

TRWA 2020 Fall Management Conference

Workforce Development & Retention Strategies

Nichol Howell, TRWA
Professional Development & Training Director



© Texas Rural Water Association

Today's Goals

A changing workforce creates a need for us to change our ways of thinking, of doing business, and of managing our workers.

The Why

Facts around workforce challenges and why it's so important that we have this discussion now.

The How

Tips and techniques on how to start, or continue, tackling this beast, that I synthesized from various sources.

SLIDE 2



Workforce Separations

“A tide of retirements is drastically cutting into the pool of skilled, qualified workers in many utilities and resulting in staffing vacancies of up to 50% in some cases.”

~ AWWA, 2019 ~

“From 2016 to 2026, the combination of separations and future growth in the water sector is projected to lead to an average of 9,200 annual openings for water and wastewater operators.”

~ The Bureau of Labor Statistics ~

“In the next 10 years, 37% of water utility workers and 31% of wastewater utility workers will retire.”

~ EPA, 2017 ~

“Many systems will likely experience losses of 30%-50%.”

~ Numerous sources, including NRWA ~

SLIDE 3

Workforce Challenges



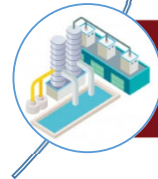
Low public awareness of the industry
of available jobs



Difficulty finding candidates with
skills and experience



Changes in our industry due to demographics
and automation



Many jobs in our industry require more extensive on-
the-job training

53% of
water/wastewater
workers have a high
school diploma/GED
or less, and 78% need
at least one year of
related work
experience.

SLIDE 4

TRWA Salary Survey: Education & Experience

Education

- **Wastewater Operators**
 - 71% = High School/GED
 - 0% = Bachelors Degree
- **Water Distribution/Field Operators**
 - 69% = High School/GED
 - 4% = Bachelors Degree
- **Lead Operators/Field Managers**
 - 73% = High School/GED
 - 6% = Bachelors Degree
- **Manager/Operators**
 - 59% = High School/GED
 - 10% = Bachelors Degree
- **Plant Managers**
 - 45% = High School/GED
 - 14% = Bachelors Degree

Experience

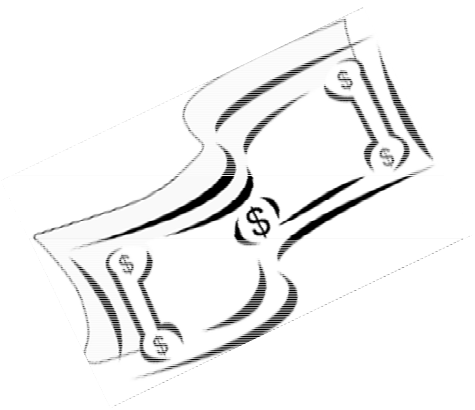
- **Wastewater Operators**
 - 86% = 0-15 years of experience
 - 14% = 15+ years of experience
- **Water Distribution/Field Operators**
 - 90% = 0-15 years of experience
 - 6% = 15+ years of experience
- **Lead Operators/Field Managers**
 - 52% = 0-15 years of experience
 - 46% = 15+ years of experience
- **Manager/Operators**
 - 36% = 0-15 years of experience
 - 44% = 15+ years of experience
- **Plant Managers**
 - 48% = 0-15 years of experience
 - 48% = 15+ years of experience

SLIDE 5

The TRWA 2020 Salary Survey Report is available for purchase for \$100 (complimentary for those who participated). The Rate Survey Report is also \$100, or you can purchase both reports for \$175. The 2018 reports are now 50% off. Visit the TRWA Store to order.

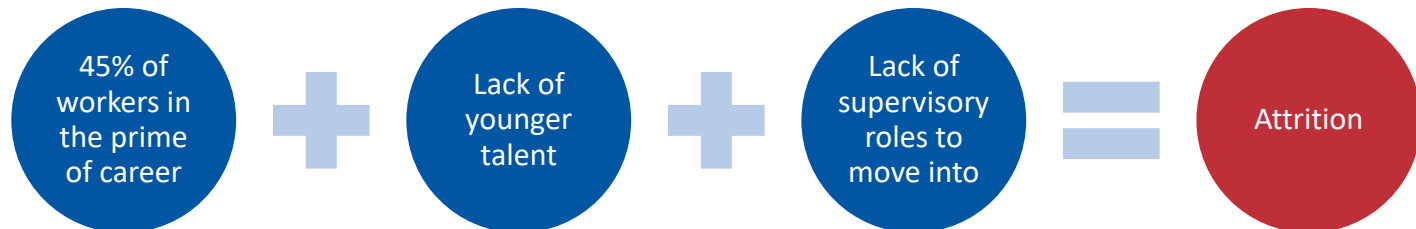


Retention Challenges



- Wastewater Operators = \$37,605
- Water Distribution/Field Operators = \$39,853
- Lead Operators/Field Managers = \$51,318
- Manager/Operators = \$55,376
- Plant Managers = \$60,195

**** salaries vary based on education, licensure, and experience ****



SLIDE 6

Workforce Planning



SLIDE 7

Succession Plan

Step 1

- **Identify Key Areas and Positions** = Identify which positions are critical to the organization's operational activities and strategic objectives; and if left vacant, would make it very difficult to achieve current and future business goals.

Step 2

- **Identify Capabilities for Key Areas and Positions** = To establish selection criteria, focus employee development efforts, and set performance expectations; you need to determine the relevant knowledge, skills, abilities, competencies, and capabilities required for the key areas and positions identified in Step 1.

Step 3

- **Identify Interested Employees and Assess Against Capabilities** = Consider key areas and positions that are vulnerable, and the candidates who are ready to advance, or those whose skills and competencies could be developed within the required time frame.

Step 4

- **Develop a Plan for Employee Development** = Define the learning, training, and development experiences that your organization requires for key areas and positions and link employees' learning plans to the knowledge, skills, and abilities required for current and future roles.

SLIDE 8

Knowledge Management Plan

Shift to electronic
O&M manuals

Video special
procedures

Allow for job-
shadowing and
cross-training prior
to retirements

Provide new
employees
orientation and
job rotations

Maintain files that
document policy
decisions

Conduct exit
interviews with
knowledge
transfer questions

SLIDE 9

EPA Knowledge Retention Tool

Sheet No.	Type of Resource	Description	Information Captured
1	Checklist	Handoff Checklist	Review and acknowledgement that everything has been documented
2	General	System Overview	General system information
3	Administrative	Documents	Important documents for system operation
4	General	People	Important contacts and their information
5	General	Source Water	Source water information
6	Quick Response	Emergencies	Emergency preparedness contacts and documents
7	Quick Response	Security	Security system information
8	System Operation	Filtration and Treatment	Water treatment mechanisms
9	System Operation	Process Monitoring and Sampling	Sampling techniques and frequencies for compliance and process monitoring
10	System Operation	Operational Supplies	Supplies used in standard operation and where they can be obtained
11	System Operation	System Maintenance	Maintenance and flushing activities
12	System Operation	Storage	Water storage information
13	System Operation	Distribution	Distribution infrastructure and information
14	Administrative	Rules and Regulations	Applicable legislation
15	Administrative	Technology	Operational system software usage
16	Administrative	Operator Certification	Operator certification information
17	Other	Neighboring Utilities	Contact and additional information about neighboring utilities
18	Other	Other Information	Miscellaneous water system information

SLIDE 10 https://www.epa.gov/sites/production/files/2018-03/knowledge_retention_tool_spreadsheet_for_small_water_systems.xlsx

Recruitment Strategies

- Investigate why identifying and hiring skilled workers remains a struggle and create more proactive, innovative recruiting strategies.
- Expand existing campaigns to raise awareness about both the water and wastewater industry and skilled trades.
- Place ad campaigns on high visibility public spaces to broadcast messaging about job opportunities and training resources.
- Attend career fairs in the community and join professional associations.
- Establish an employee referral program.
- Partner with local high schools.
- Look for talent in places that may not traditionally have attracted as much attention.

SLIDE 11

Training Strategies

On-the-Job Training

Expend efforts into growing your leadership talent to create a pipeline among the supervisory and managerial ranks.

Provide current employees with advanced technical training in the areas of automation and digital technology.

Participate in the TRWA apprenticeship program, to help fill positions with candidates lacking industry experience.

SLIDE 12

Retention Strategies



SLIDE 13

**Coming
in 2021!**

TRWA Workforce Development Programs

Apprenticeship Program

In 2017, NRWA established and certified its National Guideline Standards of Apprenticeship for Water and Wastewater Operation Specialists through the U.S. Department of Labor.

In an effort to assist the Texas public water systems in recruiting and filling positions with trained and competent workers, TRWA will launch a Registered Apprenticeship Program (RAP) in 2021. When you partner with TRWA, you leverage an established framework, where the apprentices work for you, but the overall operation of the apprenticeship program is managed by us, the program sponsor.

This 2-year program is tailored to transfer the wealth of experience and knowledge from industry experts to the next generation of system operation specialists. Individuals accepted into the program will receive both on-the-job training and technical instruction.

SLIDE 14

Veteran's Employment Program

TRWA will re-establish the Veteran Employment Program (VEP) first implemented in 2014, as a means to help you attract veteran workers. TRWA implemented the program to inspire and mobilize new interest and talent to work in the rural water and wastewater industry. This is an on-the-job training program approved by the Texas Veterans Commission (TVC) and once the veteran is hired by a water or wastewater utility that is approved as a TVC training facility, he or she is eligible for a monthly stipend from the U.S. Veteran's Administration. This stipend is in addition to his or her regular salary.

Companies that hire veterans can provide added incentives by becoming approved for GI Bill, which assists their current and future veteran employees with using the benefits they've earned towards tuition, fee payments, and a tax-free monthly housing allowance.



Contact Information

Nichol Howell
Professional Development & Training Director
nichol.howell@trwa.org
512-289-9850 (M)



© Texas Rural Water Association