TRENDS FOR TRANSPORT SYSTEMS TECHNOLOGIES

Overview

Traditionally, these workers have been called "mechanics." The increasing sophistication of automotive technology requires workers who can use computerized shop equipment and work with electronic components, while maintaining their skills with traditional tools. There are more computers aboard a car today than aboard the first spaceship. A new car has from 10-15 on-board computers, operating the engine, radio, brakes, transmission, steering systems and other components. Job opportunities in the automotive industry are plentiful, especially for the trained technician. Comprehensive reading and mathematics skills are essential to the repair industry.

Increased Employment

Employment of automotive technicians, auto body repairers and diesel technicians is expected to grow faster than most areas:

- Presently, there is only one automotive technician for every 250 cars in the USA.
- There are over 213.3 million automobiles on the road. 86% are three or more years old, meaning they will require service.
- The average age of the technicians in North Carolina is 48 years old.
- North Carolina has a shortage of at least 1,300 employees in automotive technology 520 retired in 2001 (NCADA)
- Transportation is one of the top five fastest growing industries in North Carolina. (NCESC)

New Training

New technology requires continual training. Technicians must be well versed in electronics and mathematics to work on increasingly sophisticated car components

- 42 volt electrical systems are being developed
- More hybrid cars (internal combustion and electrical power combination) are being sold
- New steel alloys, aluminum, and plastics require more training.
- Many mechanical and hydraulic components will be replaced by electrical/electronic components i.e.: throttle control, water pumps, power steering and brake systems.

Automotive Service

The automotive service area is expected to grow more than other transportation areas.

- Most opportunities are in the area of dealerships
- 22% work in independent shops or are self employed
- Most technicians require post-secondary training
- In large shops, technicians have become increasingly specialized

Collision Repair

Employment is expected to increase about as fast as the average for all occupations.

- Most jobs are located in dealerships
- Most work on an incentive basis
- Replacing experienced workers that retire or change occupations account for the most job openings

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Diesel Technology

Employment for diesel technicians is expected to increase about as fast as the average or all occupations.

- Jobs increase as the transportation sector increases.
- Training increases with increased use of electronics.
- Most are employed in trucking firms or bus firms.

Certification

The National Automotive Technicians Education Foundation (NATEF) certifies Automotive Service Technology programs, Diesel Service Technology programs and Collision Repair programs. This certification signifies that the program meets uniform national skill standards for instructional facilities, equipment, staff credentials and curriculum.

The auto manufactures, dealerships, Department of Labor and Department of Education have joined to help train high school apprentice in auto service technology by developing the Automotive Youth Education System (AYES). A high school automotive service technology program must be certified by NATEF in four areas, have an active SkillsUSA-VICA chapter and have sufficient dealer density to sustain training to become an AYES school. There currently is one AYES school certified but twelve are planned by 2003.