



Transportation Workforce Development

September 2022

Key Public Works Transportation Subsectors



Construction



Bus service and urban transit



Air transportation



Services incidental to transportation



Water transportation



Warehousing and storage



Rail transportation



Architectural, engineering,
and related services

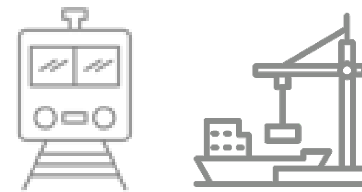
Key Transportation Workforce Challenges: Retirements and Separations

- **92%** of public transit agencies are having difficulty hiring new employees
- **71%** of transit agencies have had to cut or delay service because of worker shortages
- In 2021, the average transit operator was **ten years older than the average** American worker, 52.7 years old compared to 42.2 years

Contributing factors to vacancy in the transportation workforce:

- Retirements
- Occupational transfers
- Other exits

Unique subsectors:



Due to their smaller size, the **railroad and maritime subsectors** could be particularly affected by significant portions of retiring workers

Key Transportation Workforce Challenges: Skilled Labor Shortage



Jobs in **operations and maintenance** are in particularly high demand



13 of 20 highest-demand jobs in transportation have **salaries above median wage**



Projections show yearly job openings are **68% greater than student completion of relevant training**, indicating a **skills gap**



Some jobs require high school diplomas or **specialized certification**, while for other roles **on-the-job training or technical education** is sufficient

Key Transportation Workforce Challenges: Career Pathways

A key aspect of developing career pathways for the transportation workforce is job training, including technical education programs, apprenticeships, pre-apprenticeship programs, and workplace trainings

Six key elements

1
 **Cross-agency partnerships and role clarity**

4
 **Identifying funding**

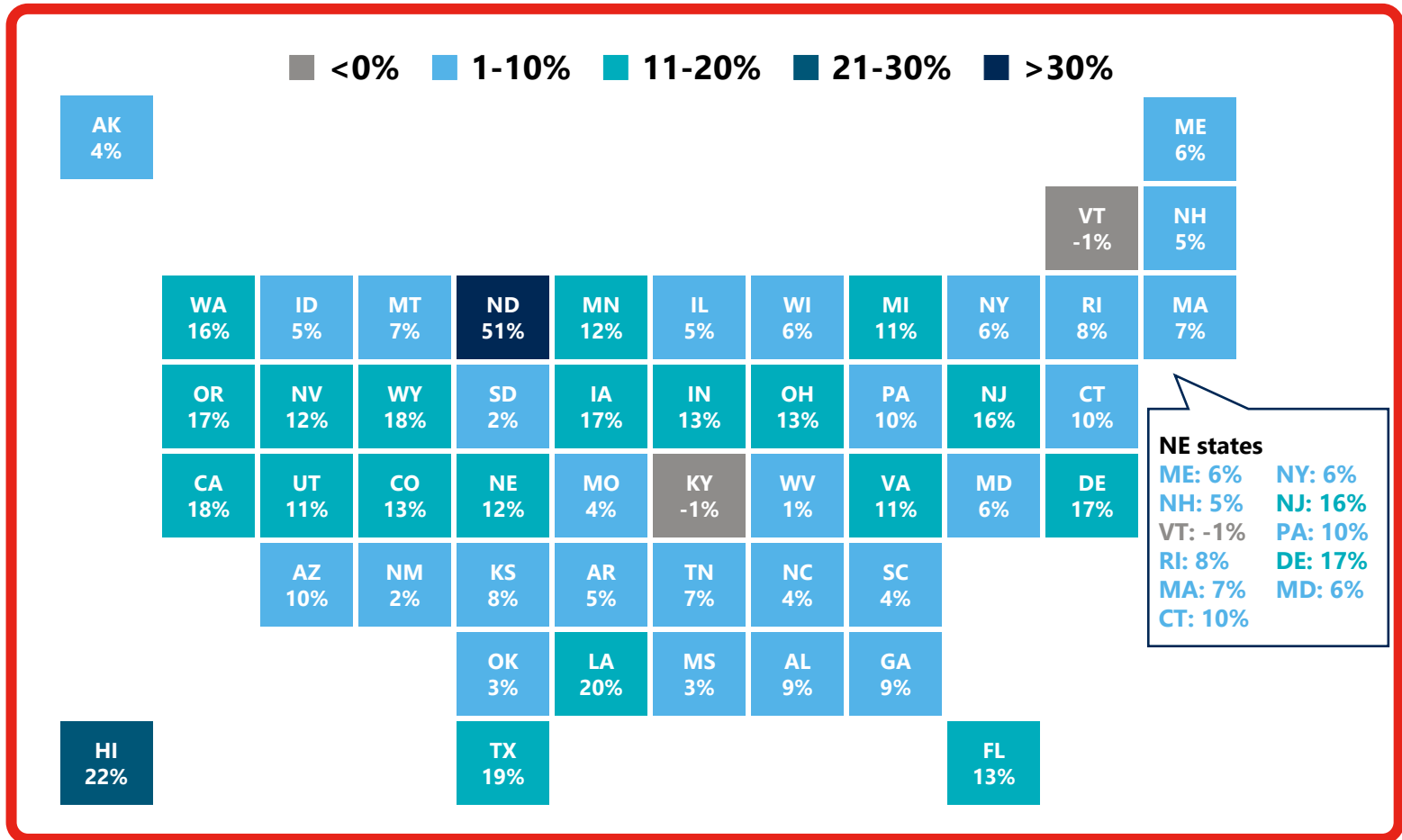
2
 **Employee engagement**

5
 **Policy and program alignment**

3
 **Education and training**

6
 **Measurement of change and performance**

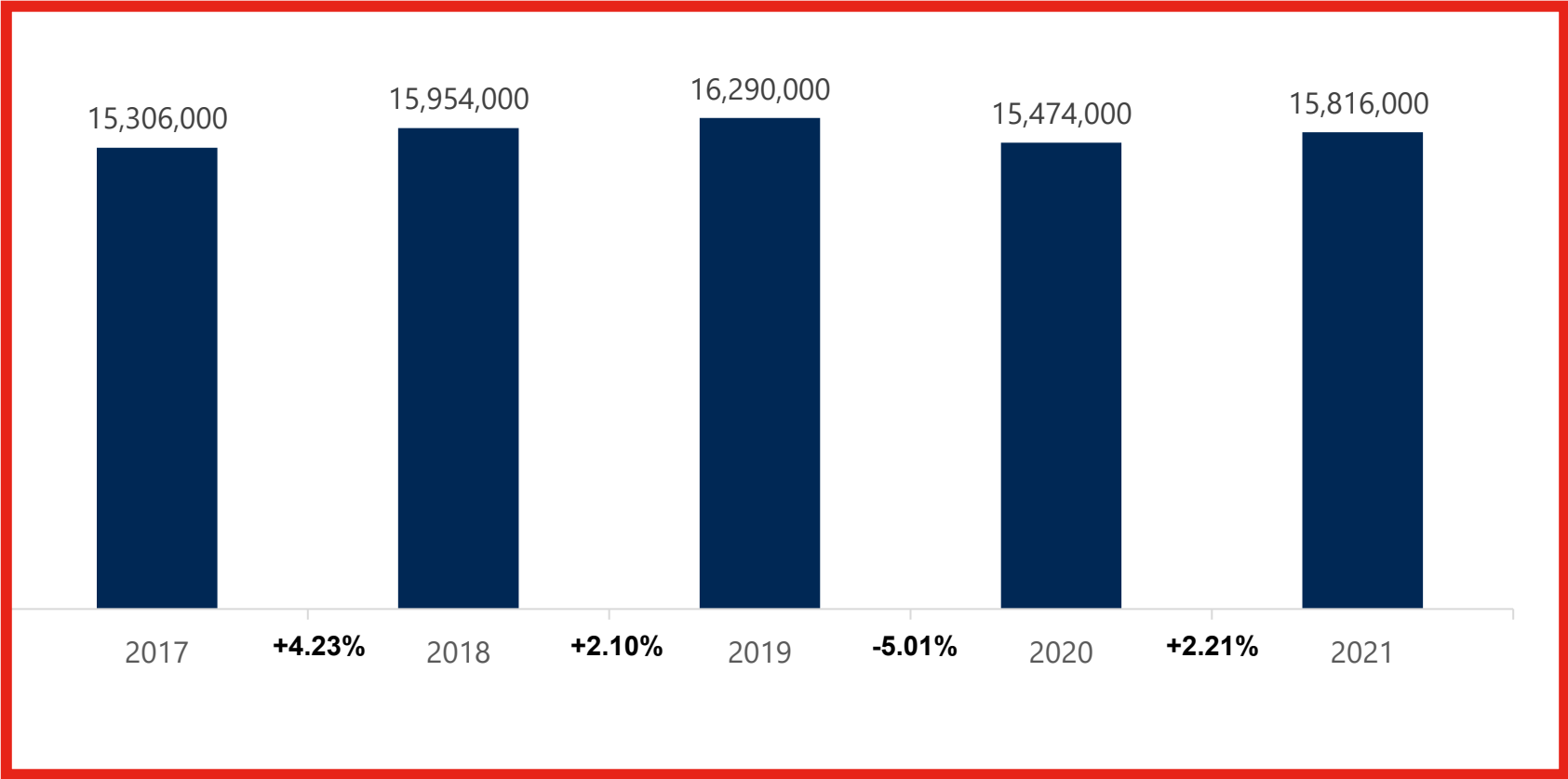
Projected Net Growth in Transportation Industry Jobs, 2012-2022



SOURCE [U.S. Department of Education, U.S. Department of Transportation, U.S. Department of Labor.](#)

The Public Works Transportation Workforce

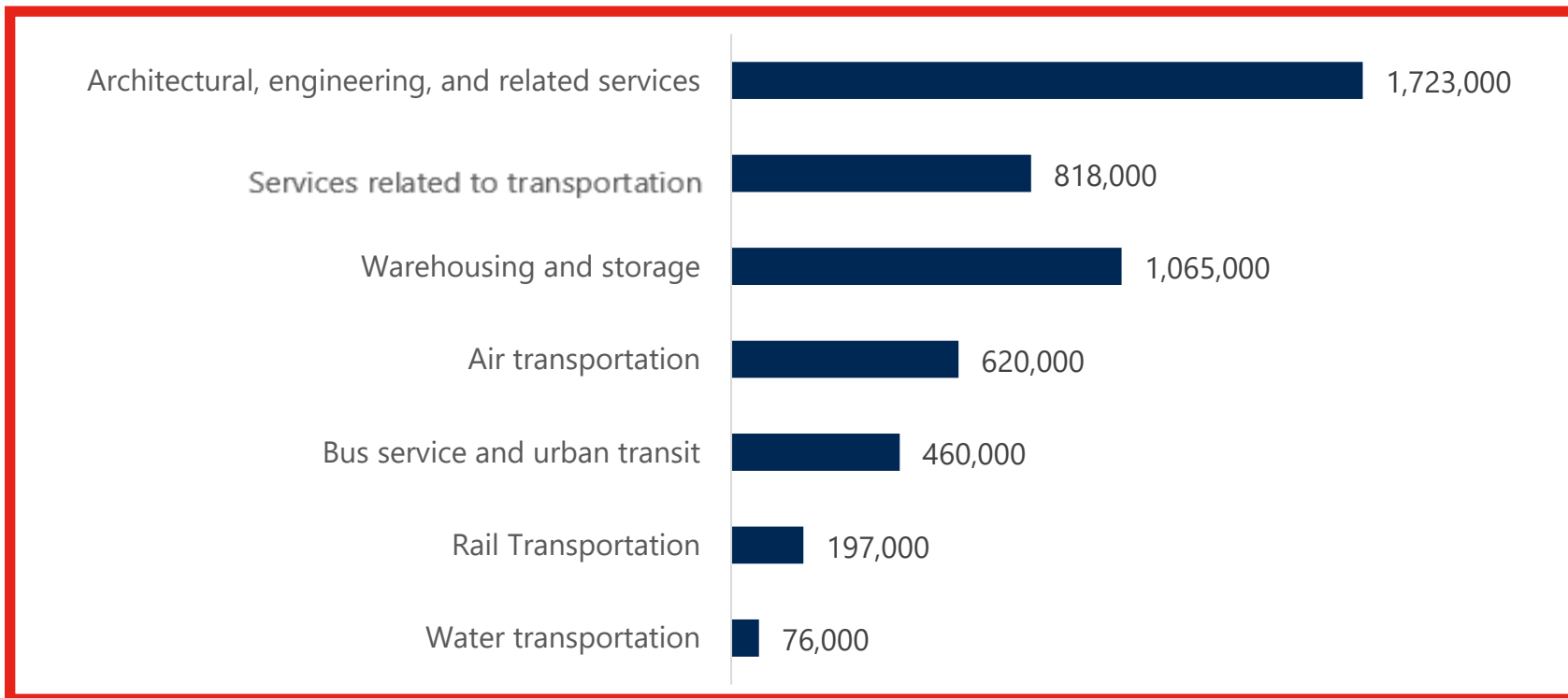
Number of individuals employed (total for key public works transportation subsectors)



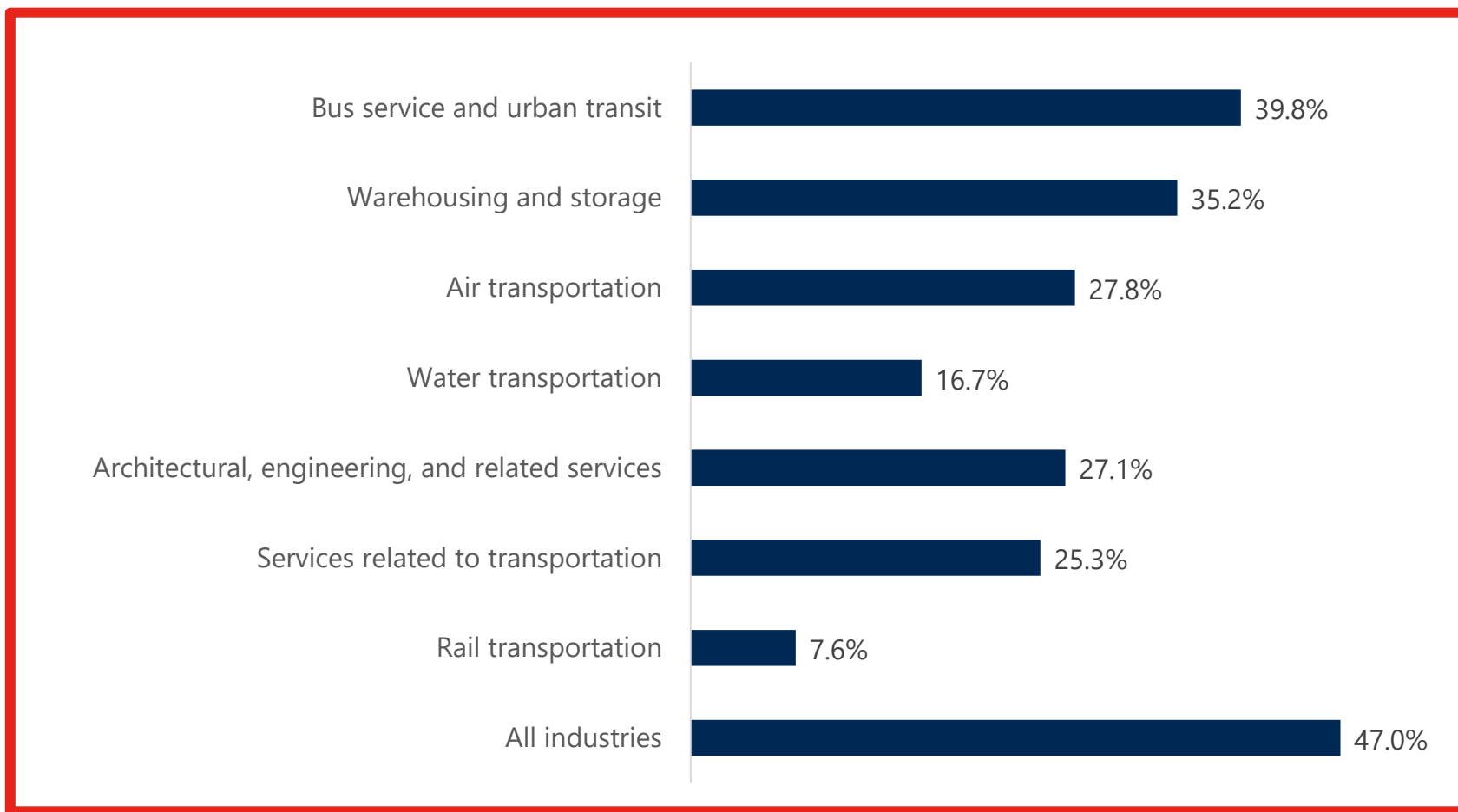
SOURCE [U.S. Bureau of Labor Statistics](https://www.bls.gov).

Transportation and Utilities Workforce Employed a Total of 9.37 Million People in 2021

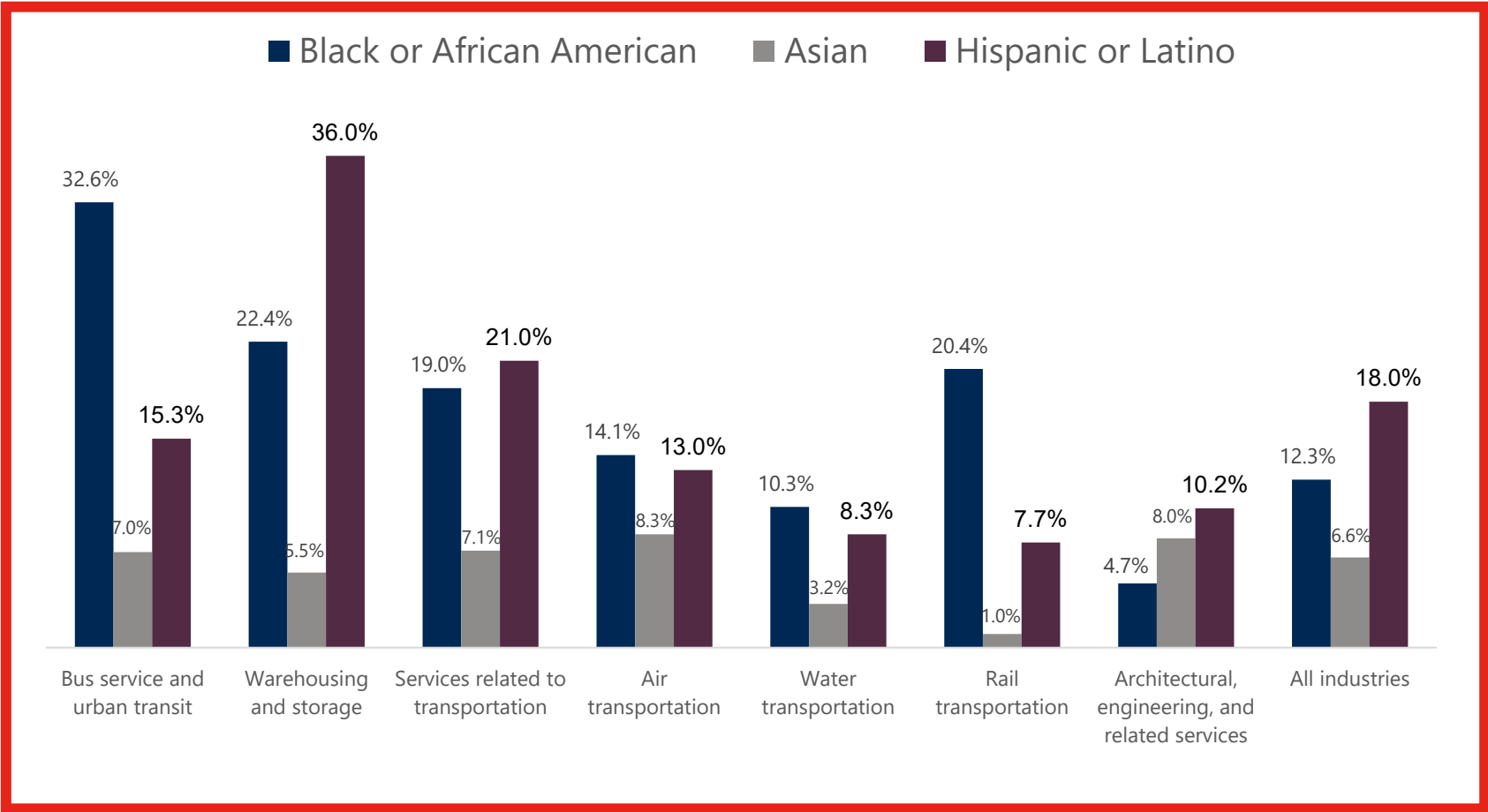
Number of individuals employed by selected industries



Percent of Women Among Employed Individuals in Selected Industries in 2021

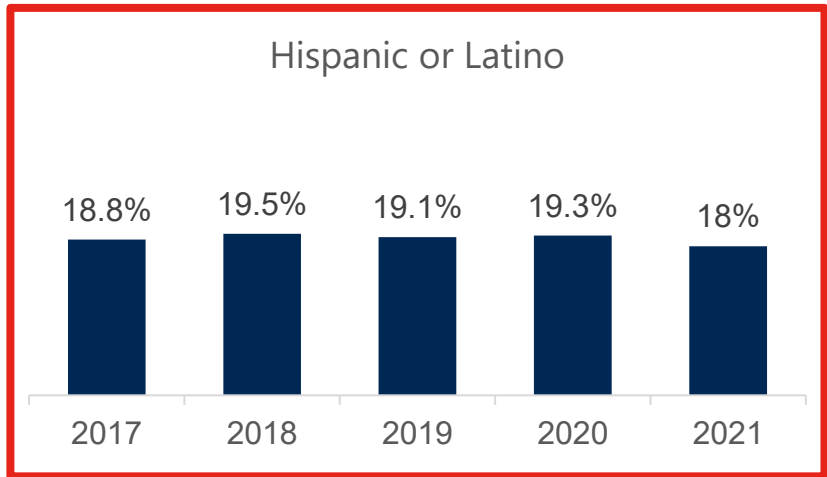
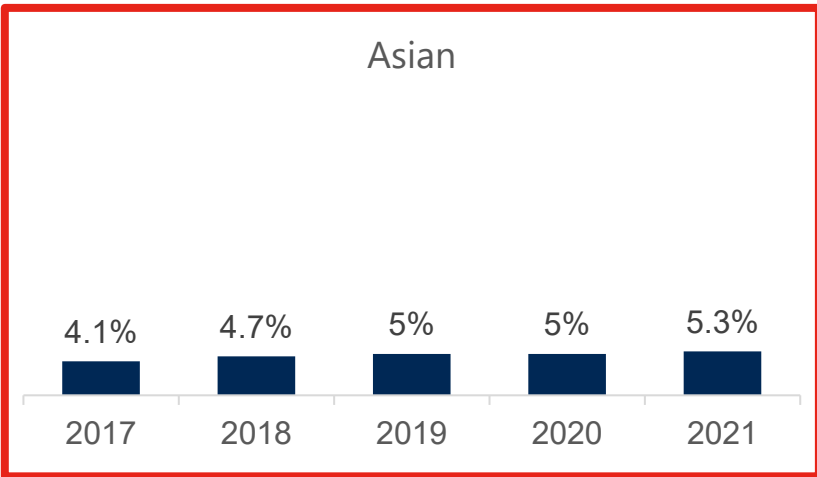
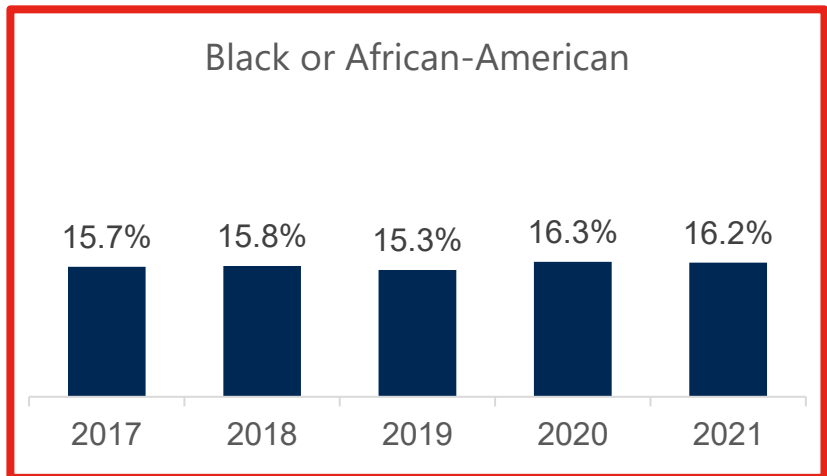
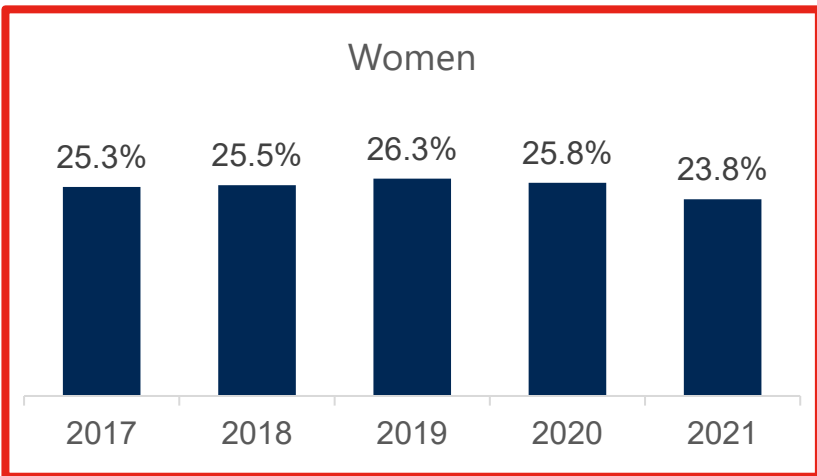


Racial Demographics in the Public Works Transportation Workforce



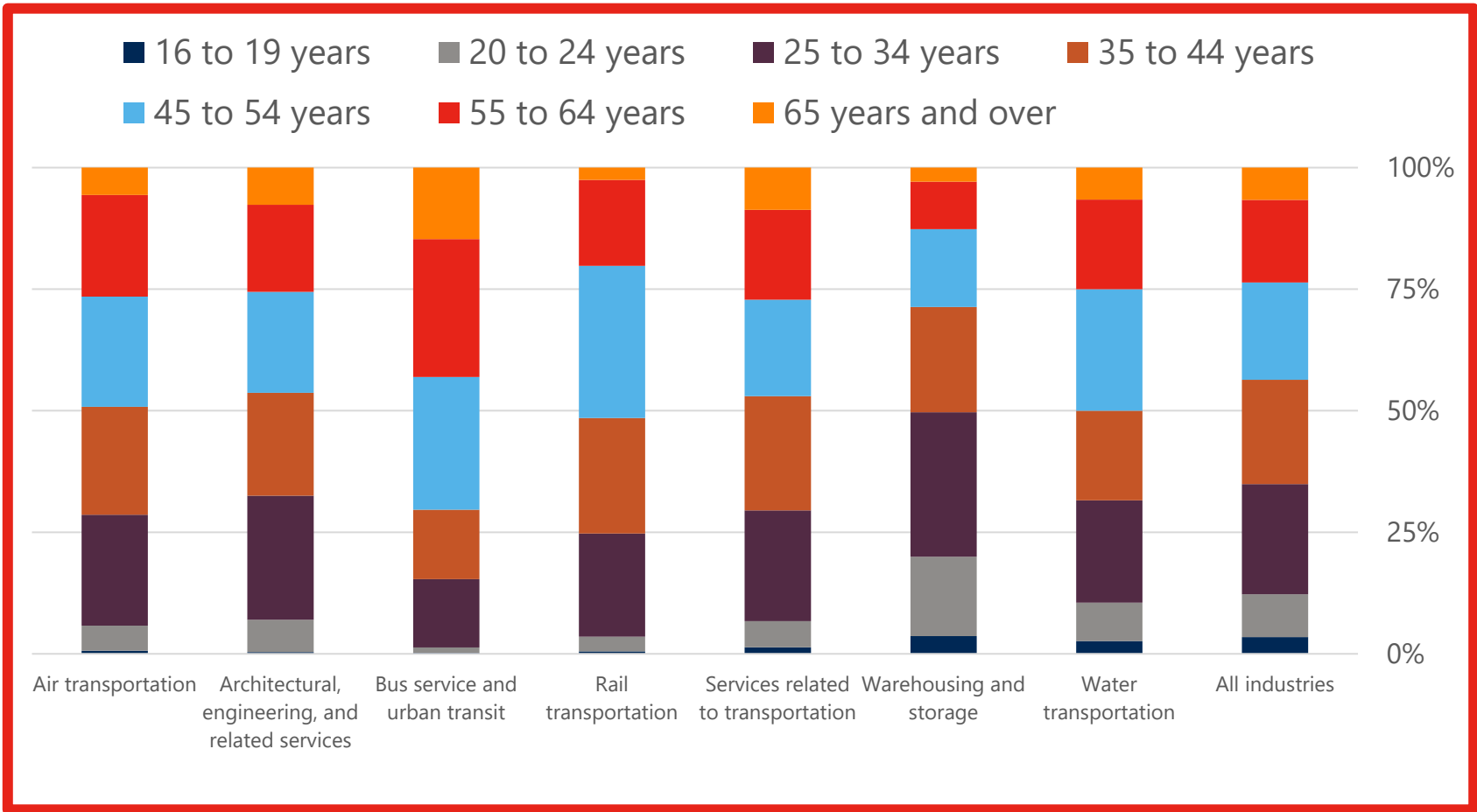
SOURCE [U.S. Bureau of Labor Statistics](https://www.bls.gov).

Demographic Changes Over Time in the Public Works Transportation Workforce



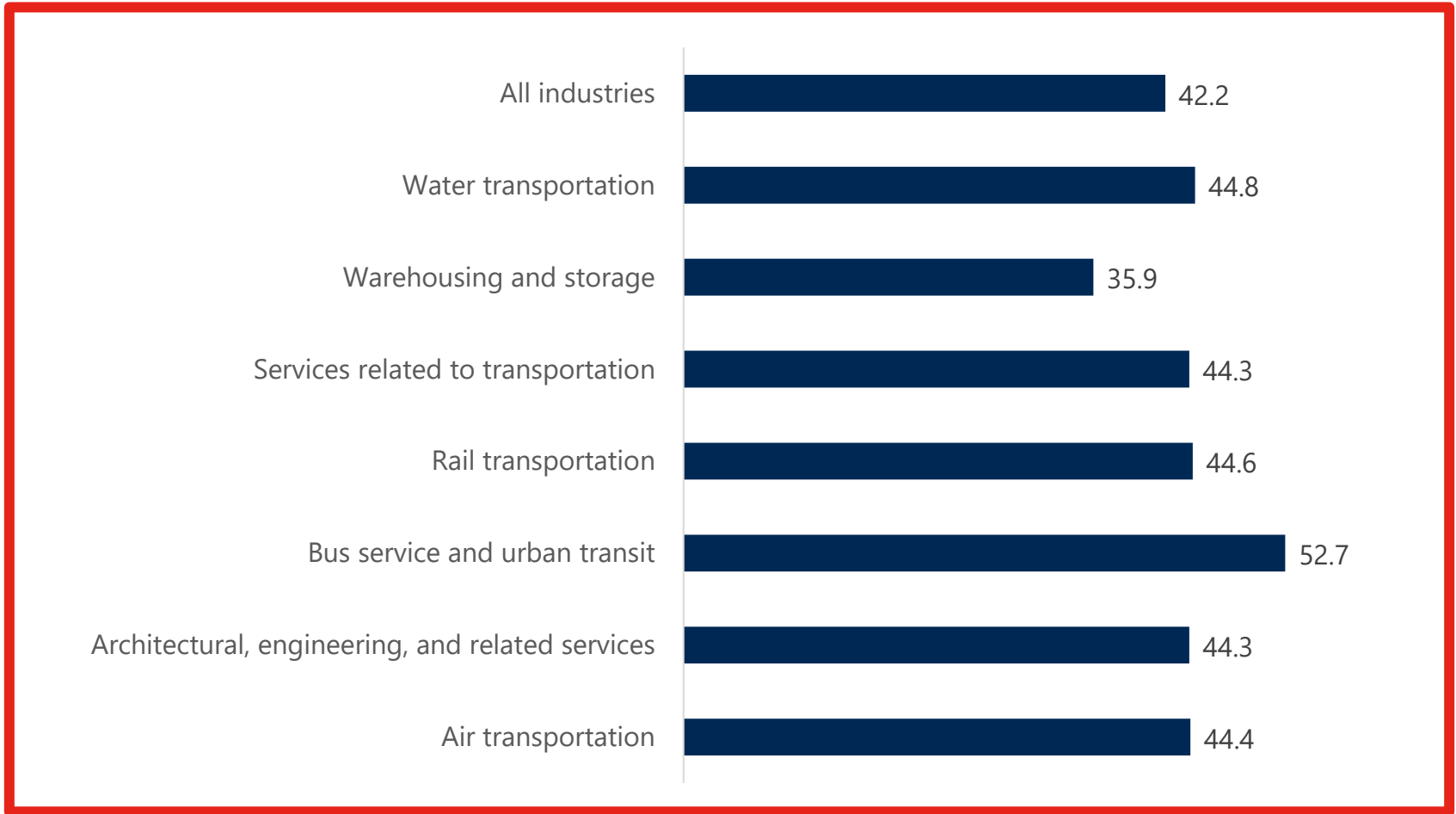
SOURCE [U.S. Bureau of Labor Statistics](https://www.bls.gov).

Age Breakdown for Key Public Works Transportation Subsectors



SOURCE [U.S. Bureau of Labor Statistics](https://www.bls.gov).

Median Age Among Employed Individuals by Industry, 2021



Definitions

- **Services related to transportation:** Jobs that support the transportation industry but aren't necessarily specific to it. i.e. tow truck operators, mechanics, dispatchers, etc.
- **Warehousing and storage:** Industries primarily engaged in operating warehousing and storage facilities for general merchandise; they may also provide a range of services, often referred to as logistics services, related to the distribution of goods including labeling, breaking bulk, inventory control and management, light assembly, order entry and fulfillment, packaging, pick and pack, price marking and ticketing, and transportation arrangement
- **All industries:** The 'all industries' category takes the median value of employees across the various industries; an umbrella category containing the data of all workforces in the US Bureau of Labor Statistics dataset; the national average
- **Median:** calculated by taking the "middle" value, the value for which half of the observations are larger and half are smaller; the advantage of the median is that it removes extreme measurements from a data set (i.e CEO salary)