



The Texas A&M Transportation Institute is collecting information for the Transit Cooperative Research Program (TCRP) Project J-11 Task 34 *The Effects of Vehicle Automation on the Public Transportation Workforce*.

To accurately assess the impact of transit automation on the workforce, the research team needs to estimate the number of employees that may experience job impacts.

The project has identified the following jobs as either directly or indirectly impacted by transit automation.

Directly-Impacted Operations Jobs	Indirectly-Impacted Key Jobs
<ul style="list-style-type: none">• Bus operator• Bus mechanic / maintenance technician• Bus service person / fueler / cleaner• Dispatcher / controller• Street / road supervisor or Traffic controller	<ul style="list-style-type: none">• Transit police officer• Short-range transit planner / schedule maker• Parts clerk• Facilities maintainer• Bus operations trainer• Bus garage superintendent• Maintenance trainer

We're hoping you can provide the following data for each of the jobs listed above:

- The number of full-time employees and current full-time vacancies.
- The number of part-time employees and current part-time vacancies.

Your responses will be used in a workforce impact calculator to help TTI estimate the impact of different vehicle automation use cases on the public transportation workforce.

Participation is voluntary, and you are free to quit the survey at any time without penalty. If you have any questions about the positions listed, please contact Michael J. Walk at m-walk@tti.tamu.edu or 512-407-1135.

By agreeing to participate below, you acknowledge that you understand how your responses will be used and are allowing the Texas A&M Transportation Institute to collect and use your responses as described on this page.

This survey is designed to be taken on a computer monitor and may not display correctly on a mobile device.

Do you agree to participate in this research?

- Yes
 No

Your Contact Information

Helpful if we need to contact you to ask questions about the data you submitted.

First name

 First name

Last name

 First name

Title

 First name

Organization

 First name

City

 First name

State

 First name

ZIP

 First name

E-mail

 First name

Phone

 First name

Which bus mode(s) do you operate? Check all that apply.

- Fixed-Route Bus (e.g., motor bus, commuter bus, etc.)
 Bus Rapid Transit (BRT)
 Demand-Response

You indicated that you operate multiple bus modes, please indicate how you count or organize the different positions listed below.

Do you categorize and count vehicle **operators** by mode?

* *Operator: A person who operates (drives) transit vehicles in revenue service.*

- Operator counts are separated by transit mode
- Operator counts are **not** separated by mode

Do you categorize and count **dispatchers / controllers** by mode?

* *Dispatcher / Controllers: A person who supports daily revenue operations by ensuring scheduled runs have an operator and vehicle, by managing service (usually from a control room), and sometimes by sometimes scheduling or adjusting scheduled trips (especially in demand-response transit).*

- Dispatcher/Controller counts are separated by transit mode
- Dispatcher/Controller counts are **not** separated by transit mode

Do you categorize and count **road / street supervisors or traffic controllers** by mode?

* *Road / Street Supervisor or Traffic Controller: A person who supports daily revenue operations by working in the field, responding to incidents, accidents, and breakdowns, and supporting operators in person.*

- Road/Street Supervisor or Traffic Controller counts are separated by transit mode
- Road/Street Supervisor or Traffic Controller counts are **not** separated by transit mode



Please provide the number of employees (both full- and part-time) for each of the following directly-impacted job classifications. Be sure to include all employees who might be included in the general job title provided.

If you have employees who perform multiple duties (e.g., work as both a controller and a road supervisor), please attempt to allocate their positions to the appropriate title(s) based on the proportion of their effort. You can estimate and do not need to be exact, but please try to be within 5% of reality.

Directly-Impacted Operations Jobs

	Full-Time Employees	Full-Time Vacancies	Part-Time Employees	Part-Time Vacancies
<i>Operator</i> A person who operates (drives) transit vehicles in revenue service.				
Fixed-route bus operator A person whose main job is to operate buses that deliver fixed-route transit service (typically local and commuter bus service). Does not include bus rapid transit operators.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Bus rapid transit operator A person whose main job is to operate buses that deliver bus rapid transit (BRT) service. Does not include other fixed-route operators.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Demand response vehicle operator A person whose main job is to operate buses and other vehicles that deliver demand-response transit service (e.g., dial-a-ride and ADA paratransit service). Does not include taxi or TNC operators.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



Full-Time
Employees

Full-Time
Vacancies

Part-Time
Employees

Part-Time
Vacancies

Dispatchers / Controllers

A person who supports daily revenue operations and ensures that scheduled runs have an operator and a vehicle. May also interact with operators throughout the day, giving directions, triaging calls, requesting replacement buses during breakdowns, etc. Includes people who perform this task from a control center or radio room and from a bus garage or other interior area. Does not include call center staff that work mostly with customers

Fixed-route bus dispatcher / controller

A dispatcher / controller whose job is mainly to support fixed-route bus service (typically local or commuter bus service).

Bus rapid transit dispatcher / controller

A dispatcher / controller whose job is mainly to support bus rapid transit (BRT) service. May also support other fixed-route bus services.

Demand response dispatcher / controller

A dispatcher / controller whose job is mainly to support demand response transit service (e.g., dial-a-ride and ADA paratransit service).

Full-Time Employees	Full-Time Vacancies	Part-Time Employees	Part-Time Vacancies
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Road / Street supervisor or Traffic controller

A person who supports daily revenue operations by working in the field, responding to incidents, accidents, and breakdowns, and supporting operators in person. May conduct performance checks, route monitoring, or other service monitoring functions. Usually drives a transit agency non-revenue vehicle to travel from task to task.

Fixed-route bus supervisor

A road / street supervisor whose job is mainly to support fixed-route bus service (typically local or commuter bus service).

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Bus rapid transit supervisor

A road / street supervisor whose job is mainly to support bus rapid transit (BRT) service. May also support other fixed-route bus services.

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Demand response supervisor

A road / street supervisor whose job is mainly to support demand-response transit service (e.g., dial-a-ride and ADA paratransit service).

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Full-Time Employees	Full-Time Vacancies	Part-Time Employees	Part-Time Vacancies
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Bus mechanic / maintenance technician

A person whose main job is to inspect, maintain, and repair transit vehicles used in revenue service. May require significant technical expertise and knowledge of vehicle systems and components.

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Bus service person / fueler / cleaner

A person whose main job is to perform basic tasks that ready vehicles for revenue service. Tasks may include interior cleaning, exterior cleaning, fueling, topping off fluids, and basic maintenance tasks like oil changes or replacing wiper blades. Does not perform complex maintenance and repair activities.

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Please provide the number of employees (both full- and part-time) for each of the following indirectly-impacted job classifications. Be sure to include all employees who might be included in the general job title provided.

If you have employees who perform multiple duties (e.g., work as both a garage superintendent and an operations trainer), please attempt to allocate their positions to the appropriate title(s) based on the proportion of their effort. You can estimate and do not need to be exact, but please try to be within 5% of reality.

Indirectly-Impacted Key Jobs

	Full-Time Employees	Full-Time Vacancies	Part-Time Employees	Part-Time Vacancies
<p>Bus garage superintendent A person who manages a bus garage, division, or yard. Supervises operations at the garage, including supervising the operators, dispatchers, timekeepers, or others who are assigned to his or her garage. May be responsible to ensure that all open runs are filled and pull-out is made daily. Includes both fixed-route bus and demand response bus garages.</p>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<p>Bus operations trainer A person whose main job is to train bus operators—including training new hires and retraining or recertifying current operators. Includes both fixed-route bus and demand response trainers.</p>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<p>Maintenance trainer A person whose main job is to train bus mechanics / technicians—including training new hires and retraining or recertifying current mechanics / technicians.</p>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Parts clerk

A person whose main job is to inventory, manage, and distribute bus parts to mechanics / technicians. Usually works in the bus garage, immediately proximal to bus mechanics / technicians. Does not include general store room personnel who provide parts and inventory support to multiple, non-bus-maintenance business units.

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Operations and maintenance facilities maintainer

A person whose main job is to maintain bus operations and maintenance (O&M) facilities, including maintaining electrical, HVAC, plumbing, and communications systems as well as buildings and yard infrastructure.

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Short-range transit planner / schedule maker

A person whose main job is to prepare transit schedules (trips, blocks, runs, and rosters) for fixed-route bus services—may also include creating and scheduling demand-response runs. Also includes a person whose main job is to prepare, evaluate, and analyze short-range transit plans for fixed-route bus services. Short-range planning usually only encompasses the next one-to-five years.

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Transit police officer

A person who is a sworn police officer working for the transit agency. Responds to safety and security incidents, acts as a first responder to emergencies, and works to solve and prevent crime and other violations on the transit system.

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Thank you very much for taking time to submit your data for this research.

Please click the **SUBMIT** BUTTON to submit your data.
Once you submit, your responses cannot be edited.



Thank you for your time and for helping us advance this research! Any questions about this research should be directed to Michael J. Walk at m-walk@tti.tamu.edu, the Principal Investigator.