

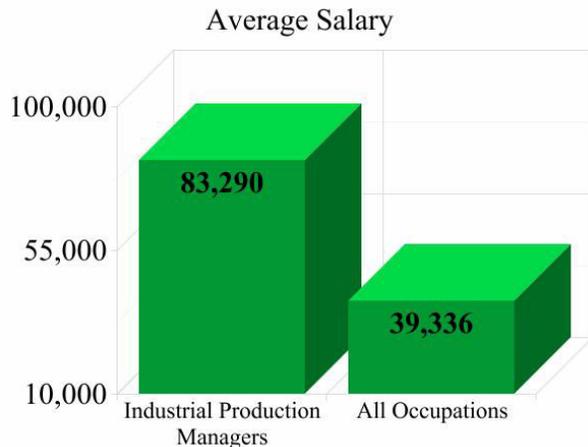
Industrial Production Managers

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WHAT THEY DO

Industrial production managers plan, direct, and coordinate the production activities required to produce the vast array of goods manufactured every year in the United States. They make sure that production meets output and quality goals while remaining within budget. Depending on the size of the manufacturing plant, industrial production managers may oversee the entire plant or just one area of it.

Industrial production managers devise methods to use the plant's personnel and capital resources to best meet production goals. They may determine which machines will be used, whether new machines need to be purchased, whether overtime or extra shifts are necessary, and what the sequence of production will be. They monitor the production run to make sure that it stays on schedule, and they correct any problems that may arise.



Part of an industrial production manager's job is to come up with ways to make the production process more efficient. Traditional factory methods, such as mass assembly lines, have given way to "lean" production techniques, which give managers more flexibility. In a traditional assembly line, each worker was responsible for only a small portion of the assembly, repeating that task on every product. Lean production, by contrast, employs teams to build and assemble products in stations or cells. Thus, rather than specializing in a specific task, workers are capable of performing all jobs within a team. Without the constraints of the traditional assembly line, industrial production managers can more easily change production levels and staffing on different product lines to minimize inventory.

Industrial production managers also monitor product standards and implement quality control programs. They make sure that the finished product meets a certain level of quality, and if it doesn't, they try to find out what the problem is and solve it.

Although traditional quality control programs reacted only to problems that reached a certain significant level, newer management techniques and programs, such as ISO 9000, Total Quality Management (TQM), or Six Sigma, emphasize continuous quality improvement. If the problem relates to the quality of work performed in the plant, the manager may implement better training programs or reorganize the manufacturing process, often on the basis of the suggestions of employee teams. If the cause is substandard materials or parts from outside suppliers, the industrial production manager may work with the supplier to improve their quality.

EDUCATION REQUIRED

Many industrial production managers have a college degree in business administration, management, industrial technology, or industrial engineering. However, although employers may prefer candidates with a business or engineering background, some companies will hire well-rounded graduates from other fields who are willing to spend time in a production-related job, because experience in some aspect of production operations is needed before one advances to upper management positions.

Some industrial production managers enter the occupation after working their way up through the ranks, starting as production workers and then advancing to supervisory positions before being selected for management. These workers already have an intimate knowledge of the production process and the firm's organization. To increase one's chances of promotion, workers can expand their skills by obtaining a college degree, demonstrating leadership qualities, or taking company-sponsored courses to learn the additional skills needed in management positions.

As production operations become more sophisticated, an increasing number of employers are looking for candidates with graduate degrees in industrial management or business administration, particularly for positions at larger plants where managers have more oversight responsibilities. Combined with an undergraduate degree in engineering, either of these graduate degrees is considered particularly good preparation. Managers who do not have graduate degrees often take courses in decision sciences, which provide them with techniques and statistical formulas that can be used to maximize efficiency and improve quality.

Those who enter the field directly from college or graduate school often are unfamiliar with the firm's production process. As a result, they may spend their first few months in the company's training program. These programs familiarize trainees with the production process, company policies, and the requirements of the job. In larger companies, they also may include assignments to other departments, such as purchasing and accounting. A number of companies hire college graduates as first-line supervisors and promote them to management positions later.

Industrial Production Managers - Continued

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OTHER USEFUL SKILLS

Today, companies are placing greater importance on a candidate's interpersonal skills. Because the job requires the ability to compromise, persuade, and negotiate, successful production managers must be well rounded and have excellent communication skills. Strong computer skills also are essential.

Industrial production managers must continually keep informed of new production technologies and management practices. Many belong to professional organizations and attend trade shows or industry conferences where new equipment is displayed and new production methods and technologies discussed.

HOW TO ADVANCE

Some industrial production managers earn certifications that show their competency in various quality and management systems. Although certification is not required for industrial production manager jobs, it may improve job prospects.

One credential, Certified in Production and Inventory Management (CPIM), is offered by APICS, the Association for Operations Management, and requires passing a series of exams that cover supply chain management, resource planning, scheduling, production operations, and strategic planning. Those certified must complete a set number of professional development activities every 3 years to maintain their certification.

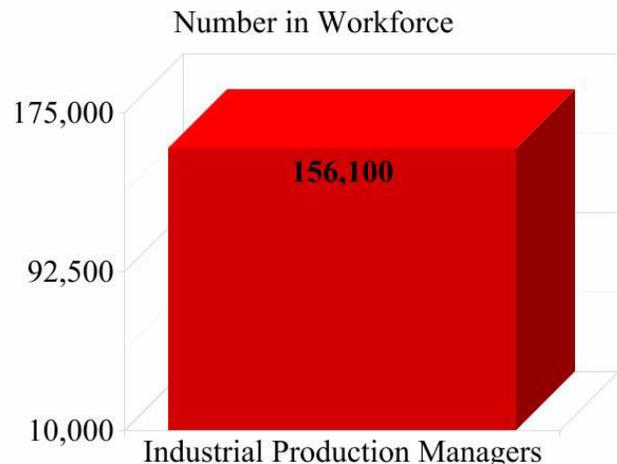
The American Society for Quality offers the Certified Manager of Quality/Organizational Excellence (CMQ/OE) credential. This certification is open to managers who pass an exam and who have at least 10 years of experience or education, 5 of which must be in a decisionmaking position. It is intended for managers who lead process improvement initiatives. To maintain certification, workers must complete a set number of professional development units every 3 years.

Industrial production managers with a proven record of superior performance may advance to plant manager or vice president of manufacturing. Others transfer to jobs with more responsibilities at larger firms. Opportunities also exist for managers to become consultants.

JOB GROWTH

Employment of industrial production managers is expected to decline moderately by 8 percent over the 2008–18 decade. Overall manufacturing employment is expected to decline as the production process becomes more automated. However, because industrial production managers coordinate the use of both workers and machines in the production process, they will not be as affected as other occupations by automation. Nevertheless, the employment decline will result from improved productivity and increased imports of manufactured goods.

Efforts to increase efficiency at the management level have led companies to ask production managers to assume more responsibilities, particularly as computers and production management software allow managers to coordinate scheduling, planning, and communication more easily among departments. In addition, more emphasis on quality in the production process has redistributed some of the production manager's oversight responsibilities to supervisors and workers on the production line. However, most of the decisionmaking work of production managers cannot be automated, a factor that will limit the decline in their employment.



Despite the projected employment decline, a number of jobs are expected to open because of the need to replace workers who retire or transfer to other occupations. Applicants with experience in production occupations, along with a college degree in industrial engineering, management, or business administration (particularly those with an undergraduate engineering degree and a master's degree in business administration or industrial management), will enjoy the best job prospects. Employers also are likely to seek candidates who have excellent communication skills and related work experience and who are personable, flexible, and eager to enhance their knowledge and skills through ongoing training.