Committee on Water
Renewing the Water Workforce
Improving Water Infrastructure and Creating a Pipeline to Opportunity

BROOKINGS

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Photo source: US Air Force
Who are water workers?

The water workforce captures the wide range of workers who are directly involved in the construction, operation, design, and governance of the country’s various water infrastructure systems.
Finding 1

In 2016, nearly 1.7 million workers in 212 different occupations were directly involved in designing, constructing, operating, and governing U.S. water infrastructure, spanning a variety of industries and regions.
Water utilities represent one of many employers in the water sector.

17.7%
298,000 workers

Source: Brookings analysis of BLS OES data

Photo source: Unsplash
Major water occupations include skilled trades and administrative and management positions.

- Plumbers: 324,500 workers
- Operating Engineers: 79,900 workers
- Office Clerks: 47,602 workers

Source: Brookings analysis of BLS OES data
Icon source: Flaticon
Water workers are found in every market across the country

Source: Brookings analysis of BLS OES data
Finding 2

Water occupations not only tend to pay more on average compared to all occupations nationally, but also pay up to 50 percent more to workers at lower ends of the income scale.
Water occupations pay higher wages, particularly at the 10th and 25th percentile.
Finding 3

Most water workers need less formal education, including 53 percent having a high school diploma or less.
Water workers tend to need less formal education than all workers nationally.
Instead, water workers often need more work experience and on-the-job training.

78%
Share of water workers needing 1+ years of related experience
2016

45%
Share of water workers needing 1+ years of on-the-job training
2016

Source: Brookings analysis of BLS OES and O*NET data
Photo source: Unsplash
Finding 4

Water workers tend to be older and lack gender and racial diversity in certain occupations.
The water sector lacks younger talent to replace an aging workforce

<table>
<thead>
<tr>
<th></th>
<th>Median Age</th>
<th>Share of younger workers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>46 years</td>
<td>10.2 percent</td>
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<tr>
<td>Water Treatment</td>
<td>42 years</td>
<td>12.5 percent</td>
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<tr>
<td>Operators</td>
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<tr>
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<td>42 years</td>
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</tr>
<tr>
<td>Nationally</td>
<td></td>
<td>12.5 percent</td>
</tr>
</tbody>
</table>

Source: Brookings analysis of CPS data
Women are largely absent from the water workforce

- 15% female All Water Workers
- 47% female All Workers Nationally

Source: Brookings analysis of CPS data
Icon source: Flaticon
Diversity is inconsistent across the water sector and in specific occupations

Racial diversity in water occupations compared to all occupations, 2016

- Black: 12% in all occupations, 9% in water-related occupations
- Asian: 6% in all occupations, 3% in water-related occupations
- Hispanic: 17% in all occupations, 22% in water-related occupations

Source: Brookings analysis of CPS data
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