



Smart Management for
Small Water Systems

Workforce Planning for Illinois Water Systems

Sept. 18, 2019 | Webinar

www.efcnetwork.org



Government Finance Officers Association

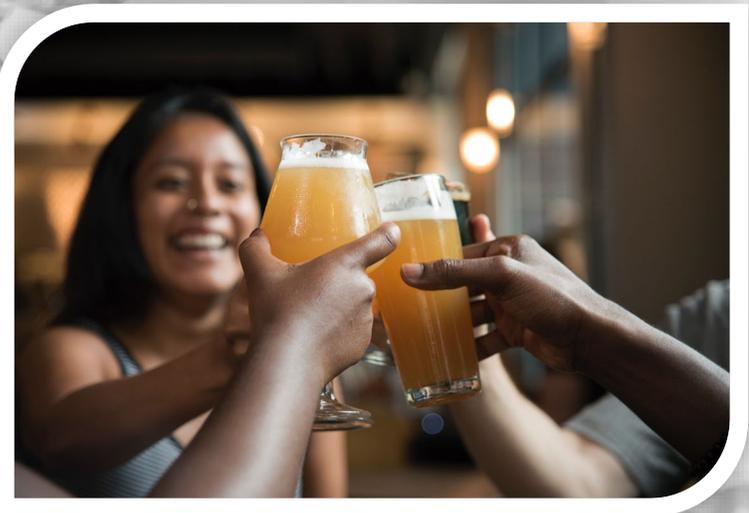
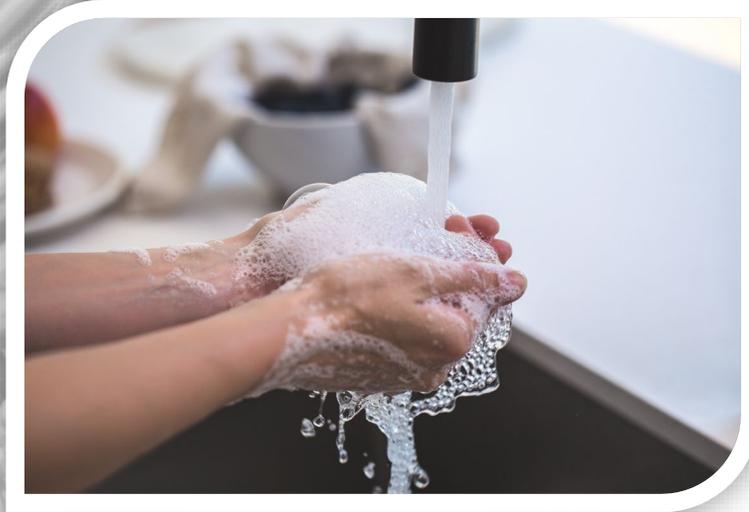
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Today's Topics

- ✓ Why Water is Important
 - ✓ The State of the Water Workforce
 - ✓ Succession Planning Tips
 - ✓ Recruiting Water Workers
 - ✓ How to Keep Great Workers
- 

WATER





H2O Reality

the glass is half empty

- Crumbling infrastructure
- Aging treatment plants
- Economic vitality at risk
- Rising costs
- Deteriorating sources
- Shrinking workforce

The image features a hand in the bottom right corner, turning a large black gear. The scene is filled with various other gears in shades of blue, black, and grey, and a shower of colorful confetti (red, yellow, blue, pink) falling from the top. A dark blue horizontal band is positioned across the upper portion of the image.

Although our public water problems are real, they are *fixable*.

Nice work!



Illinois Webinar Series:
Water Financial Management
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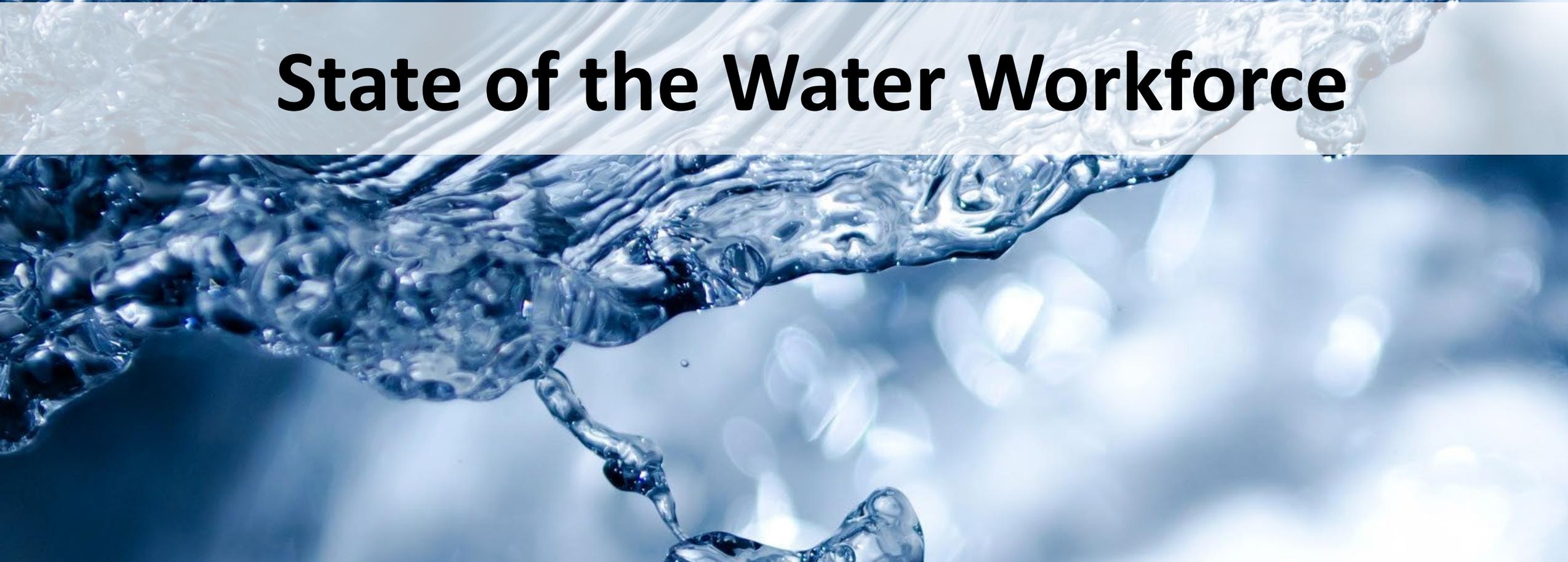


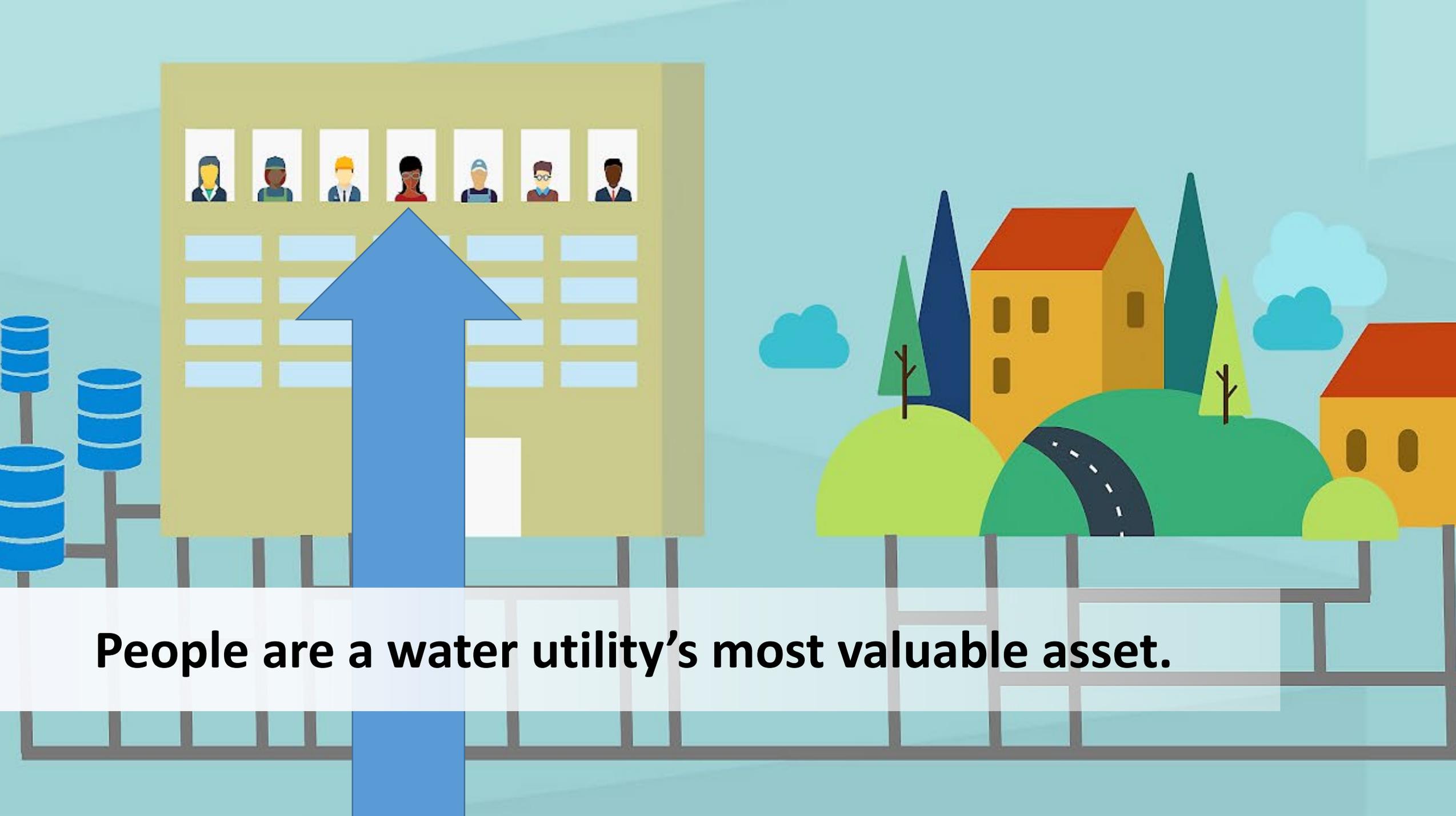
Illinois Webinar Series:
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October 2, 2019

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State of the Water Workforce





People are a water utility's most valuable asset.

2019 State of the Water Industry: A Rising Tide?

Dawn Flancher

First published: 01 July 2019 | <https://doi.org/10.1002/awwa.1327>

2,000 survey responses from a variety of water professionals

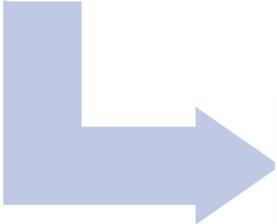


2019 Ranking	Category	Average	Critically Important %
1	Renewal and replacement of aging water and wastewater infrastructure	4.56	63
2	Financing for capital improvements	4.47	55
3	Long-term water supply availability	4.39	55
4	Public understanding of the value of water systems and services	4.16	40
5	Watershed/source water protection	4.15	39
6	Public understanding of the value of water resources	4.13	37
7	Groundwater management and overuse	4.08	34
8	Aging workforce/anticipated retirements	4.06	39
9	Emergency preparedness	4.06	33
10	Cost recovery (pricing water to accurately reflect the cost of service)	4.03	30

The Water Workforce Problem

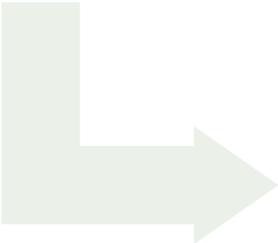
Economic Disparity

- Struggle to achieve equitable and inclusive employment opportunities



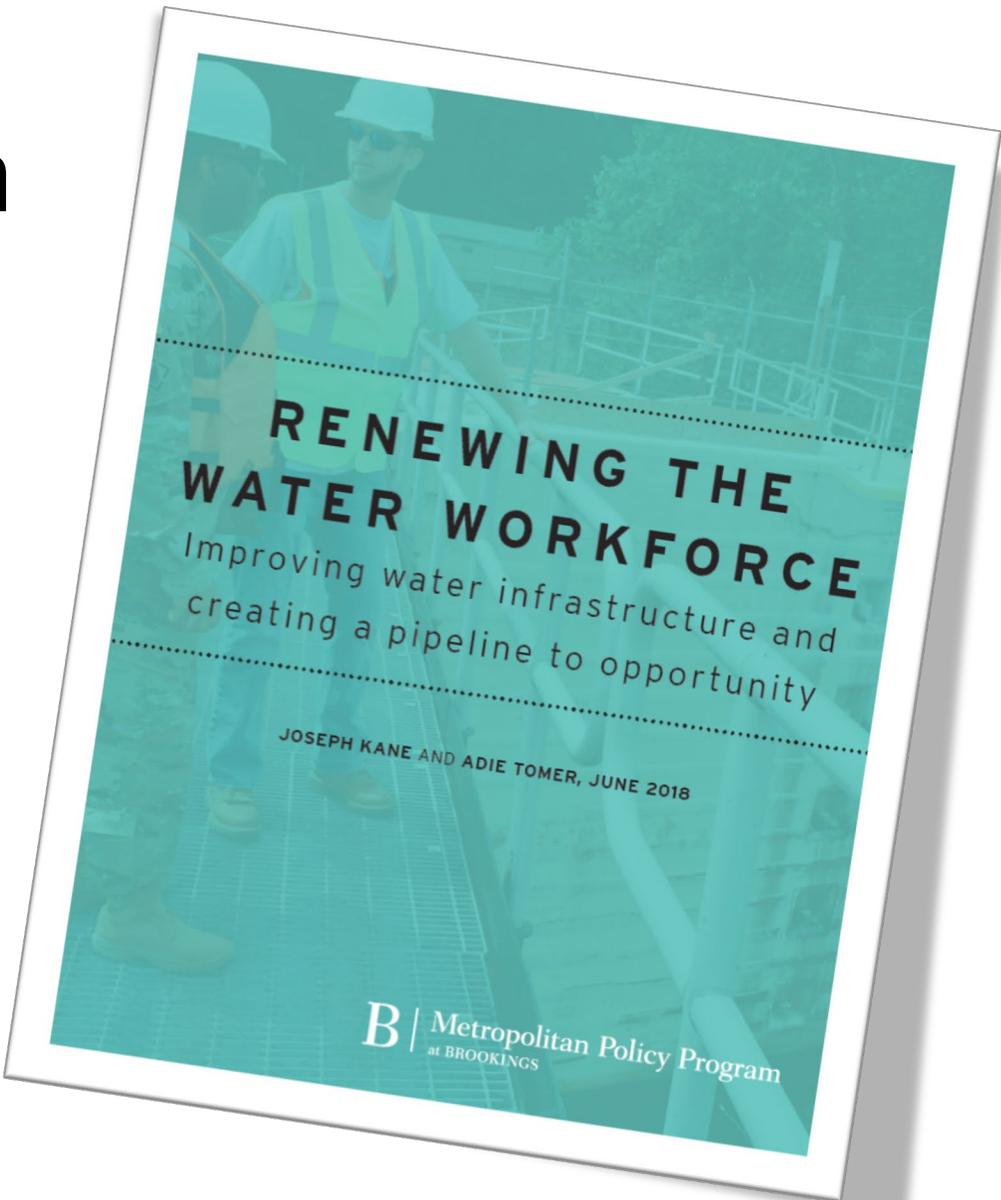
Aging Infrastructure

- Urgent repair, maintenance, and restoration needs



Employment Gap

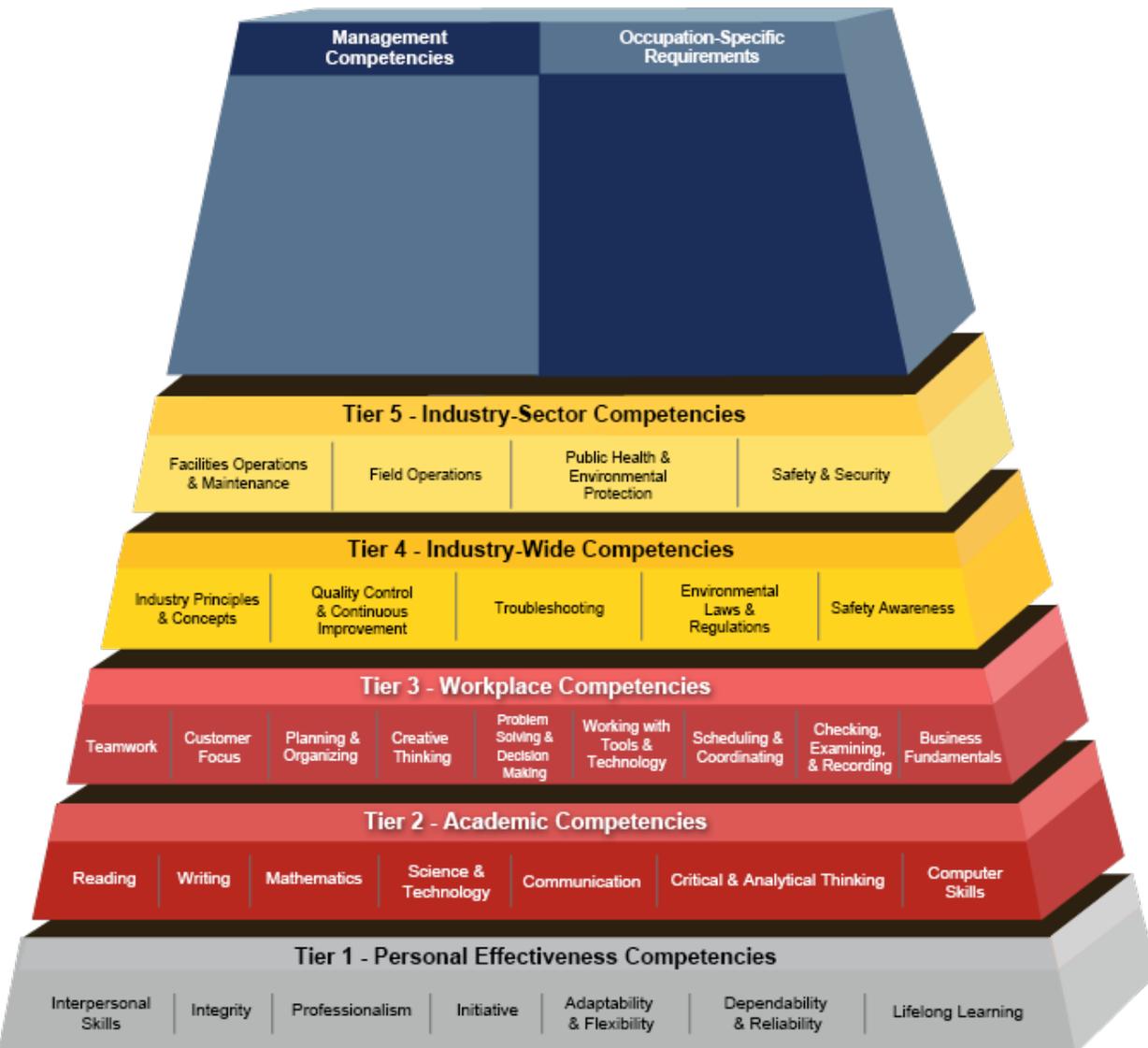
- Short supply of capable new talent.







Water and Wastewater Competency Model



- Facilities Operation/Maintenance
- Field Operations
- Public Health & Environmental Protection
- Environmental Law/Regulations
- Safety & Security
- Troubleshooting
- Quality Control/Continuous Improvement
- **Teamwork**
- Customer Focus
- Planning/Organizing
- **Creative thinking**
- Problem solving/decision-making
- Working with technology/tools
- Computer skills
- **Integrity**
- **Interpersonal skills**
- **Initiative/Drive**
- **Flexibility**
- **Dependability**
- **Lifelong Learning**



Succession Planning



Succession Planning

Systematic approach to **building replacement workers** to **ensure continuity**, by identifying potential successors in *critical* work processes



Why We Plan: 2 Stories



Are You Ready for People to Leave?

Retirement

Leaving for a different job

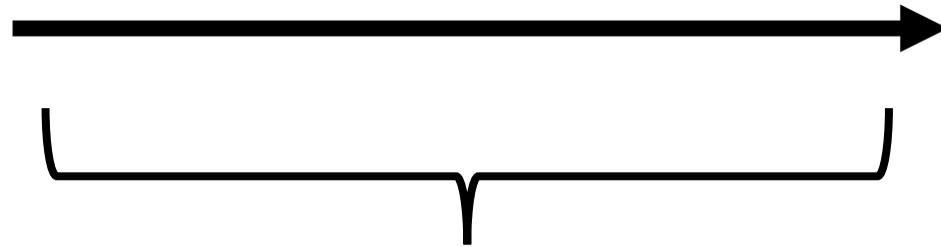
FMLA

Other circumstances...





Current State



Desired State

Action Plan

- Step 1 _____
- Step 2 _____
- Step 3 _____
- Step 4 _____

First: Current State of workforce

What do you have today?

Employee Profile

- Age and years of service
- Competencies, skills and certifications
- Knowledge

Workforce Breakdown

- Managers
- Lab staff
- Operators
- Maintenance

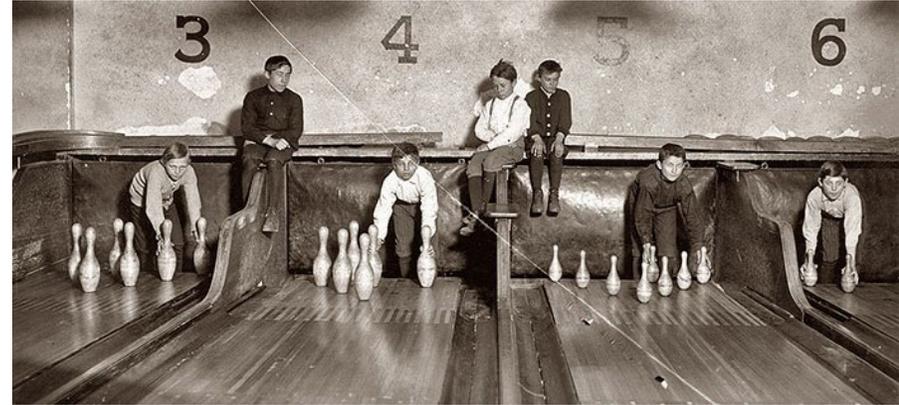
Community Demographics

- Population
- Businesses
- Tourism



Second: Desired State of workforce

What do you need 5 – 10 years from now?



External Changes

- ▶ Local demographic changes
- ▶ Environmental changes
- ▶ Political changes
- ▶ Technological changes
- ▶ Regulatory changes

Internal Changes

- The way work is done
- Interagency agreements
- Contractors
- Job structure
- Shift changes

Analyze Workforce Gaps



Workforce Demand Desired State

- ✓ Knowledge
- ✓ Skills
- ✓ Competencies
- ✓ Positions Needed
- ✓ Technologies



Workforce Supply Current State

- ✓ Knowledge
- ✓ Skills
- ✓ Competencies
- ✓ Age/Years of Service



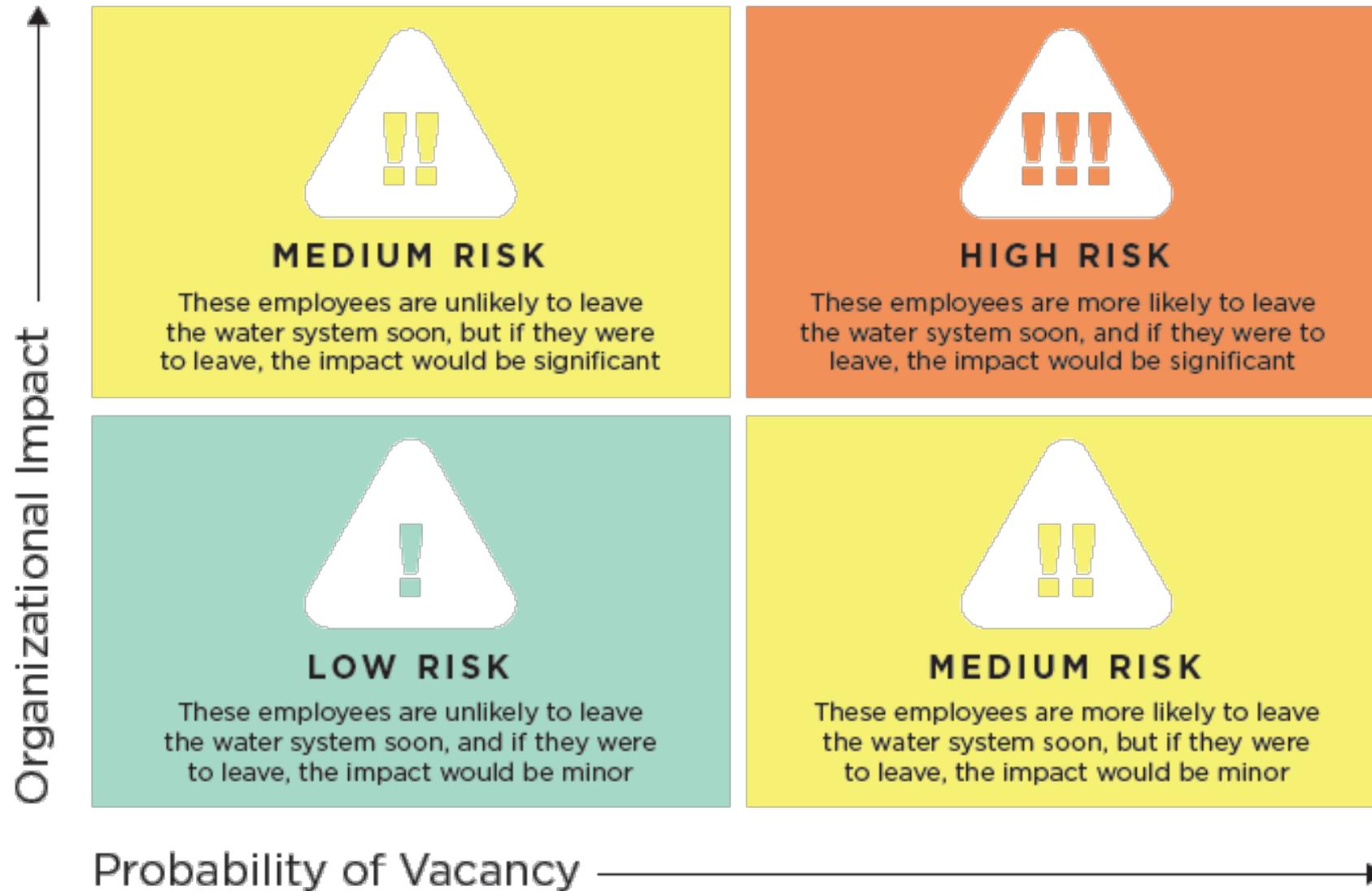
GAP

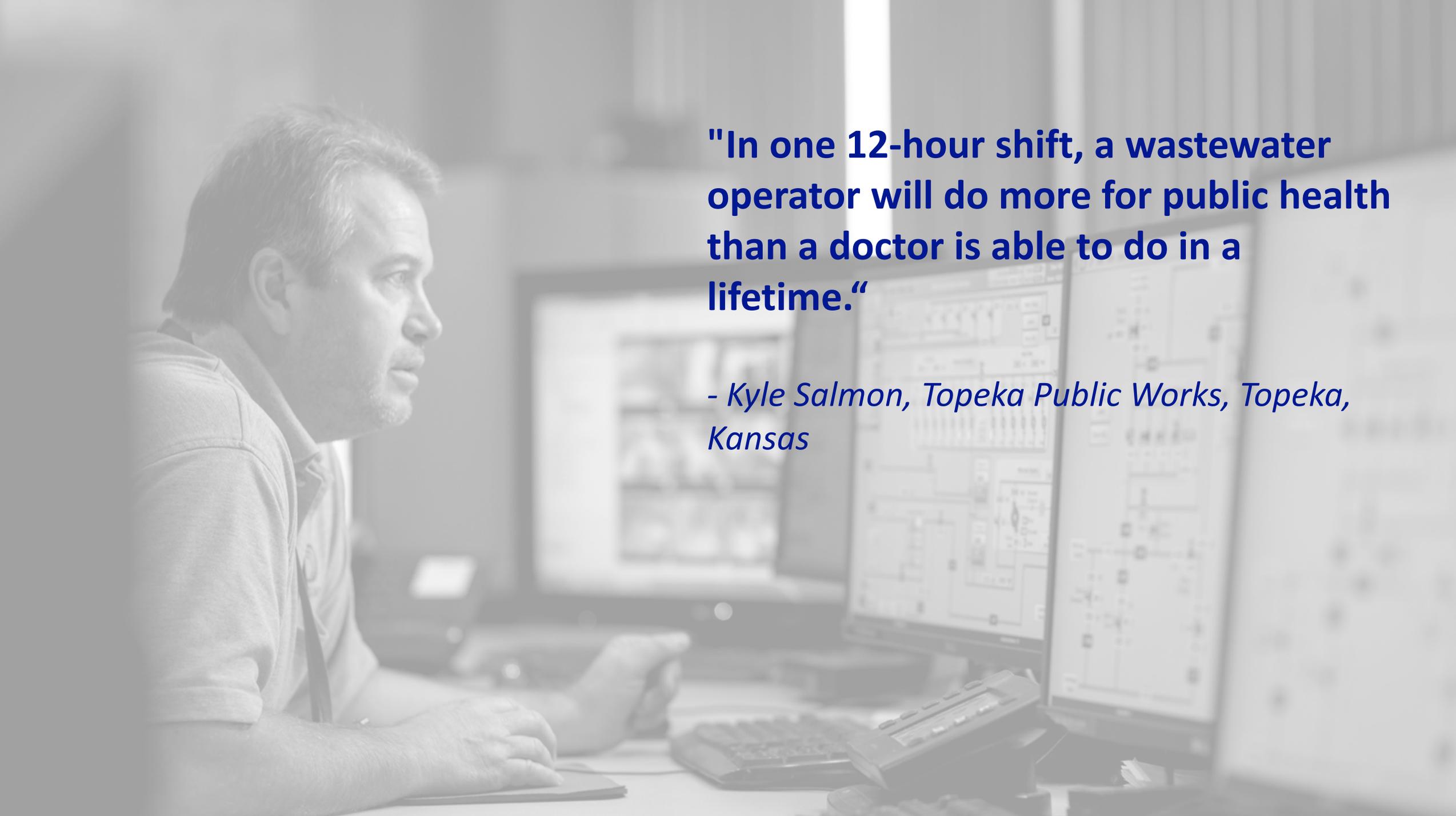
Your Human Resource Gap

- ✓ Identify what is missing
- ✓ Succession Plan is formed to fill the gap



Human Capital Criticality



A grayscale photograph of a man in profile, sitting at a desk in a control room. He is looking at several computer monitors. The monitors display various data, including what appears to be a map or a technical diagram. The man is wearing a light-colored polo shirt. The background is slightly blurred, showing more of the control room environment.

"In one 12-hour shift, a wastewater operator will do more for public health than a doctor is able to do in a lifetime."

- Kyle Salmon, Topeka Public Works, Topeka, Kansas



Recruiting Water Workers



How can we get others Excited About Working in Public Works?



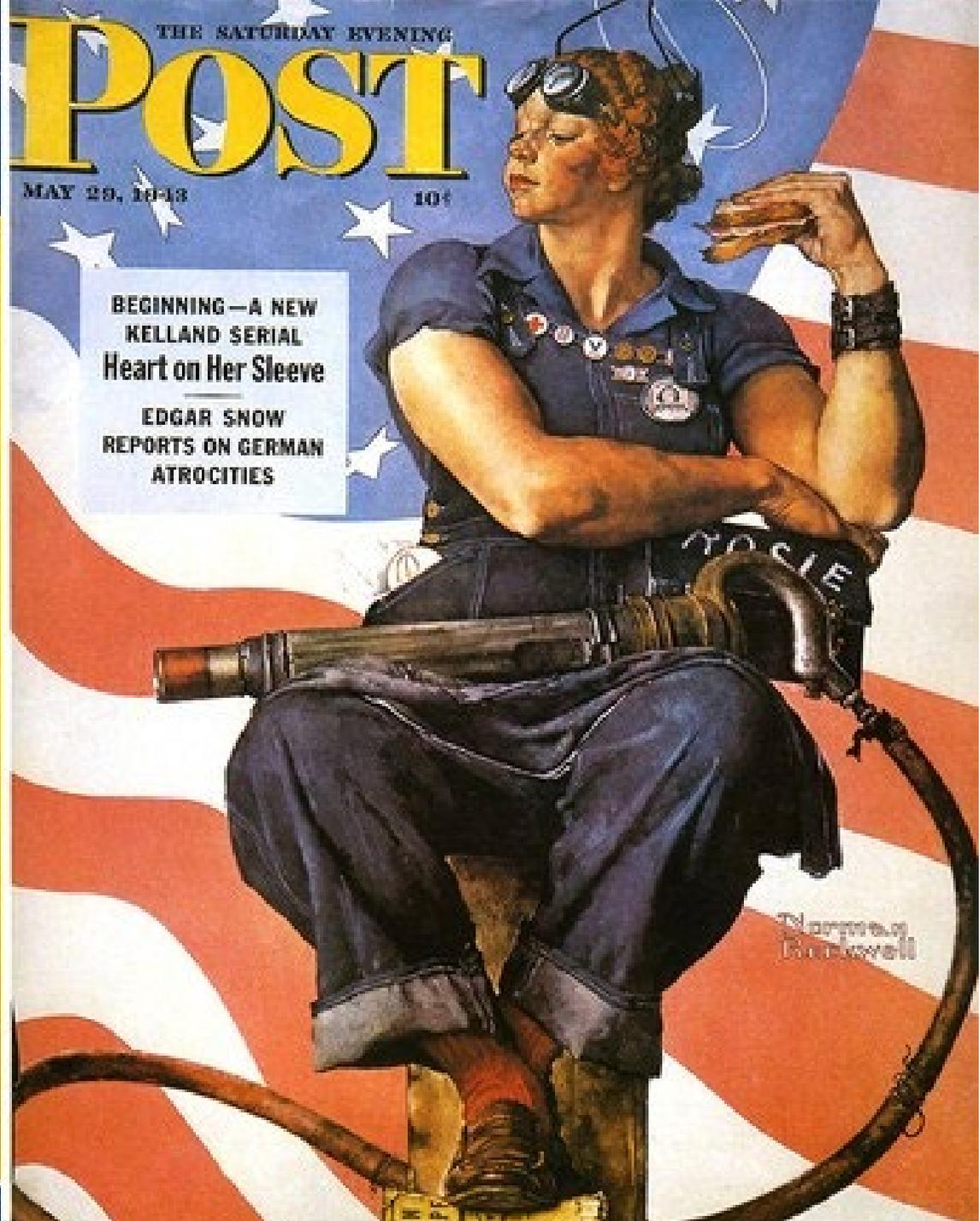
We Can Do It!



J. Flax



WAR PRODUCTION CO-ORDINATING COMMITTEE



MAY 29, 1943

10¢

BEGINNING—A NEW
KELLAND SERIAL
Heart on Her Sleeve

EDGAR SNOW
REPORTS ON GERMAN
ATROCITIES

Norman Rockwell



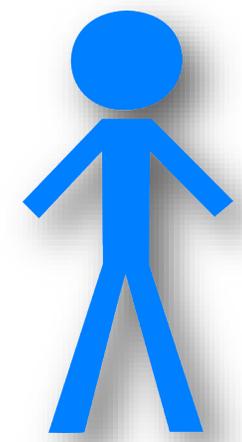
Promote Benefits of Working in Water



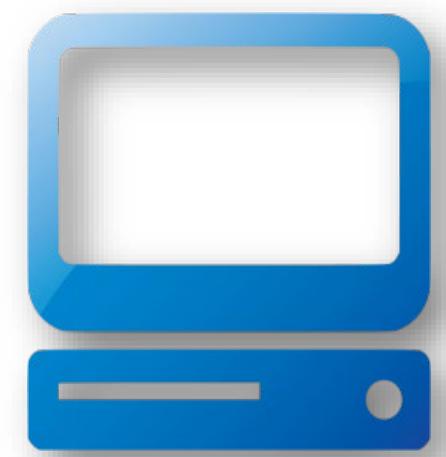
Environmental
Stewardship



Public Service



Personal Benefits



High-Tech Nature



Environmental Stewardship

Are you ready to...
improve the environment
and make a profound
difference in the
community?

At DC Water, you can look forward to a satisfying career that offers a competitive salary and excellent benefits. We're committed to providing world-class water and wastewater services as a leading environmental steward. By joining DC Water you too can make a difference.

DC Water is a government employer for purposes of the Federal Public Service Loan Forgiveness Program.

Your search for a rewarding career with DC Water starts here.

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Public Service

50	Million gallons of water pumped everyday
6,000	Customers that rely on our clean water everyday
2,000,000	gallons of water used per day to care for the animals at the San Antonio Zoo
300,000,000	gallons the National Hockey League Uses per season – <i>it takes 12,500 gallons to make ice for each rink</i>



Operators Say...

The most satisfying aspect of their work is contributing to the environment and public health



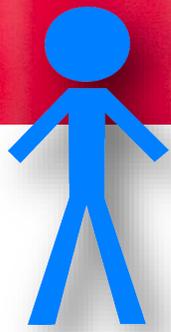


Advancement Opportunities

“You have the opportunity to move around and try a variety of jobs with Public Works”

*Deshonia Moore
~ Power Sweeper Operator*





Professional Development & Paid Training



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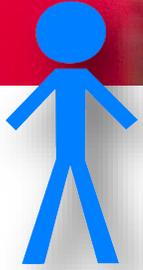
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Professional Organizations





Showcase Technology

Sodium Hypochlorite System Overview
Sodium Hypochlorite Transfer System

Flow ID	Flow Rate	Unit	Status
Flow #1	82.7	gpm	OK
Flow #2	1757	gpm	OK

Fiber Aid Polymer

Flow ID	Flow Rate	Unit	Status
Flow #1	0.0	gpm	OK
Flow #2	0.0	gpm	OK

Settled Water

Flow ID	Flow Rate	Unit	Status
Flow #1	16.1	gpm	OK
Flow #2	1757	gpm	OK

Plant Security

A detailed map of the plant layout with various tanks and buildings labeled. The map is color-coded and includes a legend on the left side.

Ozone Generator #1

Parameter	Value	Unit	Status
Flow	100	gpm	OK
Pressure	100	psi	OK

Water Quality Control

Parameter	Value	Unit	Status
Flow	100	gpm	OK
Pressure	100	psi	OK

Water Quality Control

Parameter	Value	Unit	Status
Flow	100	gpm	OK
Pressure	100	psi	OK



Develop & Update Job Descriptions

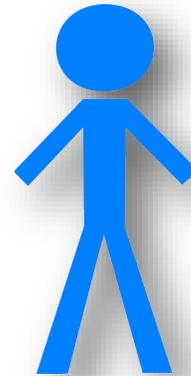
Communicate knowledge, skills and abilities that align with industry re-branding



Environmental
Stewardship



Public Service

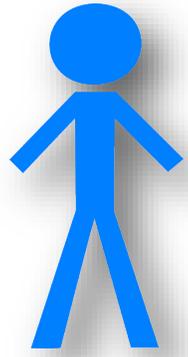


Personal
Benefits



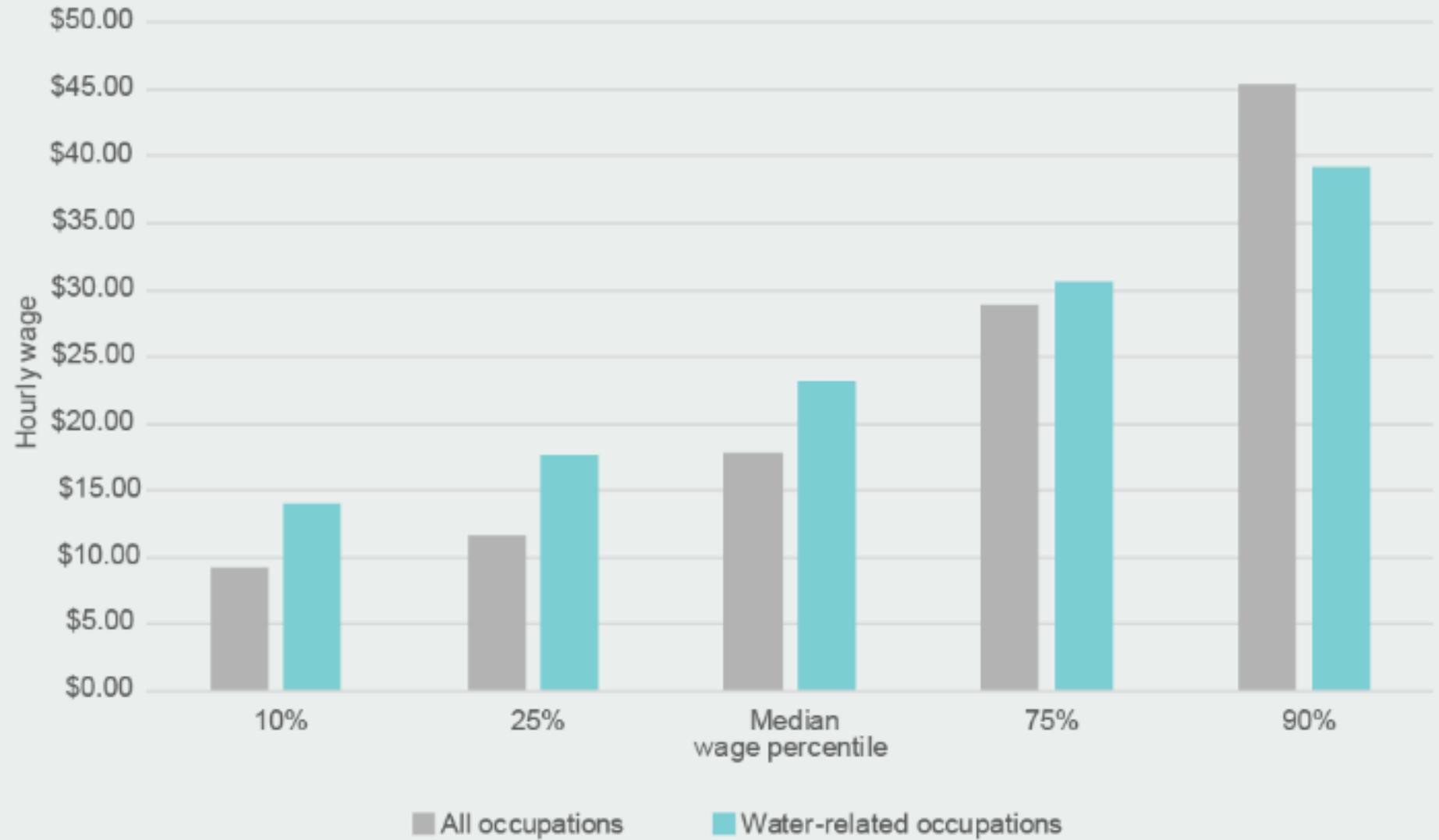
High-Tech
Nature

Tip: Start with existing job postings and first gather input from the job description



Competitive Wages

U.S. Hourly Wage Comparison: Water Occupations vs. All Occupations, 2016



Source: Brookings analysis of BLS Occupational Employment Statistics

A grayscale photograph of a water operator wearing a hard hat and safety vest, leaning over a large pipe at a water treatment facility. The background shows industrial structures and a large building.

Do we pay water operators like we pay pharmacists? Because that's essentially what a water operator is, a pharmacist for the entire community.

*- Bill Teichmiller, CEO of EJ Water Cooperative, Inc.
Dieterich, Illinois*



Staff Retention Strategies



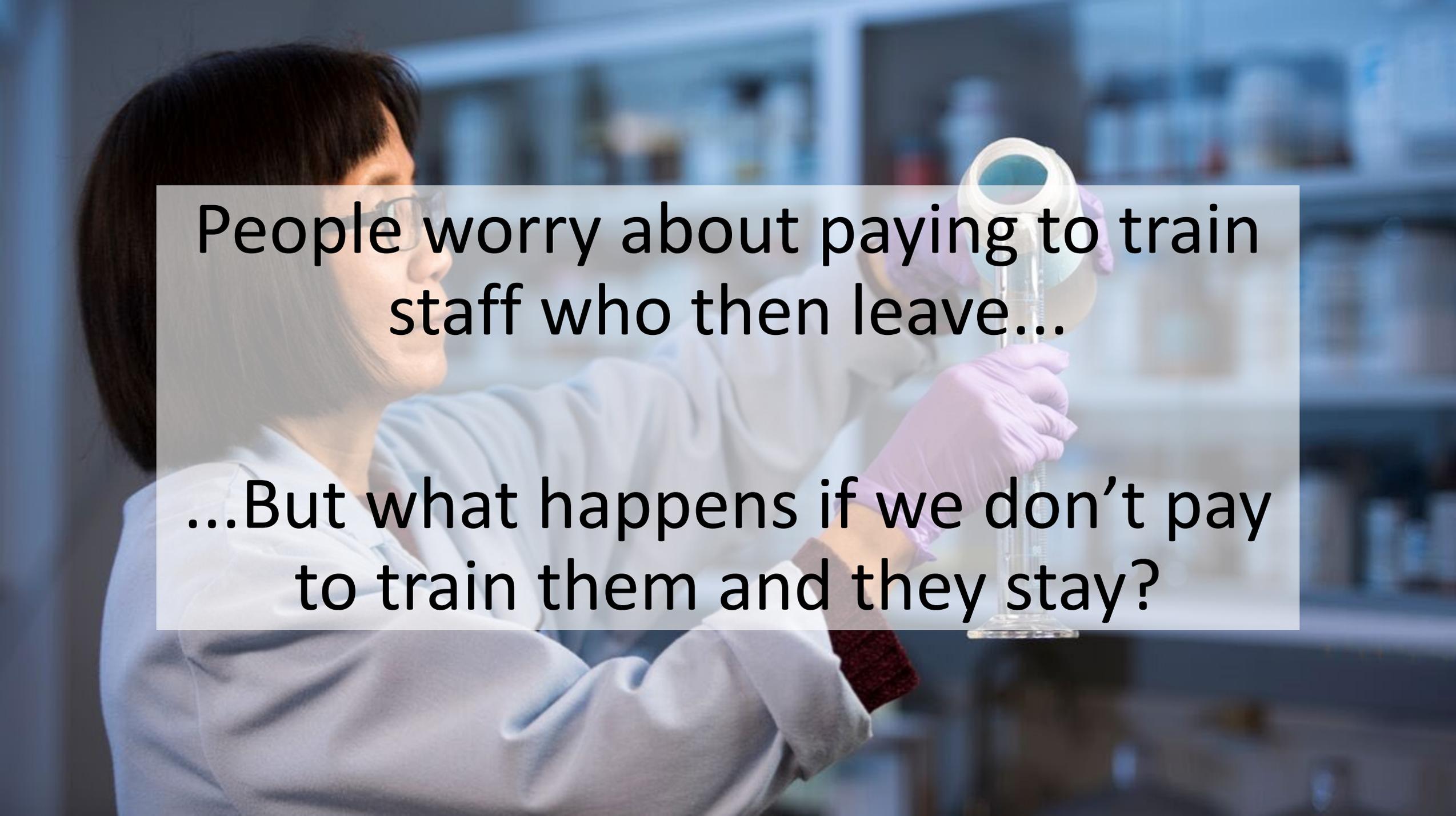


Retention

- Compensation and Salary
- Evaluation
- Training
- Continual Employee Focus



Fifty-two percent of exiting employees say their manager or organization could have done something to prevent them from leaving. (*Gallup.com report*)

A woman with dark hair and glasses, wearing a light blue lab coat and purple gloves, is working in a laboratory. She is holding a glass beaker with a blue liquid inside, and a test tube is held in a clamp. The background is a blurred laboratory setting with shelves and equipment.

People worry about paying to train staff who then leave...

...But what happens if we don't pay to train them and they stay?

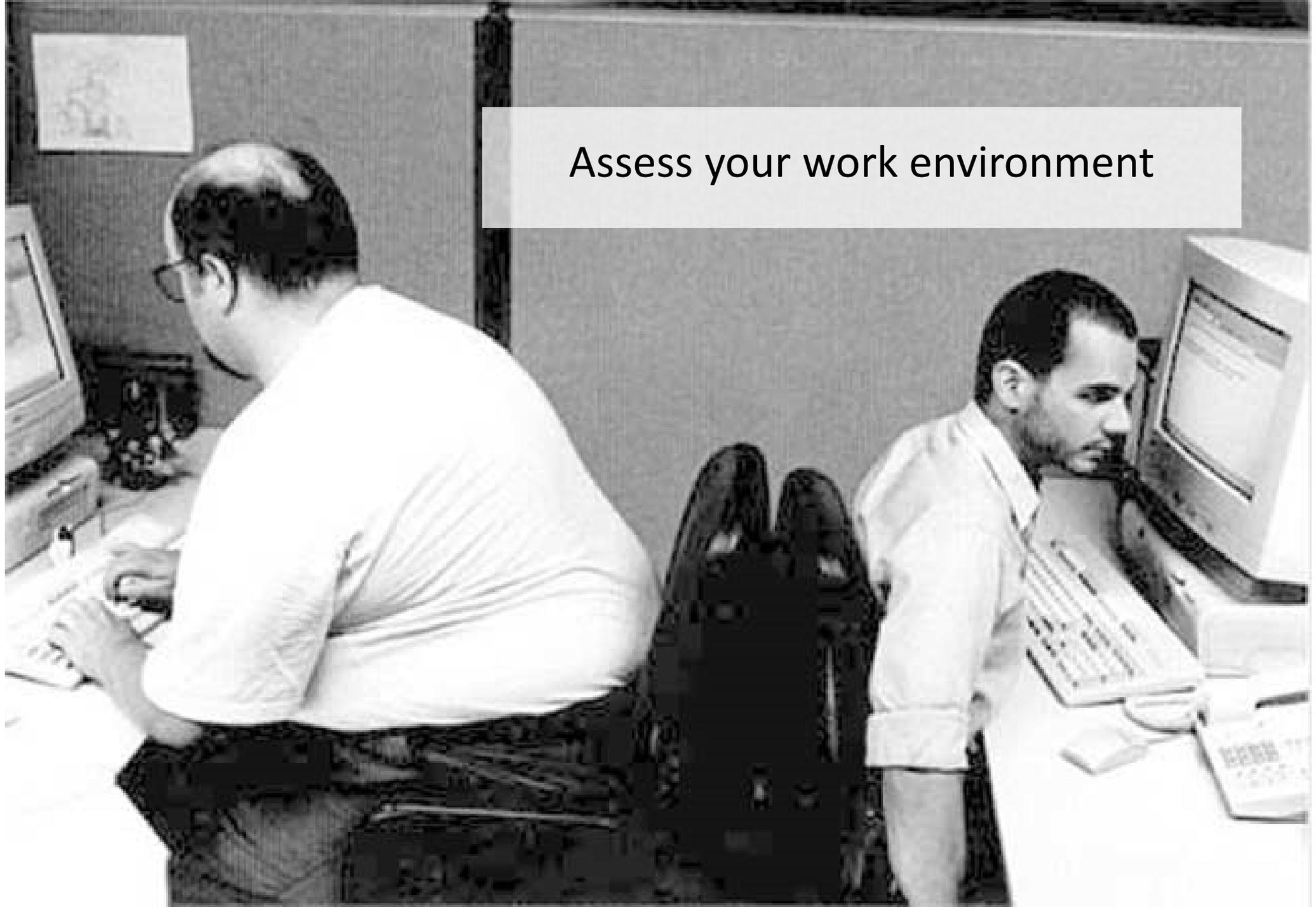


Retention

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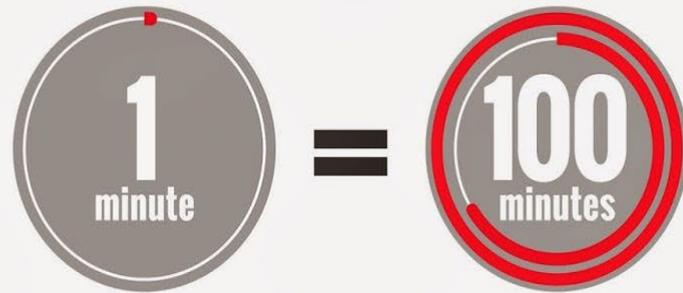


Assess your work environment



Recognition!

“ Recognition is proven as among the best method of improving work motivation and employee engagement. ”



1 minute spent on recognising behaviour = 100 minutes of initiative in return.



Yet 2 out of 3 people receive no workplace recognition in a given year.





The Wrap-up

- Why Water jobs are important
- Water Workforce Challenges
- Succession Planning
- Recruitment
- Retention





Questions?

*If you think of questions or are viewing this webinar later: just email us at **smallsystems@syr.edu***