

U.S. Water Workforce Overview

An exploration of water workforce demographics, job opportunities, and industry needs

August 2022

The Infrastructure Investment and Jobs Act (IIJA) Provides \$55 Billion for Water Infrastructure

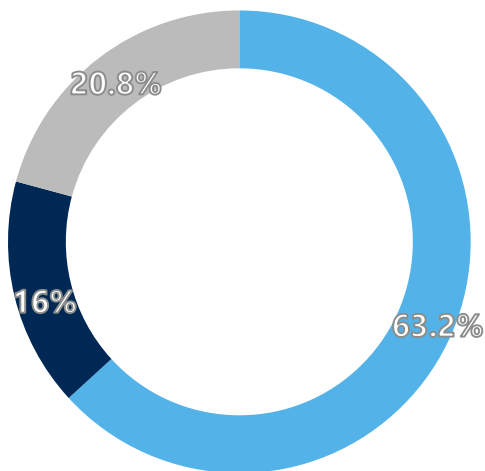
Safe Drinking Water	
Drinking Water State Revolving Fund	\$11.7 billion
SRF Lead Service Line Replacement	\$15 billion
SRF Emerging Contaminants	\$4 billion
Water Infrastructure Improvements for the Nation Grants	\$5 billion
Clean Water	
Clean Water State Revolving Fund	\$11.7 billion
Clean Water SRF Emerging Contaminants	\$1 billion
Regional Water Protection	
Geographic Programs	\$1.7 billion
National Estuary Program, Gulf Hypoxia Program, & more	\$267 million

- The law also includes several programs to improve sustainability and resiliency including:
 - \$125 million to provide grants to communities to pay for water recycling projects
 - \$120 million for projects that create or improve waste energy systems
 - \$125 million to help communities strengthen the resiliency of their publicly owned treatment works against natural hazards

Key Water Workforce Demographic Information

PERCENTAGE, 2022

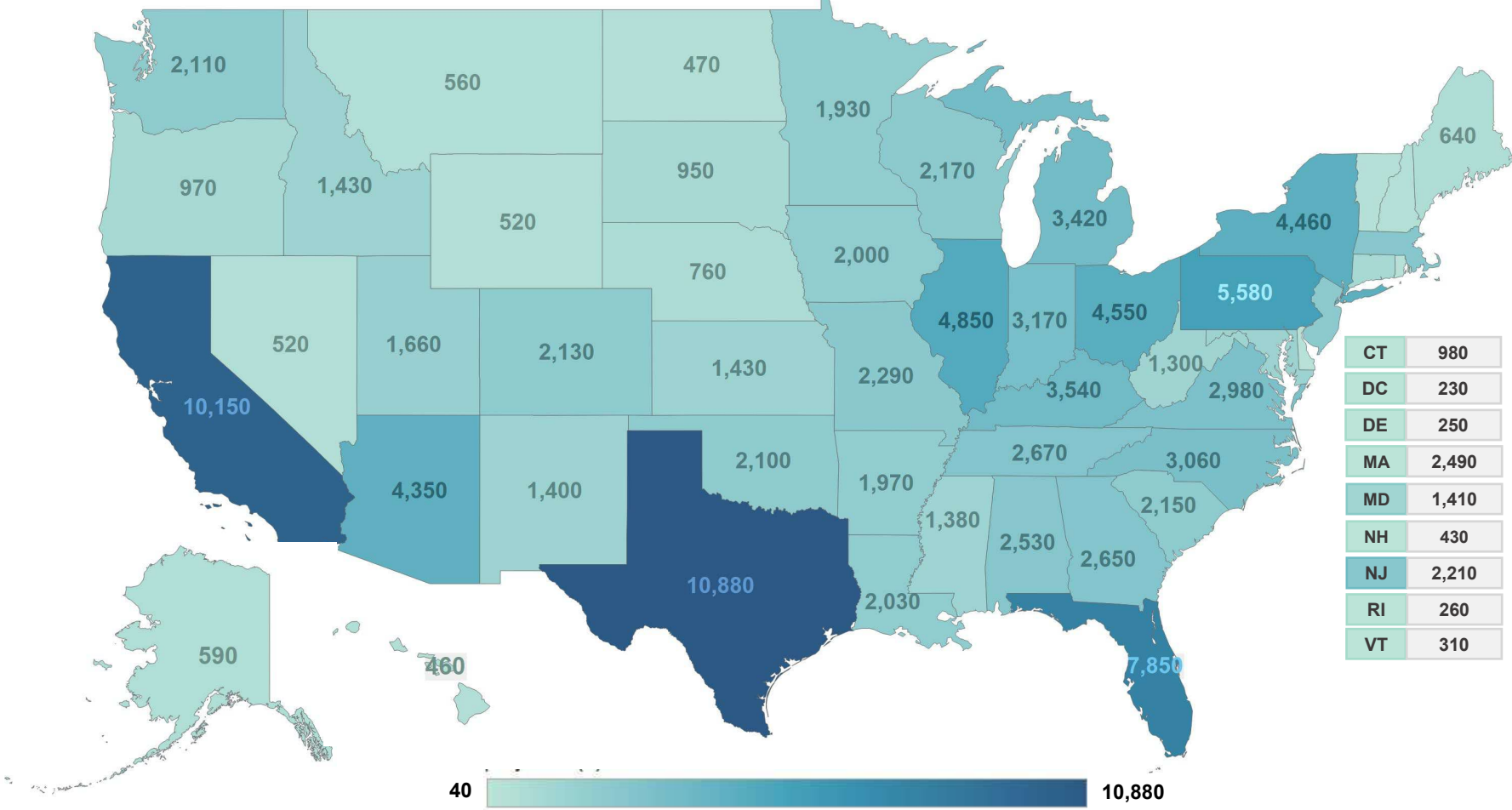
■ Water & Wastewater ■ Water only
■ Wastewater only



- **1.7 million** workers are directly involved in “designing, constructing, operating, and governing” U.S. water infrastructure
- Water operators, mechanics, machinists, electricians, and instrument technicians are essential to utility work
- Administrative, financial, and management occupations, such as customer service representatives and human resource specialists, also support water utility operations
- More than half of all water and wastewater utilities nationally have only one or two employees and about 85% have three or fewer

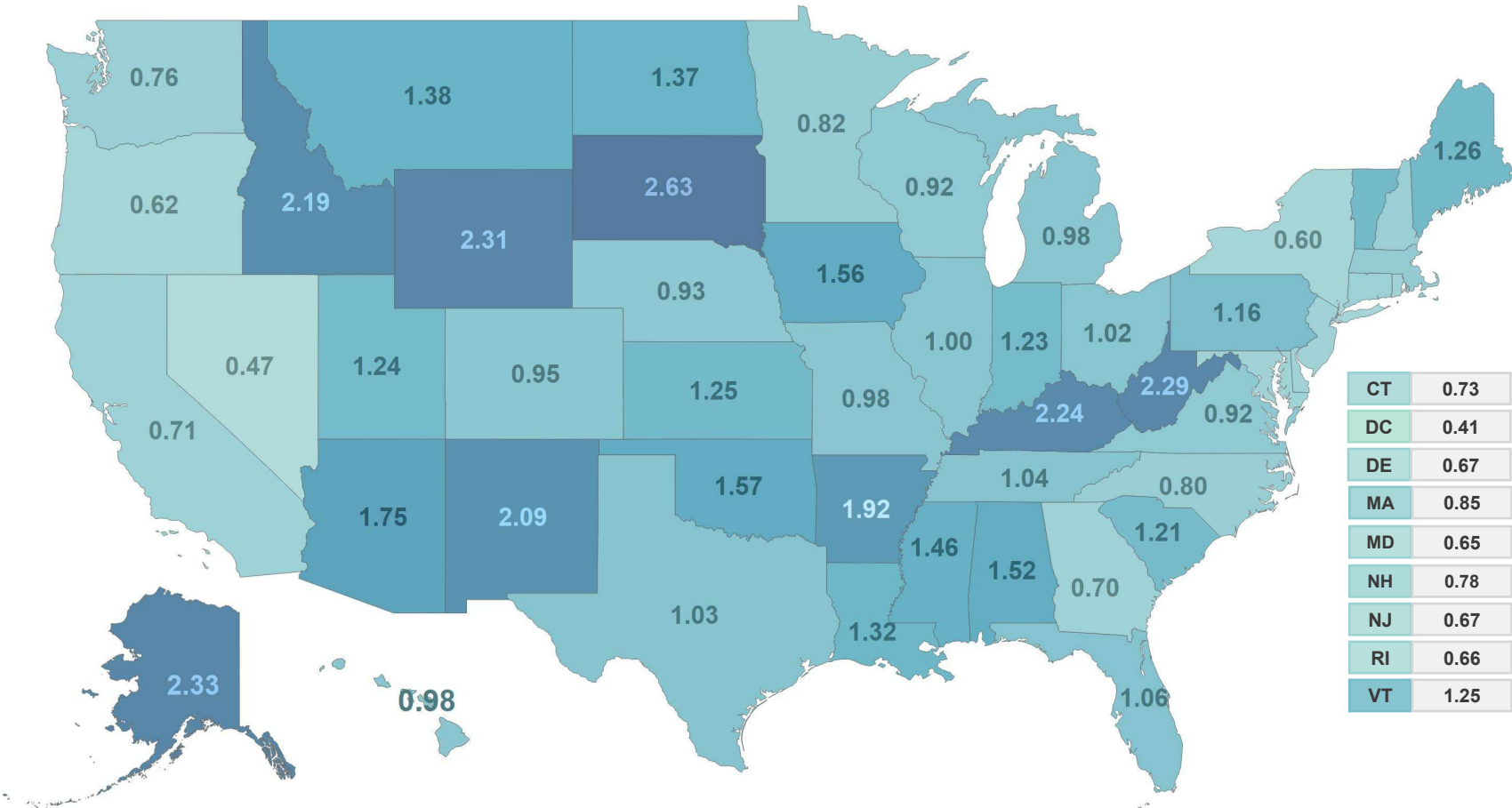
In May 2021, Water and Wastewater Employed 121,150 Treatment Plant and System Operators

Total Employment for Water and Wastewater Treatment Plant and System Operators by State

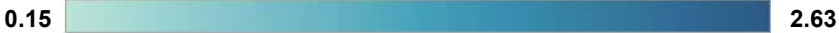


SOURCE [Bureau of Labor Statistics](https://www.bls.gov).

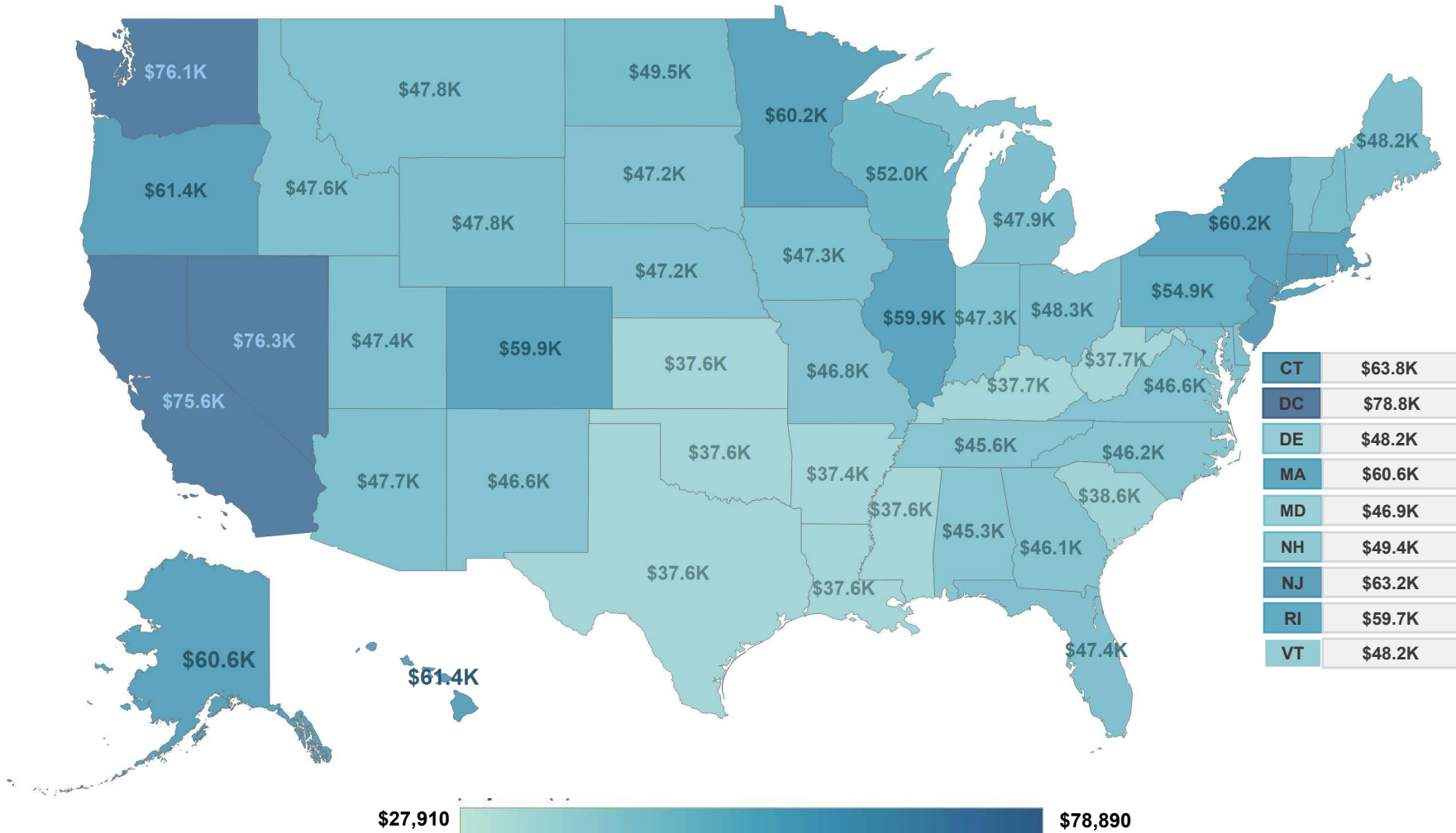
Concentration of Jobs in Water and Wastewater Treatment Plant and System Operators



A location quotient >1 indicates the occupation has a higher share of employment than average, and a location quotient <1 indicates the occupation is less prevalent in the area than average.

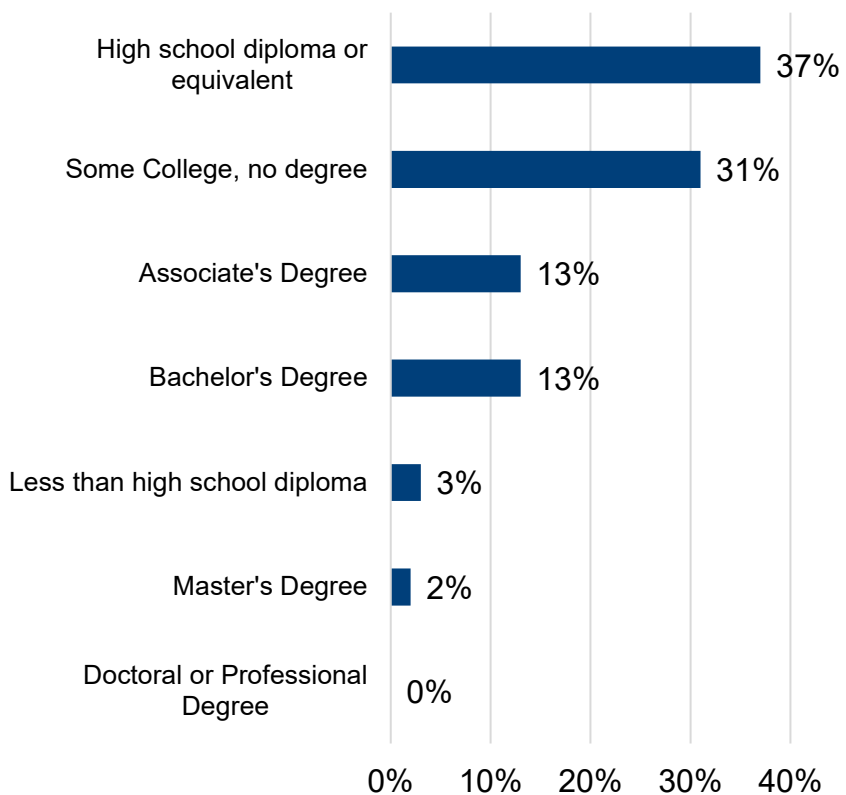


Median Wage for Water and Wastewater Treatment Plant and System Operators by State

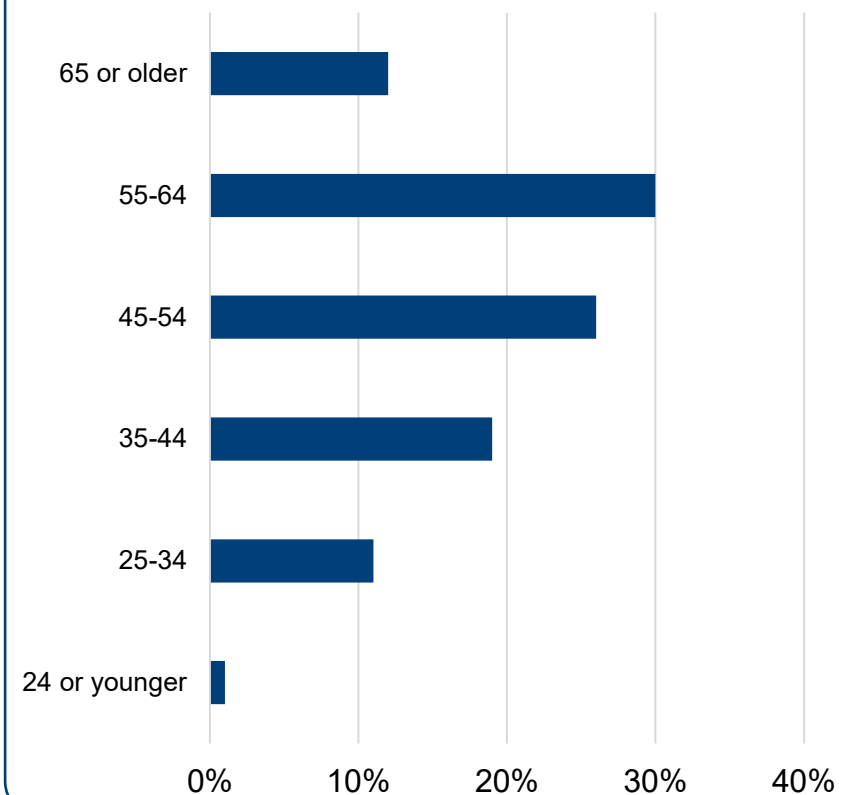


Demographics of Water and Wastewater Treatment Plant and System Operators

Education level of Water and Wastewater Treatment Plant and System Operators

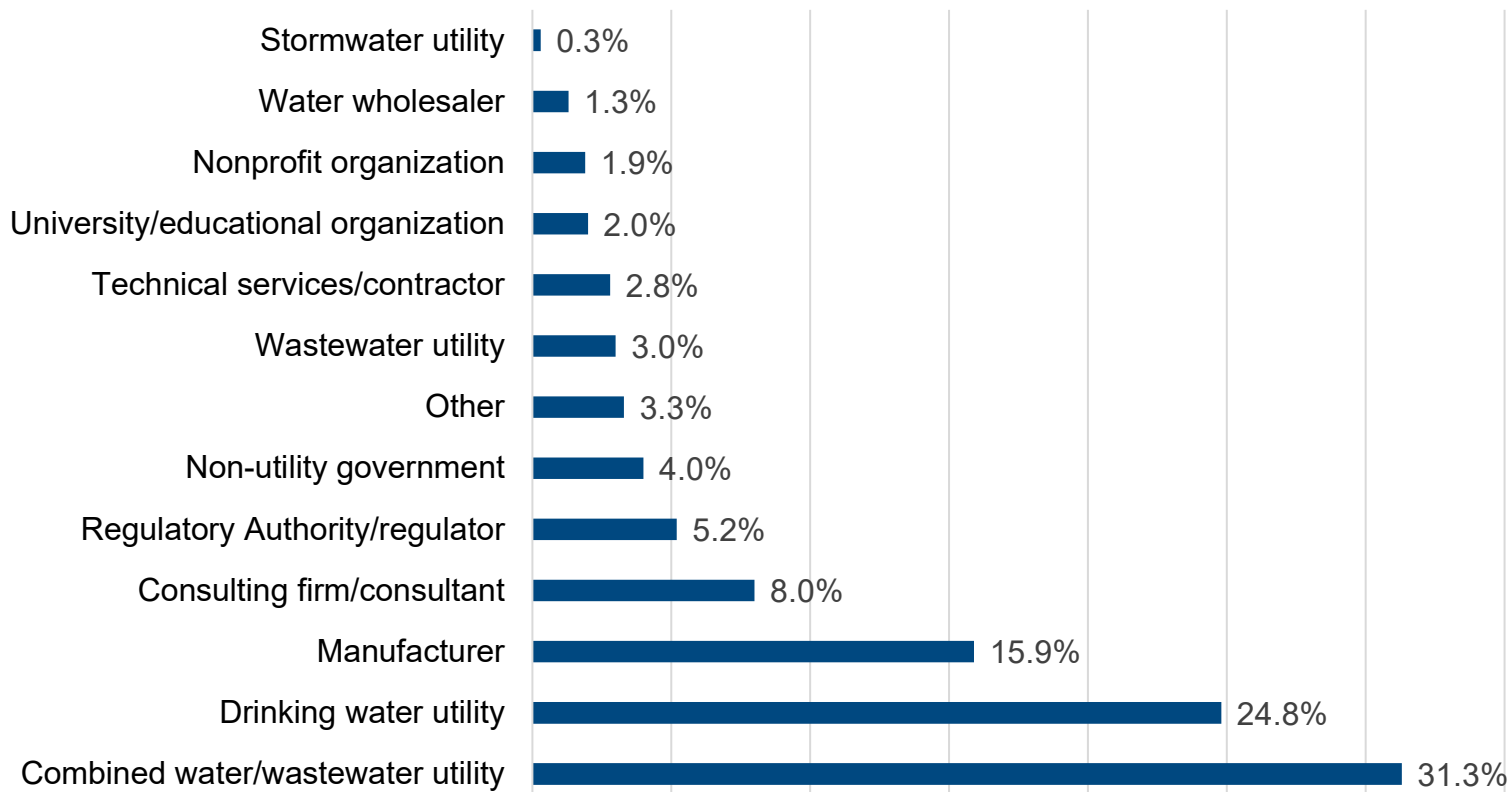


Age of Water and Wastewater Treatment Plant and System Operators



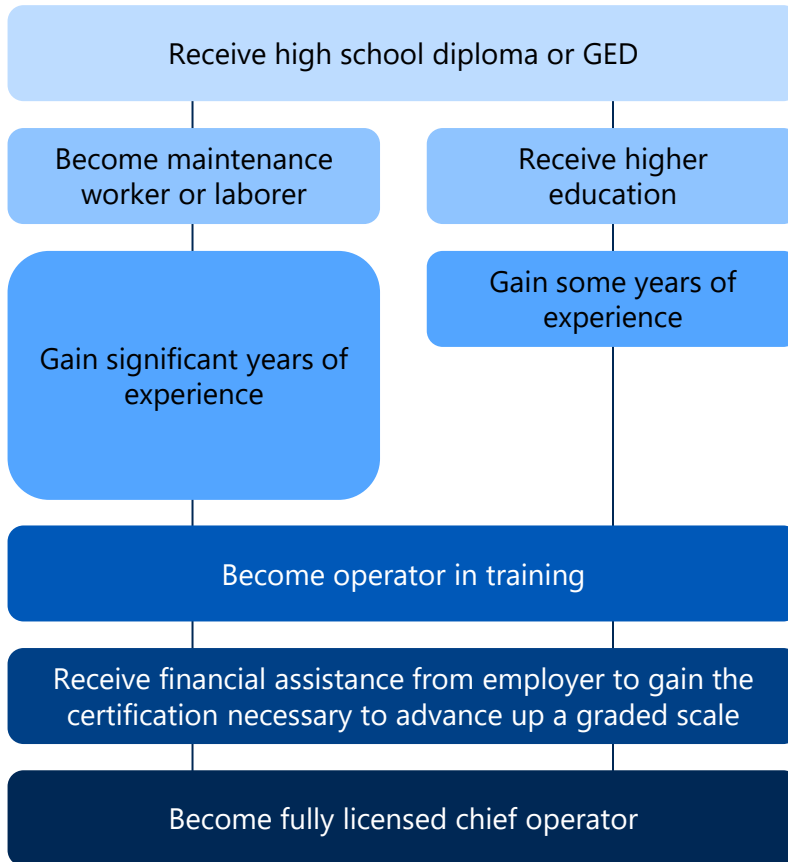
Employment of Water Workers by Organization Type

Respondents to the 2021 American Water Works Association State of the Water Industry survey by organization type



Spotlight: Traditional and Non-traditional Water System Operator Career Pathways*

Traditional pathways



Non-traditional pathways

- Weeks-long water “boot camps”
- Pre-apprenticeship programs and internships
- Water training through vocational high schools, community colleges, and adult education programs

*Abbreviated summaries of example pathways

Hourly Difference in Pay for Water and Wastewater Treatment Plant and System Operators Compared to State Average

Water workers, on average, earn a lower hourly wage (\$25.15/hr) than workers nationally (\$28.01/hr)

