

# TRENDS FOR INDUSTRIAL TECHNOLOGIES

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## **Overview**

Manufacturing continues to be a major employer in the North Carolina economy. While the total national employment in manufacturing is projected to go down significantly, the total state employment in manufacturing is projected to remain stable with only a slight decline. According to the North Carolina Employment Security Commission the percentage of manufacturing employment is expected to go down from 22 percent of non-agricultural employment to 18.14 percent by 2006. The drop in percentage is not due to a drop in manufacturing employment but to the tremendous growth in the Service and Trade industries. The actual number of manufacturing employees should remain stable.

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## **Manufacturing Numbers**

Currently 117 of North Carolina's 300 largest employers are manufacturers. As of the end of the first quarter of 2000 manufacturing employment represented 24.6% of all workers insured under the Unemployment Insurance Law. The occupations necessary to run manufacturing operations fall into two broad occupational groups: Precision Production, Craft, & Repair Occupations and Operators, Fabricators, & Laborers. Projected yearly openings in the Precision Production, Craft, and Repair Occupations through the year 2006 are 16,180 and for the Operators, Fabricators, and Laborers the projection is 27,860. This is a total of 44,040 persons needed each year to meet the growth and replacement needs of our industries.

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## **Workforce Development Courses Related to Manufacturing**

A common thread that runs through all national and state professional manufacturing and technical journals is that industry cannot find enough trained technicians. The men and women who work in manufacturing must be able to measure and calculate accurately, solve problems creatively, work in teams, communicate, and work with a variety of materials safely. Electro-Mechanical Technology, Metals Manufacturing Technology, and Welding Technology are Workforce Development courses that build these skills needed by industry.

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## **Electro-Mechanical Technology**

Persons in this industry find employment as General Utility Maintenance Mechanics or Industrial Machinery Repairers. General utility maintenance mechanics are employed in almost every industry including service industries, elementary and high schools, colleges and universities, hotels, hospitals, nursing homes, manufacturing industries, wholesale and retail firms, government agencies, and firms that operate office and apartment buildings. Employment is expected to grow more slowly than the average for all occupations through 2008; however, job openings should be plentiful due to significant turnover in the occupation and growth in the number of buildings and the associated equipment needing maintenance. The majority of industrial machinery repairers work in manufacturing industries although they are needed in any establishment that uses industrial machinery. Employment is expected to grow more slowly than the average for all occupations through 2008 however applicants with broad skills in machine repair should have favorable job prospects.

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### **Metals Manufacturing Technology**

Persons in this industry find employment in all parts of the country as machinists and CNC programmers with the vast majority being machinists. Most machinists work in small machine shops or in manufacturing firms that produce durable goods. Maintenance machinists work in most industries that use production machinery. Despite slower than average employment growth, job opportunities will be excellent for machinists, as employers continue to report difficulties in finding workers with the necessary skills and knowledge to fill machining and CNC programming openings.

### **Welding Technology**

Persons in this industry find employment as welders, cutters, and welding machine operators with most of the jobs being in manufacturing, construction, and services. Because almost every manufacturing industry uses welding at some stage of manufacturing or in the repair and maintenance of equipment, a strong economy will keep demand for welders high. Employment is expected to grow more slowly than the average for all occupations through 2008, however job prospects should be excellent for welders with the right skills, as many employers report difficulties in finding qualified applicants.

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