

GAO Highlights

Highlights of [GAO-18-102](#), a report to the Chairman, Subcommittee on Interior, Environment, and Related Agencies, Committee on Appropriations, House of Representatives

Why GAO Did This Study

Safe operation of the nation's water utilities depends on access to a qualified workforce, particularly certified water operators. Industry reports have cited high rates of retirement eligibility and raised concerns about the water industry's ability to fill job openings.

GAO was asked to review workforce needs within the drinking water and wastewater industry. This report describes (1) what is known about workforce needs at water utilities compared with workforce needs nationwide and effects of potential unmet workforce needs on the utilities' compliance with the Safe Drinking Water Act and Clean Water Act; (2) approaches used by selected utilities to manage their workforce needs and challenges they have faced in managing those needs; and (3) ways in which federal programs can assist water utilities with workforce needs.

GAO reviewed workforce projections, relevant laws and regulations, agency documents, and industry studies and interviewed federal, local, and industry officials. GAO also conducted semi-structured interviews with a nongeneralizable sample of 11 water utilities, selected by size, location, and indications of workforce needs.

What GAO Recommends

GAO recommends that EPA add strategic workforce planning questions, such as the positions and skills needed in the future, to its inspection guidance documents. EPA generally agreed with GAO's recommendation as it related to drinking water, but neither agreed nor disagreed regarding wastewater. GAO believes the entire recommendation should be implemented.

View [GAO-18-102](#). For more information, contact J. Alfredo Gómez at (202) 512-3841 or gomezj@gao.gov or Cindy Brown Barnes at (202) 512-7215 or brownbarnesc@gao.gov.

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WATER AND WASTEWATER WORKFORCE

Recruiting Approaches Helped Industry Hire Operators, but Additional EPA Guidance Could Help Identify Future Needs

What GAO Found

Projections from the Department of Labor's Bureau of Labor Statistics (BLS) suggest that workforce replacement needs for water operators are roughly similar to workforce needs nationwide across all occupations; however, little is known about the effects of any unmet needs on compliance with the Safe Drinking Water Act and the Clean Water Act. BLS has projected that 8.2 percent of existing water operators will need to be replaced annually between 2016 and 2026. Although BLS projections are intended to capture long-run trends, rather than to forecast precise outcomes in specific years, this predicted replacement rate is roughly similar to the predicted rate of 10.9 percent for all workers across the U.S. economy. Limited information is available to determine whether retirements, or other workforce needs, are affecting drinking water and wastewater utilities' ability to comply with the Safe Drinking Water and Clean Water acts. At a national level, neither the water utilities' industry associations nor the Environmental Protection Agency (EPA) has analyzed whether there is a relationship between unmet workforce needs and compliance problems. EPA relies on states to inspect utilities to ensure compliance with the acts. EPA's inspection guidance documents, for both drinking water and wastewater, advise states to examine the quality and quantity of staff operating and maintaining water utilities. However, the guidance does not advise states to examine future workforce needs. GAO has found that future workforce needs can be identified through strategic workforce planning, which involves developing long-term strategies for acquiring, developing, and retaining staff to achieve program goals. By adding questions to EPA's inspection guidance on strategic workforce planning, such as the number of positions needed in the future, EPA could help make this information available for states to assess future workforce needs. Information on future workforce needs could help states and utilities identify potential workforce issues and take action as needed.

Representatives from 11 selected water utilities reported that by using various approaches, they were generally able to meet their current workforce needs but faced some challenges in doing so. Representatives from the selected utilities said that they recruit operators using word of mouth, websites, newspapers, and partnering with local technical schools. However, representatives from small utilities said that even with these approaches, they had difficulty hiring certified operators and instead hired and trained entry-level employees. Additionally, representatives from large utilities said they face difficulties in recruiting skilled workers, such as electricians and mechanics, part of a larger national pattern.

Five federal agencies that GAO reviewed—EPA and the Departments of Agriculture (USDA), Labor (DOL), Education, and Veterans Affairs (VA)—have programs or activities that can assist utilities with their workforce needs in several ways, including through guidance, funding, and training. EPA has worked with DOL and industry groups to develop a water-sector competency model to support industry training and with VA to help place disabled veterans in water industry jobs. In addition, USDA funds personnel who travel to rural utilities to provide hands-on assistance through its Circuit Rider program. Four of five small utilities GAO interviewed said they used this program and other USDA technical assistance for training operators.