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Transit agencies across the State of California struggle with the recruitment and retention of a sufficient transit operator workforce. This shortage is intensified by current and anticipated retirements among the transit operator workforce, as well as state laws and policy initiatives that require a well-trained and compliant transit operator workforce. The shortage has made it difficult for agencies to implement improvements in the quality and frequency of service, and in some cases has even led to the impromptu cancellation of existing service. The shortage of transit operators is most severe for bus transit operations and affects agencies in rural and urban areas across California. Researchers composed a literature review, distributed a survey, and conducted a focus group to understand the workforce and socioeconomic issues driving the shortage.

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IDENTIFYING WORKFORCE AND SOCIOECONOMIC FACTORS DRIVING THE CALIFORNIA TRANSIT OPERATOR SHORTAGE

JANUARY 31, 2025
CENTER FOR INTERNATIONAL TRADE & TRANSPORTATION
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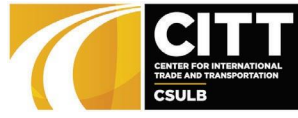


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Abstract

Transit agencies across the State of California struggle with the recruitment and retention of a sufficient transit operator workforce. This shortage is intensified by current and anticipated retirements among the transit operator workforce, as well as state laws and policy initiatives that require a well-trained and compliant transit operator workforce. The shortage has made it difficult for agencies to implement improvements in the quality and frequency of service, and in some cases has even led to the impromptu cancellation of existing service. The shortage of transit operators is most severe for bus transit operations and affects agencies in rural and urban areas across California. Researchers composed a literature review, distributed a survey, and conducted a focus group to understand the workforce and socioeconomic issues driving the shortage.



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Executive Summary

Transit agencies across the State of California struggle with the recruitment and retention of a sufficient transit operator workforce. This shortage is intensified by current and anticipated retirements among the transit operator workforce, as well as state laws and policy initiatives that require a well-trained and compliant transit operator workforce. The shortage has made it difficult for agencies to implement improvements in the quality and frequency of service, and in some cases has even led to the impromptu cancellation of existing service. The shortage of transit operators is most severe for bus transit operations and affects agencies in rural and urban areas across California. Researchers composed a literature review, distributed a survey, and conducted a focus group to understand the workforce and socioeconomic issues driving the shortage. Across the literature review, survey results, and focus group, researchers repeatedly heard the message that transit operators do not receive the respect, attention, and esteem that corresponds with the difficulty and importance of the occupation.

The survey received one or more completed responses from representatives of:

- Alameda-Contra Costa Transit District (AC Transit)
- City of Escalon
- City of Lompoc
- City of Santa Monica Department of Transportation
- El Dorado Transit Authority
- FAST (City of Fairfield)
- Fresno Area Express (FAX)
- Gold Coast Transit District
- Long Beach Transit
- Los Angeles Department of Transportation
- Mariposa County
- Modoc Transportation Agency
- Monterey-Salinas Transit District
- Napa Valley Transportation Authority
- Redding Area Bus Authority
- Redwood Coastal Transit Authority
- Sacramento Regional Transit District (SacRT)
- San Diego Metropolitan Transit System (MTS)
- San Luis Obispo Regional Transit Authority (RTA)
- Santa Barbara Metropolitan Transit District (MTD)
- Santa Cruz Metropolitan Transit District (SCMTD, or Santa Cruz Metro)
- San Francisco Municipal Transit Agency (SF Muni)
- SunLine Transit Agency
- Tahoe Transportation District

- Tri-Delta Transit, and
- Yuba-Sutter Transit

Survey results indicated that nearly all agencies across the state struggle to recruit and retain a sufficient transit operator workforce, and 50% of respondents reported significant or severe difficulty maintaining a sufficient transit operator shortage. A third of agencies surveyed expressed pessimism about a long-term solution to the transit operator shortage.

The survey and focus group revealed that the most significant factors generating and exacerbating the shortage varies from agency to agency. Accordingly, researchers stress the importance of working with transit agencies directly when attempting to provide solutions to the transit operator shortage. All the same, when asked to rank a series of issues on a scale of 1 to 10, the most significant factors generating the transit operator shortage were (in order): Housing affordability (mean score of 6.59 out of 10), compensation and wages (6.2), the labor pool from which the agency draws (5.93), and the importance of seniority (5.38). Housing affordability received a modal average of 10, greater than any other listed factor.

In September 2024, Governor Gavin Newsom signed Senator Scott Wiener’s Complete Streets bill into law.¹ This law requires all transportation-related state agencies to grant greater priority to the pedestrian, active transportation, and public transit experience. Along with other pieces of recent legislation (including but not limited to AB 2097 from 2022 and SB 125 from 2024), this puts transit agencies in the spotlight – but transit agencies lack the frontline workforce necessary to match the ambition of these statutes.² Put simply, without an increase in the number of quality transit operators, these laws simply will not succeed. Therefore, researchers propose a Complete Streets legislative impact roundtable or town hall event with leaders from California transit agencies across rural, small urban, and large urban areas. Topics for discussion could include: Reforming transit funding mechanisms, safety and security reforms, operator-centric infrastructure improvements, mentoring and early career support, and the modernization of agency administrative operations.

¹ For an overview, see: Melanie Curry, “Governor Newsom Signs Complete Streets Bill - Streetsblog California,” *Streetsblog California* (blog), September 27, 2024, <https://cal.streetsblog.org/2024/09/27/governor-newsom-signs-complete-streets-bill>. The text of the bill itself can be found here: Scott Wiener, “An Act to Amend Sections 14526.4 and 14526.6 of, and to Add Section 14526.8 to, the Government Code, and to Amend Sections 164.6 and 671.5 of, and to Add Section 149.20 to, the Streets and Highways Code, Relating to Transportation,” Pub. L. No. 960, Government Code (2024), https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=202320240SB960.

² Laura Friedman, “AB-2097 Residential, Commercial, or Other Development Types: Parking Requirements,” Pub. L. No. 2097, § 65585 / 65863.2, Chapter 459 Government Code (2022), https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB2097.



Introduction:

This report evaluates causes of transit operator shortages and how these causes have evolved during COVID-19. Across the entirety of the state, transit agencies in both rural and urban areas alike are struggling to recruit and retain a quality transit operator workforce. While the vast majority of agencies in the state are facing a transit operator shortage, the reasons can vary by the size, type, and location of the agency in question. Moreover, while there is blanket consensus on some issues, policymakers and employees of government agencies should note that the most significant factors generating the operator shortage vary among agencies.

Recent research has identified a number of factors that are driving or aggravating the transit operator shortage, such as: Transit operator safety; an anemic labor pool; compensation and wages; industry perception; housing affordability; lack of communication between frontline workers and management; lack of professional mobility opportunities; and the importance of seniority among the transit operator workforce. In general, CITT researchers found that the results of the survey and focus group concurred with findings of the literature review. The ground has been laid to begin exploring and piloting solutions in close partnership with transit agency professionals, including executive leadership, union locals, human resources staff, and statewide transit organizations such as the California Transit Training Consortium (CTTC) and California Transit Works! (CTW).

Based on this evaluation, the study will recommend solutions for transit industry officials, stakeholders, and Caltrans to consider. The State of California has enacted several laws and policies aimed at alleviating the housing crisis, reducing air pollution, and reimagining the design of urban areas to meet climate action goals. When accomplished in the most effective, sustainable, and forward-looking way, this necessitates an increase in transit ridership. It is difficult to imagine how this could be achieved without an increase in the quality and quantity of public transit – and that requires a corresponding increase in the quality and quantity of transit operators.

Research Objectives

The objective of this research project is to provide research that will inform state government agencies and transit professionals so that they can effectively sustain and improve transit services. The study findings will help Caltrans incorporate development of the frontline transit workforce into the transit programs it administers, helping optimize return on transit investments. By deploying the findings to transit agencies throughout the state, these providers can address bus and train operator shortages to restore and expand service and narrow the Caltrans-identified \$10.7-billion gap between existing and needed transit service levels for California. Further, the findings will help better align workplace amenities with bus and rail operators' duties, improving work conditions for these employees and addressing known diversity and gender gaps in the industry.

Research Method

CITT researchers composed a literature review, which was then used to inform the survey, focus groups, and conversations with subject matter experts (SMEs). Researchers focused primarily on bus operations and did not seek participation from rail-oriented transit agencies (such as San Francisco's Bay Area Rapid Transit system). Researchers did not make use of official federal designations, such as Rural-Urban Commuting Area Codes (RUCA), in determining the type of region an agency serves

and instead relied on representatives' self-reports.³ When multiple respondents from one agency responded and selected different community types, researchers selected the one that best conformed to the Metropolitan Statistical Area (MSA) served by the agency, the mileage of its service area, and its ridership figures according to information from the National Transit Database (NTD).⁴

Research was conducted with an eye towards the future of public transit in the State of California. While ridership has generally declined in the state over the past few decades, the moment is ripe for opportunity.⁵ Cutting-edge technologies have been developed by researchers in the state⁶ and the need for robust, efficient public transit options is increasingly recognized by state politicians and government officials.⁷ At the federal level, too, there are indications of increased attention towards the necessity of updating and reinvigorating policy that affects public transit and transit operators.⁸ If the State of California is to facilitate safer, cleaner, and healthier transportation for its residents, it is clear that there are not nearly enough transit operators to make this aspiration a reality.

³ For more information on RUCA codes, see: "USDA ERS - Rural-Urban Commuting Area Codes," United States Department of Agriculture Economic Research Service, November 4, 2024, <https://www.ers.usda.gov/data-products/rural-urban-commuting-area-codes/>.

⁴ Federal Transit Administration, "The National Transit Database (NTD)," 2023, <https://www.transit.dot.gov/ntd/transit-agency-profiles>.

⁵ Brian D. Taylor, et al., "Transit Blues in the Golden State: Analyzing Recent California Ridership Trends," Final Report (February 2019-June 2020) (Los Angeles, California: UC Office of the President: The University of California Institute of Transportation Studies, June 2020), <https://escholarship.org/uc/item/32j5j0hb>; Sameea Kamal, "Why California Public Transit Is at a Pivotal Moment," *CalMatters*, April 5, 2023, <https://calmatters.org/politics/capitol/2023/04/public-transit-california/>; Michael Manville, Brian D. Taylor, and Evelyn Blumenberg, "Falling Transit Ridership: California and Southern California" (Los Angeles, CA: Southern California Association of Governments and the University of California Institute of Transportation Studies, January 2018), https://scag.ca.gov/sites/main/files/file-attachments/its_scag_transit_ridership.pdf.

⁶ Jacob Tsao et al., "Developing Operating Rules and Simulating Performance for One-Dedicated-Lane Bus Rapid Transit/Light Rail System" (Richmond, CA and Sacramento, CA: California PATH and California Department of Transportation Division of Research and Innovation, February 20, 2010), <https://dot.ca.gov/-/media/dot-media/programs/research-innovation-system-information/documents/f0017120-final-report-task-1646.pdf>; Han-Shue Tan et al., "Vehicle Assist and Automation Demonstration Report" (Richmond, CA and Sacramento, CA: Partners for Advanced Transportation Technology (PATH) and California Department of Transportation (Caltrans), December 2016), <https://dot.ca.gov/-/media/dot-media/programs/research-innovation-system-information/documents/ca16-2508-finalreport-a11y.pdf>; Han-Shue Tan et al., "Field Demonstration and Tests of Lane-Assist/Guidance and Precision Docking Technology," Final (Richmond, CA and Sacramento, CA: California PATH Program and California Department of Transportation Division of Research and Innovation, January 2009), <https://dot.ca.gov/-/media/dot-media/programs/research-innovation-system-information/documents/f0017127-id954-to-6606-final-report-prr-2009-12.pdf>; Eliot Martin et al., "Mobility on Demand (MOD) Sandbox Demonstration: Los Angeles County and Puget Sound First and Last Mile Partnership with Via Evaluation Report," FTA Report No. 0239, Mobility on Demand Sandbox Program (Berkeley, CA: Federal Transit Administration and Intelligent Transportation Systems Joint Program Office (ITS JPO), December 2022), <https://www.transit.dot.gov/research-innovation/mobility-demand-sandbox-demonstration-los-angeles-county-and-puget-sound-first>.

⁷ "California Air Resources Board 2022 Scoping Plan, Appendix E: Sustainable and Equitable Communities" (California Air Resources Board, November 2022), p. 12: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-e-sustainable-and-equitable-communities.pdf>; "California Transportation Plan 2050" (Sacramento, CA: California State Transportation Agency (calSTA) and California Department of Transportation (Caltrans), February 2021), p. 14-15: <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/ctp-2050-v3-a11y.pdf>;

⁸ "DOT Report to Congress: Decarbonizing U.S. Transportation" (United States Department of Transportation, July 2024), <https://www.transportation.gov/priorities/climate-and-sustainability/dot-report-congress-decarbonizing-us-transportation>; Federal Transit Administration, "Proposed General Directive 24-1: Required Actions Regarding Assaults on Transit Workers (88 FR 88213)," Notice (Washington, D.C., December 20, 2023), Federal Register, <https://www.federalregister.gov/documents/2023/12/20/2023-28002/proposed-general-directive-24-1-required-actions-regarding-assaults-on-transit-workers>; Chris Van Hollen and John Fetterman, "Moving Transit Forward Act of 2024," Chapter 53 of title 49 U.S.C. § 5308 (2024), https://www.vanhollen.senate.gov/imo/media/doc/moving_transit_forward_act-118.pdf.

Literature Review

Transit agencies across the State of California are struggling to recruit and retain a sufficient transit operator workforce. This is intensified by current and anticipated retirements among the current transit operator workforce.⁹ The shortage has made it difficult for agencies to implement improvements in the quality and frequency of service, and in some cases has even led to the impromptu cancellation of existing service.¹⁰ The shortage of transit operators is most severe for bus transit operations. As of early 2025, recent developments suggest that labor unrest, strikes, and work stoppages could become more common among transit operators in urban areas through the rest of the year and into next.¹¹ These difficulties are occurring alongside planning for the 2028 Olympic Games in Los Angeles, CA. Of the 2,700 buses required to serve the 2028 Olympic Games in Los Angeles, L.A. Metro had procured only about half as of Spring 2024. The demand on other transit agencies in the region (such as Long Beach Transit, Orange County Transportation Authority, Santa Monica, and Foothill Transit) is likely to also increase.¹² As the date of the Olympics draws nearer, it is increasingly clear that transit policy in the Golden State has not laid the groundwork for a successful “car-free” Olympics.

Our preliminary research identified a handful of contributing factors, many of which overlap and are mutually reinforcing. Factors include:

- Transit operator safety
- Labor pool
- Compensation and wages
- Industry perception
- Housing affordability
- Lack of communication between frontline workers and management
- Lack of professional mobility opportunities

⁹ Van Eyken, *Bus Operators in Crisis* (2022), p. 5, 7, 8 and 22; Foursquare Integrated Transportation Planning, “Transit Workforce Shortage,” Synthesis Report (American Public Transportation Association, March 2023), p. 1 and 10, <https://www.apta.com/wp-content/uploads/APTA-Workforce-Shortage-Synthesis-Report-03.2023.pdf>; Laurel Paget-Seekins, Chris Van Eyken, and Hayley Richardson, “People First: How a More Strategic Approach to Human Resources Can Help Transit Agencies Attract and Retain the Talent They Need to Run Great Service” (New York, NY: TransitCenter, July 2023), p. 15 https://transitcenter.org/wp-content/uploads/2023/07/TC_People-First_Web-1.pdf.

¹⁰ Yonah Freemark and Lindiwe Rennert, “Surmounting the Fiscal Cliff: Identifying Stable Funding Solutions for Public Transportation Systems” (Washington, DC: Urban Institute, November 1, 2023), p. 22: <https://www.urban.org/research/publication/surmounting-fiscal-cliff>; Foursquare Integrated Transportation Planning, “Transit Workforce Shortage,” Synthesis Report (American Public Transportation Association, March 2023), p. 14: <https://www.apta.com/wp-content/uploads/APTA-Workforce-Shortage-Synthesis-Report-03.2023.pdf>; Alana Minkler, “Santa Rosa Bus Driver Shortage Leads to Canceled Weekday Trips,” *The Press Democrat*, March 22, 2024, sec. News, ProQuest Global Newsstream, <https://www.pressdemocrat.com/article/news/santa-rosa-bus-driver-shortage-leads-to-canceled-weekday-trips/>.

¹¹ Rachel Uranga, “Protest by Drivers Delays Metro Buses; Recent Attacks Prompt Hundreds to Take Sick Days, Slowing Service on at Least 19 Routes,” *Los Angeles Times*, May 4, 2024, sec. California; Part B; Metro Desk, <https://www.proquest.com/latimes/docview/3050390936/citation/C4BC2FFAE2944BB7PQ/17?sourcetype=Newspapers>; Rachel Swan, “Muni Workers Reject S.F. Labor Contract, Opening the Door for a Summer Strike,” *San Francisco Chronicle*, June 3, 2024, <https://www.sfchronicle.com/sf/article/muni-labor-contract-19491739.php>; Gillian Morán Pérez, “Transit Service Workers On Strike In Santa Clarita. What This Means For Riders,” *LAist*, October 9, 2023, <https://laist.com/news/transportation/transit-service-workers-on-strike-in-santa-clarita>.

¹² Rachel Uranga, “Olympic Planning Runs into Transit Hurdle; L.A. Officials Are Looking for \$1 Billion to Temporarily Double the Bus Fleet in 2028. - Los Angeles Times -,” *Los Angeles Times*, April 3, 2024, sec. Main News; Part A; Metro Desk, ProQuest Global Newsstream, <https://www.proquest.com/latimes/newspapers/olympic-planning-runs-into-transit-hurdle-1/docview/3030966981/sem-2?accountid=10351>.

- The importance of seniority among the transit operator workforce

These various causes and factors can be gathered under the following three headings:

- Safety & Quality-of-Life
- Demographics, Labor Pool, and Workforce Development
- Money: Agency Finances & Worker Compensation

This literature also advises stakeholders to consider the transit operator shortage in a broader context. First, the nature of the job may change with the development and introduction of automated technologies into public transit. Research and testing of automated buses and bus rapid transit systems holds immense promise. Furthermore, the introduction of higher levels of automation into bus rapid transit (BRT) systems is more achievable and practical than the self-driving private automobiles.¹³ Thus, it is worth considering what life will be like for the transit operator of the near future in the 2030s and 2040s. The nature of the job is already changing today with the introduction of electrification and hydrogen fuel-cell busses into California's transit systems and municipal experiments with microtransit systems.¹⁴ Additionally, transit operators are crucial to

¹³ The literature on automated busses, automated bus processes, self-driving trains, and similar topics is extensive. Introducing higher levels of automation into bus rapid transit systems is more achievable and practical than the self-driving private automobiles. Joshua Cregger et al., "Transit Bus Automation Market Assessment," FTA Report No. 0255 (Cambridge, MA: Federal Transit Administration, September 2023), <https://www.transit.dot.gov/research-innovation/transit-bus-automation-market-assessment-report-0255>; Henry Grabar, "The Hyperloop and the Self-Driving Car Are Not the Future of Transportation," *Slate*, October 30, 2019, <https://slate.com/technology/2019/10/future-of-transportation-bus-bike-elevator.html>; Alberto Lacaze, "ABRT: Reducing Congestion, Costs While Improving Safety, Efficiency," *Mass Transit Magazine*, June 8, 2021, <https://www.masstransitmag.com/alt-mobility/autonomous-vehicles/article/21223068/abrt-reducing-congestion-costs-while-improving-safety-efficiency>; Jing-Quan Li et al., "Evaluation of Cost-Effective Planning and Design Options for Bus Rapid Transit in Dedicated Bus Lanes," Final (Richmond, CA and Sacramento, CA: California PATH and California Department of Transportation Division of Research and Innovation, February 2009), <https://dot.ca.gov/-/media/dot-media/programs/research-innovation-system-information/documents/final-reports/ca09-0952-finalreport-a11y.pdf>; Roger Rudick, "Commentary: It's Time to Talk Again About Driverless Trains," *Streetsblog San Francisco* (blog), October 31, 2023, <https://sf.streetsblog.org/2023/10/31/commentary-its-time-to-talk-again-about-driverless-trains>; Steven E. Shladover, "Bus Rapid Transit and Automation: Opportunities for Synergy," in *Proceedings Of The 7th World Congress On Intelligent Systems* (7th World Congress On Intelligent Systems, Turin, Italy: National Academies of Sciences, Engineering, and Medicine: Transportation Research Board (TRB), 2000), https://onlinepubs.trb.org/onlinepubs/archive/conferences/VHA-BRT/Bus_Rapid_Transit_and_Automation--Opportunities_for_Synergy.pdf; Han-Shue Tan et al., "Field Demonstration and Tests of Lane- Assist/Guidance and Precision Docking Technology," Final (Richmond, CA and Sacramento, CA: California PATH Program and California Department of Transportation Division of Research and Innovation, January 2009), <https://dot.ca.gov/-/media/dot-media/programs/research-innovation-system-information/documents/f0017127-id954-to-6606-final-report-prr-2009-12.pdf>; Han-Shue Tan et al., "Vehicle Assist and Automation Demonstration Report" (Richmond, CA and Sacramento, CA: Partners for Advanced Transportation Technology (PATH) and California Department of Transportation (Caltrans), December 2016), <https://dot.ca.gov/-/media/dot-media/programs/research-innovation-system-information/documents/ca16-2508-finalreport-a11y.pdf>; The Port Authority of New York and New Jersey (PANYNJ), "Lincoln Tunnel Exclusive Bus Lane Connected Automated Bus Proof-of-Concept Demonstration Project," Final Report, FTA Report No. 0258 (New York, NY: Federal Transit Administration, September 2023), <https://www.transit.dot.gov/research-innovation/lincoln-tunnel-exclusive-bus-lane-connected-automated-bus-proof-concept>.

¹⁴ "SEPTA Partners with RideCo to Adapt Agency's Paratransit and Microtransit Services," *Mass Transit Magazine*, October 4, 2023, <https://www.masstransitmag.com/alt-mobility/shared-mobility/press-release/53074288/rideco-septa-partners-with-rideco-to-adapt-agencys-paratransit-and-microtransit-services>; "Microtransit Ridership Growing in Two Virginia Communities after 18-Month Pilot," *Mass Transit Magazine*, July 12, 2023, <https://www.masstransitmag.com/alt-mobility/shared-mobility/press-release/53065862/virginia-department-of-rail-and-public-transportation-drpt-microtransit-ridership-growing-in-two-virginia-communities-after-18month-pilot>; "Transdev, SamTrans Launch Microtransit Service," *Mass Transit Magazine*, June 21, 2023, <https://www.masstransitmag.com/alt-mobility/shared-mobility/press-release/53064006/transdev-north-america-transdev-samtrans-launch-microtransit-service>; "Microtransit Pilot Project Update Report" (Los Angeles, CA: Los Angeles County Metropolitan

the development of better public transit, and the State of California has no shortage of incentives in that area.¹⁵ Simply put, a plentiful supply of transit operators makes for higher ridership and higher ridership makes for a reduction in Vehicle Miles Travelled (VMT) – and arguments in favor of reducing VMT could constitute an entire literature review of their own.¹⁶

Finally, while it is difficult to derive a reliable metric for something like the friendliness or happiness of transit operators, the ridership is very clear about its significance for a positive transit experience.¹⁷ Making improvements in transit service in California starts with transit operators.

Safety & Quality of Life

Assault and Harassment

Incidents of assault and harassment involving transit operators by ridership have increased substantially. Regardless of the timeline one chooses, the figures are dismal. A report authored by the Federal Transit Authority (FTA) found a nationwide “four-fold increase in assaults per unlinked passenger trip between 2009 and 2020.”¹⁸ A recent report by Rennert (2023) found that the number of agencies reporting major assault events “ballooned” nationwide from 21 in 2007 to 49 in 2022. Rennert suspects that this increase in assaults and harassment may be due to a broader phenomenon

Transportation Authority, June 20, 2023), https://boardarchives.metro.net/BoardBox/2023/230620_MicroTransit_Pilot_Project_Update_Report.pdf; “Performance Audit of the Micro Transit Pilot Project” (Los Angeles County: Los Angeles County Metropolitan Transportation Authority, June 2023), https://boardarchives.metro.net/BoardBox/2023/230605_Performance_Audit_of%20the_Micro_Transit_Project.pdf; “SacRT’s SmaRT Ride Microtransit Service among Most Success in U.S.,” *Mass Transit Magazine*, September 10, 2020, <https://www.masstransitmag.com/alt-mobility/shared-mobility/press-release/21153770/sacramento-regional-transit-sacrt-sacrts-smart-ride-microtransit-service-among-most-success-in-us>; Alanna McKeeman, “Four Steps for Creating a Successful On-Demand Microtransit Service,” *Mass Transit Magazine*, June 6, 2023, <https://www.masstransitmag.com/alt-mobility/shared-mobility/article/53060532/four-steps-for-creating-a-successful-ondemand-microtransit-service>; Eliot Martin et al., “Mobility on Demand (MOD) Sandbox Demonstration: Los Angeles County and Puget Sound First and Last Mile Partnership with Via Evaluation Report,” FTA Report No. 0239, Mobility on Demand Sandbox Program (Berkeley, CA: Federal Transit Administration and Intelligent Transportation Systems Joint Program Office (ITS JPO), December 2022), <https://www.transit.dot.gov/research-innovation/mobility-demand-sandbox-demonstration-los-angeles-county-and-puget-sound-first>; “Riverside Transit Agency Awards Contract to Clean Energy to Design and Construct New Hydrogen Fueling Station,” *Mass Transit*, December 13, 2024, <https://www.masstransitmag.com/technology/facilities/shelters-stations-fixtures-parking-lighting/press-release/55249582/clean-energy-riverside-transit-agency-awards-contract-to-clean-energy-to-design-and-construct-new-hydrogen-fueling-station>; “OCTA to Invest \$77.5 Million in New Hydrogen Fuel-Cell Electric and Battery-Electric Buses,” *Mass Transit*, November 27, 2024, <https://www.masstransitmag.com/bus/vehicles/hybrid-hydrogen-electric-vehicles/press-release/55246303/orange-county-transportation-authority-octa-octa-to-invest-775-million-in-new-hydrogen-fuel-cell-electric-and-battery-electric-buses>.

¹⁵ This is discussed in greater detail in the section titled *The Transit Operator Shortage in Context* below.

¹⁶ For an excellent and brief discussion, see: Ryan Warsing et al., “Drive Less, Live More: How States Can Lead the Way in Climate-Smart Transportation,” *Rocky Mountain Institute* (blog), January 8, 2024, <https://rmi.org/drive-less-live-more-how-states-can-lead-the-way-in-climate-smart-transportation/>. See also: “California at a Crossroads: Unleashing Climate Progress in Transportation Planning,” *Climate 100* (NextGen Policy, September 25, 2023), <https://climate100.nextgenpolicy.org/california-at-a-crossroads-unleashing-climate-progress-in-transportation-planning/>.

¹⁷ Taylor, Wasserman, Garrett, Schouten, King, Paul, & Ruvolo, *Transit Blues in the Golden State* (2020), p. 38.

¹⁸ Foursquare Integrated Transportation Planning, *Transit Workforce Shortage: Root Causes, Potential Solutions, and the Road Ahead* [Interim Report] (2022), p. 16. For an example of recent coverage specific to California, see: Kristin J. Bender, “Bus Operator Assaults Rise, Lead SamTrans to Crack down on Violators,” *East Bay Times*, April 6, 2024, <https://www.eastbaytimes.com/2024/04/06/bus-operator-assaults-rise-lead-samtrans-to-crack-down-on-violators/>.

of societal unrest and distress.¹⁹ By the nature of their occupation, transit operators can easily find themselves the target of the public's ire.²⁰

While issues affecting the safety of transit operators are certainly not isolated to larger urban areas with higher ridership figures, it does appear from a review of the literature that the highest concentration of such incidents is in those service areas. In an in-house public safety feasibility study conducted by Justice Research Consultants on behalf of the Los Angeles County Metropolitan Transportation Authority (LACMTA, better known as L.A. Metro), a survey of employees found that nearly 40% of the agency's frontline workforce felt safe "rarely or never."²¹ In April 2024, L.A. Metro declared an "emergency condition" on its system following a number of violent assaults on operators and riders, which was followed by a law enforcement surge in May 2024.²² While the manner in which safety conditions on the transit system are addressed has been a source of considerable controversy, it seems that there is general agreement that L.A. Metro has unmet safety needs.²³ This situation replicates among large urban agencies across the state and the country as whole.²⁴ Outside of California, assaults occurred on the New York City Metropolitan Authority (MTA) system every 1.4 days in 2022. By contrast, such occurrences took place every 3 days in 2008.²⁵ That is an increase of nearly 115%.

In a quotation published in a 2018 article from *Bloomberg* and included in the TransitCenter's *Bus Operators In Crisis* (2022), former chair of the Amalgamated Transit Union (ATU) Ray Greaves aptly summarized the predicament: "the bus driver is like the tax collector. They're demanding the fare,

¹⁹ Lindiwe Rennert, "Assaults on Transit Workers Have Tripled in the Past 15 Years. Income Inequality and Societal Tensions Have Contributed," *Urban Wire* (blog), November 28, 2023, <https://www.urban.org/urban-wire/assaults-transit-workers-have-tripled-past-15-years-income-inequality-and-societal>.

²⁰ Paget-Seekins, et al. *People First* (2023), p. 20.

²¹ Justice Research Consultants, LLC, "LACMTA In-House Public Safety Department Feasibility Study," Final (Los Angeles, CA: Los Angeles County Metropolitan Transportation Authority, June 2023), p. 14, <https://metro.legistar1.com/metro/attachments/15194622-102c-45a7-ac52-f58979710bfb.pdf>.

²² Rachel Uranga, "Metro Declares Crisis over Violence," *Los Angeles Times*, April 26, 2024, sec. California; Part B; Metro Desk; Rachel Uranga, "Metro Ponders Security Measures after Killing," *Los Angeles Times*, April 28, 2024, sec. California; Part B; Metro Desk, "L.A. Metro Is Doomed If It Can't Keep Riders Safe; Violent Attacks on the System Have Scared Passengers and Present an Existential Threat to Public Transit," *Los Angeles Times*, May 7, 2024, sec. Main News; Part A; Editorial Desk; Uranga, Rachel. "MAYOR ORDERS METRO POLICE PATROLS; Bass Calls for a 'surge' in Law Enforcement to Increase Safety amid Recent Violence on System's Buses, Trains," *Los Angeles Times*, May 17, 2024, sec. Main News; Part A; Metro Desk.

<https://www.proquest.com/latimes/docview/3055728200/citation/821C33AC10C54429PQ/4?sourcetype=Newspapers>.

²³ ACT-LA, "Three Ways Metro's Police Dollars Would Be Better Spent," *Medium* (blog), March 1, 2024, <https://medium.com/@ACTLA/three-ways-metros-police-dollars-would-be-better-spent-a55a3f2e5404>; "Fired Metro Public Safety Chief Blames CEO for Safety Issues," *KNX News 97.1 FM*, May 15, 2024, <https://www.audacy.com/knxnews/news/local/fired-metro-public-safety-chief-blames-ceo-for-safety-issues>; Karla Torres, "Supervisor and Metro Board Member Horvath Introduced Motion to Address Metro Safety," *Supervisor Lindsey P. Horvath* (blog), May 16, 2024, <https://lindseyhorvath.lacounty.gov/supervisor-horvath-motion-metro-safety/>; Alissa Walker, "What We Need Is a Surge of Bus Investments," *Torched* (blog), May 22, 2024, <https://www.torched.la/what-we-need-is-a-surge-of-bus-investments/>. *The authors of this report take no stance regarding the veracity of the claims made by or concerning former or current transit agency staff, nor do the authors have the relevant expertise necessary to evaluate safety improvement strategies.*

²⁴ Kristin J. Bender, "Bus Operator Assaults Rise, Lead SamTrans to Crack down on Violators," *East Bay Times*, April 6, 2024, <https://www.eastbaytimes.com/2024/04/06/bus-operator-assaults-rise-lead-samtrans-to-crack-down-on-violators/>.

²⁵ Rennert, "Assaults on Transit Workers Have Tripled in the Past 15 Years. Income Inequality and Societal Tensions Have Contributed" See also: David Perecman, "OP-ED: Assaults against MTA Bus Drivers Continue to Rise," *Mass Transit Magazine*, December 19, 2023, <https://www.masstransitmag.com/safety-security/article/53079012/op-ed-assaults-against-mta-bus-drivers-continue-to-rise>.

which puts them in a precarious situation.”²⁶ Of course, transit agencies are neither responsible for a national crisis in civility (if such a crisis is occurrent) nor capable of resolving it, but they are obligated to protect frontline workers. Accordingly, the Federal Transit Administration (FTA) issued a General Directive mandating agencies to address the safety of transit operators and provide the FTA with information regarding operator assaults on their respective systems in December of 2023.²⁷ While the State of California has recently made efforts to track and assess the street harassment of riders, there has not been an equivalent statewide effort addressing safety conditions for the transit workforce as of the time of writing.²⁸

Scheduling Norms

Scheduling norms for transit operators do not accommodate the needs and preferences of potential long-term employees and are a major obstacle to the recruitment and retention of transit operators. However, simply reworking schedules to match worker preferences is easier said than done. Collective bargaining agreements, the nature of transit service, and the shortage of transit operators itself all contribute to the challenge.²⁹

Scheduling norms at transit agencies have much to do with an employee’s seniority, which disadvantages and discourages new workers. According to a March and July 2022 survey conducted by the American Public Transportation Association (APTA), an inflexible and undesirable schedule is a leading cause of employee resignation, especially following the onset of the COVID-19 pandemic. Oftentimes, new operators work shifts that are left over after seniority has had its pick and often find themselves filling in for unexplained absences. While this rewards senior workers for their service and hard work, it contributes to rapid turnover among more recent hires.³⁰

It is not uncommon for transit operators to work split-shifts. For example, a municipal bus driver may work both the morning and evening rush hours with an hours-long unpaid break in the middle. During the break, the operator is likely to remain close to the depot. Mandated overtime, too, adds

²⁶ Van Eyken, *Bus Operators in Crisis* (2022), p. 33. *Greaves originally quote in:* Laura Bliss, “There’s a Bus Driver Shortage. And No Wonder,” *Bloomberg*, June 28, 2018, <https://www.bloomberg.com/news/articles/2018-06-28/there-s-a-bus-driver-shortage-and-no-wonder>. See also: The Transport Workers Union of America AFL-CIO, “Organizing Campaigns: Assault Protections for Transit Workers,” Accessed June 26, 2023, <https://www.twu.org/current-issues/assault-protections/>; Jeremy Childs, “Metro Bus Driver in Venice is Knifed; Man Held,” *Los Angeles Times*, Jun 25, 2023.

²⁷ Federal Transit Administration, “Required Actions Regarding Assaults on Transit Workers,” General Directive Under 49 U.S.C. 5329 and 49 CFR Part 670, December 20, 2023, <https://www.transit.dot.gov/sites/fta.dot.gov/files/2023-12/Proposed-General-Directive-24-1-Required-Actions-Regarding-Assaults-on-Transit-Workers.pdf>.

Federal Transit Administration, “Proposed General Directive 24-1: Required Actions Regarding Assaults on Transit Workers (88 FR 88213),” Notice (Washington, D.C., December 20, 2023), Federal Register, <https://www.federalregister.gov/documents/2023/12/20/2023-28002/proposed-general-directive-24-1-required-actions-regarding-assaults-on-transit-workers>.

²⁸ Asha Weinstein Agrawal et al., “Learning about Street Harassment on Transit: A Survey Instrument for Transit Agencies,” Final Report (San José, CA: Mineta Transportation Institute, December 2023), <https://transweb.sjsu.edu/research/2301-Street-Harassment-California-Transit-Survey>; David Min, “Transit Operators: Street Harassment Survey,” Pub. L. No. SB-1161, § 99177, Chapter 318 Public Utilities (2022), https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB1161. For information on efforts addressing the safety of both transit operators and riders, see: Mischa Wanek-Libman, “2023 Transit Safety & Security Report,” *Mass Transit Magazine*, December 19, 2023, <https://www.masstransitmag.com/safety-security/article/53079800/2023-transit-safety-security-report>.

²⁹ Foursquare Integrated Transportation Planning, *Transit Workforce Shortage: Root Causes, Potential Solutions, and the Road Ahead* [Interim Report] (2022), p. 19. See also: Paget-Seekins, et al. *People First* (2023), p. 11: “Not only does the high number of vacancies impact the quality of the service riders experience, it also impacts the workers who remain on staff. Resignations and retirements during the pandemic in addition to longstanding unfilled positions have caused many transit employees to take on additional workload. Understaffing creates a vicious cycle that inevitably leads to more resignations and retirements.”

³⁰ Foursquare Integrated Transportation Planning, *Transit Workforce Shortage* [Synthesis Report] (2023), p. 6 and 24.

to a general phenomenon of schedule rigidity and impracticability.³¹ Many transit operators' work schedules are not designed to accommodate everyday tasks, such as taking care of elderly parents, picking up children from school, or attending local college courses.³²

While it may not be an easy task to take on, modifying and modernizing scheduling norms could go a long way to opening up a career path in transit to a larger and more diverse set of workers. For example, Indianapolis's IndyGo witnessed significant success by implementing a system of four ten-hour shifts as opposed to the traditional five eight-hour shifts.³³ While this does not change the nature of the job, it does provide operators with an additional day off. Similar strategies could be implemented for transit operators working for transit agencies in the State of California.

Rest Facilities & Break Time

Transit operators often lack access to adequate rest facilities and/or lack sufficient time in their schedules to rest. When transit operators *do* have breaks or rest periods, the amenities available to them are often quite poor, especially in comparison with those afforded to management and office staff.³⁴ The need to improve restroom access for transit operators has been a topic of discussion among transit-oriented academics and members of the Amalgamated Transit Union (ATU) for many years.³⁵ A survey conducted by the ATU found that “nearly 80% of surveyed operators did not have enough time built into their schedules for bathroom use” and “67% of respondents had developed a health problem or had a pre-existing condition grow worse because of lack of bathroom access.”³⁶

Commutes

Transit operators may have to commute significant distances from home to the worksite, especially if their agency serves areas where housing costs are high and rising. For example, San Francisco Muni operators find themselves commuting farther and farther away from the worksite, catching up on much-needed sleep before and after shifts in their parked cars.³⁷

The wages earned by operators may not compensate for a burdensome commute or workers may simply have other employment opportunities with less burdensome commutes. TransitCenter (2022)

³¹ Chris Van Eyken, “Bus Operators in Crisis: The Steady Deterioration of One of Transit’s Most Essential Jobs, and How Agencies Can Turn Things Around” (New York, NY: TransitCenter, July 2022), p. 15: https://transitcenter.org/wp-content/uploads/2022/07/Bus-Operators-in-Crisis_RGB_Interactive-1.pdf.

³² Paget-Seekins, et al., *People First* (2023), p. 18.

³³ See: Foursquare Integrated Transportation Planning, *Transit Workforce Shortage* [Synthesis Report] (2023), p. 23.

³⁴ Van Eyken, *Bus Operators in Crisis* (2022), p. 14 and 16. In particular, consider this passage from p. 14: “Contrasts can also be seen in the facilities provided to operators versus those available to office staff. Office staff expect to have clean bathrooms and amenities available near their offices. The furniture in offices are usually well-kept and replaced often. That level of comfort is not given to operators. Operators can see the contrasts between what is given to office workers and what they are given. At many agencies, the difference between the two worlds can be seen by looking at the entrances to their offices versus the entrance to depots and other facilities for frontline workers. At many agencies, the difference between the two worlds can be seen by looking at the entrances to their offices versus the entrance to depots and other facilities for frontline workers.”

³⁵ See: Robin Mary Gillespie and Robbie Sarles, *Improving the Safety, Health, and Productivity of Transit Operators Through Adequate Restroom Access*, Transit Cooperative Research Program, Report 216 (Washington, DC: The National Academies Press, 2020), <http://nap.nationalacademies.org/25960> and

“Restroom Access: A Factsheet For Local Unions” (Amalgamated Transit Union, August 22, 2015), <https://www.local1056.org/docs/Restroom%20Access.pdf>.

³⁶ Van Eyken, *Bus Operators in Crisis* (2022), p. 16.

³⁷ Joe Fitzgerald Rodriguez, “Many Muni Drivers Sleeping in Their Cars Due to Long Commutes,” *San Francisco Examiner*, April 3, 2019, https://www.sfoxaminer.com/archives/many-muni-drivers-sleeping-in-their-cars-due-to-long-commutes/article_e996e8cb-5b3e-595d-9530-6dfed8f50668.html.

found that longer commutes are especially common among new operators, which assuredly contributes to rapid attrition among new hires.³⁸

A review of the literature was unable to determine the length of the average operator's commute to work. However, if excessively burdensome commutes are an issue for San Francisco Muni operators, then it is reasonable to assume that the situation replicates in other urban areas in California where housing affordability is a problem. Moreover, the areas that have historically provided the best access to public transit (and thereby transit-related occupations) are often the most expensive.³⁹ A poll conducted by the Los Angeles Business Council Institute in partnership with the L.A. Times found that 60% of all Angelenos who are considering leaving Los Angeles cite housing affordability as a primary reason, and almost 75% of respondents who are considering leaving are renters and/or under the age of 35.⁴⁰ If the shortage of affordable housing continues to grow, then it is likely that the pool of would-be transit operators – younger workers who would join the lower ranks of the hierarchy because of the security of a hire-to-retire workforce strategy – will also continue to shrink.

Issues with Management

According to a survey conducted by APTA in Winter 2022-2023, issues with management are the primary factor driving operators to resign.⁴¹ Agencies struggle to retain transit operators because operators do not feel understood or supported by management.⁴² Research published by the TransitCenter (2022) provides a likely explanation for this problem. In the past, a worker could advance from an entry-level position as a regular operator into a leadership position. By contrast, management professionals today are not familiar with the ins-and-outs of a frontline workers' day on the job.⁴³ As a result, the two parties simply do not occupy the same space, they do not experience the same pressures, and they do not share the same perspective. This is illustrated by the disparity between operator and management perspectives on transit operator safety: While labor organizations and transit operators have raised concerns about assault and harassment, agencies have counterintuitively reported that such issues are the “least significant factor leading workers to

³⁸ Chris Van Eyken, “Bus Operators in Crisis: The Steady Deterioration of One of Transit’s Most Essential Jobs, and How Agencies Can Turn Things Around”, pp. 15 and 25. *Regarding the rapid attrition of new hires, see:* Foursquare Integrated Transportation Planning, *Transit Workforce Shortage: Root Causes, Potential Solutions, and the Road Ahead* [Interim Report] (2022) p. 12: “Agencies report that 36 percent of departures occur before the end of their probationary period.”

³⁹ Brian D. Taylor, et al., “Transit Blues in the Golden State: Analyzing Recent California Ridership Trends,” Final Report (February 2019-June 2020) (Los Angeles, California: UC Office of the President: The University of California Institute of Transportation Studies, June 2020), <https://escholarship.org/uc/item/32j5j0hb>, pp. xviii-3.

⁴⁰ Liam Dillon, “Housing Makes L.A. Less Livable, Poll Says; 60 percent of Angelenos-- Renters and Young Residents Especially -- Have Weighed Leaving the City Due to Cost,” *Los Angeles Times*, May 9, 2024, sec. Main News; Part A; Metro Desk.

⁴¹ Foursquare Integrated Transportation Planning, *Transit Workforce Shortage* [Synthesis Report] (2023), p. 26: “[In] the open-ended questions on the worker survey, the most common category of reasons former transit workers gave for leaving the industry was ‘issues with management.’”

⁴² Foursquare Integrated Transportation Planning, *Transit Workforce Shortage* [Synthesis Report] (2023), p. 7: “A workplace’s receptiveness to and wiliness to act on feedback is an integral part of job satisfaction. On average, the worker survey results point toward a perceived lack of responsiveness from agencies (Figure 3 and Figure 4), especially at larger agencies, i.e., the top 50 agencies by ridership. At these larger agencies, just 27 percent of workers agree or strongly agree that their employer is responsive to their concerns, whereas 47 percent disagree or strongly disagree. ... Among current transit workers, a slight majority agree that they can count on their supervisor for help when they have a problem. However, overall responses to this question are polarized: 27 percent of current workers disagree or strongly disagree with this statement (29 percent among larger agencies). And notably, most former transit workers felt unsupported by the time they left the agency.”

⁴³ Van Eyken, *Bus Operators in Crisis* (2022), p. 14

quit.”⁴⁴ As is the case with many factors affecting the transit operator shortage, issues with management are most prevalent within larger agencies.⁴⁵

Seniority

The importance of seniority within the transit operator workforce makes it difficult to recruit and retain newer, younger workers. As mentioned earlier, newer transit operators choose their runs after more senior operators. In the case of one of the state’s largest agencies, L.A. Metro, seniority privileges entail that the runs operated by newly hired bus drivers could be anywhere in the service area. First, this leads to longer commutes for new hires and, secondly, it is likely a cause of the high frequency of operator callouts in South Los Angeles.⁴⁶ Across the State of California and the nation as a whole, newly hired operators are more likely to serve areas that require a lengthy commute, more likely to receive the least desirable working hours (such as pre-dawn or late night shifts), and more likely to be assigned runs in areas deemed difficult or hazardous by more senior operators.⁴⁷ This puts new operators in a serious bind: On the one hand, they must meet performance expectations if they are to ascend the operator hierarchy and, in some agencies, operators are not eligible for benefits or full-time work until they have worked for the agency for a mandated period of time. On the other hand, new hires often find themselves working in the worst conditions. The situation is compounded by changes in benefits following the adoption of the Public Employees' Pension Reform Act of 2013 (PEPRA), leading to discrepancies between junior and senior employees.⁴⁸ Thus, it is unsurprising that many new hires burn out before they ever reach seniority – and long before they begin to see the public sector’s competitive pensions and retirement benefits on the horizon.⁴⁹

Demographics, Labor Pool, and Workforce Development

Difficulties Reaching Potential Applicants

Either transit agencies are not succeeding in recruiting the right applicants or they are not succeeding in sustaining interest from these potential applicants. Depending on the agency in question, the reason for this issue varies. First, an agency may fail to adequately convey the value of the benefits

⁴⁴ Foursquare Integrated Transportation Planning, *Transit Workforce Shortage: Root Causes, Potential Solutions, and the Road Ahead* [Synthesis Report] (2023) p. 2 and p. 16.

⁴⁵ Foursquare Integrated Transportation Planning, *Transit Workforce Shortage* [Synthesis Report] (2023), p. 7: “On average, the worker survey results point toward a perceived lack of responsiveness from agencies (Figure 3 and Figure 4), especially at larger agencies, i.e., the top 50 agencies by ridership. At these larger agencies, just 27 percent of workers agree or strongly agree that their employer is responsive to their concerns, whereas 47 percent disagree or strongly disagree.” *Note: This for agencies nationwide, not just in the State of California.*

⁴⁶ Jessica Meaney, “The Metro Bus Operator Crisis,” *Investing in Place*, March 15, 2022: <https://investinginplace.org/2022/03/15/the-metro-bus-operator-crisis/>.

⁴⁷ Van Eyken, “Bus Operators in Crisis: The Steady Deterioration of One of Transit’s Most Essential Jobs, and How Agencies Can Turn Things Around”, p. 15.

⁴⁸ Wasserman, et al., “Transit, Belabored: Issues and Futures for California’s Frontline Transit Workforce”, p. 25-27.

⁴⁹ Foursquare Integrated Transportation Planning, *Transit Workforce Shortage: Root Causes, Potential Solutions, and the Road Ahead* [Interim Report] (2022), p. 6. *See also:* Paget-Seekins, et al. *People First* (2023), p. 16-18: “The length of time that people stay in public sector jobs has also decreased, which decreases the value the public sector provides in job security and pension and retirement benefits. The number of public sector workers with tenures of 25 years or more grew through 2004 (people who started before 1980), after which the numbers trended down. The change in how long people expect to stay with a single employer decreases the value the public sector provides in job security and pension and retirement benefits.”

provided to employees of public-sector organizations (such as a generous pension).⁵⁰ Second, agencies may be drawing from an insufficiently broad labor pool or may be targeting the wrong demographics. While it may be commonsensical to recruit individuals who have a commercial driver's license (CDL) or who do not have a CDL but are interested in a career as a commercial driver, a 2021 report by the Federal Transit Administration (FTA) found that agencies that seek out applicants with "high-quality customer service backgrounds" fare better.⁵¹ The FTA suggests that the following skills and abilities are crucial to success as transit operator: "conflict resolution and communicating with the public; disability awareness and Americans with Disabilities Act (ADA) training, especially for serving customers with mental health and cognitive impairments; basic workplace skills such as verbal communication; and emergency response training."⁵²

The FTA's 2019 Innovative Transit Workforce Development Program (ITWDP) offered greater support to agencies that broadened their labor pool by "recruiting from underserved populations or those who often have been under-represented in the transit workforce, such as minorities, women, individuals with disabilities, veterans, low-income populations, returning citizens (i.e., ex-offenders), and others."⁵³ L.A. Metro's Workforce Initiative Now (WIN) is one such effort that ought to be analyzed and perhaps replicated elsewhere in the state.⁵⁴ In general, there may be many potential applicants who are not gravitating towards a career in transit operations because they are unaware of the opportunity or are deficient in a skill set, even though this could be remedied by the right training strategy.

Lengthy and Cumbersome Hiring Process

The hiring process at transit agencies is too lengthy and cumbersome, leading to a loss of interest from potential applicants.⁵⁵ If applicants can secure a position elsewhere, they are unlikely to tolerate the lengthy hiring process common among transit agencies. It stands to reason that some of the best applicants for a position as a transit operator are more than capable of finding work elsewhere. Research on the nationwide shortage by APTA (2023) found that "1 in 5 new hires at agencies do not show up for the first day of work."⁵⁶

While APTA (2023) advises agencies to simplify and accelerate the hiring process, they acknowledge that this is easier said than done: Agencies can train only so many workers at once, and there are number of steps and procedures along the way, including CDL testing and requirements, the examination of an applicant's driving record, and drug testing (among others).⁵⁷

Inadequate Human Resources Department

Transit agencies may simply lack a human resources department capable of taking on their workforce needs. Similarly, agencies may lack the right approaches or methodologies for generating

⁵⁰ Foursquare Integrated Transportation Planning, *Transit Workforce Shortage: Root Causes, Potential Solutions, and the Road Ahead* [Interim Report] (2022), p. 14.

⁵¹ Noland, DiPetrillo, Lubin, et al., *Transit Training Needs Assessment* (2021), p. 32.

⁵² Noland, DiPetrillo, Lubin, et al., *Transit Training Needs Assessment* (2021), p. 3

⁵³ Weissbein, House, Jindal, et al., *Innovative Transit Workforce Development Program: Key Lessons Learned* (2019), p. 13.

⁵⁴ Los Angeles County Metropolitan Transportation Authority, "Workforce Initiative Now – Los Angeles (WIN-LA)," accessed August 4, 2023, <https://winla.metro.net/>.

⁵⁵ Foursquare Integrated Transportation Planning, *Transit Workforce Shortage: Root Causes, Potential Solutions, and the Road Ahead* [Interim Report] (2022), p. 19; Van Eyken, *Bus Operators in Crisis* (2022), p. 19-20.

⁵⁶ Foursquare Integrated Transportation Planning, *Transit Workforce Shortage: Root Causes, Potential Solutions, and the Road Ahead* [Synthesis Report] (2023) p. 20.

⁵⁷ *ibid.*, p. 18.

year-over-year recruitment. Transit agencies may need to look first at the staff and processes involved in the recruiting and hiring, and the status of the tools available at their disposal.

Paget-Seekins, et al. (2023) considers the human resources needs of transit agencies in considerable depth. Of particular note is the structure of human resources departments within county and municipal governments. Transit agencies may lack an internal human resources department that reports directly to agency leadership, and they therefore lack much control over the day-to-day operations or goals of the external human resources department housed within local or municipal government.⁵⁸ Agencies may also lack access to data that would help improve their recruiting and hiring processes.⁵⁹

Lack of Professional and Career Development Opportunities

Transit agencies may not provide the sort of professional and career development opportunities potential applicants are looking for. In general, transit agencies provide less training than their private sector counterparts.⁶⁰ For many would-be transit operators, the position looks like a dead-end, rather than an entry point. Paget-Seekins, et al. (2023) advises agencies to provide employees with “clear information about how to advance, what skills are needed, and how they can obtain those skills.” And this shouldn’t be confined to roles in operations. Rather, there is a need for greater fluidity and an overall invigoration of workforce development at agencies considered as a whole, so that a greater array of opportunities is available to workers.⁶¹ Van Eyken (2022) claims that the erosion of operator-to-leadership pathways have led to disunity and tension between frontline workers and management.⁶² Overall, it does not appear that transit operators and other frontline workers are typically included in development activities, which are often reserved solely for management roles (and, again, transit operators are unlikely to find themselves progressing towards a management role).⁶³

Inadequacy of Professional and Career Development Opportunities

The training agencies provide may be inadequate or inappropriate. However, even if an agency is aware of this, they may still struggle to make the necessary improvements because of a lack of financial resources and an inability to schedule sufficient time to train employees.⁶⁴ There is a

⁵⁸ Paget-Seekins, et al. *People First* (2023), p. 26.

⁵⁹ Noland, DiPetrillo, Lubin, et al., *Transit Training Needs Assessment* (2021), p. 25: Transit agencies experience a lack of data-driven program analysis that allows for “systematic collection of information on their own internal processes.” See also: Paget-Seekins, et al. *People First* (2023), p. 30: “HR departments will need data analysts, or to provide data training to existing employees, to help leadership understand the trends in hiring and retention across departments and to project hiring needs or identify retention problem areas.” For a discussion of public sector workforce needs in general, see: Robert J. Lavigna, “What Governments Need to Build a Strong Workforce,” *Governing*, July 31, 2024, <https://www.governing.com/management-and-administration/what-governments-need-to-build-a-strong-workforce>.

⁶⁰ Foursquare Integrated Transportation Planning, *Transit Workforce Shortage: Root Causes, Potential Solutions, and the Road Ahead* [Interim Report] (2022), p. 17.

⁶¹ Paget-Seekins, et al. *People First* (2023), p. 46.

⁶² Van Eyken, “Bus Operators in Crisis: The Steady Deterioration of One of Transit’s Most Essential Jobs, and How Agencies Can Turn Things Around”, p. 14: “The divide between operators and management has grown as pathways from the bus into leadership roles have shrunk. In the past, bus operators found they had a path to advance from the bus into the ranks of management. Increasingly, management and leadership roles at agencies are filled by professionals without frontline experience. One former Maryland MTA operator describes the position as a job where you are expected to ‘arrive, shut up, do one thing for thirty-five years and retire.’ This leaves operators feeling spoken down to and disrespected, finding themselves unable to take on greater responsibility despite having firsthand experience keeping buses on-time and dealing with riders in person.”

⁶³ Noland, DiPetrillo, Lubin, et al., *Transit Training Needs Assessment* (2021), p. 19.

⁶⁴ Ibid. p. 2.

considerable distance between *identifying* a need for better and more frequent training opportunities and actually *providing* them. Agencies may not be in a position to transition from voicing a need to implementing an actionable plan.

Noland, et al. (2021) reports that the use of external partnerships has often been met with limited success, and agencies find that such training opportunities tended to utilize “generic curricula” and “insufficient tailoring of materials to meet their specific needs.” Moreover, Noland, et al. (2021) observed that curricula were often “outdated.”⁶⁵ Although the authors claimed that obstacles to meeting training needs could be surmounted by the “will and perseverance of supervisors and management personnel”, the report maintained that “improved training can be achieved only when there is a clear understanding of how the industry is working to better attract younger workers, adjust to disruptive practices such as transportation network companies, and prepare for technological change.”⁶⁶ In sum, there is more preparatory legwork involved in meeting the training needs of transit agencies and a simple increase in the quantity and frequency of training may not suffice.

Federal Drug-Testing Requirements

Transit agencies in California need to comply with federal drug-testing requirements that are out of step with the state’s own laws and policies. Recreational marijuana use is legal in California. By state law, transit operators are as free to partake in marijuana as they are to drink a beer – outside of working hours, of course. Yet, federal drug-testing requirements typically make use of urine analysis, which can detect marijuana use 3-67 days after use.⁶⁷

Nearly half of all transit agencies in the U.S. surveyed by APTA (2023) identified drug and alcohol testing as an impediment to hiring and retaining workers.⁶⁸ However, the American Trucking Association (ATA) has criticized the proposed reclassification of marijuana from Schedule I to Schedule III by the U.S. Drug Enforcement Agency (DEA), and it is possible that this resistance will replicate among agencies and organizations within public transit and local government, or that resistance from other sectors from the transportation industry will overwhelm the preferences of public transit agencies.⁶⁹

Insufficient Onboarding and Initial Training

At the national level, APTA (2023) has found that some transit agencies do not provide enough onboarding and initial training. This may be the case for some agencies in California.⁷⁰ While it might not appear to an outsider that an extensive and thorough onboarding process is necessary to

⁶⁵ Ibid., p. 29.

⁶⁶ Ibid., p. 25 and 29.

⁶⁷ Van Eyken, “Bus Operators in Crisis: The Steady Deterioration of One of Transit’s Most Essential Jobs, and How Agencies Can Turn Things Around”, p. 20: *See also:* Foursquare Integrated Transportation Planning, *Transit Workforce Shortage: Root Causes, Potential Solutions, and the Road Ahead* [Interim Report] (2022), p. 8.

⁶⁸ Foursquare Integrated Transportation Planning, *Transit Workforce Shortage: Root Causes, Potential Solutions, and the Road Ahead* [Synthesis Report] (2023) p. 19.

⁶⁹ Eric Miller, “ATA Critical of Proposed Federal Downgrade of Marijuana,” *Transport Topics*, May 29, 2024, <https://www.ttnews.com/articles/ata-downgrade-marijuana>.

⁷⁰ Contrarily, some agencies in California are national standouts in this area. In particular, Long Beach Transit (LBT) is lauded for its existing efforts and Riverside Transit Agency (RTA) receives praise for efforts it had begun to make recently in APTA’s workforce shortage study: Foursquare Integrated Transportation Planning, “Transit Workforce Shortage,” Synthesis Report (American Public Transportation Association, March 2023), <https://www.apta.com/wp-content/uploads/APTA-Workforce-Shortage-Synthesis-Report-03.2023.pdf>.

an entry-level transit operations position, it does not take much imagination to see why it would. Transit operators are not simply operating a large commercial vehicle – they are operating a large commercial vehicle that intends to address the general public’s transportation needs, and they are operating that vehicle while paying attention and providing assistance to wheelchair users, homeless residents, and unruly riders. Bus drivers, in particular, often find themselves targeted by riders who are frustrated with the government, current events, or simply the trials and tribulations of their own personal lives.⁷¹

APTA (2023) reports that agencies in California like Long Beach Transit (LBT) and San Francisco’s Bay Area Rapid Transit (BART) have found that “expanded training and soft landings” do quite a lot to improve the retention of new employees.⁷² One of APTA’s recently published guidebooks, *How to Serve the Underserved: Recruiting and Retaining Workers Through a More Inclusive Lens*, recommends that management and human resources maintain an “open-door policy” for frontline workers. In general, APTA’s 2023 guidebooks emphasize the importance of consistent, ongoing training and communication with operators.⁷³

Benefits of the Position are Curtailed by Rapid Turnover

Transit agencies offer substantive and desirable benefits that are rare outside of public sector employment, but employees are simply not employed by the agency long enough to reap those benefits. Additionally, while the benefits package is still vitally important to the position’s appeal, it may need to be modernized for today’s workforce (i.e., dual-income households are now the norm and require new accommodations). Additionally, employees may have more immediate concerns that truncate the appeal of transit’s hire-to-retire philosophy. In other words, the dollar amount of the paycheck may weigh more heavily in a younger operator’s mind than the benefits they accrue after decades of service.

Paget-Seekins, et al. (2023) provides support for the notion that agencies ought to find a way to accommodate new workers long enough for them to witness the long-term benefits of the position. A potential lifelong worker may forgo an opportunity to work as a transit operator because the schedule cannot accommodate familial caretaking roles. Yet, the fact that the worker *has* such roles (as either a parent, guardian, or the caretaker of an elderly family member) would likely make the public sector’s job security and retirement benefits quite appealing – but those benefits only materialize if one is a long-term employee. That is, in essence, the *ruling bargain* of the position.⁷⁴ The worker must be able to see the lifetime benefits of the position on their horizon. APTA’s *How to Serve the Underserved: Recruiting and Retaining Workers Through a More Inclusive Lens* (2023) suggests a number of ways that agencies might modernize the benefits of transit agency work, such as “paid leave for family caregiving, financial wellness programs, mental health support, flexible work hours

⁷¹ For an illustrative example, see: Daniel Egitto, “Meet the SolTrans Drivers Who Stayed,” *Times-Herald*, September 7, 2023, sec. News, <https://www.timesheraldonline.com/2023/09/07/meet-the-soltrans-drivers-who-stayed/>.

⁷² Foursquare Integrated Transportation Planning, *Transit Workforce Shortage: Root Causes, Potential Solutions, and the Road Ahead* [Synthesis Report] (2023), p. 20.

⁷³ “How to Serve the Underserved: Recruiting and Retaining Workers Through a More Inclusive Lens” (American Public Transportation Association, April 2023), APTAU Learning, p. 8: <https://learning.aptagateway.com/products/how-to-serve-the-underserved-recruiting-and-retaining-workers-through-a-more-inclusive-lens>.

⁷⁴ Paget-Seekins, et al. *People First* (2023), p. 16-18.

and arrangements, mentoring, and transportation assistance.”⁷⁵ If agencies face hard limits on what they can offer in the form of wages, they may still be able to provide other means of compensation, just as they have in the past.

Demographic Discrepancies

The demographics that typically fill entry level positions are not the demographics that typically fill management positions. Thus, entry level employees may not see a future for themselves at the agency, nor find themselves involved in the decision-making process. At most transit agencies, Black and Hispanic or Latino workers commonly fill positions as transit operators or vehicle cleaners, while roughly two-thirds of higher-level positions (such as those in management and leadership) are held by white workers.⁷⁶ Furthermore, though they are not often included in decision-making, frontline workers are more representative of the ridership demographics than management.⁷⁷

Competition from Other Industries

Transit agencies are losing existing or potential employees to other employers. Agencies need to identify what other employers are pulling from a similar labor pool in their region and find a way to better compete for workers. Workers who could serve a transit agency quite well can find other positions with similar compensation but far less responsibility, which likely explains why APTA (2022) found that “45 percent of departing employees left to take jobs outside the transit agency.”⁷⁸ As Van Eyken (2022) notes, a truck driver may have to “spend long periods of time on the road away from their homes, families, and friends”, but they do not have to contend with the general public.⁷⁹

Compounding Factors

It is not just the causes of the shortage, but *the severity of the shortage itself* that poses a challenge to transit agencies: Transit agencies are overwhelmed by retirements and the turnover of new employees is rapid. In turn, this creates a feedback loop: The harder it is to retain workers, the heavier the workload is on the employees who remain which predictably leads to the subsequent resignations of those employees, too.⁸⁰ Transit agencies are not struggling to retain workers for, say, a five-year period – they are struggling to retain workers as soon as they walk through the door. A 2022 survey conducted by APTA gathered a number of alarming figures: “Agencies report that 35 percent of employment offers are rejected, nearly twice the average across all industries. At the

⁷⁵ “How to Serve the Underserved: Recruiting and Retaining Workers Through a More Inclusive Lens” (American Public Transportation Association, April 2023), APTAU Learning, p. 7 <https://learning.aptagateway.com/products/how-to-serve-the-underserved-recruiting-and-retaining-workers-through-a-more-inclusive-lens>. See also p. 4: “To continue to meet the needs of these workers once they are on the job, transit organizations can prioritize creating a workplace culture that is inclusive and supportive of all employees. This can be accomplished by offering benefits that address the needs of underserved populations, such as additional childcare assistance or flexible scheduling, and by providing resources that help employees overcome structural barriers, such as transportation assistance or mentoring programs.”

⁷⁶ Van Eyken, *Bus Operators in Crisis* (2022), p. 13 and Paget-Seekins, et al., “People First: How a More Strategic Approach to Human Resources Can Help Transit Agencies Attract and Retain the Talent They Need to Run Great Service” (New York, NY: TransitCenter, July 2023), p. 18

⁷⁷ Van Eyken, *Bus Operators in Crisis* (2022), p. 13.

⁷⁸ Foursquare Integrated Transportation Planning, *Transit Workforce Shortage: Root Causes, Potential Solutions, and the Road Ahead* [Interim Report] (2022) p. 1; Van Eyken, *Bus Operators in Crisis* (2022), p. 18.

⁷⁹ Van Eyken, *Bus Operators in Crisis* (2022), p. 12: “While trucking does require people to spend long periods of time on the road away from their homes, families, and friends, their only job is driving—truck drivers don’t have to interact with the general public or collect fares, among other jobs.” also p. 16

⁸⁰ Van Eyken, *Bus Operators in Crisis* (2022), p. 22; Paget-Seekins, et al. *People First* (2023), p. 11.

agencies in the top 50 for ridership, one in five new hires do not show up for the first day of work. Agencies report that 36 percent of departures occur before the end of their probationary period. All told, agencies need more than four complete applications to get one worker in the door on the first day of work.”⁸¹ These phenomena present considerable hurdles to an agency that is attempting to improve its recruitment outreach efforts or workforce development practices: They simply do not have the breathing room. When advising or prompting agencies to ramp up hiring or invest in more robust training opportunities, this all should be acknowledged.

Agency Finances & Worker Compensation

Compensation

Insufficient compensation is a serious impediment to the recruitment and retention of transit operators. The cited reason for the October 2023 strike in Santa Clarita was compensation and nearly all publications consulted by CITT researchers cite compensation as one of the most important factors.⁸² The areas with the most transit operator positions are simultaneously the areas with high and rising housing and living expenses.⁸³

At the national level, it appears that agencies are well-aware that an increase in compensation could help to alleviate the transit operator shortage. According to *Mass Transit's* 2024 Mobility Outlook, 44% of agencies surveyed claim that “recruitment/retention challenges” are their most pressing challenge in the year ahead and of that 44%, 77% of agencies plan to raise the starting salaries of transit operators to remedy the situation.⁸⁴

Weak Agency Finances

Addressing any of the challenges mentioned thus far demands financial resources that agencies may lack. Exactly how much of a detrimental effect the COVID-19 pandemic has had on the long-term fiscal health of transit agencies is not yet entirely clear.⁸⁵ However, agencies and transit-oriented thinktanks are raising concerns about a “fiscal cliff” facing transit agencies across the country, including those in California. Of course, it must be noted that the pandemic did not cause the crisis, but rather accelerated deterioration and intensified existing difficulties.⁸⁶ Yonah and Rennert (2023) is a recent publication that explores long-term solutions for agency finances. The authors note that financial precariousness is not unusual for transit agencies, which often depend largely on fluctuating

⁸¹ Foursquare Integrated Transportation Planning, *Transit Workforce Shortage: Root Causes, Potential Solutions, and the Road Ahead* [Interim Report] (2022) p. 12.

⁸² Gillian Morán Pérez, “Transit Service Workers On Strike In Santa Clarita. What This Means For Riders,” *LAist*, October 9, 2023, <https://laist.com/news/transportation/transit-service-workers-on-strike-in-santa-clarita>; Foursquare Integrated Transportation Planning, *Transit Workforce Shortage* [Synthesis Report] (2023), p. 4 and 10; Foursquare Integrated Transportation Planning, *Transit Workforce Shortage: Root Causes, Potential Solutions, and the Road Ahead* [Interim Report] (2022), p. 9; Laurel Paget-Seekins, Chris Van Eyken, and Hayley Richardson, “People First: How a More Strategic Approach to Human Resources Can Help Transit Agencies Attract and Retain the Talent They Need to Run Great Service” (New York, NY: TransitCenter, July 2023), . P. 42-43: https://transitcenter.org/wp-content/uploads/2023/07/TC_People-First_Web-1.pdf. The authors also mention that “some agencies have policies to only hire candidates new to the agency at the bottom of the hiring range regardless of their experience.”

⁸³ Van Eyken, *Bus Operators in Crisis* (2022), p. 5.

⁸⁴ Mischa Wanek-Libman, “2024 Mobility Outlook” (Mass Transit Magazine, February 2024), <https://www.masstransitmag.com/management/document/53095207/2024-mobility-outlook>.

⁸⁵ It is also unclear exactly how public finance will look during Donald Trump's second administration, and how this will affect transit agencies: Girard Miller, “Implications for Public Finance in a Trump II Era,” *Governing*, November 19, 2024, <https://www.governing.com/finance/implications-for-public-finance-in-a-trump-ii-era>.

⁸⁶ Colbi Edmonds, “Federal Spending Rescued Mass Transit During Covid. What Happens Now?,” *New York Times (Online)*, May 22, 2024, sec. us.

local and state tax revenues and an at-times less-than-supportive political leadership.⁸⁷ Notably, California's largest transit systems receive as little as 5% and no more than 22% of their operating funding from the state, compared with 28% to 50% for similarly-sized agencies elsewhere in the country.⁸⁸ It is not entirely clear at present how big of a threat the supposed fiscal cliff poses, but it complicates efforts to address any factors mentioned in this literature review. We also must give credit where credit is due: That any agencies have succeeded in achieving a growth in ridership and have succeeded in recruiting and retaining frontline workforce is nothing short of impressive when the historical and political context is taken into account. In order for agencies to do better, they need greater and more consistent financial support. In the specific Californian context, agency finances are precarious, as they are in much of the country.⁸⁹ Readers should evaluate recent research evaluating which agencies are emerging successfully from the COVID-era and which continue to struggle.

Falling Ridership

Transit ridership is falling in California. While agencies do not depend on fares to cover much of their operating costs, a lack of fare revenue makes it difficult to justify spending money on transit – including the transit workforce – to the broader public. The COVID-19 pandemic wrought considerable damage on ridership and recovery has been slow for most agencies, but it must be emphasized that California agencies faced consistent ridership declines *prior* to the pandemic. The state witnessed a roughly 11% decrease in annual boardings from 2014 to 2018 and accounted for 22% of the overall decline in ridership nationwide.⁹⁰

The COVID-19 pandemic – and the economic developments it spurred or accelerated – are a bigger factor at some agencies than others. San Francisco's Bay Area Rapid Transit (BART) system is the most dramatic example in the state. Farebox recovery ratios (FRRs) measure the amount of operating expenses covered by passenger fares. In 2015, BART boasted the highest FRR among the

⁸⁷ Yonah Freemark and Lindiwe Rennert, "Surmounting the Fiscal Cliff: Identifying Stable Funding Solutions for Public Transportation Systems" (Washington, DC: Urban Institute, November 1, 2023), p. 8:

<https://www.urban.org/research/publication/surmounting-fiscal-cliff>. See also:

⁸⁸ Sameea Kamal, "Why California Public Transit Is at a Pivotal Moment," *CalMatters*, April 5, 2023,

<https://calmatters.org/politics/capitol/2023/04/public-transit-california/>. However, other publications tell a different story. See: Taylor, Blumenberg, Wasserman, Schouten, Paul, & Ruvo, *Transit Blues in the Golden State* (2020), p. xi: "In many agencies across America, service cuts and ridership declines have created a vicious cycle. As headways rise and reliability falls, riders find other ways to travel, reducing operator farebox revenues that precipitate another round of cutbacks. But this has not been the case in California. Despite all the money and energy the state is pumping into transit service, ridership is still falling. Thus, this new service either is not having the desired effect, or other factors are overwhelming its benefits to ridership."

⁸⁹ Melanie Curry, "Sudden State Funding Freeze Leaves Transit Agencies Hanging," *Streetsblog California* (blog), May 3, 2024, <https://cal.streetsblog.org/2024/05/03/sudden-state-funding-freeze-leaves-transit-agencies-hanging>; Joe Stephanshaw, "ONE/TIME APPROPRIATION(S) EXPENDITURE FREEZE PURSUANT TO SECTION 21 OF THE BUDGET ACT OF 2023 (AS AMENDED BY SEC. 74 OF AB 106 (CHAP. 9, STATS. 2024))," Budget Letter (Sacramento, CA: California Department of Finance, April 29, 2024), <https://dof.ca.gov/wp-content/uploads/sites/352/2024/04/BL-24-07.pdf>. See also: Christina D. Funk, Michael J. Higgins, and Gregory L. Newmark, "Operating Subsidies and Transit Efficiency: Applying New Metrics to Old Problems," *Transportation*, November 21, 2023, <https://doi.org/10.1007/s11116-023-10441-w>.

⁹⁰ Brian D. Taylor, et al., "Transit Blues in the Golden State: Analyzing Recent California Ridership Trends," Final Report (February 2019-June 2020) (Los Angeles, California: UC Office of the President: The University of California Institute of Transportation Studies, June 2020), p. 17: <https://escholarship.org/uc/item/32j5j0hb>. It's worth emphasizing that gains and losses in ridership vary across the state. See the following passage from the cited page: "For instance, from 2011 to 2015, just one operator, BART, accounted for half of the state's net patronage gains, while during the current period of ridership loss (2014-2018), another operator, LA Metro accounts for over half of the state's patronage drop (FTA, 2019). More broadly, transit trips in the Bay Area and on rail grew significantly over the past decade and only started declining more recently, while ridership in areas like Greater Los Angeles, on buses generally, and across the state when accounting for population growth has experienced longer-term declines that have steepened as of late."

100 largest agencies in the U.S. According to Freemark and Rennert's research (2023), BART successfully "covered 80 percent of its operating expenses with passenger fares." This plummeted to 10 percent by 2021.⁹¹ At any rate, ridership is key to the securement of funding. Even if fare box revenues do not necessarily fund the bulk of an agency's operating expenses, they do serve as an excellent justification for investment in the system – and its workforce.⁹²

Transit Agency Workforce Investment

From the review of the literature, it does not appear that much or any of the funding provided to transit agencies in California or elsewhere has been specifically allocated to addressing the transit operator shortage. Research by Freemark and Rennert (2023) suggests precisely the opposite.⁹³ There are some small federal grant programs such as the FTA's Low / No Emissions Program with transit workforce development-specific components, but these are small and are not designed specifically to alleviate the transit operator shortage.⁹⁴ Hypothetically, any increase to operating funding (such as the two years of temporary Transit and Intercity Rail Capital Program funds) *could* be used to alleviate the transit operator shortage because they provide more resources for wages and benefits in order to provide for renovations or expansions of service.⁹⁵ However, there is no guarantee that the funding will be allocated in this way and, moreover, it is entirely possible that an agency will be unable to operate the improved service due to the lack of a sufficient workforce.

However, further research would need to be conducted in order to make a definitive claim. While federal funding typically has not been allocated for transit agency's operations (instead favoring capital projects), U.S. Senators John Fetterman (D-PA) and Chris Van Hollen (D-MD) recently introduced the Moving Transit Forward Act, which (if enacted) would provide such funding.⁹⁶

⁹¹ San Francisco's Bay Area Rapid Transit (BART) system is the most dramatic example in the state. Farebox recovery ratios (FRRs) measure the amount of operating expenses covered by passenger fares. In 2015, BART boasted the highest FRR among the 100 largest agencies in the U.S. According to Freemark and Rennert's research (2023), BART successfully "covered 80% of its operating expenses with passenger fares." This plummeted to 10% by 2021.

⁹² Freemark and Rennert, "Surmounting the Fiscal Cliff: Identifying Stable Funding Solutions for Public Transportation Systems" p. 9.

⁹³ Yonah and Rennert, "Surmounting the Fiscal Cliff: Identifying Stable Funding Solutions for Public Transportation Systems", p. 46: "Another way that fire departments are tackling workforce difficulties is with federal funding dedicated to employee training, support, and retention. The federal Staffing for Adequate Fire and Emergency Response grant program has made 364 awards totaling \$558.6 million between 2016 and 2023.⁵⁹ *Such dedicated workforce support at the federal level does not exist on a large scale for transit agencies*, though new regulations in the 2021 infrastructure law enable states to flex federal highway funds for workforce training" (*italics mine*).

⁹⁴ Federal Transit Administration, "Low or No Emission Vehicle Program - 5339(c)," accessed March 20, 2024, <https://www.transit.dot.gov/funding/grants/lowno>. The webpage states: "Applicants proposing any project related to zero-emission vehicles must also spend 5 percent of their award on workforce development and training as outlined in their Zero-Emission Transition Plan, unless the applicant certifies that their financial need is less." See also: "Infrastructure Investment and Jobs Act," 49 United States Code § 5339 (Grants for buses and bus facilities) (2022)

⁹⁵ "Transit and Intercity Rail Capital Program," *California State Transportation Agency*, 2024, <https://calsta.ca.gov/subject-areas/transit-intercity-rail-capital-prog>. See also: "Transportation Budget Trailer Bill," Pub. L. No. 125 (2023), <https://legiscan.com/CA/text/SB125/id/2833513>.

⁹⁶ "Fetterman, Van Hollen Introduce Legislation to Bolster Public Transit Service Across the Country," Fetterman, accessed June 5, 2024, <https://www.fetterman.senate.gov/press-releases/fetterman-van-hollen-introduce-legislation-to-bolster-public-transit-service-across-the-country/>; "Senate Introduces Key Transit Operations Bill to Fix Broken Transit Funding Rules – Transport Workers Union," Transport Workers Union, May 14, 2024, <https://www.twu.org/senate-introduces-key-transit-operations-bill-to-fix-broken-transit-funding-rules/>; Chris Van Hollen and John Fetterman, "Moving Transit Forward Act of 2024," Chapter 53 of title 49 U.S.C. § 5308 (2024), https://www.vanhollen.senate.gov/imo/media/doc/moving_transit_forward_act-118.pdf.

The Transit Operator Shortage in Context

The transit operator shortage is not simply an issue internal to transit agencies nor one that merely affects today's transit ridership. The State of California has enacted several laws and policies aimed at alleviating the housing crisis, reducing air pollution, and reimagining the design of urban areas to meet climate action goals. When accomplished in the most effective, sustainable, and forward-looking way, this entails a deliberate shift away from car dependency and towards public transit and urban density.⁹⁷ It is difficult to imagine how this could be achieved without an increase in the quality and quantity of public transit service – and that requires a corresponding increase in the quality and quantity of transit operators.

Climate goals, too, depend heavily on investment in public transit if they are to be realistic and actionable. Electric cars are anything but a panacea and the Biden Administration's call for an "EV in every driveway" would only rearrange the deck chairs on a sinking ship: Emissions may shift locations, but they will not be adequately reduced.⁹⁸ And, moreover, the brakes and tires of cars make a considerable contribution to particulate matter air pollution, regardless of whether those cars are gas or electric.⁹⁹ By electrifying cars *and* taking cars off of the road in tandem, California could electrify with a far lesser quantity of lithium (up to 66% less).¹⁰⁰ It is unsurprising that the California Air Resources Board (CARB) calls for the state to "double local transit capacity and service frequencies by 2030."¹⁰¹ While messaging from the federal level has not always been consistent, recent developments suggest that the Environmental Protection Agency (EPA) is adopting a more scrutinous position regarding highway expansion projects as part of a more invigorated enforcement of the Clean Air Act.¹⁰²

Besides CARB, other agencies at the state level are well aware of the need to invest in transit. A permanent, lasting reduction in traffic congestion is achievable with public transit, but is not achievable by simply replacing all gas vehicles with electric counterparts. According to the California State Transportation Agency (CalSTA) and Caltrans' *California Transportation Plan 2050*, it is "abundantly clear" that "decades of auto-oriented transportation investments and development patterns [have] made active and low-carbon modes of transportation such as biking, walking, and public transit less desirable." These investments and development patterns have led to the

⁹⁷ Ula Chrobak, "We Can't Stop Climate Change Unless We Drastically Change How We Use Our Land," *Populra Science*, August 8, 2019, <https://www.popsci.com/change-land-use-global-warming-ipcc/>; Adie Tomer et al., "We Can't Beat the Climate Crisis without Rethinking Land Use," *Brookings Institute* (blog), May 12, 2021, <https://www.brookings.edu/articles/we-cant-beat-the-climate-crisis-without-rethinking-land-use/>; Kevin DeGood, "To Tackle Climate Change, We Must Reform Land Use," *Center for American Progress* (blog), July 22, 2021, <https://www.americanprogress.org/article/tackle-climate-change-must-reform-land-use/>; Alistair Woodward, Kirsty Wild, and Rhys Jones, "Climate Policy That Relies on a Shift to Electric Cars Risks Entrenching Existing Inequities," *The Conversation* (blog), May 26, 2021, <https://theconversation.com/climate-policy-that-relies-on-a-shift-to-electric-cars-risks-entrenching-existing-inequities-160856>.

⁹⁸ Adie Tomer et al., "We Can't Beat the Climate Crisis without Rethinking Land Use," *Brookings Institute* (blog), May 12, 2021, <https://www.brookings.edu/articles/we-cant-beat-the-climate-crisis-without-rethinking-land-use/>.

⁹⁹ Alissa Walker, "When Electric Isn't Good Enough," *Curbed* (blog), October 24, 2018, <https://archive.curbed.com/a/texas-california/electric-cars-climate-change-sacramento-california>.

¹⁰⁰ Alissa Walker, "An EV in Every Driveway Is an Environmental Disaster," *Getting Around - Curbed* (blog), January 25, 2023, <https://www.curbed.com/2023/01/electric-vehicles-biden-batteries-lithium-mining.html>. See also: <https://www.climateandcommunity.org/more-mobility-less-mining>.

¹⁰¹ "California Air Resources Board 2022 Scoping Plan, Appendix E: Sustainable and Equitable Communities" (California Air Resources Board, November 2022), p. 12: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-e-sustainable-and-equitable-communities.pdf>.

¹⁰² Gregory Weaver, "Biden Administration Steps in on Caltrans' Highway Expansion in Fresno," *Fresnoland* (blog), January 12, 2024, <https://fresnoland.org/2024/01/12/highway-99-fresno/>.

congestion woes of yesterday and today, and they will be with us tomorrow without a deliberate shift away from car dependency.¹⁰³

Addressing the state's housing affordability crisis depends on public transit, too.¹⁰⁴ For example, California Governor Gavin Newsom signed Sen. Laura Friedman's A.B. 2097 in 2022. Now, cities can no longer set a minimum parking requirement for developments with quick access to transit.¹⁰⁵ On their own, cities are also revising mandatory parking minimums, often in order to make it easier and quicker to build housing.¹⁰⁶ Residents do not need parking if they do not have a car, and they do not need a car if they have access to reliable transit service. Yet, reliable transit service is impossible to achieve if there are not enough transit operators to provide it.

Traffic congestion, housing affordability, climate change, air pollution – the State of California has no shortage of incentives to prioritize public transit and invest in its workforce. While all of the aforementioned issues deserve a far more comprehensive and detailed treatment, suffice to say, the transit operator shortage is not just about transit operators or transit agencies. Considered in a broader and more holistic context, it is about building the workforce capacity California needs to accomplish its policy agenda across a plethora of issues. At present, California transit agencies simply do not have the operational capacity to carry out the state's legislative agenda.

¹⁰³ "California Transportation Plan 2050" (Sacramento, CA: California State Transportation Agency (calSTA) and California Department of Transportation (Caltrans), February 2021), p. 14-15: <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/ctp-2050-v3-a11y.pdf>. To consult data on VMT per resident or worker in California census blocks, please see: "Pedestrian Paradise, Or Is It?," *Febr & Peers* (blog), May 14, 2024, <https://www.fehrandpeers.com/pedestrian-paradise-or-is-it/>. See also: Institute for Transportation & Development Policy, "To Combat Climate Change, Electrification Needs Compact Cities for Full Impact," *Transport Matters* (blog), December 9, 2021, <https://www.itdp.org/2021/12/09/why-electric-vehicles-are-not-a-climate-change-silver-bullet/>.

¹⁰⁴ For an in depth discussion of the relationship between mass transportation and the housing market, see: Christopher Severen, "Commuting, Labor, and Housing Market Effects of Mass Transportation: Welfare and Identification," Working paper (Federal Reserve Bank of Philadelphia), Working Paper (Federal Reserve Bank of Philadelphia) (Federal Reserve Bank of Philadelphia, March 2018), <https://doi.org/10.21799/frbp.wp.2018.14>.

¹⁰⁵ Laura Friedman, "AB-2097 Residential, Commercial, or Other Development Types: Parking Requirements," Pub. L. No. 2097, § 65585 / 65863.2, Chapter 459 Government Code (2022), https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB2097; The Times Editorial Board, "Editorial: California's Backward Laws Prioritize Housing Cars over People. Let's Fix That," *Los Angeles Times*, September 9, 2022, sec. Opinion, <https://www.latimes.com/opinion/story/2022-09-09/newsom-ab2097-parking-minimums>; Melanie Curry, "Celebrating a Big Win for the Climate, Housing, and Rational Planning: Newsom Signs Parking Bill," *Streetsblog California* (blog), September 23, 2022, <https://cal.streetsblog.org/2022/09/23/celebrating-a-big-win-for-the-climate-housing-and-rational-planning-newsom-signs-parking-bill>.

¹⁰⁶ Melanie Curry, "Your City May Be Rethinking Parking Rules," *Streetsblog California* (blog), July 20, 2023, <https://cal.streetsblog.org/2023/07/20/your-city-may-be-rethinking-parking-rules>; Melanie Curry, "New CA Database Shows How Much Parking Costs and How Little It's Used," *Streetsblog LA* (blog), October 17, 2014, <https://la.streetsblog.org/2014/10/17/new-ca-database-shows-how-much-parking-costs-and-how-little-its-used>.



Survey Analysis

Introduction

The survey received one or more completed responses from representatives of:

- Alameda-Contra Costa Transit District (AC Transit)
- City of Escalon
- City of Lompoc
- City of Santa Monica Department of Transportation
- El Dorado Transit Authority
- FAST (City of Fairfield)
- Fresno Area Express (FAX)
- Gold Coast Transit District
- Long Beach Transit
- Los Angeles Department of Transportation
- Mariposa County
- Modoc Transportation Agency
- Monterey-Salinas Transit District
- Napa Valley Transportation Authority
- Redding Area Bus Authority
- Redwood Costal Transit Authority
- Sacramento Regional Transit District (SacRT)
- San Diego Metropolitan Transit System (MTS)
- San Luis Obispo Regional Transit Authority (RTA)
- Santa Barbara Metropolitan Transit District (MTD)
- Santa Cruz Metropolitan Transit District (SCMTD, or Santa Cruz Metro)
- San Francisco Municipal Transit Agency (SF Muni)
- SunLine Transit Agency
- Tahoe Transportation District
- Tri-Delta Transit, and
- Yuba-Sutter Transit

Half of all survey respondents reported significant or severe difficulty maintaining a sufficient transit operator shortage, and this group is composed of all varieties of agencies (rural, small urban, large urban in coastal areas, non-coastal areas, and across the longitude of the state). For agencies across California, the transit operator shortage is hindering service improvements. Several respondents emphasized how much more involved and difficult the job is than a general audience understands – and how important the job is to the community it serves. Transit operators do not receive the respect, attention, and esteem that corresponds with the difficulty and importance of the occupation. A third of agencies surveyed expressed pessimism about a long-term solution to the transit operator shortage. Moreover, if the transit operator shortage is not alleviated, it is very likely to become worse. The existing shortage has already led to increased turnover and operator burnout. “It is very

difficult to have a healthy work-life balance when faced with personnel shortages that impact an [agency's] ability to cover scheduled service and requires drivers to work extra,” said one respondent.

Q9_1 - What is the level of difficulty your agency experiences in maintaining a sufficient transit operator workforce?

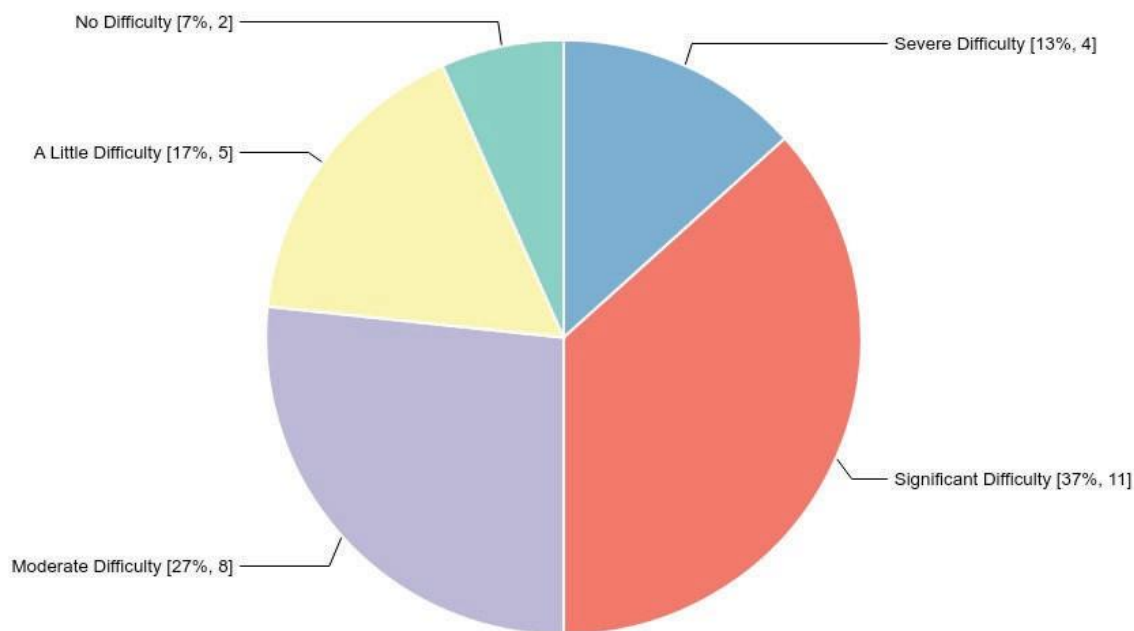


Figure 1 - Agency Operator Shortage Severity

Q39_1 - "I feel _____ about a long-term solution to the transit operator shortage in California."

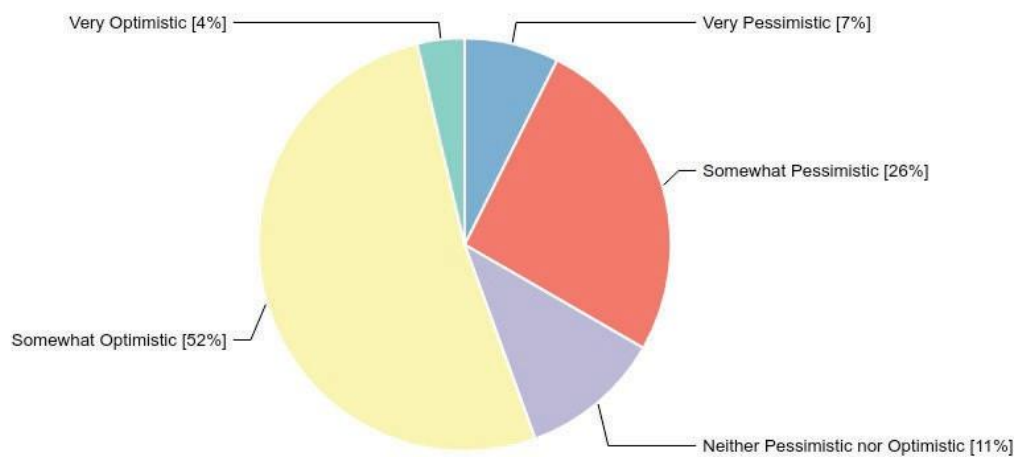


Figure 2 - Agency Attitudes About Shortage

Researchers should note that 79% of respondents were open to participating in focus groups, which suggests that transit agency professionals are proactive about discussing and solving the transit operator shortage. Additionally, while there is blanket consensus on few issues, this breaks down at a more granular level of analysis. While this is in part due to a limited sample size, it also indicates the complexity of the issue at hand and the nuanced perspectives of respondents. Accordingly, survey responses should be used to guide researchers, policymakers, and state agency employees when engaging in discussions with transit agency professionals, rather than as material for solutions in and of themselves.

The most important factors generating and exacerbating the transit operator shortage vary by agency and the severity of any one issue varies among large urban, small urban, and rural agencies (see fig. 5 below). However, there is no issue that is simply irrelevant – respondents had something to say about every issue mentioned in the survey and focus group participants revealed that many issues are nuanced. Survey data did not record many “spikes” near the mean, which indicates that perspectives and experiences differ significantly (see table 1). All the same, when asked to rank a series of issues on a scale of 1 to 10, the most significant factors generating the transit operator shortage were (in order): Housing affordability (mean score of 6.59 out of 10), compensation and wages (6.2), the labor pool from which the agency draws (5.93), and the importance of seniority (5.38). Housing affordability received a modal average of 10, greater than any other listed factor.

How much difficulty does each of the following issues pose for your agency's ability to recruit and/or retain transit operators? Rate the significance of each on a scale of 0 to 10, with 0 indicating that the issue is not a factor at all and 10 indicating that it is of the utmost severity.

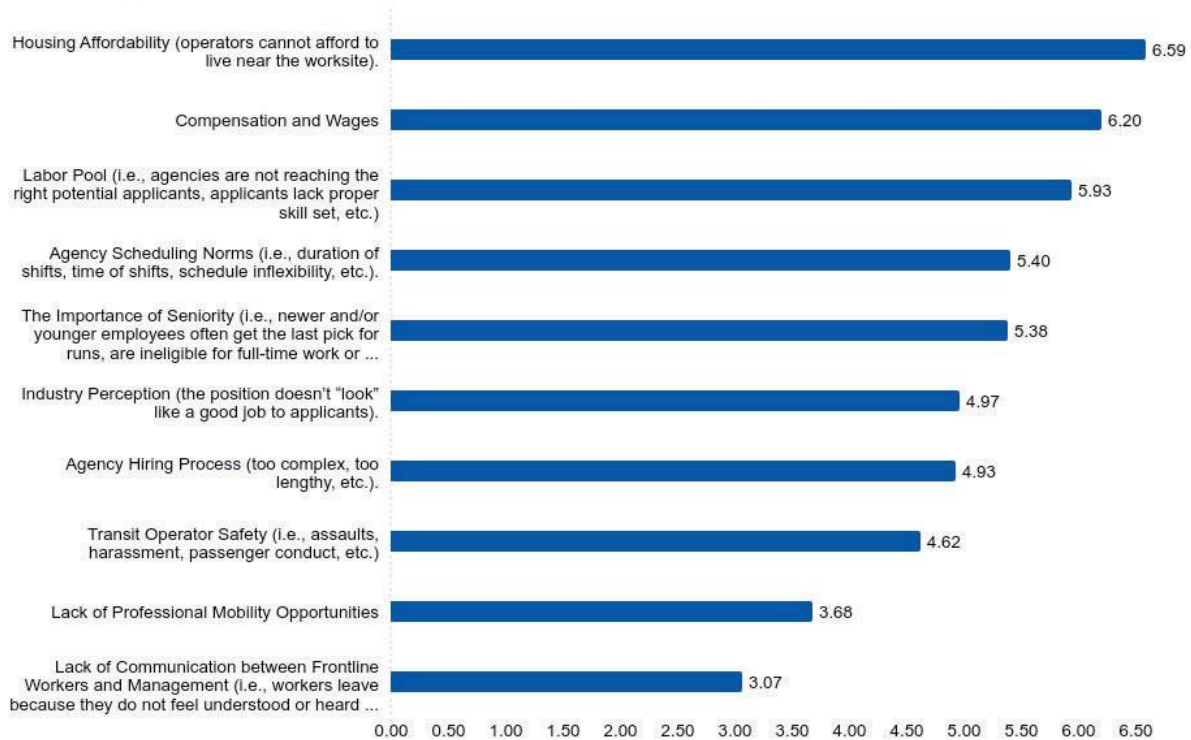


Figure 3 - Severity of Issues



Table 1 - Survey Standard Deviation

Wide spread of responses	Cluster in the middle (around 3-5)	Even spread across the range
<i>Some respondents rated these as severe issues (near 10), while others gave moderate scores.</i>	<i>While there is a general view that these are moderate factors, for some agencies they are severe issues.</i>	<i>Diverse perceptions of the significance of this factor</i>
Q10_7: Housing Affordability (operators cannot afford to live near the worksite).	Q10_1: Transit Operator Safety (i.e., assaults, harassment, passenger conduct, etc.)	Q10_2: Labor Pool (i.e., agencies are not reaching the right potential applicants, applicants lack proper skill set, etc.)
Q10_4: Compensation and Wages	Q10_3: Agency Hiring Process (too complex, too lengthy, etc.).	N/A)

It is important to note that the issues that an agency selects as most dire appear to vary according to the severity of an agency's shortage. Agency representatives who reported a significant difficulty in maintaining a sufficient transit operator workforce include Redwood Coast Transit Authority, Long Beach Transit, Mariposa County, San Diego MTS, El Dorado County Transit Authority, Napa Valley Transportation Authority, Alameda Contract Costa Transit District, San Luis Obispo Regional Transit Authority, and Santa Barbara MTD. Those that reported a severe difficulty include Tahoe Transportation District, Los Angeles Dept of Transportation, and Modoc Transportation Agency. Difficulties with the transit operator labor pool and the agency hiring process are more pronounced at agencies that struggle the most.

How much difficulty does each of the following issues pose for your agency's ability to recruit and/or retain transit operators? Rate the significance of each on a scale of 0 to 10, with 0 indicating that the issue is not a factor at all and 10 indicating that it is of the utmost severity (filtered: agencies with significant or severe difficulty)

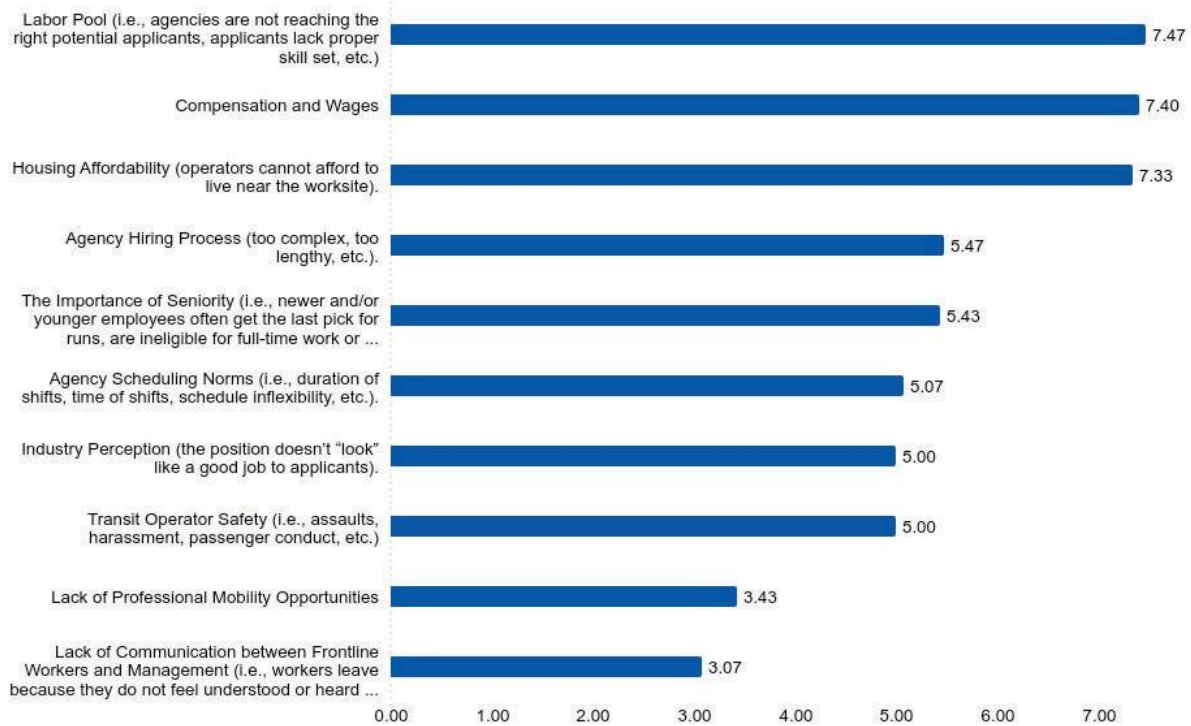


Figure 4 - Severity of Issues for Agencies with Acute Difficulties

How much difficulty does each of the following issues pose for your agency's ability to recruit and/or retain transit operators? Rate the significance of each on a scale of 0 to 10, with 0 indicating that the issue is not a factor at all and 10 indicating that it is of the utmost severity.

■ Rural ■ Small Urban ■ Large Urban

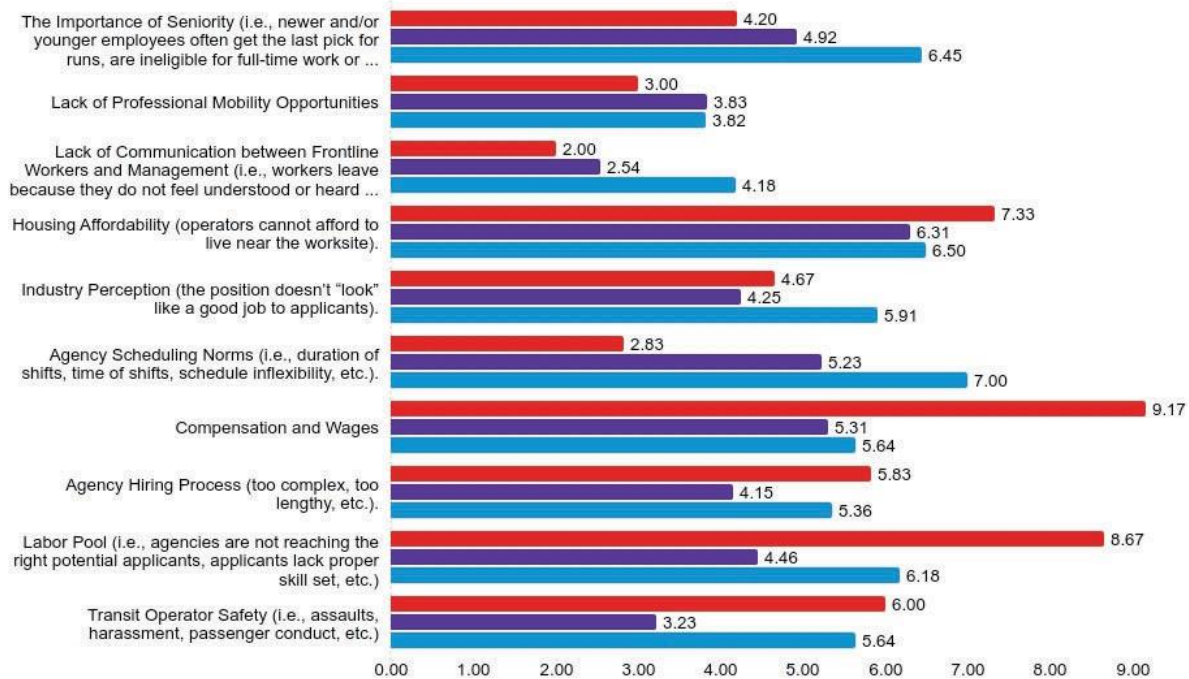


Figure 5 - Severity of Issues by Geographic Type

Agency Finances

The financial situation among agencies varies. 57% of agency representatives reported that they do have sufficient resources to meet their frontline workforce needs, 68% of respondents lack the financial resources to provide service improvements, and 50% of respondents' agencies do not have the financial resources necessary to increase the wages of transit operators. Of course, financial precarity is not an unfamiliar experience for transit agency professionals, but worries have intensified among many transit agency professionals as COVID-era relief funds have dried up. "The financial cliff is real and getting worse," said one representative from a Bay Area transit agency. Our survey did not record conclusive majorities for any question about finances except regarding the ability to make service improvements. To get a better picture of agencies' fiscal situations, more in-depth questioning is required. Further research should also consider the specific impact of the transit operator shortage on agency finances, such as:

- How much does attrition cost an agency?
- How much does it cost to train a new operator?
- What are the labor costs associated with transit operators?
- What is the return-on-investment provided by retention efforts?

Wages, Compensation, and Benefits

The importance of compensation and wages comes as no surprise. However, raising wages is easier said than done. As one survey respondent put it, "Raising wages seems to be working for many agencies, but other agencies don't have the financial means to raise the wages much higher. Plus, it's a lengthy process from the moment of conception to implementation." Researchers, policymakers, and transit industry leaders must consider strategies that will alleviate the shortage without requiring an increase in compensation (or consider ways that agencies could receive greater funding to provide such an increase).

The survey found that 86% of respondents believe that public sector benefits packages are an important component of recruiting and retaining transit operators, and more than half of respondents strongly believe so. The hire-to-retire philosophy is integral to transit agencies' ability to recruit and retain quality operators, but survey responses and focus group input suggested that newer workers do not see the position as a long-term career and/or are unfamiliar with the value of the benefits package agencies offer. Notably, agencies reported that they struggle with retention and recruitment of new hires more than the retirement of older employees, and over half of agencies reported that they struggle with rapid turnover or chronic absenteeism among new hires. Given that subject matter experts and focus group participants emphasized the great importance of long-term employees for quality service, this phenomenon can have an overriding negative effect on an agency's day-to-day operations.

Issues Affecting Labor Pool

The nature of the job places restrictions on the labor pool. Agency scheduling norms are likely difficult to change – agencies *must* have more operators at peak hours and *must* have sufficient operators to provide service throughout much of the day and night. Overtime and call-ins are simply

part of the job, leading to burnouts. A complete overhaul of transit agency scheduling practices is unlikely. Nevertheless, 71% of respondents believe that frontline do not have schedules or work rules that align well the needs of people who also have caretaking roles in their families, and 67% believe that the occupation does not have schedules or work rules that align well with the needs and/or preferences of younger workers. There may be ways of changing scheduling, such as transition towards a four-ten scheduling system.¹⁰⁷

Some survey participants reported that new employees take advantage of free CDL training, only to leave for higher wages, less stressful employment opportunities elsewhere. As one survey respondent said, “[It is a] cost benefit analysis. A person could either go through the difficult training associated with learning how to operate a bus, learn routes, etc. or they could go work at a place like In-N-Out for practically the same wage and it is arguably easier.” The respondent also mentioned that potential younger applicants at college fairs lose interest because of age requirements, and that many drivers take advantage of the training operation, only to leave the agency for “other bus operators that offer a higher wage, such as airport transportation companies or private winery tours.”

The relationship between junior and senior operators is firmly hierarchical, though this can help facilitate mentorships. Opinions regarding seniority varied significantly. While 55% of respondents believe that the importance of seniority within agency workforces discourages younger workers from pursuing a career in frontline transit operations, roughly 31% do not believe this is the case. Seniority privileges may be an incentive to stay in the occupation and reward workers for years of dedicated service, and for those reasons may be simply ineliminable. If the hire-to-retire model is a paramount component of high-quality transit service, then seniority is important.

As noted earlier, labor pool problems are more severe at agencies who are struggling the most with the transit operator shortage. According to the survey data, 70% of agencies struggle to reach potential applicants with reaching potential applicants with the right skills and 70% of agencies find that potential applicants with the right skills lack an interest in the position. Agencies consistently considered “conflict resolution and ability to communicate effectively with the public” and “ability to maintain professional and act as a good representative of the agency when under pressure” to be the most important skills and qualifications – and applicants often lack these qualifications. While applicants also frequently lack a Commercial Driver's License (CDL), 89.66% of agencies help candidates prepare, test, and/or pay for a CDL.

While CITT researchers assumed that transportation network companies (TNCs) or logistics and freight would be areas of competition, the survey results do not seem to substantiate this assumption. Open-ended survey responses and focus group input was largely anecdotal, and did not provide sufficient evidence about statewide trends. Future research should systematically investigate *where* former transit operators are going and *why*, and this will aid transit agencies and adjacent sectors in their attempts to better retain these workers. The authors of this report also suggest that

¹⁰⁷ In APTA's Transit Workforce Shortage Study (2023), researchers noted that such a strategy had worked for Indianapolis, Indiana's IndyGo: “One change that has been well-received by workers was to offer workers the option to work four ten-hour shifts a week rather than five eight-hour shifts. This option was so popular that IndyGo is considering increasing the pool of four-tens. In addition to improving worker satisfaction, the four-ten schedules have become a talking point among recruiters, who find that the schedule appeals to workers looking for flexibility and consecutive days-off.” See: Foursquare Integrated Transportation Planning, “Transit Workforce Shortage,” Synthesis Report (American Public Transportation Association, March 2023), p. 23.

future research investigate where the greatest sources of recruitment have been in the past, and why these sources have proven less fruitful in recent memory.

A representative from the northcentral area of the state stressed the significance of federal drug testing requirements. Applicants who use marijuana recreationally may not even consider applying for the position when so many other occupations do not require any testing at all. However, it seems unlikely that local and state governments would be able to do much to affect federal-level drug testing requirements.

Quality of Life

Nationally, quality-of-life issues such as bathroom access and vacation time have been cited as important factors affecting the transit operator shortage. According to our survey data, roughly 58% of agencies surveyed had performed renovations on transit operator rest facilities, 57% claimed that operators at their agency are able to access bathroom facilities during shifts, and 71% of agencies surveyed claimed that operators are typically able to make use of accrued vacation days and PTO at their own discretion. Compared with the findings in the literature review, California agencies appear to be outperforming nationwide peers in these areas. However, there are still a good number of agencies where transit operators cannot, for example, reliably access bathroom facilities during shifts. The importance of such facilities should not be overlooked, and one respondent from a Bay Area transit agency highlighted the importance of rest facilities in particular.¹⁰⁸

While 39% of agencies reported an average commute time for operators of 30 minutes or less, 46% reported an average commute time greater than 30 minutes and 14% of respondents did not know the average commute times for their transit operator workforce. Rural transit operators tend to face longer commutes. Given the significance of housing affordability, it was unexpected that respondents did not consistently report longer than average commute times.

In order to address the transit operator shortage, there must be an expansion of opportunities to train operators for advanced positions. As mentioned earlier in the report, the erosion of operator-to-leadership pathways have led to disunity and tension between frontline workers and management.¹⁰⁹ While 64% of agency representatives surveyed claimed that that they have a defined onboarding process for employees moving within the agency into advanced positions, 56% reported that they struggled to schedule sufficient time to provide the requisite training and 39% reported difficulty acquiring the necessary funds. While it appears that the level of difficulty regarding the provision of training opportunities differs among agencies and that the cause of that difficulty also varies, it is important to note that the unavailability of time generally poses a greater difficulty than the availability of funding. No agency surveyed reported that that they strongly agreed with the statement, “My agency has difficulty scheduling time to train transit operators for positions that

¹⁰⁸ “Availability of safe, clean, and secured restroom and break facilities at layovers will significantly improve the safety conditions and morale of operators.” See also: Jose Feroso, “Bus Drivers Worry Changes to AC Transit Schedules Won’t Leave Time for Bathroom Breaks,” *The Oaklandside*, June 12, 2024, <http://oaklandside.org/2024/06/12/bus-drivers-worry-that-changes-to-ac-transit-schedules-wont-leave-time-for-bathroom-breaks/>.

¹⁰⁹ Van Eyken, “Bus Operators in Crisis: The Steady Deterioration of One of Transit’s Most Essential Jobs, and How Agencies Can Turn Things Around”, p. 14: “The divide between operators and management has grown as pathways from the bus into leadership roles have shrunk. In the past, bus operators found they had a path to advance from the bus into the ranks of management. Increasingly, management and leadership roles at agencies are filled by professionals without frontline experience. One former Maryland MTA operator describes the position as a job where you are expected to ‘arrive, shut up, do one thing for thirty-five years and retire.’ This leaves operators feeling spoken down to and disrespected, finding themselves unable to take on greater responsibility despite having firsthand experience keeping buses on-time and dealing with riders in person.”

would enable them to advance in the agency.” Yet, a third of agencies expressed strong agreement with the statement “My agency has difficulty scheduling time to train transit operators for positions that would enable them to advance in the agency.” Further research should investigate why it is that some agencies succeed in acquiring the time and funding – and have a defined onboarding process – so that policymakers can develop of better understanding of the problem and its potential solutions.

As established in the literature review, transit operator safety is a major issue for some agencies – and it has become more of a problem for many agencies over time. Focus group participants elucidated the issue considerably. In general, large urban agencies emphasize transit operator safety as an issue much more than small urban or rural. However, this is not because safety is not an issue elsewhere, but because it is not as important a factor for operator recruitment and retention. *To be clear, incidents of assault and harassment have increased generally across the state and the nation as a whole.* Across all agencies, there is consensus that transit operator safety has become a bigger issue over time. A total of 85% of survey respondents believe to some extent that assaults and incidents of harassment – both verbal and physical – involving transit operators are more common today than they were prior to the pandemic and 17% strongly believe this to be the case. A convincing 93% of respondents believe to some extent that the assaults and incidents of harassment – both verbal and physical – involving transit operators are more common today than they were ten years ago (2014) and 31% strongly believe so. Additionally, respondents tended to believe that declines in the frequency and quality of service have a corresponding negative impact on the safety of transit operators, with 70% at least somewhat agreeing with a statement to that effect. Respondents complained that existing laws did not provide sufficient protection from assault.

While it is common to think about the effect of service improvement and/or deterioration on transit ridership, it is not as common to think about how this affects frontline workers – and how this can generate a vicious feedback loop in which service *and* working conditions jointly deteriorate. As one survey respondent put it, “As all other costs of living increase for the general public, it compounds for the operators because they are also financially impacted, and most people upset about fares or other issues take it out on the operator.” Another lamented that the general public fails to “realize that their treatment of drivers is often difficult for drivers to handle, and results in more needed time off, and more ride cancellations.” Of the agencies surveyed, 59% have some sort of critical incident stress management in place to support frontline workers. Given the rise in incidents and the workforce shortage, such systems ought to be implemented more widely. Policymakers, government officials, and elected officials should seriously consider the impact a given policy has or will have on the safety and working conditions of transit operators. For example, multiple focus group participants bemoaned the consequences of fare-free service without any dissent from other participants, though this may be a policy initiative popular among some political parties or advocacy groups. On the other hand, 48% of respondents strongly believe that dedicated bus lanes improve working conditions for transit operators, and an additional 28% somewhat believe so (raising the figure to a convincing 76%), even though such a strategy may be unpopular among some political constituencies. Finally, worsening safety conditions for operators serve as the proverbial canary in the coalmine – an indication of more far-reaching socioeconomic maladies.¹¹⁰

¹¹⁰ See: Lindiwe Rennert, “Assaults on Transit Workers Have Tripled in the Past 15 Years. Income Inequality and Societal Tensions Have Contributed.” *Urban Wire* (blog), November 28, 2023, <https://www.urban.org/urban-wire/assaults-transit-workers-have-tripled-past-15-years-income-inequality-and-societal>.



CITT researchers identified operator safety and on-the-job experience improvement efforts highlighted in source material from the literature review and asked respondents to evaluate these strategies. Survey respondents' answers are included in the charts below. As was expected, all strategies and observations were met with general agreement. However, some figures from the survey responses were exceptionally strong: 52% of respondents strongly agreed that the statewide adoption of mandatory and severe sentencing guidelines for individuals who hurt or threaten transit operators would improve the safety of transit operators.

Q32_2 - More robust physical barriers separating the bus operator from riders would improve the safety and morale of bus operators.

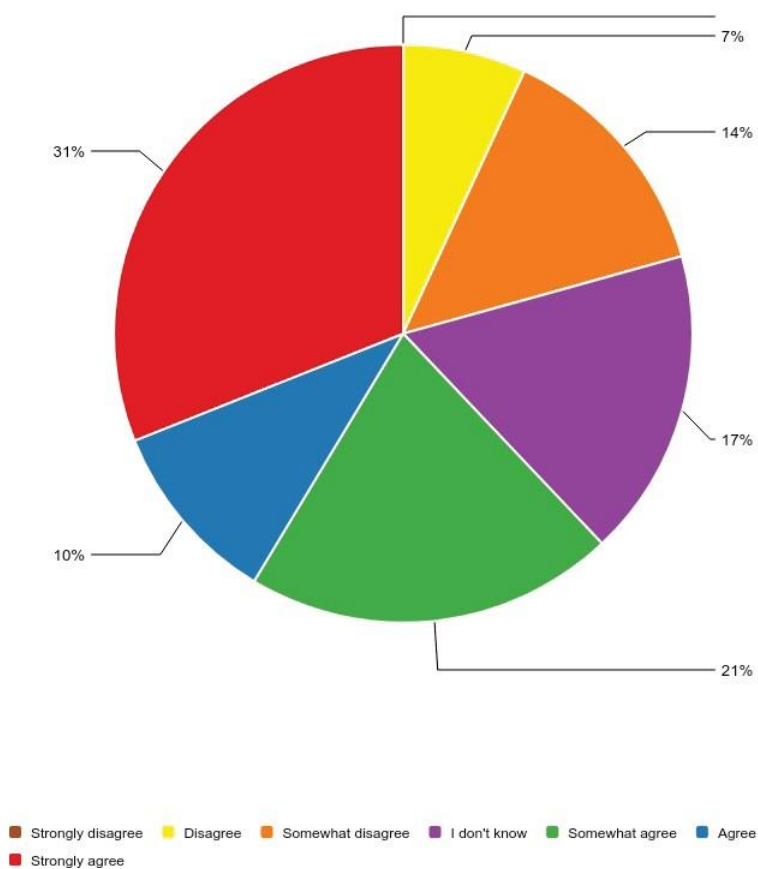


Figure 6 - More Robust Physical Barriers Would Improve the Safety and Morale of Bus Operators

Q32_5 - Implementation or improvement of onboard surveillance technologies, such as closed-circuit television (CCTV), would improve the safety of transit operators

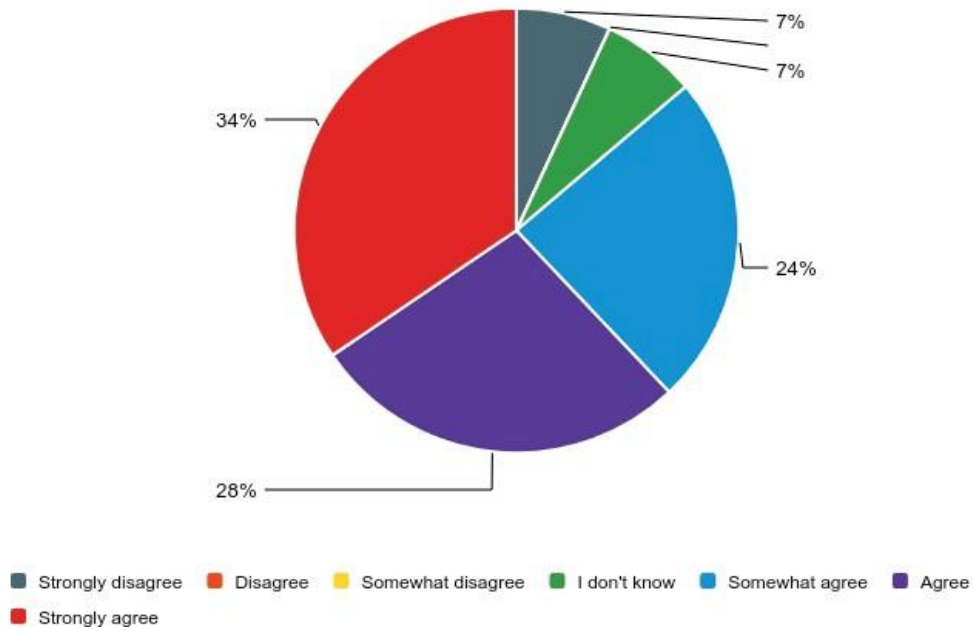


Figure 7 - Implementation or Improvement of Onboard Surveillance Technologies Would Improve the Safety of Transit Operators

Q32_1 - Off-board fare collection would improve transit operator safety.

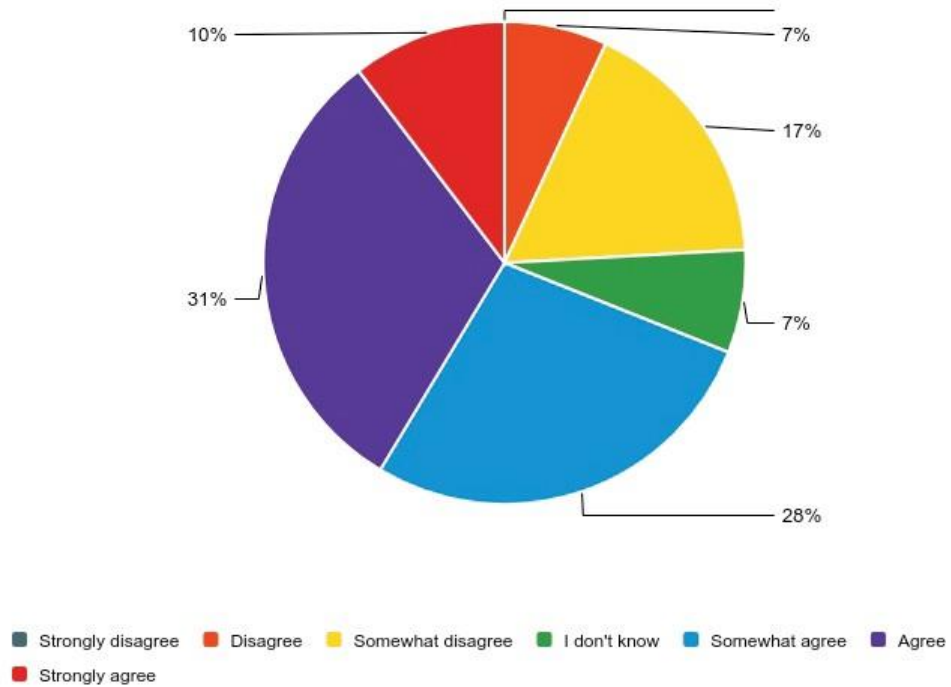


Figure 8 - Off-board Fare Collection Would Improve Transit Operator Safety

Q32_3 - Statewide adoption of mandatory and severe sentencing guidelines for individuals who hurt or threaten transit operators would improve the safety of transit operators.

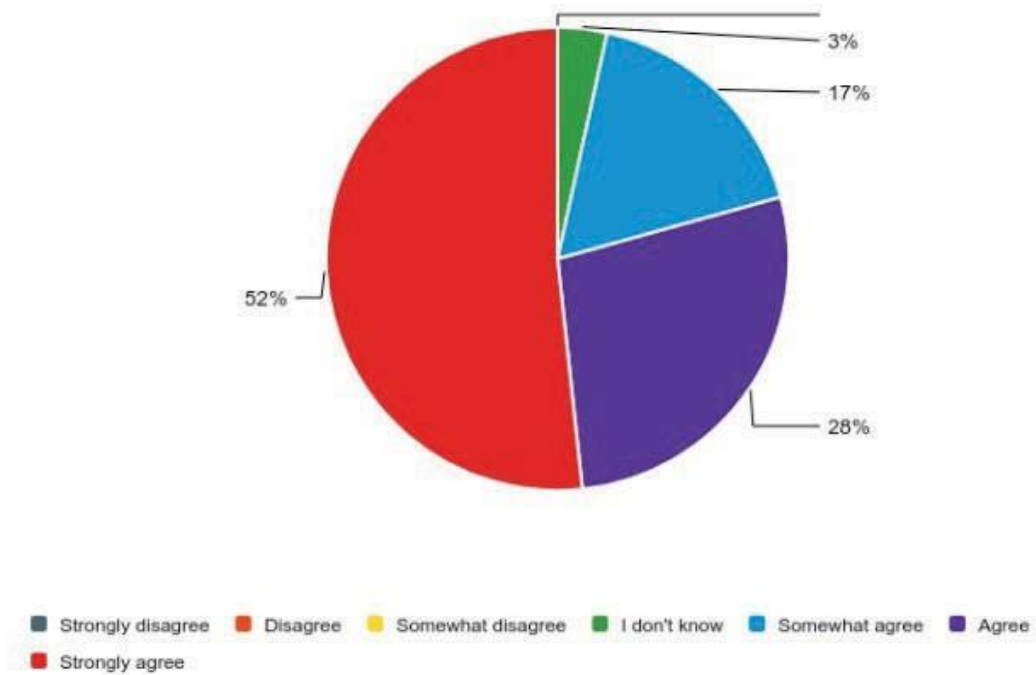


Figure 9 - Statewide Adoption of Mandatory and Severe Sentencing Guidelines

Q32_7 - Improvements in the frequency and quality of transit service have a corresponding positive impact on the safety and morale of transit operators.

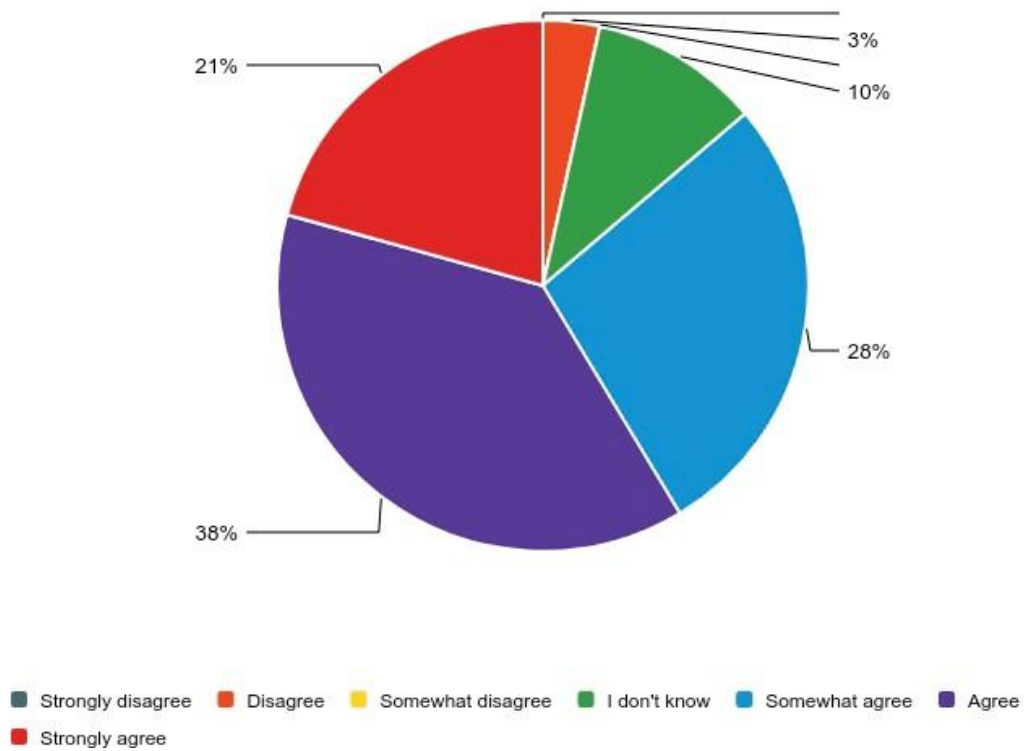


Figure 10 - Improvements in the Frequency and Quality of Service Improve Transit Operator Safety and Morale

Q32_4 - Increased signage and audio announcements informing riders that assaulting transit operators is a felony would improve the safety of transit operators.

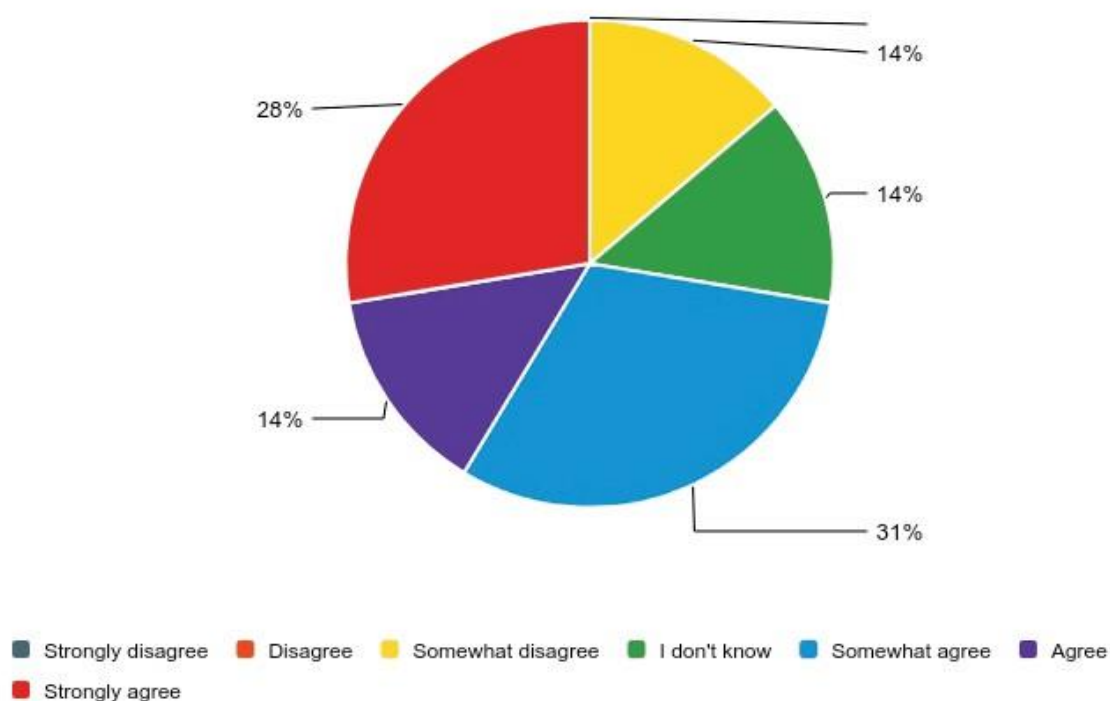


Figure 11 - Increased Signage and Audio Announcements Would Improve Safety of Operators

Most responses to the survey conformed to the findings of previous research. However, there are examples of discrepancies. For example, survey respondents overwhelmingly believe that agency management is responsive to the concerns and grievances of transit operators (59% strongly believe this is so). Yet, a survey of former transit workers conducted by APTA in Winter 2022-2023 found

that issues with management are the primary factor driving operators to resign.¹¹¹ This raises the obvious question: Is the situation in California different or is there a disconnect between transit operators and management’s assessment of the relationship? Further research in this area is highly recommended, given the discrepancy between this report’s findings and those of the APTA survey. The explanation for the discrepancy could be very helpful for addressing the transit operator shortage in California and the rest of the nation. For example, perhaps the problem is not that agency management is unresponsive, but that the actions they are able to take are constrained by politicians, policymakers, and others. Or, by contrast, perhaps agency management is unaware of the tensions between frontline workers and themselves.

Successful Strategies

Survey respondents were asked to highlight strategies that have proved successful at their agencies or at other agencies throughout the state and country. The following are their responses:

- “We have a dedicated recruiter who takes an operator with them to recruit. Going hands on and using text and calls to communicate rather than email has been very effective. It helps to have an operator with the recruitment.”
- “On the spot hiring for driving.”
- “Hiring bonuses”
- “Promoting work satisfaction, employee engagement, work life balance.”
- “conducting exit interviews and retention analysis”
- “Additional state funding specifically for staffing transit agencies.”
- “Sign-on bonus and recruitment referral bonus.”
- 4/10 or 3/12 schedules (four days of ten-hour shifts or three days of twelve hour shifts) are likely to be implemented in order to provide more time off for transit operators.
- Improvements in routing and scheduling technologies.

Respondents also noted future developments that they feel positively, negatively, or entirely neutral about. For example, some respondents believe that autonomous and semi-autonomous vehicles will be introduced to transit agency fleets, and the job of the transit operator will change substantially. What they think of this development varies, but the sentiment is that such changes are inevitable. One respondent predicted an increase of fixed guideway systems (such as rail and BRT systems) in dense urban areas, but a decline in fixed-route transit service elsewhere in favor of paratransit, dial-a-ride, and similar services.

¹¹¹ Foursquare Integrated Transportation Planning, EBP, and American Public Transportation Association, “Transit Workforce Shortage: Root Causes, Potential Solutions, and the Road Ahead,” Interim Findings Report, APTA Transit Workforce Shortage Study (American Public Transportation Association, October 2022), <https://www.apta.com/wp-content/uploads/APTA-Transit-Workforce-Shortage-Report.pdf>; Foursquare Integrated Transportation Planning, “Transit Workforce Shortage,” Synthesis Report (American Public Transportation Association, March 2023), <https://www.apta.com/wp-content/uploads/APTA-Workforce-Shortage-Synthesis-Report-03.2023.pdf>.

Improvements to transit infrastructure and service levels can help agencies more easily recruit and retain transit operators, and it is worth considering what specific investments could both boost ridership and ameliorate the operator shortage. While only roughly a quarter of respondents reported that their respondents have one or more BRT lines in operation or under construction, many respondents believe that features associated with BRT would be helpful (and it is worth noting that respondents whose agencies had BRT systems or planned to implement them tended to be more optimistic about improvements to the shortage). Twenty-one percent strongly believe that improvements in the frequency and quality of transit service have a corresponding positive impact on the safety and morale of transit operators (87% at least somewhat agree). Fifty-percent strongly agree that dedicated bus lanes improve working conditions, and 76% at least somewhat agree. Forty-one percent strongly believe that traffic signal prioritization improves working conditions, and 75% at least somewhat agree. Ten percent strongly believe that off-board fare collection improves working conditions, and 69% at least somewhat agree. This lends support to the idea that investments in service and investments in the frontline workforce go hand-in-hand. Further research exploring the relationship between BRT features and transit operator job satisfaction is warranted. Additionally, it is worth considering how capital and infrastructure improvements affect the workforce, and how funding can be best allocated such that it can jointly improve rider and operator experiences.

As seen in the figures above, all strategies for improving transit operator safety received substantial support, except for the question regarding new technologies. Fifty-two percent of respondents strongly support a statewide adoption of mandatory and severe sentencing guidelines for individuals who hurt or threaten transit operators. When respondents who selected “somewhat agree” or “agree” are included, the percentage rises to 97%. Off-board fare collection also received support, with 70% at least somewhat agreeing with its implementation. Thirty-one percent are strongly in favor of more robust physical barriers – and that figure rises to 62% when those who somewhat agree or agree are included. Thirty-five percent are strongly in favor of onboard surveillance technologies (85% at least somewhat in favor). Sixty-nine percent strongly believe that routine cleaning and maintenance of transit vehicles is important for recruiting and maintaining transit operators, and 93% at least somewhat agree.

In October 2023, L.A. Metro decided to make its transit ambassador program permanent and bring ambassadors in-house as staff.¹¹² The article states that ambassadors serve the transit agency by “engaging with riders, wayfinding assistance, supporting riders with acute health issues (via CPR, NARCAN), and notifying Metro policing and cleaning staff of issues needing attention.”¹¹³ The presence of ambassadors is highly supported by the ridership. While a good number of agencies in the survey claimed that they were pursuing similar programs or had a desire to do so, some claimed that it was not financially feasible for their agency.¹¹⁴ Other issues, too, can arise with the

¹¹² Joe Linton, “Metro Transit Ambassadors Are Here to Stay,” *Streetsblog Los Angeles*, October 26, 2023, <https://la.streetsblog.org/2023/10/26/metro-transit-ambassadors-are-here-to-stay>; Nathan Solis, “Can Metro’s Ambassadors Get Riders Back?,” *Los Angeles Times*, October 22, 2023, sec. California; Part B; Metro Desk, ProQuest Global Newsstream, <http://csulb.idm.oclc.org/login?url=https://www.proquest.com/newspapers/can-metros-ambassadors-get-riders-back/docview/2879659632/se-2>.

¹¹³ ¹¹³ Joe Linton, “Metro Transit Ambassadors Are Here to Stay,” *Streetsblog Los Angeles*, October 26, 2023, <https://la.streetsblog.org/2023/10/26/metro-transit-ambassadors-are-here-to-stay>

¹¹⁴ For an example of a transit ambassador program at another agency, see: Eman Abu-Khaled, “GCRTA Transit Ambassador Program; How It’s Going,” *Mass Transit*, November 19, 2024, <https://www.masstransitmag.com/safety-security/article/55243079/greater-cleveland-regional-transit-authority-rta-gcrt-transit-ambassador-program-update>.



introduction of transit ambassadors. A representative from an agency in Greater Los Angeles region noted that “long term older workers [seem to have] a negative attitude towards transit ambassadors and young workers seem supportive and feel safer with ambassadors.”

Focus Group Analysis

Introduction

The research team hosted a focus group on November 19, 2024 with ten representatives from large urban, small urban, and rural transit agencies. The focus group elucidated and enhanced CITT researchers' understanding of the findings of the survey and literature review. Perhaps most importantly, focus group participants highlighted tensions between various state agencies and local governments and transit agencies. If the former two are to aid the latter, this will pose difficulties that must be addressed.

Transit Operator Safety

Focus group participants provided an important clarification regarding transit operator safety. In contrast with what CITT researchers had found in the literature review, the survey results suggested that transit operator safety was an issue only at the largest urban agencies with the highest ridership figures. By contrast, the focus group revealed that the situation is more nuanced. A career as a transit operator is public-facing – and that means all of the public. The misconduct of riders – whether merely an annoyance or an outright disruption – is a “big hurdle for the operators that are in their first one-to-three or four years,” said one participant who serves in an executive leadership role. “Our focus is on how challenging the job is. And not to belittle commercial driver requirements or administering policies and procedures and good customer service, but just from the craziness factor out there. ... It's the operator having to deal with, you know, substance abuse issues onboard and people – how they behave and how disrespectful and how violent they can be.”

Another focus group participant didn't describe transit operator safety as a major retention issue, but did highlight it as an issue that “plays into an overarching of many issues of why an individual does not stay as a driver.” At the same time, the participant pointed out the intensity of the problem during the pandemic because of experiments with fare-free transit, which encouraged the unhoused to use transit as a means of shelter, or for those who loiter on the bus rather than using it as a means of transportation. “I just think that there are very limited things that we can do in public transit to curb that, especially when there's a push – and I'm just going to throw this out – There is a push for public transit to go free, which just encourages more unhoused people to be on our bus to use as shelter. And this was seen in our system [during] COVID. We had a spike of incidences of violence on our bus, with it being fare-free.” Other focus group participants agreed with this assessment of fare-free transit. Policymakers and political activists who wish to pursue fare-free transit service in the hopes of increasing ridership or making service more equitable should note that successful implementation requires much more than simply instantiating fare-free into the law.

The Relationship Between the Frontline Workforce and Service Improvements

Given the findings of the survey, CITT researchers queried focus group participants regarding the relationship between the frontline workforce and service improvements. One participant suggested that features mentioned in the survey, such as dedicated bus lanes, off-board fare collection, and traffic signal prioritization, would benefit and help the drivers because “it all comes down to stress.” In particular, dedicated infrastructure (such as bus only lanes) would help bus drivers keep their routes on schedule much more easily and segregate them from aggressive or inattentive travelers in private cars or motorcycles. The researchers believe more engagement around this topic with transit



operators and agency management would be productive. If an infrastructure project can improve operator retention, then its effect on agency performance is multiplied.

Labor Pool

As the above section indicates, early career support is vital. Similar to conversations the researchers had with a subject matter expert, one participant emphasized that getting operators to year three is especially important – that’s how agencies can develop a strong workforce. “If they make it past year two, they’re kind of golden,” said one participant. “We’ve done some of our own kind of data pulling amongst our drivers. When you’re looking at like safety statistics and attendance issues and stuff like that, it seems like year three is where people get it.” From the data the participant’s agency had collected, they had noticed patterns in an operator’s career – when an operator tends to have a safety issue or when they tend to become dissatisfied with the job.

Focus group participants were asked whether new hires saw the new position as merely a job or a long-term career. The two participants who offered answers to this question both agreed that younger individuals tended to see the position as a job, rather than a career. One participant described the occupation as a second career for many of their agency’s best operators, noting that they had successfully recruited many drivers who had retired from a nearby military base.

One participant from an agency adjacent to the San Francisco Bay Area emphasized that operational flux can frustrate operators. “I think some of it is on us, the agency, too, to set them up for success,” the participant said. “Are we constantly changing our routes? Are we constantly changing the equipment on the bus? Are they having to always learn these new mechanisms or ways to do things?” Comments like these shed light on discussions about operator-management tensions highlighted in the literature review. Yet, it may be that this issue is not the fault of management themselves, but the objectives management is tasked with carrying out – and operators tend to be the ones who must make the adjustments on the ground.

The research team did not learn enough about where former operators are going from the survey results, and presented the question to the focus group team. First, for smaller agencies, talented operators may move onto positions at larger agencies, which likely offer a higher wage and more opportunities for career advancement. Others may remain operators, but move out of state to Texas or Arizona, where living expenses are likely to be lower. Another agency representative mentioned that operators are lured by wine tours or airports.

Issues with State Agencies and Government:

When asked what state DOTs (or other government agencies and politicians) could do to be of better assistance, and specifically referring the incorporation of frontline transit workforce development into the transit programs administered by a state DOT, participants were skeptical. Speaking incredulously, one participant remarked “I’d love to hear what they have to think that they could help with recruiting for coach operators. I’d love to hear their feedback. That’d be great to know, how they think that they could make that better for us.” Transit agency professionals tend to experience state agencies as a source of frustration – and paperwork – more than as a partner, and expressed that previous attempts by government agencies to solicit input from agency representatives had not been productive. When the state DOT and an agency representative are tasked with a partnership (such as the Transit Transformation Task Force), the two camps tend to be in opposition rather than collaboration.

Noting that the topic was not necessarily directly related to the transit operator shortage, multiple participants complained of odious reporting requirements when working with the state DOT. Additionally, participants noted the conflicts between various state and federal rule makers. “These entities don't talk to one another. And so, they make these changes, not knowing that they're having an effect on another regulation somewhere else,” remarked one participant. If the solution to the transit operator shortage requires state and/or federal assistance, then it is vitally important to emphasize that such efforts must not replicate existing pitfalls. Regulatory conflicts between agencies should be investigated and streamlined away. Moreover, the more time administrators spend navigating complex regulations and reporting requirements, the less time they are able to tend to the needs of their frontline workforce.

Some participants suggested the idea of a listening session between Caltrans and transit agencies across the state. A bottoms-up approach that sources ideas from transit agencies themselves may help Caltrans figure out how they can best be of support to transit agencies. CITT researchers support this recommendation from the focus group participants.

Successful Recruitment and Retention Strategies:

One participant, a leader in an agency's human resources department, spoke approvingly of a variety of recruitment strategies mentioned in the literature review and survey. However, resources can be scarce – and not just financial resources, but staff. “For on-the-spot hiring for driving it literally takes about 10 to 15 people to pull off for that day.”

Relatedly, participants reported that it is not always the dollar amount of state or federal support, but what that money can be used for. Resources at an agency's disposal sometimes prove inadequate for expanding the labor pool. “Single moms – that's a market that we've tried to tap into,” said one participant. “How do we make these schedules more friendly to a work-life balance, particularly to attract the single moms? [How do we ensure] that there's childcare or elderly care available? ... There are grants out there to apply to actually build something, but not [for childcare or elderly care or similar initiatives].” If the benefits package is an attractive component of the position and agencies are struggling to expand the labor pool, then state and federal policy that can allow agencies to modernize the benefits package may prove very successful. Given that the survey found that time for training was a bigger obstacle than funding, a mere increase in funding for training may simply go unused. If a listening session were to take place, this may be an area for outside stakeholders to solicit ideas from transit agencies themselves – grants and programs that make the position attractive to those who need it most.

There was also evidence from the focus group concerning best practices which, while not as ambitious as discussions about expanding the workforce or reforming government practices, will prove useful as a tool in the toolbox. “One strategy that we've been doing is adding a minimum wage requirement in our operating contracts. When we go out to bid, setting them higher than the fast food minimum wage [helps] those contractors attract drivers” reported one participant. “We found that when you don't have that minimum wage, you have vendors with wages all over the board, especially if you don't have a union agreement.”

Conclusions and Recommendations:

Listening Sessions and Greater State DOT Advocacy for Transit Agencies

While it may not be directly related to the transit operator shortage itself, Caltrans should host listening sessions with transit agency representatives. If state agencies are to successfully intervene, it stands to reason that this should be done with the counsel of transit agency professionals – and this can only be accomplished if there is an amelioration of the tension between transit agencies and state government. It is important to consider how state (or federal) actors could better support operations funding, or perhaps source grant ideas from transit agency professionals themselves. It is also important to consider the infrastructure improvements that could simultaneously improve the rider and operator experience, such as dedicated bus lanes.

Transit agency professionals in the focus group voiced an interest in such an activity at just the right time. In September 2024, Governor Gavin Newsom signed Senator Scott Wiener’s Complete Streets bill into law.¹¹⁵ This law requires all transportation-related state agencies to grant greater priority to the pedestrian, active transportation, and public transit experience. Therefore, CITT researchers propose a Complete Streets legislative impact roundtable or town hall event with leaders from California transit agencies across rural, small urban, and large urban areas. The conclusions and recommendations in this report could serve as an excellent starting point for discussion. Stakeholders should also consult recent materials published by the American Public Transit Association (APTA).¹¹⁶

There are issues generating the transit operator shortage that transit agencies cannot sufficiently address on their own, such as housing affordability. However, the fact that these problems are having a deleterious effect on transit service should be noted and, as the state DOT, Caltrans should raise the impact such issues are having on transportation with other agencies, legislative bodies, and the Governor’s staff. Local governments, too, should understand the effect that the housing affordability crisis has had on the transit workforce.

Given that a chief underlying problem cited by survey respondents and focus group participants is the lack of appreciation and respect for the occupation, it is worth emphasizing the role the occupation plays within the community it serves. For example, investing in the transit agency workforce could have a multiplying effect. The Massachusetts Department of Transportation (MDOT) recently designed and facilitated an Empathy at the Intersection experience that “asked participants to step into the shoes of someone else on the road”, including bus drivers, wheelchair

¹¹⁵ For an overview, see: Melanie Curry, “Governor Newsom Signs Complete Streets Bill - Streetsblog California,” *Streetsblog California* (blog), September 27, 2024, <https://cal.streetsblog.org/2024/09/27/governor-newsom-signs-complete-streets-bill>. The text of the bill itself can be found here: Scott Wiener, “An Act to Amend Sections 14526.4 and 14526.6 of, and to Add Section 14526.8 to, the Government Code, and to Amend Sections 164.6 and 671.5 of, and to Add Section 149.20 to, the Streets and Highways Code, Relating to Transportation,” Pub. L. No. 960, Government Code (2024), https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=202320240SB960.

¹¹⁶ For example, see: “How to Onboard, Train, and Retain Workers: Strategies That Make Employees Better - and Help Them Stay Longer” (American Public Transportation Association, April 2023), <https://learning.aptagateway.com/apta-workforce-mini-guides>; “How to Serve the Underserved: Recruiting and Retaining Workers Through a More Inclusive Lens” (American Public Transportation Association, April 2023), APTAU Learning, <https://learning.aptagateway.com/products/how-to-serve-the-underserved-recruiting-and-retaining-workers-through-a-more-inclusive-lens>.

users, and truckers, using virtual technology and empathy mapping activities.¹¹⁷ Caltrans could replicate this activity for road users in California.

There is also an important (but perhaps overlooked) socioeconomic role played by the occupation. As one interviewee in a human resources role put it, “We hire someone from a low-income area, we hire them as a bus operator and they work their way up to a 200k a year position with training and promotional opportunities. That’s generational wealth. That’s upward mobility. That’s a bigger picture of why this is important, beyond just a bus system.”

Reform Transit Funding Mechanisms

In both the focus group and earlier interviews with transit agency professionals, it was emphasized that agencies are able to access funding opportunities for capital projects, but there are not similar opportunities for operations.¹¹⁸ One interviewee mentioned that that his agency struggled to gather the sort of data necessary to advocate for greater human resources capacity.¹¹⁹ Another interviewee mentioned that his agency was still using paper timesheets as of 2020 and had only begun to modernize during the pandemic. Earlier research published by the Center for International Trade & Transportation noted the difficulty agencies encounter when attempting to determine a return-on-investment metric for workforce development efforts.¹²⁰ For obvious reasons, capital projects receive a lot more fanfare: It is not hard to imagine why politicians and their constituents would be more excited about a new rail extension as opposed to transit agency data collection modernization, for example. Yet, evidence suggests that it is the latter that transit agencies would find most beneficial – and, by extension, the existing transit ridership would benefit.

Safety and Security Reforms

All components of the research process (literature review, survey, and focus groups) suggest that the implement physical barriers, onboard surveillance, critical incident stress management systems, and other strategies mentioned in the above sections on Quality of Life and Transit Operator Safety are vitally important. Survey respondents strongly support stricter sentencing guidelines for individuals who harm or threaten operators. For larger agencies, explore transit ambassador programs to assist with rider conduct. The development of Transit Operator Safety Task Forces at regional levels may also be justified. Focus group participants highlighted regional differences in safety challenges. Establishing regional task forces to assess safety concerns and develop targeted solutions—such as incident response protocols and enhanced law enforcement support—would allow for tailored

¹¹⁷ “Empathy at the Intersection | Mass.Gov,” Massachusetts Department of Transportation, The Lab @ MassDOT, accessed January 22, 2025, <https://www.mass.gov/info-details/empathy-at-the-intersection>.

¹¹⁸ It appears that this problem is widespread across the country and has received some attention in the United States Congress, which provides further evidence for the claims made by research participants. *For example, see:* Chris Van Hollen and John Fetterman, “Moving Transit Forward Act of 2024,” Chapter 53 of title 49 U.S.C. § 5308 (2024), https://www.vanhollen.senate.gov/imo/media/doc/moving_transit_forward_act-118.pdf; “Senate Introduces Key Transit Operations Bill to Fix Broken Transit Funding Rules – Transport Workers Union,” Transport Workers Union, May 14, 2024, <https://www.twu.org/senate-introduces-key-transit-operations-bill-to-fix-broken-transit-funding-rules/>.

¹¹⁹ *For a discussion of the human resources needs of the public transit industry, see:* Laurel Paget-Seekins, Chris Van Eyken, and Hayley Richardson, “People First: How a More Strategic Approach to Human Resources Can Help Transit Agencies Attract and Retain the Talent They Need to Run Great Service” (New York, NY: TransitCenter, July 2023), https://transitcenter.org/wp-content/uploads/2023/07/TC_People-First_Web-1.pdf.

¹²⁰ Tyler Reeb and Susan Gallagher, “Developing an ROI Assessment Model for Employee Development Programs Implemented by California Transit Agencies” (San José State University: Mineta Transportation Institute, December 2024), <https://transweb.sjsu.edu/research/2316-Workforce-Development-Training-ROI-Transportation>.



interventions while sharing successful practices statewide. Finally, there should be a formal evaluation of fare-free pilots during the COVID-19 pandemic to validate agencies' claims.

Reduce Burnout Through Stress-Reducing Infrastructure Investments

Survey participants noted that improvements like dedicated bus lanes, traffic signal prioritization, and off-board fare collection significantly reduce operator stress. Prioritize these investments in high-congestion areas to enhance operator morale and job satisfaction while improving service reliability.

State DOT Sponsored Hiring Events

A state-level effort to recruit transit operators would provide assistance to multiple local agencies at once. Materials should emphasize conflict resolution and customer service skills in training curricula. Programs like Los Angeles Metro's Workforce Initiative Now (WIN) can serve as models for scaling these partnerships statewide.¹²¹

Agency Mentoring and Early Career Support

Survey and focus group data highlighted that operators are most vulnerable to burnout within their first three years. Agencies should implement pilot programs that provide additional mentoring, stress management resources, and structured onboarding to support early-career transit operators and improve retention rates. For example, one interviewee mentioned the importance of annual employee statements that show employees what benefits they have received and what they have used. Evidence for the success of mentoring and early career support initiatives can be found at AC Transit.¹²² Additionally, agencies should encourage operator-rider outreach efforts. Participants from the Amalgamated Transit Union (ATU) spoke highly of such efforts in the Bay Area at a September 2024 virtual meeting organized by UCLA's Institute of Transportation Studies (ITS).

Agency-Led Feasibility Studies

The survey revealed that scheduling norms often conflict with the needs of workers, particularly those with family or caregiving responsibilities. Agencies should explore providing childcare subsidies, flexible work options, and alternative scheduling practices. Agencies should survey agency employees to determine what items could be added to the benefits package that would best improve recruitment and retention. The implementation of some strategies (such as childcare subsidies or flexible work options) will likely require state and federal support, but others may be addressable by agencies themselves. For example, alternative scheduling models like 4/10 or 3/12 shifts could reduce burnout and would be an enticing perk for recruitment purposes.

¹²¹ See: Los Angeles County Metropolitan Transportation Authority, "Workforce Initiative Now – Los Angeles (WIN-LA)," accessed August 4, 2023, <https://winla.metro.net/>; Marcy Drummond, "Building Career Pathways in the Transit Industry: Workforce Initiative Now-Los Angeles" (Transportation Workforce Institute, October 2018), http://twi.lattc.edu/wp-content/uploads/2018/12/WIN-LA-Report_FINAL_12072018.pdf.

¹²² Lisa V Rose, "Steering Success: AC Transit's Holistic Strategy for Bus Operator Shortage," *Mineta Transportation Institute Publications*, no. Project 2452 (July 2024), <https://transweb.sjsu.edu/research/2452-Bus-Workforce-Shortage-Equity>.



Leverage Existing Best Practices for Recruitment and Retention

Successful strategies mentioned in the survey and focus groups include hiring bonuses, direct recruiting with current operators, and on-the-spot hiring events. Agencies should adopt these approaches broadly while securing state and federal grants to scale these efforts effectively.

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