



# Transportation Industry Sector

Transportation plays a crucial role in our society because moving people and goods is central to everything America does. As the Transportation industry sector continues to expand significantly, it will provide employment opportunities for years to come in a vast range of transportation-related occupations. It will also continue to adapt to changing technology and repair techniques as vehicle components and systems become increasingly sophisticated. Examples include developments in rocket technology, super-capacity jet airplanes, hybrid and hydrogen fuel-cell technology affecting automobiles, and diesel trucks that run on bio-diesel or other alternative fuels. This industry also plays an important part in education through financial and in-kind support for training and educating the current and future workforce.

The Transportation industry sector features three career pathways that provide opportunities from entry-level jobs requiring high school diplomas to progressive careers requiring advanced degrees. These pathways emphasize real-world, occupationally relevant experiences of significant scope and depth in Aviation and Aerospace Transportation Services, which includes maintaining aircraft, operating airports, and designing and flying various types of aircraft; Collision Repair and Refinishing, which includes painting, repairing, and refinishing vehicles; and Vehicle Maintenance, Service, and Repair, which includes maintaining, servicing, and repairing light-, medium-, and heavy-duty vehicles.

## Transportation Industry Sector Pathways:

- *Aviation and Aerospace Transportation Services*
- *Collision Repair and Refinishing*
- *Vehicle Maintenance, Service, and Repair*

### Entry Level Careers

*(with high school diploma)*

Mechanic's Assistant  
 Lube Technician  
 Parts and Sales Counter Clerk  
 Automotive Body and Paint Repairer  
 Tire Repairers and Changers  
 Service Station Attendants  
 Bus Driver, School  
 Industrial Truck and Tractor Operators  
 Truck Driver, Light or Delivery Service  
 Taxi Drivers and Chauffeurs  
 Flight Attendant  
 Porter  
 Aircraft Detailer  
 Ground Support Crew

### Technical Level Careers

*(with AA or AS degree or certificate)*

Bus and Truck Mechanics  
 Automotive Master Mechanic  
 Diesel Engine Specialist  
 Motorcycle Mechanics  
 Auto Glass Installer  
 Dispatcher  
 Service Writer  
 Licensed Smog Technician  
 Avionics Technicians  
 Airframe and Power Plant Technician  
 Aircraft Mechanics/Service Technicians  
 Air Traffic Controllers  
 Commercial Pilots  
 Ship Engineers  
 Ship and Boat Captains

### Professional Level Careers

*(with BS or BA degree)*

Ship Engineers  
 Airline Pilots, Copilots  
 Flight Engineers  
 Astronaut  
 Insurance Claims Adjuster  
 Shop Manager  
 Fleet Manager  
 Parts and Service Manager  
 Automotive Corp. Service Representative



# Transportation Industry Sector Pathway Options

WHODOUWANT2B.COM

## Aviation and Aerospace Transportation Services Pathway

Sample CTE Courses\*

Education Level and Related Occupations\*\*

Introductory	Concentration	Capstone	High School Diploma	Certification and/or AA Degree	Bachelor's Degree or Higher
<ul style="list-style-type: none"> <li>▪ Small Engines</li> <li>▪ Exploring Technology</li> <li>▪ Technology Core</li> <li>▪ Basic Automotive</li> </ul>	<ul style="list-style-type: none"> <li>▪ Electronics</li> <li>▪ Auto 1</li> </ul>	<ul style="list-style-type: none"> <li>▪ Avionics</li> <li>▪ Radio Communications</li> <li>▪ Aviation Aircraft Engines</li> </ul>	<ul style="list-style-type: none"> <li>▪ Ground Support Crew</li> <li>▪ Mechanic's Assistant</li> <li>▪ Flight Attendant</li> <li>▪ Porter</li> <li>▪ Apprentice/Intern</li> <li>▪ Aircraft Detailer</li> </ul>	<ul style="list-style-type: none"> <li>▪ Military Ground Crew</li> <li>▪ Airframe and Power Plant Technician</li> <li>▪ Maintenance Worker</li> <li>▪ Ramp Service Worker</li> <li>▪ Dispatcher</li> </ul>	<ul style="list-style-type: none"> <li>▪ Engineer</li> <li>▪ Astronaut</li> <li>▪ Instructor+</li> <li>▪ Pilot+</li> </ul>

## Collision Repair and Refinishing Pathway

Sample CTE Courses\*

Education Level and Related Occupations\*\*

Introductory	Concentration	Capstone	High School Diploma	Certification and/or AA Degree	Bachelor's Degree or Higher
<ul style="list-style-type: none"> <li>▪ Introduction to Automotive Technology</li> <li>▪ Small Engines</li> </ul>	<ul style="list-style-type: none"> <li>▪ Basic Collision Repair</li> <li>▪ Basic Auto Refinishing</li> <li>▪ Automotive Construction</li> <li>▪ Steering and Suspension</li> <li>▪ Auto 1</li> </ul>	<ul style="list-style-type: none"> <li>▪ Advanced Collision Repair Technology</li> <li>▪ Advanced Auto Refinishing</li> </ul>	<ul style="list-style-type: none"> <li>▪ Collision Repair Intern or Apprentice</li> <li>▪ Refinisher Helper</li> <li>▪ Auto Detailer</li> </ul>	<ul style="list-style-type: none"> <li>▪ Collision Repair Technician</li> <li>▪ Collision Repair Shop Owner</li> <li>▪ Auto Refinish Technician</li> <li>▪ Auto Glass Installer</li> <li>▪ Assistant Manager</li> </ul>	<ul style="list-style-type: none"> <li>▪ Insurance Claims Adjuster</li> <li>▪ Collision Shop Manager</li> <li>▪ Instructor+</li> <li>▪ Paint Manufacturer Representative</li> </ul>

## Vehicle Maintenance, Service, and Repair Pathway

Sample CTE Courses\*

Education Level and Related Occupations\*\*

Introductory	Concentration	Capstone	High School Diploma	Certification and/or AA Degree	Bachelor's Degree or Higher
<ul style="list-style-type: none"> <li>▪ Introduction to Automotive Repair</li> <li>▪ Small Engines</li> <li>▪ Technology Core</li> <li>▪ Exploring Technology</li> </ul>	<ul style="list-style-type: none"> <li>▪ Brakes</li> <li>▪ Electrical Systems and Electronics</li> <li>▪ Steering and Suspension</li> <li>▪ Outdoor Power Equipment</li> <li>▪ Auto Fundamentals</li> </ul>	<ul style="list-style-type: none"> <li>▪ Advanced Automotive</li> <li>▪ Engine Performance/Smog</li> <li>▪ Motorcycle</li> <li>▪ Diesel</li> </ul>	<ul style="list-style-type: none"> <li>▪ Porter/Lot Person</li> <li>▪ Lube Technician</li> <li>▪ Aftermarket Sales Representative</li> <li>▪ Vehicle Maintenance Intern or Apprentice</li> <li>▪ Parts and Service Counter Person</li> <li>▪ Salesperson</li> <li>▪ Vehicle Maintenance Technician</li> </ul>	<ul style="list-style-type: none"> <li>▪ Line Technician</li> <li>▪ Service Writer</li> <li>▪ Motor Carrier</li> <li>▪ Technical Writer</li> <li>▪ Smog Technician+</li> <li>▪ Driver</li> <li>▪ Inspector</li> </ul>	<ul style="list-style-type: none"> <li>▪ Fleet Manager or Director</li> <li>▪ Shop Foreman or Forewoman</li> <li>▪ Parts and Service Manager</li> <li>▪ Instructor+</li> <li>▪ Manufacturer's Representative</li> </ul>

\*Sample CTE Courses are from the Career Technical Education Framework for California Public Schools (California Department of Education: 2007, <http://www.cde.ca.gov/re/pn/fd/>)

\*\*Visit ASSIST ([www2.assist.org/browseAreas.do](http://www2.assist.org/browseAreas.do)) for community college and UC/CSU information and California Career Zone ([www.cacareerzone.org](http://www.cacareerzone.org)) for occupation information.

+This occupation requires certification or licensure.

Related Career Technical Student Organization: SkillsUSA (<http://www.skillsusaca.com>)

Additional Industry Sector information available through the California Industrial and Technology Education Consortium (<http://www.citeonline.org>).