Skills Transferability Matrix



Automotive Service Technicians, Truck and Bus Mechanics and Mechanical Repairers





Automotive Service Technicians, Truck and Bus Mechanics and Mechanical Repairers perform regular troubleshooting and hands-on service tasks to ensure the proper operation of motor vehicles post production. The technical nature and dexterous demands of daily tasks equip service technicians and mechanics with a robust set of skills and abilities which can be applied in numerous skilled trades and service roles. Though they perform a niche set of tasks, these tasks may be helpful in transitioning to roles within vehicle and equipment maintenance and repair.

Skills

Skills are developed through training and experience, and are the practical proficiencies someone possesses. The following are top skills service technicians and mechanics employ in their work:

- 1. Troubleshooting
- 2. Repairing
- 3. Equipment Maintenance
- 4. Critical Thinking
- 5. Operations Monitoring

Tasks

Tasks are the assigned duties that an occupational group performs in their daily work. The following are the tasks service technicians and mechanics most regularly encounter:

- 1. Inspect vehicles to determine overall condition.
- 2. Select tools, equipment, or technologies for use in operations or projects.
- Read work orders or descriptions of problems to determine repairs or modifications needed.
- 4. Test mechanical systems to ensure proper functioning.
- 5. Inspect gas systems or components to identify leaks or other potential hazards.

Technical Knowledge

Technical Knowledge is the understanding of theory and utility of modern tools in a work environment. The following tools are used by service technicians and mechanics regularly:

- Computer-aided design and manufacturing software
- 2. Enterprise resource planning software
- 3. Database reporting software
- 4. Analytical or scientific software
- 5. Inventory management software

Abilities

Abilities refer to the innate faculties that allow workers to carry out tasks and activities. The following are the top abilities that service technicians and mechanics possess:

- 1. Manual Dexterity
- 2. Deductive Reasoning
- 3. Problem Sensitivity
- 4. Arm-Hand Steadiness
- 5. Control Precision

Skills Transferability Matrix



FOCAL's Skills Transferability Matrices analyze the transferability of an occupation across a multitude of other occupations on the basis of similarities in **skills**, **technical knowledge**, **tasks**, and **abilities** as outlined by the O*Net database. It aims to show workers how to leverage their skill set in changing occupations, planning a career path, and transitioning to other industries. It also assists policy makers and educators address changing skill sets and areas of opportunity for workforce entrants in developing industries. Employers can also use this tool in reskilling or upskilling workers to circumvent skills shortages, and reduce the hiring and training challenges.

Automotive Service Technicians, Truck and Bus Mechanics and Mechanical Repairers					
Occupations	Skills	Technical Knowledge	Tasks	Abilities	Total
Construction millwrights and industrial mechanics	91%	68%	35%	90%	71%
Appliance servicers and repairers	89%	58%	42%	89%	69%
Motorcycle, all-terrain vehicle and other related mechanics	91%	47%	46%	92%	69%
Other repairers and servicers	91%	63%	31%	80%	66%
Electrical power line and cable workers	91%	58%	24%	87%	65%
Electrical mechanics	88%	47%	31%	88%	64%
Heavy-duty equipment mechanics	91%	37%	33%	90%	63%
Industrial electricians	89%	58%	17%	86%	63%
Plumbers	89%	58%	0%	87%	58%
Steamfitters, pipefitters and sprinkler system installers	89%	58%	0%	87%	58%
Machinists and machining and tooling inspectors	86%	58%	3%	84%	58%
Contractors and supervisors, mechanic trades	69%	74%	5%	77%	56%
Contractors and supervisors, machining/other metal forming trades	68%	74%	3%	75%	55%
Foundry workers	78%	47%	3%	83%	53%
Supervisors, other mechanical and metal products manufacturing	64%	63%	3%	71%	50%

After scanning over 2,600 skills, technical competencies, tasks, and abilities of each of the 500 occupations as defined by the National Occupational Classification (NOC) system, a skills transferability matrix for automotive service technicians, truck and bus mechanics and mechanical repairers is produced. In the matrix above, a high score is highlighted in green and indicates the high potential transferability of an attribute of an occupation with that of automotive service technicians, truck and bus mechanics and mechanical repairers. Lower or no transferability areas are marked in red. Service technicians and mechanics share a relatively high attribute transferability with numerous skilled trades. Their skills and abilities, as well as technical knowledge may facilitate placement as an electrician, plumber, millwright, or machinist. With a high match in observed tasks, automotive service techs may smoothly transition into motorcycle or all-terrain mechanical roles, with familiarity to their current line of work. There is also a moderate overlap for automotive service techs in the attributes required for supervisory roles within production and mechanical work. The results above indicate that with adequate training, automotive service techs may transition into supervision, or even find themselves at home in the skilled trades.

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