

# Appendix D

Appendix D  
2024 Alabama Water Workforce Survey  
Manager Survey Results

## Appendix D contains the full results of the Manager survey Questionnaire.

The responses have been lightly coded.

Light coding helps maintain anonymity and is essential for free text responses.

**The only required question was Question 1.**

Therefore, **the total number of responses for each question will vary** as not every survey taker responded to every question.

**The percentages shown** in the tables and graphs **represent** the number of times **each answer** was selected **divided by** the total **responses received for that question.**

## How to read a table of descriptive statistics

Numeric responses were free response answers. Implausible answers were removed from the data set.

### Example 1 Descriptive Statistics

Mean	Median	Mode	StD	Max	Min
30.8	29.0	25.0	9.8	64.0	18.0

Definition of descriptive statistics used in the tables:

- The **mean** is the mathematical average of two or more numbers;
- the **median** is the middle number in a sorted list of numbers;
- the **mode** is the value that appears most frequently in a data set;
- the **standard deviation** (StD) looks at how far individual points in a the data set are dispersed from the mean of the set;
- the **maximum** (max) is the largest value for a specific answer; and
- the **minimum** (min) is the smallest value for a specific answer.

## How to read a “Dot” Chart

The choices made by each respondent are shown in the columns.

### Example 2 "Dot" chart

Count	6	1	1	1	2	1	6	3	Total: 21
%	29%	5%	5%	5%	10%	5%	29%	14%	100%
(1) My utility didn't support it	●	●	●						
(2) Too expensive		●		●					
(3) The certification process was overwhelming				●	●	●			
(4) I was concerned that I could not pass the exam		●	●	●		●	●		
(5) Personal reasons								●	

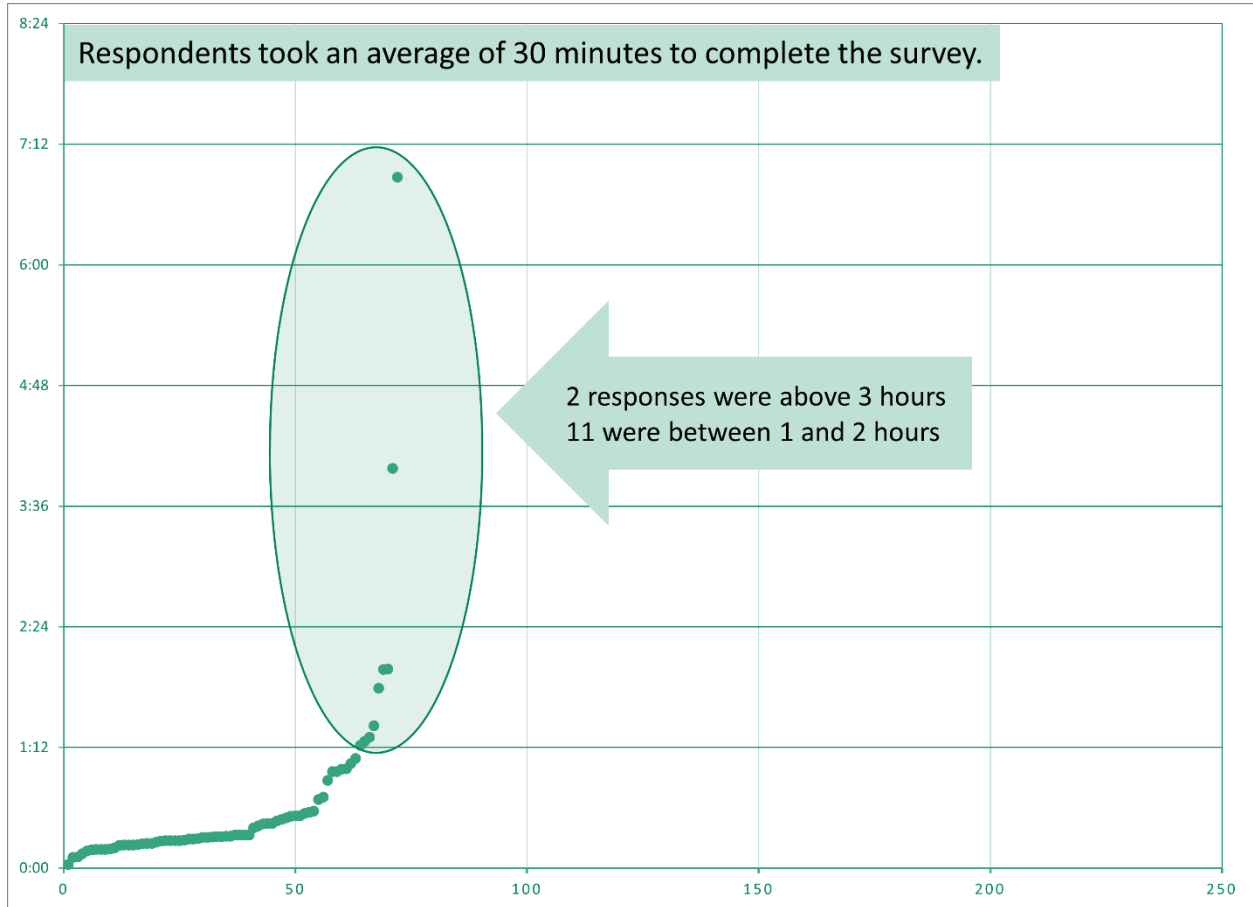
For example, reading the dot chart above we learn

- 6 people answered choice (1);
- 1 person answered choices (1), (2), and (4);
- 1 person answered choices (1) and (4);
- 1 person answered choices (2), (3), and (4);
- 2 people answered choice (3);
- 1 person answered choices (3) and (4);
- 6 people answered choice (4); and
- 3 people answered choice (5).

When the chart is too wide to fit in the margins, the “dot” chart is split into smaller charts that are numbered “Chart x of y.”

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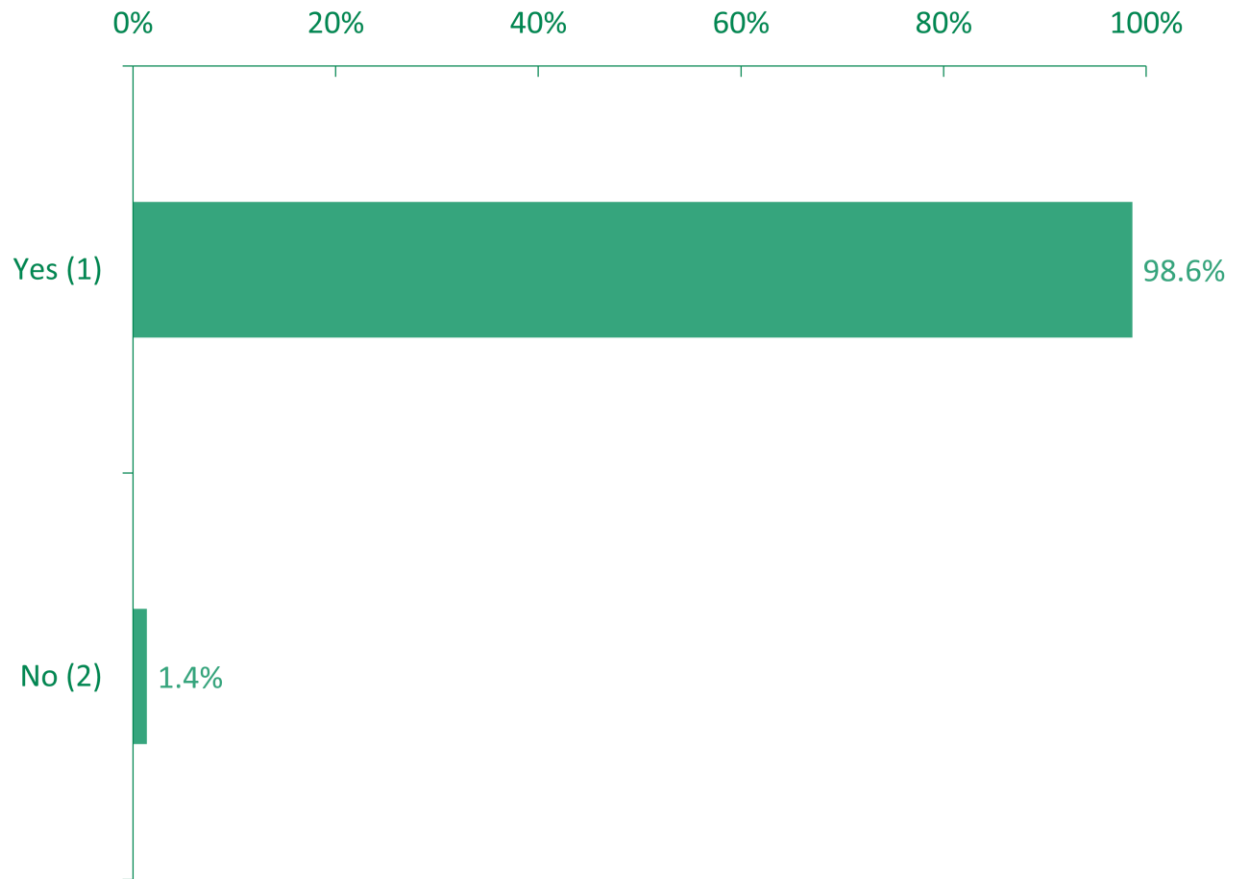
How long did it take operators to complete this survey?



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**M1. Do you want to continue with this survey?**

Answer	%	Count
Yes (1)	98.6%	72
No (2)	1.4%	1
<b>Total</b>	<b>100.0%</b>	<b>73</b>



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**M2. Which of the following best describes your utility? (Select all that apply)**

Chart 1 of 3

Count	1	2	1	2	1	1	1	1	1	1	1	
%	1.4%	2.8%	1.4%	2.8%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	
(1) Wastewater I (Lagoon)	●	●	●	●								(1)
(2) Wastewater IC (Collections)		●	●		●	●	●	●	●	●	●	(2)
(3) Wastewater II					●	●						(3)
(4) Wastewater III					●		●	●	●	●		(4)
(5) Wastewater IV		●					●	●			●	(5)
(6) Water I (Distribution)		●		●		●		●	●	●	●	(6)
(7) Water II (Basic Groundwater)		●				●		●				(7)
(8) Water III (Advanced Groundwater)			●									(8)
(9) Water IV (Surface Water)		●								●		(9)

continued

Chart 2 of 3

Count	1	1	2	1	1	1	4	1	4	6	3	
%	1.4%	1.4%	2.8%	1.4%	1.4%	1.4%	5.6%	1.4%	5.6%	8.5%	4.2%	
(1) Wastewater I (Lagoon)												(1)
(2) Wastewater IC (Collections)	●	●										(2)
(3) Wastewater II			●	●	●	●						(3)
(4) Wastewater III							●	●	●	●		(4)
(5) Wastewater IV	●							●			●	(5)
(6) Water I (Distribution)	●			●								(6)
(7) Water II (Basic Groundwater)					●				●			(7)
(8) Water III (Advanced Groundwater)	●					●						(8)
(9) Water IV (Surface Water)	●	●								●		(9)

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**M2. Which of the following best describes your utility? (Select all that apply)**

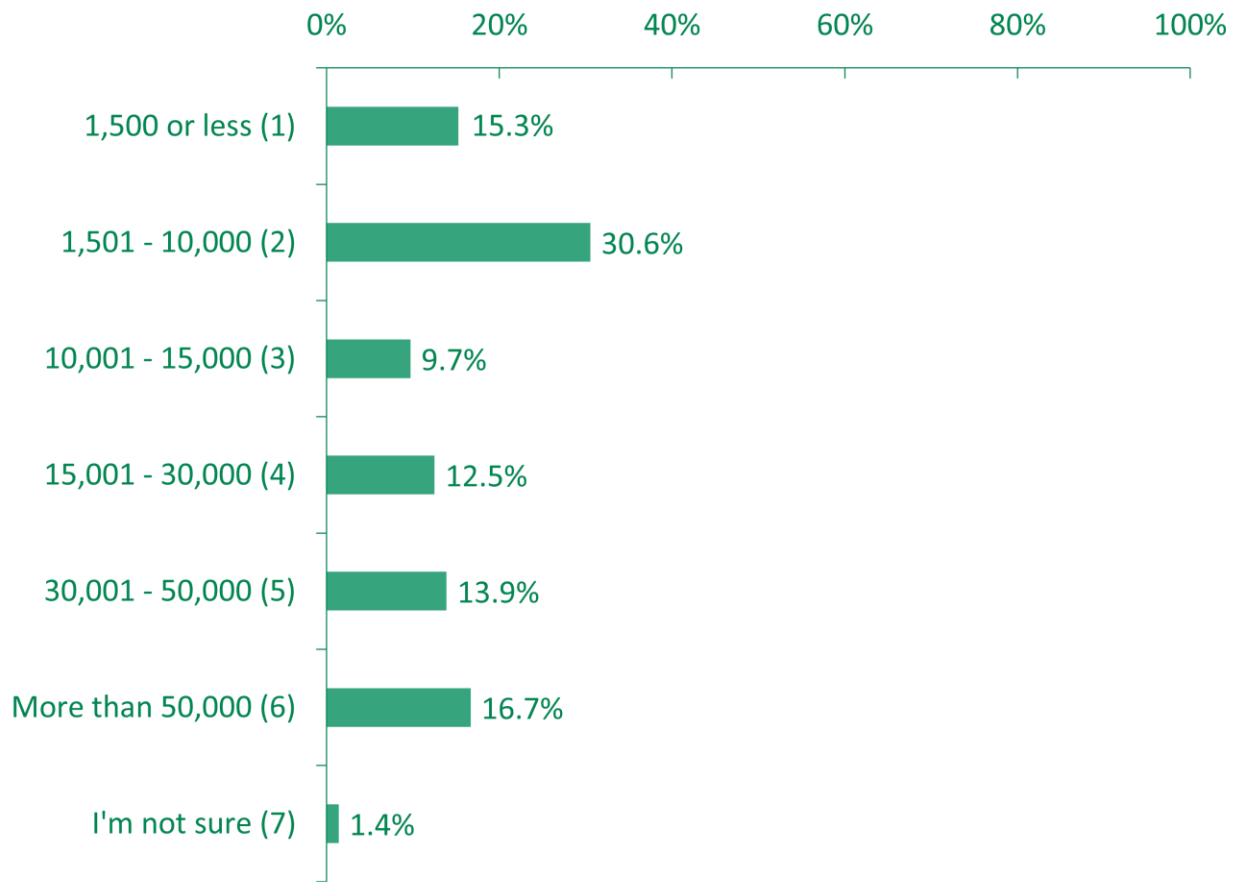
Chart 3 of 3

Count	1	1	2	6	1	1	6	1	3	11	Total: 71
%	1.4%	1.4%	2.8%	8.5%	1.4%	1.4%	8.5%	1.4%	4.2%	15.5%	100.0%
(1) Wastewater I (Lagoon)											(1)
(2) Wastewater IC (Collections)											(2)
(3) Wastewater II											(3)
(4) Wastewater III											(4)
(5) Wastewater IV	●	●	●								(5)
(6) Water I (Distribution)	●			●	●	●					(6)
(7) Water II (Basic Groundwater)	●				●		●	●			(7)
(8) Water III (Advanced Groundwater)		●						●	●		(8)
(9) Water IV (Surface Water)	●		●			●				●	(9)

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**M3. How many people does your utility directly serve? (Select the highest range for the drinking water or wastewater services provided.)**

Answer	%	Count
1,500 or less (1)	15.3%	11
1,501 - 10,000 (2)	30.6%	22
10,001 - 15,000 (3)	9.7%	7
15,001 - 30,000 (4)	12.5%	9
30,001 - 50,000 (5)	13.9%	10
More than 50,000 (6)	16.7%	12
I'm not sure (7)	1.4%	1
<b>Total</b>	<b>100.0%</b>	<b>72</b>





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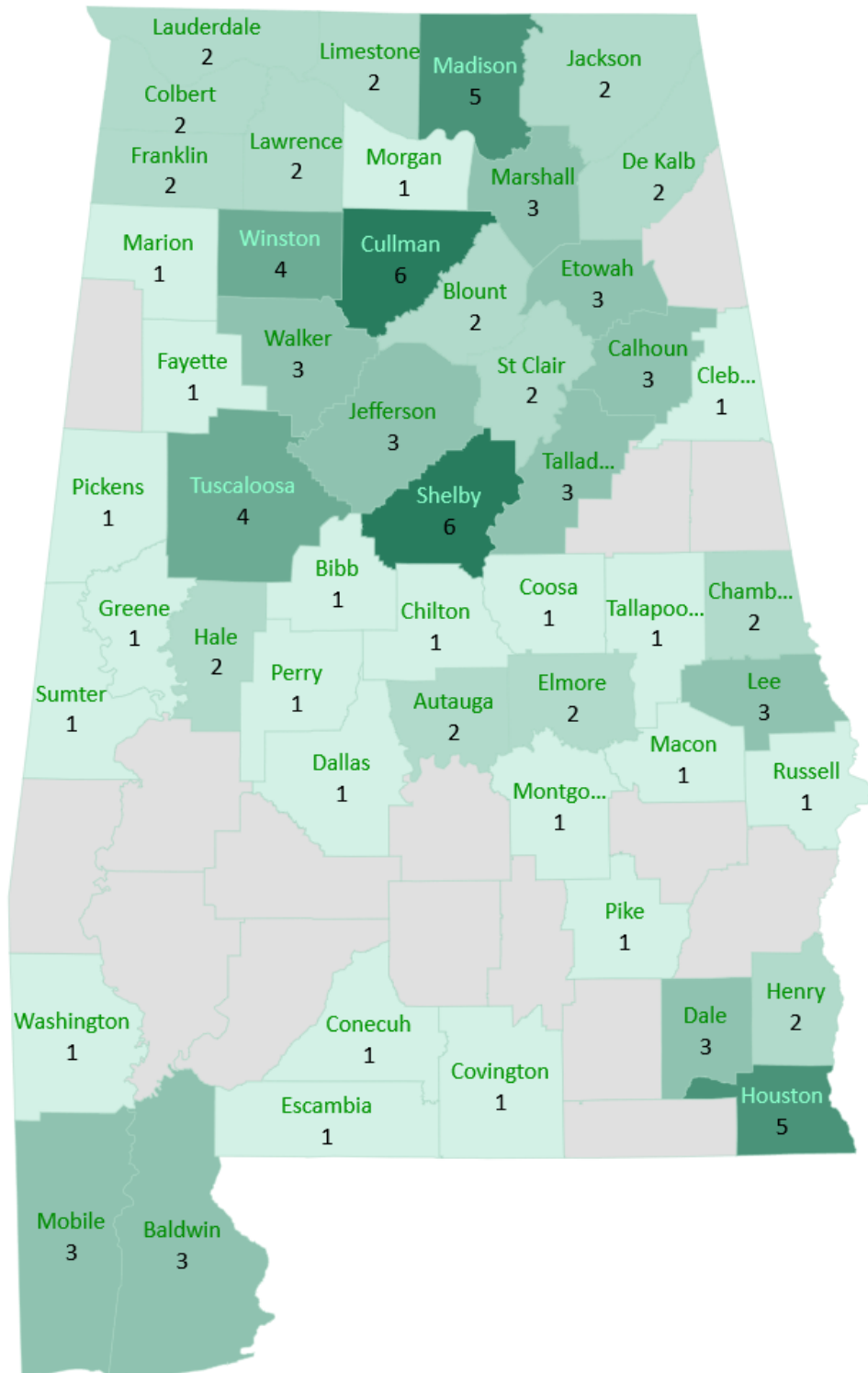
**M4.-M6a/b. In what county is your utility located?**

County	%	Count
Autauga	2%	2
Baldwin	3%	3
Bibb	1%	1
Blount	2%	2
Calhoun	3%	3
Chambers	2%	2
Chilton	1%	1
Cleburne	2%	2
Colbert	2%	2
Conecuh	1%	1
Coosa	1%	1
Covington	1%	1
Cullman	5%	6
Dale	3%	3
Dallas	1%	1
Dekalb	2%	2
Elmore	2%	2
Escambia	1%	1
Etowah	3%	3
Fayette	1%	1
Franklin	2%	2
Greene	1%	1
Hale	2%	2
Henry	2%	2
Houston	5%	5
continued		

County	%	Count
Jackson	2%	2
Jefferson	3%	3
Lauderdale	2%	2
Lawrence	2%	2
Lee	3%	3
Limestone	2%	2
Macon	1%	1
Madison	5%	5
Marion	1%	1
Marshall	3%	3
Mobile	3%	3
Montgomery	1%	1
Morgan	1%	1
Perry	1%	1
Pickens	1%	1
Pike	1%	1
Russell	1%	1
Shelby	5%	6
St. Clair	2%	2
Sumter	1%	1
Talladega	3%	3
Tallapoosa	1%	1
Tuscaloosa	4%	4
Walker	3%	3
Washington	1%	1
Winston	4%	4
Total	100%	110

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**M4.-M6a/b. In what county is your utility located?**



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**M7. When you have an open position for an operator at your utility, where do you advertise the position? (Select all that apply)**

Full text of answer choices

(1) Newspaper
(2) Online job post (e.g. Indeed, ZipRecruiter, CareerBuilder, LinkedIn, etc.)
(3) Job fair
(4) School guidance counselor
(5) Unemployment office
(6) Industry-specific website (e.g. NRWA, ARWA, WEF, AWEA, AWPCA, etc.)
(7) Social media
(8) Video ad (e.g. Live TV or streaming service)
(9) Audio ad (e.g. radio, podcast, Spotify, Pandora, etc.)
(10) Billboard
(11) Local government website
(12) Temp agency
(13) Friend or family
(14) Industry contacts (networking)

Chart 1 of 4

Count	2	1	1	2	1	1	1	1	1	1	2	1	2	
%	3%	1%	1%	3%	1%	1%	1%	1%	1%	1%	3%	1%	3%	
(1) Newspaper	●	●	●	●	●	●	●	●	●	●	●	●	●	(1)
(2) Online job post				●	●	●	●	●	●	●	●	●		(2)
(3) Job fair					●	●								(3)
(4) School guidance counselor														(4)
(5) Unemployment office					●									(5)
(6) Industry-specific website					●		●	●	●	●			●	(6)
(7) Social media					●	●			●	●	●	●	●	(7)
(8) Video ad														(8)
(9) Audio ad					●									(9)
(10) Billboard									●			●		(10)
(11) Local government website		●			●	●	●	●	●	●				(11)
(12) Temp agency														(12)
(13) Friend or family			●				●			●		●	●	(13)
(14) Industry contacts					●		●	●		●			●	(14)

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**M7. When you have an open position for an operator at your utility, where do you advertise the position? (Select all that apply)**

Chart 2 of 4

Count	2	1	1	3	1	1	1	1	4	1	3	1	1	
%	3%	1%	1%	4%	1%	1%	1%	1%	6%	1%	4%	1%	1%	
(1) Newspaper	●	●	●											(1)
(2) Online job post									●	●	●	●	●	(2)
(3) Job fair														(3)
(4) School guidance counselor														(4)
(5) Unemployment office														(5)
(6) Industry-specific website														(6)
(7) Social media	●	●	●											(7)
(8) Video ad														(8)
(9) Audio ad														(9)
(10) Billboard										●				(10)
(11) Local government website		●		●						●	●	●		(11)
(12) Temp agency					●									(12)
(13) Friend or family		●	●		●	●	●						●	(13)
(14) Industry contacts					●		●	●				●	●	(14)

continued

Chart 3 of 4

Count	1	1	1	1	1	1	2	1	1	2	2	1	3	
%	1%	1%	1%	1%	1%	1%	3%	1%	1%	3%	3%	1%	4%	
(1) Newspaper														(1)
(2) Online job post	●	●	●	●	●	●	●	●	●	●	●	●	●	(2)
(3) Job fair	●	●	●											(3)
(4) School guidance counselor				●										(4)
(5) Unemployment office					●	●								(5)
(6) Industry-specific website	●	●			●	●	●	●	●					(6)
(7) Social media	●	●	●	●		●			●	●	●	●	●	(7)
(8) Video ad														(8)
(9) Audio ad														(9)
(10) Billboard	●													(10)
(11) Local government website						●	●				●	●		(11)
(12) Temp agency														(12)
(13) Friend or family		●		●		●		●				●	●	(13)
(14) Industry contacts	●	●	●			●		●				●		(14)

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**M7. When you have an open position for an operator at your utility, where do you advertise the position? (Select all that apply)**

Chart 4 of 4

Count	2	1	1	1	1	1	1	1	1	1	1	Total: 68
%	3%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	100%
(1) Newspaper												(1)
(2) Online job post	●											(2)
(3) Job fair		●										(3)
(4) School guidance counselor			●	●	●							(4)
(5) Unemployment office												(5)
(6) Industry-specific website						●	●					(6)
(7) Social media	●			●	●		●	●	●	●	●	(7)
(8) Video ad												(8)
(9) Audio ad												(9)
(10) Billboard								●				(10)
(11) Local government website									●			(11)
(12) Temp agency												(12)
(13) Friend or family	●		●	●			●	●		●	●	(13)
(14) Industry contacts	●		●	●	●	●					●	(14)

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**M8. What job duties are operators responsible for at your utility, other than basic system/treatment works? (Select all that apply)**

Count	2	2	2	2	18	1	1	2	1	1	7	1	1	2	18	4	Total: 65
%	3%	3%	3%	3%	28%	2%	2%	3%	2%	2%	11%	2%	2%	3%	28%	6%	100%
(1) Office work	●	●	●	●	●	●	●	●	●	●	●	●					(1)
(2) Collecting payments		●	●	●									●	●			(2)
(3) Equipment maintenance		●	●	●	●	●	●	●	●	●	●		●	●	●	●	(3)
(4) Trash services			●			●	●	●									(4)
(5) Natural gas services						●	●		●			●					(5)
(6) Electrical utility services						●			●	●							(6)
(7) City maintenance (e.g., mowing)			●	●			●	●	●		●			●		●	(7)
(8) I am not responsible for any other job duties																	(8)
(9) I left the water sector more than 12 months ago.																	(9)

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**M9. What benefits does your utility provide? (Select all that apply)**

Chart 1 of 3

Count	1	2	12	2	1	10	12	1	2	1	1	1	
%	1%	3%	17%	3%	1%	14%	17%	1%	3%	1%	1%	1%	
(1) Health insurance	●	●	●	●	●	●	●	●	●	●	●	●	(1)
(2) Retirement benefits	●	●	●	●	●	●	●	●	●	●	●	●	(2)
(3) Life and disability insurance	●	●	●	●	●	●	●	●	●	●	●	●	(3)
(4) Paid sick and vacation days	●	●	●	●	●	●	●	●	●	●	●	●	(4)
(5) Paid holidays	●	●	●	●	●	●	●	●	●	●	●	●	(5)
(6) Annual raises	●	●	●	●	●	●	●	●	●	●	●	●	(6)
(7) Overtime	●	●	●	●	●	●	●	●	●	●	●	●	(7)
(8) Comp time	●	●	●	●	●						●	●	(8)
(9) Paid time and travel to attend trainings		●	●	●	●	●	●	●	●	●		●	(9)
(10) Paid or reimbursed tuition or training expenses		●	●			●	●				●	●	(10)
(11) Paid or reimbursed certification fees		●	●	●	●	●	●	●	●		●	●	(11)
(12) Paid or reimbursed certification renewal fees		●	●	●	●	●	●	●	●	●	●	●	(12)
(13) Paid time to study for exams			●		●		●		●		●	●	(13)

continued

Chart 2 of 3

Count	1	1	1	1	2	1	1	1	2	1	1	1	
%	1%	1%	1%	1%	3%	1%	1%	1%	3%	1%	1%	1%	
(1) Health insurance	●	●	●	●	●	●	●	●	●	●	●	●	(1)
(2) Retirement benefits	●	●	●	●	●	●	●	●	●	●	●	●	(2)
(3) Life and disability insurance	●	●	●	●	●	●	●						(3)
(4) Paid sick and vacation days	●	●	●	●	●	●	●	●	●	●	●	●	(4)
(5) Paid holidays	●	●	●	●	●	●	●	●	●	●	●	●	(5)
(6) Annual raises	●							●	●	●	●	●	(6)
(7) Overtime		●	●	●	●				●	●	●	●	(7)
(8) Comp time			●	●					●	●			(8)
(9) Paid time and travel to attend trainings	●		●	●	●	●	●		●	●	●	●	(9)
(10) Paid or reimbursed tuition or training expenses	●		●	●	●	●	●		●	●		●	(10)
(11) Paid or reimbursed certification fees		●	●	●	●		●		●	●		●	(11)
(12) Paid or reimbursed certification renewal fees	●	●	●	●	●		●		●	●	●	●	(12)
(13) Paid time to study for exams				●	●		●		●			●	(13)

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**M9. What benefits does your utility provide? (Select all that apply)**

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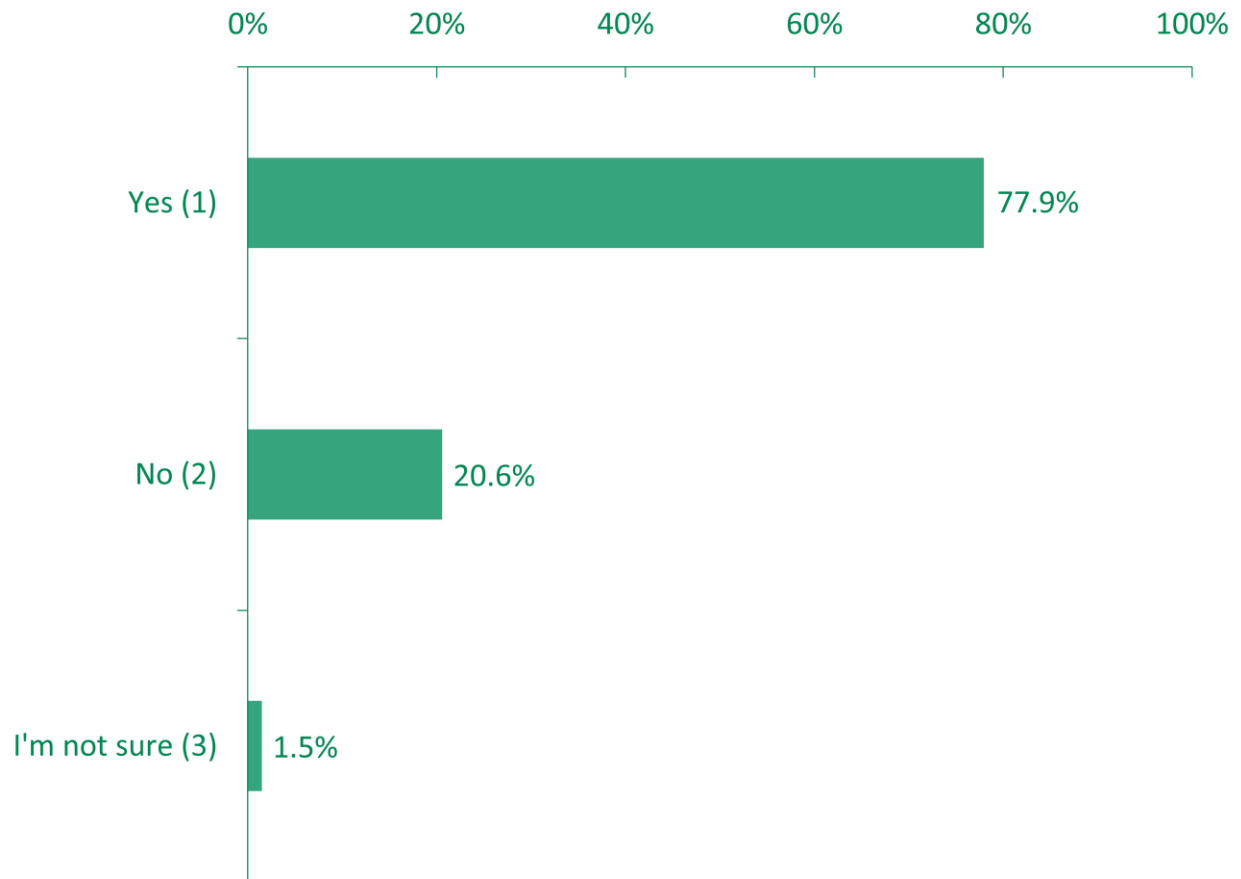
Count	2	1	1	1	1	1	1	1	1	1	Total: 71
%	3%	1%	1%	1%	1%	1%	1%	1%	1%	1%	100%
(1) Health insurance	●	●	●	●	●	●	●	●	●		(1)
(2) Retirement benefits	●	●	●	●	●	●					(2)
(3) Life and disability insurance							●	●			(3)
(4) Paid sick and vacation days	●	●	●	●	●	●	●	●	●	●	(4)
(5) Paid holidays	●	●	●	●	●	●	●	●	●	●	(5)
(6) Annual raises	●	●					●			●	(6)
(7) Overtime	●	●	●	●	●		●	●	●	●	(7)
(8) Comp time				●	●						(8)
(9) Paid time and travel to attend trainings	●	●		●	●	●	●	●	●	●	(9)
(10) Paid or reimbursed tuition or training expenses	●			●			●		●	●	(10)
(11) Paid or reimbursed certification fees	●	●	●	●			●	●	●	●	(11)
(12) Paid or reimbursed certification renewal fees	●	●	●	●			●	●	●	●	(12)
(13) Paid time to study for exams	●				●		●		●	●	(13)



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**M10. Does your utility offer opportunities for promotions and career advancement?**

Answer	%	Count
Yes (1)	77.9%	53
No (2)	20.6%	14
I'm not sure (3)	1.5%	1
<b>Total</b>	<b>100.0%</b>	<b>68</b>



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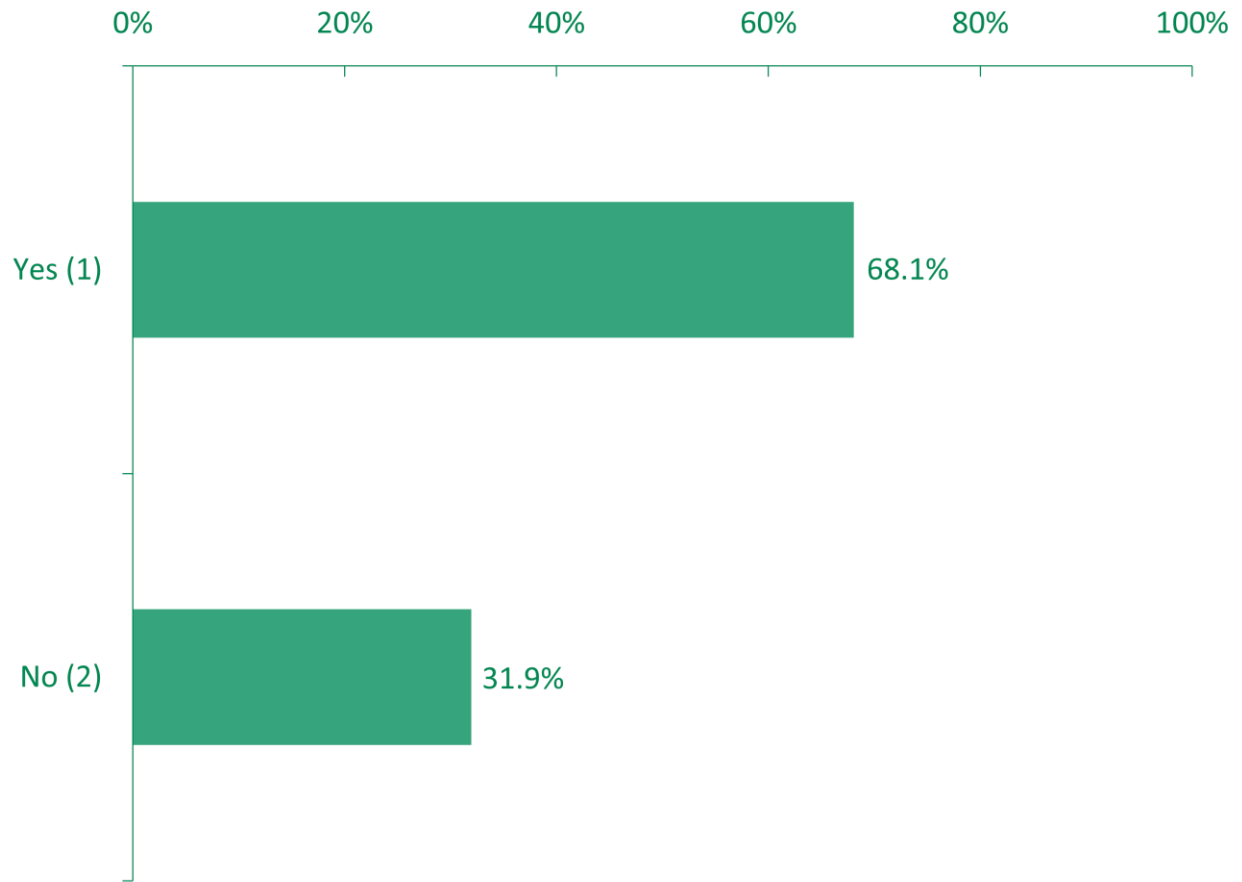
**M11. How does the utility reward and/or show appreciation for its operators? (Select all that apply)**

Count	9	16	3	7	2	1	3	3	2	8	2	2	1	5	1	Total: 65
%	13.8%	24.6%	4.6%	10.8%	3.1%	1.5%	4.6%	4.6%	3.1%	12.3%	3.1%	3.1%	1.5%	7.7%	1.5%	100.0%
(1) Provide pay increases based on employee performance	●	●	●	●	●	●	●	●	●							(1)
(2) Provide pay increases based on certification achievements		●	●	●	●	●	●	●		●	●	●	●			(2)
(3) Provide longevity awards			●	●	●				●		●	●		●		(3)
(4) Recognize employees for their contributions (e.g., suggesting cost saving measures)				●		●	●					●			●	(4)
(5) Offer leadership skills training to employees				●	●		●	●					●			(5)

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**M12. Does your utility have a formal documented pay scale for certified operators?**

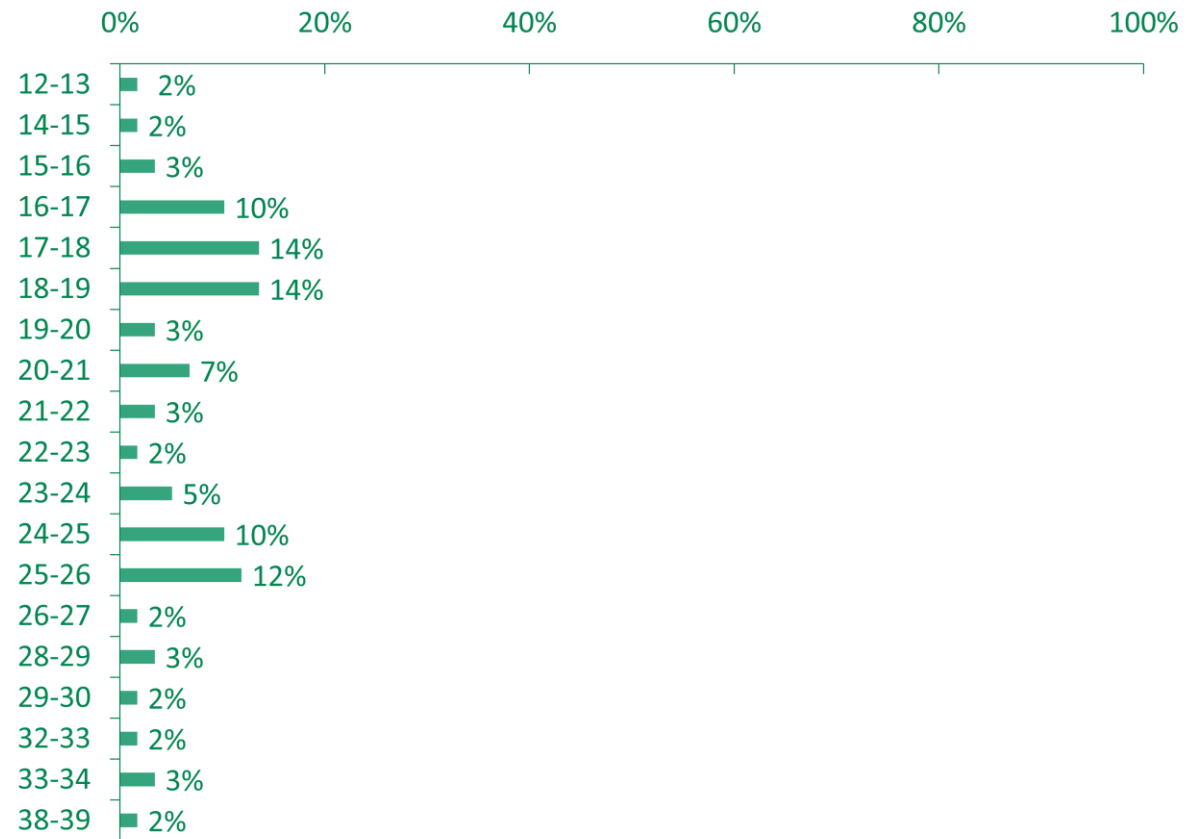
Answer	%	Count
Yes (1)	68.1%	49
No (2)	31.9%	23
<b>Total</b>	<b>100.0%</b>	<b>72</b>



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**M13. What is the starting hourly wage for an entry-level certified drinking water operator at your utility?**

Answer (\$)	%	Count
12-13	2%	1
14-15	2%	1
15-16	3%	2
16-17	10%	6
17-18	14%	8
18-19	14%	8
19-20	3%	2
20-21	7%	4
21-22	3%	2
22-23	2%	1
23-24	5%	3
24-25	10%	6
25-26	12%	7
26-27	2%	1
28-29	3%	2
29-30	2%	1
32-33	2%	1
33-34	3%	2
38-39	2%	1
Totals	100%	59

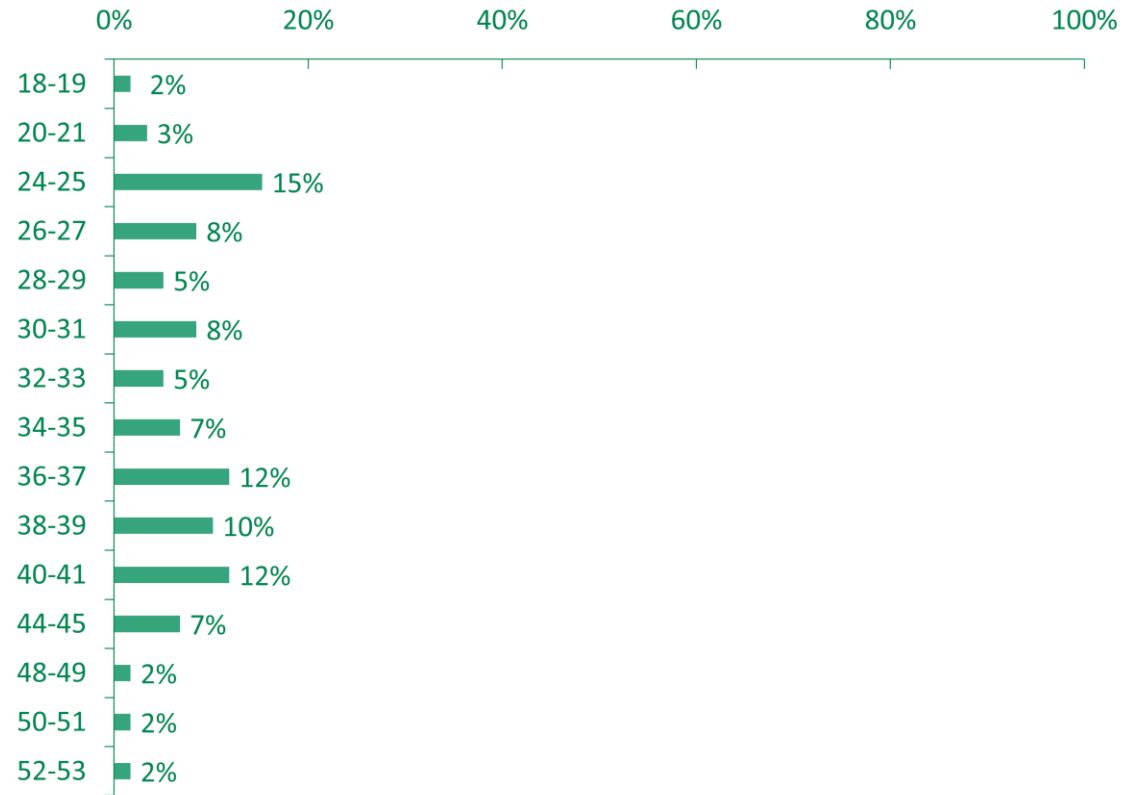


Mean	Median	Mode	StD	Max	Min
21.4	20.0	18.0	5.3	38.0	12.5

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**M14. What is the highest hourly wage a certified drinking water operator working at your utility is paid?**

Answer (\$)	%	Count
18-19	2%	1
20-21	3%	2
24-25	15%	9
26-27	8%	5
28-29	5%	3
30-31	8%	5
32-33	5%	3
34-35	7%	4
36-37	12%	7
38-39	10%	6
40-41	12%	7
44-45	7%	4
48-49	2%	1
50-51	2%	1
52-53	2%	1
Totals	100%	59

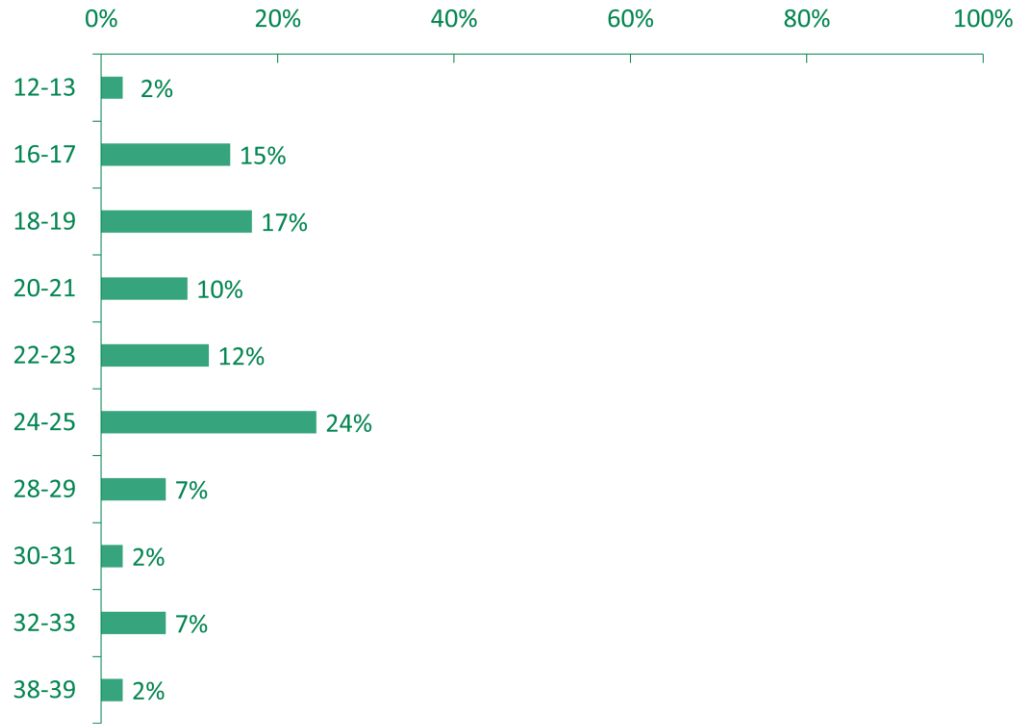


Mean	Median	Mode	StD	Max	Min
33.9	35.0	25.0	7.8	53.6	19.5

Appendix D  
 2024 Alabama Water Workforce Survey  
 Manager Survey Results

**M15. What is the starting hourly wage for an entry-level certified wastewater operator at your utility?**

Answer (\$)	%	Count
12-13	2%	1
16-17	15%	6
18-19	17%	7
20-21	10%	4
22-23	12%	5
24-25	24%	10
28-29	7%	3
30-31	2%	1
32-33	7%	3
38-39	2%	1
<b>Totals</b>	<b>100%</b>	<b>41</b>

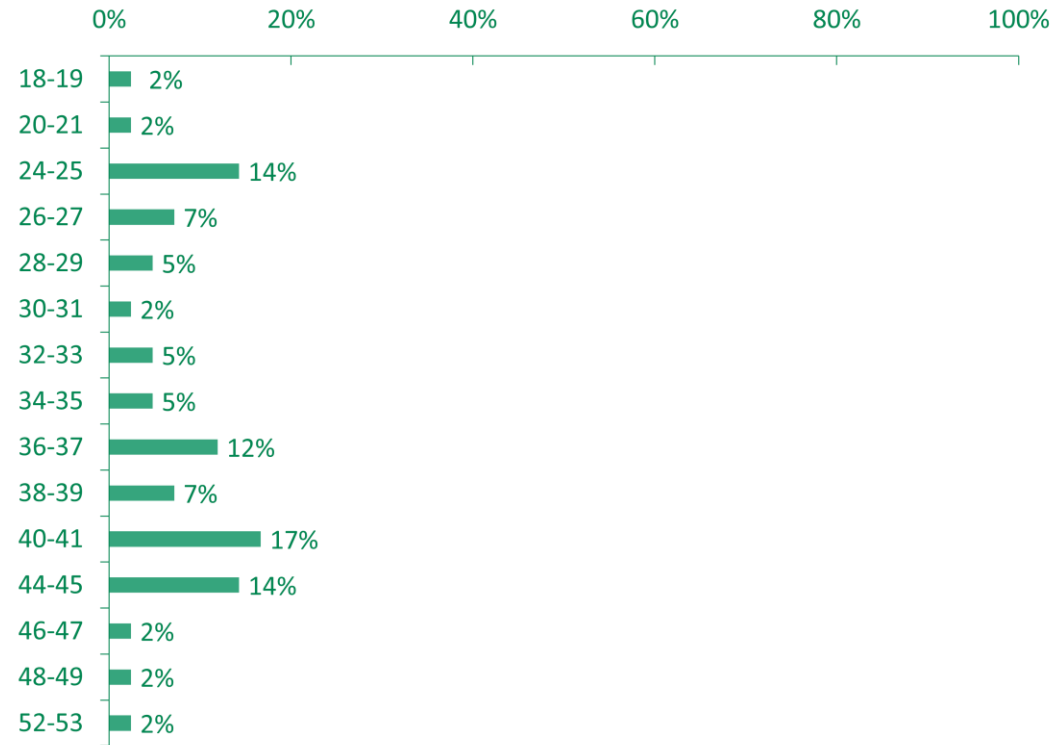


Mean	Median	Mode	StD	Max	Min
23.1	23.0	18.0	5.3	38.0	13.9

Appendix D  
 2024 Alabama Water Workforce Survey  
 Manager Survey Results

**M16. What is the highest hourly wage a certified wastewater operator working at your utility is paid?**

Answer (\$)	%	Count
18-19	2%	1
20-21	2%	1
24-25	14%	6
26-27	7%	3
28-29	5%	2
30-31	2%	1
32-33	5%	2
34-35	5%	2
36-37	12%	5
38-39	7%	3
40-41	17%	7
44-45	14%	6
46-47	2%	1
48-49	2%	1
52-53	2%	1
Totals	100%	42

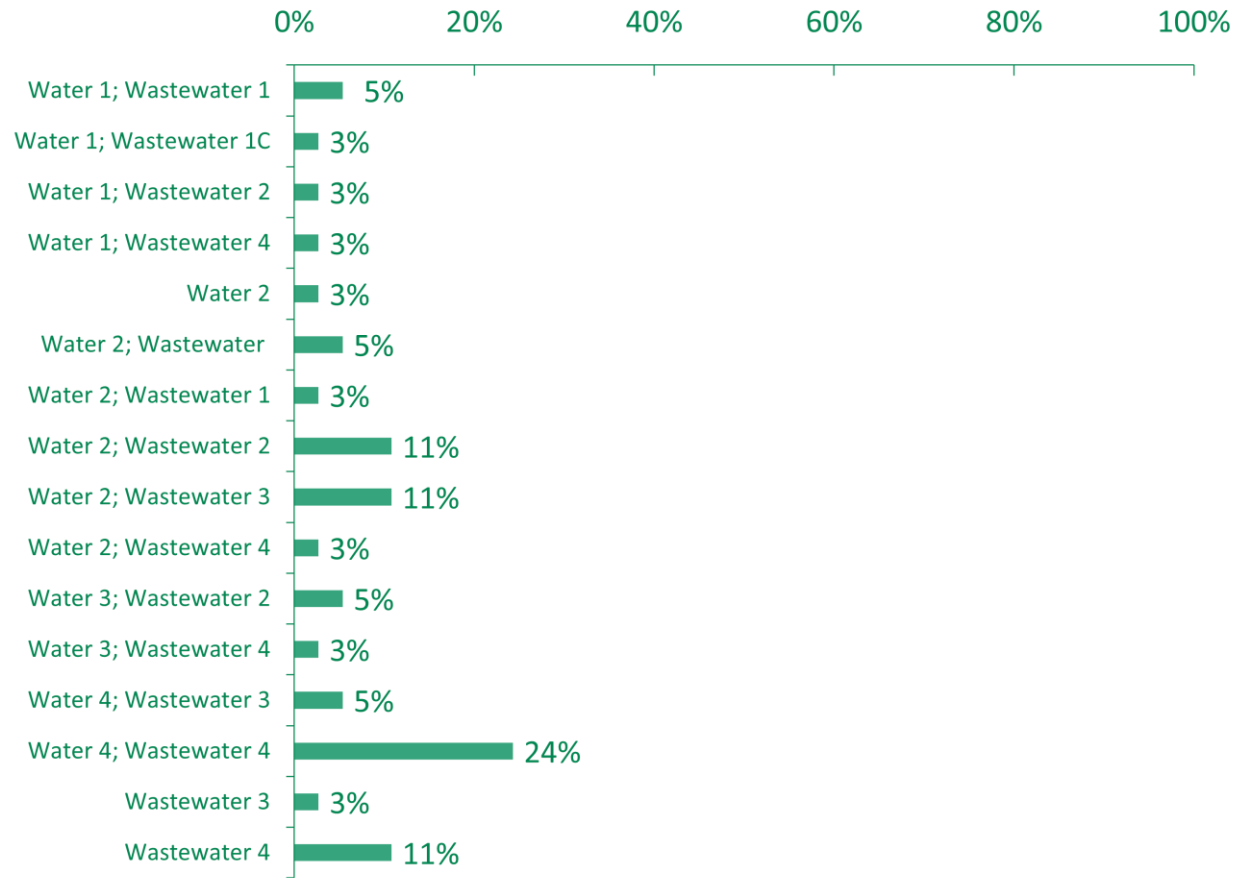


Mean	Median	Mode	StD	Max	Min
35.6	36.6	25.0	8.3	53.6	19.5

Appendix D  
 2024 Alabama Water Workforce Survey  
 Manager Survey Results

**M17. Think about the dual certified operator position you most need to fill. Tell us what is the Water Grade / Wastewater Grade for that position?**

Answer	%	Count
Water 1; Wastewater 1	5%	2
Water 1; Wastewater 1C	3%	1
Water 1; Wastewater 2	3%	1
Water 1; Wastewater 4	3%	1
Water 2	3%	1
Water 2; Wastewater	5%	2
Water 2; Wastewater 1	3%	1
Water 2; Wastewater 2	11%	4
Water 2; Wastewater 3	11%	4
Water 2; Wastewater 4	3%	1
Water 3; Wastewater 2	5%	2
Water 3; Wastewater 4	3%	1
Water 4; Wastewater 3	5%	2
Water 4; Wastewater 4	24%	9
Wastewater 3	3%	1
Wastewater 4	11%	4
Totals	100%	37

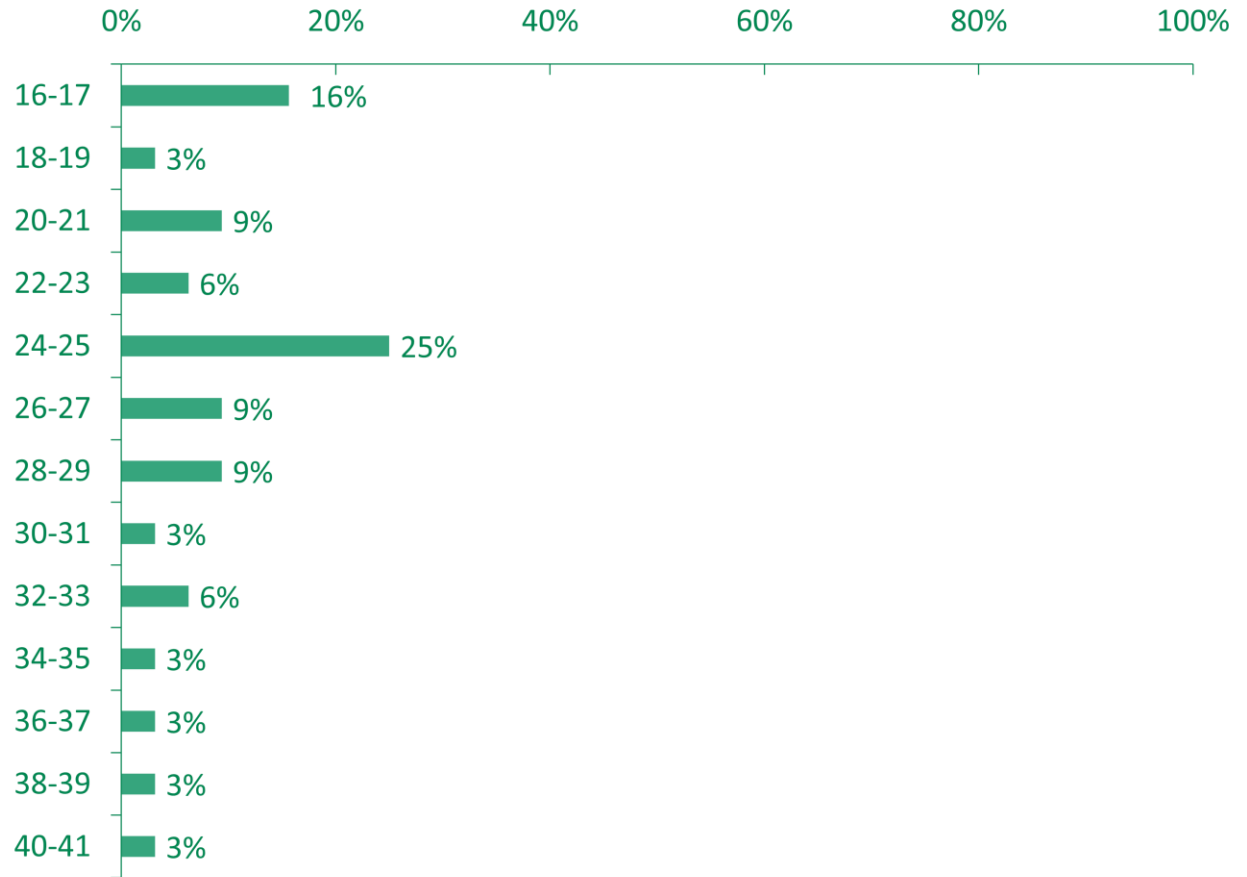




Appendix D  
 2024 Alabama Water Workforce Survey  
 Manager Survey Results

**M18. What is the starting hourly wage for the dual-certified operator described in M17 above?**

Answer (\$)	%	Count
16-17	16%	5
18-19	3%	1
20-21	9%	3
22-23	6%	2
24-25	25%	8
26-27	9%	3
28-29	9%	3
30-31	3%	1
32-33	6%	2
34-35	3%	1
36-37	3%	1
38-39	3%	1
40-41	3%	1
Totals	100%	32

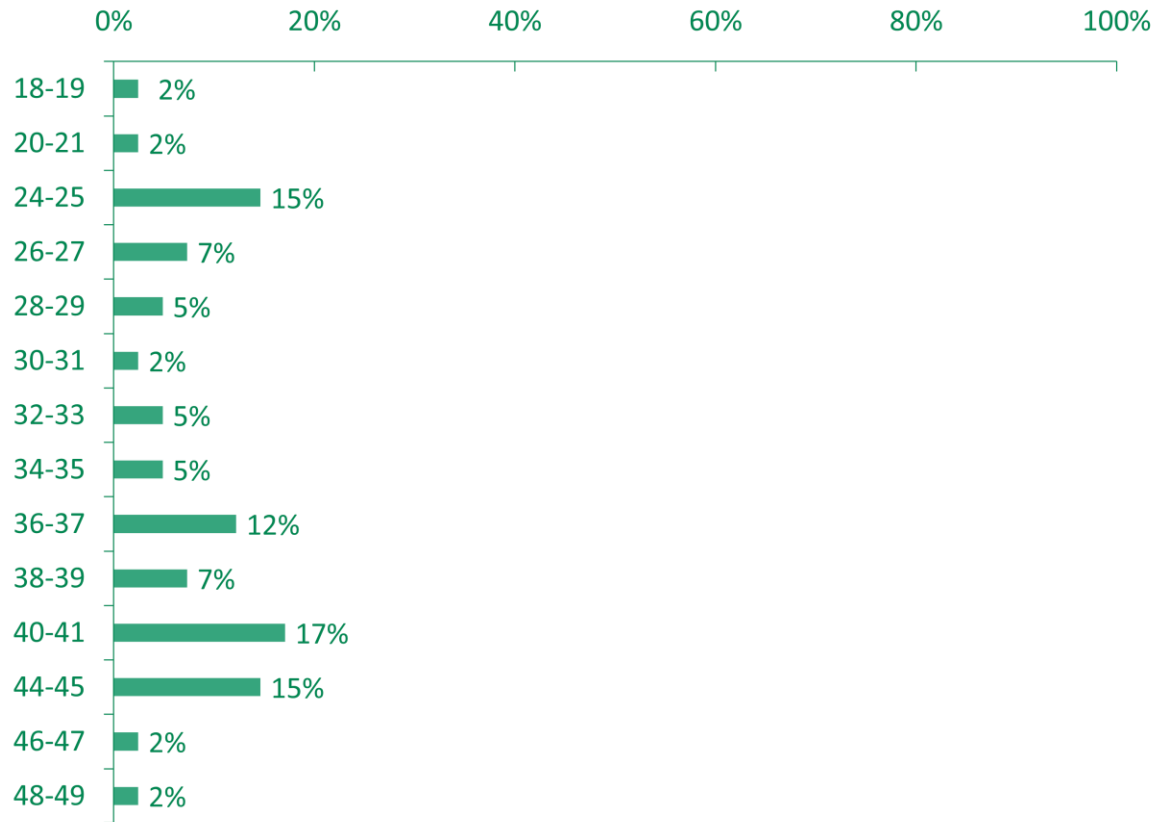


Mean	Median	Mode	StD	Max	Min
25.6	25.0	25.0	6.2	40.4	16.0

Appendix D  
 2024 Alabama Water Workforce Survey  
 Manager Survey Results

**M19. What is the highest hourly wage for the dual certified operator described in M17 above?**

Answer (\$)	%	Count
18-19	2%	1
20-21	2%	1
24-25	15%	6
26-27	7%	3
28-29	5%	2
30-31	2%	1
32-33	5%	2
34-35	5%	2
36-37	12%	5
38-39	7%	3
40-41	17%	7
44-45	15%	6
46-47	2%	1
48-49	2%	1
Totals	100%	41



Mean	Median	Mode	StD	Max	Min
35.3	36.5	30.0	8.0	48.8	19.5

Appendix D  
 2024 Alabama Water Workforce Survey  
 Manager Survey Results

**M20. In your opinion, which of the following are barriers to hiring operators? (Select all that apply)**

Chart 1 of 4

Count	2	1	1	1	2	1	1	1	1	1	1	1	1	2	
%	3%	1%	1%	1%	3%	1%	1%	1%	1%	1%	1%	1%	1%	3%	
(1) Rate of pay	●	●	●	●	●	●	●	●	●	●	●	●	●	●	(1)
(2) Financial limitations at the utility		●	●	●	●	●	●	●	●	●	●	●	●	●	(2)
(3) City Council or Utility Board		●	●	●	●	●	●	●							(3)
(4) Lack of qualified applicants		●	●	●	●	●	●	●	●	●	●	●	●	●	(4)
(5) Applicants are unwilling to become certified			●	●	●	●	●		●	●	●				(5)
(6) Certification requirements				●	●	●		●		●		●			(6)
(7) Certification process				●	●	●	●	●		●	●	●			(7)
(8) Lack of benefits				●									●		(8)
(9) Type of work				●	●	●		●			●	●		●	(9)
(10) Available shifts are not desirable					●	●						●			(10)

continued

Chart 2 of 4

Count	1	1	1	1	1	1	1	3	1	1	1	1	2	1	
%	1%	1%	1%	1%	1%	1%	1%	4%	1%	1%	1%	1%	3%	1%	
(1) Rate of pay	●	●	●	●	●	●	●	●	●	●	●	●	●	●	(1)
(2) Financial limitations at the utility	●														(2)
(3) City Council or Utility Board		●	●	●	●	●	●								(3)
(4) Lack of qualified applicants			●	●				●	●	●	●	●	●	●	(4)
(5) Applicants are unwilling to become certified			●		●			●	●	●	●	●	●		(5)
(6) Certification requirements				●	●						●	●		●	(6)
(7) Certification process				●		●					●				(7)
(8) Lack of benefits	●						●					●			(8)
(9) Type of work			●									●	●		(9)
(10) Available shifts are not desirable				●						●		●		●	(10)

continued

Appendix D  
 2024 Alabama Water Workforce Survey  
 Manager Survey Results

**M20. In your opinion, which of the following are barriers to hiring operators? (Select all that apply)**

Chart 3 of 4

Count	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
(1) Rate of pay	●	●	●	●	●	●	●	●	●						(1)
(2) Financial limitations at the utility										●	●	●	●		(2)
(3) City Council or Utility Board											●			●	(3)
(4) Lack of qualified applicants	●	●	●	●	●							●			(4)
(5) Applicants are unwilling to become certified															(5)
(6) Certification requirements	●	●				●	●	●					●		(6)
(7) Certification process	●	●					●	●	●				●		(7)
(8) Lack of benefits			●	●					●						(8)
(9) Type of work		●		●	●			●	●						(9)
(10) Available shifts are not desirable	●						●								(10)

continued

Chart 4 of 4

Count	1	5	1	3	1	1	2	2	4	1	1	1	Total: 71
%	1%	7%	1%	4%	1%	1%	3%	3%	6%	1%	1%	1%	100%
(1) Rate of pay													(1)
(2) Financial limitations at the utility													(2)
(3) City Council or Utility Board	●												(3)
(4) Lack of qualified applicants	●	●	●	●	●	●	●	●	●	●			(4)
(5) Applicants are unwilling to become certified	●			●	●	●					●		(5)
(6) Certification requirements					●		●	●	●				(6)
(7) Certification process					●				●	●		●	(7)
(8) Lack of benefits													(8)
(9) Type of work						●						●	(9)
(10) Available shifts are not desirable	●		●					●					(10)

Appendix D  
 2024 Alabama Water Workforce Survey  
 Manager Survey Results

**M21. If you indicated that a “lack of qualified applicants” was a barrier to hiring operators. What qualifications have been lacking among potential operator applicants that prevented your utility from hiring them? (Select all that apply)**

Count	32	11	7	3	Total: 53
%	60%	21%	13%	6%	100%
(1) Lack of operator license	●				
(2) Lack of experience in relevant positions		●			
(3) Failure to meet minimum education requirement			●		
(4) Failure to pass a drug test				●	

Note: This question should have allowed multiple choices, but was accidentally coded to allow only a single choice.

Appendix D  
 2024 Alabama Water Workforce Survey  
 Manager Survey Results

**M22. Over the last two years, which of the following has your utility experienced? (Select all that apply)**

Chart 1 of 5

Count	2	1	1	1	4	1	1	1	2	2	1	
%	3%	1%	1%	1%	6%	1%	1%	1%	3%	3%	1%	
(1) Increased number of job openings	●	●	●	●	●	●	●	●	●	●	●	(1)
(2) Decreased number of job openings												(2)
(3) Increased number of applicants for jobs		●	●	●								(3)
(4) Decreased number of applicants for jobs					●	●	●	●	●	●	●	(4)
(5) Increased workloads			●					●	●	●	●	(5)
(6) Decreased workloads												(6)
(7) Higher morale												(7)
(8) Lower morale				●								(8)
(9) Increased funds coming in												(9)
(10) Decreased funds coming in												(10)
(11) Increased stress						●			●	●		(11)
(12) Decreased stress												(12)
(13) Delays in receiving chemicals, parts, etc							●			●	●	(13)
(14) None of the above												(14)

continued

Chart 2 of 5

Count	1	1	2	2	5	3	1	1	1	1	1	
%	1%	1%	3%	3%	7%	4%	1%	1%	1%	1%	1%	
(1) Increased number of job openings	●	●	●	●	●	●	●	●	●	●	●	(1)
(2) Decreased number of job openings												(2)
(3) Increased number of applicants for jobs												(3)
(4) Decreased number of applicants for jobs	●	●	●	●	●	●	●	●	●			(4)
(5) Increased workloads	●	●	●	●	●	●				●	●	(5)
(6) Decreased workloads												(6)
(7) Higher morale	●	●					●	●	●			(7)
(8) Lower morale			●	●	●	●					●	(8)
(9) Increased funds coming in									●			(9)
(10) Decreased funds coming in	●		●	●							●	(10)
(11) Increased stress		●	●	●	●	●					●	(11)
(12) Decreased stress												(12)
(13) Delays in receiving chemicals, parts, etc		●		●		●		●				(13)
(14) None of the above												(14)

continued

**M22. Over the last two years, which of the following has your utility experienced? (Select all that apply)**

Chart 3 of 5

Count	1	1	1	1	1	2	2	1	1	1	1	
%	1%	1%	1%	1%	1%	3%	3%	1%	1%	1%	1%	
(1) Increased number of job openings	●	●	●	●	●							(1)
(2) Decreased number of job openings								●	●	●	●	(2)
(3) Increased number of applicants for jobs									●			(3)
(4) Decreased number of applicants for jobs										●		(4)
(5) Increased workloads	●	●							●		●	(5)
(6) Decreased workloads			●									(6)
(7) Higher morale			●									(7)
(8) Lower morale	●			●	●						●	(8)
(9) Increased funds coming in		●			●					●		(9)
(10) Decreased funds coming in				●	●				●		●	(10)
(11) Increased stress	●	●		●	●				●		●	(11)
(12) Decreased stress			●							●		(12)
(13) Delays in receiving chemicals, parts, etc		●		●		●			●		●	(13)
(14) None of the above							●					(14)

continued

Chart 4 of 5

Count	1	1	3	1	1	1	1	1	1	1	1	
%	1%	1%	4%	1%	1%	1%	1%	1%	1%	1%	1%	
(1) Increased number of job openings												(1)
(2) Decreased number of job openings	●											(2)
(3) Increased number of applicants for jobs		●										(3)
(4) Decreased number of applicants for jobs			●	●	●	●	●	●	●	●	●	(4)
(5) Increased workloads	●	●				●	●	●	●	●	●	(5)
(6) Decreased workloads												(6)
(7) Higher morale		●										(7)
(8) Lower morale	●										●	(8)
(9) Increased funds coming in												(9)
(10) Decreased funds coming in						●	●	●				(10)
(11) Increased stress	●			●			●	●	●		●	(11)
(12) Decreased stress												(12)
(13) Delays in receiving chemicals, parts, etc		●			●			●		●	●	(13)
(14) None of the above												(14)

continued

Appendix D  
 2024 Alabama Water Workforce Survey  
 Manager Survey Results

**M22. Over the last two years, which of the following has your utility experienced? (Select all that apply)**

Chart 5 of 5

Count	1	2	1	1	1	1	2	1	Total: 72
%	1%	3%	1%	1%	1%	1%	3%	1%	100%
(1) Increased number of job openings									(1)
(2) Decreased number of job openings									(2)
(3) Increased number of applicants for jobs									(3)
(4) Decreased number of applicants for jobs									(4)
(5) Increased workloads	●	●	●	●	●	●	●	●	(5)
(6) Decreased workloads									(6)
(7) Higher morale					●				(7)
(8) Lower morale						●	●		(8)
(9) Increased funds coming in								●	(9)
(10) Decreased funds coming in		●			●				(10)
(11) Increased stress		●	●		●	●	●	●	(11)
(12) Decreased stress									(12)
(13) Delays in receiving chemicals, parts, etc				●	●		●		(13)
(14) None of the above									(14)



Appendix D  
 2024 Alabama Water Workforce Survey  
 Manager Survey Results

**M23. As the manager of the utility, you have firsthand knowledge about your operators' job satisfaction. Consider each of the following and indicate whether your operators are extremely dissatisfied, somewhat dissatisfied, neither satisfied nor dissatisfied, somewhat satisfied, or extremely satisfied with that aspect of their job. If you aren't sure, you can mark the answer "I don't know."**



Appendix D  
 2024 Alabama Water Workforce Survey  
 Manager Survey Results

**M24. In your experience, what reasons do operators give for leaving the job? (Select all that apply)**

Chart 1 of 4

Count	11	1	1	1	1	1	1	1	1	1	1	1	6	
%	16%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	9%	
(1) Retiring	●	●	●	●	●	●	●	●	●	●	●	●	●	(1)
(2) They no longer want to work in the water sector		●	●	●	●	●	●	●	●	●				(2)
(3) Renewal fees are too expensive												●		(3)
(4) Better pay in another job opportunity		●	●	●	●	●	●	●				●	●	(4)
(5) Better benefits in another job opportunity		●	●	●	●	●						●		(5)
(6) Another job opportunity allows for career advancement			●	●	●		●							(6)
(7) Too many regulations			●	●				●	●	●				(7)
(8) Too much responsibility			●			●			●			●		(8)
(9) Undesirable working hours				●	●	●	●	●		●				(9)
(10) Certification exam and process is too difficult			●			●		●	●			●		(10)

continued

Chart 2 of 4

Count	2	2	1	1	1	1	1	1	1	1	1	1	1	
%	3%	3%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	
(1) Retiring	●	●	●	●	●	●	●	●	●	●	●	●	●	(1)
(2) They no longer want to work in the water sector														(2)
(3) Renewal fees are too expensive														(3)
(4) Better pay in another job opportunity	●	●	●	●	●	●	●	●	●	●	●	●	●	(4)
(5) Better benefits in another job opportunity		●	●	●	●	●	●	●						(5)
(6) Another job opportunity allows for career advancement			●	●	●				●	●				(6)
(7) Too many regulations						●			●			●	●	(7)
(8) Too much responsibility							●			●			●	(8)
(9) Undesirable working hours					●			●		●				(9)
(10) Certification exam and process is too difficult	●			●	●	●		●		●	●	●		(10)

continued

Appendix D  
 2024 Alabama Water Workforce Survey  
 Manager Survey Results

**M24. In your experience, what reasons do operators give for leaving the job? (Select all that apply)**

Chart 3 of 4

Count	1	1	2	1	2	1	1	1	1	1	3	2	2	
%	1%	1%	3%	1%	3%	1%	1%	1%	1%	1%	4%	3%	3%	
(1) Retiring	●	●	●	●	●									(1)
(2) They no longer want to work in the water sector							●	●	●					(2)
(3) Renewal fees are too expensive														(3)
(4) Better pay in another job opportunity							●	●		●	●	●		(4)
(5) Better benefits in another job opportunity	●							●					●	(5)
(6) Another job opportunity allows for career advancement		●							●					(6)
(7) Too many regulations			●	●										(7)
(8) Too much responsibility	●		●					●						(8)
(9) Undesirable working hours				●	●									(9)
(10) Certification exam and process is too difficult				●		●			●		●			(10)

continued

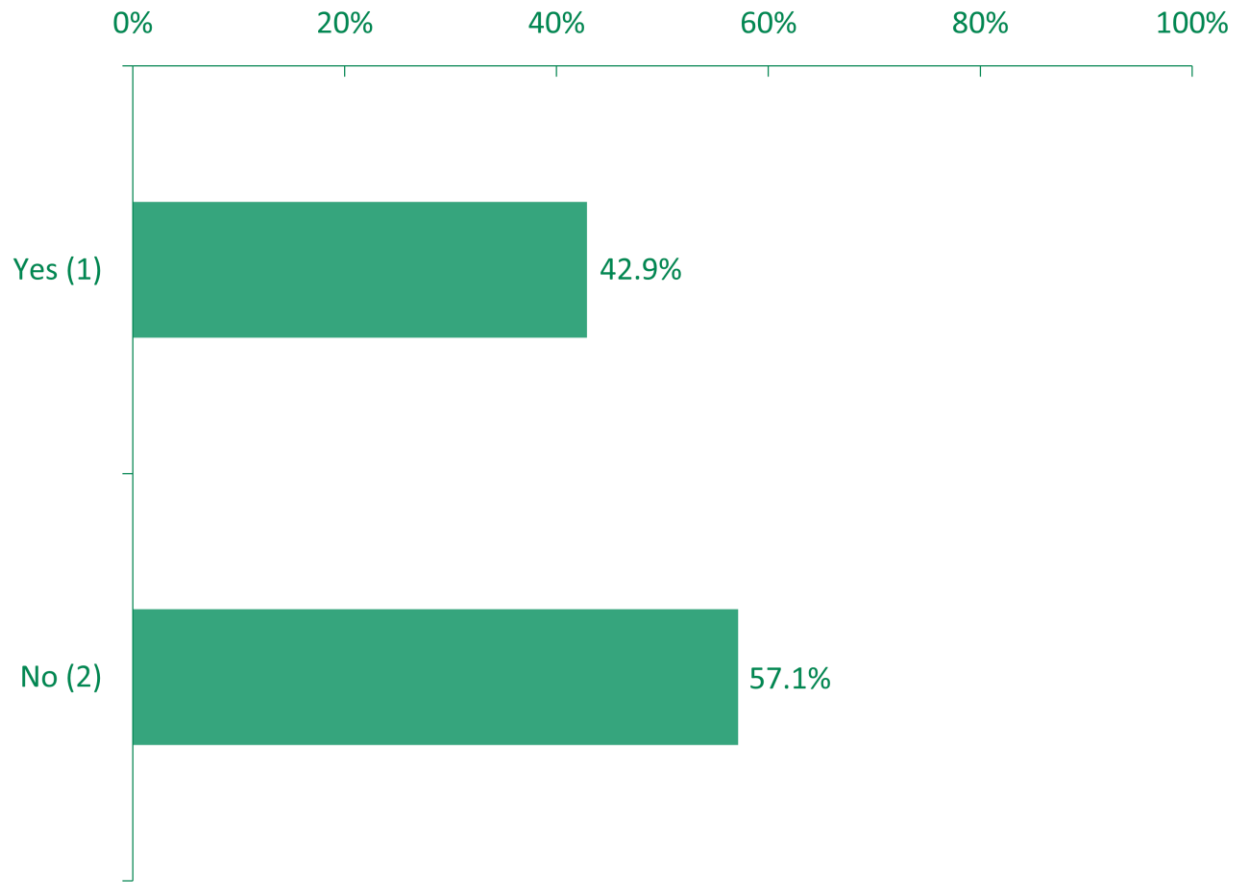
Chart 4 of 4

Count	3	2	1	1	1	1	1	1	Total: 70
%	4%	3%	1%	1%	1%	1%	1%	1%	100%
(1) Retiring									(1)
(2) They no longer want to work in the water sector									(2)
(3) Renewal fees are too expensive									(3)
(4) Better pay in another job opportunity	●	●	●	●	●	●			(4)
(5) Better benefits in another job opportunity	●	●	●						(5)
(6) Another job opportunity allows for career advancement	●	●	●	●			●		(6)
(7) Too many regulations				●					(7)
(8) Too much responsibility		●			●		●		(8)
(9) Undesirable working hours			●	●		●			(9)
(10) Certification exam and process is too difficult		●		●			●		(10)

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2024 Alabama Water Workforce Survey  
Manager Survey Results

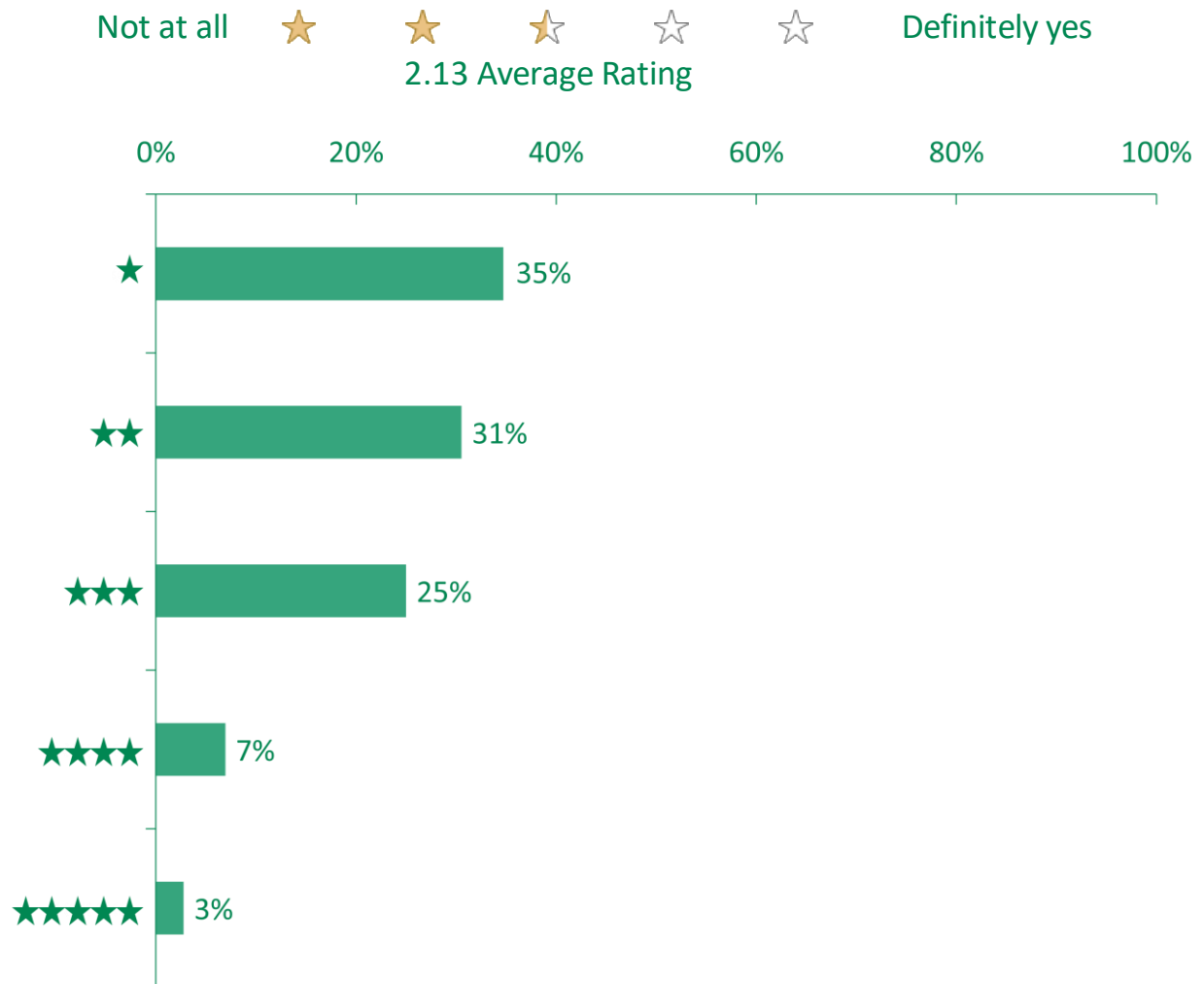
**M25. In your opinion, does your utility have enough operators?**

Answer	%	Count
Yes (1)	42.9%	30
No (2)	57.1%	40
<b>Total</b>	<b>100.0%</b>	<b>70</b>



**M26. In your opinion, do you think the general public knows the operator career exists?**

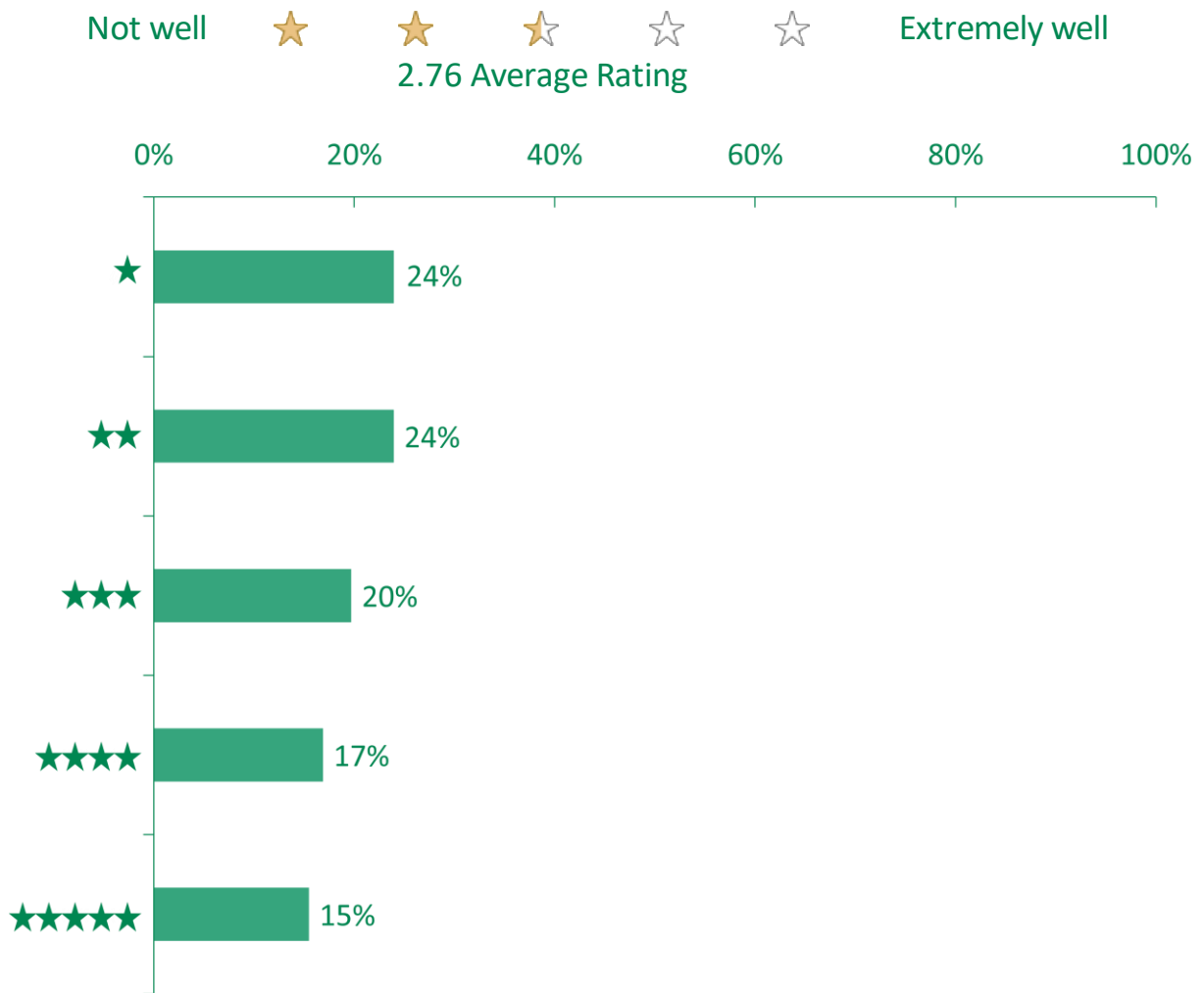
Answer	%	Count
★	35%	25
★★	31%	22
★★★	25%	18
★★★★	7%	5
★★★★★	3%	2
Total	100%	72



Appendix D  
 2024 Alabama Water Workforce Survey  
 Manager Survey Results

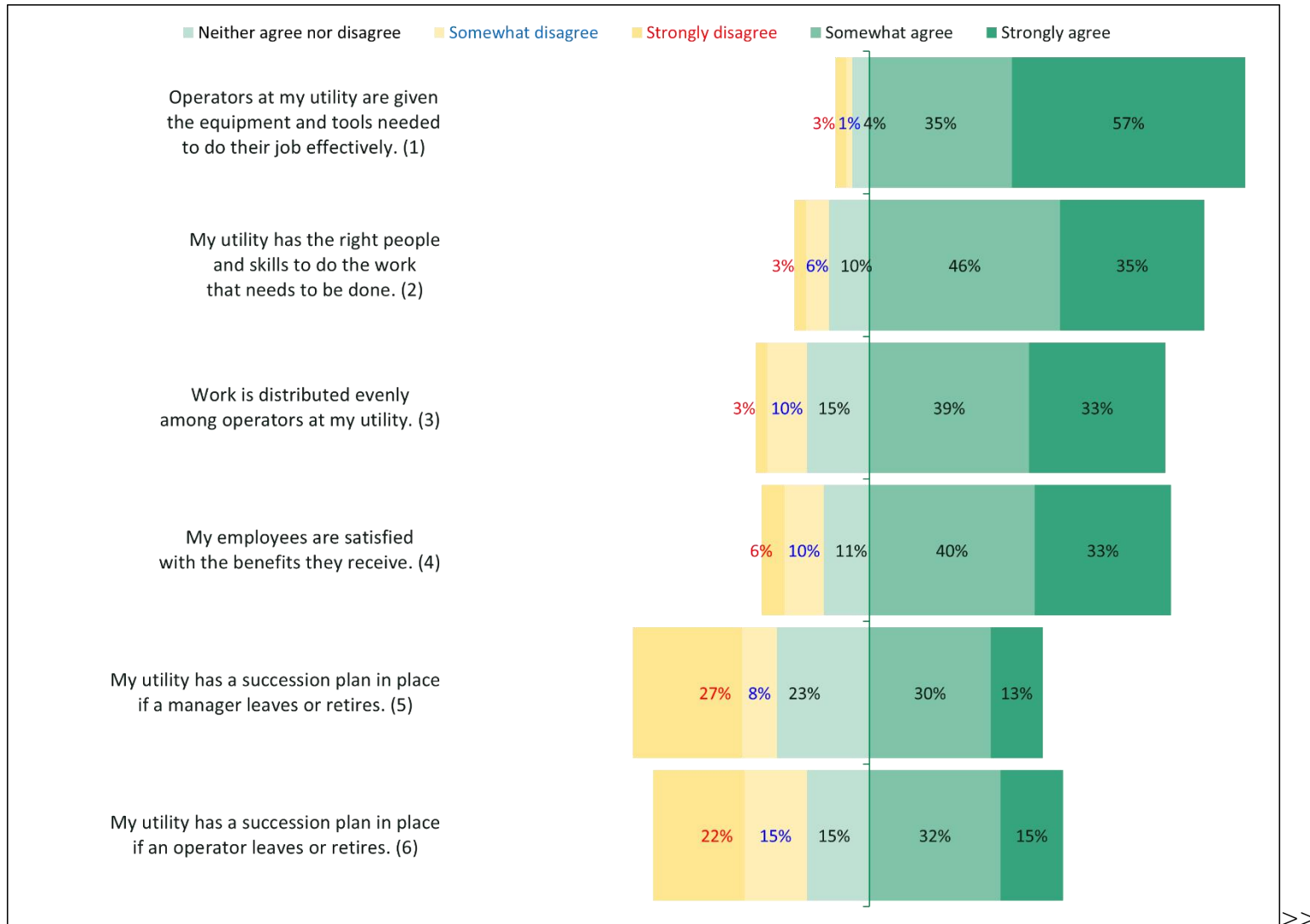
**M27. In your opinion, how well do your utility's decision makers (e.g., city council or utility board) understand the challenge of recruiting and retaining operators?**

Answer	%	Count
★	24%	17
★★	24%	17
★★★	20%	14
★★★★	17%	12
★★★★★	15%	11
Total	100%	71



Appendix D  
 2024 Alabama Water Workforce Survey  
 Manager Survey Results

**M28. Consider the following statements and indicate whether you strongly disagree, somewhat disagree, neither agree nor disagree, somewhat agree, or strongly agree with each.**



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 2024 Alabama Water Workforce Survey  
 Manager Survey Results

**M29. – M34. Water I**

Number of operator positions your utility has **Budgeted** for, **Filled**, and **Need**.

How many you have **hired in the last 12 months**;

**how many have certified in the position and**

**how many have left.**

Budgeted	Filled	Need	Hired	Certified	Left
3	3	1			
5	5	0			0
2	0	0	0	0	0
			1		1
0	1	0	1	0	1
7	1	3	0	0	1
2	1	2	1	2	2
					2
2	2		1	1	1
0	0	2	0	0	0
3	3	5	3	1	3
11	9	2	0	0	0
4	1	4	1	0	0
0	3	5	0	0	2
1	1		1	1	
0	0	0	0	1	0
3	3	3	3	2	2
4	4	0	3	0	3
2	2	2	0	0	0
2	1		1		1
7	7		3	1	1
3	3	0		1	
3	3	0	0	0	0
3	3	3	2	2	0
64	61	0	3	0	2
1	1	1	1	0	0
<b>132</b>	<b>118</b>	<b>33</b>	<b>25</b>	<b>12</b>	<b>22</b>



Appendix D  
 2024 Alabama Water Workforce Survey  
 Manager Survey Results

**M35. – M40. Water II**

Number of operator positions your utility has **Budgeted** for, **Filled**, and **Need**.

How many you have **hired in the last 12 months**;

**how many have certified in the position and**

**how many have left.**

Budgeted	Filled	Need	Hired	Certified	Left
			1		
1	1			1	
1	1			1	
	0	1	1	0	1
2	0	2	0	0	0
11	5	2	0	3	1
2	1	2	0	0	0
		3		1	
17	15	2	1	1	2
2	1	2	0	0	0
3	2	0	0	0	0
0	0	0	2	2	0
8	6	1	1	1	1
3	3	0	0	0	0
1	1	0	0	0	0
3	2	3	0	0	0
1	1		0	0	0
1	1	1	1	1	0
3	3	0	0	0	0
12	10	0	0	4	0
<b>71</b>	<b>53</b>	<b>19</b>	<b>7</b>	<b>15</b>	<b>5</b>

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**M41.- M46. Water III**

Number of operator positions your utility has **Budgeted** for, **Filled**, and **Need**.

How many you have **hired in the last 12 months**;

**how many have certified in the position and**

**how many have left.**

Budgeted	Filled	Need	Hired	Certified	Left
	2	3			1
4	1	3	0	0	0
3	3	0	0	0	0
5	5	6	1	1	
<b>12</b>	<b>11</b>	<b>12</b>	<b>1</b>	<b>1</b>	<b>1</b>

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**M47. – M52. Water IV**

Number of operator positions your utility has **Budgeted** for, **Filled**, and **Need**.  
 How many you have **hired in the last 12 months**;  
**how many have certified in the position and**  
**how many have left.**

Budgeted	Filled	Need	Hired	Certified	Left
7	7	0	1	0	1
7	6	1			1
5	5				
3	3	0	0	0	0
1	1	1	1	0	1
4	4	0	1	0	1
9	7	8	0	2	1
6	6	1	2	0	1
11	6	5	0	0	1
6	4	2	0	0	2
7	7	7	0	1	0
5	5	0	0	1	0
11	10	1	1	2	1
5	7	0	3	0	1
2	1	2	1	0	0
26	24	2	4	3	3
12	12	0	5	2	0
6	5	1	0	0	1
5	0	0	0	0	0
	1			1	
1	1	1	1	0	0
15	12	0	0	0	0
4					
<b>158</b>	<b>134</b>	<b>32</b>	<b>20</b>	<b>12</b>	<b>15</b>

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**M53. – M58. Wastewater I**

Number of operator positions your utility has **Budgeted** for, **Filled**, and **Need**.  
 How many you have **hired in the last 12 months**;  
**how many have certified in the position and**  
**how many have left.**

Budgeted	Filled	Need	Hired	Certified	Left
4	0	4	2	0	2
			6		
1	1	1	1	2	1
2	1	0	1	0	0
2	2	1	2	0	1
		1	1		
3	3	3	3	3	0
			5		
1	1	1	1	0	0
			8		
<b>13</b>	<b>8</b>	<b>11</b>	<b>30</b>	<b>5</b>	<b>4</b>

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**M59. – M64. Wastewater IC**

Number of operator positions your utility has **Budgeted** for, **Filled**, and **Need**.  
 How many you have **hired in the last 12 months**;  
**how many have certified in the position and**  
**how many have left.**

Budgeted	Filled	Need	Hired	Certified	Left
1	1				
0					
7	7				
6	2	0	2	2	0
8	2	0	0	1	0
0	0	0	0	2	0
5	5	0	0	0	0
	2	2			
4	4	0	0	0	0
3	3	0	0	1	
76	70	1	8	3	4
<b>110</b>	<b>96</b>	<b>3</b>	<b>10</b>	<b>9</b>	<b>4</b>

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**M65. – M70. Wastewater II**

Number of operator positions your utility has **Budgeted** for, **Filled**, and **Need**.  
 How many you have **hired in the last 12 months**;  
**how many have certified in the position and**  
**how many have left.**

Budgeted	Filled	Need	Hired	Certified	Left
		1			
1	1	1	1	0	1
14	5	9	9		
	1	2			
2	2	1	4	1	3
4	3	1	0	0	0
2	0	2	0	1	0
	2	2	3	2	1
2	2	2			
		1			
2	2	0	0	0	0
1	1	2	0	0	0
0	1	0	0	0	0
4		1		2	1
5	3	2	0	0	0
2	2	0	0	0	0
2	2	2	2	2	0
	3				
1		1			1
8	4	1	1	1	1
2	1	5	1	2	1
<b>52</b>	<b>35</b>	<b>36</b>	<b>21</b>	<b>11</b>	<b>9</b>

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**M71. – M76. Wastewater III**

Number of operator positions your utility has **Budgeted** for, **Filled**, and **Need**.  
 How many you have **hired in the last 12 months**;  
**how many have certified in the position and**  
**how many have left.**

Budgeted	Filled	Need	Hired	Certified	Left
4	4	5	1		
7	5	2			
					2
		2			
0	0	1	0	0	0
3	0	3	1	0	1
0	0	2	0	0	0
2	0	2	0	1	0
5	2	3	0	0	0
2	2	1	0	0	0
<b>23</b>	<b>13</b>	<b>21</b>	<b>2</b>	<b>1</b>	<b>3</b>

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**M77. – M82. Wastewater IV**

Number of operator positions your utility has **Budgeted** for, **Filled**, and **Need**.  
 How many you have **hired in the last 12 months**;  
**how many have certified in the position and**  
**how many have left.**

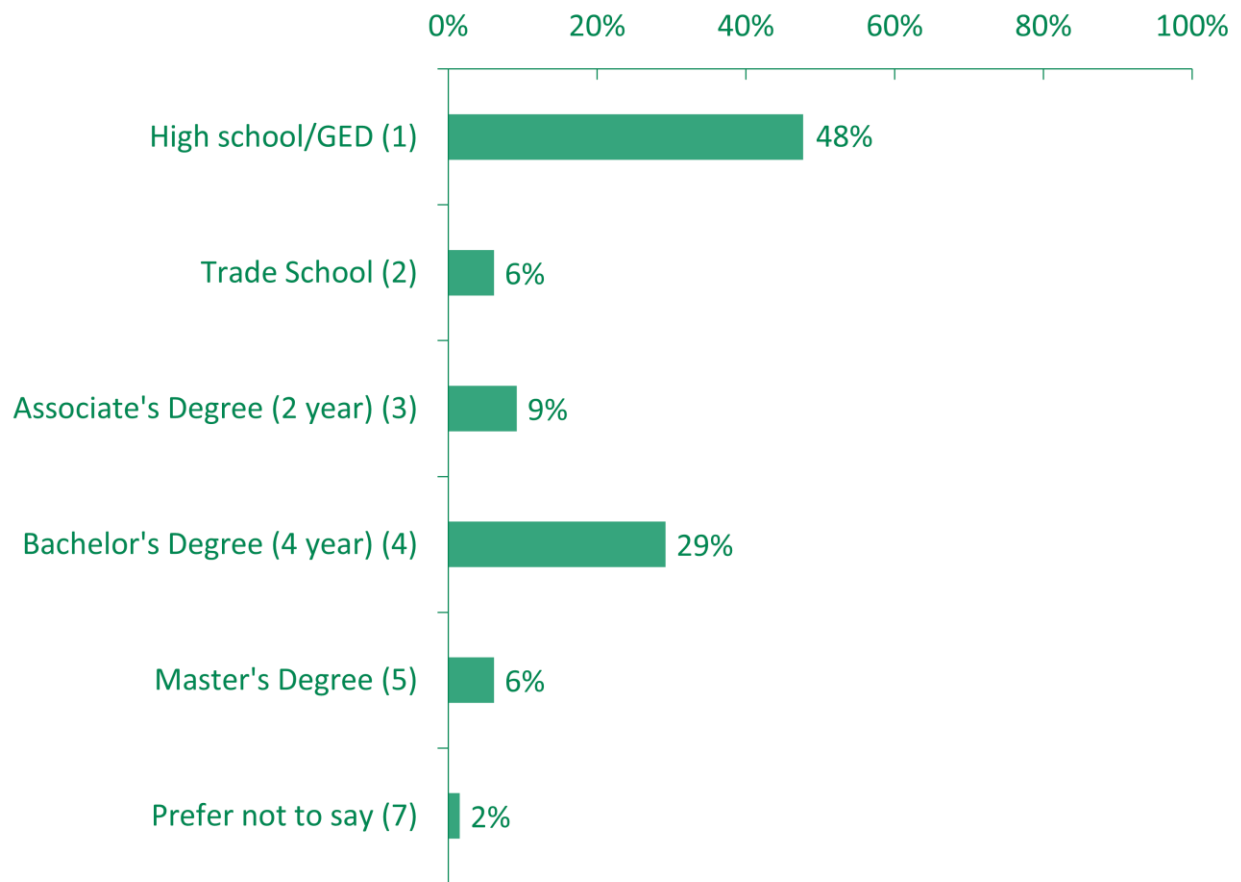
Budgeted	Filled	Need	Hired	Certified	Left
7	7	0	1	0	1
5	4	1			
3	2				1
6	5	2	0	0	0
0	0	0	0	0	2
	3	4	0	3	
4	4	0	0	0	0
1		2			
19	19	5	0	3	0
6	2	3	3	0	0
1	1	1	1	0	1
2	2	2	2	2	0
	20	25		3	1
2	2	3	0	0	0
28	19	0	1	1	3
5	1	5	1	2	2
<b>89</b>	<b>91</b>	<b>53</b>	<b>9</b>	<b>14</b>	<b>11</b>



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**M83. What's your highest level of education?**

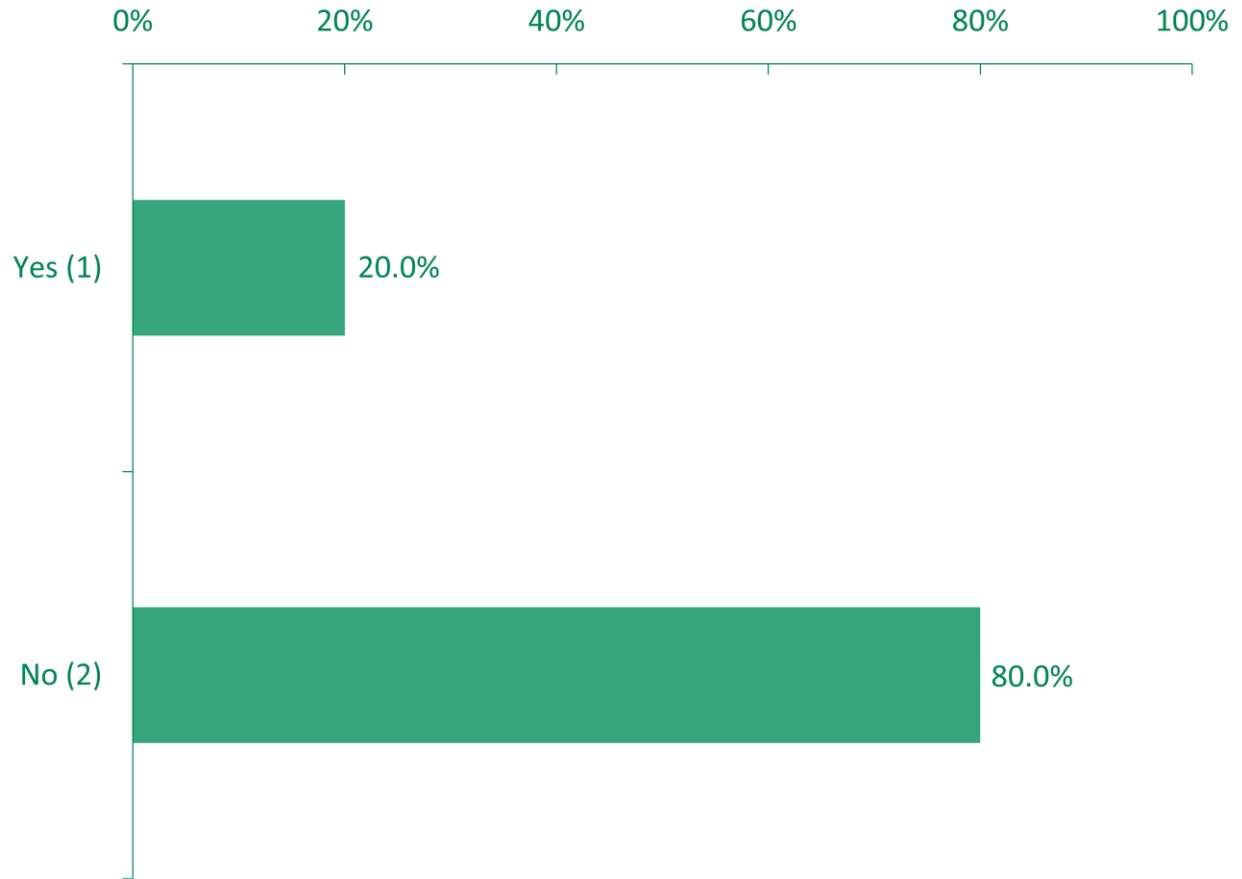
Answer	%	Count
High school/GED (1)	48%	31
Trade School (2)	6%	4
Associate's Degree (2 year) (3)	9%	6
Bachelor's Degree (4 year) (4)	29%	19
Master's Degree (5)	6%	4
Prefer not to say (7)	2%	1
Total	100%	65



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**M84. Have you earned a degree or certificate from an Alabama Community College?**

Answer	%	Count
Yes (1)	20.0%	14
No (2)	80.0%	56
<b>Total</b>	<b>100.0%</b>	<b>70</b>



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**M85. What degree or certificate did you earn? Tell us the degree or Certificate program, e.g. General Studies, Music, Electronics, etc.(If more than one, name ones most relevant to your work experience.)**

Answer	Count
Associates Arts	1
Associates Of Science Business Administration	1
Business	1
Business Management	1
Computer Science	1
Drafting And Design	1
Electronics	1
General Studies	2
Grade Iv Water Treatment Program At Nwscc	1
MS-Leadership Management/ AS-Electrical Technology/ Industrial Maintenance/ Osha 10	1
Water/ Wastewater Operations	1
Water And Wastewater Management Technology	1
Diesel Mechanic Certification	1
Total	14

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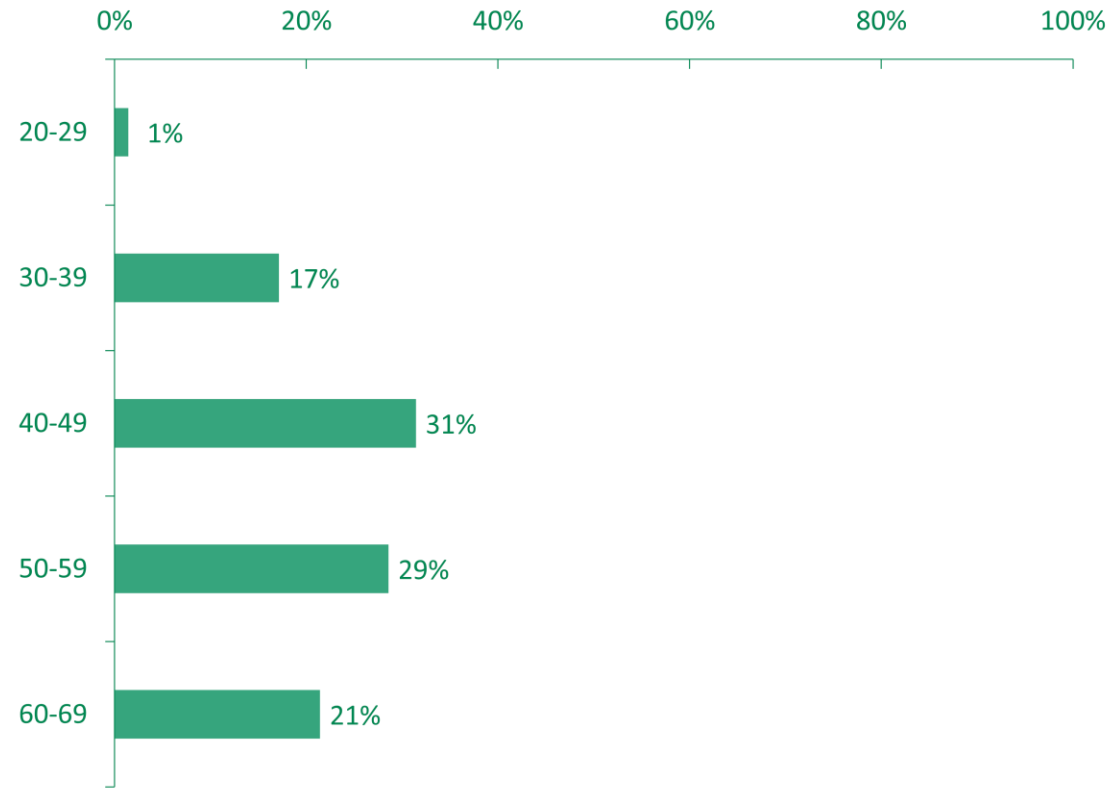
**M86. At which Community College did you earn your degree or certificate?**

Answers	Count
Coastal Alabama Community College	2
Gadsden State Community College	1
Northeast Alabama Community College	2
Northwest Shoals Community College	2
Shelton State Community College	3
Snead State Community College	1
Southern Union State Community College	1
Wallace Community College – Selma	1
Wallace State Community College	1
Total	14

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**M87. What is your age?**

Answer (years)	%	Count
20-29	1%	1
30-39	17%	12
40-49	31%	22
50-59	29%	20
60-69	21%	15
Totals	100%	70

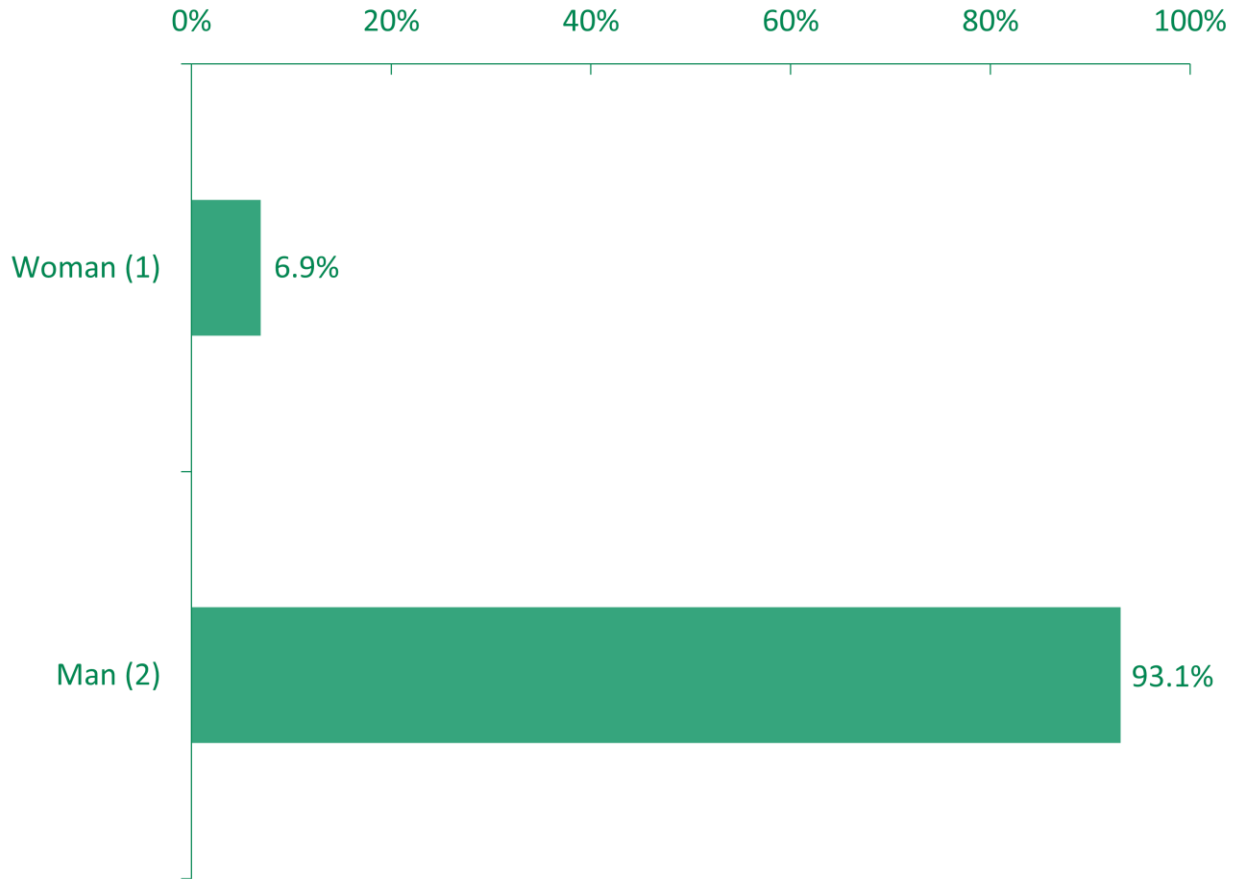


Mean	Median	Mode	StD	Max	Min
50.0	49.5	60.0	9.4	68.0	28.0

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**M88. What is your gender?**

Answer	%	Count
Woman (1)	6.9%	5
Man (2)	93.1%	67
<b>Total</b>	<b>100.0%</b>	<b>72</b>



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**M89. Do you want to tell us anything else about wages?**

Responses
A lot of hours & responsibilities for the wage
All employees are paid the same when topped out. 6 months 80%, next 6 months 90%, top out 100% in 1 year. Foreman and Chief operators make 10% above other employees.
Could always be more.
I believe wages in the water industry are going to have to increase throughout all municipalities. In my opinion the pay scale needs to be comparable for larger and smaller systems so that the smaller systems are not a training ground for the larger ones. Small systems lose employees to larger systems because of higher pay. Also at a small system we do everything whereas a larger system operators have the option to just "operate". Water is the most important resource we have, we have to have it to survive, so why are them people who treat, distribute, collect and treat again not compensated that way? Every utility screams "we have great benefits" but are willing to only pay you the minimum. Smart, dependable, loyal employees cost money, those are the people who can go to different job sectors and easily get a 6 figure job, with good benefits as well. Why would they work somewhere that does not pay them their worth and have to go out during storms, night, work holidays and weekends, and do it and extremely low wage compared to other jobs?
If we had more qualified applicants as a utility, we could start them out at a much higher wage.
It takes in excess of 25 years to top out in pay in a given job classification. Entirely too long in my opinion.
My wage is ok
My wages are not in line with what a manager should make. I solely cover operations and compliance for a grade III plant with the exception to trading off every other weekend with our only other grade IV operator. We have no other certified operators. I also oversee the collections system of over 100 lift stations and do all necessary ordering and project management with any contractors we use. I am paid slightly more than our other grade IV certified operators. In my eyes I am a superintendent seeing that I manage both the WWTP and the collections systems.
Our organization feels very competitive about what we pay for the area.
Our wages are fairly competitive, but the shortage of operators has contributed to wage increases and difficulty in retention.
Some wages should be set and or recommended by ADEM based on Dual Certifications.
The value of water is not fully recognized by elected officials and the water industry does not do a good job of telling that story. Utilities are usually underfunded and the as new regs come down, they are expected to provide the same service without an increase in rates or wages.
Wages are not in line with other comparable utilities.
Wages in my utility for Grade 4 operators only just barely match the cost of living in [redacted]. The reluctance of city leadership to appropriately compensate operators in every division has been a major roadblock for retention and bringing in new talent.
Wastewater collections and treatment industry workers should be qualified for hazardous job duty and first responder benefits.
need to be increased

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**M90. Do you want to tell us anything else about hiring or retention challenges?**

Responses
General public not wanting to work, on call especially
I strongly feel we could do better state wide if our certified operators had first responders status and benefits as the police and fire. EPA recognizes certified operators nation wide as first responders.
It is hard to retain certified operators in rural areas.
Lack of awareness of profession makes the hiring pool small.
Main problem is the inability to pass the ADEM Operator Licensure exam.
Make the test within reason for entry level positions. You have made the test for someone that has advanced skills that are not necessary to become a certified operator. Most certified operators today who have operated with a lot of success over the years can not pass the test now. I really believe this to be a true statement.
Manager needs ownership of department instead of GM who doesn't have a clue
Need More classes to certify people going for Grade IV water certification
Once a utility has hired an employee they need to treat them well and give them a fair work life balance. Along with a good wage and fair and respectable treatment that is how you keep good employees who are loyal to you.
Our pay attracts neighboring certified operators, and we do not have to train them or invest in them since our applicants typically have a Grade IV operator certificate.
People don't want to work!!
[redacted] leadership has an almost malicious apathy to the wants and concerns of its operators. At best, issues can be expected to be addressed with hand waving and platitudes. At worst, suggestions can be met with outright hostility. More than once staff at my plant has been threatened with termination for the most minor of transgressions, and sometimes for simply voicing a complaint. The attitude of city leadership can most accurately be described as, "If you don't like it, leave".
The hiring challenge as a small utility that we face is just finding a person with the right mind set. Twenty three years ago, I came into the business knowing, that at times, the job comes first. I will go as far as saying that I treated the job like being a firefighter. If we had a problem we worked together and solved it. We need to find a way to get our young people back to that mind set.
The hiring challenges that we currently face are directly tied to the changes in the certification process. I began working in the W/WW industry in 1996. You had to gain on the job experience and class time before you could even qualify to take a certification exam. Now, anyone that has a diploma or GED can take the exam. With that being said, some people are great at taking an exam, but could never handle the responsibility of operating. It takes a TON of common sense and the ability to think on your feet working at these treatment plants. A lot of these new age "operators" depend completely on SCADA. For example, if your SCADA system shows that your sodium hypochlorite pump is running and calculating a GP/Hr. the new age "operators" will never physically walk over to that pump and confirm its actually pumping. Then when your CL2 residual starts dropping, they have no idea what to do! If ADEM would go back to the way it was years ago, the operator shortage problem would solve itself. The state has already lost a lot of the "old guys" to death or retirement. Go back to allowing Water/Wastewater systems to hire potential operators, and allow them to work under us long before they can even take a test. What is left of us "old guys" can better determine if that trainee will ever have the sense to operate and be dang good at it. If ADEM continues to allow these good test takers to enter the picking pool, you can bet that you will eventually have a major event at a treatment plant somewhere in the state. The systems in this state are being left with no other options than to hire them. Please go back to the old way of letting those of us that do the job everyday to determine who can and can not operate these plants!
The requirements of the position for water or wastewater treatment do not match the requirements for the position wages that are offered. The pay is too low.



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**M90. Do you want to tell us anything else about hiring or retention challenges?**

<b>Responses</b>
The shortage of operators has contributed to wage increases and difficulty in retention.
The younger generation do not want to work hard or willing to give extra effort and expect to make the same amount of money as the experienced employees.
We are a private company and our benefits make it unrealistic for anyone with a family to work for us because of the cost of insurance. We have been blessed with very good operators that actively make efforts to become certified but the last two operators have left because of insurance cost. While our hourly rate looks attractive for grade I-III our grade IV isn't in line with other systems of our size. Also when taking into account the high cost of insurance you are better off financially working for less hourly almost anywhere else because of the cost of family coverage insurance within the company. This make hiring or retaining anyone with the need of family coverage almost impossible.
We have had very little turnover.
people in general want to leave a plant job and come to a utility. These people don't last because of the type of work load experienced in utility work.

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**M91. Do you want to tell us anything else about dual-certified operators?**

Responses
I believe this is a double-edged sword, at the end of the day you still have test passers and operators.
I have 19 certified operators. 7 Dual, 17 water, and 9 wastewater. The lowest certificates are Grade II, and there are 10 Grade IV certificates. All of my employees are 100% certified.
[redacted] does not have any dual-certified operators, as the last operator to attempt dual-certification+ was made aware there would be no extra compensation for the increased expectations they would be shouldering
Some wages should be set and or recommended by ADEM based on Dual Certifications.
They are very much needed.
Very valuable, but having an operator certified in water or wastewater is hard enough. Dual certifications are very rare and almost impossible for a small system.

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**M92. If there's anything else you'd like to tell us, please do so below:**

Responses
High pay scale and great benefits attract highly skilled and certified operators to our company. The smaller communities struggle with pay scale and employee retention.
As a Grade 4 operator of a small system, that has worked his way up to from a ditch man to the manager's position. I can tell you , it has been a challenging experience and still is. That being said, if I could find dedicated and qualified operators. It would make our jobs as managers more enjoyable. I still enjoy getting my hands dirty along side my crew in the ditch. Thanks
For a system to work correctly, the board, operators, and ADEM must have an understanding that surpasses pointing fingers. Our whole country has old infrastructure, and some things should be priorities. More mandated training for board members and investment to recruit operators are vital.
I will also add that the certification classes and exams have a lot of irrelevant information. Go back to the basics of operating, and align your exams with that information. I can still remember being completely prepared to take all of my exams because the "old guys" taught us well and trusted us to work under their license. They would have never ever let us work under their license if they knew we were not capable. And, we could work unsupervised as long as the certified operator was within 30 minutes of being at the plant if needed. I could write a book on what needs to be done. And, I am sorry to be ranting. But it is frustrating working with the operators that have been trained to be EXAM ACES and NOT OPERATORS! So my humble advice is to reach back into history and look at the quality of operators this state has had. And, before we are all retired or dead, let us train a new crop of OPERATORS!
Keep up the good work.
Making the certification testing easier is not the solution to getting more qualified operators. While the pass rate may not be good it is largely due to operators being forced to test before they are ready and doing so over and over until they are discouraged so much they give up. What really needs to be in place is proper learning opportunities. College courses for both water/wastewater of all levels would be fantastic to give operators a sense of accomplishment leading up to certification. The classes offered locally currently are usually by one small group that covers most of the state and while they are quite helpful for someone that has zero experience they can't possibly cover enough material in the short amount of time most new operators are given to pass each certification. Online courses are very helpful as well but what a lot of people need in an in person course tailored to their specific grade level they are trying to obtain.
Managing a plant is a lot harder than it used to be. More sampling and reporting all at one time. LCRR, LT2, UCMR5, DSE, PFAS added to regular sampling. And if you are not great with a computer and mess up submitting one report you get an NOV.
Morale is at an all time low in the [redacted] Utility Department. For as much as the individual plant administration attempts to mitigate this, things cannot improve while operators are continually over worked and underpaid.
Pay is everything.
There is a shortage of certified water operators and the test is unreasonable. The last three employees that have studied and taken the test from the dcwa have been unable to pass it. They all have the practical knowledge in my opinion to be water operators. I do not even send them for the classes until I feel they have been here over a year and my chief water operator feels they are ready. I have some very capable and knowledgeable employees that cannot advance because they cannot pass the test.
The employees are the backbone of the industry it time they started being treated like it!
The most difficult part of operator certification is the test, especially wastewater (for us Grade 3). Certified operators looking for jobs are hard to find, so we look to train our own. Instead of looking for quality, well-rounded employees who are willing to work, we have to focus on hiring someone who can pass the Gade 3 test - regardless of other qualities. This test and operating our plant on a daily basis have very little in

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**M92. If there's anything else you'd like to tell us, please do so below:**

Responses
<p>common. I have employees with years of experience who can run our plant and solve issues with no problem. They cannot pass the unreasonable test required to be a certified operator.</p>
<p>Wastewater Treatment should be recognized as a professional field. A Wastewater Treatment Plant Operator is a jack of all trades. An operator's job covers everything at the wastewater plant.</p>
<p>The operator is responsible for meeting the NPDES permit requirements as well as staffing requirements. An operator is also responsible for painting, lawn care, plumbing, minor electrical repairs, maintaining electronics, mechanics, record keeping, laboratory testing, equipment and meter calibrations, sample collection and testing.</p>
<p>Most of the public does not understand the complexities of wastewater treatment or the vast biological, mechanical, mathematical, troubleshooting, and problem solving knowledge requirements.</p>
<p>The general public does not recognize the many dangers a Wastewater Treatment Plant Operator faces. Here is a list of a few; slips and falls, drowning, crushing injuries, electric hazards, waterborne diseases, confined spaces, unknown chemicals, entering the waste stream, unknown industrial and hospital waste byproducts, explosive gases being produced in collection system as well as from treatment process, possible asphyxiation from poisonous gases produced in the collection and treatment processes, the carcinogenic chemicals in the waste stream as well as those produced in the treatment process such as chloramine formations from disinfecting with chlorine and sulfur dioxide gases, risk of exposure to chlorine and sulfur dioxide gases.</p>
<p>Wastewater Operators are a dying breed. No one wants to be associated with human waste. However, we clean and protect water, which is one of the most valuable commodities to humans, plants, and animals.</p>
<p>We all rely on clean water to survive.</p>