



WAGE DATA

Rate Type / Statistical Type	Entry level	Mean	Experienced
Annual wage or salary	\$76,000	\$118,221	\$138,755
Hourly wage	\$36.13	\$55.66	\$65.42

JOB DESCRIPTION

Plan, direct, or coordinate the work activities and resources necessary for engineering manufacturing products in accordance with cost, quality, and quantity specifications.

DUTIES

- Review processing schedules or production orders to make decisions concerning design requirements, staffing requirements, work procedures, or duty assignments considering budgetary limitations and time.
- Direct or coordinate engineering, processing, distribution, or marketing activities of industrial organizations.
- Develop or implement engineering tracking or quality control systems, analyzing production, quality control, maintenance, or other operational reports, to detect production problems.
- Review operations and confer with technical or administrative staff to resolve engineering and design problems.
- Hire, train, evaluate, or discharge staff or resolve personnel grievances.
- Prepare and maintain production reports or personnel records.
- Set and monitor product standards, examining samples of raw products or directing testing during processing to ensure finished products are of prescribed quality.
- Develop budgets or approve expenditures for supplies, materials, or human resources ensuring that materials, labor, or equipment are used efficiently to meet production targets.
- Initiate or coordinate inventory or cost control programs.
- Coordinate or recommend procedures for facility or equipment maintenance or modification, including the replacement of machines.

TOOLS and TECHNOLOGY

Technology used in this occupation:

Database user interface and query software — Database software, Exact Software JobBOSS, Scadex Technologies MAESTRO

Facilities management software — ABB Optimize software, Plant management software

Human resources software — Clockware software, Computer integrated manufacturing CIM time manager software, Employee performance management software

Industrial control software — Citect IIM, Marel production system MPS software, Statistical process control software, Wonderware DT Analyst Plant Productivity Improvement Software

Word processing software — CorVu software, Microsoft Word

KNOWLEDGE

Production and Processing — Knowledge of raw materials, production processes, quality control, costs, and other techniques for maximizing the effective manufacture and distribution of goods.

Administration and Management — Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.

Customer and Personal Service — Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.

Personnel and Human Resources — Knowledge of principles and procedures for personnel recruitment, selection, training, compensation and benefits, labor relations and negotiation, and personnel information systems.

Mathematics — Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.

Engineering and Technology — Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production.

Mechanical — Knowledge of machines and tools including their designs, uses, repair, and maintenance.

Computers and Electronics — Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software including applications and programming.

SKILLS

Critical Thinking — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.

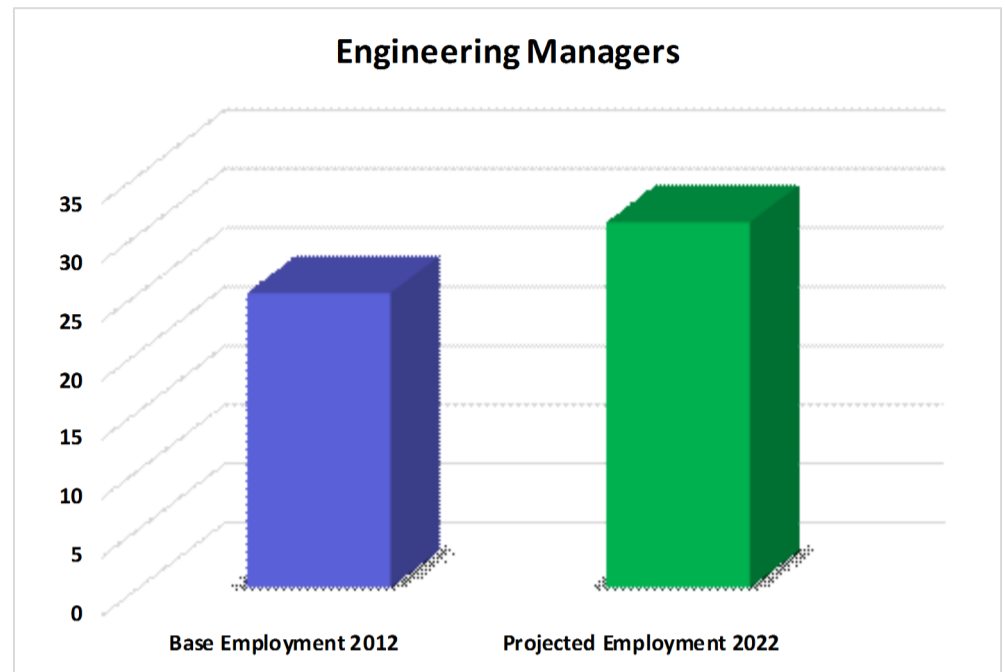
Monitoring — Monitoring/assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.

Speaking — Talking to others to convey information effectively.

Coordination — Adjusting actions in relation to others' actions.

Time Management — Managing one's own time and the time of others.

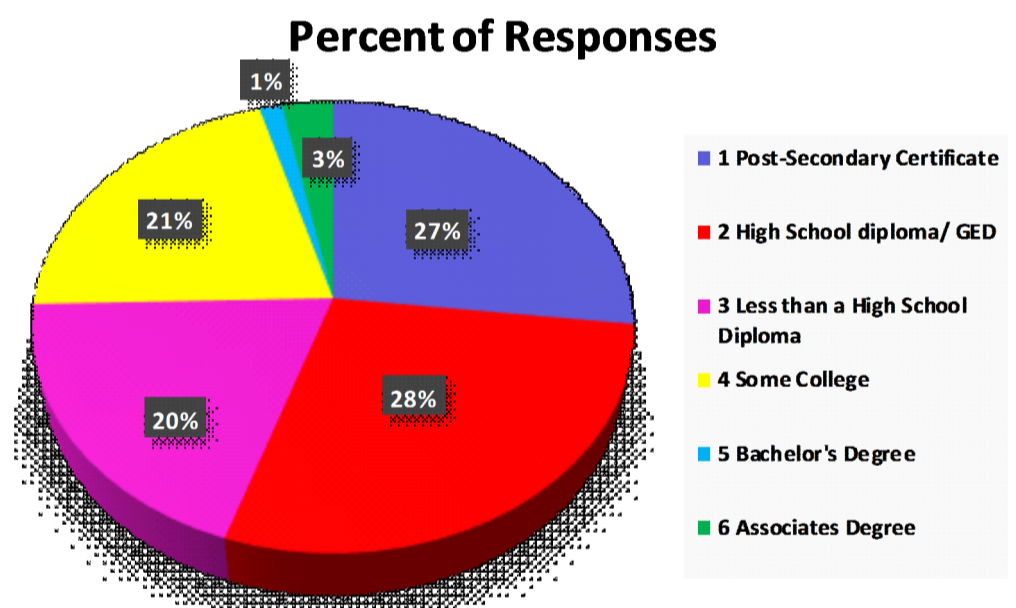
EMPLOYMENT PROJECTION



This information is based on LMI Gateway Data

EDUCATION

The graph below shows the results of a national survey listing the most common required level of education for Engineering Managers.



EDUCATION FOR THIS JOB

- 2014 Catalogue of Colorado Advanced Manufacturing Program and Skill Resources
<http://www.coloradomanufacturingcareers.com/>
- Approved Colorado Community College Manufacturing Cluster education programs
<http://www.coloradocommunitycolleges.com/go/programs/skilled-trades-technical-sciences/>
<http://www.coloradocommunitycolleges.com/go/>
- Colorado Four Year Colleges and Universities
<http://higher.ed.colorado.gov/academics/colleges/public4year.asp>
- Locations to Get Manufacturing Certificates
<http://www.coloradomanufacturingcareers.com/>

