For example, an accountant must complete four years of college and work for several years in accounting to be considered qualified.</p> <p>Most of these occupations require a four - year bachelor's degree, but some do not.</p> <p>Employees in these occupations usually need several years of work-related experience, on-the-job training, and/or vocational training.</p>	<p>4 - Job Zone Four: Considerable Preparation Needed</p> <p>A minimum of two to four years of work-related skill, knowledge, or experience is needed for these occupations. For example, an accountant must complete four years of college and work for several years in accounting to be considered qualified.</p> <p>Most of these occupations require a four - year bachelor's degree, but some do not.</p> <p>Employees in these occupations usually need several years of work-related experience, on-the-job training, and/or vocational training.</p>
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**Tasks**

First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	Industrial Production Managers
<p>Core Tasks</p> <p>Generalized Work Activities:</p> <ul style="list-style-type: none"> <li>• Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.</li> <li>• Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.</li> <li>• Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.</li> <li>• Making Decisions and Solving Problems - Analyzing information and evaluating results to choose the best solution and solve problems.</li> <li>• Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.</li> </ul> <p>Specific Tasks</p>	<p>Core Tasks</p> <p>Generalized Work Activities:</p> <ul style="list-style-type: none"> <li>• Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.</li> <li>• Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.</li> <li>• Guiding, Directing, and Motivating Subordinates - Providing guidance and direction to subordinates, including setting performance standards and monitoring performance.</li> <li>• Making Decisions and Solving Problems - Analyzing information and evaluating results to choose the best solution and solve problems.</li> <li>• Coordinating the Work and Activities of Others- Getting members of a group to work together to accomplish tasks.</li> </ul> <p>Specific Tasks</p>



## Occupation Specific Tasks:

- Compile operational and personnel records, such as time and production records, inventory data, repair and maintenance statistics, and test results.
- Compute estimates and actual costs of factors such as materials, labor, and outside contractors.
- Conduct or arrange for worker training in safety, repair, and maintenance techniques, operational procedures, or equipment use.
- Confer with personnel, such as management, engineering, quality control, customer, and union workers' representatives, to coordinate work activities, resolve employee grievances, and identify and review resource needs.
- Counsel employees about work-related issues and assist employees to correct job-skill deficiencies.
- Design equipment configurations to meet personnel needs.
- Determine schedules, sequences, and assignments for work activities, based on work priority, quantity of equipment and skill of personnel.
- Develop and implement electronic maintenance programs and computer information management systems.
- Develop, implement, and evaluate maintenance policies and procedures.
- Examine objects, systems, or facilities, and analyze information to determine needed installations, services, or repairs.
- Inspect, test, and measure completed work, using devices such as hand tools and gauges to verify conformance to standards and repair requirements.
- Interpret specifications, blueprints, and job orders to construct templates and lay out reference points for workers.
- Investigate accidents and injuries, and prepare reports of findings.
- Meet with vendors and suppliers to discuss products used in repair work.
- Monitor employees' work levels and review work performance.
- Monitor tool inventories and the condition and maintenance of shops in order to ensure adequate working conditions.
- Participate in budget preparation and administration, coordinating purchasing and documentation, and monitoring departmental expenditures.
- Patrol and monitor work areas and examine tools and equipment in order to detect unsafe conditions or violations of procedures or safety rules.
- Perform skilled repair and maintenance operations, using equipment such as hand and power tools, hydraulic presses and shears, and welding equipment.
- Recommend or initiate personnel actions, such as hires, promotions, transfers,

## Occupation Specific Tasks:

- Coordinate and recommend procedures for facility and equipment maintenance or modification, including the replacement of machines.
- Develop and implement production tracking and quality control systems, analyzing production, quality control, maintenance, and other operational reports, to detect production problems.
- Develop budgets and approve expenditures for supplies, materials, and human resources, ensuring that materials, labor and equipment are used efficiently to meet production targets.
- Direct and coordinate production, processing, distribution, and marketing activities of industrial organization.
- Hire, train, evaluate, and discharge staff, and resolve personnel grievances.
- Initiate and coordinate inventory and cost control programs.
- Institute employee suggestion or involvement programs.
- Maintain current knowledge of the quality control field, relying on current literature pertaining to materials use, technological advances, and statistical studies.
- Negotiate materials prices with suppliers.
- Prepare and maintain production reports and personnel records.
- Review operations and confer with technical or administrative staff to resolve production or processing problems.
- Review plans and confer with research and support staff to develop new products and processes.
- Review processing schedules and production orders to make decisions concerning inventory requirements, staffing requirements, work procedures, and duty assignments, considering budgetary limitations and time constraints.
- Set and monitor product standards, examining samples of raw products or directing testing during processing, to ensure finished products are of prescribed quality.

## Detailed Tasks

## Detailed Work Activities:

- analyze financial data
- analyze operational or management reports or records
- assign work to staff or employees
- communicate technical information
- compute product or materials test results
- conduct meetings with staff to ensure production objectives are met
- conduct or attend staff meetings
- conduct research on work-related topics
- coordinate production maintenance activities



discharges, and disciplinary measures.

- Requisition materials and supplies, such as tools, equipment, and replacement parts.

Detailed Tasks

Detailed Work Activities:

- assign work to staff or employees
- conduct or attend staff meetings
- conduct training for personnel
- confer with customer representatives
- confer with engineering, technical or manufacturing personnel
- consult with managerial or supervisory personnel
- coordinate equipment or personnel in mechanical repair setting
- demonstrate or explain assembly or use of equipment
- determine installation, service, or repair needed
- develop budgets
- develop maintenance schedules
- develop policies, procedures, methods, or standards
- develop staffing plan
- diagnose mechanical problems in machinery or equipment
- direct and coordinate activities of workers or staff
- discipline staff for infractions of rules or regulations
- establish employee performance standards
- estimate cost for repair services
- estimate materials or labor requirements
- evaluate performance of employees or contract personnel
- examine products or work to verify conformance to specifications
- hire, discharge, transfer, or promote workers
- inspect facilities to determine repair or replacement needs
- inspect machinery or equipment to determine adjustments or repairs needed
- modify work procedures or processes to meet deadlines
- monitor operations to verify conformance to standards
- monitor worker performance
- orient new employees
- oversee work progress to verify safety or conformance to standards
- perform safety inspections in manufacturing or industrial setting
- prepare or maintain employee records
- prepare reports

coordinate production maintenance activities

- coordinate production materials, activities or processes
- design manufacturing processes or methods
- determine factors affecting production processes
- develop budgets
- develop maintenance schedules
- develop management control systems
- develop plans for programs or projects
- develop policies, procedures, methods, or standards
- develop staffing plan
- direct and coordinate activities of workers or staff
- establish production schedule
- estimate time or cost for installation, repair, or construction projects
- evaluate manufacturing or processing systems
- follow manufacturing methods or techniques
- hire, discharge, transfer, or promote workers
- inspect or test materials to verify safety standards or ensure meeting of specifications
- maintain or repair industrial or related equipment/machinery
- maintain records, reports, or files
- maintain safe work environment
- make decisions
- manage industrial projects
- negotiate business contracts
- oversee execution of organizational or program policies
- perform safety inspections in industrial, manufacturing or repair setting
- perform safety inspections in manufacturing or industrial setting
- plan or organize work
- read technical drawings
- resolve personnel problems or grievances
- schedule work to meet deadlines
- supervise production workers
- supervise quality control workers
- understand technical operating, service or repair manuals
- use inventory control procedures
- use long or short term production planning techniques
- use negotiation techniques
- use oral or written communication techniques
- use technical information in manufacturing or industrial activities

Technology - Examples

Accounting software



- prepare reports
- read blueprints
- read schematics
- read specifications
- read technical drawings
- read work order, instructions, formulas, or processing charts
- recommend improvements to work methods or procedures
- recommend personnel actions, such as promotions, transfers, and dismissals
- recommend purchase or repair of furnishings or equipment
- requisition stock, materials, supplies or equipment
- resolve or assist workers to resolve work problems
- understand service or repair manuals
- understand technical operating, service or repair manuals

#### Technology - Examples

##### Accounting software

- Cost accounting software

##### Calendar and scheduling software

- Scheduling software

##### Data base user interface and query software

- Database software
- Microsoft Access

- Vehicle management software

##### Electronic mail software

- Email software
- Microsoft Outlook

##### Enterprise resource planning ERP software

- Infor SyteLine ERP
- SAP software
- WorkTech MAXIMO

##### Facilities management software

- Computerized maintenance management system CMMS software
- Maintenance management software

##### Industrial control software

- Programmable logic controller PLC software

##### Internet browser software

- Internet browser software
- Microsoft Internet Explorer

- Intuit QuickBooks Manufacturing & Wholesale software

##### Calendar and scheduling software

- Computer integrated manufacturing CIM software
- WorkSchedule software

##### Data base user interface and query software

- Database software

##### Document management software

- QUMAS software

##### Electronic mail software

- Microsoft Outlook

##### Enterprise resource planning ERP software

- Enterprise resource planning ERP software

##### Facilities management software

- ABB Optimize software
- Plant management software

##### Financial analysis software

- Financial planning software

##### Human resources software

- Clockware software
- Computer integrated manufacturing CIM time manager software
- Employee performance management software

##### Industrial control software

- Citect IIM
- CitectSCADA Reports
- CitectSCADA software
- Industrial production manager and stock control software

- Marel production system MPS software

- Prosys software

- Statistical process control software

- Wonderware DT Analyst Plant Productivity Improvement Software

##### Inventory management software

- Computer integrated manufacturing CIM warehouse shipping manager software
- SAP inventory software

##### Office suite software

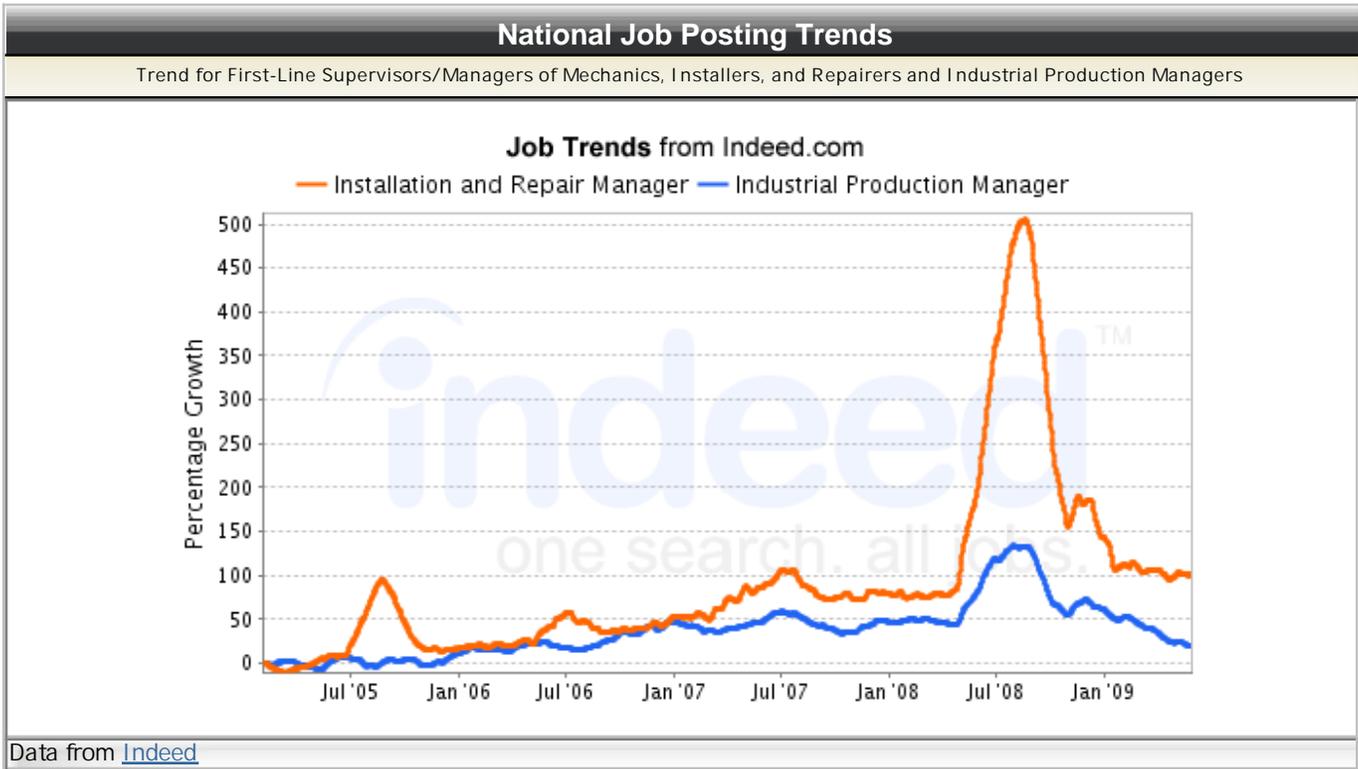


Inventory management software	<ul style="list-style-type: none"> <li>• interBiz BizWorks</li> </ul>
<ul style="list-style-type: none"> <li>• Automated inventory software</li> </ul>	<ul style="list-style-type: none"> <li>• Microsoft Office</li> </ul>
<ul style="list-style-type: none"> <li>• Inventory management software</li> </ul>	Presentation software
Office suite software	<ul style="list-style-type: none"> <li>• Microsoft PowerPoint</li> </ul>
<ul style="list-style-type: none"> <li>• Microsoft Office</li> </ul>	Project management software
Project management software	<ul style="list-style-type: none"> <li>• Scadex timecard20</li> </ul>
<ul style="list-style-type: none"> <li>• Recordkeeping software</li> </ul>	Spreadsheet software
Spreadsheet software	<ul style="list-style-type: none"> <li>• Microsoft Excel</li> </ul>
<ul style="list-style-type: none"> <li>• Microsoft Excel</li> </ul>	Word processing software
<ul style="list-style-type: none"> <li>• Spreadsheet software</li> </ul>	<ul style="list-style-type: none"> <li>• CorVu software</li> </ul>
Time accounting software	<ul style="list-style-type: none"> <li>• IBM Rational ClearQuest</li> </ul>
<ul style="list-style-type: none"> <li>• Payroll software</li> </ul>	<ul style="list-style-type: none"> <li>• Microsoft Word</li> </ul>
Word processing software	
<ul style="list-style-type: none"> <li>• Microsoft Word</li> </ul>	
<ul style="list-style-type: none"> <li>• Word processing software</li> </ul>	
<b>Tools - Examples</b>	
<ul style="list-style-type: none"> <li>• Desktop computers</li> </ul>	<ul style="list-style-type: none"> <li>• Desktop computers</li> </ul>
<ul style="list-style-type: none"> <li>• Laser printers</li> </ul>	<ul style="list-style-type: none"> <li>• Notebook computers</li> </ul>
<ul style="list-style-type: none"> <li>• Mainframe computers</li> </ul>	<ul style="list-style-type: none"> <li>• Personal computers</li> </ul>
<ul style="list-style-type: none"> <li>• Programmable logic controllers PLC</li> </ul>	<ul style="list-style-type: none"> <li>• Personal digital assistants PDA</li> </ul>
<ul style="list-style-type: none"> <li>• Personal computers</li> </ul>	<ul style="list-style-type: none"> <li>• Scanners</li> </ul>
<ul style="list-style-type: none"> <li>• Two way radios</li> </ul>	<ul style="list-style-type: none"> <li>• Tablet computers</li> </ul>

<b>Labor Market Comparison</b>			
Maine Department of Labor.			
Description	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	Industrial Production Managers	Difference
Median Wage	\$ 46,810	\$ 72,560	\$ 25,750
10th Percentile Wage	\$ 29,560	\$ 44,130	\$ 14,570
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 59,530	\$ 93,880	\$ 34,350
90th Percentile Wage	\$ 74,550	\$118,880	\$ 44,330
Mean Wage	\$ 49,310	\$ 77,130	\$ 27,820
Total Employment - 2491	2,490	690	-1,800



Employment Base - 2006	2,530	695	-1,835
Projected Employment - 2500	2,535	614	-1,921
Projected Job Growth - 2006-2500	0.2 %	-11.7 %	-11.9 %
Projected Annual Openings - 2006-2500	60	24	-36
Special	★		
Special Occupations:			



### Programs

#### Related Programs

Business Administration and Management, General

Business Administration and Management, General. A program that generally prepares individuals to plan, organize, direct, and control the functions and processes of a firm or organization. Includes instruction in management theory, human resources management and behavior, accounting and other quantitative methods, purchasing and logistics, organization and production, marketing, and business decision-making.

Institution	Address	City	URL
Central Maine Community College	1250 Turner St	Auburn	<a href="http://www.cmcc.edu">www.cmcc.edu</a>
Central Maine Community College	1250 Turner St	Auburn	<a href="http://www.cmcc.edu">www.cmcc.edu</a>
University of Maine at Augusta	46 University Dr	Augusta	<a href="http://www.uma.maine.edu/">www.uma.maine.edu/</a>
University of Maine at Augusta	46 University Dr	Augusta	<a href="http://www.uma.maine.edu/">www.uma.maine.edu/</a>



Eastern Maine Community College	354 Hogan Rd	Bangor	<a href="http://www.emcc.edu">www.emcc.edu</a>
Husson College	One College Circle	Bangor	<a href="http://www.husson.edu">www.husson.edu</a>
Husson College	One College Circle	Bangor	<a href="http://www.husson.edu">www.husson.edu</a>
Husson College	One College Circle	Bangor	<a href="http://www.husson.edu">www.husson.edu</a>
Beal College	99 Farm Road	Bangor	<a href="http://bealcollege.edu">bealcollege.edu</a>
University of New England	11 Hills Beach Rd	Biddeford	<a href="http://WWW.UNE.EDU">WWW.UNE.EDU</a>
Wasington County Community College	One College Drive	Calais	<a href="http://www.wccc.me.edu">www.wccc.me.edu</a>
University of Maine at Machias	9 O'Brien Ave	Machias	<a href="http://www.umm.maine.edu">www.umm.maine.edu</a>
University of Maine		Orono	<a href="http://www.umaine.edu/">www.umaine.edu/</a>
University of Maine		Orono	<a href="http://www.umaine.edu/">www.umaine.edu/</a>
University of Maine		Orono	<a href="http://www.umaine.edu/">www.umaine.edu/</a>
Andover College	901 Washington Ave	Portland	<a href="http://WWW.ANDOVERCOLLEGE.edu">WWW.ANDOVERCOLLEGE.edu</a>
University of Southern Maine	96 Falmouth St	Portland	<a href="http://www.usm.maine.edu">www.usm.maine.edu</a>
University of Southern Maine	96 Falmouth St	Portland	<a href="http://www.usm.maine.edu">www.usm.maine.edu</a>
University of Southern Maine	96 Falmouth St	Portland	<a href="http://www.usm.maine.edu">www.usm.maine.edu</a>
University of Southern Maine	96 Falmouth St	Portland	<a href="http://www.usm.maine.edu">www.usm.maine.edu</a>
Northern Maine Community College	33 Edgemont Dr	Presque Isle	<a href="http://www.nmcc.edu">www.nmcc.edu</a>
Southern Maine Community College	2 Fort Road	South Portland	<a href="http://www.smccME.edu">www.smccME.edu</a>
Southern Maine Community College	2 Fort Road	South Portland	<a href="http://www.smccME.edu">www.smccME.edu</a>
Saint Josephs College	278 Whites Bridge Rd	Standish	<a href="http://www.sjcme.edu">www.sjcme.edu</a>
Saint Josephs College	278 Whites Bridge Rd	Standish	<a href="http://www.sjcme.edu">www.sjcme.edu</a>
Saint Josephs College	278 Whites Bridge Rd	Standish	<a href="http://www.sjcme.edu">www.sjcme.edu</a>
Thomas College	180 W River Rd	Waterville	<a href="http://www.thomas.edu">www.thomas.edu</a>
Thomas College	180 W River Rd	Waterville	<a href="http://www.thomas.edu">www.thomas.edu</a>
Thomas College	180 W River Rd	Waterville	<a href="http://www.thomas.edu">www.thomas.edu</a>
York County Community College	112 College Drive	Wells	<a href="http://www.yccc.edu">www.yccc.edu</a>

## Business/Commerce, General

Business/Commerce, General. A program that focuses on the general study of business, including the processes of interchanging goods and services (buying, selling and producing), business organization, and accounting as used in profit-making and nonprofit public and private institutions and agencies. The programs may prepare individuals to apply business principles and techniques in various occupational settings.

Institution	Address	City	URL
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Beal College	99 Farm Road	Bangor	<a href="http://bealcollege.edu">bealcollege.edu</a>
University of Maine at Farmington	224 Main St	Farmington	<a href="http://www.umf.maine.edu">www.umf.maine.edu</a>
University of Maine at Fort Kent	23 University Drive	Fort Kent	<a href="http://www.umfk.maine.edu">www.umfk.maine.edu</a>
University of Maine at Presque Isle	181 Main St	Presque Isle	<a href="http://www.umpi.maine.edu">www.umpi.maine.edu</a>
University of Maine at Presque Isle	181 Main St	Presque Isle	<a href="http://www.umpi.maine.edu">www.umpi.maine.edu</a>
Thomas College	180 W River Rd	Waterville	<a href="http://www.thomas.edu">www.thomas.edu</a>

#### Operations Management and Supervision

Operations Management and Supervision. A program that prepares individuals to manage and direct the physical and/or technical functions of a firm or organization, particularly those relating to development, production, and manufacturing. Includes instruction in principles of general management, manufacturing and production systems, plant management, equipment maintenance management, production control, industrial labor relations and skilled trades supervision, strategic manufacturing policy, systems analysis, productivity analysis and cost control, and materials planning.

No information on schools for the program

### Maine Statewide Promotion Opportunities for First-Line Supervisors/Managers of Mechanics, Installers, and Repairers

O*NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings	Special
49-1011.00	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	100	4	2,490	\$46,810.00	\$0.00	0%	60	★
11-9021.00	Construction Managers	87	3	970	\$72,320.00	\$25,510.00	4%	35	
11-3051.00	Industrial Production Managers	86	4	690	\$72,560.00	\$25,750.00	-12%	24	
11-3071.02	Storage and Distribution Managers	84	3	710	\$62,270.00	\$15,460.00	5%	25	★
17-3026.00	Industrial Engineering Technicians	84	3	370	\$51,700.00	\$4,890.00	6%	9	★
49-9012.00	Control and Valve Installers and Repairers, Except Mechanical Door	83	3	170	\$47,860.00	\$1,050.00	-9%	3	
49-2095.00	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	83	5	20	\$60,790.00	\$13,980.00	5%	1	
49-9051.00	Electrical Power-Line Installers and Repairers	83	3	280	\$47,750.00	\$940.00	9%	12	★
27-1021.00	Commercial and Industrial Designers	82	4	140	\$49,170.00	\$2,360.00	5%	5	



51-8013.00	Power Plant Operators	81	3	480	\$50,240.00	\$3,430.00	10%	21	★
11-3071.01	Transportation Managers	81	3	710	\$62,270.00	\$15,460.00	5%	25	★
11-9011.01	Nursery and Greenhouse Managers	81	4	30	\$60,610.00	\$13,800.00	20%	15	
49-2094.00	Electrical and Electronics Repairers, Commercial and Industrial Equipment	81	3	440	\$49,450.00	\$2,640.00	-19%	15	
49-9052.00	Telecommunications Line Installers and Repairers	81	3	720	\$56,120.00	\$9,310.00	0%	19	
17-2112.00	Industrial Engineers	80	4	580	\$68,350.00	\$21,540.00	11%	22	

Special Occupations:

### Top Industries for Industrial Production Managers

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Plastics product manufacturing	326100	4.29%	6,750	7,155	6.00%
Management of companies and enterprises	551100	3.66%	5,764	6,644	15.28%
Motor vehicle parts manufacturing	336300	3.37%	5,300	4,220	-20.39%
Printing and related support activities	323100	3.31%	5,207	4,126	-20.77%
Aerospace product and parts manufacturing	336400	3.05%	4,798	4,887	1.84%
Semiconductor and other electronic component manufacturing	334400	3.05%	4,802	4,197	-12.59%
Navigational, measuring, electromedical, and control instruments manufacturing	334500	2.76%	4,338	4,153	-4.26%
Architectural and structural metals manufacturing	332300	2.69%	4,230	4,518	6.80%
Pharmaceutical and medicine manufacturing	325400	2.47%	3,879	4,888	26.03%
Converted paper product manufacturing	322200	2.19%	3,451	2,896	-16.08%
Self-employed workers, primary job	000601	2.01%	3,162	3,369	6.54%
Other general purpose machinery manufacturing	333900	1.92%	3,019	2,725	-9.73%
Machine shops	332710	1.86%	2,924	2,419	-17.28%
Medical equipment and supplies manufacturing	339100	1.85%	2,908	2,974	2.29%
Other fabricated metal product manufacturing	332900	1.69%	2,656	2,354	-11.39%

### Top Industries for First-Line Supervisors/Managers of Mechanics, Installers, and Repairers

Industry	NAICS	% of Industry	Employment	Projected Employment	% Change
Automobile dealers	441100	6.95%	32,287	36,627	13.44%



Automotive mechanical and electrical repair and maintenance	811110	5.50%	25,547	30,332	18.73%
Local government, excluding education and hospitals	939300	5.31%	24,681	27,727	12.34%
Plumbing, heating, and air-conditioning contractors	238220	3.15%	14,658	16,552	12.93%
Automotive parts, accessories, and tire stores	441300	2.86%	13,294	12,969	-2.44%
Automotive body, paint, interior, and glass repair	811120	2.85%	13,264	15,487	16.76%
Electric power generation, transmission and distribution	221100	2.79%	12,970	11,929	-8.03%
Federal government, excluding postal service	919999	2.45%	11,388	10,766	-5.47%
Wired telecommunications carriers	517100	2.42%	11,241	8,825	-21.49%
Lessors of real estate	531100	2.27%	10,546	11,619	10.18%
Electrical contractors	238210	1.83%	8,518	8,931	4.86%
State government, excluding education and hospitals	929200	1.66%	7,712	7,568	-1.87%
Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	811300	1.46%	6,774	7,168	5.82%
Elementary and secondary schools, public and private	611100	1.43%	6,655	7,013	5.38%
Activities related to real estate	531300	1.41%	6,543	8,339	27.44%

## 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)