

The Future Workforce: Exploring Transportation Employment with National Datasets

Douglas Nevins TRB Transportation Workforce Summit - June 4, 2025

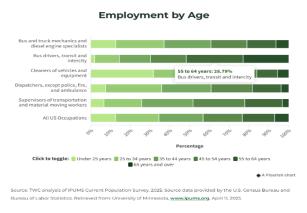
Workforce and labor market data are crucial resources for the transportation industry as we plan for the future. While many national datasets cover workforcerelated topics, they provide, in some cases, seemingly overlapping or contradictory information, and information gaps remain. The Transit Workforce Center (TWC), an FTA-funded national technical assistance center for transit workforce development operated by the International Transportation Learning Center (ITLC), has extensive experience working with national datasets through its development of the Transit Workforce Data Dashboard. This brief, and the accompanying presentation, share takeaways that may be relevant to other transportation industry stakeholders seeking strategies for better understanding current transportation employment, historical trends, and future workforce needs.

Current employment and historical trends

Numerous national datasets provide data on workers and jobs. Nationallyrepresentative surveys often focus on one or the other - for example, estimating the number of workers in a given occupation using a survey of households produces a different statistic than estimating the number of jobs in that occupation using a survey of establishments (employers). Major sources include the Bureau of Labor Statistics (BLS) and U.S. Census Bureau, which maintain national datasets including:

- The Current Population Survey (CPS), a monthly household survey comanaged by BLS and the Census that provides data on worker characteristics and trends
- The American Community Survey (ACS), an annual household survey managed by the Census covering similar data points to CPS
- BLS' Occupational Employment and Wage Statistics (OEWS), an establishment survey that produces employment and wage statistics

All of the above can be used to estimate current employment. TWC's Data Dashboard uses CPS and OEWS data, e.g.:



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In addition to nationally representative datasets based on surveys or administrative records, some industry-specific data are available. In public transportation, the primary source is the National Transit Database (NTD). Transit agencies report annually to the Federal Transit Administration, which releases the data to the public on its website. TWC's Data Dashboard draws extensively from NTD data. While highly useful for understanding transit-specific employment and historical trends, NTD does not include worker characteristics.

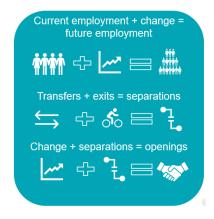
Increasingly, economic development professionals, planners, and others are utilizing emergent proprietary data sources of Labor Market Information (LMI), which draw upon traditional sample-based survey data as well as big data from job posting websites and platforms like LinkedIn with the goal of providing more timely data. In the public sector, data may also be available through public employment records.

Future workforce needs – projections

The Bureau of Labor Statistics' Employment Projections (EP) program is the primary source of estimates of future employment and job openings by occupation. Statelevel data are also available. The most recent estimates cover 2023 - 2033. These data reflect labor demand, with the assumption that supply will meet demand.

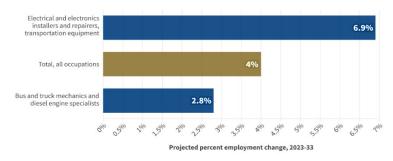
EP data include several interrelated statistics, as illustrated below:





What drives estimates of change?

- Trends in the economy
- Technological change
- Allocation of occupations by industry



What drives estimates of separations?

Historical data about workers' behavior based on their occupation, education, and demographic characteristics.

(see the Employment Projections methods page for more information)

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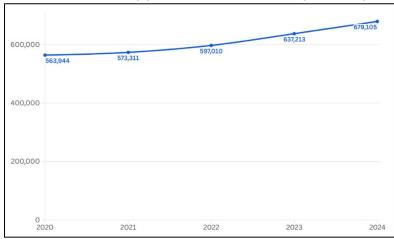
Future workforce needs – labor supply

Numerous sources are available that provide insight into the supply of qualified workers in given occupations, but these are disparate and decentralized. Potential sources include:

- Data on education, training, and licensure completions
 - o NCES Integrated Postsecondary Education Data System (IPEDS)
 - o Registered Apprenticeship Partners Information Database System (RAPIDS) (more info below)
 - o Sources of licensure / certification statistics, such as the Commercial **Driver's License Information System** (not publicly available)
- Population estimates / LMI (+ educational and skill data) data on regional population characteristics, employment rates, and education and skill levels can be used to estimate supply and to target recruitment. See this 2016 WorkforceGPS webinar for one example.

Registered apprenticeship is prevalent in the trades and has been growing in transit and other transportation modes. Continued expansion of apprenticeship programs is a key strategy in ensuring a sufficient supply of qualified workers.

Growth in active apprentices since 2020 (all occupations and industries)



Source: https://www.apprenticeship.gov/data-and-statistics/apprentices-by-state-dashboard

National datasets can provide crucial insights into future workforce needs, but selecting the right source can be challenging. TWC provides technical assistance to public transportation stakeholders on topics including workforce data, and our research team is happy to speak with any transportation industry colleague to discuss this topic further.