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Center for Sustainable
Infrastructure



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Infrastructure NEXT:

Water Workforce Needs Assessment


Rhys Roth

Image courtesy of Clean Water Services


Infrastructure NEXT



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Technical Assistance

Audience: Infrastructure providers in distressed communities

Services: Value planning, convening, decision support, innovation, etc.

Goal: Effective, affordable, integrated infrastructure investments.


Workforce Needs for Water

Audience: Utilities, colleges, and job training programs


Product: Informs programming and investment in human capital

Goal: A reliable, qualified workforce the for sustainable design, construction, maintenance, and leadership jobs of tomorrow


Water Workforce Needs Assessment



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Goal: Ensure utilities have a reliable, qualified workforce for the design, construction, maintenance, and leadership jobs of tomorrow.

Audience: Utilities, colleges, state and federal agencies, job training programs

Objectives:

- 1) Understand the workforce barriers that utilities already face and those that are on the horizon
- 2) Recommend solutions that take into account facility size, location, and other drivers
- 3) Tell the Northwest story in a structured, solutions-oriented way

Image courtesy of Clean Water Services

Water Workforce Needs Assessment

October - May

- Scoping (includes outreach)
- Research design
- Beta testing

June - July

- Administer water workforce survey

Fall 2018

- **Data analysis & preliminary results**

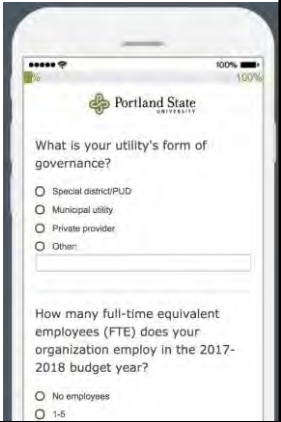
2019

- Outreach
- Develop recommendations
- More outreach

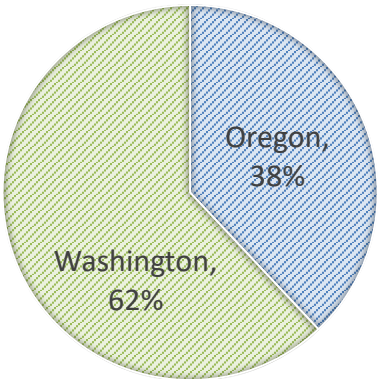
Image courtesy of Clean Water Services

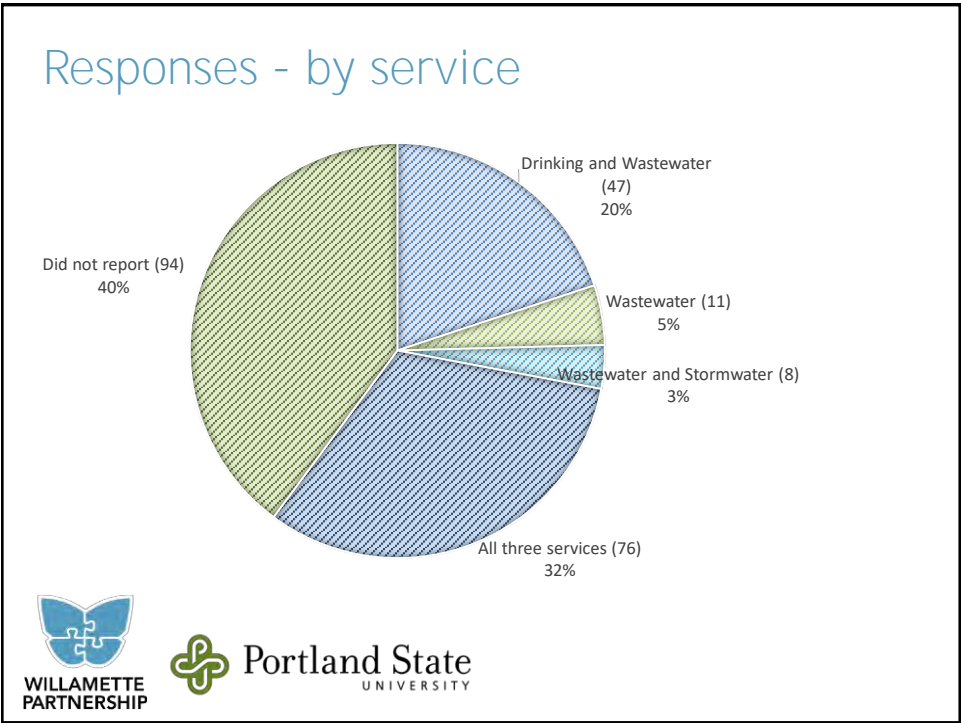
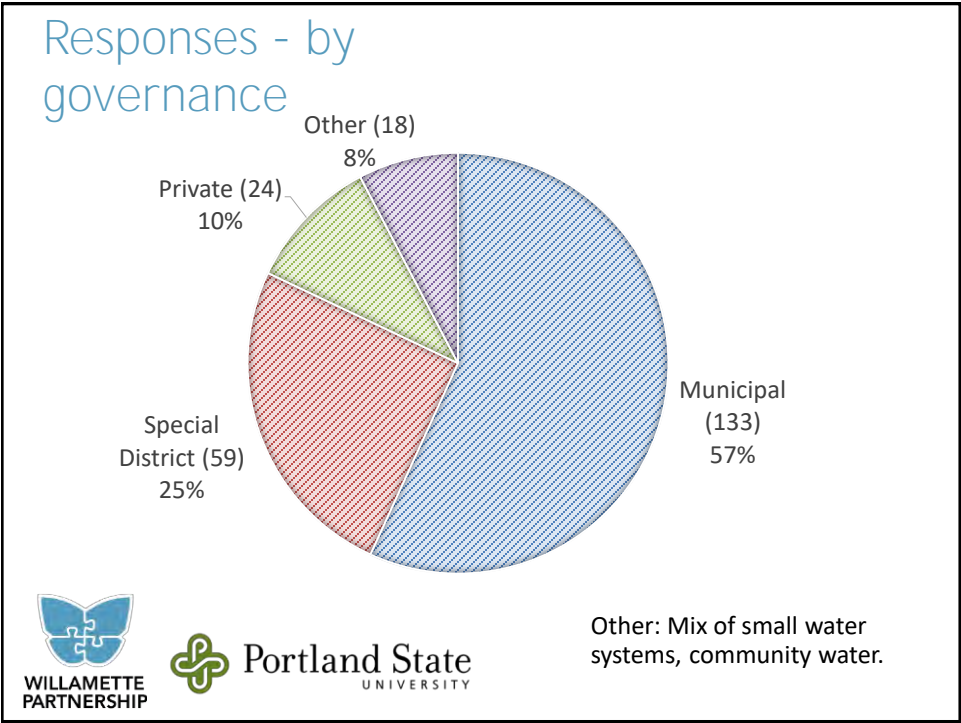
Survey Design and Recruitment

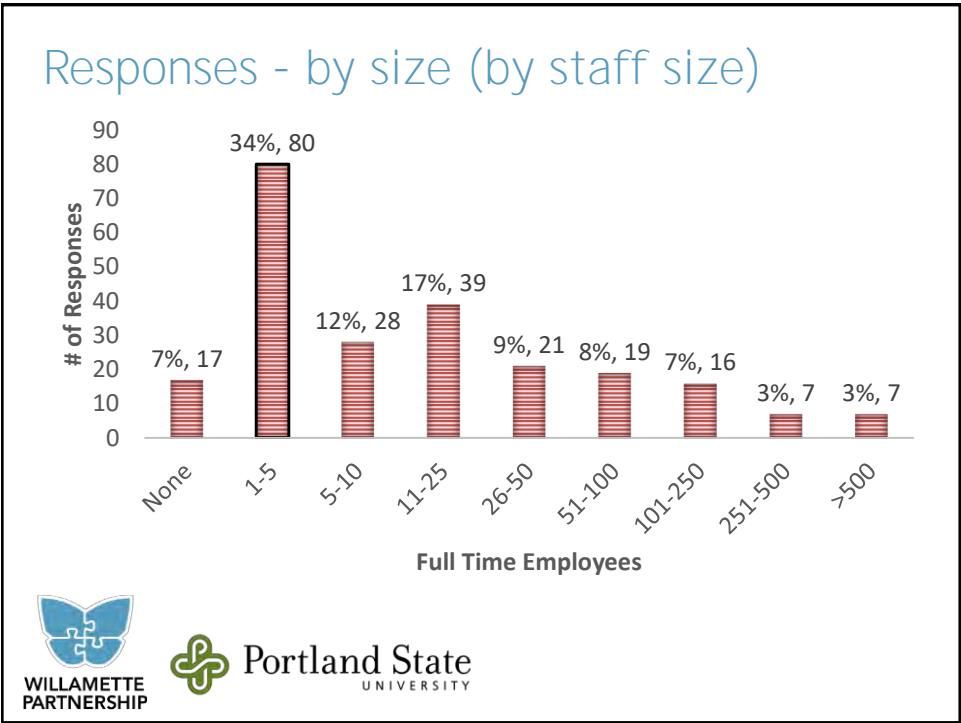
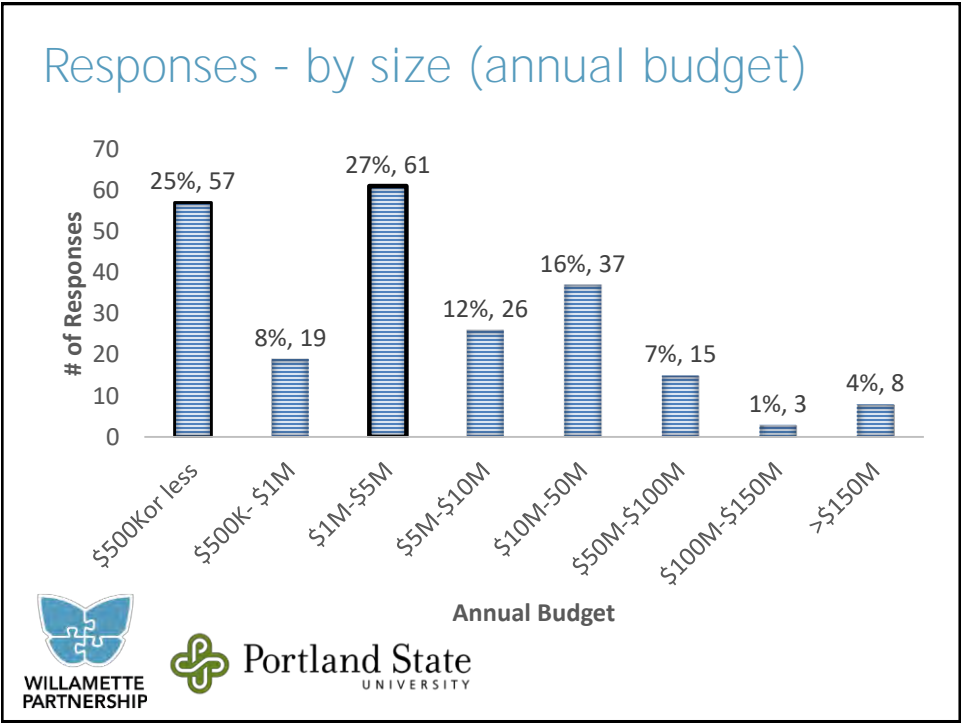
- Online Survey (approx. 60 questions)
- Distributed directly via email to: special districts, cities, and utilities
- Shared via professional networks and newsletters
- 343 responses started, 236 completed and included here



Responses - by state









Results - Workforce

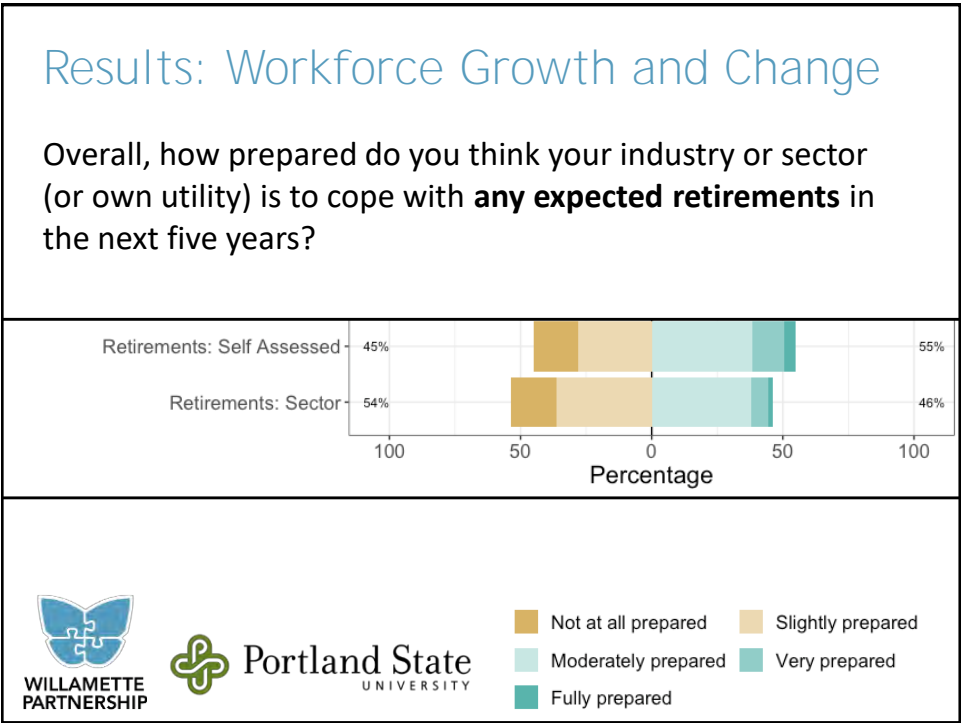
Retirements...I've got a few.

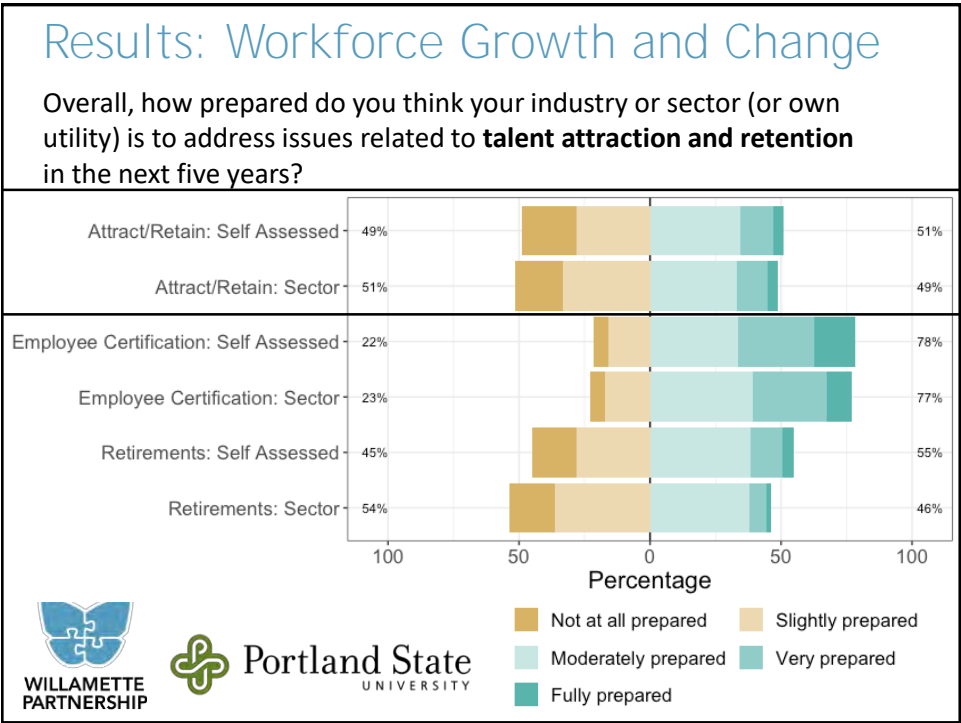
They're stressing me out.

It's getting tough to attract
and retain good people.


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Results

Applicants are not ideal.

We’re worried about backfilling

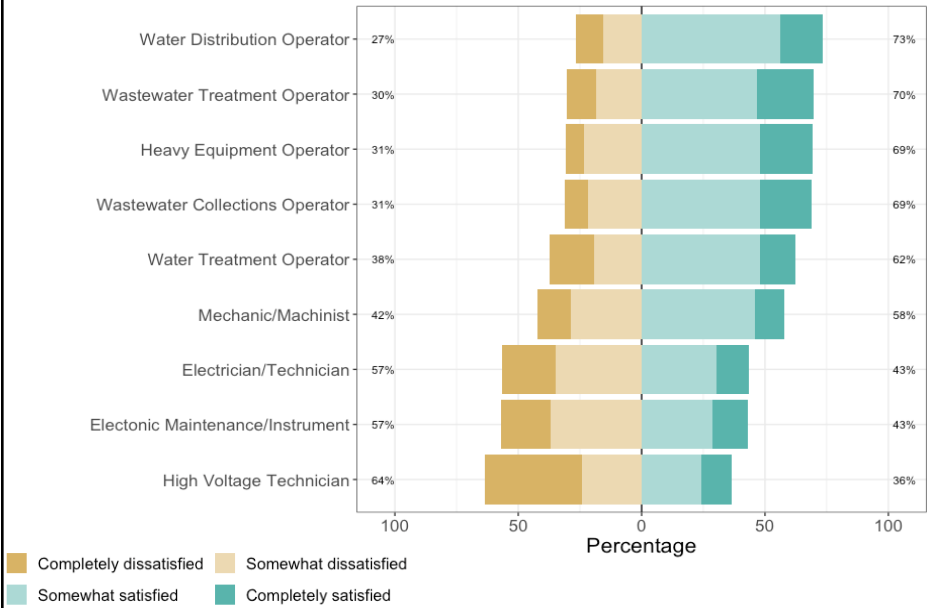
across all the levels of our workforce.

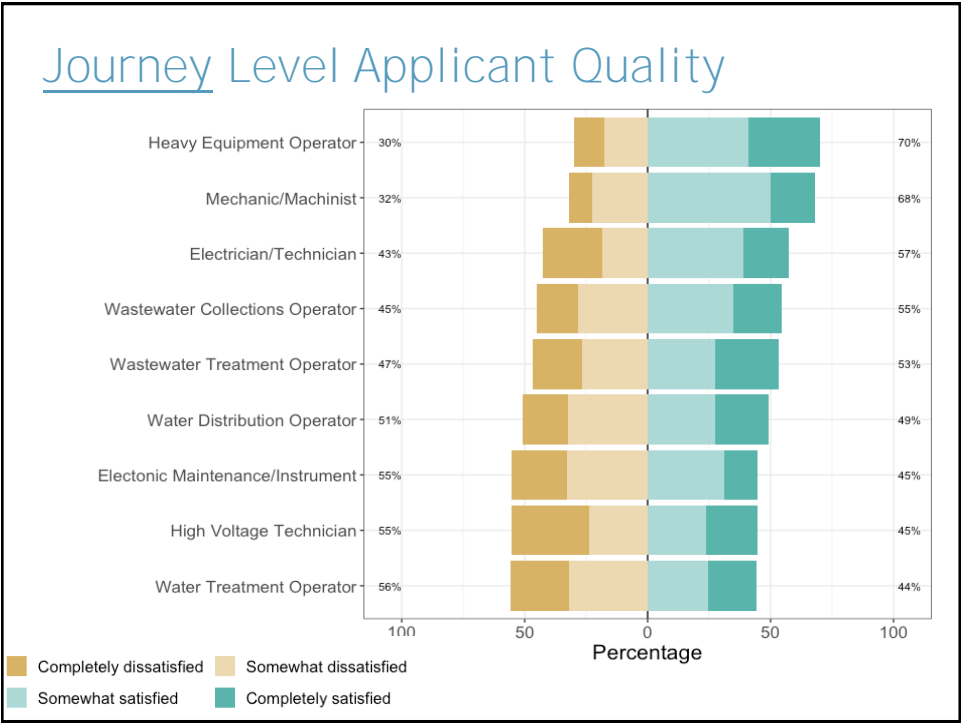
But if I had to prioritize:

- 1. Professional/engineer
- 2. Executives
- 3. Trades



Sub-Journey Level Applicant Quality







Results: Types of Workforce Needs

In which category (or categories) do you feel best equipped to meet workforce needs?

Job Category	Percent Reporting Prepared
Trades-level	54%
Professional (engineer, hydrologist, etc)	22%
Executive and Managerial	31%



Results: Findings Overview

Utilities initial self-assess that things are good...
....but in the details, the picture gets a little darker

- 28% to 38% are worried about meeting current or future service needs
- 33% to 50% are not satisfied with job applicant pool
- 22% to 31% are prepared to replace professional and managerial positions due to retirements



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Summary



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- **Many utilities are worried about their workforce, but not about the strength of their organization or the sector.**
- **There are a lot of examples to look to in workforce development, including regional models.**

Image courtesy of Clean Water Services



Thank you!

rhys@centerforsci.org



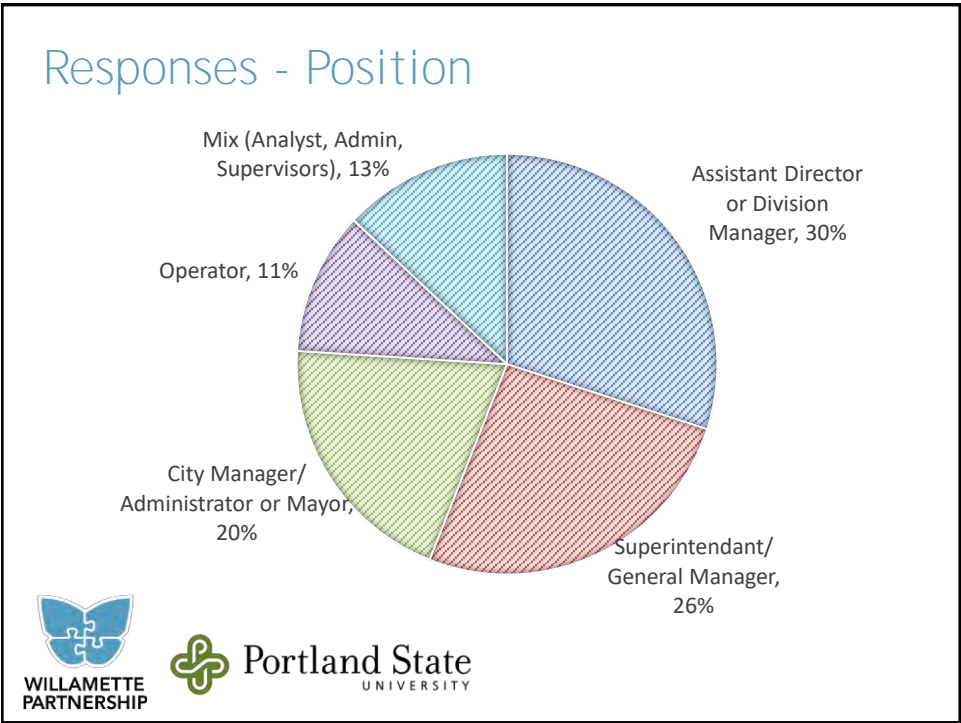
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Workforce Development

IACC Conference
October 24, 2018

PUBLIC HEALTH
ALWAYS WORKING FOR A SAFER AND
HEALTHIER COMMUNITY



Office of Drinking Water Mission

We work with others to
protect the health of
the people of
Washington State by
ensuring safe and
reliable drinking water.



Washington State Certified Waterworks Operators

- 4,000 certified waterworks operators
- Number of certified waterworks operators has not changed over the last 15 years
- Washington population has grown 20%
- Safe reliable drinking water effects economic, social, and environmental vitality

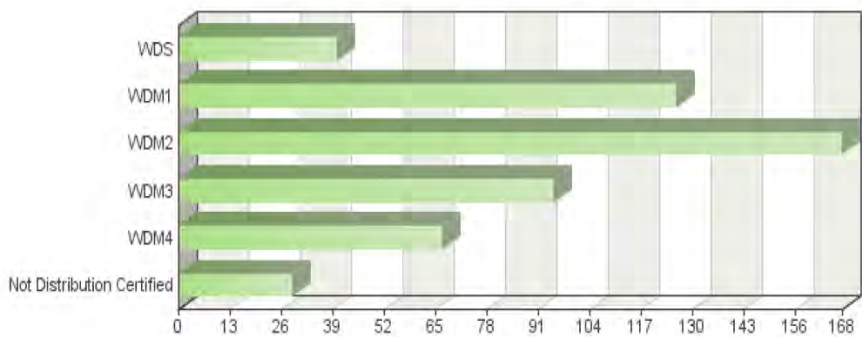


Workforce Survey

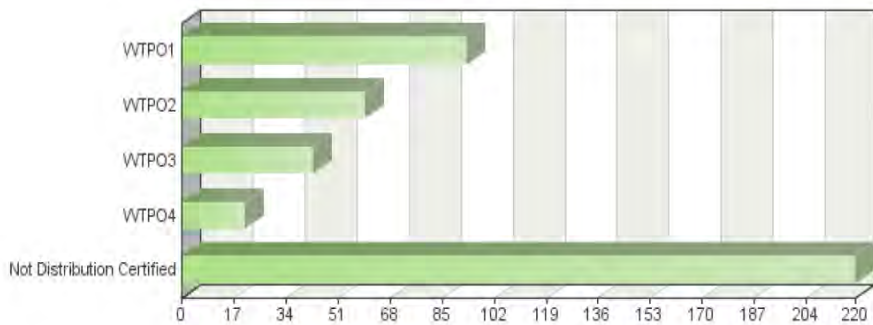
- 569 operators responded to the survey
- Every County is represented (King had 95)
- 20% also had Wastewater Certifications
- Brookings Institute Findings
- Willamette Partnership and Portland State



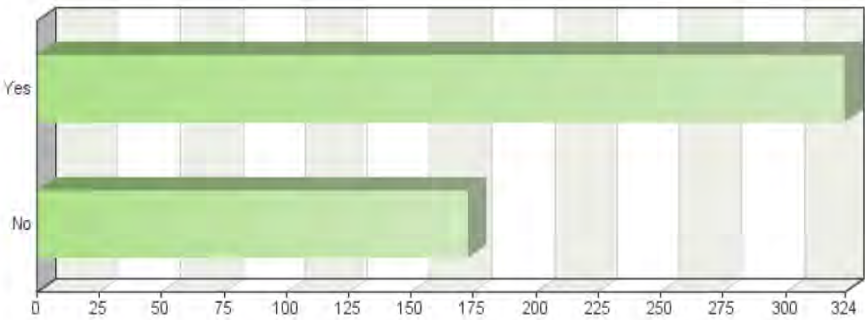
Water Distribution Manager



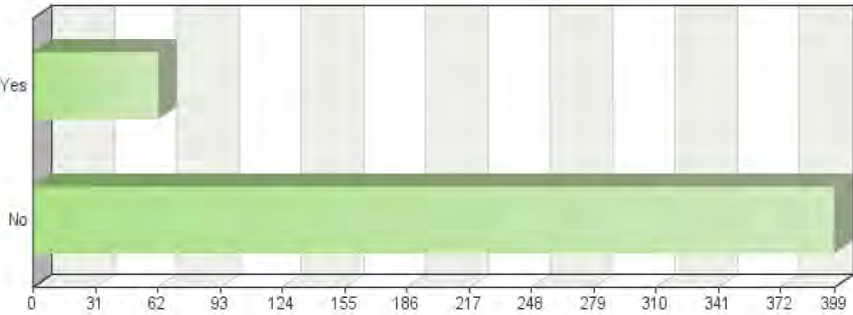
Water Treatment Plant Operator

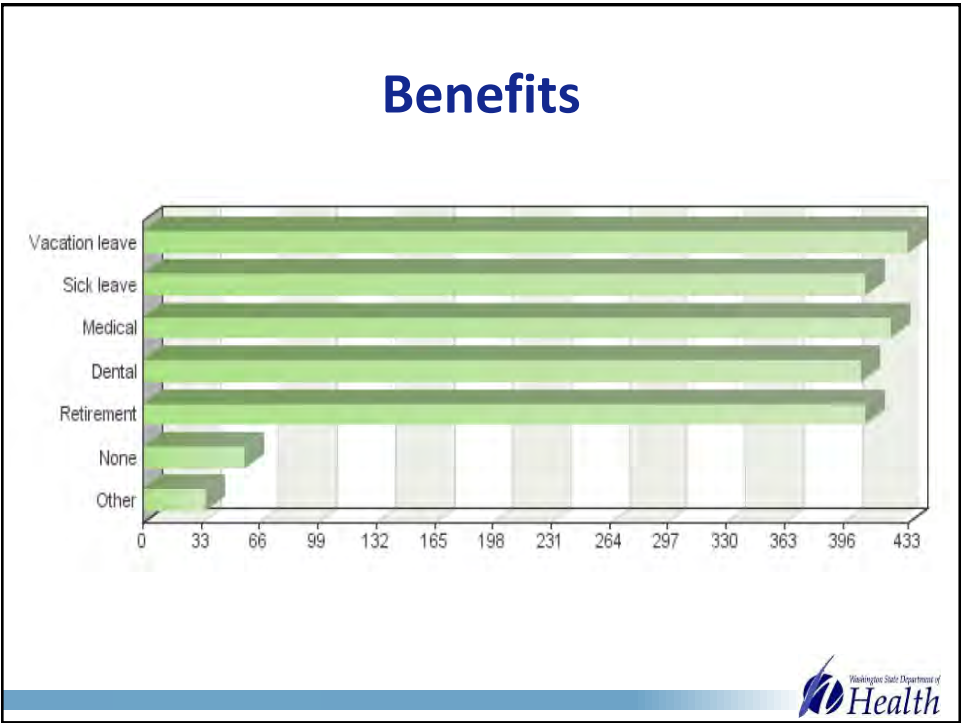
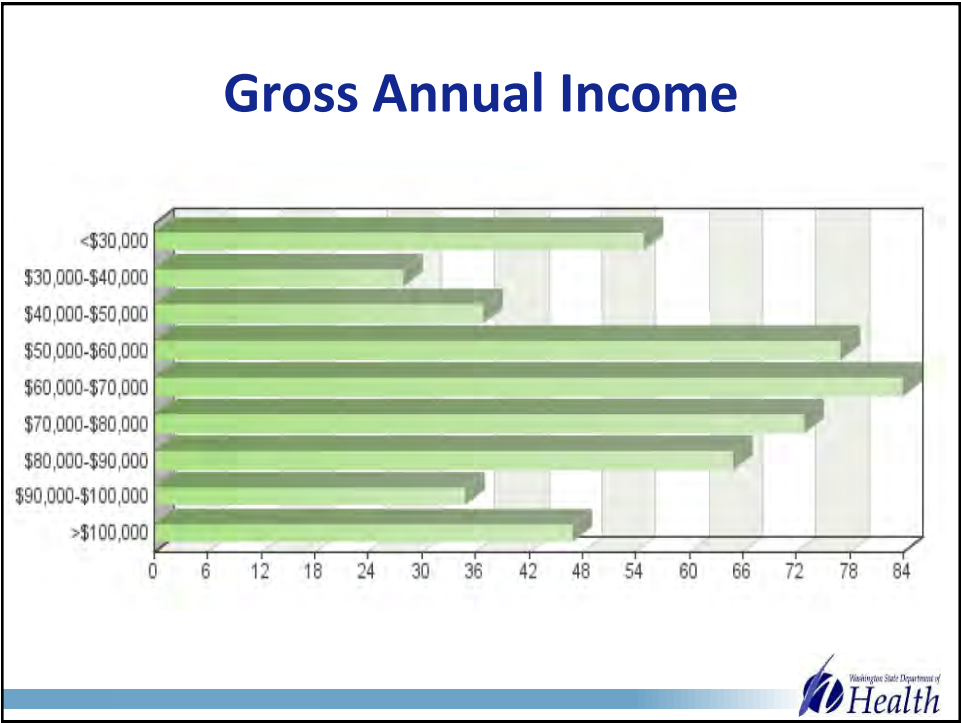


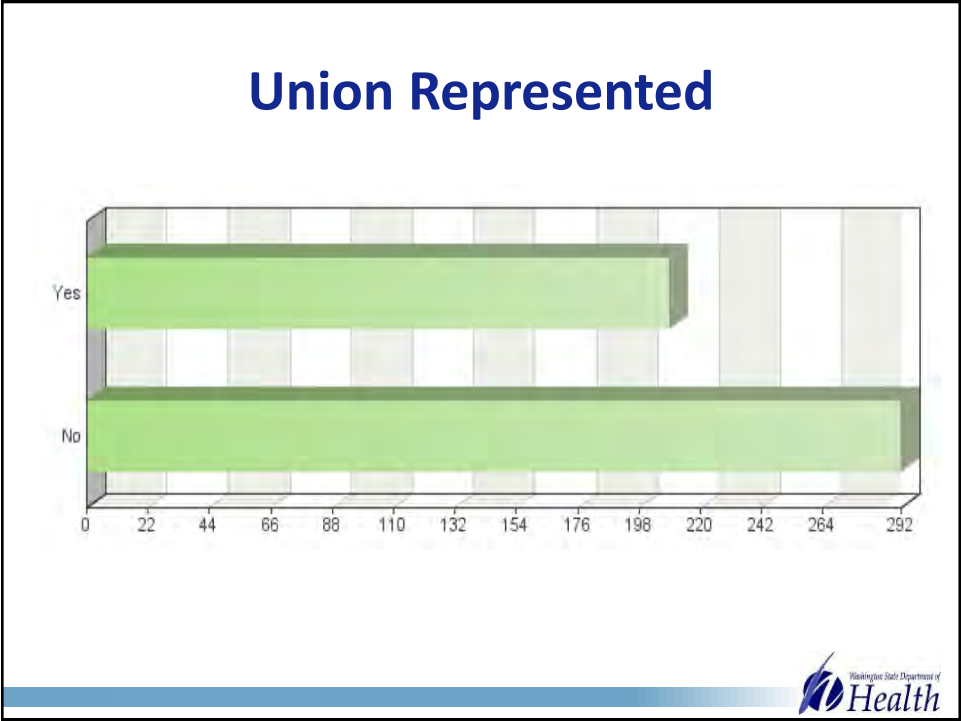
Cross-Connection Control Specialist

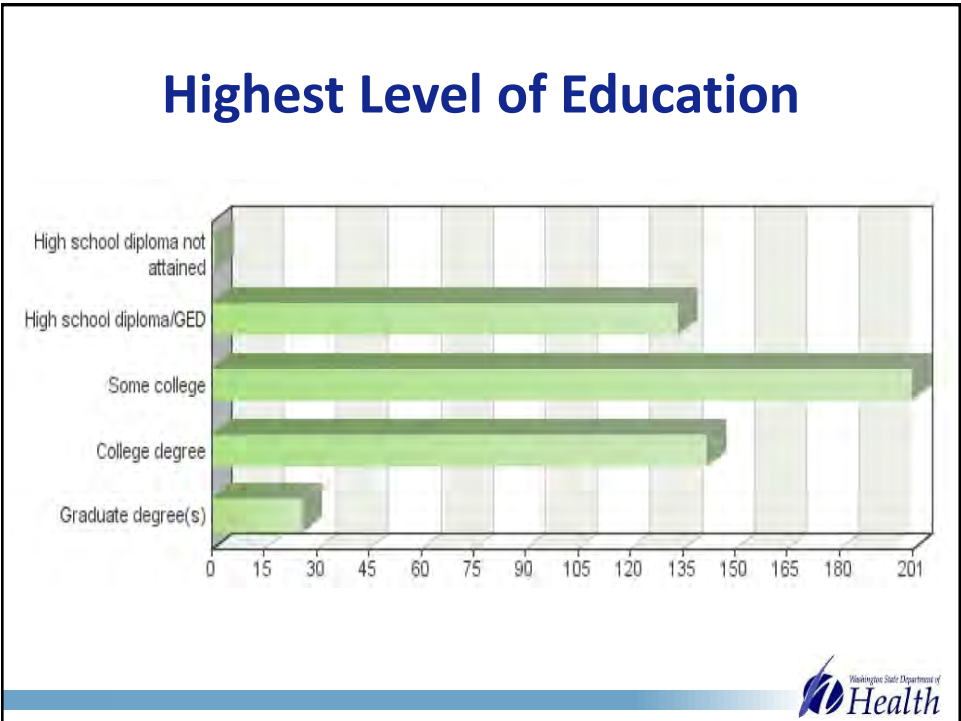
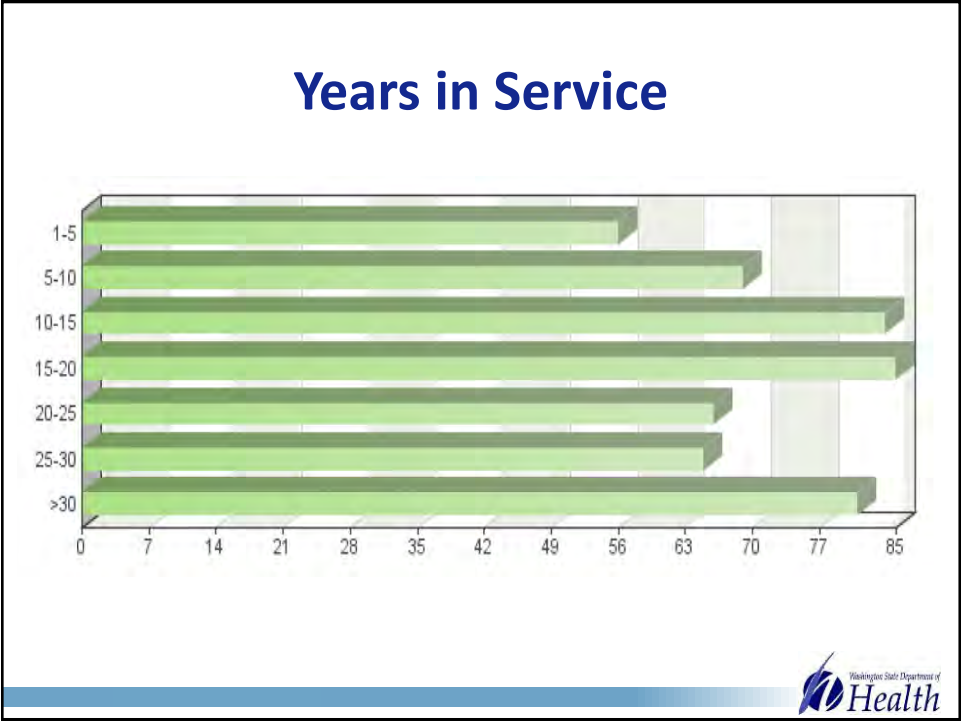


Backflow Assembly Tester









Contact Information

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