

Appendix C

Appendix C contains the results of the Operator 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

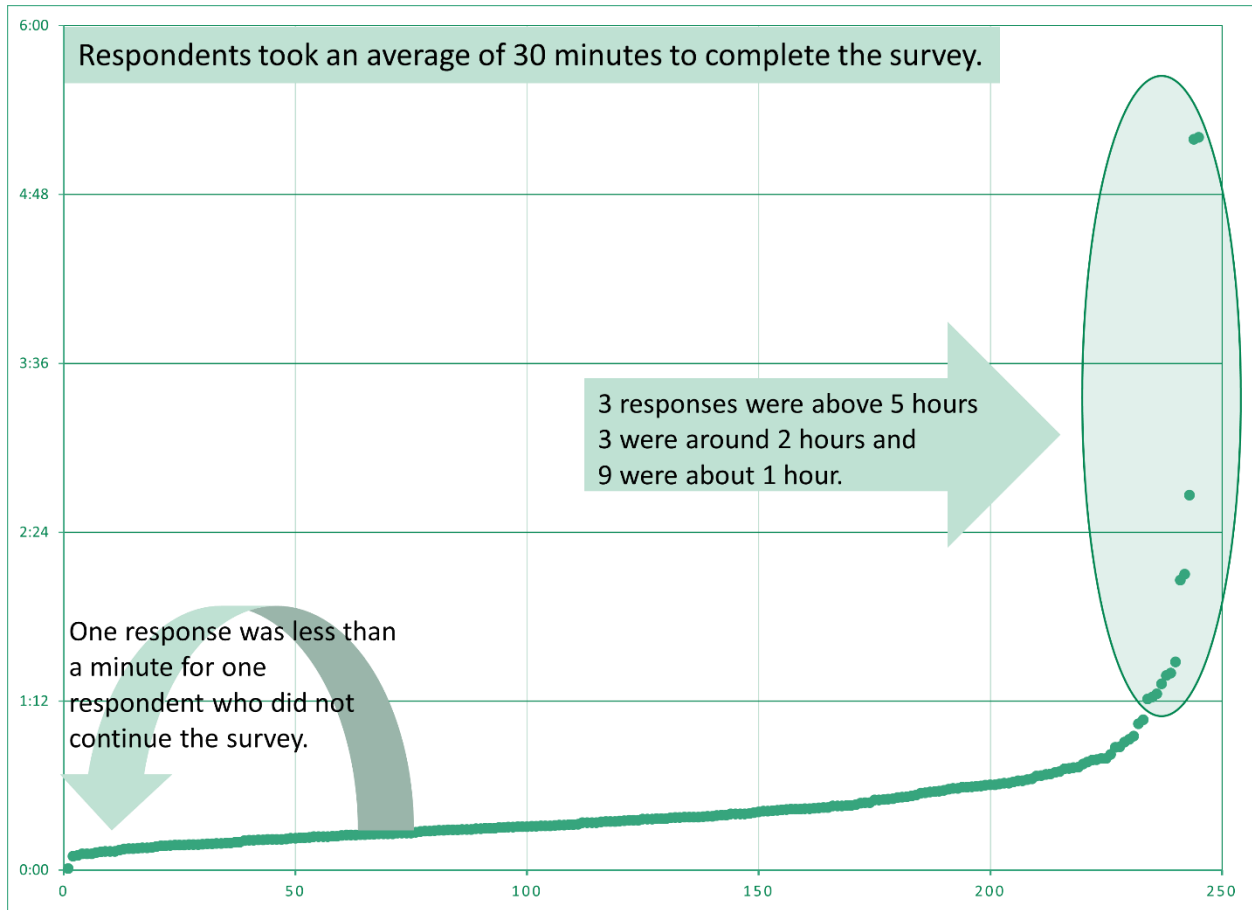
Count	6	1	1	1	2	1	6	3	Total: 21
%	29%	5%	5%	5%	10%	5%	29%	14%	100%
(1) My utility didn't support it	●	●	●						
(2) Too expensive		●		●					
(3) The certification process was overwhelming				●	●	●			
(4) I was concerned that I could not pass the exam		●	●	●		●	●		
(5) Personal reasons								●	

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.”

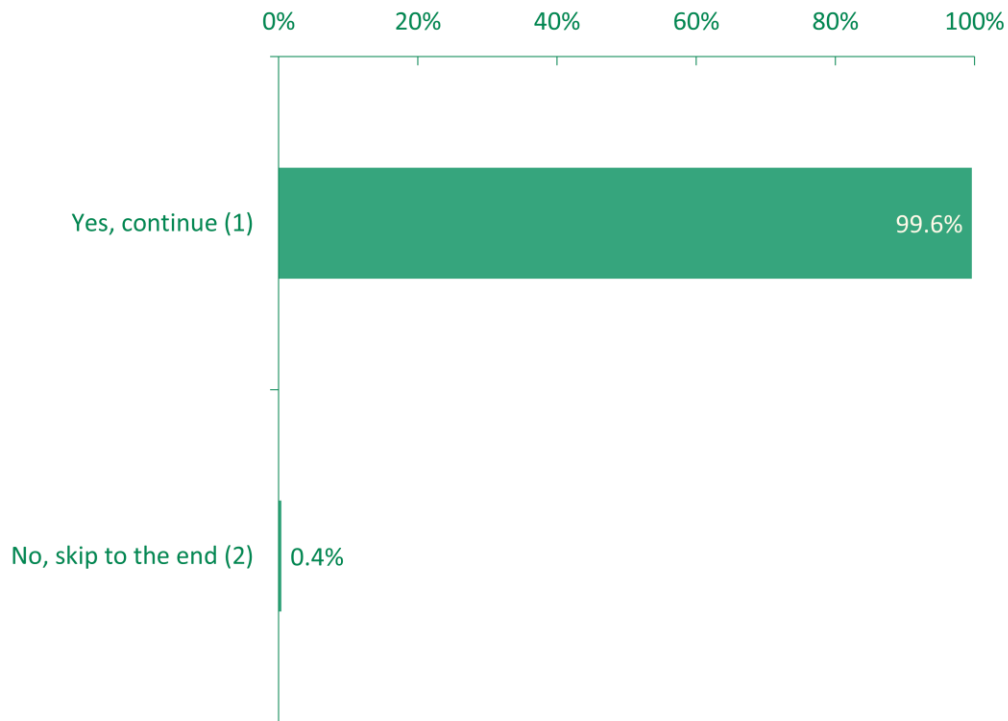
How long did it take operators to complete this survey?



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Operator Survey Results

O1. Do you want to continue with the survey?

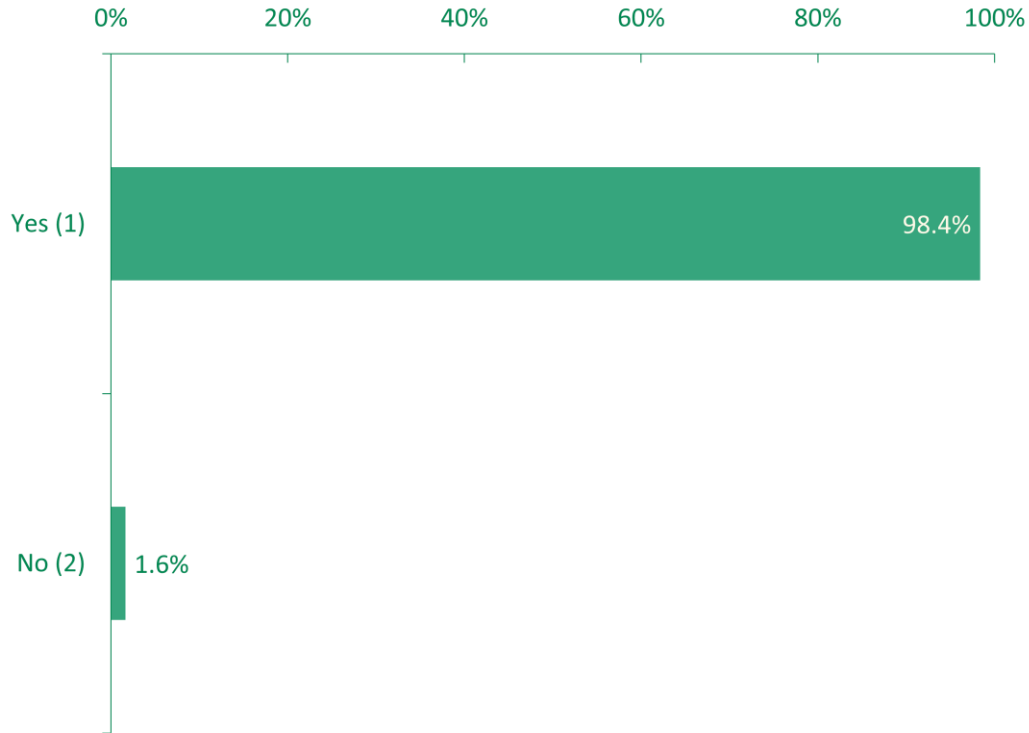
Answer	%	Count
Yes, continue (1)	99.6%	246
No, skip to the end (2)	0.4%	1
Total	100.0%	247



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O2. According to the definition above, are you an "active operator"?

Answer	%	Count
Yes (1)	98.4%	242
No (2)	1.6%	4
Total	100.0%	246



O3. What grade of certification(s) are currently active? (Select all that apply)

Chart 1 of 3

Count	16	1	6	1	4	35	3	4	7	3	6	
%	6.5%	0.4%	2.4%	0.4%	1.6%	14.2%	1.2%	1.6%	2.8%	1.2%	2.4%	
(1) I don't have a certificate, yet												(1)
(2) I don't have a certificate, and won't be getting one												(2)
(3) Water I	●	●	●	●	●							(3)
(4) Water II						●	●	●	●	●	●	(4)
(5) Water III												(5)
(6) Water IV												(6)
(7) Wastewater I		●					●					(7)
(8) Wastewater IC			●					●				(8)
(9) Wastewater II									●			(9)
(10) Wastewater III				●						●		(10)
(11) Wastewater IV					●						●	(11)
(12) None												(12)

continued

Chart 2 of 3

Count	14	1	1	1	3	56	2	3	4	1	12	
%	5.7%	0.4%	0.4%	0.4%	1.2%	22.8%	0.8%	1.2%	1.6%	0.4%	4.9%	
(1) I don't have a certificate, yet												(1)
(2) I don't have a certificate, and won't be getting one												(2)
(3) Water I												(3)
(4) Water II												(4)
(5) Water III	●	●	●	●	●							(5)
(6) Water IV						●	●	●	●	●	●	(6)
(7) Wastewater I							●					(7)
(8) Wastewater IC		●						●				(8)
(9) Wastewater II			●						●			(9)
(10) Wastewater III				●						●		(10)
(11) Wastewater IV					●						●	(11)
(12) None												(12)

continued

03. What grade of certification(s) are currently active? (Select all that apply)

Chart 3 of 3

Count	2	4	4	9	35	1	1	1	1	4	Total: 246
%	0.8%	1.6%	1.6%	3.7%	14.2%	0.4%	0.4%	0.4%	0.4%	1.6%	100%
(1) I don't have a certificate, yet										●	(1)
(2) I don't have a certificate, and won't be getting one											(2)
(3) Water I						●	●				(3)
(4) Water II						●					(4)
(5) Water III						●					(5)
(6) Water IV							●				(6)
(7) Wastewater I	●										(7)
(8) Wastewater IC		●				●		●			(8)
(9) Wastewater II			●			●			●		(9)
(10) Wastewater III				●		●					(10)
(11) Wastewater IV					●	●		●	●		(11)
(12) None											(12)

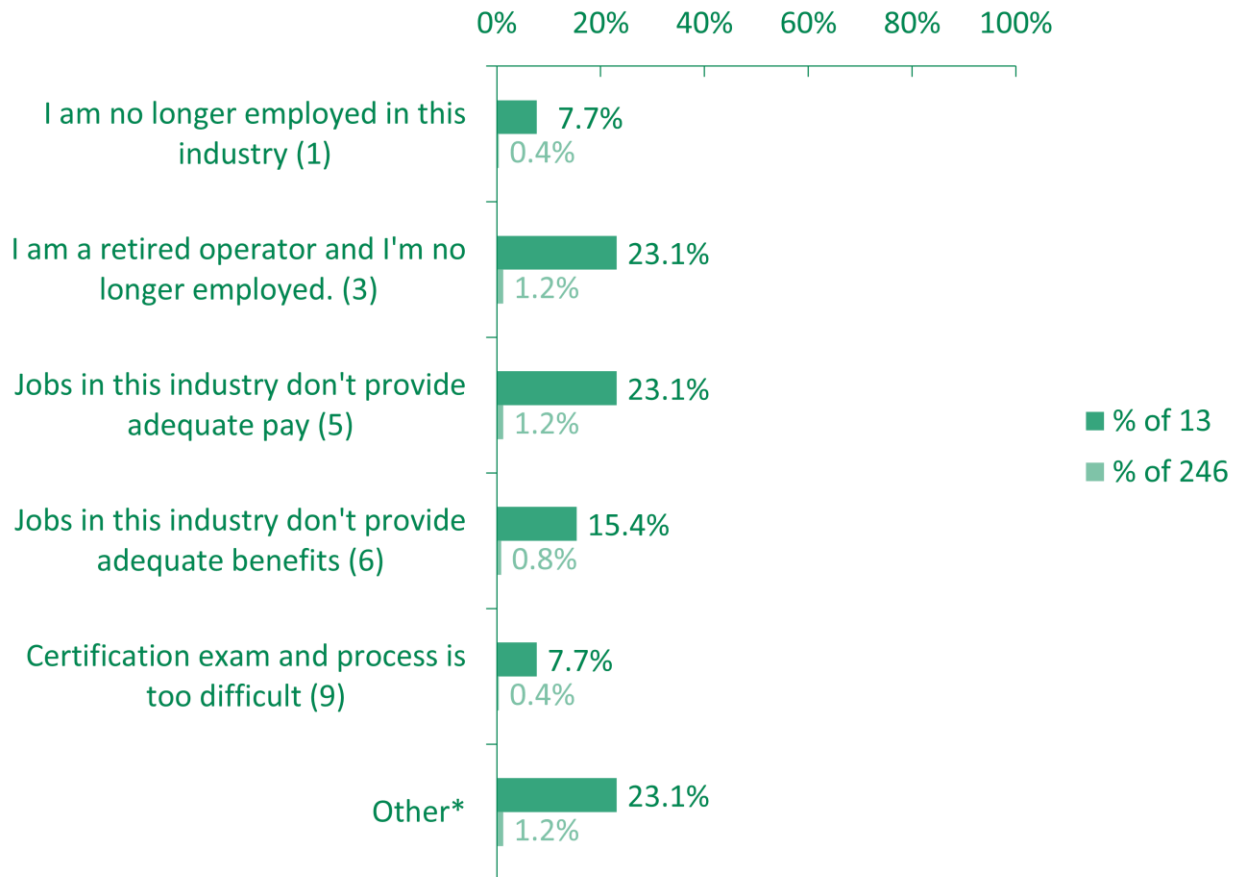
Other
passed grade IV water test (completing hours)

04. If any of your certifications are inactive, tell us why. (Select all that apply)

Answer	% of 13	% of 246	Count
I am no longer employed in this industry (1)	7.7%	0.4%	1
I am a retired operator and I'm no longer employed. (3)	23.1%	1.2%	3
Jobs in this industry don't provide adequate pay (5)	23.1%	1.2%	3
Jobs in this industry don't provide adequate benefits (6)	15.4%	0.8%	2
Certification exam and process is too difficult (9)	7.7%	0.4%	1
Other*	23.1%	1.2%	3
Total	100.0%	5.3%	13

* 7 of the 10 "Other" responses indicated respondent had an active certification. Removed those 7 from the total count.

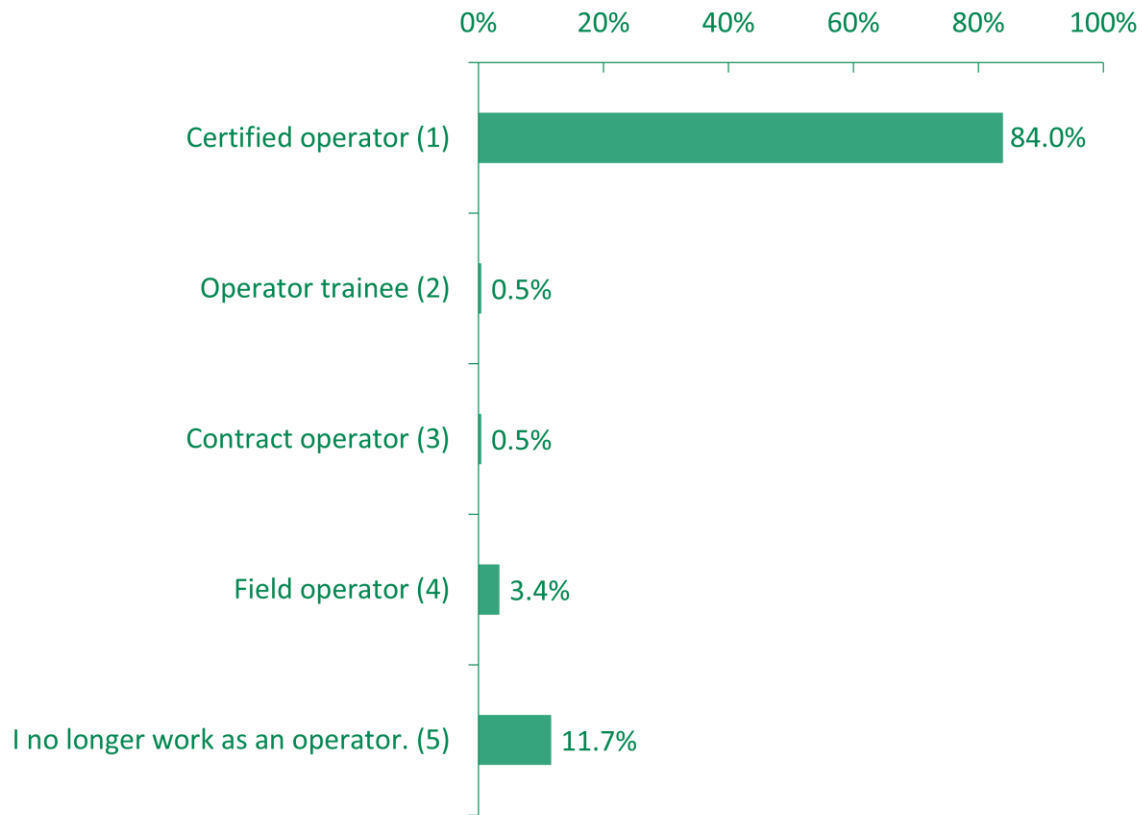
Other	Count
Working on certification	2
let other state certs expire because of reciprocity	1



05. Which of the following best describes your operator role(s) where you work?

Answer	%	Count
Certified operator (1)	84.0%	173
Operator trainee (2)	0.5%	1
Contract operator (3)	0.5%	1
Field operator (4)	3.4%	7
I no longer work as an operator. (5)*	11.7%	24
Total	100.0%	206

*There were 11 responses of "I no longer work as an operator (5)". There were 13 responses of "Other" that were essentially saying "I no longer work as an operator". The 13 "Other" responses were coded with the 11 "I no longer work as an operator" responses



O6. In the last 12 months, what other roles have you held at any of your work locations?

Chart 1 of 2

Count	81	9	6	14	4	5	1	7	
%	43.3%	4.8%	3.2%	7.5%	2.1%	2.7%	0.5%	3.7%	
(1) Manager/Supervisor	●	●	●	●	●	●	●	●	(1)
(2) Office Manager/Administrator		●			●		●	●	(2)
(3) Laboratory			●			●	●	●	(3)
(4) Instructor/Trainer				●	●	●		●	(4)
(5) I left the water sector more than 12 months ago.									(5)

continued

Chart 2 of 2

Count	7	2	26	15	6	4	Total: 187
%	3.7%	1.1%	13.9%	8.0%	3.2%	2.1%	100%
(1) Manager/Supervisor							(1)
(2) Office Manager/Administrator	●	●					(2)
(3) Laboratory		●	●	●			(3)
(4) Instructor/Trainer		●		●	●		(4)
(5) I left the water sector more than 12 months ago.						●	(5)

There were 16 responses where "Other" was the only choice. Those free text responses are summarized in the table below

Other (text entry)	Count
Other	4
Other - clerk	1
Other - compliance	2
Other - IT	2
Other - maintenance	5
Other - sampling	1
Other - supervisor	1
Total	16

07. In the last 12 months, what job duties have you been responsible for at your work location(s), other than basic system/treatment works? (Select all that apply)

Chart 1 of 4

Count	35	2	14	1	2	9	3	1	
%	15.8%	0.9%	6.3%	0.5%	0.9%	4.1%	1.4%	0.5%	
(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)

continued

Chart 2 of 4

Count	52	1	9	1	18	5	1	2	1	
%	23.5%	0.5%	4.1%	0.5%	8.1%	2.3%	0.5%	0.9%	0.5%	
(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)

continued

07. In the last 12 months, what job duties have you been responsible for at your work location(s), other than basic system/treatment works? (Select all that apply)

Chart 3 of 4

Count	1	2	2	1	27	2	3	6	1	
%	0.5%	0.9%	0.9%	0.5%	12.2%	0.9%	1.4%	2.7%	0.5%	
(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)

continued

Chart 4 of 4

Count	15	4	Total: 221
%	6.8%	1.8%	100.0%
(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)

Appendix C
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 Operator Survey Results

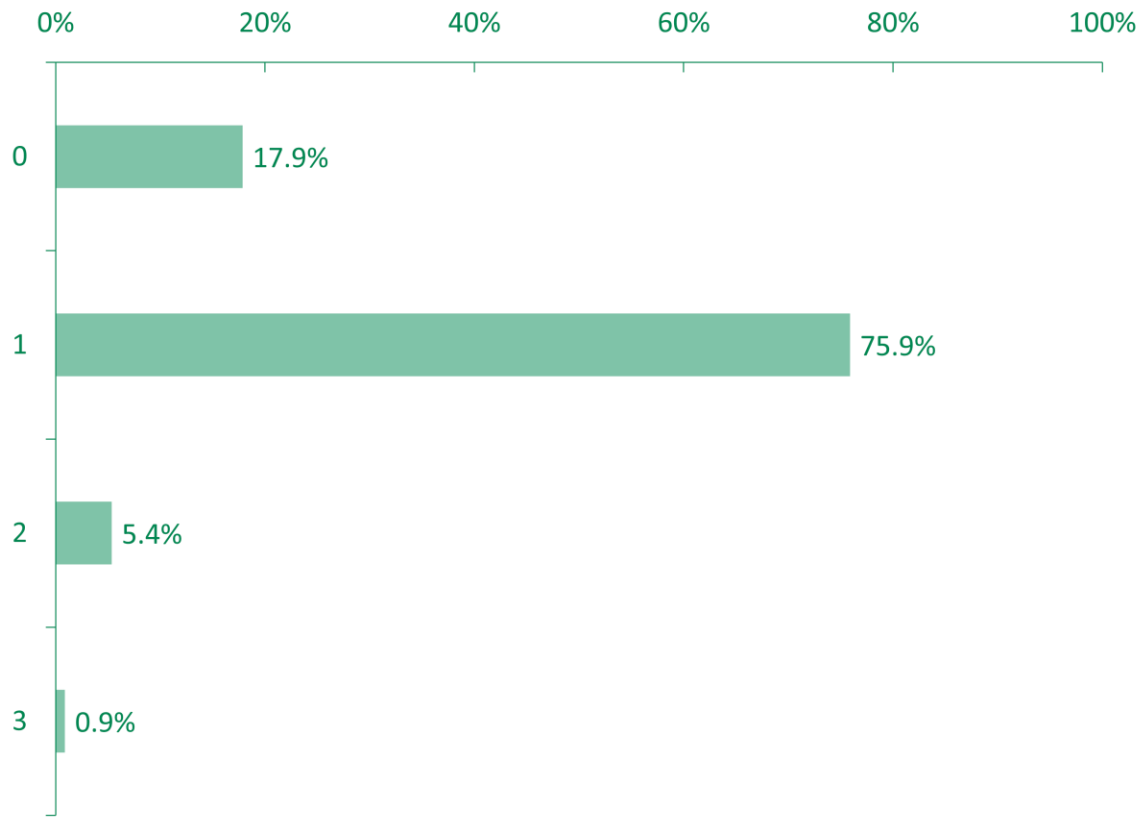
07. In the last 12 months, what job duties have you been responsible for at your work location(s), other than basic system/treatment works? (Select all that apply)

*There were 7 responses where the only choice selected was “Other”
 There were 13 “Other” responses that were part of multiple selections.
 The text for all 20 “Other” responses is in the next table.

Row	Other	Count
1	read meters, fix leaks	1
2	Oversight of ALL the utilities operations, Management and Chief Operator Grade II;	1
3	meter reading	1
4	Planning and Zoning	1
5	Truck Driver	1
6	Animal Control	1
7	maintenance supervision;	1
8	IT Systems Administration for the Utility	1
9	Mapping, Locates, Copper/Lead Inventory, IT, Cyber Security	1
10	Rate regulation	1
11	other	1
12	Continuing Education	1
13	Construction Manager;	1
14	As Field Supervisor, I am in charge of and tasked with the following: purchasing, takeoffs for new jobs, reviewing CAD plans, Lead/Copper Inventory, managing field crews, meter department, hydrant department. planning and implementing refined backflow/cross-connection procedures, implementing valve maintenance plan, building surveys for my personnel to use in the field for recording data such as hydrant maintenance, valve maintenance, flushing records, new service installs, etc. I also maintain GIS mapping for our water system. I currently manage (1) 4-man construction crew, 1 utility locator, 1 inspector, 3-meter readers, 1 hydrant technician.;	1
15	Director;	1
16	Ordering chemicals for plant operation	1
17	Sewer Inspections/ Restaurant Inspections	1
18	check wells, chlorine residuals, lead and copper samples, nitrate samples, monthly bacteria samples;	1
19	compliance/testing	1
20	facility maintenance;	1
	Total	20

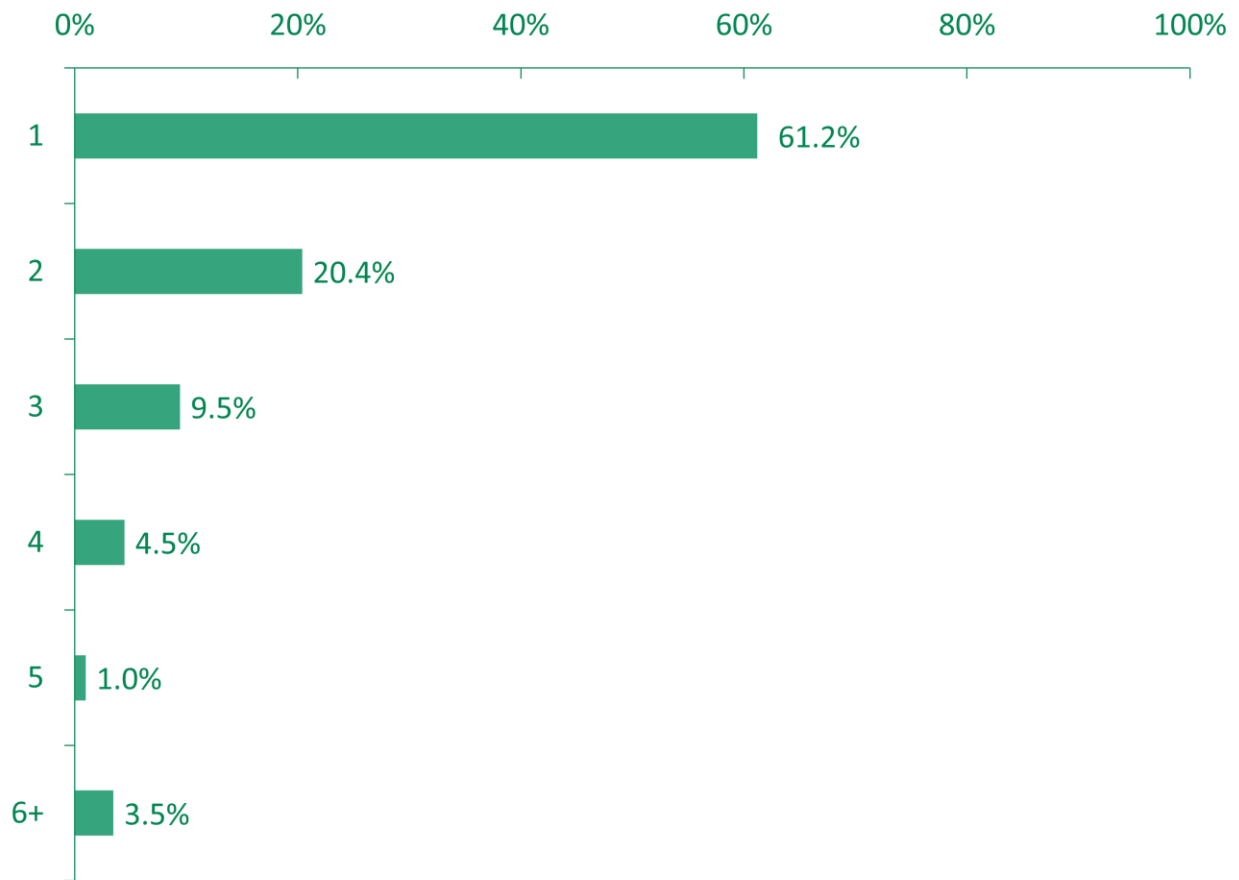
O8. How many Drinking Water systems do you work for (or at) right now? (free response)

Answer	%	Count
0	17.9%	40
1	75.9%	170
2	5.4%	12
3	0.9%	2
Total	100.0%	224



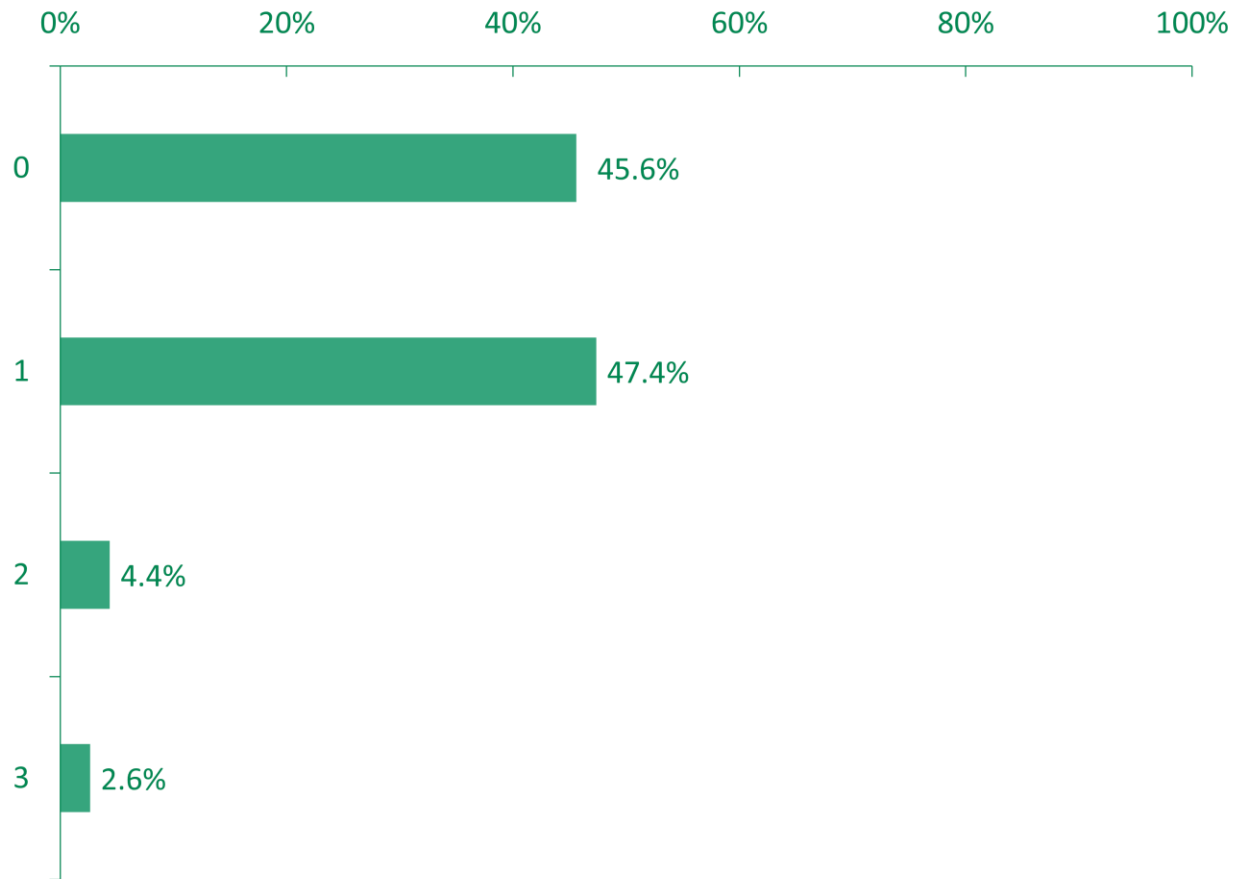
O9. How many Drinking Water systems have you worked for (or at) in your career? (free response)

Answer	%	Count
1	61.2%	123
2	20.4%	41
3	9.5%	19
4	4.5%	9
5	1.0%	2
6+	3.5%	7
Total	100.0%	201



O10. How many Wastewater systems do you work for (or at) right now? (free response)

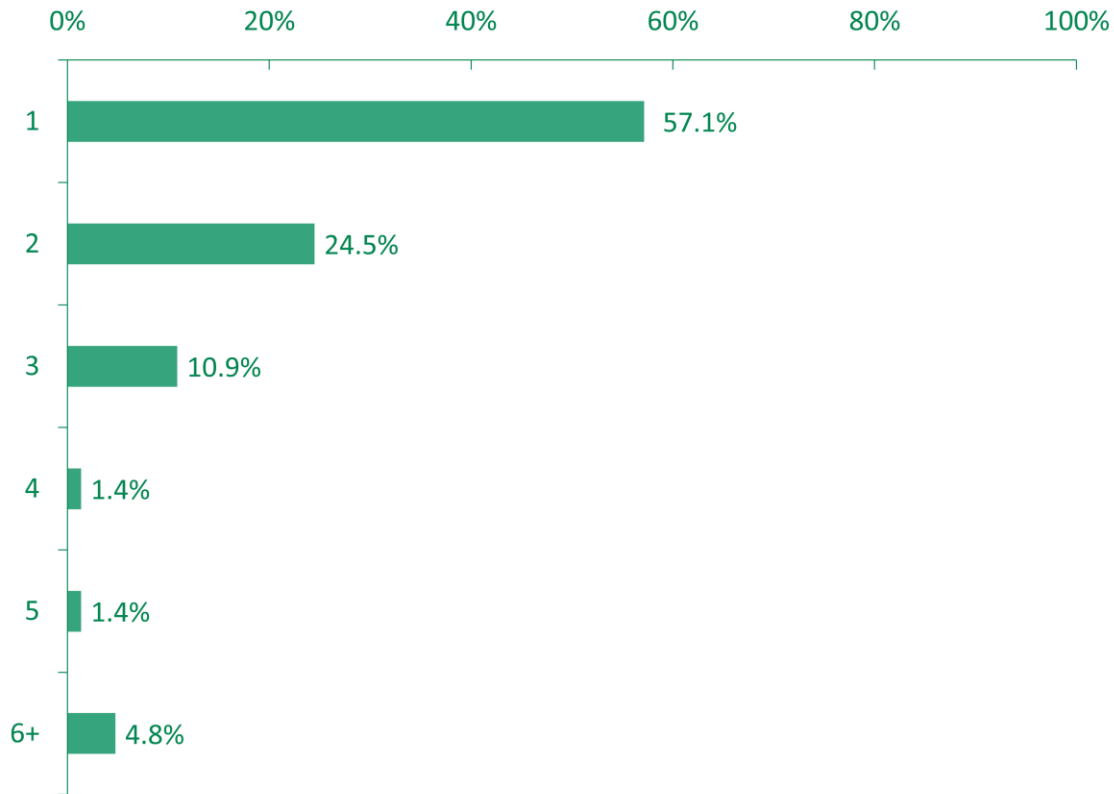
Answer	%	Count
0	45.6%	104
1	47.4%	108
2	4.4%	10
3	2.6%	6
Total	100.0%	228



O11. How many Wastewater systems have you worked for (or at) in your career? (free response)

Answers	%	Count
1	57.1%	84
2	24.5%	36
3	10.9%	16
4	1.4%	2
5	1.4%	2
6+	4.8%	7
Total	100.0%	147

Mean	Median	Mode	StD	Max	Min
1.8	1.0	1.0	1.9	20.0	1.0



O12. Which of the following best describes your utility? (Select all that apply)

Chart 1 of 6

Count	2	1	5	20	20	1	1	1	1	1	1	1	1	1	1	
%	0.8%	0.4%	2.1%	8.2%	8.2%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	
(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)
(10) I'm not sure																(10)

continued

Chart 2 of 6

Count	16	4	1	4	21	1	9	3	44	
%	6.6%	1.6%	0.4%	1.6%	8.6%	0.4%	3.7%	1.2%	18.1%	
(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)
(10) I'm not sure										(10)

continued

O12. Which of the following best describes your utility? (Select all that apply)

Chart 3 of 6

Count	2	4	1	5	1	1	1	1	1	1	1	1	
%	0.8%	1.6%	0.4%	2.1%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	
(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)
(10) I'm not sure													(10)

continued

Chart 4 of 6

Count	1	1	3	1	2	2	1	3	1	2	
%	0.4%	0.4%	1.2%	0.4%	0.8%	0.8%	0.4%	1.2%	0.4%	0.8%	
(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)
(10) I'm not sure	●										(10)

continued

O12. Which of the following best describes your utility? (Select all that apply)

Chart 5 of 6

Count	3	5	1	1	1	1	1	5	2	7	
%	1.2%	2.1%	0.4%	0.4%	0.4%	0.4%	0.4%	2.1%	0.8%	2.9%	
(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)
(10) I'm not sure											(10)

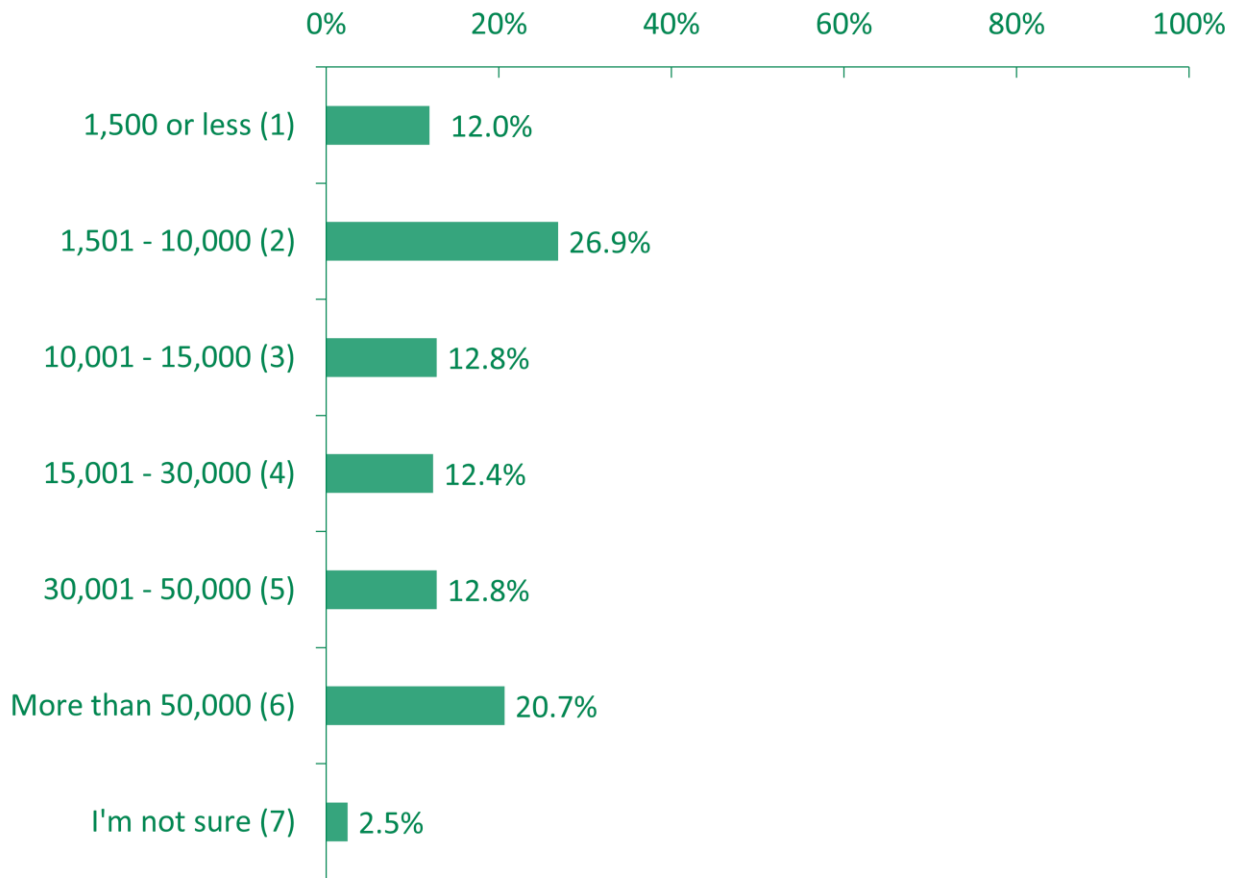
continued

Chart 6 of 6

Count	2	1	1	12	2	Total: 243
%	0.8%	0.4%	0.4%	4.9%	0.8%	100.0%
(1) Wastewater I (Lagoon)						(1) WW I
(2) Wastewater IC (Collections)						(2) WW IC
(3) Wastewater II						(3) WW II
(4) Wastewater III						(4) WW III
(5) Wastewater IV	●	●	●	●		(5) WW IV
(6) Water I (Distribution)	●	●				(6) DW I
(7) Water II (Basic Groundwater)						(7) DW II
(8) Water III (Advanced Groundwater)			●			(8) DW III
(9) Water IV (Surface Water)		●		●		(9) DW IV
(10) I'm not sure					●	(10) not sure

O13. 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)	12.0%	29
1,501 - 10,000 (2)	26.9%	65
10,001 - 15,000 (3)	12.8%	31
15,001 - 30,000 (4)	12.4%	30
30,001 - 50,000 (5)	12.8%	31
More than 50,000 (6)	20.7%	50
I'm not sure (7)	2.5%	6
Total	100.0%	242



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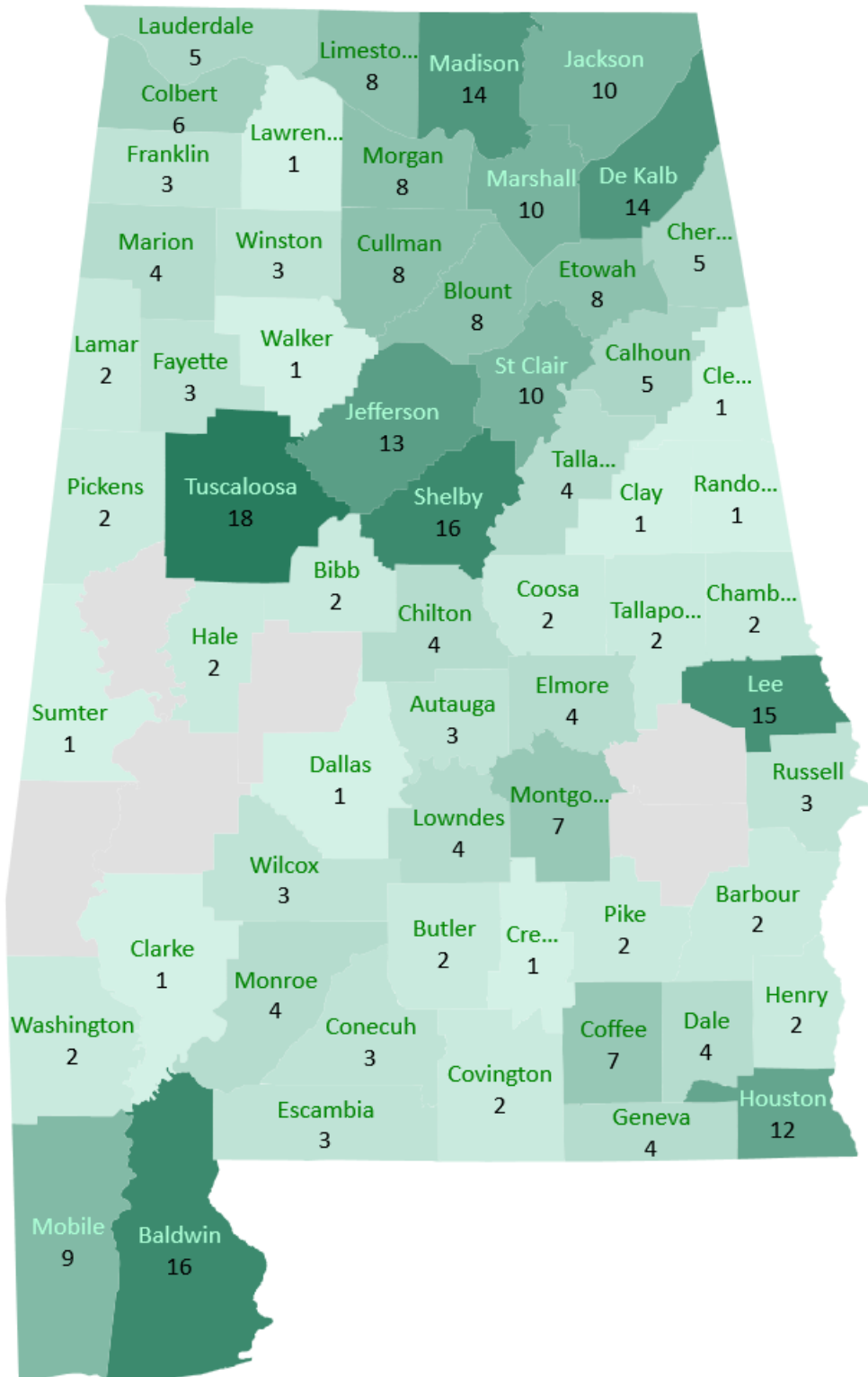
O14. – O16. In what county is your utility located? (Combined answers from three separate questions.)

Some respondents represent multiple counties.

Answer	%	Count
Autauga	0.9%	3
Baldwin	5.0%	16
Barbour	0.6%	2
Bibb	0.6%	2
Blount	2.5%	8
Butler	0.6%	2
Calhoun	1.5%	5
Chambers	0.6%	2
Cherokee	1.5%	5
Chilton	1.2%	4
Clarke	0.3%	1
Clay	0.3%	1
Cleburne	0.3%	1
Coffee	2.2%	7
Colbert	1.9%	6
Conecuh	0.9%	3
Coosa	0.6%	2
Covington	0.6%	2
Crenshaw	0.3%	1
Cullman	2.5%	8
Dale	1.2%	4
Dallas	0.3%	1
Dekalb	4.3%	14
Elmore	1.2%	4
Escambia	0.9%	3
Etowah	2.5%	8
Fayette	0.9%	3
Franklin	0.9%	3
Geneva	1.2%	4
Hale	0.6%	2
Henry	0.6%	2
Houston	3.7%	12

Answer	%	Count
Jackson	3.1%	10
Jefferson	4.0%	13
Lamar	0.6%	2
Lauderdale	1.5%	5
Lawrence	0.3%	1
Lee	4.6%	15
Limestone	2.5%	8
Lowndes	1.2%	4
Madison	4.3%	14
Marion	1.2%	4
Marshall	3.1%	10
Mobile	2.8%	9
Monroe	1.2%	4
Montgomery	2.2%	7
Morgan	2.5%	8
Pickens	0.6%	2
Pike	0.6%	2
Randolph	0.3%	1
Russell	0.9%	3
Shelby	5.0%	16
St. Clair	3.1%	10
Sumter	0.3%	1
Talladega	1.2%	4
Tallapoosa	0.6%	2
Tuscaloosa	5.6%	18
Walker	0.3%	1
Washington	0.6%	2
Wilcox	0.9%	3
Winston	0.9%	3
Total	100.0%	323

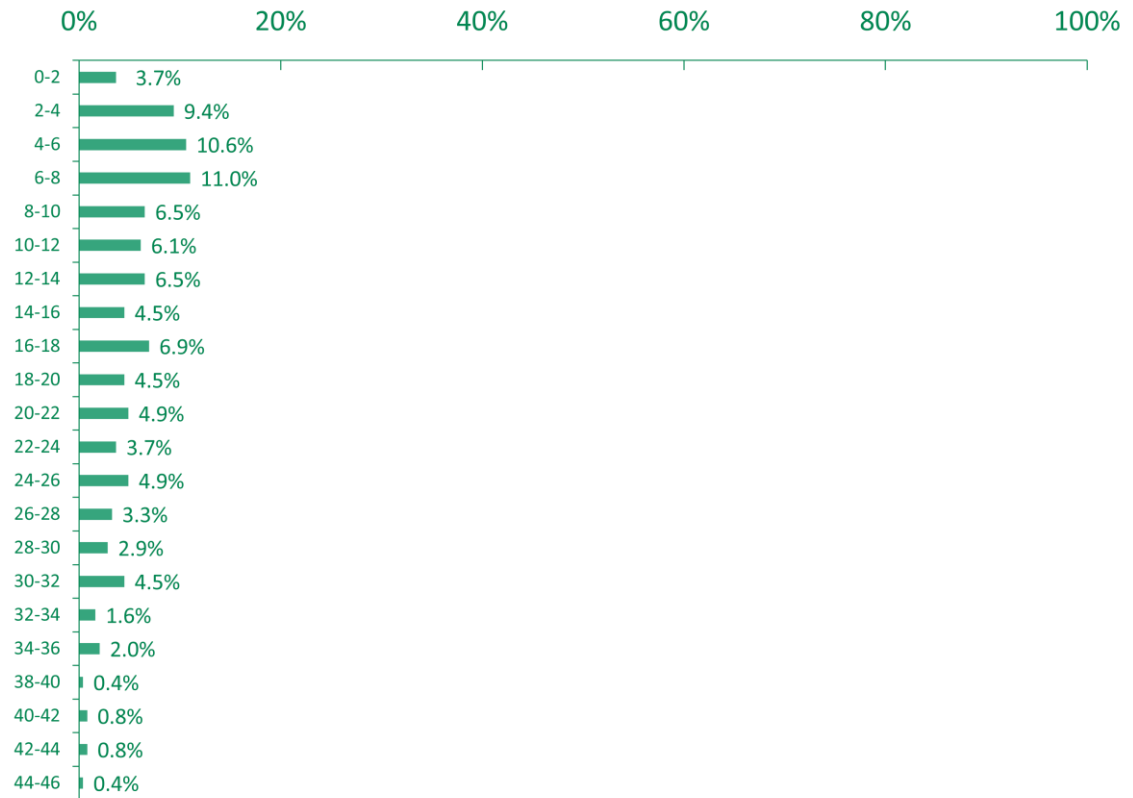
O14. – O16. In what county is your utility located? (Combined answers from three separate questions.)



Appendix C
 2024 Alabama Water Workforce Survey
 Operator Survey Results

O17. How many years have you worked at your current employer?

Answer (yrs)	%	Count
0-2	3.7%	9
2-4	9.4%	23
4-6	10.6%	26
6-8	11.0%	27
8-10	6.5%	16
10-12	6.1%	15
12-14	6.5%	16
14-16	4.5%	11
16-18	6.9%	17
18-20	4.5%	11
20-22	4.9%	12
22-24	3.7%	9
24-26	4.9%	12
26-28	3.3%	8
28-30	2.9%	7
30-32	4.5%	11
32-34	1.6%	4
34-36	2.0%	5
38-40	0.4%	1
40-42	0.8%	2
42-44	0.8%	2
44-46	0.4%	1
Total	100.0%	245

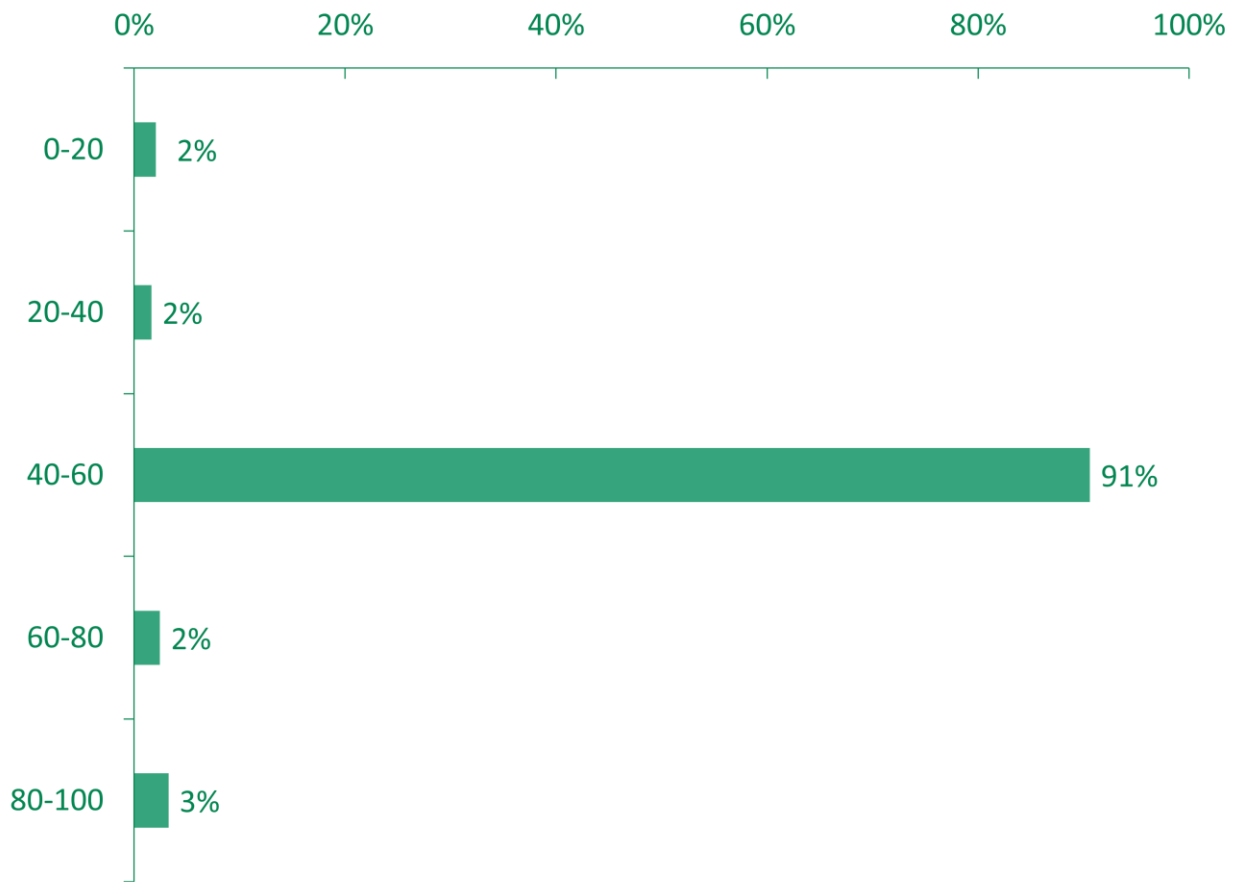


Mean	Median	Mode	StD	Max	Min
14.5	13.0	5.0	10.2	44.0	0.0

O18. On average, how many hours do you work per week?

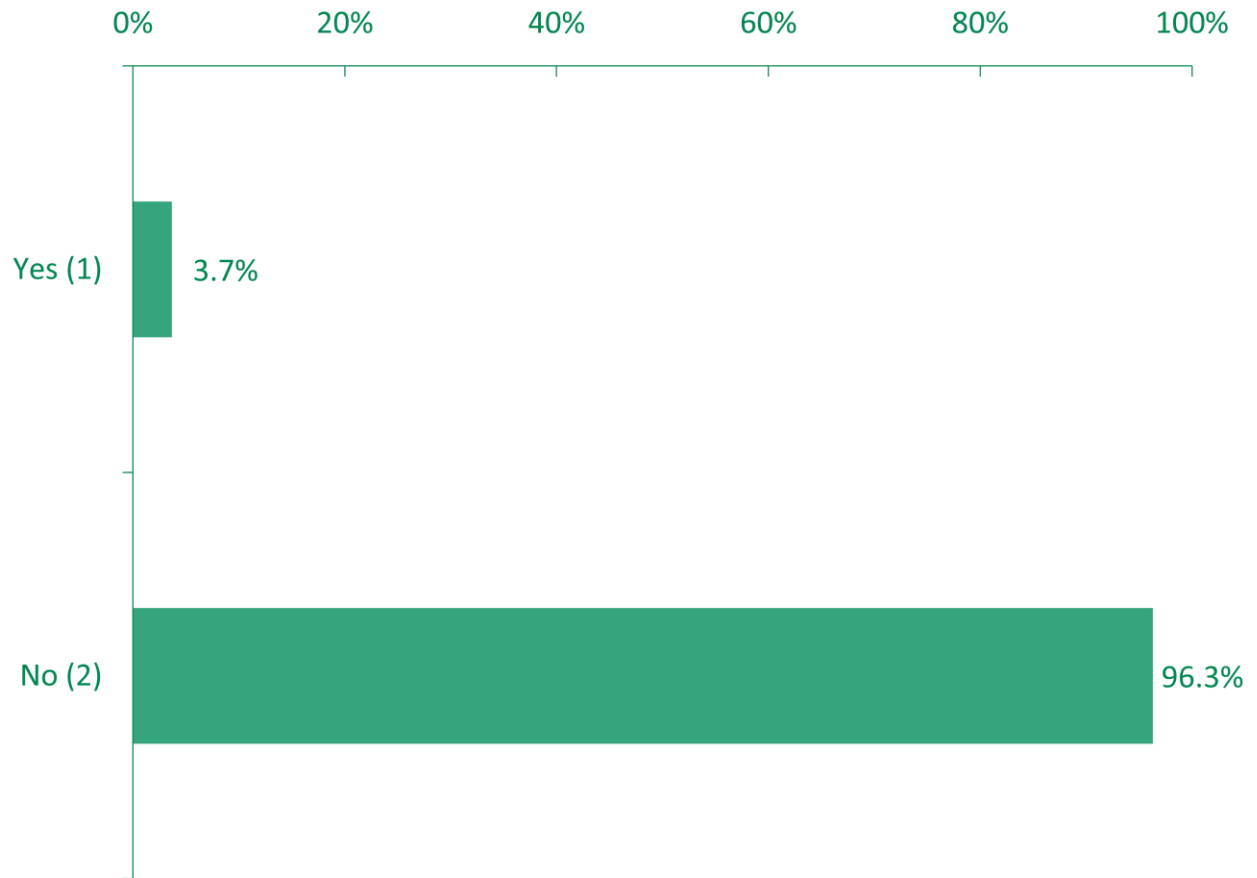
Answer (hrs)	%	Count
0-20	2%	5
20-40	2%	4
40-60	91%	222
60-80	2%	6
80-100	3%	8
Total	100%	245

Mean	Median	Mode	StD	Max	Min
44.0	40.0	40.0	10.1	90.0	1.0



O19. Are you currently working part time?

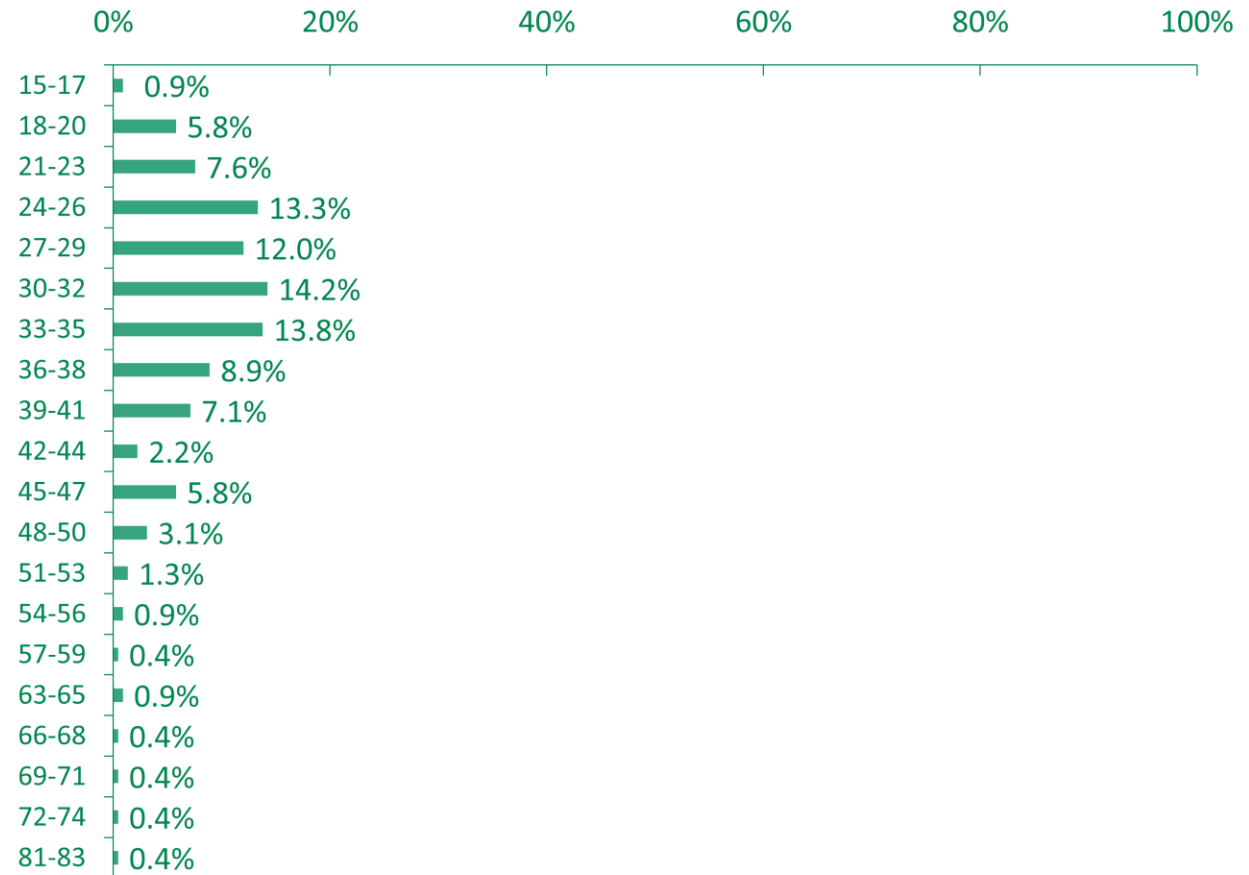
Answer	%	Count
Yes (1)	3.7%	9
No (2)	96.3%	236
Total	100.0%	245



Appendix C
 2024 Alabama Water Workforce Survey
 Operator Survey Results

O20. What is your hourly wage?

Answer (\$)	%	Count
15-17	0.9%	2
18-20	5.8%	13
21-23	7.6%	17
24-26	13.3%	30
27-29	12.0%	27
30-32	14.2%	32
33-35	13.8%	31
36-38	8.9%	20
39-41	7.1%	16
42-44	2.2%	5
45-47	5.8%	13
48-50	3.1%	7
51-53	1.3%	3
54-56	0.9%	2
57-59	0.4%	1
63-65	0.9%	2
66-68	0.4%	1
69-71	0.4%	1
72-74	0.4%	1
81-83	0.4%	1
Total	100.0%	225



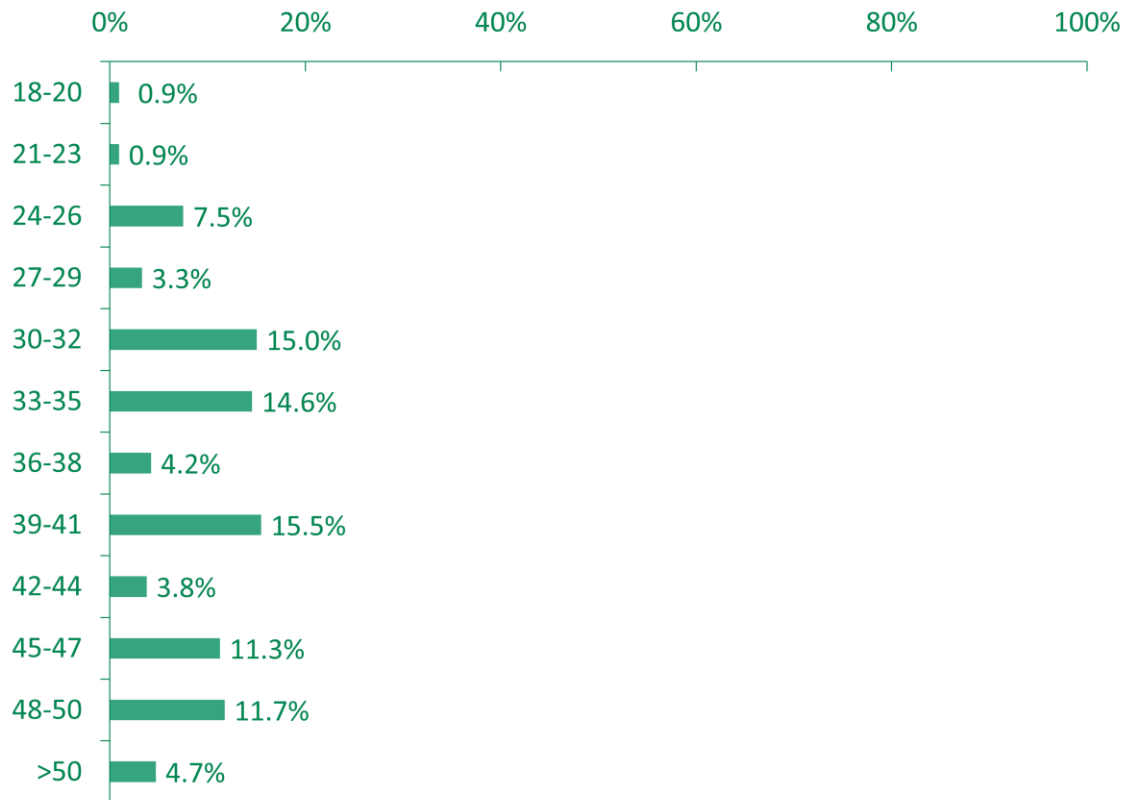
Mean	Median	Mode	StD	Max	Min
33.5	32.0	30.0	10.4	81.4	15.0

Appendix C
 2024 Alabama Water Workforce Survey
 Operator Survey Results

O21. What do you think your hourly wage should be?

Answer (\$)	%	Count
18-20	0.9%	2
21-23	0.9%	2
24-26	7.5%	16
27-29	3.3%	7
30-32	15.0%	32
33-35	14.6%	31
36-38	4.2%	9
39-41	15.5%	33
42-44	3.8%	8
45-47	11.3%	24
48-50	11.7%	25
>50	4.7%	10
Total	100.0%	213

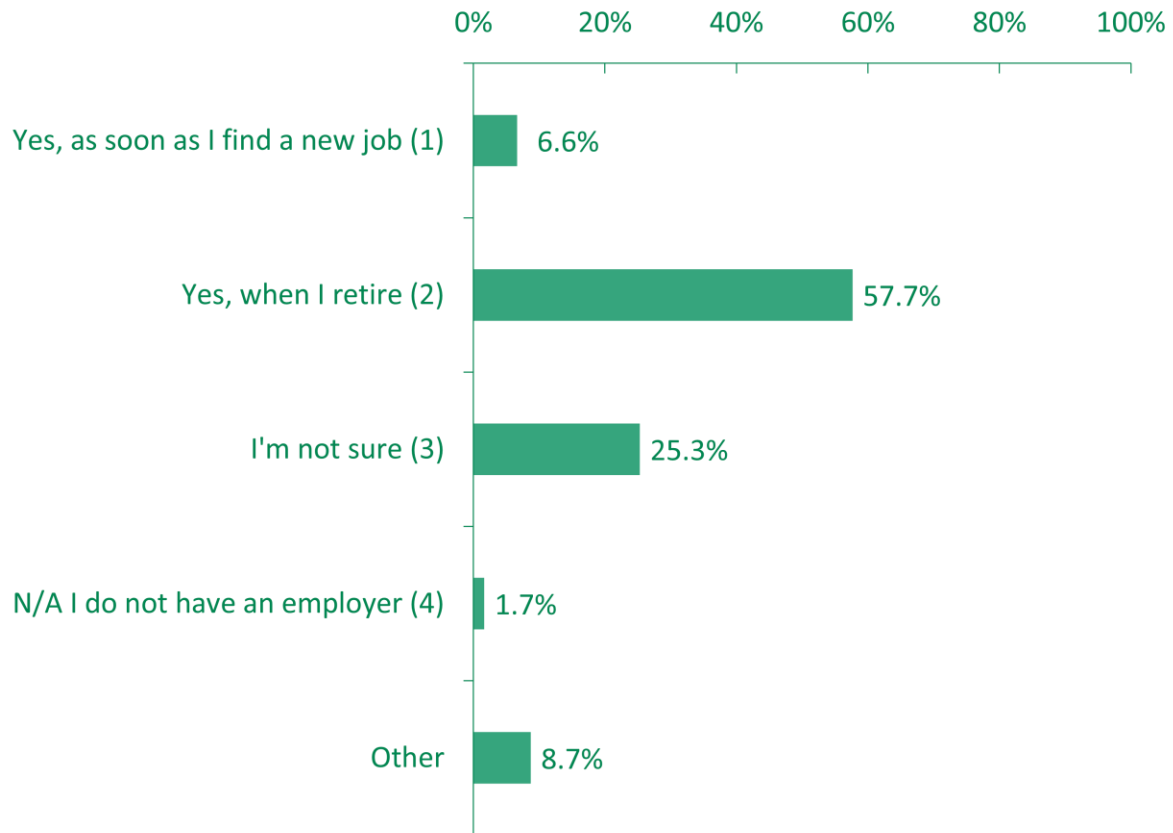
Mean	Median	Mode	StD	Max	Min
40.7	40.0	40.0	12.4	100.0	20.0



O22. Are you planning to leave your current employer?

Answer	%	Count
Yes, as soon as I find a new job (1)	6.6%	16
Yes, when I retire (2)	57.7%	139
I'm not sure (3)	25.3%	61
N/A I do not have an employer (4)	1.7%	4
Other	8.7%	21
Total	100.0%	241

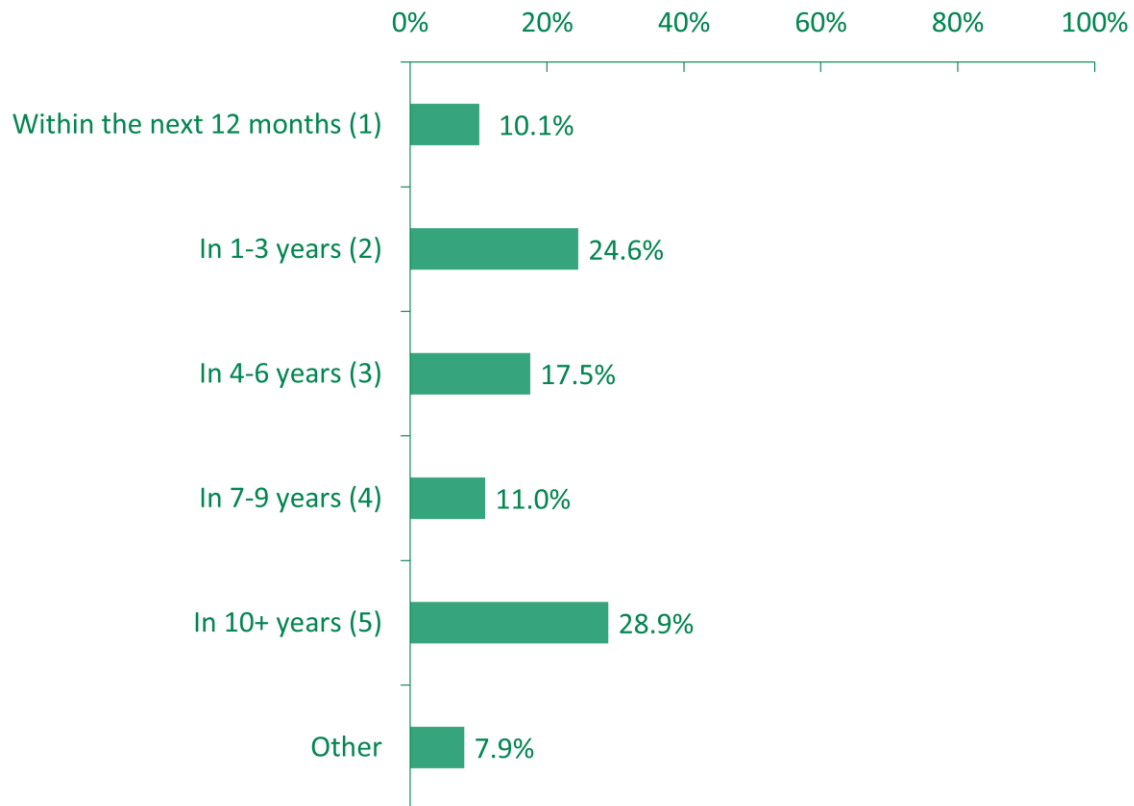
Other (edited and grouped)	Count
Yes. If a better offer (closer to home) opens up	2
Yes. After they hire some full time employees	1
I basically retired. Just fill in empty shifts.	3
Already left water industry	1
No	14
Total	21



O23. How soon might you leave your current employer?

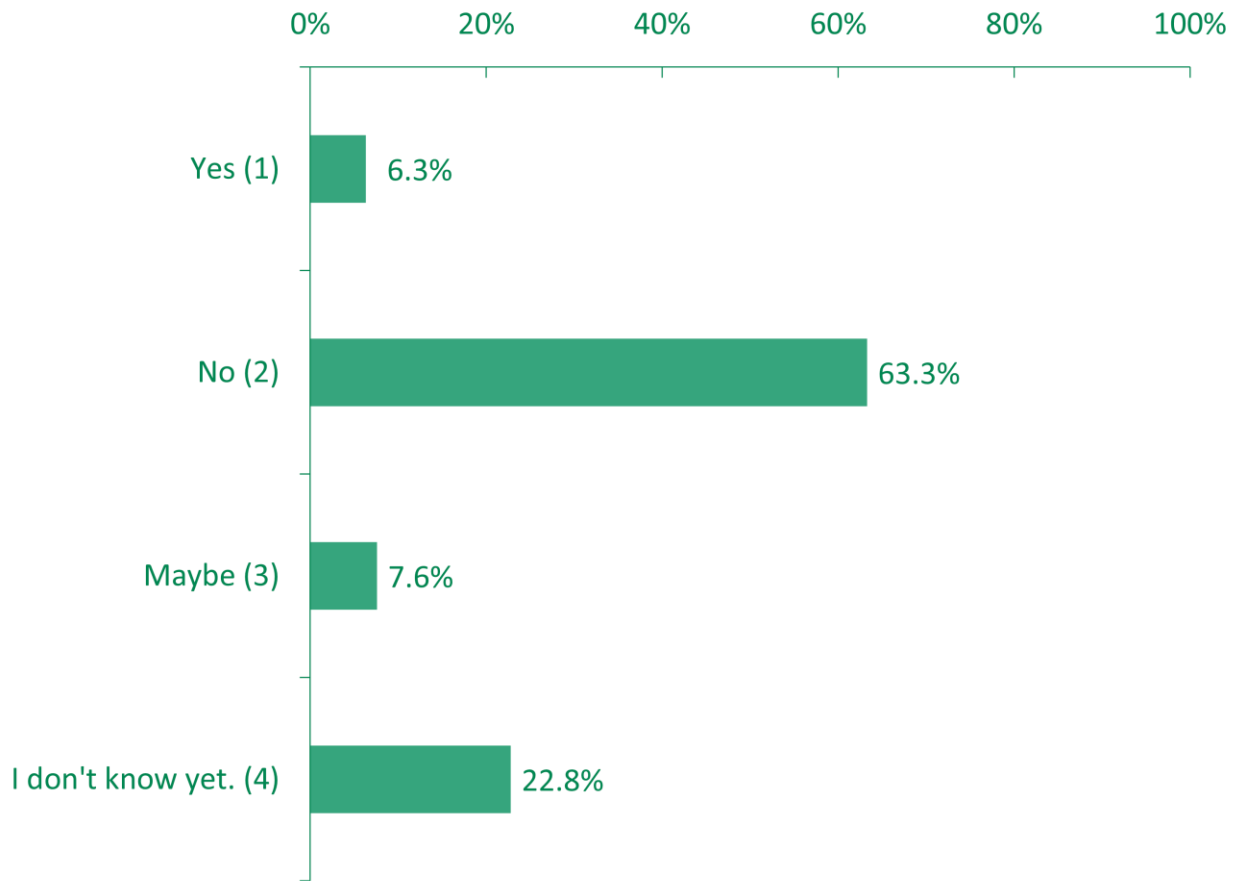
Answer	%	Count
Within the next 12 months (1)	10.1%	23
In 1-3 years (2)	24.6%	56
In 4-6 years (3)	17.5%	40
In 7-9 years (4)	11.0%	25
In 10+ years (5)	28.9%	66
Other	7.9%	18
Total	100.0%	228

Other (edited)	Count
If better came along	2
Don't know	8
What a stupid question	1
Already left	2
Not leaving	2
After retirement	2
No	1
Total	18



O24. You indicated you plan to leave your current employer in the next 3 years. After you leave, will you let your certifications go inactive?

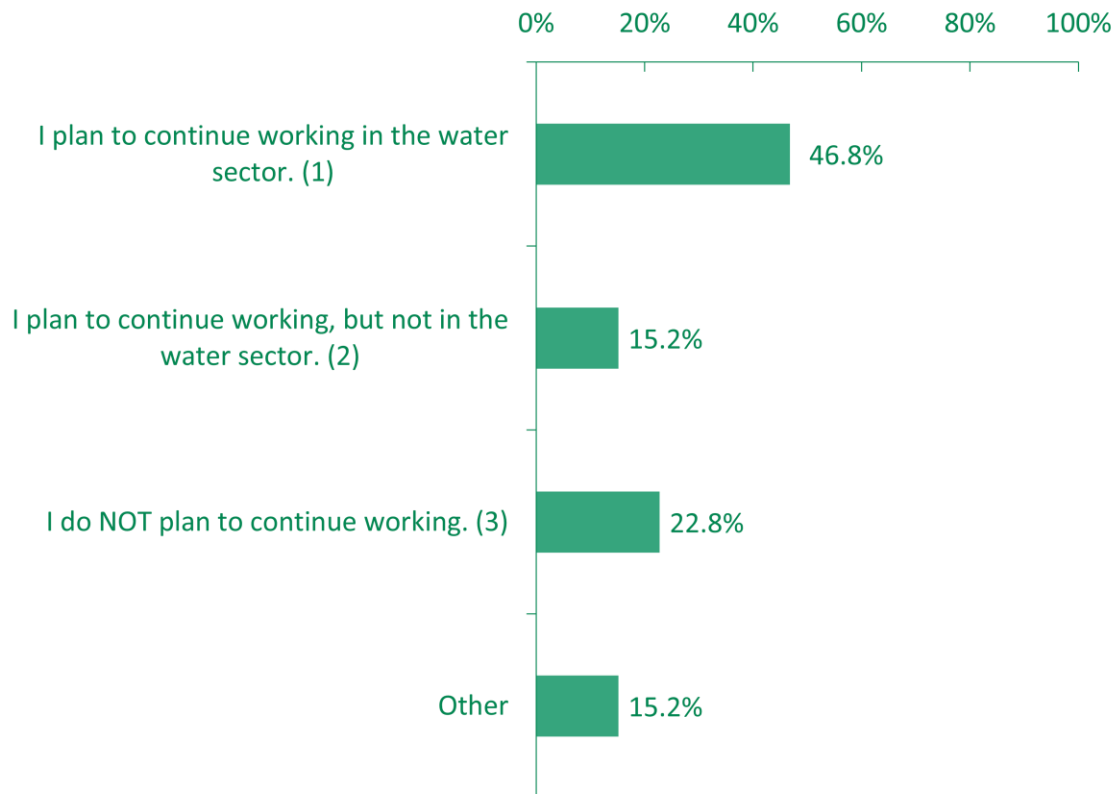
Answer	%	Count
Yes (1)	6.3%	5
No (2)	63.3%	50
Maybe (3)	7.6%	6
I don't know yet. (4)	22.8%	18
Total	100.0%	79



O25. Tell us what your plans are after you leave.

Answer	%	Count
I plan to continue working in the water sector. (1)	46.8%	37
I plan to continue working, but not in the water sector. (2)	15.2%	12
I do NOT plan to continue working. (3)	22.8%	18
Other	15.2%	12
Total	100.0%	79

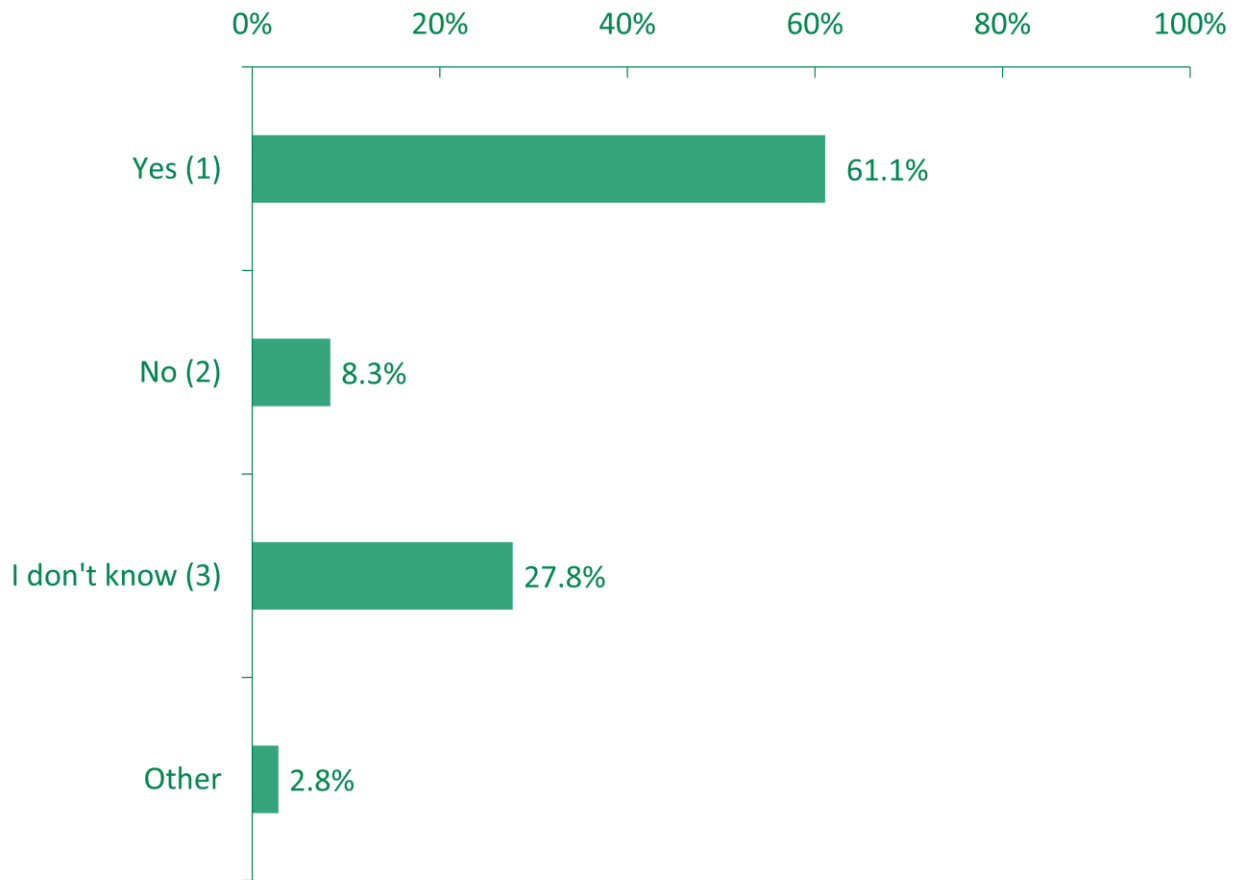
Other (edited)	Count
Not sure/Undecided	5
Work part time	1
Volunteer	1
I plan on finding a job with higher pay and better benefits	1
I need to work in a field I can be better compensated for	1
Home improvement	1
Education	1
Run for political office	1
Total	12



O26. If you plan to continue working the water sector, do you plan to work as a treatment operator?

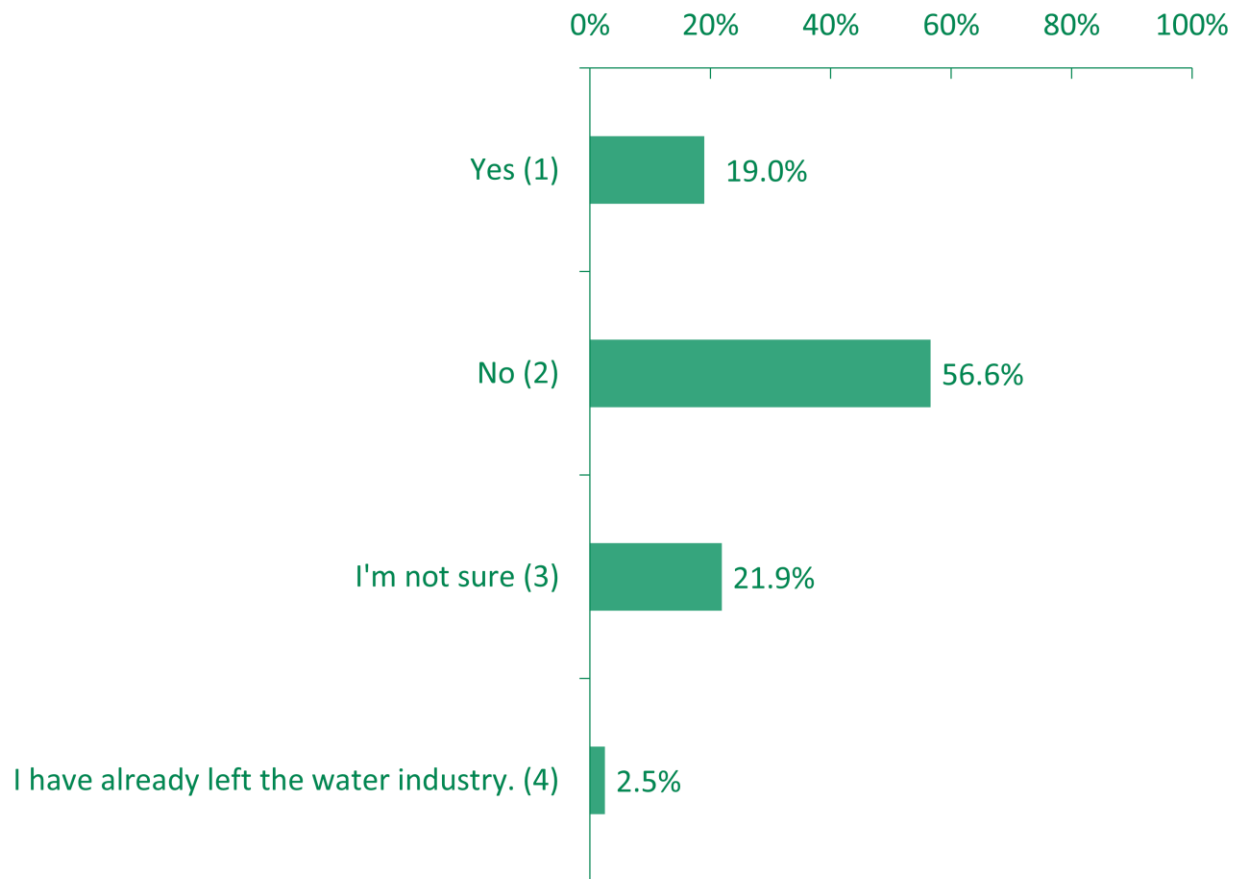
Answer	%	Count
Yes (1)	61.1%	22
No (2)	8.3%	3
I don't know (3)	27.8%	10
Other	2.8%	1
Total	100.0%	36

Other	Count
Contractor	1
Total	1



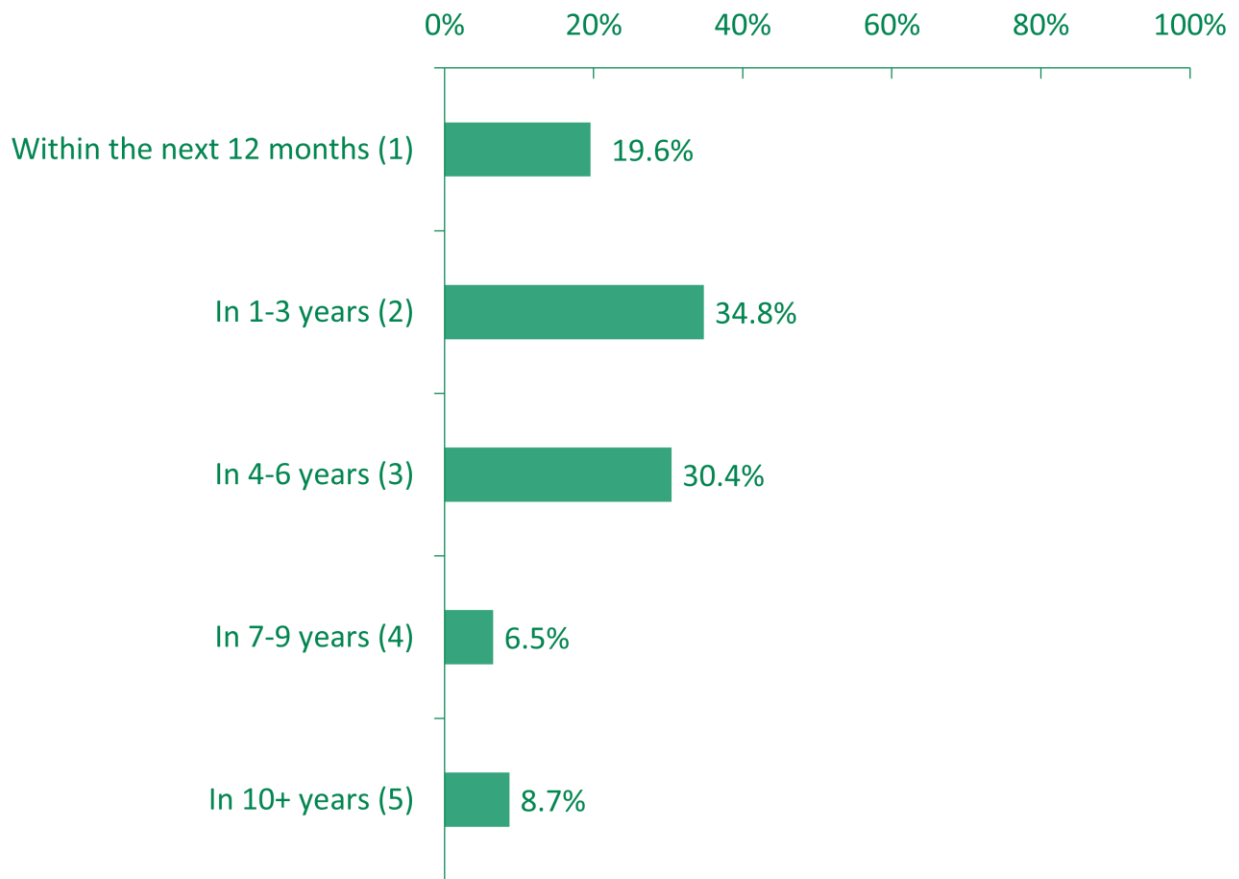
O27. Are you planning to leave the water workforce?

Answer	%	Count
Yes (1)	19.0%	46
No (2)	56.6%	137
I'm not sure (3)	21.9%	53
I have already left the water industry. (4)	2.5%	6
Total	100.0%	242



O28. When do you plan to leave the water workforce?

Answer	%	Count
Within the next 12 months (1)	19.6%	9
In 1-3 years (2)	34.8%	16
In 4-6 years (3)	30.4%	14
In 7-9 years (4)	6.5%	3
In 10+ years (5)	8.7%	4
Total	100.0%	46



Appendix C
2024 Alabama Water Workforce Survey
Operator Survey Results

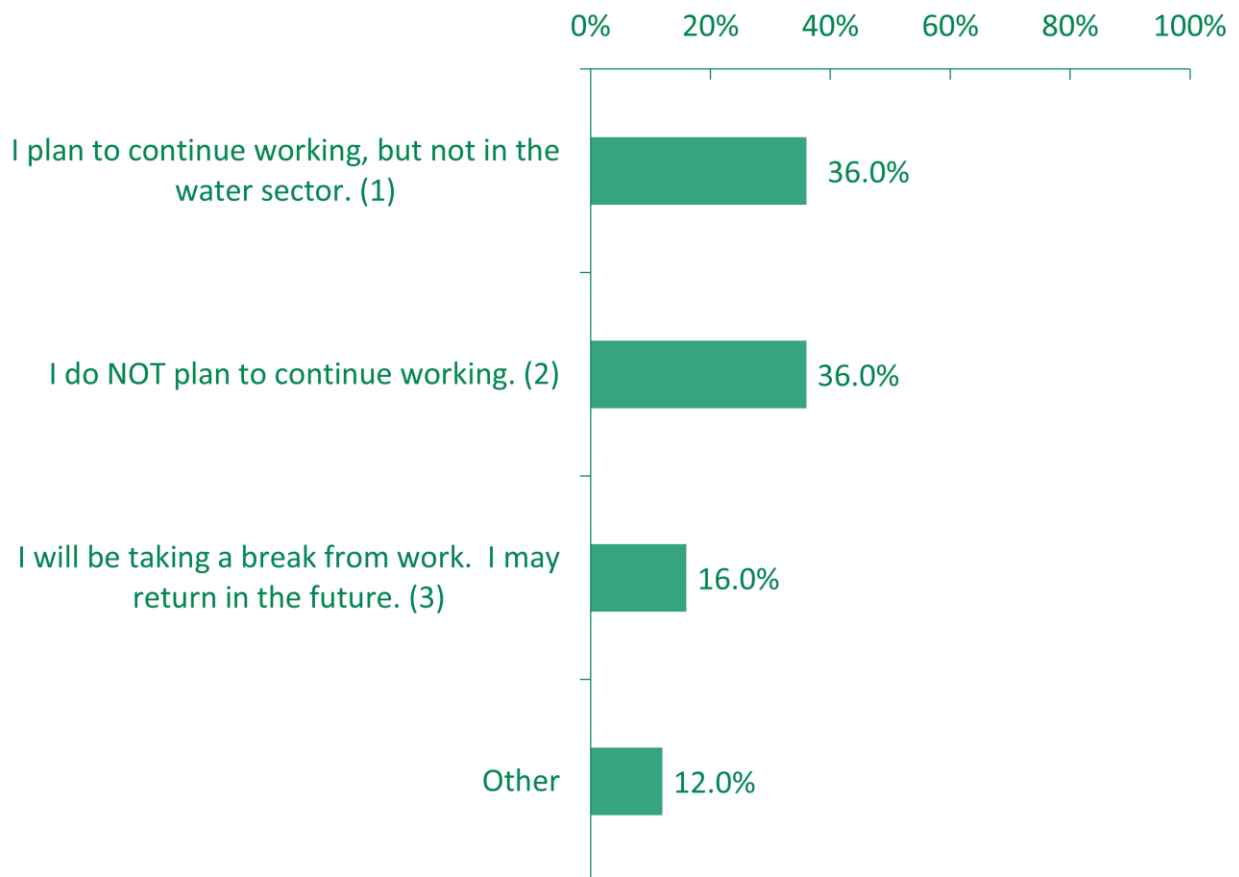
O29. This question intentionally left blank.

In the final review, I realized we didn't need this question and I didn't have time to renumber everything. The form logic was set up so that respondents will not see this question.

O30. You indicated you plan to leave the water workforce in the next 3 years. Tell us what your plans are after you leave.

Answer	%	Count
I plan to continue working, but not in the water sector. (1)	36.0%	9
I do NOT plan to continue working. (2)	36.0%	9
I will be taking a break from work. I may return in the future. (3)	16.0%	4
Other	12.0%	3
Total	100.0%	25

Other	Count
Politics	1
More money	1
retirement	1
Total	3



Appendix C
 2024 Alabama Water Workforce Survey
 Operator Survey Results

O31. Tell us how you left the water workforce. (Select all that apply)

O32. Before I left the water workforce, I was a Water Operator.

O33. Date you left the Water Operator workforce.

O34. Before I left the water workforce, I was a Wastewater Operator.

O35. Date you left the Wastewater Operator workforce

There were so few responses to Questions Op31-Op35 that they were combined into one table to help maintain anonymity.

Dates supplied in answer to Op33 and Op35 were all within the previous 10 years.

Answer - O31	Answers - O32 and O34	Count
I left the water workforce, but did not RETIRE from the water workforce job.;	Water IV	2
I left the water workforce, but did not RETIRE from the water workforce job.;	Wastewater IV	2
I RETIRED from my first and only water sector job.;	Water II	1
I RETIRED from my first and only water sector job.;	Wastewater II	1

Appendix C
 2024 Alabama Water Workforce Survey
 Operator Survey Results

O36. What benefits does your employer provide? (Select all that apply)

Chart 1 of 10

Count	1	3	2	1	1	2	1	3	2	1	
%	0.4%	1.2%	0.8%	0.4%	0.4%	0.8%	0.4%	1.2%	0.8%	0.4%	
(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 10

Count	1	1	1	1	9	37	4	1	1	1	
%	0.4%	0.4%	0.4%	0.4%	3.7%	15.2%	1.6%	0.4%	0.4%	0.4%	
(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

Appendix C
 2024 Alabama Water Workforce Survey
 Operator Survey Results

O36. What benefits does your employer provide? (Select all that apply)

Chart 3 of 10

Count	22	21	4	6	1	1	2	6	1	1	
%	9.1%	8.6%	1.6%	2.5%	0.4%	0.4%	0.8%	2.5%	0.4%	0.4%	
(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 4 of 10

Count	2	1	4	4	2	1	1	1	1	7	
%	0.8%	0.4%	1.6%	1.6%	0.8%	0.4%	0.4%	0.4%	0.4%	2.9%	
(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

O36. What benefits does your employer provide? (Select all that apply)

Chart 5 of 10

Count	3	1	1	1	1	1	1	1	1	1	
%	1.2%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	
(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 6 of 10

Count	1	1	2	1	2	1	1	2	5	2	
%	0.4%	0.4%	0.8%	0.4%	0.8%	0.4%	0.4%	0.8%	2.1%	0.8%	
(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

O36. What benefits does your employer provide? (Select all that apply)

Chart 7 of 10

Count	1	1	1	5	4	1	1	2	2	1	
%	0.4%	0.4%	0.4%	2.1%	1.6%	0.4%	0.4%	0.8%	0.8%	0.4%	
(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 8 of 10

Count	2	1	1	1	1	1	1	3	1	1	
%	0.8%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	1.2%	0.4%	0.4%	
(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

O36. What benefits does your employer provide? (Select all that apply)

Chart 9 of 10

Count	2	1	1	1	1	1	1	1	1	1	
%	0.8%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	
(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 10 of 10

Count	1	1	1	1	1	1	1	Total: 243
%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	100.0%
(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)

O37. Over the last two years, which of the following have you experienced? (Select all that apply)

Chart 1 of 6

Count	10	3	1	1	1	1	1	1	3	
%	4.1%	1.2%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	1.2%	
(1) Increased workload	●	●	●	●	●	●	●	●	●	(1)
(2) Decreased workload										(2)
(3) Increased work hours		●	●	●	●	●	●	●	●	(3)
(4) Decreased work hours										(4)
(5) Higher morale			●	●	●	●	●	●	●	(5)
(6) Lower morale				●						(6)
(7) Financial hardships					●	●	●			(7)
(8) Financial benefits						●		●	●	(8)
(9) Increased stress				●		●	●		●	(9)
(10) Decreased stress						●				(10)
(11) None of the above										(11)

continued

Chart 2 of 6

Count	2	1	1	25	3	26	4	1	21	
%	0.8%	0.4%	0.4%	10.4%	1.2%	10.8%	1.7%	0.4%	8.7%	
(1) Increased workload	●	●	●	●	●	●	●	●	●	(1)
(2) Decreased workload										(2)
(3) Increased work hours	●	●	●	●	●	●	●	●	●	(3)
(4) Decreased work hours										(4)
(5) Higher morale	●									(5)
(6) Lower morale		●	●	●	●	●				(6)
(7) Financial hardships			●	●			●			(7)
(8) Financial benefits			●		●			●		(8)
(9) Increased stress	●		●	●	●	●	●	●	●	(9)
(10) Decreased stress										(10)
(11) None of the above										(11)

continued

O37. Over the last two years, which of the following have you experienced? (Select all that apply)

Chart 3 of 6

Count	1	1	1	4	1	2	4	2	1	
%	0.4%	0.4%	0.4%	1.7%	0.4%	0.8%	1.7%	0.8%	0.4%	
(1) Increased workload	●	●	●	●	●	●	●	●	●	(1)
(2) Decreased workload										(2)
(3) Increased work hours	●									(3)
(4) Decreased work hours		●	●							(4)
(5) Higher morale		●		●	●	●	●			(5)
(6) Lower morale								●	●	(6)
(7) Financial hardships		●	●					●	●	(7)
(8) Financial benefits					●	●			●	(8)
(9) Increased stress	●	●	●			●	●		●	(9)
(10) Decreased stress	●				●					(10)
(11) None of the above										(11)

continued

Chart 4 of 6

Count	22	2	15	1	4	1	1	14	22	
%	9.1%	0.8%	6.2%	0.4%	1.7%	0.4%	0.4%	5.8%	9.1%	
(1) Increased workload	●	●	●	●	●	●	●	●		(1)
(2) Decreased workload										(2)
(3) Increased work hours										(3)
(4) Decreased work hours										(4)
(5) Higher morale										(5)
(6) Lower morale	●	●	●							(6)
(7) Financial hardships	●			●	●					(7)
(8) Financial benefits		●				●	●			(8)
(9) Increased stress	●	●	●		●		●	●		(9)
(10) Decreased stress										(10)
(11) None of the above									●	(11)

continued

O37. Over the last two years, which of the following have you experienced? (Select all that apply)

Chart 5 of 6

Count	1	2	1	1	1	1	2	1	2	
%	0.4%	0.8%	0.4%	0.4%	0.4%	0.4%	0.8%	0.4%	0.8%	
(1) Increased workload										(1)
(2) Decreased workload	●	●	●	●	●	●				(2)
(3) Increased work hours							●	●	●	(3)
(4) Decreased work hours	●	●								(4)
(5) Higher morale	●	●								(5)
(6) Lower morale			●	●	●		●	●		(6)
(7) Financial hardships				●			●			(7)
(8) Financial benefits	●	●			●	●				(8)
(9) Increased stress				●	●		●	●	●	(9)
(10) Decreased stress		●			●					(10)
(11) None of the above										(11)

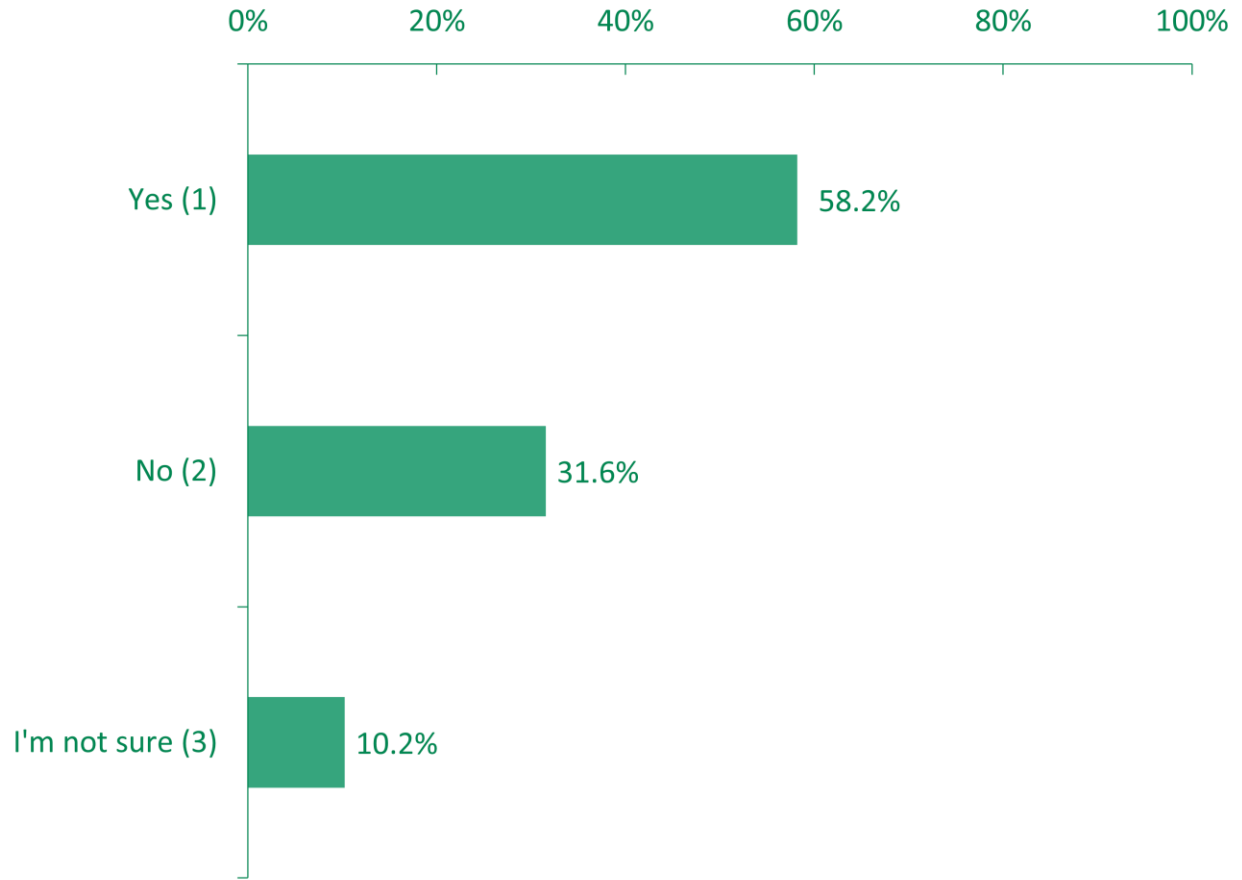
continued

Chart 6 of 6

Count	1	5	3	1	5	2	4	1	2	Total: 241
%	0.4%	2.1%	1.2%	0.4%	2.1%	0.8%	1.7%	0.4%	0.8%	100.0%
(1) Increased workload										(1)
(2) Decreased workload										(2)
(3) Increased work hours										(3)
(4) Decreased work hours	●									(4)
(5) Higher morale		●								(5)
(6) Lower morale			●	●	●					(6)
(7) Financial hardships				●		●	●			(7)
(8) Financial benefits		●						●		(8)
(9) Increased stress				●	●		●		●	(9)
(10) Decreased stress										(10)
(11) None of the above										(11)

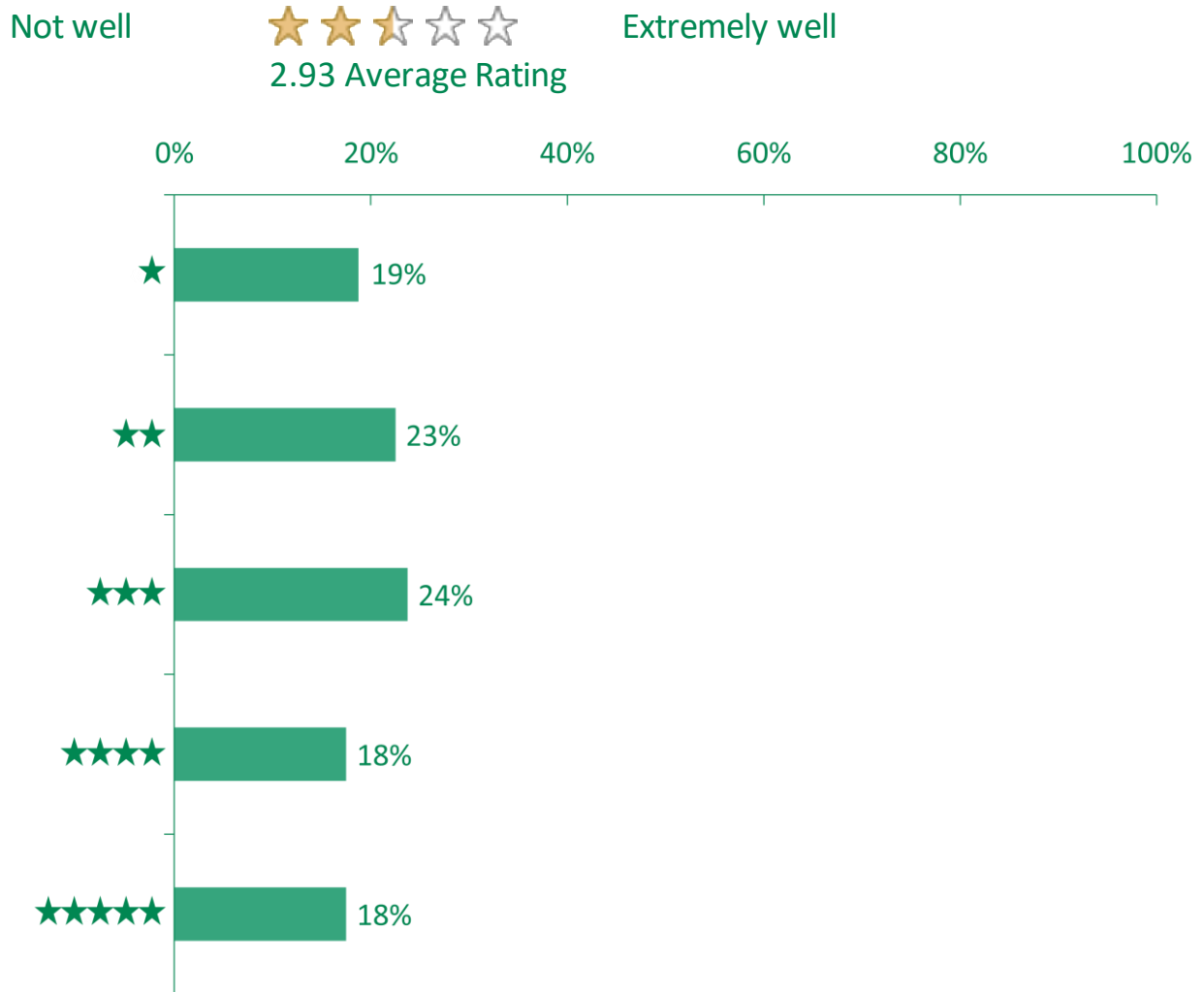
O38. Does your utility offer opportunities for promotions and career advancement?

Answer	%	Count
Yes (1)	58.2%	142
No (2)	31.6%	77
I'm not sure (3)	10.2%	25
Total	100.0%	244



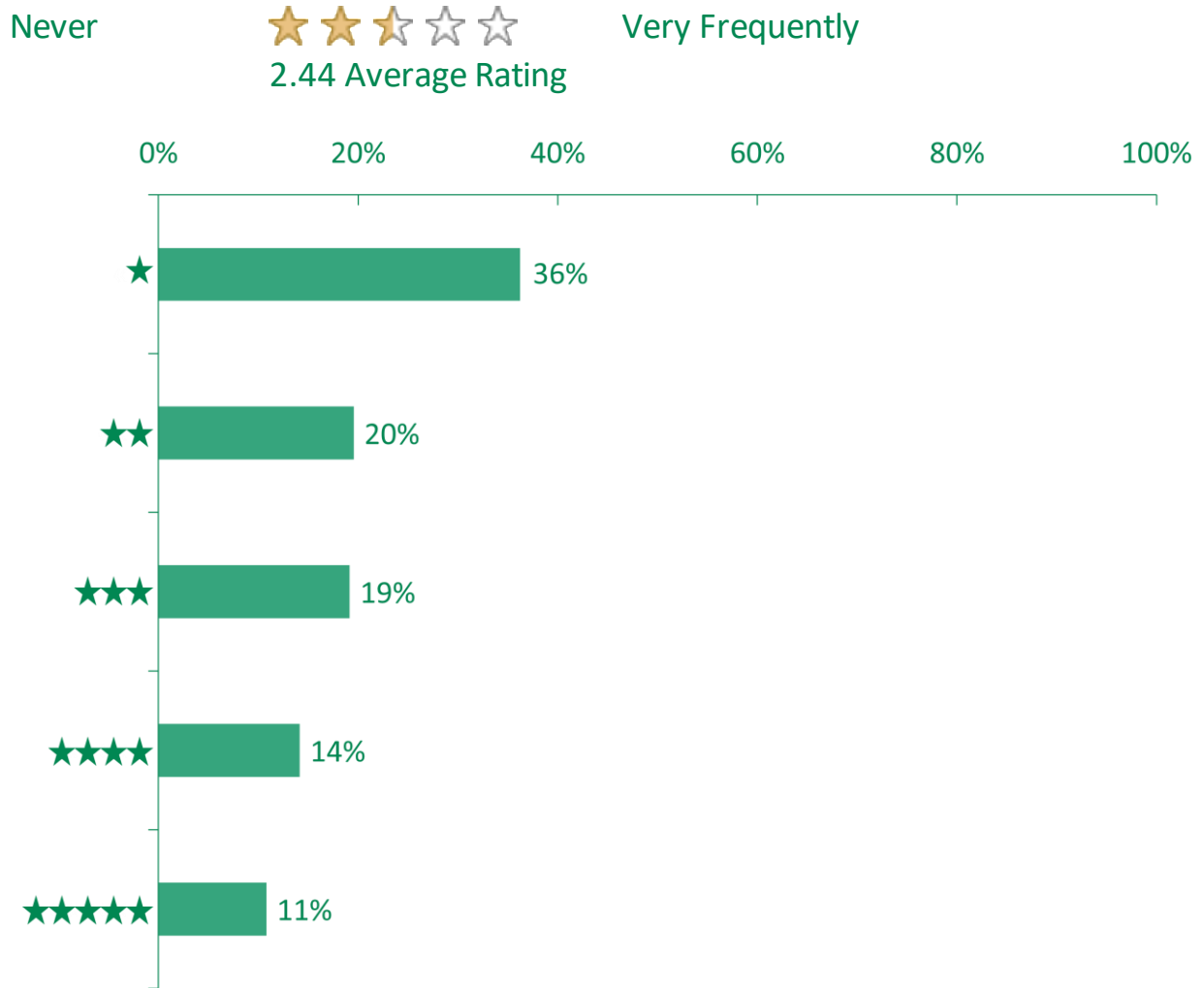
O39. How well do your utility's decision makers (e.g., city council or utility board) understand what you do in your job?

Answer	%	Count
★	19%	45
★★	23%	54
★★★	24%	57
★★★★	18%	42
★★★★★	18%	42
Total	100%	240



O40. How often do your utility's decision makers (e.g., city council or utility board) communicate with the operators?

Answer	%	Count
★	36%	87
★★	20%	47
★★★	19%	46
★★★★	14%	34
★★★★★	11%	26
Total	100%	240



Q41. How much do you feel appreciated by your utility?

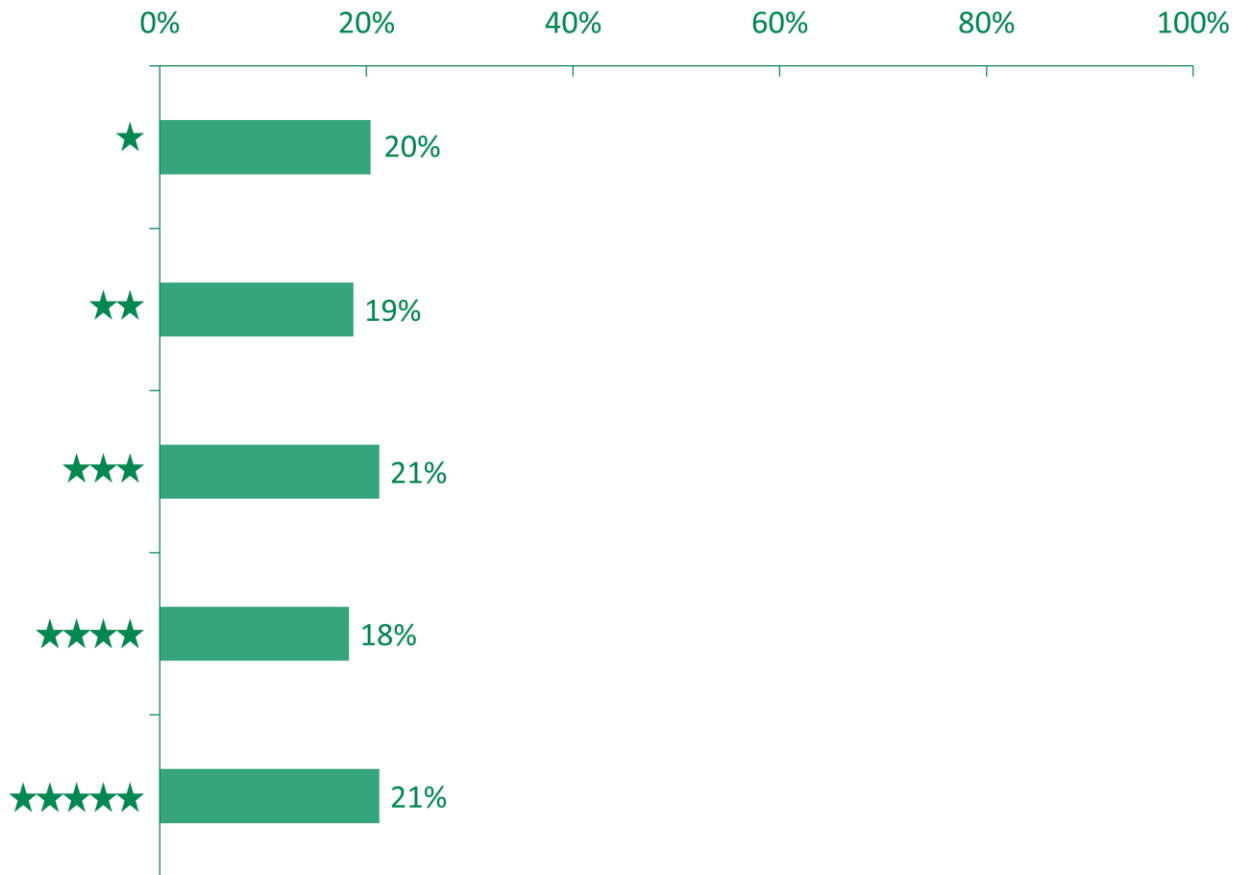
Answer	%	Count
★	20%	49
★★	19%	45
★★★	21%	51
★★★★	18%	44
★★★★★	21%	51
Total	100%	240

Not at all



A great deal

3.01 Average Rating



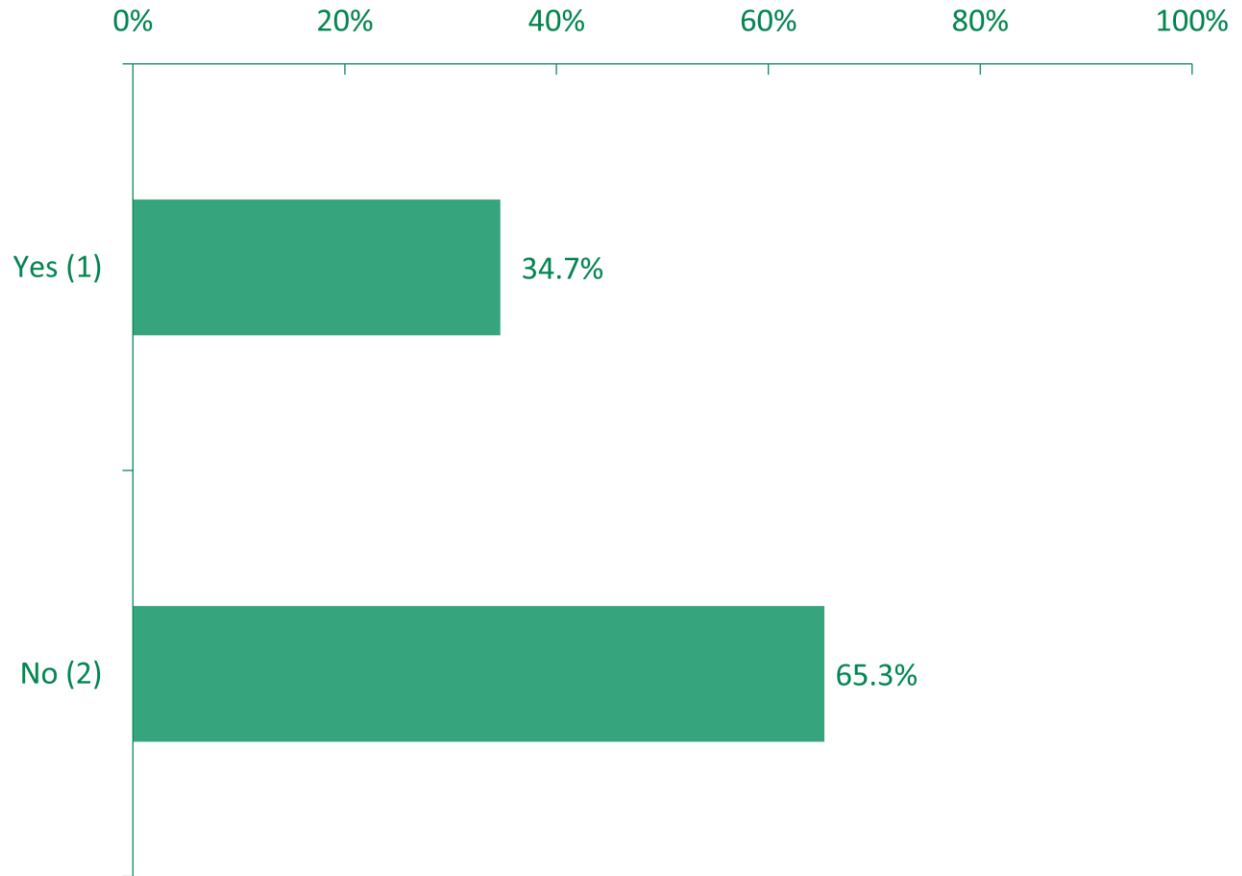
O42. How well do your managers listen to your opinions on matters that you deal with on a daily basis?

Answer	%	Count
★	16%	38
★★	13%	32
★★★	21%	52
★★★★	21%	52
★★★★★	28%	69
Total	100%	243



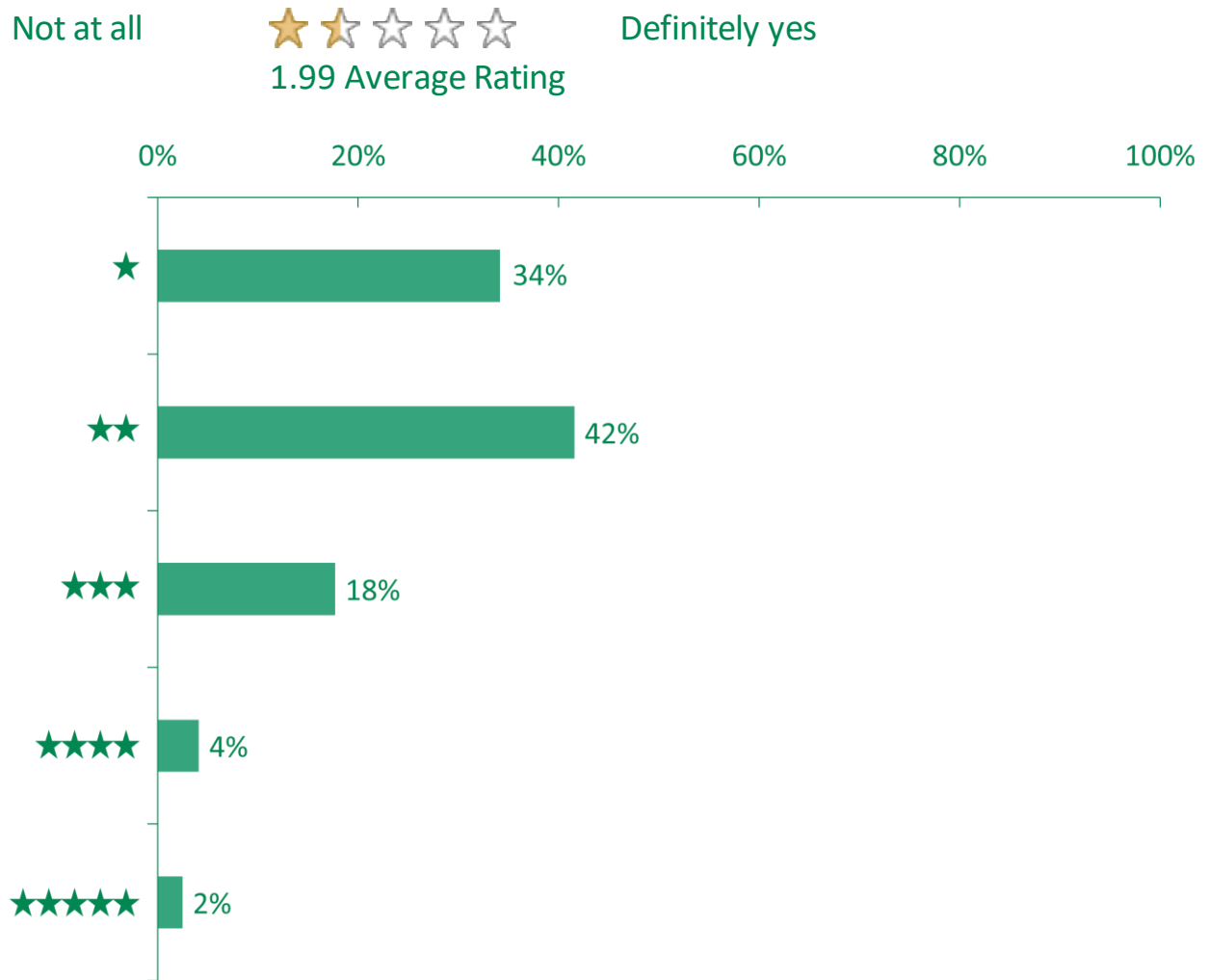
O43. In your opinion, does your utility have enough operators?

Answer	%	Count
Yes (1)	34.7%	85
No (2)	65.3%	160
Total	100.0%	245



Q44. Do you think the general public knows the operator career exists?

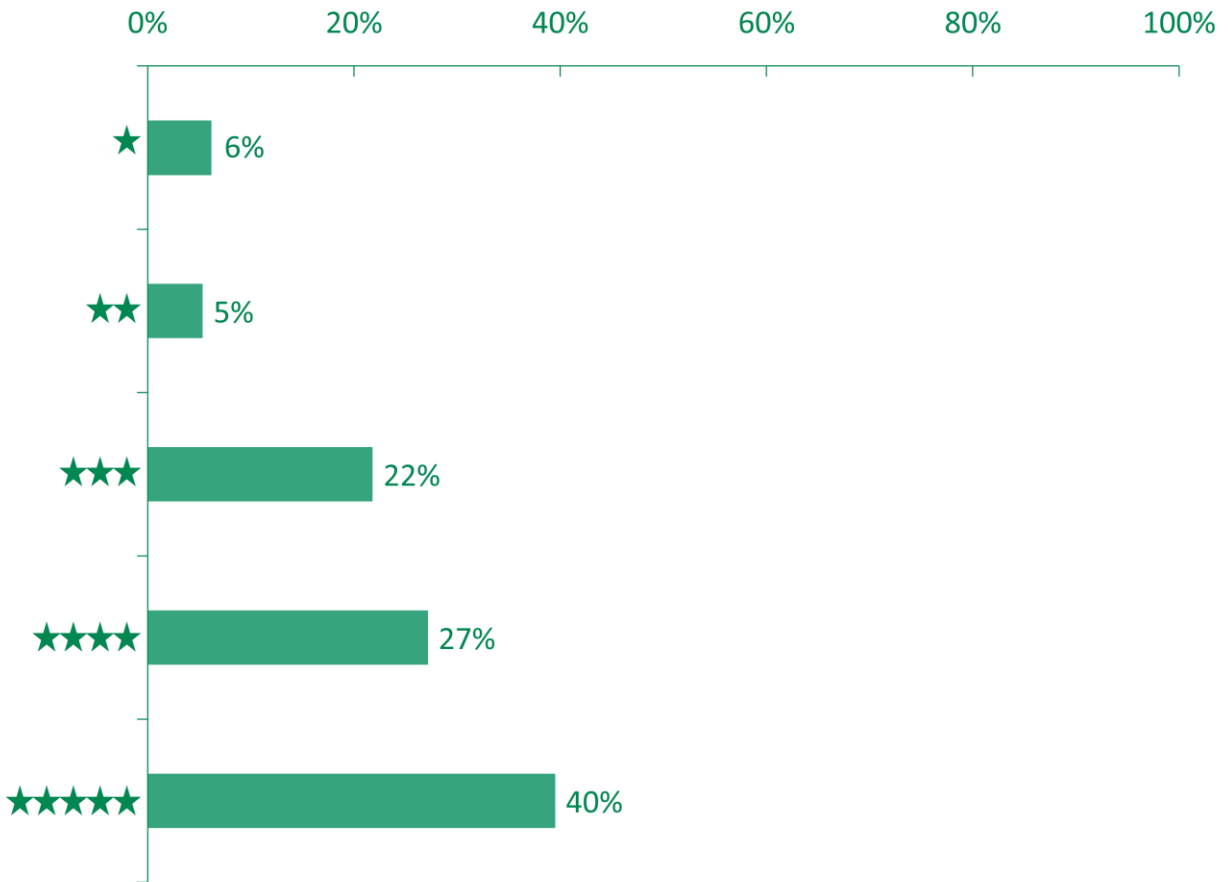
Answer	%	Count
★	34%	83
★★	42%	101
★★★	18%	43
★★★★	4%	10
★★★★★	2%	6
Total	100%	243



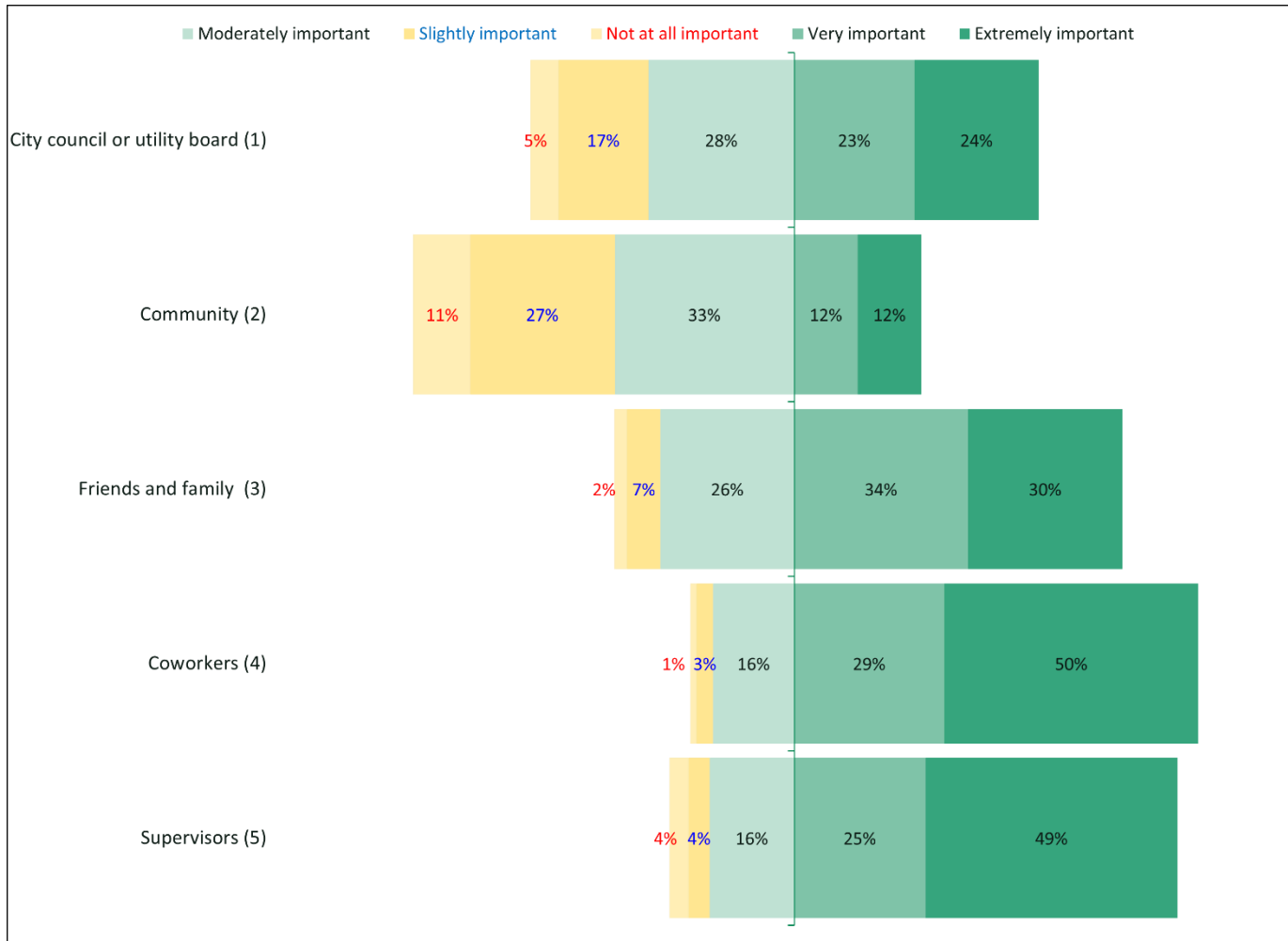
O45. Do you wish the general public knew the operator career exists?

Answer	%	Count
★	6%	15
★★	5%	13
★★★	22%	53
★★★★	27%	66
★★★★★	40%	96
Total	100%	243

Doesn't matter ★★☆☆☆ Very much
 3.88 Average Rating



O46. The services provided by drinking water and wastewater utility operators protect public health, the environment, and water quality. Consider each of the following groups of people and tell us, in your opinion, do they think the work you do is not at all important, slightly important, moderately important, very important, or extremely important?



O47. Consider each of the following and indicate whether you are extremely dissatisfied, somewhat dissatisfied, neither satisfied nor dissatisfied, somewhat satisfied, or extremely satisfied with that aspect of your job.



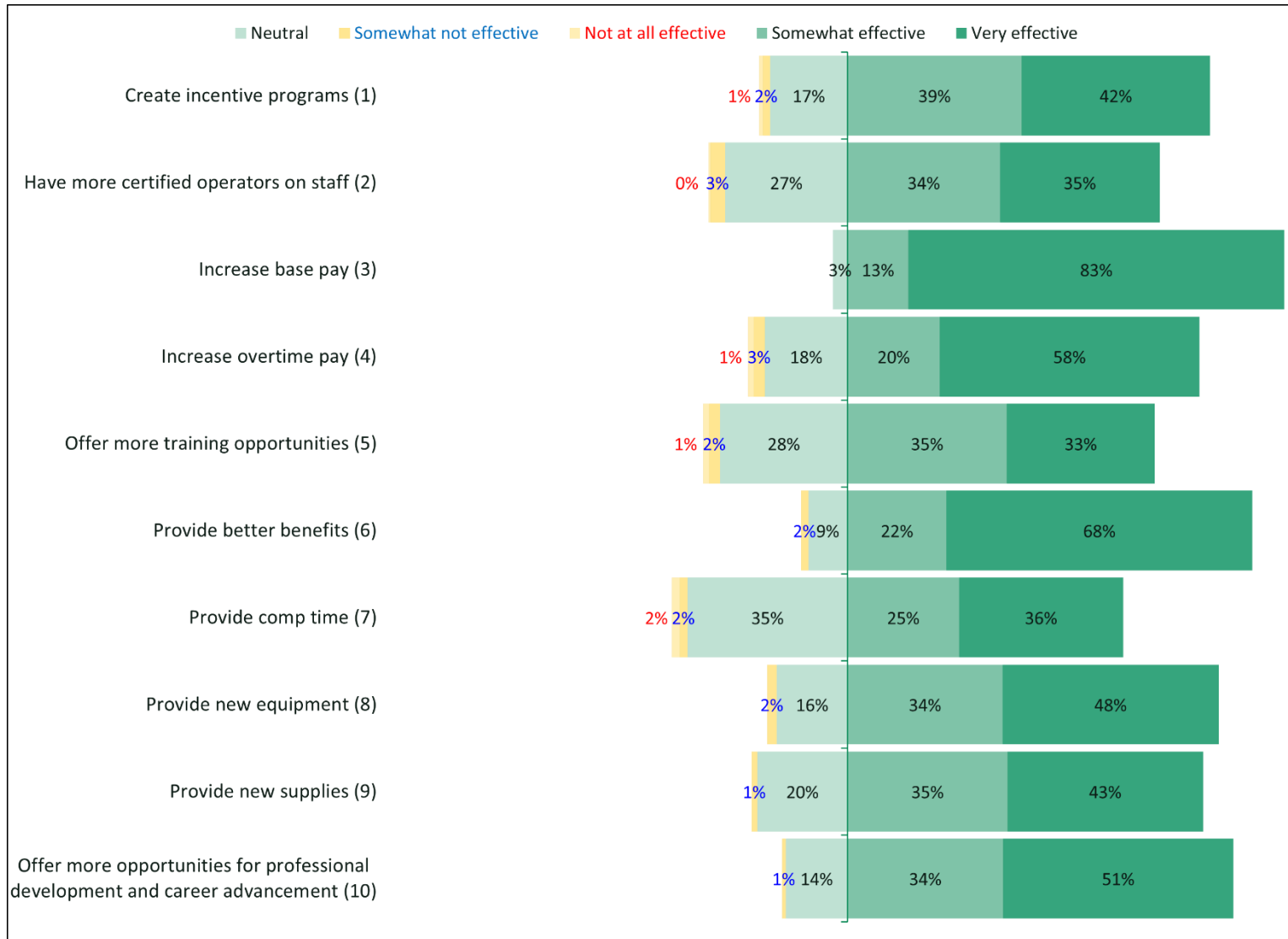
O48. Consider the following statements and indicate whether you strongly disagree, somewhat disagree, neither agree nor disagree, somewhat agree, or strongly agree with each.



O49. Consider the following and indicate whether each factor is an important motivation for you to work in the water industry. Indicate if the factor is not at all important, slightly important, moderately important, very important, or extremely important.



O50. The following is a list of things that utilities can do to encourage operators to stay in the water industry. In your opinion, which are the most effective?



O51. Is there something else you'd like to add to this list?

Free response answers
At the top of the list, Water and Wastewater Operators in Public works need to be Considered as essential workers in the state of Alabama. We face the same dangers as paramedics in the wastewater industry dealing with human waste and the same dangers on the side of the roads when repairing or replacing water lines and sewer lines as police officers making traffic stops. This would go a very long way in retention of current operators in my humble opinion.
Better lab training and better descriptions of requirements for good water.
Better management
Employee benefits provided by the utility at the cost of the employee vary greatly. Usually, the higher the base pay the higher the benefit costs. Gross pay means less if benefits cost more.
Establish SCADA systems that can't be edited. Require lab results to be recorded electronically and submitted with MOR's
Grade IV certificates should only be given to real operators that have actually run a plant for at least a year and can show responsible charge experience on a plant sign in sheet.
Having First responder benefits i.e. (police and fire) retirement. Based on EPA and ADEM during Covid, we are classified as First Responders and Essential Workers. We should be compensated as such with a higher percentage retirement pay through RSA. Also paid insurance after retirement and a cancer policy provided by employer due to elevated cancer rates at wastewater plants.
I believe that I'm fortunate to work for my particular utility, and honestly have no complaints.
I believe that the base pay for any water operator needs to be raised. You can look at the power industry vs. the water industry and there is a HUGE difference in benefits, pay, etc. However, when you step back.. Water is just as important as power. So why such the difference? Why are water operators not at the same standard?
I know a lot of states have water and wastewater operators as first responders. I believe having this would help retain operators and increase people coming into the field as well
I personally think the certification exams are a lot harder than they're supposed to be for the amount of pay that you get. The passing rate is a lot lower and people are getting frustrated that they cannot pass the first time. Maybe implementing a system to where we can review and look at what answers we got wrong so we can better prepare next time we take the test. There's been a ton of complaints regarding which answers are right, and which are wrong if we can't see the answers.
I work for [redacted] utilities. Our department is understaffed and overworked and it is difficult to compete with fast food chains for potential employees when the pay is about the same.
I would consider myself and the other operators that I work with to be first responders. When disaster strikes, we are some of the first workers on the scene trying to remediate the damage done in order to get resident's water, power, wastewater, etc. back to working conditions. People who think about joining this field of work see that we are, in fact, first responders. They also see that we are not considered to be first responders within the Retirement System of Alabama. I believe this to be a big reason why many consider other fields of work instead. It would probably be a good incentive for those thinking about entering this field of work to know that they would be considered first responders as water/wastewater operators. It might also be a good way to hold on to those who are already in the water/wastewater treatment industry.
I've been doing this job a while. I really like the job just not happy with pay scale

051. Is there something else you'd like to add to this list?

Free response answers
In a somewhat dying field, after looking into pay scales in my area, it would be nice to see operators taken care of financially. It's hard to justify staying in a field I love working in when I can barely afford to make it back to work before the next check hits the bank. That would definitely help keep the operator number up if we are well compensated for what we do. I understand ADEM isn't the ones signing checks throughout the state, but some support from them to each utility stressing the underlying issue of a pay gap could possibly be what the utility needs to understand the current state of decline in the number of operators.
In my experience, for the current and my own generation, pay itself is more important than how amazing the benefits are. Working for a public utility seems fine at first until you realize that every year it seems like the benefits get worse and the pay does not cover cost of living increases even when you get a cost of living increase. Better pay, period, is more important than incentives that do not make paying your bills easier. Working for a public utility we are not allowed to receive bonuses or so I was told so there is no incentive they could give us that would seem worth it other than looking for another job somewhere that pays more.
Money and time to enjoy it are the 2 biggest
My place of work is working with a bare bones of a crew and it wears down the employees because they constantly feel overworked and underappreciated and anytime anything changes it changes to the employees detriment and the mayor, city council, and managers benefit. The only way a change will ever be made in our system is from a state mandate. The state should require a minimum number of employees for each facility like they do for a gas department job.
Offer training opportunities to those who want to work in the water field, but haven't been hired yet. Also have seen so many that could have been good operators, but can't pass the test. Then I have those who pass the tests, but can't operate a water plant. Too much emphasis on a complicated test.
Our Utility Manager and Board and city council members don't have a clue about Water/Wastewater
Pay should at least keep up with neighboring trades.
Pension Retirement
Retirement should fall under first responder tier. Due to the hazardous conditions and 24 hr manned plant law.
Teambuilding, rewards, family involvement.
The ability to find workers who want or are capable of having the intelligence to be a productive operator and also willing to work in the heat is difficult. Perhaps a program like the Fire College would help.
The gross amount of money a retiree can earn working part time for a utility that is in the RSA system should be increased and a retiree shouldn't lose their monthly retirement pay if they go over the current cap amount
To get overtime pay .
Understand that Operator Licenses is almost like A College or university Degree studying chemistry, Math, Human anatomies, sciences, Biologics, everything and the higher you'll go in advance training to get A higher Water or Wastewater Licenses
decision makers training need to be pushed more
if the employer provides a lot of benefits but makes the employee foot a majority of the bill, what are they actually providing? If employer provides and pays for training but the utility down the road pays a few dollars more per hour for the same or less work. who are they helping? when you have new employees starting at an hourly rate very close to a 20+ year veterans pay, it tends to kill moral for that employee.

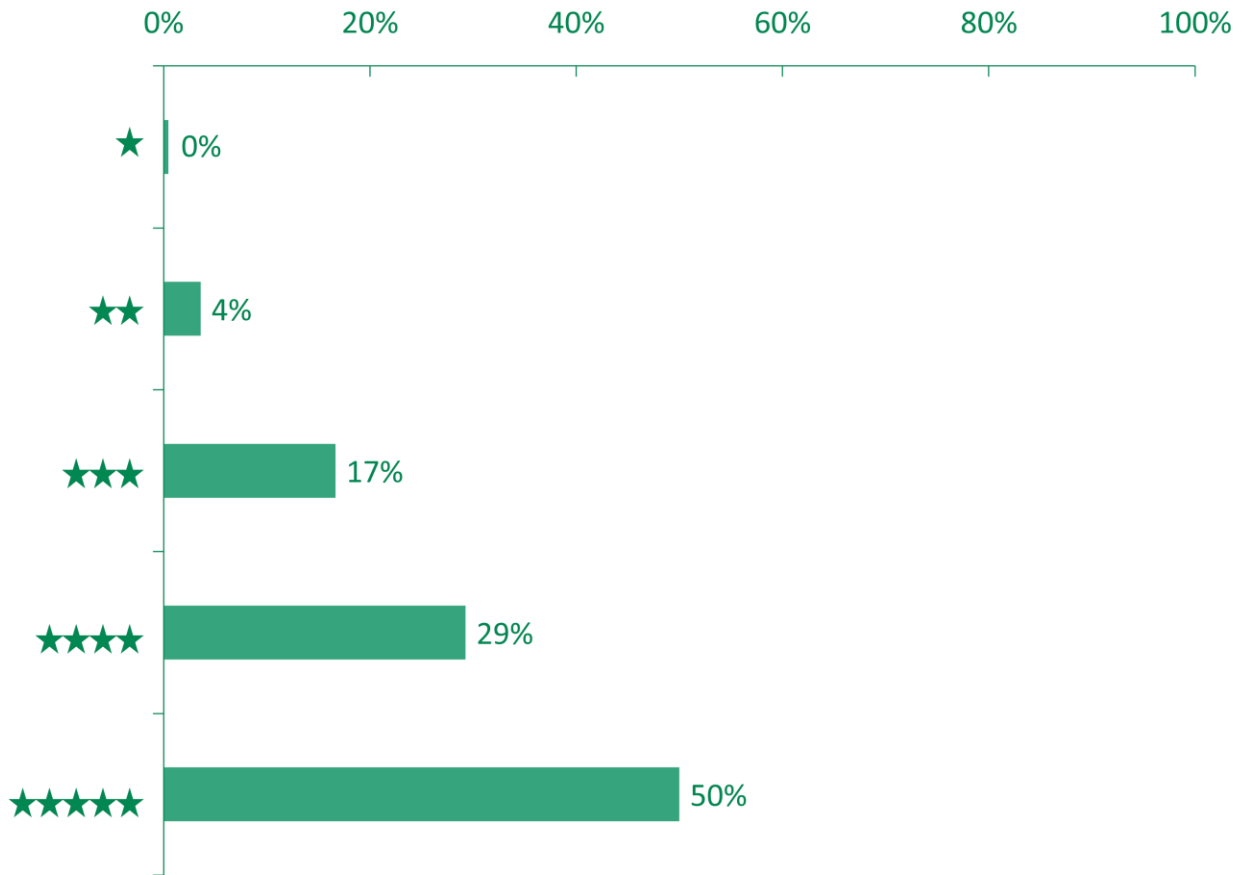
O51. Is there something else you'd like to add to this list?

Free response answers
<p>operators pride themselves on the job they are doing for the community. it's an honor and privilege to do so. The route to being an operator is wrong, the testing is wrong, it contains questions that does not pertain to the water industry at all. The math questions are well to put it simple. very stupid. No one uses that type of math in water. The test should be like the old 50 question or keep it at 100 not 110 and a passing score of 60. for the responsibility that an operator has, and you have the weight of your community riding on your shoulders is huge and justly so. but the test does not in any way come close to the real world. I know I took it 7 years ago. The systems we work for need to pay on the hour more money for the responsibility we carry, some systems can not afford it, they lose operators. The state or federal need to step in and help increase wages. This job is crucial and should be paid as such.</p>
<p>We work to provide for our families and provide a great and safe service to our customers. Water is a valuable resource that I believe is undervalued. to pay employees better rates and update our systems effectively.</p>
<p>Yes, the water operator exams. As a water operator we are required to have the on-the-job training, and to have the required class time. Then go take a test based upon memory alone.</p> <p>However, if I am going after a master pipe fitter license or plumbing and HVAC or even an electrical master license on a state level, those test takers get to take an open book exam.</p> <p>Why do they get to do an open book exam and not a water/wastewater operator? The test most times do not match what we are being taught or what we need to study. Or the tests have questions that are so far in left field, that it is designed to be failed. 90% of the work in water/wastewater industry is manual related labor. The information taught in the textbook is seldom used in the field. Whomever is in charge of designing the study criteria, really needs design tests that fit the material being studied.</p> <p>when you have more surface water related study material for a grade 3 advanced ground water system, it doesn't exactly make any sense. if my system is grade 3, I shouldn't need 24 hours of class time that is predominantly surface water study material.</p> <p>So, in my honest opinion, the reason there are so few operators is because the material being studied is resulting in primarily a failed operator test, then that just kills the morale of the individual that is taking the test. Because the test is not standard, and when the questions are worded differently on the test vs what is being studied, or the material being taught doesn't match the test, it causes people's anxiety to overwhelm them. Thus, making them to want to quit and find a different career path.</p> <p>i think if other state licenses can be taken as an open book exam, then water/wastewater operator certification test should be afforded the same option.</p>

Q52. How satisfied are you with your choice to work in the water sector?

Answer	%	Count
★	0%	1
★★	4%	8
★★★	17%	37
★★★★	29%	65
★★★★★	50%	111
Total	100%	222

Very dissatisfied ★★ ★★ ★★★★★ Very satisfied
 4.25 Average Rating



O53. How likely are you to recommend a career in the water sector to a friend or colleague?

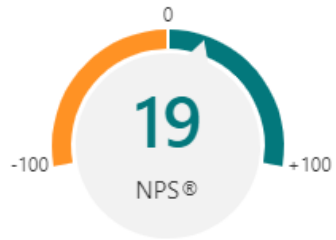
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O53. How likely are you to recommend a career in the water sector to a friend or colleague?

Net Promoter Score (NPS) from 0 (Not at all likely) to 10 (Extremely likely)

53. O53. How likely are you to recommend a career in the water sector to a friend or colleague?

Promoters	108
Passives	76
Detractors	60



O54. What resources have you used in the past to find jobs in the water sector? (Select all that apply)

Full text of response options

(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 6

Count	5	1	1	5	1	2	3	1	1	1	1	1	1	
%	2%	0%	0%	2%	0%	1%	1%	0%	0%	0%	0%	0%	0%	
(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

O54. What resources have you used in the past to find jobs in the water sector? (Select all that apply)

Chart 2 of 6

Count	1	1	1	1	1	1	1	1	1	2	1	1	1	
%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	
(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 6

Count	1	1	1	1	1	1	1	5	5	1	51	5	5	
%	0%	0%	0%	0%	0%	0%	0%	2%	2%	0%	22%	2%	2%	
(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

O54. What resources have you used in the past to find jobs in the water sector? (Select all that apply)

Chart 4 of 6

Count	21	9	1	1	8	6	1	1	1	1	1	1	1	
%	9%	4%	0%	0%	4%	3%	0%	0%	0%	0%	0%	0%	0%	
(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 5 of 6

Count	1	3	7	4	4	2	1	2	4	2	2	1	2	
%	0%	1%	3%	2%	2%	1%	0%	1%	2%	1%	1%	0%	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

Appendix C
 2024 Alabama Water Workforce Survey
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O54. What resources have you used in the past to find jobs in the water sector? (Select all that apply)

Chart 6 of 6

Count	1	3	4	1	4	3	1	1	2	1	1	1	Total: 228
%	0%	1%	2%	0%	2%	1%	0%	0%	1%	0%	0%	0%	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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 2024 Alabama Water Workforce Survey
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O55. What resource did you use to find your current job?

Answers	Count
Friend Or Family	78
Word Of Mouth	16
Online Job Post	13
Newspaper	11
Networking	7
Industry Contact	6
Internet	5
Facebook	3
Website	2
City Website	2
Online	2
Government Website	2
Employee For The City Was At A Training Class Told Me About The Position	1
Neighbor Worked Here And Told The Board About Me	1
Talked With the Past Operator	1
Grandparents Urged Me To Apply When I Was 20 Years Old.	1
On Line Wef	1
Acquaintance	1
Notified By Former Coworker Of Vacancy.	1
People Already Working for The Department And My Own Four Years Of Part Time	1
Alruralwater.Com	1
Website Of Municipality	1
I Worked In A Different Department For The City And Had To Help The Collections Department Repair A Yard One Day. 3 Weeks Later A Opening Came Up And I Applied.	1
Board Chairman	1
Recommendation From Peer	1
Referral	1
Job Fair At College	1
Retired From Another Non Water Related Job And Wanted To Work Part Time To Stay Busy..	1
Spoke With the Mayor	1
Contacts	1
Online Job Board	1
Local Government Website	1
Personnel Board	1
The Company Contacted Me	1
Made Personal Contact With Manager	1
A Current Employee Told Me About It	1

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 2024 Alabama Water Workforce Survey
 Operator Survey Results

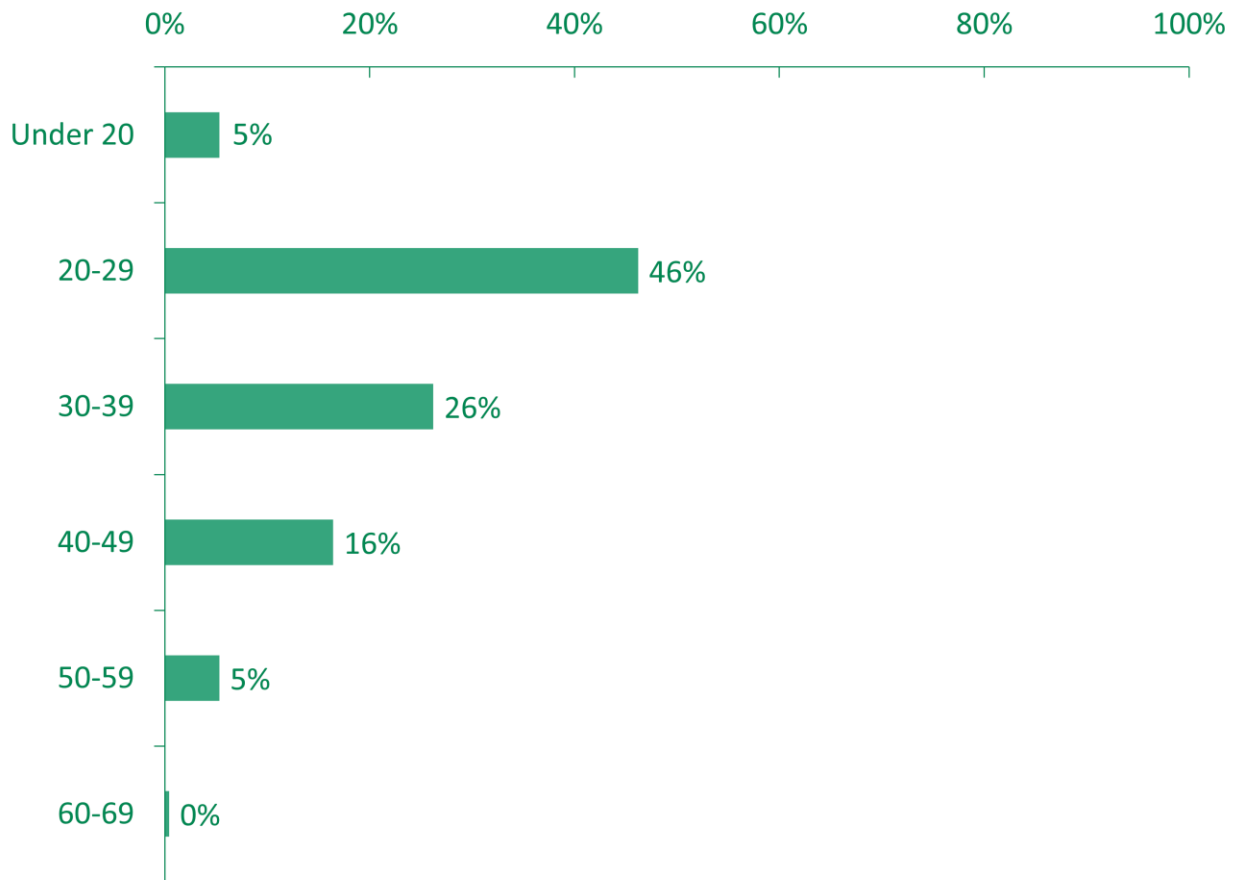
O55. What resource did you use to find your current job?

Answers	Count
I Had Maintenance and Industrial Background In Wastewater	1
Online Ad	1
Contacted Previous Co-Workers.	1
Web	1
14	1
Online Post	1
My Dad Got Me in Wastewater As A Laborer, I Found Out About Operations & Supervision From Inside The Utility And Decided To Study And Get Promoted.	1
Governmentjobs.Com	1
Called Someone Else in The Business	1
Previous High School Teacher Recommendation	1
Government Jobs.Com	1
Call Around	1
They Solicited Me.	1
Local Website	1
County Website	1
City Hr Website	1
It Found Me	1
The Job Was Offered by Past Operator	1
Was On City Council When Job Opened And I Took It	1
Co Worker	1
Professional Relationships	1
Local Gov'T Website. Also Knew The Man In Charge.	1
Look Around Job Hunt Every Thing Water & Wastewater Fields & Utilities !	1
Salesman For Water Products	1
Local Government	1
Government Listing	1
Local Utility Website	1
Company Website	1
Trainee Position Opened Up And Applied From Inside Employee Application	1
Online Notification	1

O56. How old were you when you started working as an operator?

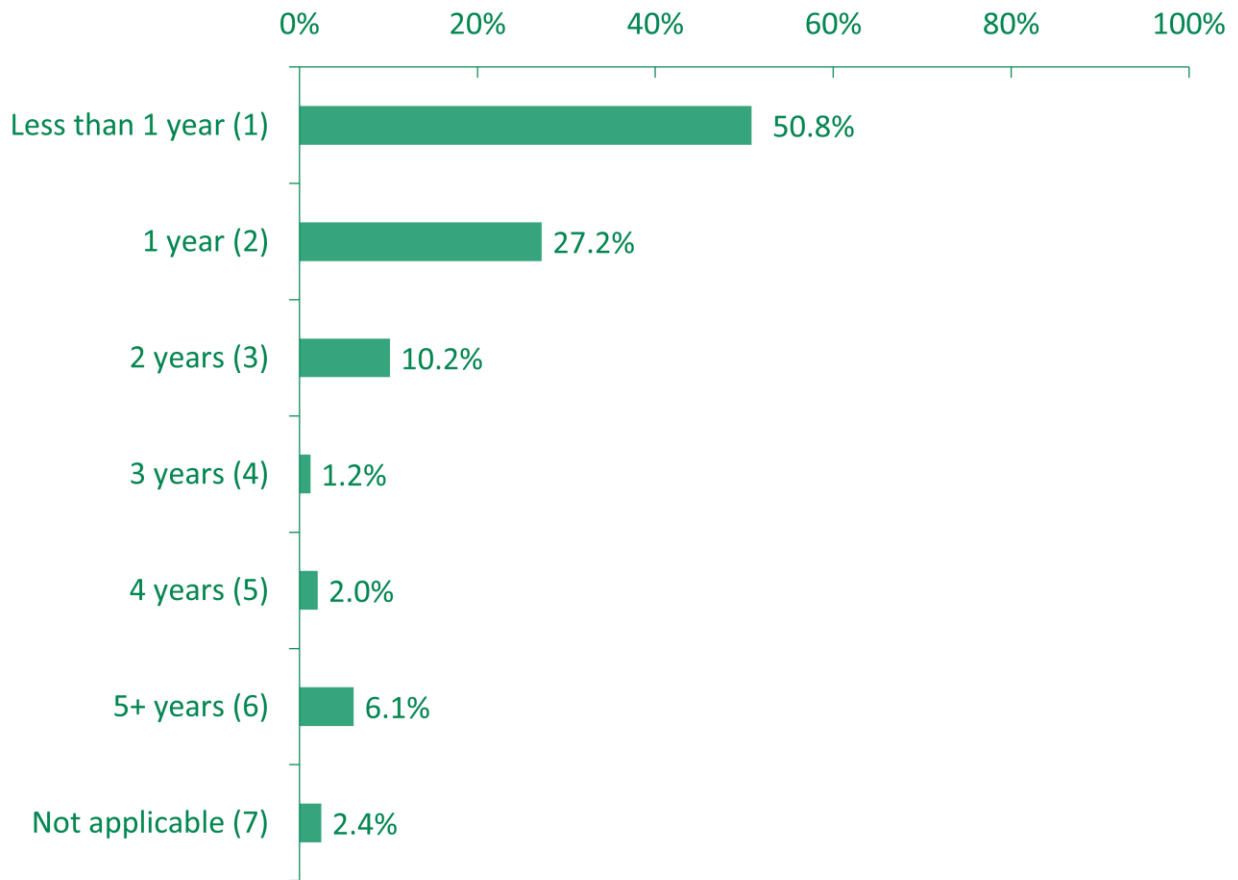
Answer (years)	%	Count
Under 20	5%	12
20-29	46%	104
30-39	26%	59
40-49	16%	37
50-59	5%	12
60-69	0%	1
Total	100.0%	225

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



O57. How long did you work as an operator before you tested for your first certification?

Answer	%	Count
Less than 1 year (1)	50.8%	125
1 year (2)	27.2%	67
2 years (3)	10.2%	25
3 years (4)	1.2%	3
4 years (5)	2.0%	5
5+ years (6)	6.1%	15
Not applicable (7)	2.4%	6
Total	100.0%	246



O58. Why did it take you 3 or more years to test for your first certification? (Select all that apply)

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								●	

Q59. Is there anything else you'd like to tell us about Recruiting or Certification?

Recruiting or Certification Free response answers
ADEM response time is glacially slow
As a grade 4 wastewater operator I realize that clean and safe water is a vital part of everyday life. Water is the planet's most valuable and necessary commodity. I feel that as an industry that is very under noticed we serve a huge responsibility to keep water safe. I feel as such that we are responsible for treating water and keeping a bigger population just as safe as police and fire first responders. Granted we don't run into a burning building, but viruses and bacteria will kill or harm more people quicker than the other two first responder professions.
Better pay and better benefits are what attract potential trainees to our field. Private industry usually can pay a substantial salary, but we must pay more and give more to recruit and retain employees, especially if they are to be on call 24/7 and BE TRAINED to know what to do. This also goes along with providing the essential equipment and materials to complete a job efficiently and effectively. After these things are in place, the only thing then needed is a willing candidate/trainee, who is determined to succeed by doing whatever it takes to become the best he/she can be at their job. Individual determination is the only thing we as employers cannot provide.
Boards are simply loath to hire full time uncertified trainees and pay them a competitive wage. They (boards) tend to wait until a certified operator staffing crisis occurs. They cite the \$100,000 + it costs annually to keep two trainees on payroll. I have never worked at a system where a treatment plant operator could call in sick or take a vacation day without prior scheduling. That is, no relief operators and not fully staffed. The greatest barrier to plant trainee/operator retention is them not understanding that they will have to work every other weekend and every holiday their shift falls on over a 30 + year career. Family/Spousal objections to past missed and future missed or rescheduled holiday celebratory events are serious and greatly affect morale and career decisions.
Certification exams have added questions in recent years that have nothing to do with being a capable operator. Utilities have engineers and chemists to answer questions outside of operating and maintaining a facility. Removing those questions and we can see improvements in passing rates.
Certified operators with more than 30 years should be granted Emeritus status and not made to renew the Certificate. This title should also be given to retiring operators.
Classes at [redacted] are useless. Training is bad. You're better off paying one of the 3rd party instructors to come into the business to do classes which are expensive as well. It is finding time for your employees to study and do the classes as working adults who have family lives as well.
From my experience, there was a major lack of encouragement to get certified because this would be competitive towards other operators.
Get into these colleges and find some kids!
Get into high school's and talk with the sophomores, juniors and seniors. High school students do not know this career exists; the guidance counselors have no idea these careers exist. We need to get into the high schools not job fairs. We don't, we're not looking for 31-year-olds. We need younger people that can make a career out of this industry.
Having a course with the test material would be very beneficial.
Hours on the job should be considered instead of the current "months" on the job.

059. Is there anything else you'd like to tell us about Recruiting or Certification?

Recruiting or Certification Free response answers
<p>I don't really have anything to add as far as recruiting. However, on certification. I think an often overlooked subject that career operators usually end up working on at some point in their career as an operator is easements, rights-of-way, prescriptive easements, etc. Maybe some additional subject matter can be added and training materials added that gives the basic rundown on these subjects.</p> <p>As a supervisor, I deal with this for the system I work for. Though I have learned more about easements, rights-of-way, etc. on my own. I think it would be more beneficial to the system that operator works for to have better in-depth knowledge of this subject area. It would be a way for operators to be able to expand their own knowledge base.</p> <p>Thinking about it as I type this, you could have it as an extended operator's license, like a grade 2.5 for example, where you cover the standard necessities of the operator's exam, but you also throw in some additional information that is generally handled by professional service such as lawyer, engineers, etc.</p> <p>If you give the operator the opportunity to learn and test on some of the professional services functions. It might be a way of offering additional recruitment opportunities by creating a basic professional license option as an add-on once an individual has first obtained their basic operator's license. A basic professional license could have not only easements, but you could also include reading and understanding engineered drawings and plans, specs, submittals, change orders, etc. These are items usually handled by engineers, but for smaller systems, a class and license option for operators might prove to be hugely beneficial to not only the operator, but the system that operator works for. Just a thought.</p>
<p>I have seen countless great employees walk to a new job and the company not try to keep them. Now they are faced with employees either 25 plus years of service or 2 1/2 years or less. And it is going to be a big problem when the older ones start retiring soon. All the good ones left to jobs making more money in a better work environment and without the worry of the weekend, after hours and holiday work.</p>
<p>I helped 2 young guys pass the grade 4 water exam. I read both Sacramento books, all 4 AWWA water treatment and both water distribution books and there were several questions that they told me about that I couldn't find the answers to. I was wondering if the bank of question all has a verified source that they originate from because if not I see those as questions without a true answer.</p>
<p>I think once an operator has been in the system for over 15 years, they shouldn't have to have CEH's to renew their license.</p>
<p>I think the exams are too difficult. The questions now seem to be asked in a trick question manor. Meaning there are several answers that are true in the question being asked. We operate in Alabama not California. Don't ask trick questions just to fail a trainee just to have them pay another exam fee. And let trainees schedule online very quickly at their convenience. They only have limited time to pass these exams. Don't be dragging your feet. Be respectful of their time and effort. They are YOUR future.</p>
<p>In house and encouraging other people around you the value it brings to being certified and working with them. This helps overall and has been my biggest success as a manager or supervisor. and recruiting has always been looking for someone that is willing and wants to learn. then helped developed them. not just turn them loose and say good luck.</p>
<p>Increasingly difficult</p>

059. Is there anything else you'd like to tell us about Recruiting or Certification?

Recruiting or Certification Free response answers
It seems like every time you change the test, you're making it easier there are some fresh operators just now passing their grade 4 And still can't tell you how much a gallon of water weighs
It's all about the money; increase pay, and more people will be interested in the career. Certification is definitely worth the work, getting your certification will be added job opportunities and much better pay in the long run.
More Local in person \ in-depth classes. Online classes are too speedy, lack depth and basically just reading books back to participants. Virtual hand raising often gets missed and the whole class has moved on before it is noticed resulting in backtracking.
More certification advancement. I.e grade 2-4 distribution. More opportunities for distribution education advancement
More structure for training and certification
Need better teachers for the testing.
Need to get the word out about job openings and educate the public about this great career field, especially for those who can't attend college.
Never sugar coat the type of commitment it takes to work in the water maintenance industry. It is demanding and not glamorous however, (in the right facility) it is a noble, important, and family providing career that one can be proud of if the effort is there and doesn't go unnoticed.
Pay should be equal or greater to neighboring trades. Other trades often pay more money faster, with easier licensing requirements. In three years, I could have been a master plumber and made more money, after a much easier test. Upper level operators have to bring more to the table for less money.
Recruiting in my opinion needs to be done in high school assemblies and junior colleges. Ads need to be up to get the word out about the career availability. Sooner than later, we will run out of operators if something doesn't change
Since [redacted] has left teaching the classes he did, I believe the certification has become a good bit more difficult than what it was. I was the last class to come through [redacted] and I am forever thankful for that. The online Certification classes do not help our men pass this class, they need someone in front of their faces and the [redacted] Classes are EXTREMELY expensive. There needs to be a change somewhere for this or the men will continue to be defeated over the exams.
Tests should not cover so much but should cover basics. Every plant is different and there are some processes you may never use. Go back to the old test. Use the PO certification
Testing should be more logical and less psychological. Training should be more in depth and less about passing a test.
The certification process needs to be overhauled. When working towards a second certification, time on the job under the first certificate should provide SOME time allowance for a second certification. After all a pump is a pump, safety is the same, administrative duties are the same, the main difference between water and wastewater is that one is a chemical process and the other biological. Look at Tennessee's certification process. They allow exactly this idea in their program.
The certification process tests are all extremely too complex for someone to pass and continue to have a life. A person has to forsake family, religion, and outside life at all to hopefully get lucky enough to get a passing grade on the highest level certification test.
The test is difficult, and most would say "too difficult". I find the certification procedure fair, and indicative of the responsibilities of the job.

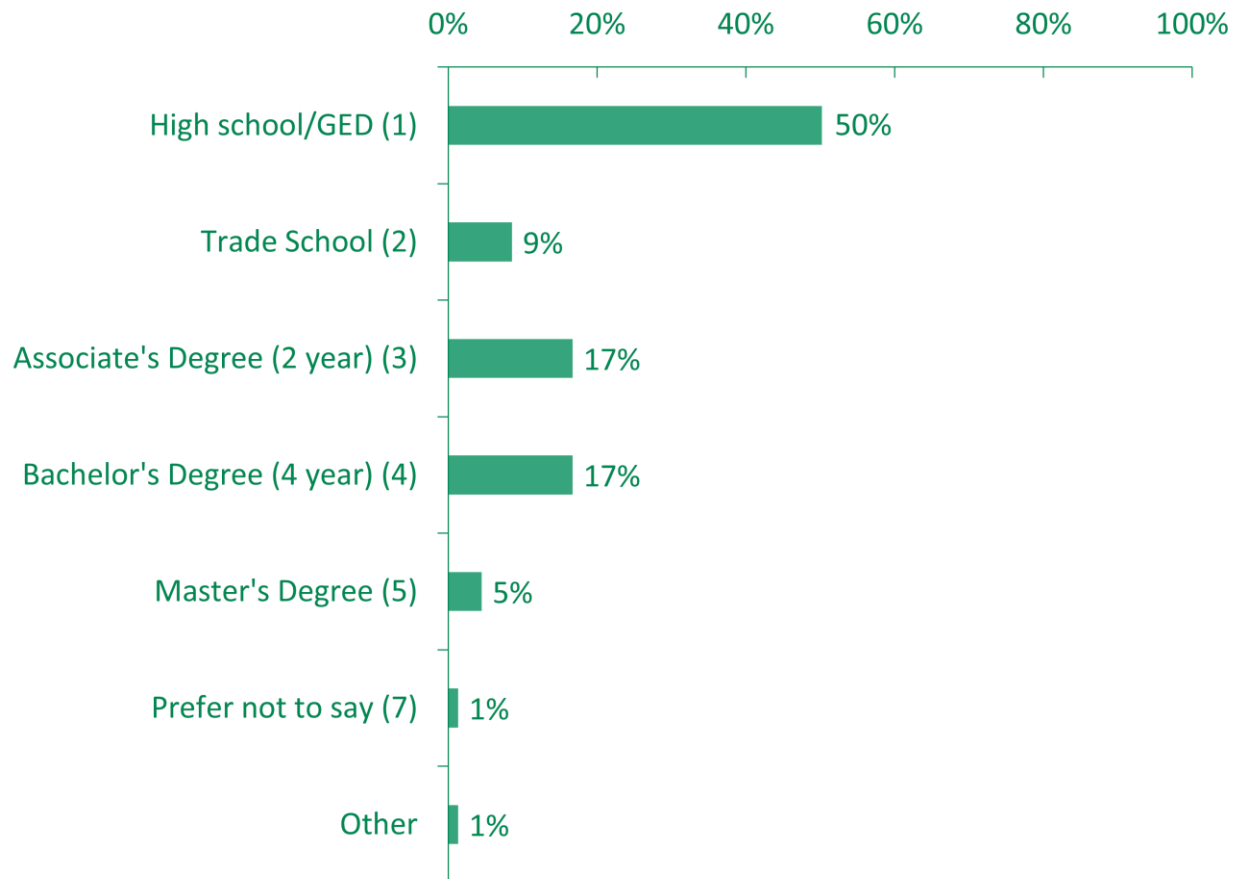
059. Is there anything else you'd like to tell us about Recruiting or Certification?

Recruiting or Certification Free response answers
The testing needs revamping. There are 10 questions that are not known, that don't count. For those that have studied and went to classes, when you get a 67,68, or 69 it's heartbreaking. How many of the questions that don't count did we get correct that would have passed us? I believe most operators want to do the best job possible, and do the right things. We take tests written by engineers, there are few to no operators working that are engineers. Make the test more relatable to the people you have working in the industry.
There needs to be more of a set curriculum to study from instead of giving an overwhelming amount of study resources and basically just throwing trainees out to "sink or swim".
This is a lot of material to cover. My city gives 12 months to pass this test. They hand you a book or 9 and say good luck. Oh, they will offer you a day or 2 of a class that tries to cram the material into 4 days. It's laughable. Other states, such as Colorado, offer complete courses. And it would help Extremely to know the answers to the questions you miss. Even when passing the test. You should know what you missed so you don't make a mistake in the field. You would also never miss that question again. The test is made too difficult for reasons that I can't comprehend. We've lost employees with huge potential due to this and to not being prepped correctly.
More prep classes more support for new operators in training
We need more operator programs in high school for the water industry Certification should not be so broad, meaning there should be a certification for decentralized systems
Work with a man who somehow got certified as a trainer. Walks around asking questions and then submits this as classroom training so he can get credit for teaching a class. Y'all need to do greater diligence in allowing trainer status
I would like to see the examination go back to the more objective test that I took back in 1998. The new exam has entirely too many possible topics to effectively study for. The job as an operator is more of a hands-on OJT career than one where you guess correctly 70% of the time and then just get thrown straight in to the job, 1900 hours of experience notwithstanding. It truly takes about 5 years to be seasoned as a functional filter plant operator.
As important as it is to have certified operators in water and wastewater for communities, industry and national security. Paying a higher starting wage would go a long way to attracting and keeping certified operators. Utilities are a necessity and make a lot of money. We should place a higher value on our operators that keep this infrastructure operating
The certification test may be too difficult. Most of our trainees have had to take the test multiple times to pass.
study material and resources need stronger guidelines and structure for grade 2 and higher
My opinion on the test to become an operator is very poor. I do not agree with the universal testing. The water in our area is not the same as in Maine or California and the test should represent such. If you know the basics of water treating, you can go anywhere and pick up how they treat the water in two weeks and could easily operate the plant. As for getting hours for recertification, the opportunity presents itself often. and most operators should be able to get the hours they need. I find that 70 percent of the classes bring something new to the table I did not know. Overall, that is a good percentage.
The test seems unreasonable. We are having a hard time getting employees to pass the test even though they know the material that is taught in classes.

O60. What's your highest level of education?

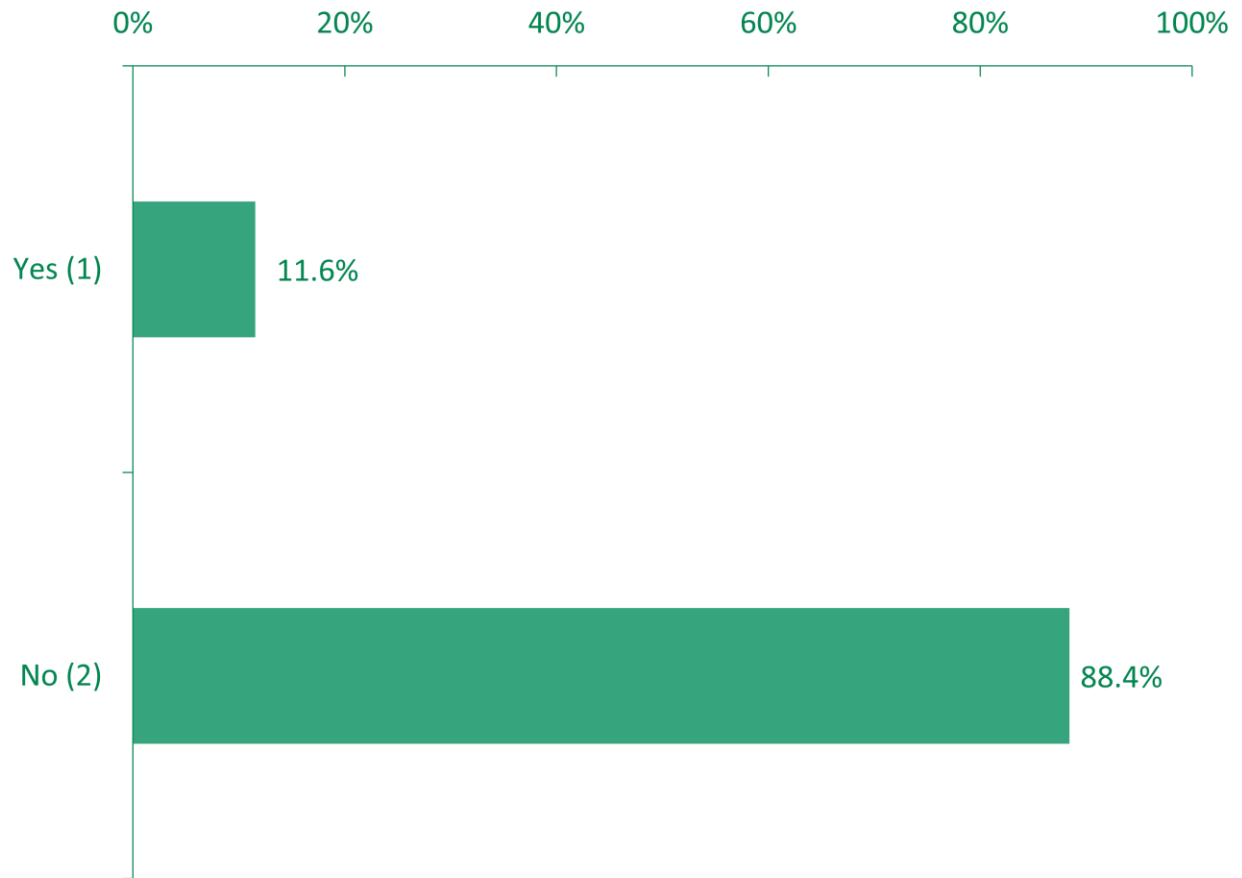
Answer	%	Count
High school/GED (1)	50%	111
Trade School (2)	9%	19
Associate's Degree (2 year) (3)	17%	37
Bachelor's Degree (4 year) (4)	17%	37
Master's Degree (5)	5%	10
Prefer not to say (7)	1%	3
Other	1%	4
Total	100%	221

Other	Count
100 college credit hours	1
High school diploma and some college.	1
Some College	1
Some technical college. No degree	1



O61. Have you earned a certificate from an Alabama Community College?

Answer	%	Count
Yes (1)	11.6%	28
No (2)	88.4%	214
Total	100.0%	242



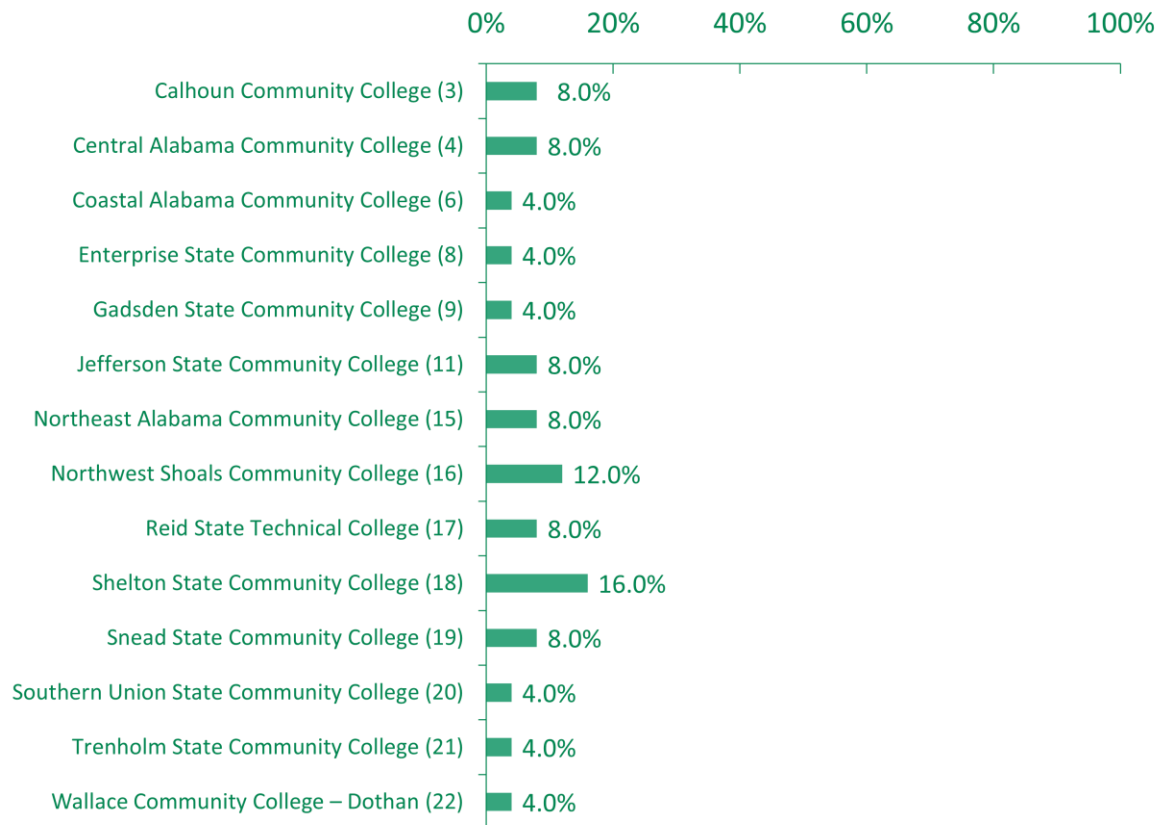
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O62. What certificate did you earn? (If more than one, tell us the one(s) most relevant to your work experience.)

Answer	%	Count
AC and Refrigeration	4.0%	1
Associate/ Associate of Science	12.0%	3
Autobody Repair	4.0%	1
Avionics	4.0%	1
Boiler operator	4.0%	1
CDL	4.0%	1
Computer science	4.0%	1
Diesel mechanics degree.	4.0%	1
Emergency medical technician	8.0%	2
Expert Excel	4.0%	1
Fire science	4.0%	1
Industrial Electrical and Electronics	4.0%	1
Machine Tool Technology and CNC Control	4.0%	1
Too many to list after 43 years	4.0%	1
Wastewater3 licensed	4.0%	1
Water and Wastewater Management Certification	16.0%	4
Welding fabrication and HVAC repair	4.0%	1
Wellness instructor	4.0%	1
certificate of completion in heating/ air conditioning.	4.0%	1
Total	100.0%	25

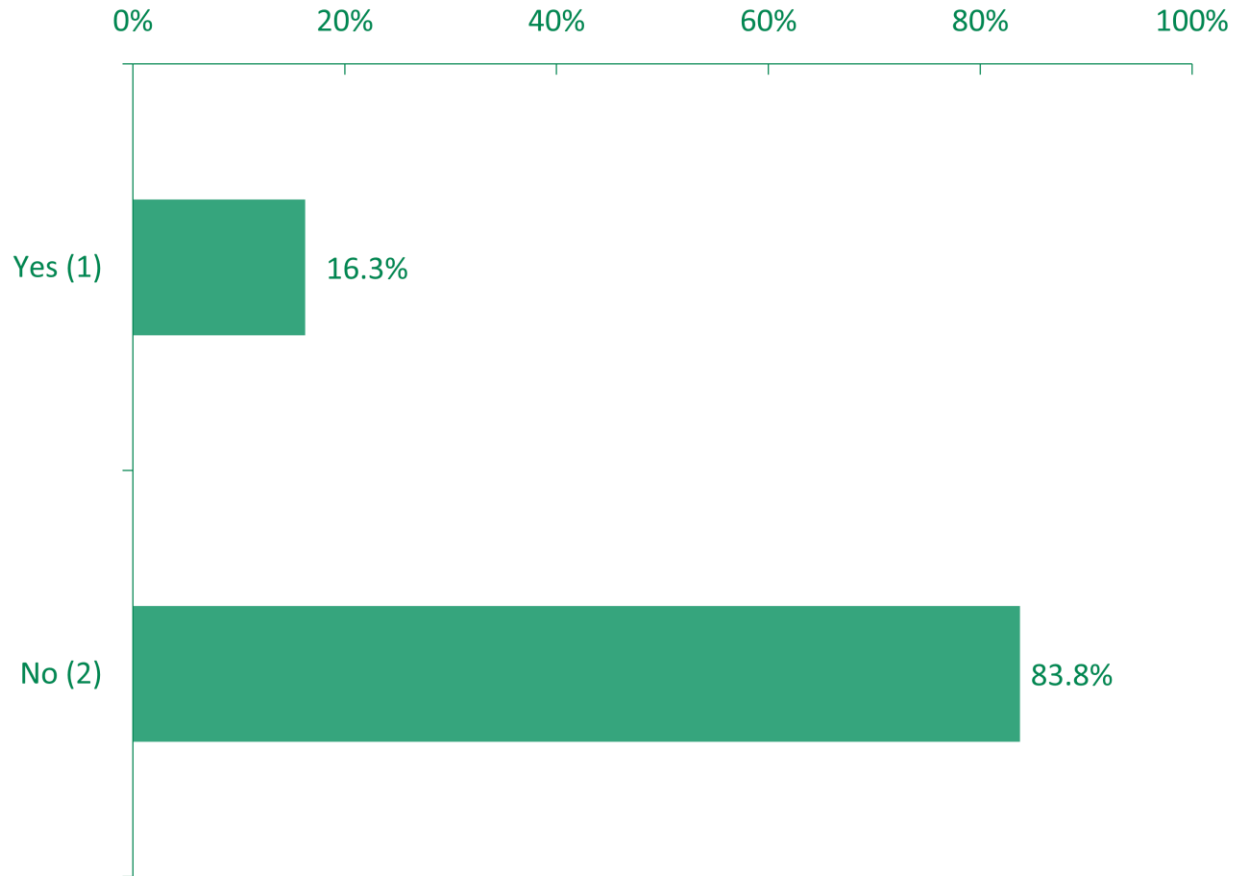
O63. At which Community College did you earn your certificate?

Answer	%	Count
Calhoun Community College (3)	8.0%	2
Central Alabama Community College (4)	8.0%	2
Coastal Alabama Community College (6)	4.0%	1
Enterprise State Community College (8)	4.0%	1
Gadsden State Community College (9)	4.0%	1
Jefferson State Community College (11)	8.0%	2
Northeast Alabama Community College (15)	8.0%	2
Northwest Shoals Community College (16)	12.0%	3
Reid State Technical College (17)	8.0%	2
Shelton State Community College (18)	16.0%	4
Snead State Community College (19)	8.0%	2
Southern Union State Community College (20)	4.0%	1
Trenholm State Community College (21)	4.0%	1
Wallace Community College – Dothan (22)	4.0%	1
Total	100.0%	25



O64. Have you earned a degree from an Alabama Community College?

Answer	%	Count
Yes (1)	16.3%	39
No (2)	83.8%	201
Total	100.0%	240



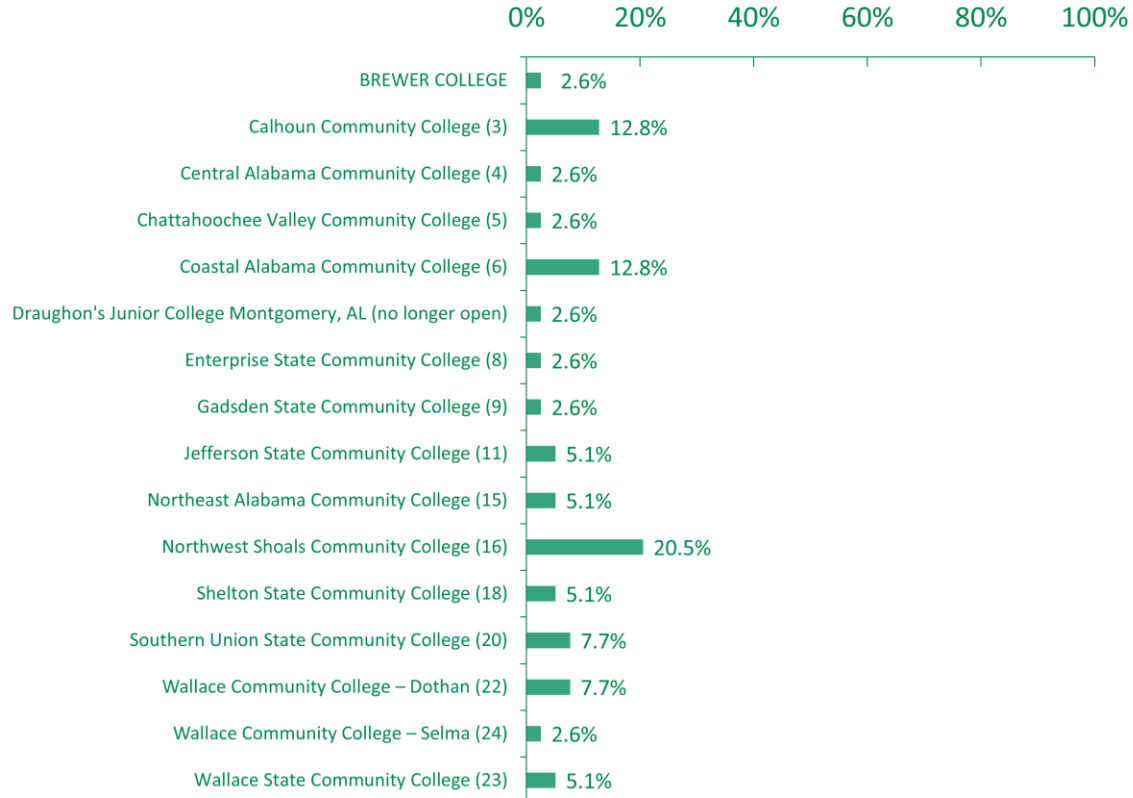
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O65. What degree did you earn? Tell us the degree program, e.g. General Studies, Music, Electronics, etc. (If more than one, name ones most relevant to your work experience.)

Answer	%	Count
Associates Degree in Water and Wastewater Management	7.9%	3
Associate of Computer Science	2.6%	1
Associates Degree in Applied Sciences	21.1%	8
Associates Degree in Electronics	2.6%	1
Associates Degree in Fire Science	5.3%	2
Associates Degree in General Studies	13.2%	5
Associates in Automechanics	2.6%	1
Associates in Business Management	2.6%	1
Associates in General Education	2.6%	1
B.S. General Studies	2.6%	1
Biology	2.6%	1
Business	2.6%	1
Business Administration	7.9%	3
Business management	2.6%	1
Drafting and design	2.6%	1
Electrical Degree	2.6%	1
Electronics	2.6%	1
Engineering graphics and design	2.6%	1
Forensic investigations	2.6%	1
Maintenance	2.6%	1
Math	2.6%	1
Paper and Chemical, AAS; Environmental Management, BS	2.6%	1
Total	100.0%	38

O66. At which Community College did you earn your degree?

Answer	%	Count
BREWER COLLEGE	2.6%	1
Calhoun Community College (3)	12.8%	5
Central Alabama Community College (4)	2.6%	1
Chattahoochee Valley Community College (5)	2.6%	1
Coastal Alabama Community College (6)	12.8%	5
Draughon's Junior College Montgomery, AL (no longer open)	2.6%	1
Enterprise State Community College (8)	2.6%	1
Gadsden State Community College (9)	2.6%	1
Jefferson State Community College (11)	5.1%	2
Northeast Alabama Community College (15)	5.1%	2
Northwest Shoals Community College (16)	20.5%	8
Shelton State Community College (18)	5.1%	2
Southern Union State Community College (20)	7.7%	3
Wallace Community College – Dothan (22)	7.7%	3
Wallace Community College – Selma (24)	2.6%	1
Wallace State Community College (23)	5.1%	2
Total	100.0%	39



067. Do you want to tell us anything else about your education?

Education Free Response answers
master plumber and certified backflow
2 year college drop out
3.5 years of college, no degree
At one point I started a water/wastewater certificate program at Northwest Shoals Community College. I took four out of six classes that the program offered and did well in all of them, but was unable to finish the program because I moved from north Alabama to south Alabama. I would still like to finish the program, but the schools near me don't offer the program.
Attended a community college for one year before transferring to University
BS Chemical Engineering
Bachelors in biology
Bachelor's Civil Engineering, MBA
Bachelor's degree from a university
Chemical Engineering Graduate
Finishing up my master's in management now
Graduated w/ honors
HIGH SCHOOL DIPLOMA/ SOME COLLEGE NO DEGREE.
High level college prep courses in High School and advanced level courses in the college courses that I have taken (Calculus I - IV, Chemistries, Differential Equations, even high level English writing courses)
High school dropout after ninth grade.
I HAVE ALSO TAKEN A FEW CLASSES AT ATHENS STATE COLLEGE AND THE PLAN IS TO RECIEVE A (BS) IN [non water career field]
I am currently paying my own way through community college and only have 10 more classes until I qualify for a transfer degree. The only help I have received is a waived application fee. All my classes have otherwise been out of my own pocket with no assistance or reimbursement possible from my employer.
I believe a 4 year military stint out of high school is a great service to community and self before seriously looking into a career in the utilities sector
I do have some college, mostly upper class business courses. That's all the local college offered back in the 80's.
While attending high school, I also attended a trade school and obtained a 2-year trade school certificate in HVAC/Refrigeration. After high school I attended a community college off and on over the years, and have a total of 24 credit hours, not enough for a basic degree in general studies.
The majority of my experience is from attending training classes and YouTube videos to learn to use the ArcGIS pro software. Which ArcGIS platform I absolutely love.
I have created several programs through ArcGIS that we use where I work. I have created field maps, apps, and surveys that can be used in the field to record pertinent and vital information.
I use it for accountability on flushing our system, hydrant maintenance, fire flow testing, valve maintenance, for backflow/cross-connection program, for new service installs, meter change outs, etc. ArcGIS Platform is extremely beneficial to my water system. Not only do I have a GIS map of our entire system, I have a map of just valves, Map of hydrants, now I have started another map that has our easements, rights-of-way, etc. on. very useful indeed!
I have almost finished an associate's degree since completing my grade IV wastewater.
I have been to college and community college before working in the water sector. I felt like those institutions were not meant for me.
I have some level of community college experience.

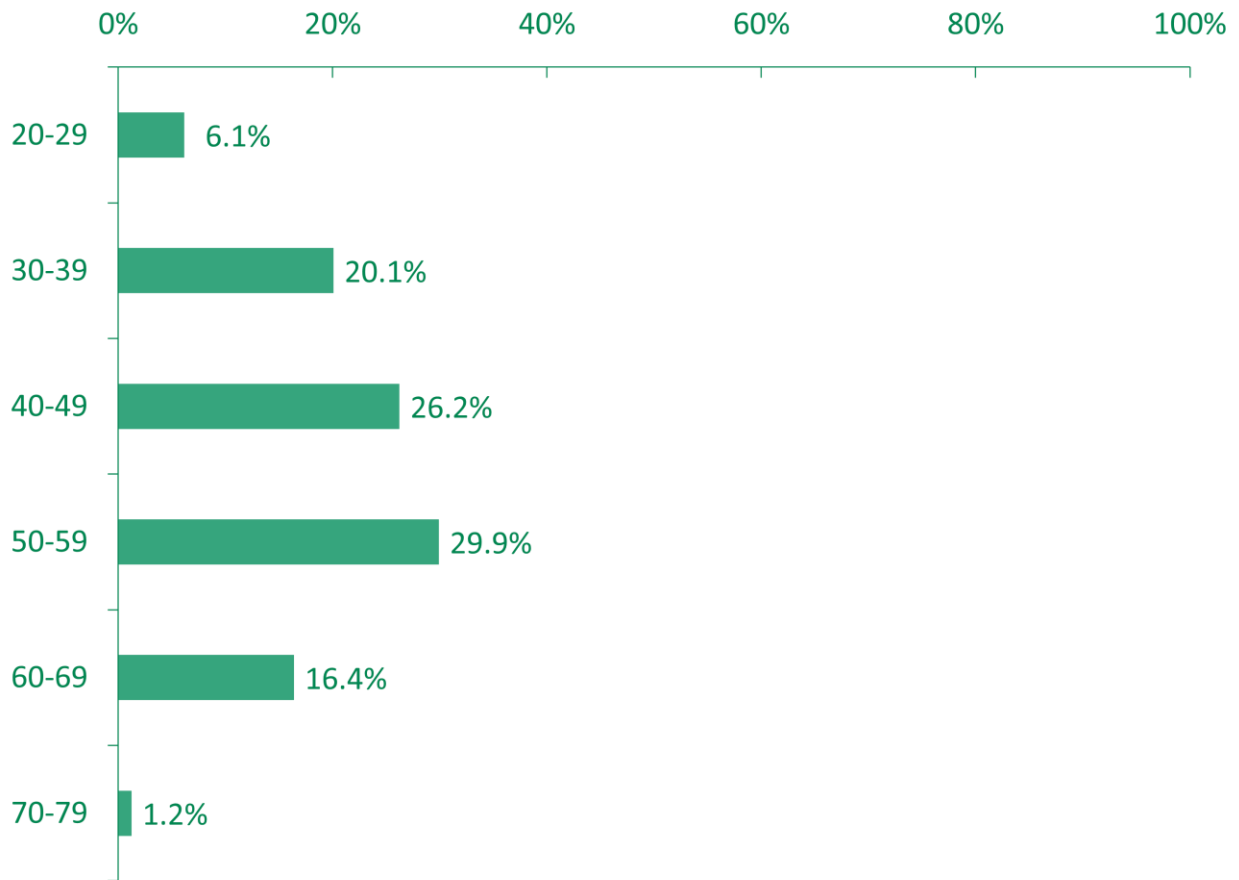
067. Do you want to tell us anything else about your education?

Education Free Response answers
I was trained and worked in the U. S. Navy.
I went to college for 2 years.
I'm earning degree now to leave the water work force
I've had some college and trade school.
It was very informative in the field I chose, not to mention very valuable and self-satisfying. The education I received has helped me tremendously in managing the utility I work for and the employees I oversee.
Junior level University Education
My education isn't related to Wastewater.
My military experiences and responsibilities included potable water treatment, storage and distribution as well as sewerage collection, holding and transfer.
Never finished community college
Not really at my age there is nothing to really tell anyone. I don't plan on going back to school
Received bachelor's degree at University
Retired are not continue with Learning Education Knowledge understanding to maintain licenses through webinars Water & Wastewater Conferences short school from now till I Die ! forever, Going to conference is like A vacation WEFTEC and AWWA and states
Some college
The water and wastewater field is not so glamorous so it's often overlooked. Would love to promote the water industry at local colleges to young professionals.
This job, if done right, needs blue collar workers that have a work ethic and problem solving intelligence. I've had a couple years of college but it never taught any of those values.
Water and wastewater degrees are hard to come by as colleges either do not offer the programs or can't keep them going.
Went to college for about 3 years study business
I went to college but it was for data processing or at the time writing computer programs which I found boring and did not care for. nevertheless, i am very good at computer work.

O68. What is your age?

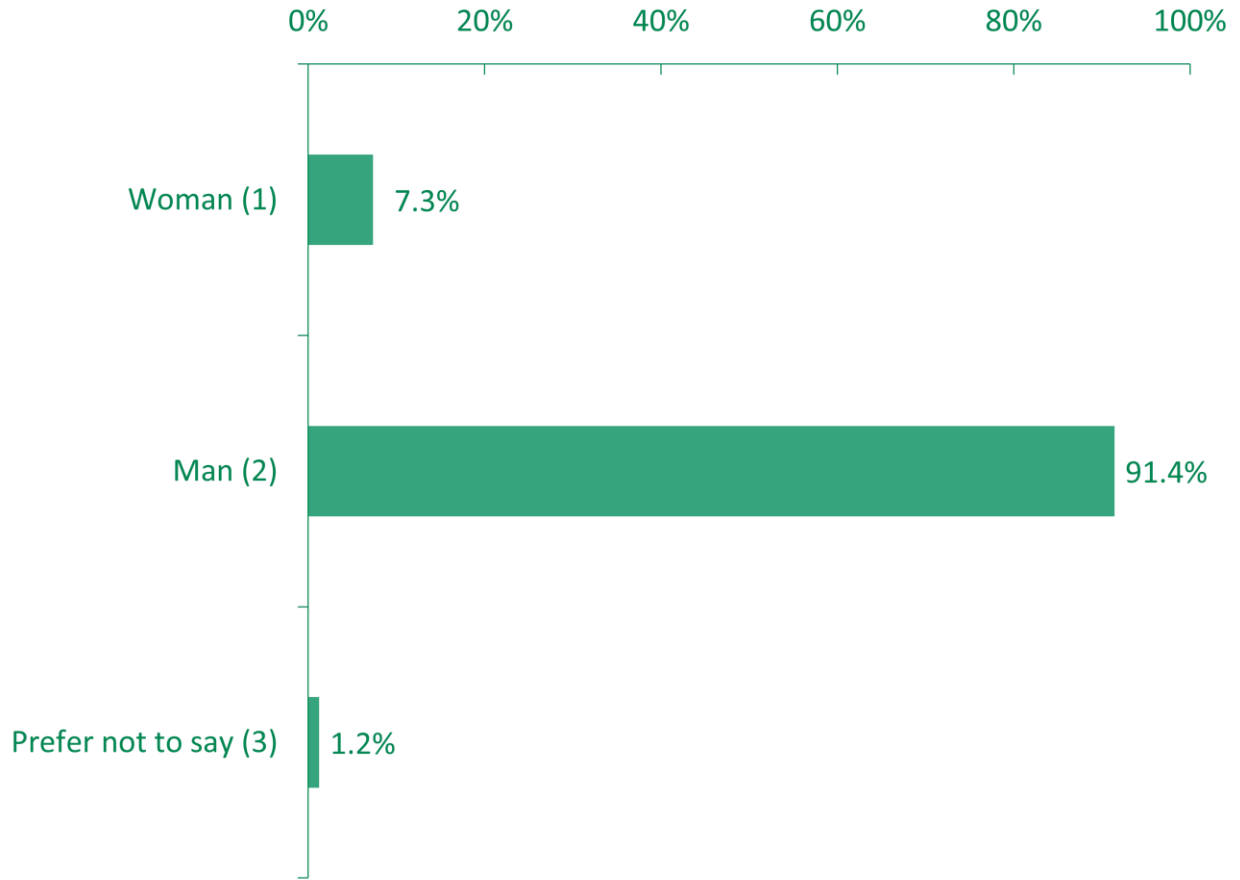
Answer (years)	%	Count
20-29	6%	15
30-39	20%	49
40-49	26%	64
50-59	30%	73
60-69	16%	40
70-79	1%	3
Total	100.0%	244

Mean	Median	Mode	StD	Max	Min
48.1	48.0	48.0	11.3	75.0	20.0



O69. What is your gender?

Answer	%	Count
Woman (1)	7.3%	18
Man (2)	91.4%	224
Prefer not to say (3)	1.2%	3
Total	100.0%	245



070. Is there anything else you'd like to tell us about recruiting?

Responses
Hard to recruit with the test requirements so tough and the state does not have a training program
Nothing you can do about Toxic Management
I believe that offering training/classes in high school and/or trade school would be a big help.
Younger people should know about water/wastewater opportunities.
Pay more and lower insurance rates
Try it cuz no else is helping get people
ask municipalities to get involved with schools
Most Operators are overpaid, should be an easier process for people to train to get their certification to have more operators in the state to drive down excessive pay
Review certification exam, too complex
Our city could certainly do a better job of recruiting but is it possible for the state government to ask the education system to add an operator certification program to the technical colleges within the state?
Operator Trainees should be allowed to operate the plant alone after a period time so that they can be put on shift while they are studying for the exam.
Most successful getting individuals directly out of high school who want to go to work versus college.
Pay, pay, pay. Money is the biggest influencer to get young people to check out a job and look to make a career.
It is extremely difficult to recruit in this day and age mainly due to having to compete with larger utilities and private industry. We can offer salaries somewhat comparable to most, but since we are not subsidized by municipal government or don't generate income to compete with the private sector, it is extremely challenging to hire and retain good dependable employees. The only thing I have seen that does work is better salary, benefits and tools/equipment to do a job effectively and efficiently. That in itself is difficult to provide, especially if you are a non-profit utility like we are.
I think it's difficult to recruit for the water industry given the work schedule operators have. This job is not for everyone
at this time none !
Maybe try a recruitment program for high schools. Not all kids can afford to go to college.
Utilities need to be active at school job fairs and show that there are good career options that do not require going to college. I knew nothing about water operators until I was hired as a trainee and I only put in for that job because my family member said it would be a good position.
Finding quality people seems to be a daunting task now days. My parents/grandparents instilled hard work in me from a young age. I worked in produce farms, cattle farms, and landscaping in the summer and after school. My grandfather raised cattle and grew his own feed. Therefore, I grew up throwing hay. from the age of 10 driving tractors, working on the farm.
It seems there are very few nowadays who got the opportunity to experience that. The work force age generation today were raised on Xbox and sheltered indoors rather than exposed to what it's like to perform hard work. So, the core value is missing in a lot of young people. Their ambition is almost non-existent today. It's something that we have to instill in more and more young people that are starting out in this industry. So, the difficulty in finding people that already have a hard work ethic is few and far between.
Recruiting now is a numbers game, everyone wants the highest wage, but they do not want to earn it and that is sad. When I got started, I wanted to earn and learn as much as I could. and here 24 years later I am still a dedicated employee in the water industry. Not only am I certified operator since 2003, I am also a supervisor. I have worked my way up thru the ranks. to get to where I am today. I am extremely proud of what I have accomplished and can't wait to accomplish even more.

070. Is there anything else you'd like to tell us about recruiting?

Responses
Just be honest with people, explain that it takes hard work to earn the American Dream. Of course, lay out the benefits, the pay. But also, explain how critical it is to have water operators. Power personnel always steal the spotlight, but water operators have it just as bad. We are out here too working daylight to dark after a natural disaster to ensure our customers have the continuous fresh, clean drinking water. Some water systems are large enough to send personnel to disaster areas to help other systems. Maybe put some spotlight on that. In north Alabama there is a system, it may be[...] city that has the disaster team. Maybe give that system some airtime. I really wish I could establish a program like that in my system. I think things like this would be a great recruiting tool.
A public ad campaign on both television and radio would be a good thing to consider.
Fellow employees need more input, sometimes a board member's sister's cousin's nephew can be a disaster, also uniform technical training industry wide that older employees didn't have.
College career day events and young professional's organizations would be a great place to recruit.
Need to reach kids in high school and have information to provide soldiers exiting the armed services.
If we do not develop a way to fix a water line with a cell phone-recruitment looks fairly bleak.
Systems treatment plants that operate 24/7/365 need to be fully staffed including relief operators.
never seen a recruiter, to be honest most people do not know this job exists. for the most part it is friends and family that keep the water industry going.
It's a good job if you don't want to go to college or can't afford it. I don't think a lot of younger people know about it.
I think this is a field not many people know about. Most young people getting out of high school have no idea this career even exists unless their parent is a water operator. The general public doesn't even know that you need certified water operators to run daily operations.
I believe being classified as a first responder would help in recruiting
Advertise more
If the pay and benefits and not being worked like a dog people would want to be in the field more and that would cause the workforce to be a much better class of worker.
Call me! Way too much to say. Operator ID [redacted]. I would love to go into high schools and chat with students, I have even started a presentation for this. It could use some help but it's t is started.
opinions of existing employees help with recruiting
Value your people and let them know you value them. They will help bring people in to work. The work force that is a strong team will desire to stay strong together.
There is none.
more incentives to better promotion of the job opportunity in this field like the trades
we need better pay
College courses to offer information on this career. And making people aware of the benefits of this career such as ability to find a job almost anywhere with reciprocity or just a declining operator field nation/statewide. No need for a college degree and going into student debt right out of high school
More money is necessary, there is not an operator shortage, there is a pay shortage.

071. Is there anything else you'd like to tell us about retention?

Responses
Increase pay and benefits to keep people. People want to feel valued and feel like that can take care of their families; especially when you realize they're a vital part of a community.
Municipalities will have a hard time with retention, until the city council and mayors understand our importance. We barely get uniforms, or work shirts, while police and fire get everything they ask for. All while they find their budgets from the money that utilities generate.
Operators should be managed by Operators not managers. Also, must have better work hours.
Most people stay if they can get past the test; the ones that go are disqualified because of behavior or chasing higher pay.
Speak to your municipalities that "competitive" pay rates, understaffing, and neglecting infrastructure and plants is detrimental
IF ADEM could keep field engineers in the same districts long enough to build relationships with the operators it would help us feel differently. Additionally, it is very challenging to have real conversations with people that have no idea what our challenges are. We have had 5 inspectors in the past 6 years. We would love to know if ADEM has an employee retention plan???
Treat people good with a fair wage and it's a great opportunity and career
This city hemorrhages certified operators (water & wastewater) because they aren't paid enough. We have probably lost enough operators to completely man a small system.
To retain employees, board members should be REQUIRED to attend Board Member Decision Maker Training classes that are offered, so they better understand the need to keep the employees they have and listen to the employees when they have a need. Should have to attend at least every election year to stay in the know
If there was a clearer pay scale at my location that we actually followed, I would be less upset. As it is we barely get our cost of living covered, and has not been covered well the last couple of years. I have received ONE merit raise in my time here, due to the previous superintendent never putting us up for one. While that was his decision, the people above him should have noticed this trend and brought it up to him. Our evaluations would reflect that we SHOULD have gotten more merit raises than we did.
Good pay, good insurance, and time off are key.
If they want people to stay longer, there will have to be concessions made. If I retire from [redacted] county right now, I would have to wait 2 years to be able to be rehired without penalty to my pension. If they would make it where you can retire and keep working as an operator or in your current position and start collecting your pension without penalty, more people would opt to keep working. With the current rules, I will be going ahead with retirement and find another job. Preferably in the wastewater field but we will see what's available.
It has been challenging due to the previously mentioned issues.
Training, opportunity to grow are big. Also, utilities need to follow thru with raises and promotions. Not talk big and then not provide raises and promotions. I've seen my share of operators quit when they attain the next level license and are not rewarded with more pay.
I think utilities should help retirees with health care when they leave a utility or even when the work part time
Need more money
Have the operators all doing the same amount of work and not all of it being put all onto one operator in a system, or for our system anyway.
offer more incentive to retain current operators form leaving. whether its pay or even education.
Prior to my wastewater career I watched employees move from one job to the other for a \$0.50 raise. That might be the equivalent of \$2 per hour these days. Due to the lack of certified operators it seems there's a pay war raging, with older tenured operators such as myself moving from job to job looking for the most pay.

071. Is there anything else you'd like to tell us about retention?

Responses
Get rid of Tier 2 retirement plans in water systems. No incentive for young people to stay.
Acknowledgment and recognition from the general public for the jobs we do as well as better monetary compensation would go a very long way.
More competitive pay with other skilled utilities; mud and dirt should not equal low pay.
Once in the field, I feel like one will stay. However, as the general certified population ages more and more operators are retirement eligible a vast amount of knowledge will be leaving the industry.
Retention revolves solely around pay.
Including our profession in Section 36-27-59, Code of Alabama 1975, as amended by Acts 2023-101 and 2023-533 of the 2023 Regular Session would probably help retain those who are already in this field as well as aid in recruiting.
Money and retirement benefits
treat your employees right and they will stay with the utility
Take care of your people
that would be up to the utility on what they could and would provide based on their financial abilities.
I believe that Operators and Maintenance Personnel are extremely underpaid for the work and resources we provide and maintain.
Pay. It's difficult to get certified. It needs to pay top dollar
For instance, as a member owned non -profit water system, we do not qualify for state retirement or some of the other benefits offered to city/county utilities. It would be nice to be able to offer those type benefits even in non-profit systems
To have the state of Alabama classify all operators as essential workers, because we are.
Value operators more... pay more.
Stay up with the times on pay.
If you want to keep operators, the constant roll-out of regulations must stop. These will run off the older operators who have their hands full already, which will cripple the younger generation without time and knowledge of the system. That's assuming they can pass the exam in the first place.
More people would stay if people viewed the water/ wastewater field like they do an electricity department.
Help us get rid of power hungry supervisors that are unwilling to fill in as an operator when needed.
pay, benefits, training and staying engaged with operators will lessen any retention issues
Decision makers need more training (Board Members)
Often our interns look at what it takes to get licensed and turn to other trades because they can get into more money quicker.
retention only happens when an employee feels they have worth and is reflected in pay to the best of a company's ability. They will leave to better provide, but will stay with you for less if they feel treated fairly.
I feel in my area pay is severely lacking for grade iv wastewater operators. If pay was increased i think it would help keep and attract certified operators.
80 straight hours/8 days in a row with no overtime loophole is being exploited. An employer constitutes a work week only to divide your time on paper should be prosecuted. Should not be legal.
more pay and keep up with the times
Retention is easier than recruiting because better pay and retirement benefits keeps operators in the field longer and allows better training for new hires based on operator experience learned through years of OJT. Also, a retirement based on First Responders and Hazard pay due to the extreme risk due to exposure to chemicals, human waste, slips and falls, toxic heavy metals, multiple carcinogens, electrical shock hazards etc. A state paid cancer policy should be considered as well due to the elevated risk of cancer rates in our field. We are mandated by the EPA and ADEM to respond and cover our plants so we should be compensated and benefited for all of this.
Until the pay gets better, we will see the loss and shortage

072. Is there anything else you'd like to tell us about the operator career field?

Response
An awesome career you can do without obtaining a college degree.
The pool of people interested in this career is getting smaller, while a generation of operators are retiring. There is or will be a shortage of operators.
The rotating shift is a nightmare for an operator's health and family. Create better work hours.
A valuable and rewarding public service for those with the skill and character.
Need a way to get better management with the ignorance of board members or those members that don't really support their employees
Get the word out about this industry
Good field to work in. I wish more people knew about it.
The field is dying. The number of operators available is dwindling. I feel this way due to every job that I have been offered to work in other water systems, I have been offered a rather substantial raise. In the range of \$28-\$35 an hour. I believe this is due to me being young, and how hard it is to find certified individuals in the field.
I enjoy the job most days and have for my career. As always, there is going to be rough days too.
I would not recommend it to anyone now because of the regulations and the compliance that is required. I think moving inspectors for ADEM around often is hurting the relationships with the operators and the people at ADEM.
It is a VERY important field in any area of the country. We are blessed to have the ability to turn on the water in our homes and feel confident it is safe to use and drink. In most cases around the world people believe water should be free, but conveniently distributed, safe drinking water comes with a price and is invaluable.
we do not get paid enough
It's a great field. But it is hard to get in and slow to move up.
It's hard to find good applicants that are willing to put in the time and effort to do what it takes to become certified. Our younger generations really have no work ethic
It's a great career but we (all of us collectively) tend to stay out of the limelight by nature. The absence has created a shortfall when it comes to advancing the recruitment of the next generation.
Operator shortages are driving wages up for operators. utilities often advertise for operators with wages less than they can get qualified personnel for.
Can be a great position but people with families have to make sacrifices to do the job with the rotation of shifts and 24/7/365 job requirement.
I love the operator career field. Do I wish some changes were made in the way of testing. Sure, I do, but I also know this type of industry is an acquired taste. It's not for everyone. But I enjoy it each and every day.
Probably the best thing I ever did. Pensions are almost unheard of these days and I was lucky enough to retire and be allowed to come back for the same employer as well as keep my pension. I'd assume this is due to the lack of certified operators.
I wish there were more statewide, county wide teambuilding opportunities. The field is not super hip and fun and there are many ways to make this happen. Promoting the importance of clean water, clean foods, clean environment needs to be recognized MORE!!! It's our life!!!
I have found it to be a very rewarding career in public service.
Management and supervision is becoming harder and harder. Not only from a hiring standpoint but, from dealing with a public(communitiy) with increasingly less patience and harder hearts.
Trainees and new operators and dependents need full disclosure and understanding of the hundreds of future missed weekends off or missed/rescheduled holidays, birthday and wedding anniversary celebrations over the course of their careers.

072. Is there anything else you'd like to tell us about the operator career field?

Response
The best job I ever took, i like it so much it's not a job. It's a career I wished I knew about when I was young and went into it out of high school. I will work till I cannot because I like it and it has its rewards even though I think the pay is a little too low. I also know you do not control that. again, it is based on the particular utility you work for that decides that, however i do not think boards understand fully what operators provide, it seems most utilities put more into the pipe crew that the operators of water plants. pipe crews are very important, but in no way shape or form should be at the same or close to pay grade of operators.
Operators should make more money since we save lives every day! Very important career.
It needs more attention in community colleges.
There will always be a job in the Water Field if you want one.
Good field if you can ever obtain a job in the city you choose because of the long time in between openings.
Wish I had known about this job back in the late 80's after school.
Its a good field.
It is very gratifying.
Underpaid
I began my journey in the water treatment field in 1984, I took 15 year break to work in the home improvement sector.. I returned to work in the water field in 2009 until present day. 25 years' experience in water treatment.
I believe the path to becoming operator certified is too many hours !
it is a great field to be in. If you have someone helping invest and lead you through to get to a place you enjoy.
Offer a course at a community college.
promote the field people don't know the field of water or wastewater
we have been advertising for two years for another operator and have had zero applications
No place to go because no one wants to lose a grade 4 operator.

073. Is there anything else you'd like to tell us about ADEM's Operator Certification

Responses
A larger variety of ceh opportunities would be welcomed. Different types and modalities of approved ceh content would make keeping up with hours easier on operators and managers.
Needs to get with the times. Needs to be all digital and a way to keep up with CEU's. Absolute disgrace how far Alabama is behind on this compared to other states.
The testing should be understandable, vast majority of people taking it are not engineers. All while the test is written by engineers, and it reads as such. Questions should not have multiple correct answers, and you have to choose the best case of the answers, everyone imagines scenarios differently.
It is good that certification is challenging to obtain. Keep it that way.
Most people find the material intimidating; I've heard that some sort of guide or standardized curriculum would help.
Useless. It's always people trying to sell you stuff and you couldn't buy anyways because of budget restraints
Many people want the testing easier. Please do not do that.
I think it's pretty good. ADEM in general does a great job and has good relationships with Utilities and its operators
Review certification exam, too complex
The test is very hard
I took my certification exam before the new test started. Since the new testing started most of our operators have had to take the test multiple times to pass.
We need a structured program for trainees to go through for test prep to make the exam passable for new hires.
Test is extremely too hard. Passing rate is horrible. I can run a whole plant and turn it completely around from the mistakes of past operator/manager, but cannot pass the test. Very discouraging
Standardized testing is a more convenient way to administer the information needed to complete and pass the testing requirements, but it also makes it more difficult to have younger, veteran employees pass the course due to it's all knowing nature of the material used to train the employee. We have had to tutor trainees in order to have them successfully pass the exam in the most recent years.
make tests less expensive
Like I said above, I think once you been in this profession for 15 years or longer. You should no longer have to have CEH's for license renewal.
Make the pathway manageable. We see a lot of talented and eager people leave this industry (or are forced to leave) because that have trouble getting certified. All utilities are geared to reward with every certification advancement and a person that can't get there has no future. Perhaps a grandfather licensing should be looked at. A person can come to understand their utility and be extremely valuable if given the chance.
less online classes, more face to face
Make it harder
Ok like to maintain Water & Wastewater Licenses pay whatever continue Education Hours from now till I die ! conference webinars short schools WEFTEC AWWA
Trying to make it too hard for new operators to get their licenses with such a low passing and hardly no teachers.
It would be nice to have the initial test cheaper, \$350 is a lot of money for people starting out.
no need to reclassify treatment plants. instead focus on the operator's exam/study materials. Could the water operator exam be made and open book exam much like the other state license certification exams? you might have a higher pass rate and possible obtain more operators this way.

073. Is there anything else you'd like to tell us about ADEM's Operator Certification

Responses
I currently think that the test is too difficult, asking questions that are too detailed or don't really pertain to the level of information truly needed to work at a facility in our State. This has reduced the pass rate to single digits and caused a huge manpower shortage Statewide. It has benefited me though, allowing me to double dip after retiring, so who am I to complain? :)
Would like to see open book tests like other fields
It desperately need to be overhauled.
More Hands-on Class and more regular class. Not online.
Very thankful to have the support of the program and all of ADEM's staff.
I've taken my grade 2 Wastewater Operator Cert. test 3 times and there's been 120 questions on each test but you only use 100 of them why don't you use all the questions on the test for the grade?
See long answer given above in #69
As far as the certification exams go, many of them are not easy to pass. I am not saying that they should be made any easier, but I have personally witnessed people fail test after test and these same people are actually good operators who know what they are doing on the job site. A multiple choice test is one thing, but practical application is a totally different animal.
It needs to be kept up to date. I went through the course, but questions on the test were not in our books or were not covered
If you want the truth, it is by far the worst test I have ever taken. as stated, it does not meet up with Alabama's water from the Tennessee river, which i am also certified in the state of Tennessee. example is what does a green sand filter have to do with Alabama ? i can come up with plenty more questions that was on the test that are so irrelevant, add to the fact that the possibility that two answers could be right, but someone else decided it was one very particular answer.
Alot of us want to further our education without having to obtain a higher grade license
Why so hard? The certification didn't teach me how to run our plant. Experience only will teach that
would be nice to offer more free training, as a incentive to recruit.
The process needs to be sped up where possible. It takes too long to schedule an exam for some reason. If a trainee fails a test, it shouldn't take months to get them scheduled to take it again.
ADEM needs a certification for decentralized wastewater systems
The Certification Program is sufficient, it's the classroom (i.e.) virtual instruction that needs improvement.
The exam needs to be changed. While I understand the need for it, some of the questions are confusing and misleading. When I took the test, there were too many questions on material that we did not go over in class.
Test are extremely too hard for an above average smart utility worker to obtain without major sacrifice and detriment to yourself and family.
Have instructors stop teaching the test. Get back into the books, teach operators how to be an operator not just how to answer the test.
Revise division 10 to include distribution and collections licensing.
The current program while frustrating for some trying to pass the test, has increased the value of operators (I assume this was the goal). I feel this is a positive aspect of the program and operators are required and expected to put forth effort to obtain and maintain their "earned certification"!
I think there are not enough availability to live teaching for test prep in many locations of the state there should be more training for grade 1

073. Is there anything else you'd like to tell us about ADEM's Operator Certification

Responses
The exam can cover a vast array of material one will never see in their career. Hands on at a plant is the bread and butter. The exam is so difficult, the state seems to be shooting itself in the foot with low amount of operators.
the test is hard to understand some of the questions
Very easy to navigate.
There not many high school graduates looking for a job in this industry and the test is almost impossible to pass to the average person whose been out of school for years and want to start a career in the water industry
I do not think that a High School Diploma or GED Certificate should be required to be an Operator. Certificates and Diploma do not tell us what a person's work ethic is.
Alabama has looser regulations than neighboring states. I like that I can get my Grade IV quicker than other states if I am smart.

074. Is there anything else you'd like to tell us?

Anything else Free Response answers
80 straight hours is illegal with no overtime. Being forced to clock out at midnight and clock right back in a second later on Saturday night to divide a week on paper is illegal.
ADEM needs to make the testing process easier. It seems like it's a money racket on their end, and I got the impression that they don't want you to succeed. ADEM could easily make their testing and training easier and more accessible
Don't make everything black or white. This entire world bends except for this industry's requirements. It's okay to have good and honest workers even if they don't meet a certain criterion.
Getting small towns to recognize the serious need for proper equipment and tools and service trucks is one of the top priorities, as well as having a real budget that looks into the future needs and necessary improvements of the systems. Relying on grants only goes so far and allows systems to degrade faster than grants can be acquired.
Give thanks to your heavenly father every second of the day!
Great industry, ADEM is awesome to work with. I have enjoyed meeting members of ADEM at conferences, and the inspectors are very knowledgeable and likeable. I do not think you could improve much on your help and association with utilities across Alabama. From what I've seen ADEM has the system working fine.
I believe the questions you asked are pretty thorough. I can think of nothing to add. Great job
I stumbled into this profession by word of mouth, and it was the best career decision I made
It would seem to me the EPA regulations handed down to the ADEM are too stringent to some of the smaller utilities. I understand the need to test and inventory materials used in the construction and treatment of the water we provide to the customers we serve, but if there is NO positive result initially of a poor water quality issue, whether because of materials in the distribution system, or the treatment of the water being provided, there should be fewer testing parameters going forward as to minimize the cost associated with testing. We are burdened with what seems like ever increasing costs of doing business while being told to increase our rates to cover these costs.
Need a simpler process for testing study or offer a once year 40 hour class that is offered by the state to get more operators qualified.
Need to start handing out fines to systems that regularly exceed the fluoride daily limit.
Often times an operator that works for a small municipal utility, lacks the opportunity to learn things hands on, that those who work for larger systems can. Because of the responsibilities that pull them in different directions. Not able to focus on one thing, such as water or wastewater. And also lack of those with experience to help them learn.
This has been and still is the best job, career and skill trade that I have attempted. I just wished i had known or even heard about it sooner so I wouldn't have wasted those 10 to 12 years working in the [redacted] industry.
Thank you for all you do!
Thanks for the survey. I appreciate what your organization does.
Utilities are cheap skates on pay. They would rather lose all their personnel than go up on people's water bill.
at this time none !
better management and training for managers. mental health help for the stresses of the job
pay increase would be great