	Current Number of Workers 2006	Projected Number of Workers 2016	% Change to 2016	Average Annual Openings		
Regional	250	300	20.00%	10	**Bus/Truck Mechanics/Diesel Specialists**	
Texas	19,750	23,900	21.00%	840	**SOC # 49-3031**	
Education/ Training Time	**Is License Required?**	**Wage Rate $/Hr. 2008 Regionally**	**Percent Female**	**Average Age**	**Job Turnover**	**Why Most Job Openings Occur**
1—2 yrs	**Industry Certificates**	$16.29	1.0%	40.2	Average	**Equal Growth/ Replacement**

JOB DESCRIPTION

Diagnose, adjust, repair, or overhaul trucks, buses, and all types of diesel engines. Include mechanics working primarily with automobile diesel engines.

WHERE DO WORKERS FIND JOBS?

Local Government, Except Education
Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers
General Freight Trucking
Employment Services
Elementary and Secondary Schools
Automobile Dealers
Automotive Repair and Maintenance
Specialized Freight Trucking
Machinery, Equipment, and Supplies Merchant Wholesalers
Automotive Equipment Rental and Leasing

RELATED COLLEGE PROGRAMS

CIP 470604 Automobile/Automotive Mechanics Technology/Technician
CIP 470605 Diesel Mechanics Technology/Technician
CIP 470613 Medium/Heavy Vehicle and Truck Technology/Technician

IMPORTANT KNOWLEDGE

ARTS AND HUMANITIES
* English Language
ENGINEERING AND TECHNOLOGY
* Engineering and Technology
* Mechanical
LAW AND PUBLIC SAFETY
* Law and Government
* Public Safety and Security
TRANSPORTATION
* Transportation

IMPORTANT SKILLS

CONTENT
* Reading Comprehension
TECHNICAL SKILLS
* Equipment Maintenance
* Installation
* Repairing * Troubleshooting

IMPORTANT ABILITIES

ATTENTIVENESS
* Selective Attention
AUDITORY AND SPEECH ABILITIES
* Hearing Sensitivity
CONTROL MOVEMENT ABILITIES
* Control Precision * Multilimb Coordination
FINE MANIPULATIVE ABILITIES
* Arm-Hand Steadiness.
* Finger Dexterity * Manual Dexterity
FLEXIBILITY, BALANCE, AND COORDINATION
* Extent Flexibility
IDEA GENERATION AND REASONING ABILITIES
* Deductive Reasoning * Inductive Reasoning
* Information Ordering * Problem Sensitivity
PHYSICAL STRENGTH ABILITIES
* Trunk Strength
SPATIAL ABILITIES
* Visualization
VERBAL ABILITIES
* Oral Comprehension * Oral Expression
VISUAL ABILITIES
* Near Vision

NATURE OF THE WORK: Bus/Truck Mechanics/Diesel Specialists

The diesel engine is the workhorse powering the Nation's trucks and buses because it delivers more power, is more efficient, and is more durable than its gasoline-burning counterpart. Diesel-powered engines also are becoming more prevalent in light vehicles, including passenger vehicles, pickups, and other work trucks.

Diesel service technicians and mechanics, which includes bus and truck mechanics and diesel engine specialists, repair and maintain the diesel engines that power transportation equipment such as heavy trucks, buses, and locomotives. Some diesel technicians and mechanics also work on heavy vehicles and mobile equipment, including bulldozers, cranes, road graders, farm tractors, and combines. Other technicians repair diesel-powered passenger automobiles, light trucks, or boats.

Technicians who work for organizations that maintain their own vehicles spend most of their time doing preventive maintenance, to ensure that equipment will operate safely. These workers also eliminate unnecessary wear on, and damage to, parts that could result in costly breakdowns. During a routine maintenance check on a vehicle, technicians follow a checklist that includes inspecting brake systems, steering mechanisms, wheel bearings, and other important parts. Following inspection, technicians repair or adjust parts that do not work properly or remove and replace parts that cannot be fixed.

Increasingly, technicians must be versatile, in order to adapt to customers' needs and new technologies. It is common for technicians to handle all kinds of repairs, from working on a vehicle's electrical system one day to doing major engine repairs the next. Diesel maintenance is becoming increasingly complex, as more electronic components are used to control the operation of an engine. For example, microprocessors now regulate and manage fuel timing, increasing the engine's efficiency. Also, new emissions standards are requiring mechanics to retrofit engines to comply with pollution regulations. In modern shops, diesel service technicians use hand-held or laptop computers to diagnose problems and adjust engine functions. Because of continual advances in automotive technology, technicians must regularly learn new techniques to repair vehicles.

Diesel service technicians use a variety of tools in their work, including power tools, such as pneumatic wrenches, to remove bolts quickly; machine tools, such as lathes and grinding machines, to rebuild brakes; welding and flame-cutting equipment, to remove and repair exhaust systems; and jacks and hoists, to lift and move large parts. Common handtools--screwdrivers, pliers, and wrenches--are used to work on small parts and get at hard-to-reach places. Diesel service technicians and mechanics also use a variety of computerized testing equipment to pinpoint and analyze malfunctions in electrical systems and engines.

In large shops, technicians generally receive their assignments from shop supervisors or service managers. Most supervisors and managers are experienced technicians who also assist in diagnosing problems and maintaining quality standards. Technicians may work as a team or be assisted by an apprentice or helper when doing heavy work, such as removing engines and transmissions.