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.

<table>
<thead>
<tr>
<th>Directly-Impacted Operations Jobs</th>
<th>Indirectly-Impacted Key Jobs</th>
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<tbody>
<tr>
<td>• Bus operator</td>
<td>• Transit police officer</td>
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<tr>
<td>• Bus mechanic / maintenance technician</td>
<td>• Short-range transit planner / schedule maker</td>
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<tr>
<td>• Bus service person / fueler / cleaner</td>
<td>• Parts clerk</td>
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<tr>
<td>• Dispatcher / controller</td>
<td>• Facilities maintainer</td>
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<tr>
<td>• Street / road supervisor or Traffic controller</td>
<td>• Bus operations trainer</td>
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<td>•</td>
<td>• Bus garage superintendent</td>
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<td>•</td>
<td>• Maintenance trainer</td>
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</table>

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
- Last name
- Title
- Organization
- City
- State
- ZIP
- E-mail
- Phone

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**

<table>
<thead>
<tr>
<th></th>
<th>Full-Time Employees</th>
<th>Full-Time Vacancies</th>
<th>Part-Time Employees</th>
<th>Part-Time Vacancies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operator</strong></td>
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<tr>
<td>A person who operates (drives) transit vehicles in revenue service.</td>
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<tr>
<td><strong>Fixed-route bus operator</strong></td>
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<tr>
<td>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.</td>
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<tr>
<td><strong>Bus rapid transit operator</strong></td>
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<tr>
<td>A person whose main job is to operate buses that deliver bus rapid transit (BRT) service. Does not include other fixed-route operators.</td>
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<tr>
<td><strong>Demand response vehicle operator</strong></td>
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<tr>
<td>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.</td>
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</tbody>
</table>
**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).
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).

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.

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).

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.

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.
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**

**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.

**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.

**Maintenance trainer**
A person whose main job is to train bus
mechanics/technicians—including training
new hires and retraining or recertifying
current mechanics/technicians.
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.

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.

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.

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 words to solve and prevent crime and other violations on the transit system.
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.