



**American Water Works
Association**

Dedicated to the World's Most Important Resource®

COVID WATER SECTOR IMPACT SURVEY 5 (OCT 2021)

OCT 2021

AWWA SURVEY OF COVID-19 IMPACTS ON WATER SECTOR – OCTOBER 2021

Overview: AWWA surveyed member utilities and other water sector organizations in the U.S. and Canada to gauge the impacts of COVID-19 and actions being taken to manage risk and plan for contingencies. The survey was conducted online. Each question provided an option of “unable to answer” in order to ensure results are as accurate as possible. All “unable to answer” responses have been removed from the analysis.

Survey Period: October 5-20, 2021

Response Summary:

Total Responses: 455

Utility Responses: 427

Unique Utilities: 416*

Non-Utility Responses**: 28

Margin of Error: +/- 4.5% - Utilities

Confidence Level: 95%

Percentages may add up to more than 100% due to rounding

* Utility response from all 50 U.S. states, plus 6 Canadian provinces, Guam, and Northern Mariana Islands

**Non-Utility includes consultants and manufacturer & related. Sample size not statistically significant

Key Takeaways:

- Major challenges currently facing water utilities and other sector organizations are around hiring and supply chains, mirroring challenges throughout the larger economy
 - Forty percent (40%) of utilities say they are having issues hiring. Positions hardest to fill include operators, service technicians and drivers
 - Seventy-two percent (72%) of utilities face supply chain issues with pipes/infrastructure components and over 45% report issues with vehicles, electronics and chemicals
- Larger utilities, especially those serving populations over 100,000, tend to report facing more challenges than smaller utilities
- Many policies water utilities put in place as a result of the pandemic have been allowed to expire
- Most utilities do not have vaccination requirements, but nearly 60% of surveyed water sector organizations say at least half their employees are vaccinated
 - Half of those with requirements don't expect these to impact workforce levels. Most that do expect impacts anticipate they will be minor
- Several utilities set up customer assistance programs during the pandemic if they didn't already have them in place
 - Enrollment in CAPs are still at, or just off, peak levels for almost 3 in 5 utilities with these programs
- Seventy-one percent (71%) of utilities at some point in the pandemic instituted some sort of remote work policy, but most have returned to the office
 - Views on remote work effectiveness differ, with 55% of utilities reporting no change, 32% saw a decrease in effectiveness, and 13% saw an increase
- The number of utilities and service providers experiencing revenue loss or other financial impacts has dropped, but still a third of utilities and approximately a quarter of service providers report continuing impacts

EXECUTIVE SUMMARY

An Oct. 5-20, 2021, survey of member organizations conducted by the American Water Works Association shows that water sector utilities and service providers are facing many of the same challenges that persist in the larger economic landscape, especially hiring difficulties and supply chain issues. As these two issues have become more widespread, many of the challenges faced earlier in the pandemic have relented. Generally, larger utilities are more likely to report challenges than smaller ones.

Forty percent (40%) of utilities said they are currently facing difficulty hiring, with positions for water operators, service technicians and drivers most difficult to fill. Utilities also report higher employee turnover, with 21% of utilities now reporting higher turnover compared to 11% earlier in 2021. Staffing continuity due to illness or quarantining and impacts on field/treatment operations are reported by about 30% of surveyed utilities. Twenty-three percent of utilities report that hiring issues are affecting their ability to meet minimum staff requirements, up from 3% earlier in the pandemic. However, most of the challenges related to regulatory compliance have lessened from peaks earlier in the pandemic.

Supply chain problems are also affecting many utilities. Almost three-quarters (72%) of respondents report supply chain issues with pipes or other infrastructure components, and more than 45% are reporting issues with vehicles (48%), electronic equipment (46%) and chemicals (45%). There has been a big jump in those experiencing chemical supply chain problems since AWWA's last survey in June 2020, when only 4% reported issues. Most common chemicals currently affected are chlorine gas and sodium hypochlorite. PPE availability concerns have dropped significantly, from a high of 56% of utilities experiencing PPE supply chain challenges in April 2020 to just 11% currently. Financial impacts, including revenue loss, continue to affect a third of utilities, but this number is down from earlier in the pandemic when over half reported impacts.

Concerns about priority access to COVID vaccines have dropped significantly since earlier in 2021, when 36% said this was a challenge, compared to 10% currently. Reported vaccination rates vary among utilities, but nearly 3 in 5 say at least 50% of their employees are vaccinated. Smaller utilities are more likely to have at least 75% of their employees vaccinated. Currently, most utilities (71%) don't have vaccination requirements, with the remaining either having requirements (12%) or are considering them (17%).

Many of the policies put in place earlier in the pandemic to help slow the spread have been allowed to expire for several responding organizations, including closing utilities to the public, remote work, shift changes to allow for distancing and travel restrictions. Additionally, of the almost 40% of utilities that started customer assistance programs at the beginning of the pandemic, just under half have allowed those to expire. Suspending water shutoffs and/or late payment fees were the most common pandemic related policies implemented to help customers financially burdened, but roughly two-thirds (shutoffs) and three-quarters (late fees) of utilities that enacted those measures have since allowed them to expire.

Most responding utilities have already re-opened offices to workers. A few respondents have implemented permanent hybrid working arrangements (9%) and more are considering (21%) that arrangement. Surveyed service providers are more likely to still have remote work policies in place and are more likely to be moving forward with hybrid remote/office work. Overall, the ratings of the effectiveness of remote work were mixed. Fifty-five percent of utilities reported no change in effectiveness, 32% saw a decrease in effectiveness, and 13% saw an increase in effectiveness. Forty-eight percent (48%) of surveyed service providers said effectiveness stayed about the same, with the remaining 52% evenly split on whether effectiveness decreased or increased.

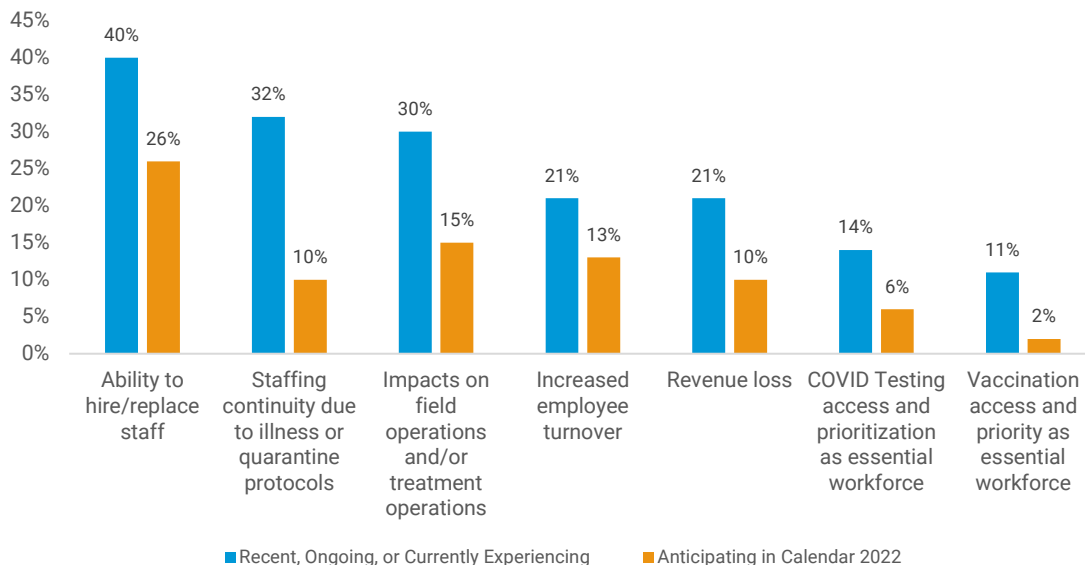


PANDEMIC CHALLENGES - UTILITIES

Ability to hire staff and maintain staffing continuity due to illness or quarantine are the two most common challenges currently faced by utilities

Two in five (40%) surveyed utilities said they are currently experiencing challenges hiring staff. Almost a third (32%) are dealing with issues around staffing continuity from illness or needs to quarantine and 30% are seeing some impacts on field or treatment operations. The challenges to hiring is also the most likely challenge utilities anticipate to be continuing into 2022.

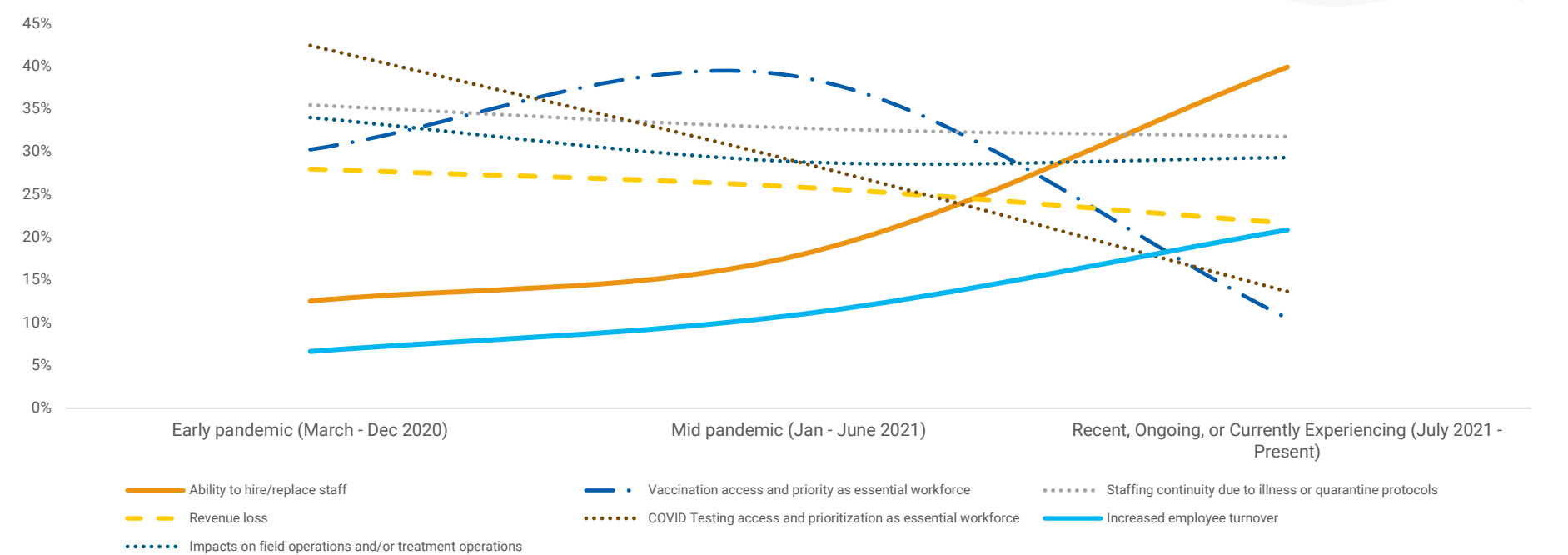
Current and Anticipated Challenges in Sustaining Workforce and Critical Operations - Utilities



While many challenges utilities have faced during the pandemic have lessened, employee turnover and ability to hire have increased

All challenges except the ability to hire, and increased turnover (the two solid lines below) have decreased or at least stayed relatively flat since earlier in the pandemic. Concerns over vaccine and testing access have dropped the most.

Change in Challenges to Sustaining Workforce and Critical Operations Over Course of Pandemic - Utilities



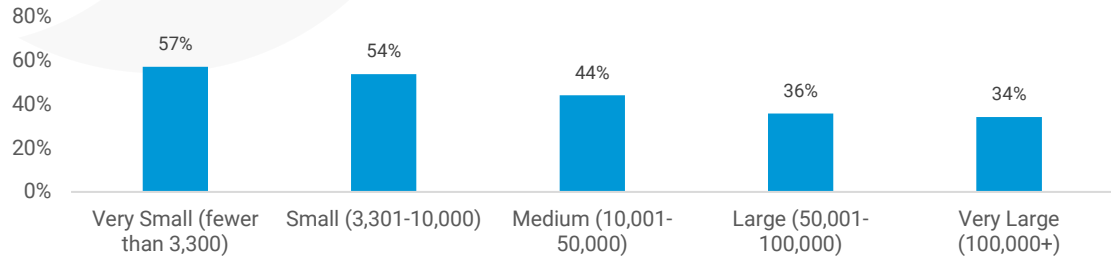
Q3 - What, if any, challenges have you experienced or are experiencing in sustaining your workforce and critical operations due to the COVID-19 pandemic? (Select all that apply)

Larger utilities more likely to report experiencing challenges to sustaining workforce and critical operations

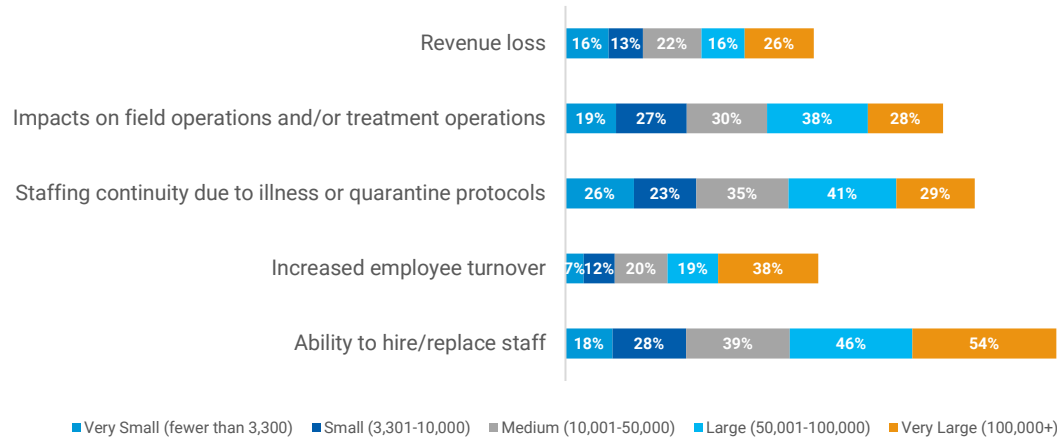
Overall, larger utilities (serving at 50k+ populations) are most likely to report facing workforce challenges both currently and throughout the pandemic. On average, roughly a third of larger utilities said they never faced specific workforce challenges, compared to over 50% of smaller utilities (less than 10k) saying that never experienced and don't anticipate workforce challenges.

Larger utilities are almost twice as likely to report current increased turnover and difficulty hiring than smaller ones.

Average Reporting Not Anticipating or Never Experienced Across All Potential Challenges



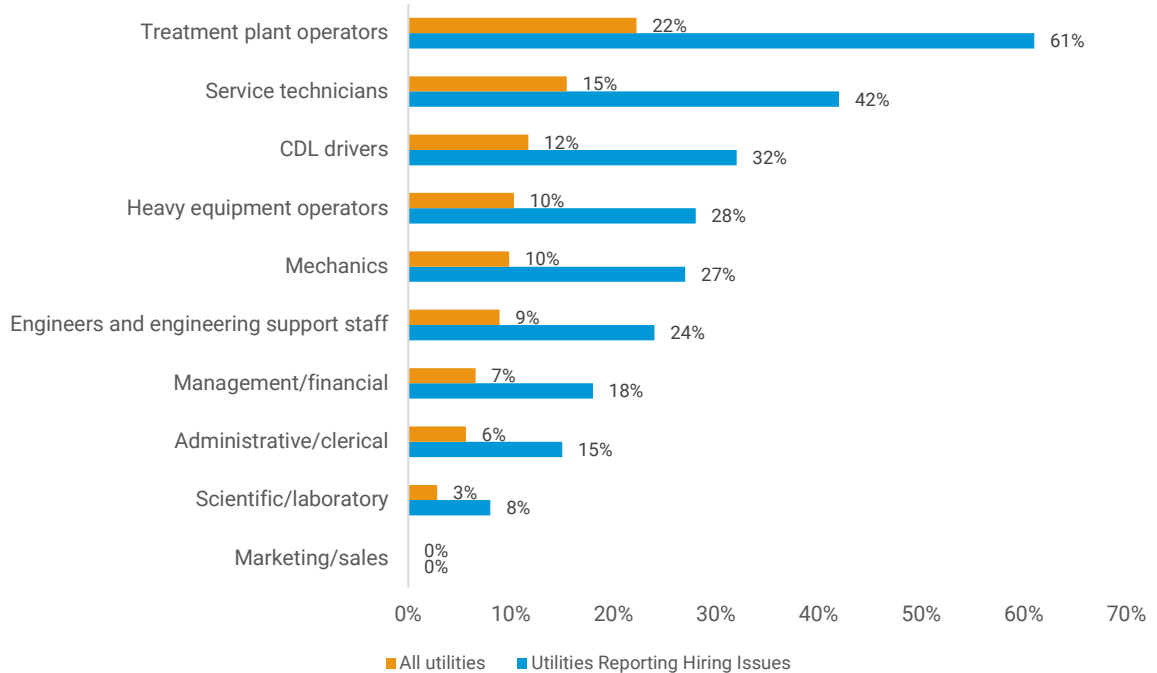
Utilities Currently Facing Challenges to Workforce or Sustaining Critical Operations



Most common positions utilities are struggling to hire are operators, service technicians, and drivers

Blue-collar type jobs, especially operators, are currently the positions most difficult to hire. Of the utilities currently reporting hiring issues, 61% say they are struggling to fill operator positions. This represents 22% of all utilities surveyed. In addition to operators, utilities are most likely to report trouble filling positions for service technicians and CDL drivers. Engineers and support staff are the most likely white-collar positions that are tough to fill.

Positions Currently Having Difficulty Hiring - Utilities

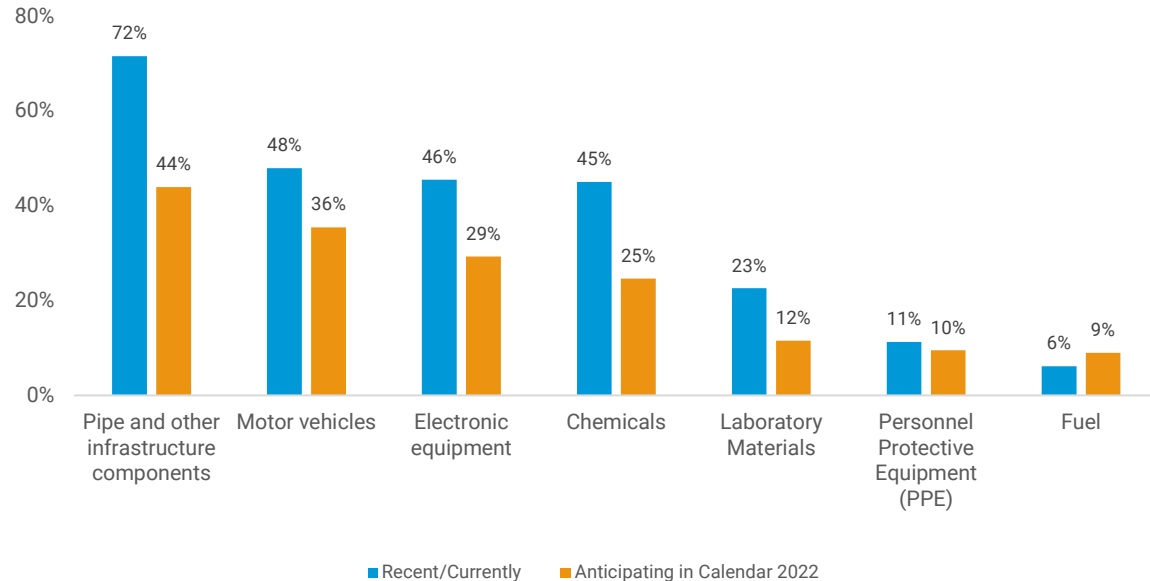


Over 70% of utilities currently face supply chain issues for pipes and other infrastructure components; vehicles, electronics, and chemicals also common

Almost three-quarters (72%) of surveyed utilities report current supply chain issues with pipes and other infrastructure components like meters and nearly half (44%) anticipate it continuing into 2022. Additionally, almost half also report issues around vehicles, electronics, and chemicals.

When asked how they are dealing with supply issues most common answers were pre-ordering, stock piling what they can, reaching out to as many vendors as possible. A few mentioned delaying projects due to pipe/material shortages.

Areas of Current and Anticipated Supply Chain Issues - Utilities



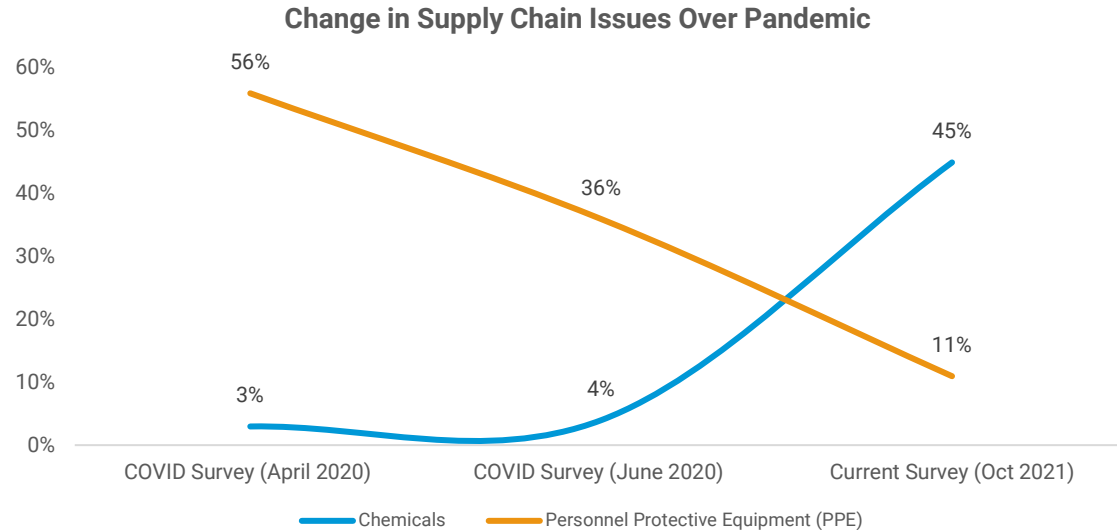
Q4 - What, if any, supply chain issues have you experienced and/or are you still experiencing? (Select all that apply)

Q4a - What has your organization done, and/or currently doing, to address supply chain issues?

Supply chain issues have changed over the course of the pandemic with PPE decreasing and chemicals increasing

Earlier in the pandemic utilities were mainly facing issues obtaining PPE, but those issues have decreased quite substantially, down to from a high 56% in AWWA's April 2020 survey to only 11% in this survey.

However, issues around chemical supply chains increase considerably from the low single digits back in 2020 to 45% in October 2021.

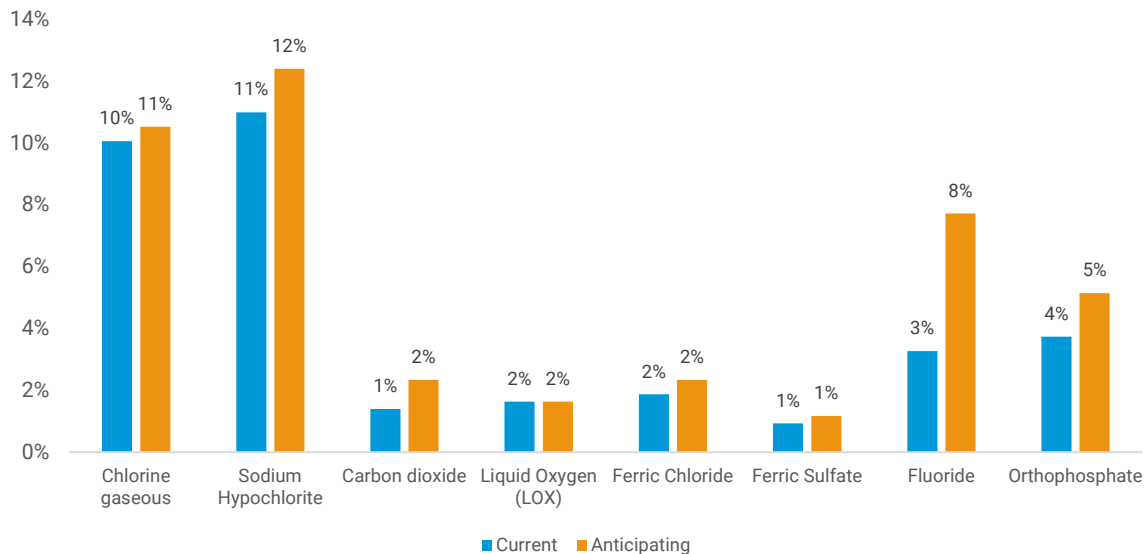


Chlorine gas and Sodium Hypochlorite currently most common chemicals currently caught in supply chain issues

While 45% of surveyed utilities report currently experiencing chemical supply chain issues, there's no one specific chemical in short supply. The numbers on the graph represent all surveyed utilities and show that around 10% are currently facing issues obtaining chlorine gas and sodium hypochlorite.

Chemical supply chains are also slightly expected to get worse, or at least not improve, especially concerning Fluoride with 8% of utilities anticipating issues and only 3% currently experiencing struggles.

Current and Anticipated Chemical Supply Chain Issues – All Utilities

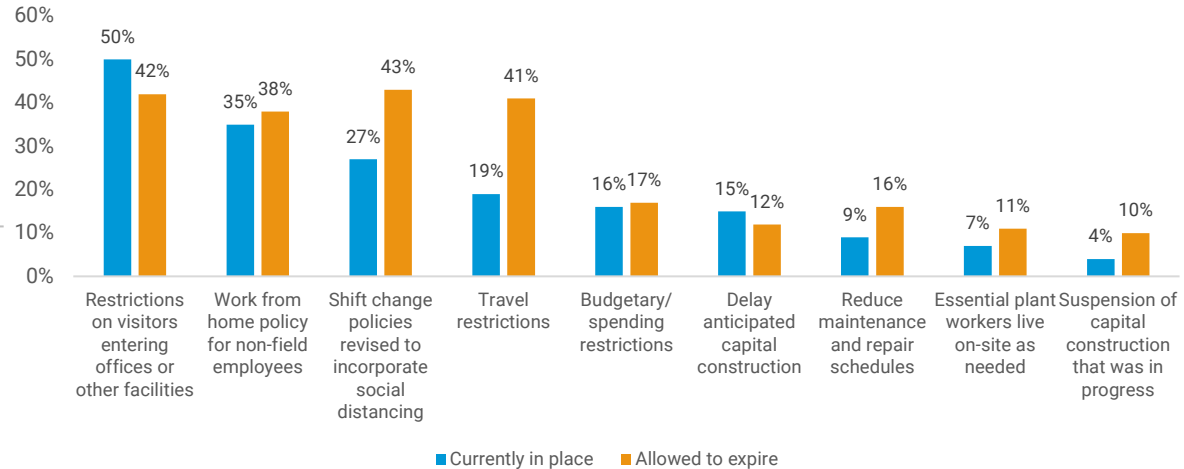


Many policies water utilities put in place as a result of the pandemic have been allowed to expire

For many utilities, policies enacted to help control the spread of COVID have been allowed to expire. Most common policy still in place are restrictions on visitors entering offices or other facilities, with 50% saying those are still in place, but 42% have allowed them to expire.

Most common policies allowed to expire are shift change procedures to allow for social distancing and travel restrictions.

COVID Influenced Policies Currently in Place and Allowed to Expire – Utilities*

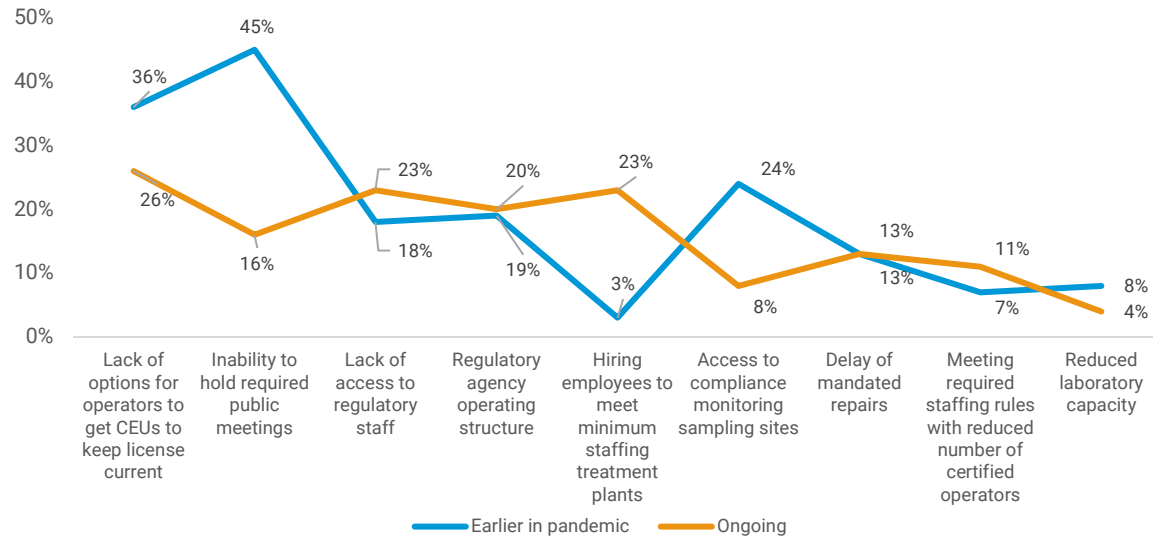


Most challenges to regulatory compliance have eased since earlier in the pandemic, but hiring employees to meet staffing requirements has increased significantly

For the most part, challenges to regulatory compliance were more common earlier in the pandemic (blue line). There have been big drops reported in the inability to hold public meetings and access to compliance monitoring sampling sites. Most others have dropped or stayed relatively steady.

However, there is a 20%-point increase in utilities reporting issues around hiring to meet minimum staffing requirements. Additionally, hiring is also the most commonly reported challenge anticipated into 2022.

Previous and Currently Experienced Challenges to Regulatory Compliance

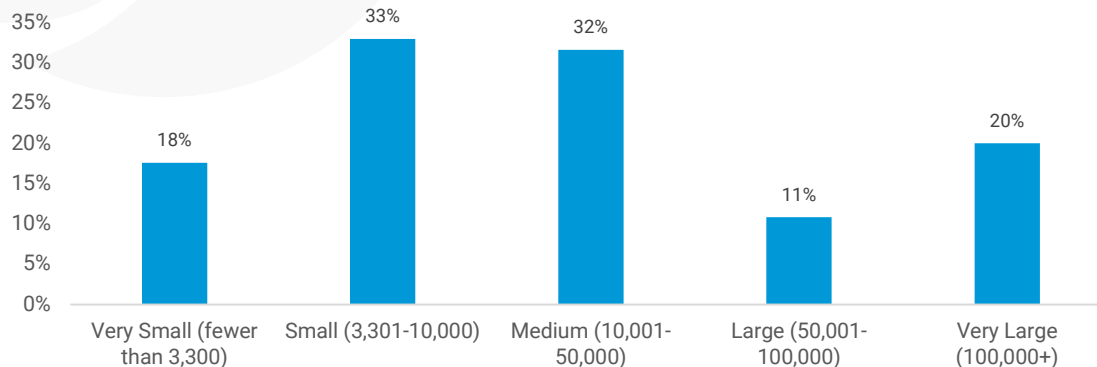


Small to mid-sized utilities more likely to face lack of options for operator CEUs, while large and very large utilities more likely to face hiring challenges

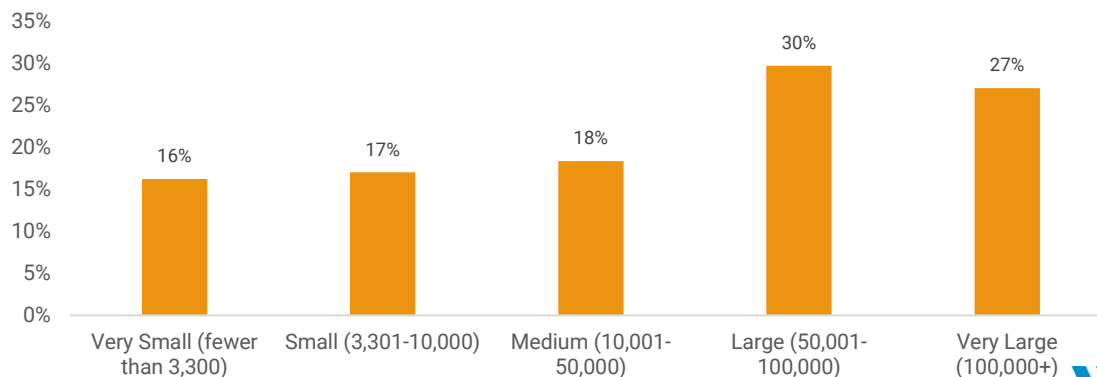
There are some differences in the current experience the two most common challenges to regulatory compliance by utility size. Small and medium utilities are most likely to report a lack of options for operator CEUs with about a third reporting this issue compared with 20% or less for other sizes.

Larger utilities are most likely to be experiencing issues with hiring and meeting staffing requirements. This continues the trend of larger utilities reporting more difficulty hiring.

Currently Experiencing Lack of Options for Operator CEUs by Utility Size



Currently Experiencing Hiring to Meeting Minimum Staffing Requirements by Utility Size



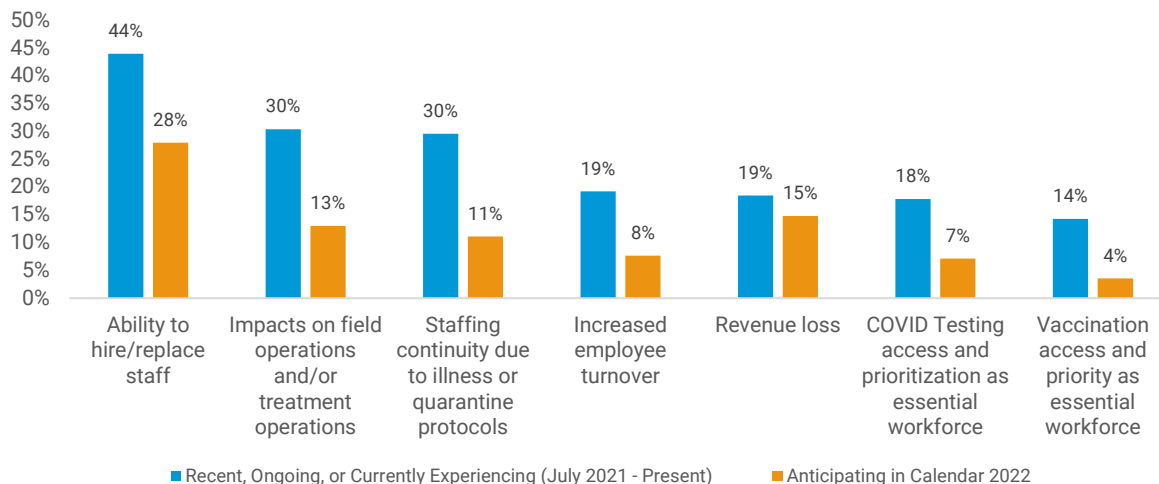


PANDEMIC CHALLENGES -SERVICE PROVIDERS

Ability to hire staff and maintain staffing continuity due to illness or quarantine are the two most common challenges currently faced by surveyed service providers

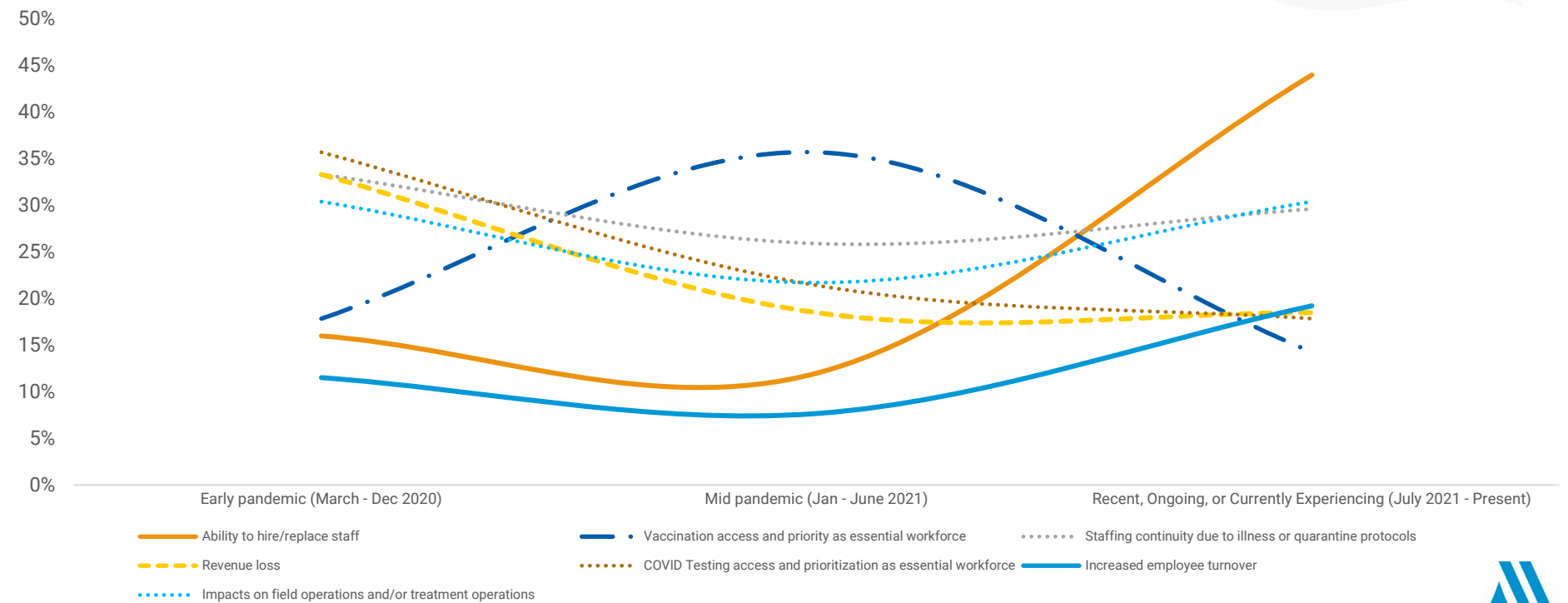
The surveyed water sector service providers report the biggest challenge currently being the ability to hire, with 44% saying they are currently experiencing this issue. Additionally, 30% said they are seeing impacts on field operations as well as 30% facing staffing continuity issues.

Current and Anticipated Challenges in Sustaining Workforce and Critical Operations – Service Providers



Surveyed service providers have seen challenges in employee turnover and ability to hire increase in the latter part of the pandemic

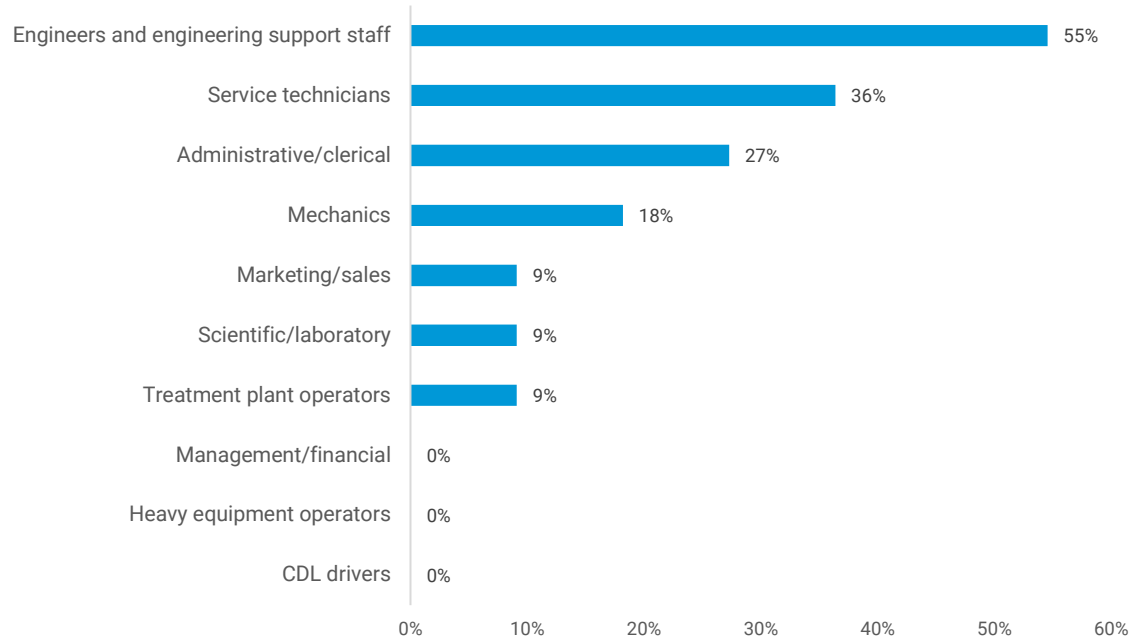
Change in Challenges to Sustaining Workforce and Critical Operations Over Course of Pandemic – Service Providers



Engineers and service technicians are the two most common positions surveyed service providers are struggling to fill

More than half (55%) of organizations reporting hiring issues say they are struggling to hire in engineering positions. Service technicians and administrative positions are the second and third most common positions having difficulty filling.

Positions Currently Having Difficulty Hiring – Service Providers

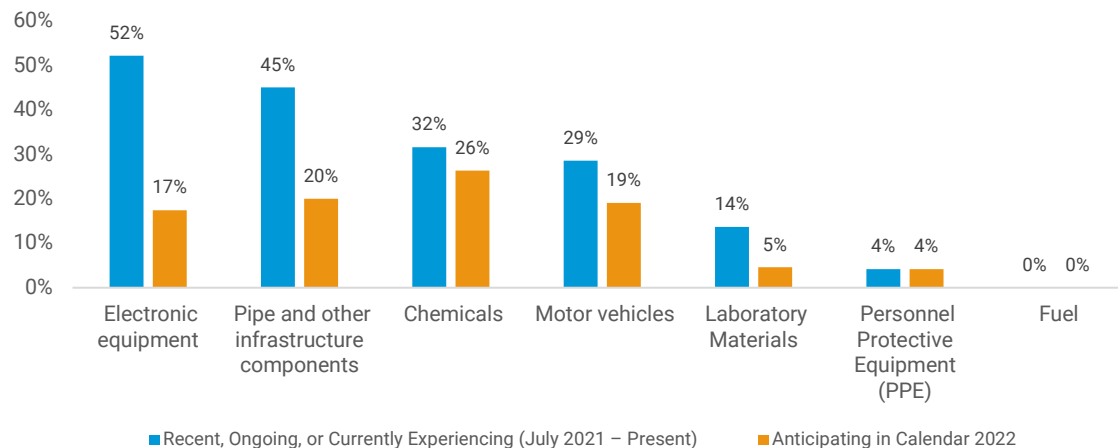


Surveyed service providers are most likely to be currently facing supply chain issues for electronic equipment and pipe/infrastructure components

The most common supply chain issues surveyed service providers report is in electronic equipment (52%), followed by pipes and other infrastructure components (45%). About a third report issues with chemicals (32%) and vehicles (29%).

Of all these areas, supply chain issues for chemicals are believed to be the most persistent into the next year, with 26% anticipating issues to continue.

Areas of Current and Anticipated Supply Chain Issues – Service Providers

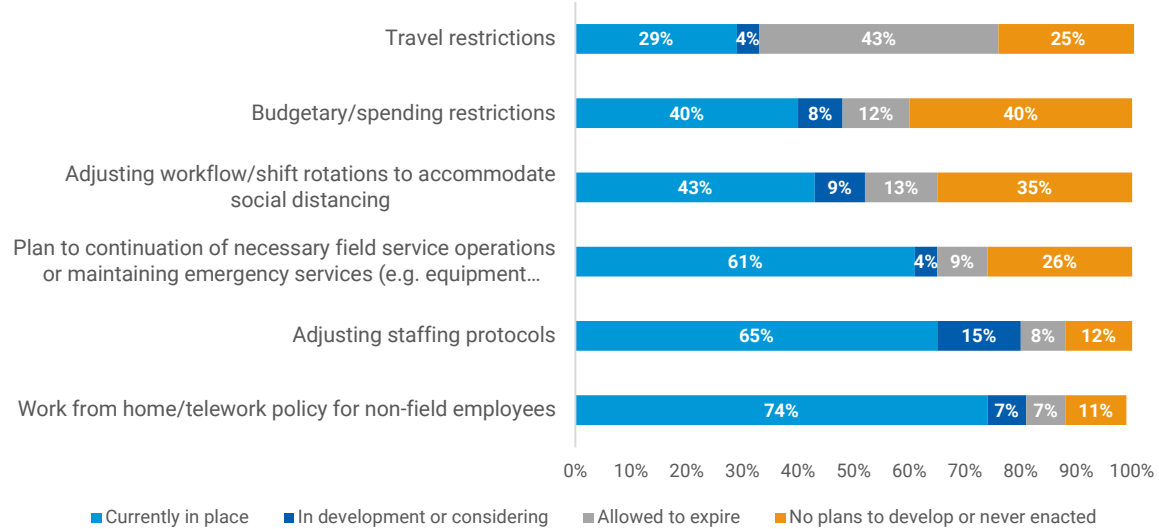


Work from home policies are still in place for most surveyed service providers with many dropping travel restrictions

Nearly three-quarters (74%) of surveyed service providers still have work from home policies in place. This is significantly more than utilities.

For the most part, COVID influenced policies are still in place for surveyed service providers, except travel restrictions, which 43% have allowed to this policy to expire and only 29% still have them in place.

Status of COVID Influenced Policies– Service Providers





COVID RESPONSES – WHAT WORKED AND WHAT DIDN'T?

UTILITIES ONLY

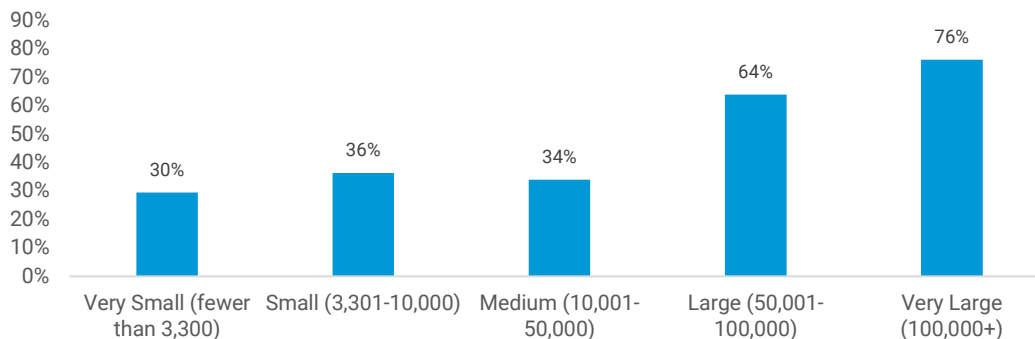
Almost half of utilities said they are documenting lessons learned/after-action report with larger utilities more likely

Forty-four percent (44%) of utilities said they are documenting lessons learned during the pandemic. Larger utilities are much more likely to be planning an after-action report with 76% of very large and 64% of large utilities saying they are doing so. All other sized utilities are in the mid to lower 30% range.

Utilities Documenting Lessons Learned and After-Action Report



Utilities that are Documenting Lessons Learned/After-Action Report by Size

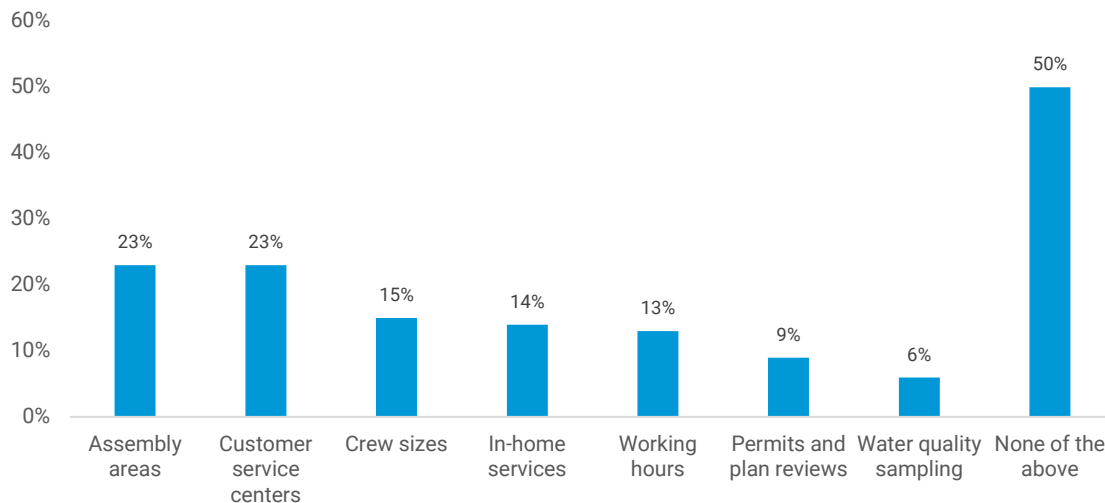


Half of surveyed utilities report not making any permanent or long-term changes to procedures, but the most common change is to assembly areas and customer service centers

Half of utilities state they are not making permanent changes to operational or customer service procedures, but, of course, then half are making some changes.

Most common permanent changes reported will be in assembly areas (23%) and in customer service centers (23%). Between 13% and 15% of utilities state they are making changes in crew sizes, in-home services, and/or working hours.

Permanent or Long-term Changes to Operational/Customer Service Procedures

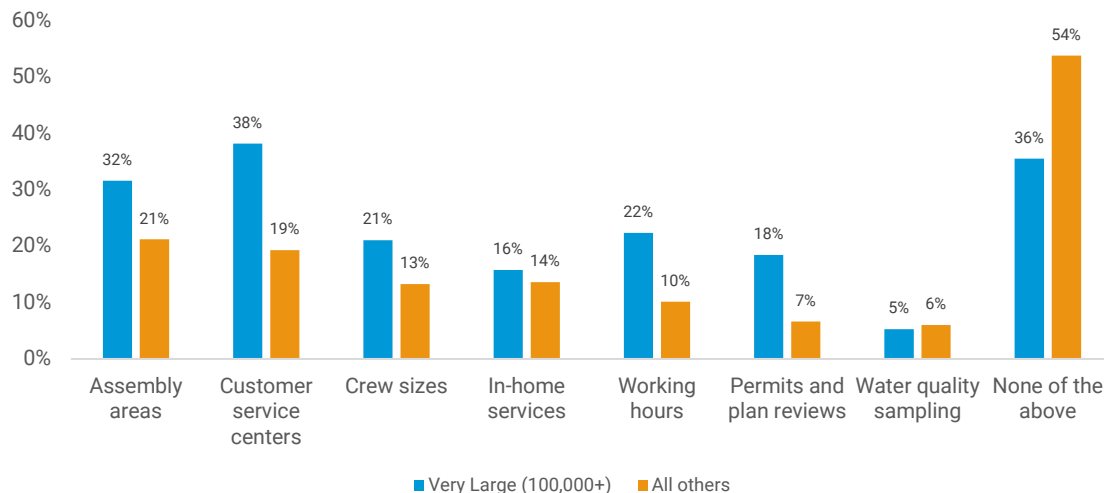


Very large utilities are more likely to make permanent or long-term changes to operational or customer service procedures than other utilities

Sixty-four percent (64%) of very large utilities report making permanent operational or customer service changes compared to 46% of all other sizes.

Most common change for these very large utilities are in customer service centers (38%) while the most common change for all other sized utilities are in assembly areas (21%).

Permanent or Long-term Changes to Operational/Customer Service Procedures by Utility Size



Virtual meetings and hybrid/remote work are the two most common changes made in response to COVID that worked well, but remote work also most common that didn't work

Water sector organizations were most likely to say that virtual meetings (either internal or external) worked well followed by hybrid/remote work and closing the lobby/office to public.

Interestingly, remote work was also the second most common change that didn't work well.

What worked well?

Action	% of answers
Virtual Meetings	19%
Hybrid/Remote Work	17%
Closing lobby/office to public	11%
None	11%
Cleaning office/workspaces	10%
Social distancing	8%
Adjusted work schedules	7%
IT technology to facilitate remote work	6%
Masking	6%
Divided into separate teams	5%
Glass partitions between staff and customers	4%
Encouraging e-bill pay	4%
Communication to staff	1%
One per vehicle rule	1%
Providing PPE	1%

What did not?

Action	% of answers
None	33%
Remote work	21%
Masking	10%
Adjusted work schedules	6%
Divided into separate teams	4%
Social distancing	4%
Virtual meetings	3%
Employee vaccination	2%
Return to office	2%
Social distancing	2%
Communication	1%
Employees taking advantage of flexible sick days	1%
Management of field staff while remote	1%
Staff resistance to new technology	1%



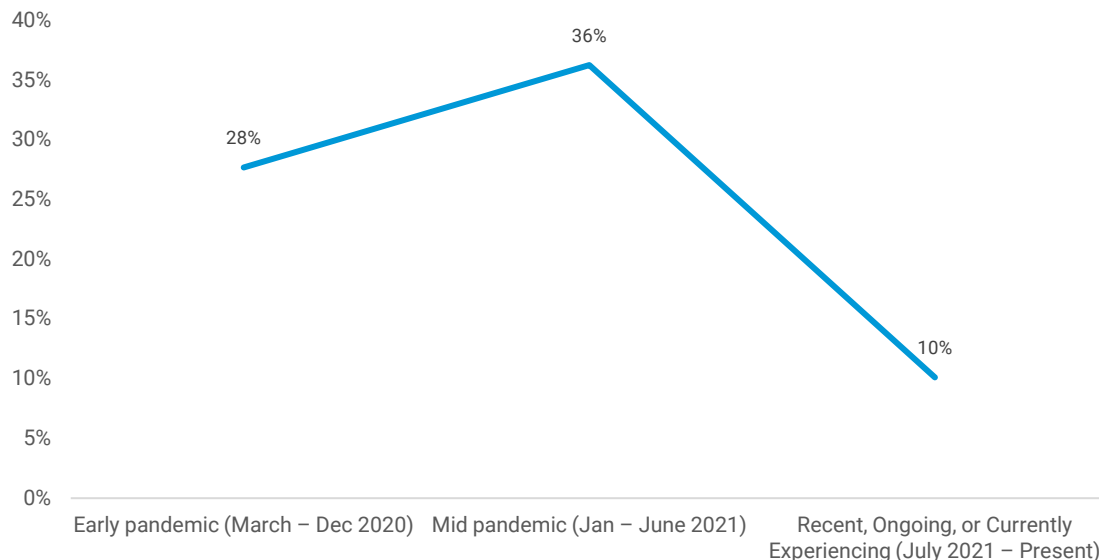
VACCINATIONS

Unless noted results in this section include both utility and service provider responses (described as water sector organizations)

Water sector organizations reporting challenges in vaccination access and priority has dropped significantly since earlier in the pandemic

Concerns about access and priority to COVID vaccines has dropped significantly since earlier in 2021 when 36% said this was a challenge to 10% currently.

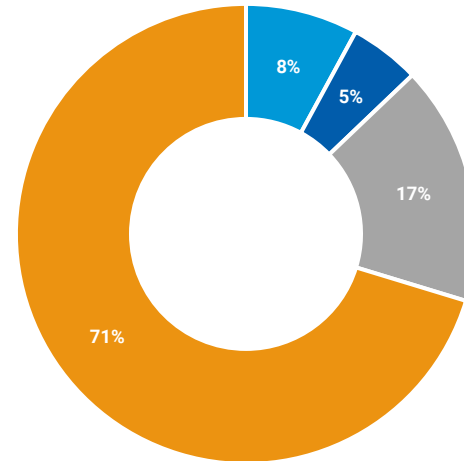
Vaccination access and priority as essential workforce



Most surveyed water sector organizations do not have a vaccine requirement policy

Over 70% of surveyed organizations said they do not and are not considering a vaccine requirement policy. Only 13% have one that is in place or starting soon. As we'll see in the next slide, there is some differences in utilities and surveyed service providers.

Status of Organizational Vaccine Requirement Policy



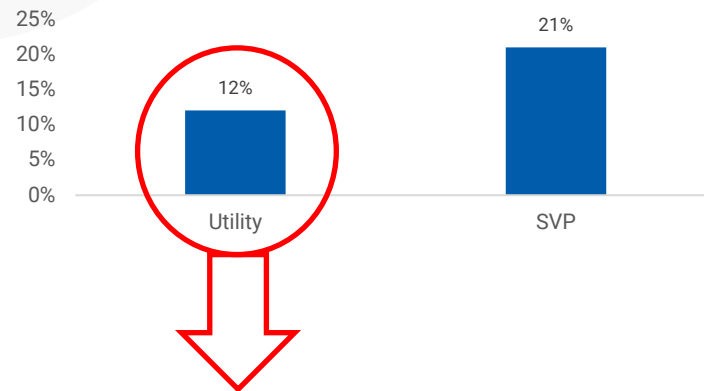
■ Yes, currently ■ Yes, requirements start soon ■ Considering ■ No

Surveyed service providers more likely than utilities to have vaccination requirements with very large utilities and those outside the US most likely to have policies in place

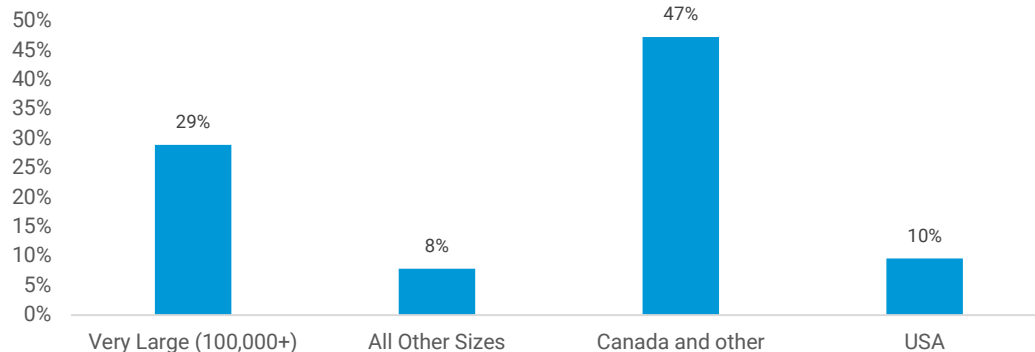
Twelve percent (12%) of utilities report having vaccinate requirements compared to 21% of surveyed service providers.

Of the utilities, very large organizations are more than three times as likely to say they have a vaccination policy, 29% to 8%. Additionally, utilities outside the USA (Canada, Guam, Northern Mariana Islands) are significantly more likely to report having vaccine requirements in place.

Vaccination Requirements (currently/starting soon) by Organization Type



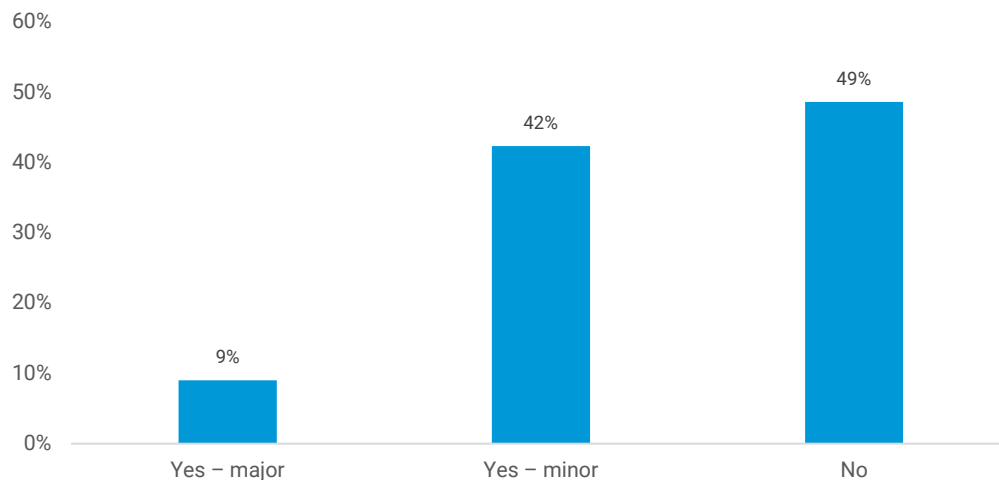
Utilities with Vaccination Requirements (currently/starting soon)



For water sector organization with vaccination requirements, about half expect some effect on workforce levels but most think it will be minor

Just under half (49%) of organizations with some sort of vaccination policy (either require vaccine or submit proof) do not think it will affect workforce levels. The other half (51%) do think it will have some effect, but for most they expect this to be minor. Only 9% think it will have a major impact.

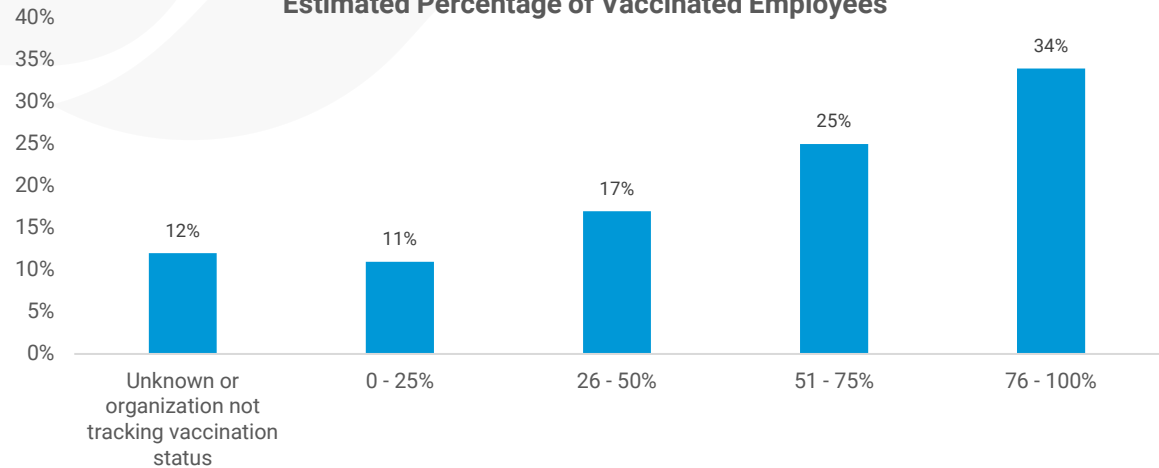
Effect of Vaccination Policy on Workforce Levels



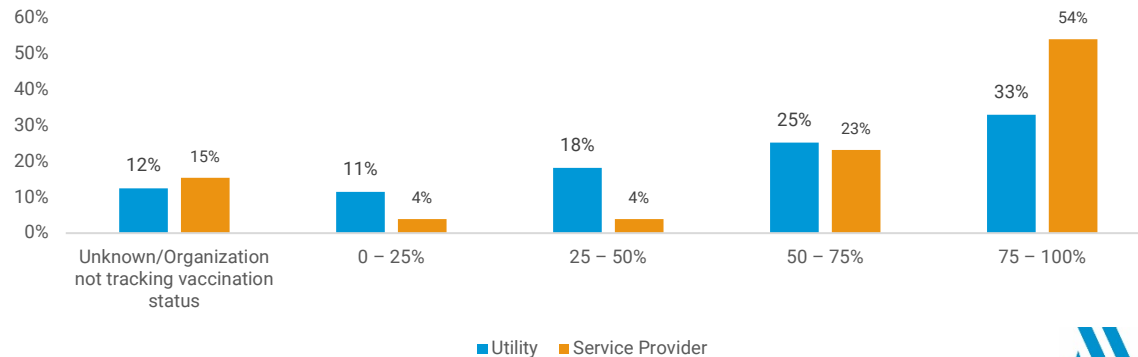
Nearly 60% of surveyed water sector organizations have at least a half their employees vaccinated

At least half of employees are vaccinated in 59% of surveyed water sector organizations. This includes 58% of utilities and 77% of surveyed water sector organizations. Most organizations are tracking vaccination status.

Estimated Percentage of Vaccinated Employees



Estimated Percentage of Vaccinated Employees by Organization Type

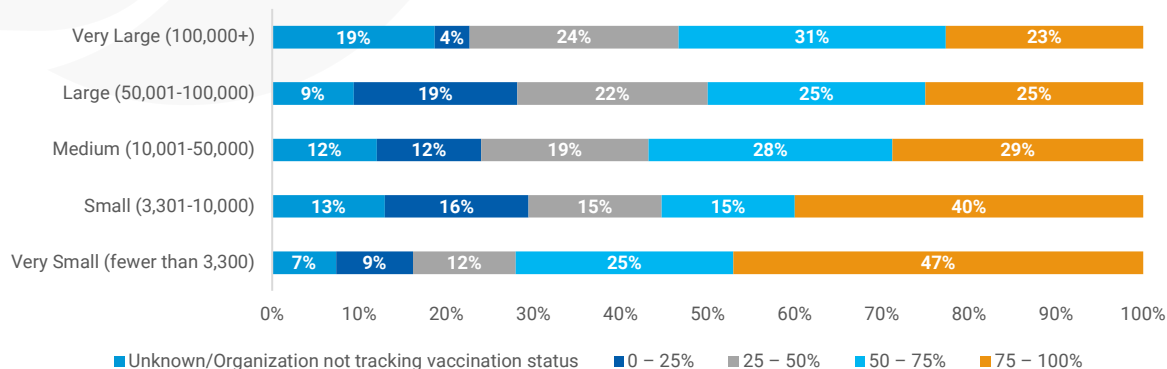


Deeper dive on vaccination rates show smaller utilities and those in Canada/Other and Northeast USA are more likely to have at least 50% of their employees vaccinated

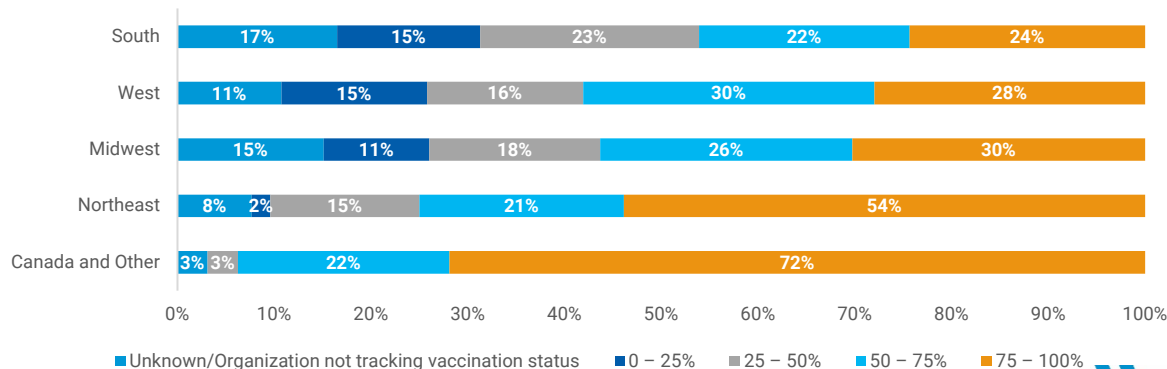
Smaller utilities are more likely to have at least 75% of their employees vaccinated with 47% of very small and 40% of small utilities reporting high vaccination levels. Large and very large utilities are at around 25% of organizations with at least three-quarters vaccinated.

Additionally, there are higher vaccination rates in utilities in the Northeast US and those in Canada (and Guam/Northern Mariana Islands) at 54% and 72% respectively. The South has the lowest rates with 24% of utilities reporting high levels of employee vaccinated.

Estimated Percentage of Vaccinated Employees by Utility Size



Estimated Percentage of Vaccinated Employees by Utility Region





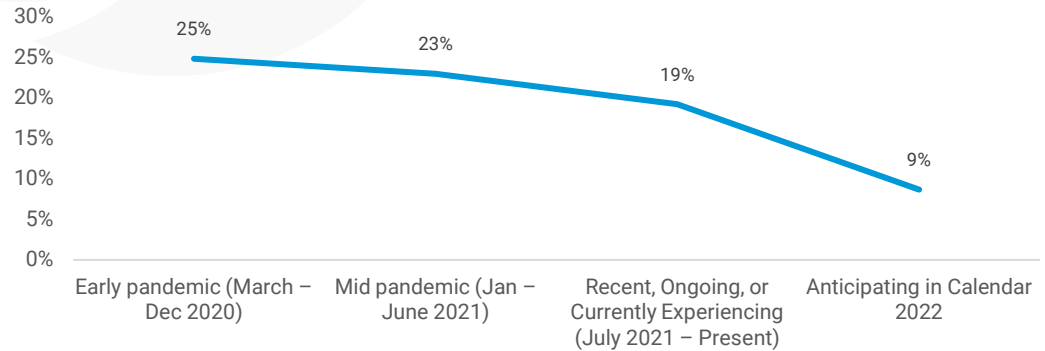
REVENUE LOSS AND FINANCIAL IMPACTS

Half of utilities report revenue loss at some point during the pandemic, but has slightly dropped off since; small utilities less likely to face revenue loss

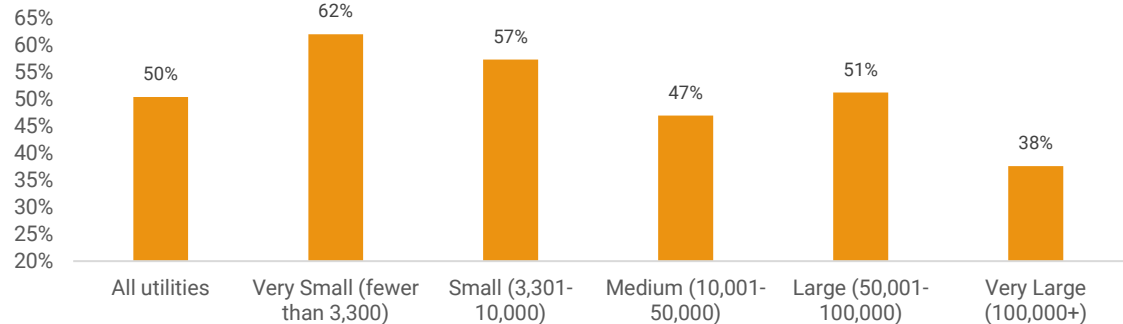
Utilities reporting revenue loss has decreased, down from 25% to 19% currently. The downward trend is also expected to continue with only 9% saying they're anticipating into 2022. Overall, 50% of utilities say they've experienced or are anticipating experiencing loss of revenue at some point during the pandemic.

Larger utilities are more likely to face this challenge with 38% of very large utilities saying they haven't or are not anticipating revenue loss (62% have) compared to 62% of very small utilities who haven't (38% have).

Utilities Reporting Revenue Loss Over the Course of the COVID Pandemic



Utilities Never Experienced or Not Anticipating Revenue Loss by Utility Size



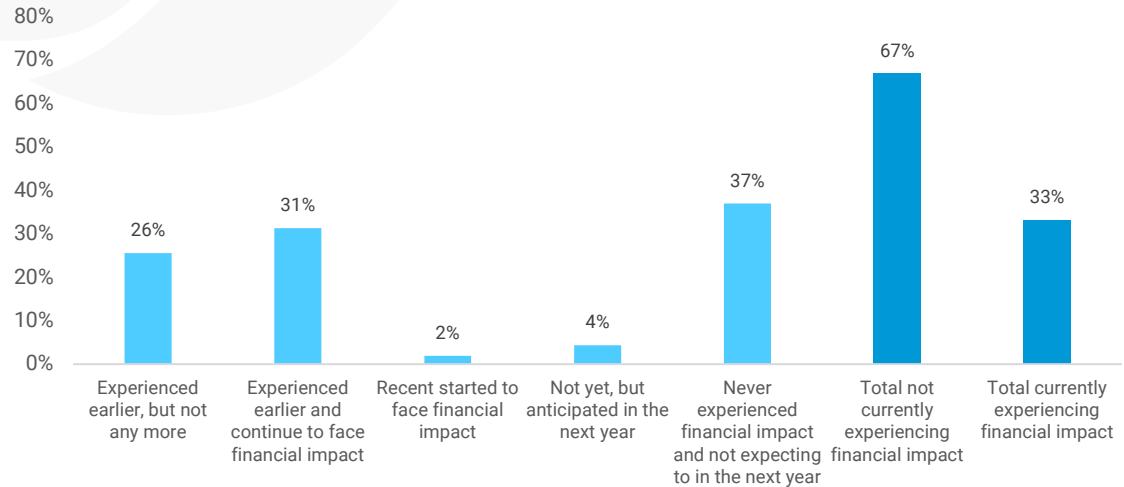
Q3. What, if any, challenges have you experienced or are experiencing in sustaining your workforce and critical operations due to the COVID-19 pandemic? (Select all that apply) – Revenue Loss

Utilities currently reporting some sort of financial impact is slightly higher than revenue loss; very large utilities most likely to be currently impacted

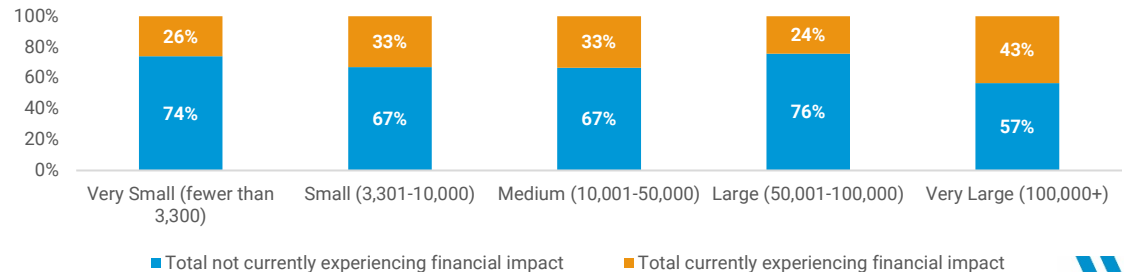
Financial impacts (including, but not limited to revenue loss) are currently affecting a third of utilities. Just over a quarter (26%) reported financial impacts experienced earlier have return to normal with 37% saying they never experienced financial impacts.

Very large utilities are most likely to be currently facing financial impacts (43%) compared to a third or less of other sized utilities.

Utilities Reporting Financial Impacts from COVID Pandemic



Utilities Reporting Financial Impacts from COVID Pandemic by Utility Size





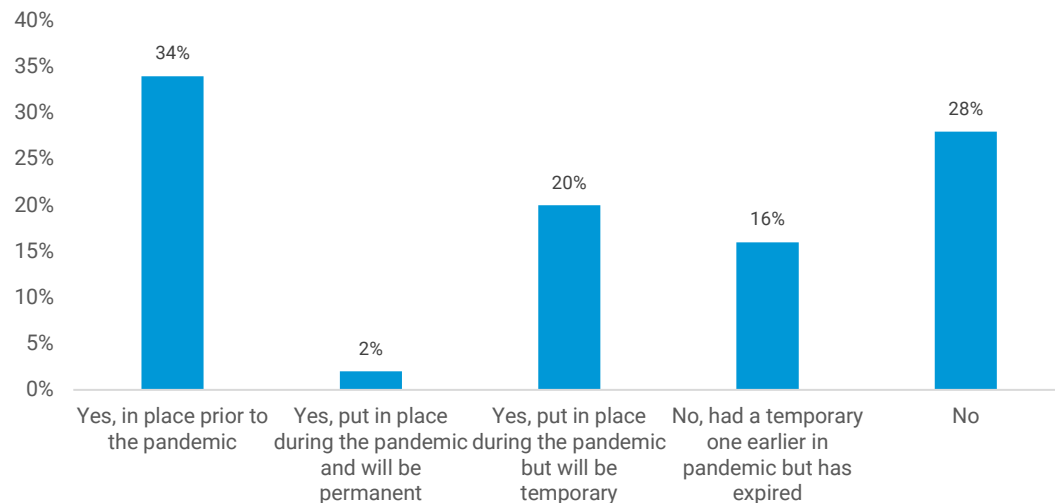
CUSTOMER ASSISTANCE PROGRAMS & COMMUNICATIONS

UTILITIES ONLY

Roughly a third of utilities had CAPs in place prior to the pandemic and many others put programs in place during the pandemic

About a third (34%) of utilities said their customers had access to some sort of Customer Assistance Programs (CAPs) prior to the pandemic. Another 38% told us that they put something in place to help customers during the pandemic. Out of those, just a small few will make their programs permanent (2%). A little more than half of utilities with temporary pandemic CAPs are still in place while (20%) and the others (16%) have expired.

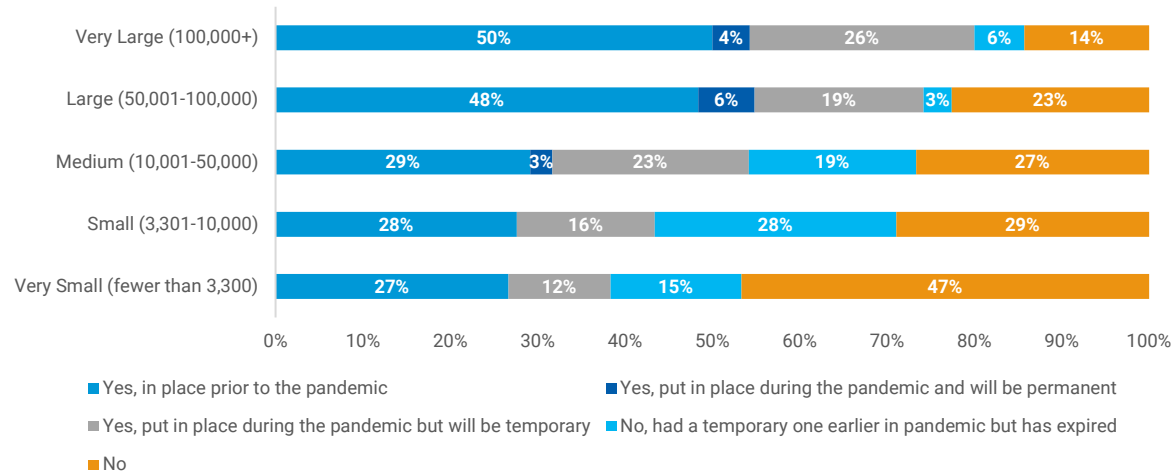
Status of Customer Assistance Programs



Larger utilities more likely to have CAPs in place prior to the pandemic, but more small and medium utilities put temporary programs in place for the pandemic

Just about 50% of utilities that serve a population over 50k had some sort of CAP in place before the pandemic and many of those who didn't put something in during the pandemic. Just under 30% of utilities serving communities under 50k had a CAP in place before the pandemic and while many of them did put temporary programs in place, these smaller utilities are more like to have allowed them to expire.

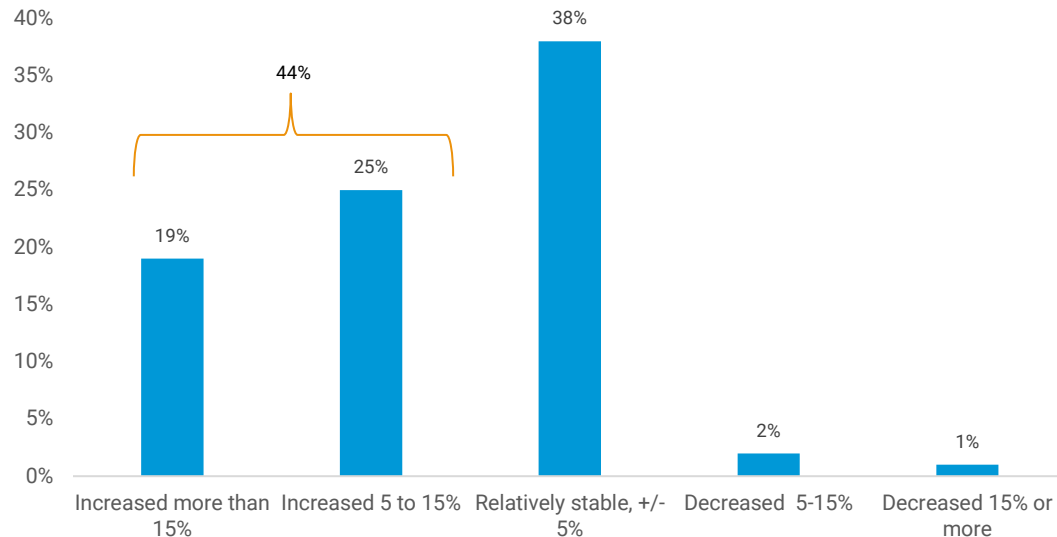
Status of Customer Assistance Programs by Utility Size



Just under half of utilities with CAPs have seen enrollment increase by more than 5% and nearly 1 in 5 have seen enrollment increase by more than 15% during the pandemic

Forty-four percent (44%) of utilities with CAPs in place (permanent or temporary) report an increase of at least 5% in enrollment in these programs, and 19% have seen enrollment increase more than 15%. Another 38% report enrollment is relatively stable and only 3% said they've seen enrollment decrease by at least 5%.

Enrollment in CAPs Since Beginning of Pandemic

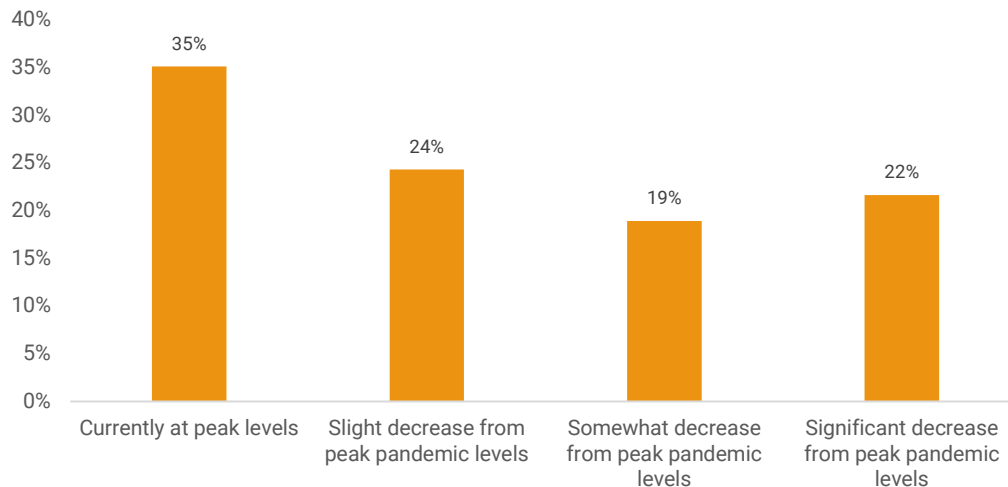


Just over a third of utilities with CAPs programs report enrollment currently at peak levels and another quarter have only seen a slight decrease from peak levels

Enrollment in utility CAPs is still at peak levels for 35% of utilities with these programs, while 65% have already seen enrollment peak. For the roughly two-thirds that have seen a decrease there is variability in how much of a decrease, ranging from 24% seeing only a slight decrease and 22% seeing significant decrease.

However, this does mean that 59% of utilities with CAPs currently have enrollment at or just down from peak levels.

Current Enrollment Levels in CAPs

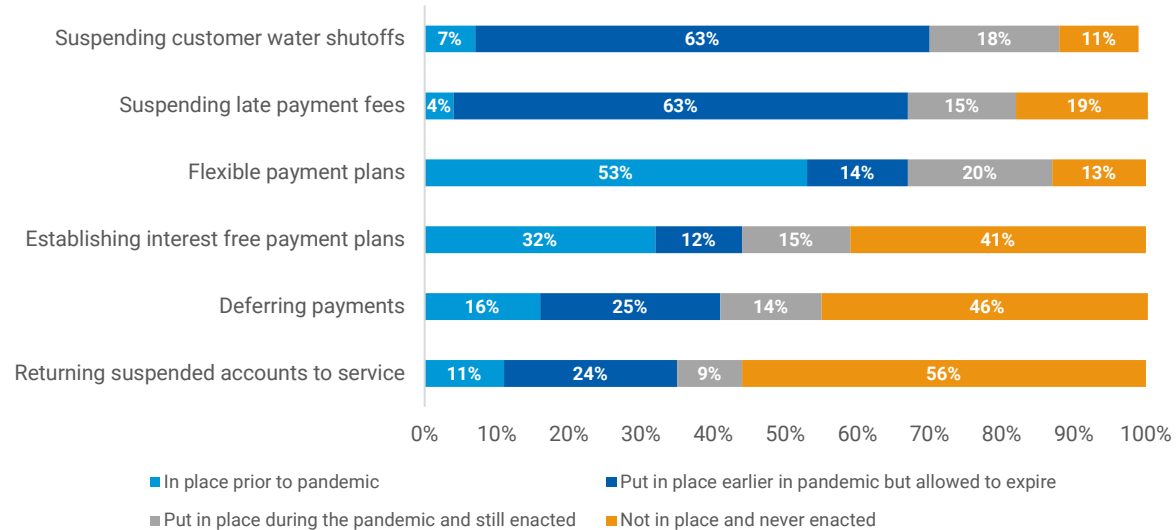


Suspending water shutoffs and late payments fees were the two most common policies instituted during the pandemic to assist customers

Over 80% of utilities had policies in place to suspend water shutoffs and/or suspend late payment fees during the pandemic; most of them put in place as a temporary measure. Currently, most utilities that had them in place have allowed them to expire (63%).

Flexible payment plans was the most common program in place prior to the pandemic (53%) and another 34% put a temporary program in place.

Programs to Assist Customers Affected by Economic Fallout of COVID Pandemic

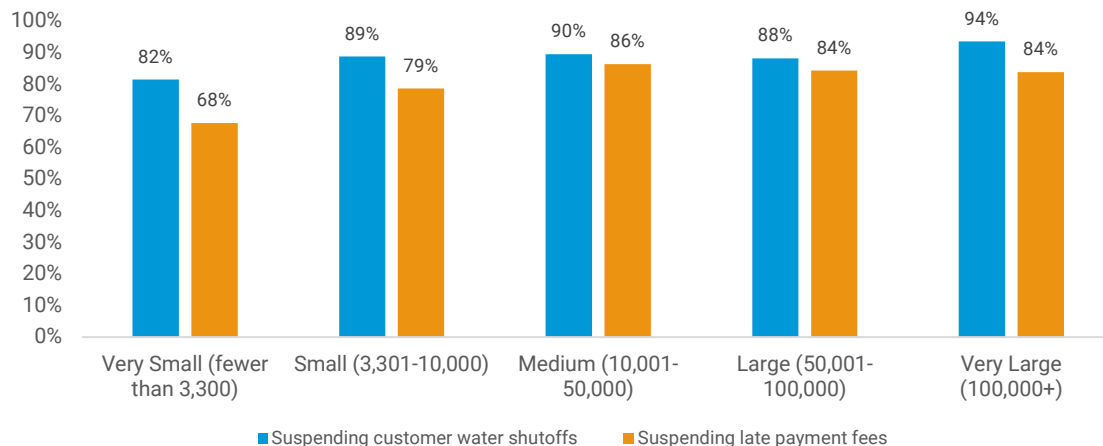


Most utilities, regardless of size enacted policies to suspend water shutoffs and/or late payment fees

While larger utilities were slightly more likely to put pandemic-based policies to suspend shutoffs and/or late payment fees, most utilities of all sizes enacted programs during the pandemic to assist their customers.

Suspending shutoffs was slightly more common than suspending late payment fees.

Two Most Common Pandemic Related Assistance Policies Enacted by Utility Size

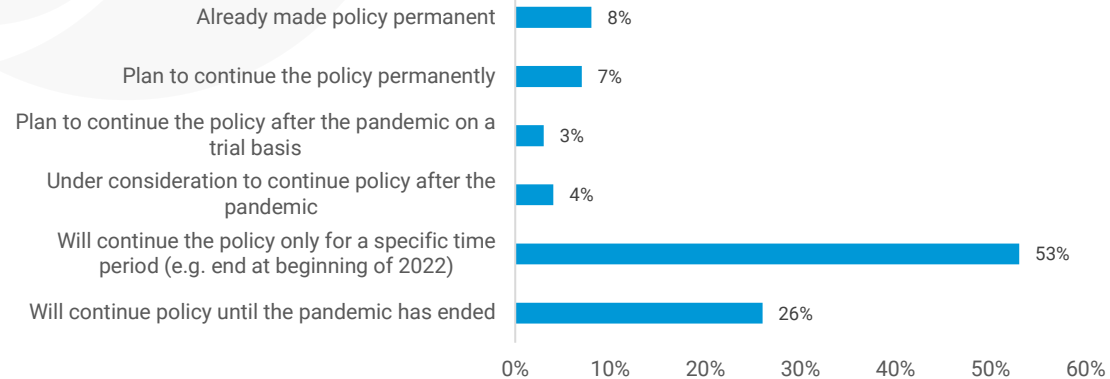


Most utilities who still have suspended water shutoffs policies in place are planning to let them expire, but nearly a third of utilities who have let it expire are planning on reinstating it

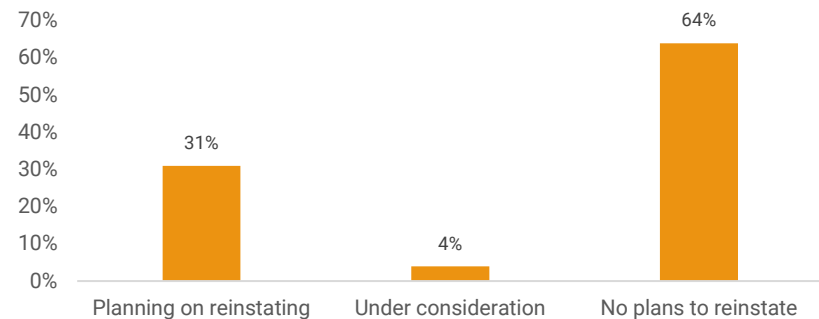
Most utilities that still are suspending shutoffs plan to let this policy expire with small numbers either planning to make the policy permanent or are at least considering it.

However, when asking utilities that already allowed this policy to expire, 31% say they plan on reinstating it. We don't know if these plans are simply to deal with the Delta surge or if they are considering to make it more permanent.

Plans for Suspending Shutoffs Policy for Utilities that Still have it in Place



Plans for Suspending Shutoffs Policy for Utilities that Let it Expire

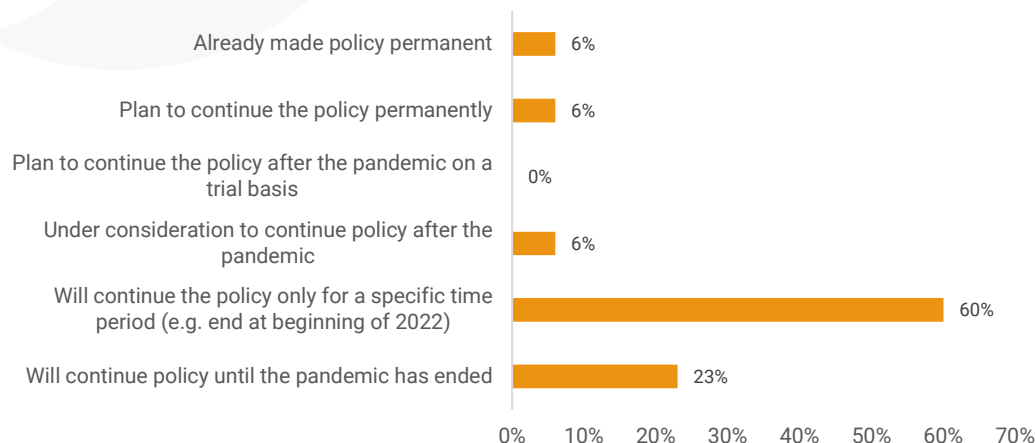


Most utilities with policies suspending late payment fees have plans to let them expire; nearly half plan to write off losses associated with the policy with many still undecided

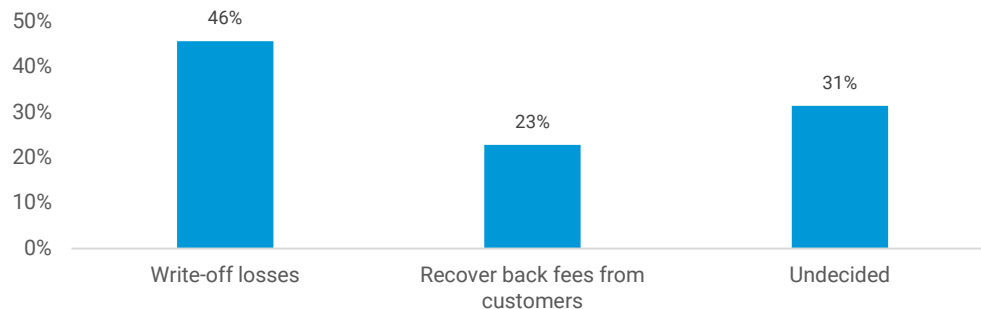
Most utilities that are still suspending late payment fees plan on ending this policy (83%) with just a few planning on continuing it post-pandemic.

Nearly half (46%) of utilities that have or put this policy in place during the pandemic plan on writing off the financial loss associated with waiving late fees with 23% planning to recover the fees, and 31% remain undecided.

Plans for Suspending Late Payment Fees Policy for Utilities that Still have it in Place



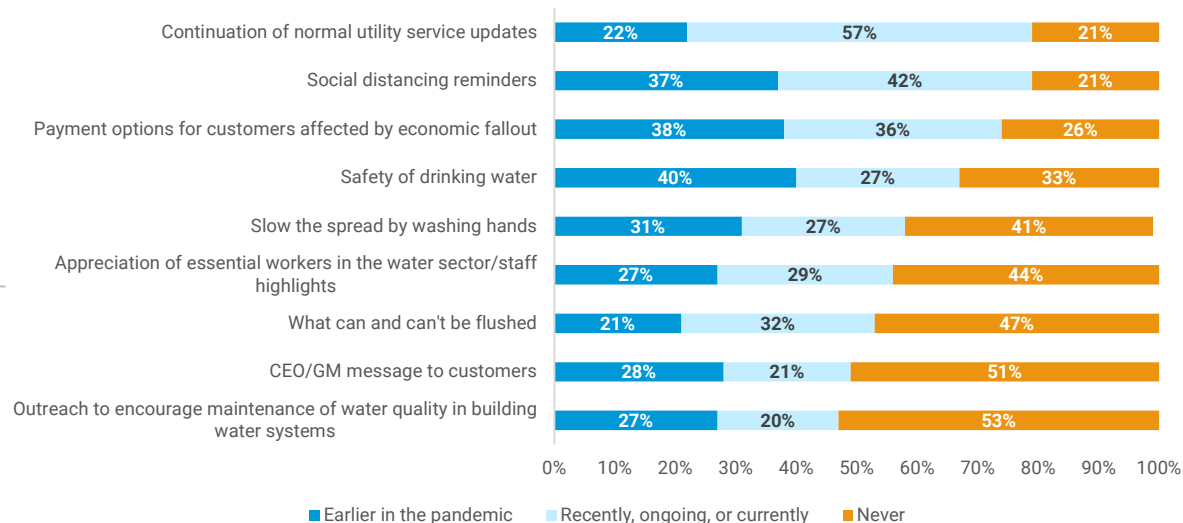
Plan for Recouping Losses Due to Suspending Late Payment Fee Policies



Many utilities-initiated communication to customers to help address pandemic impacts, and several remain ongoing

Continuation of normal service and social distancing remains was, and remains the most common, customer pandemic related communication from utilities. Almost 4 in 5 (79%) of utilities either communicated these messages earlier in the pandemic or continue to do so.

Status of Customer Communication to Address COVID Pandemic Impacts





REMOTE WORK AND RETURN TO THE OFFICE

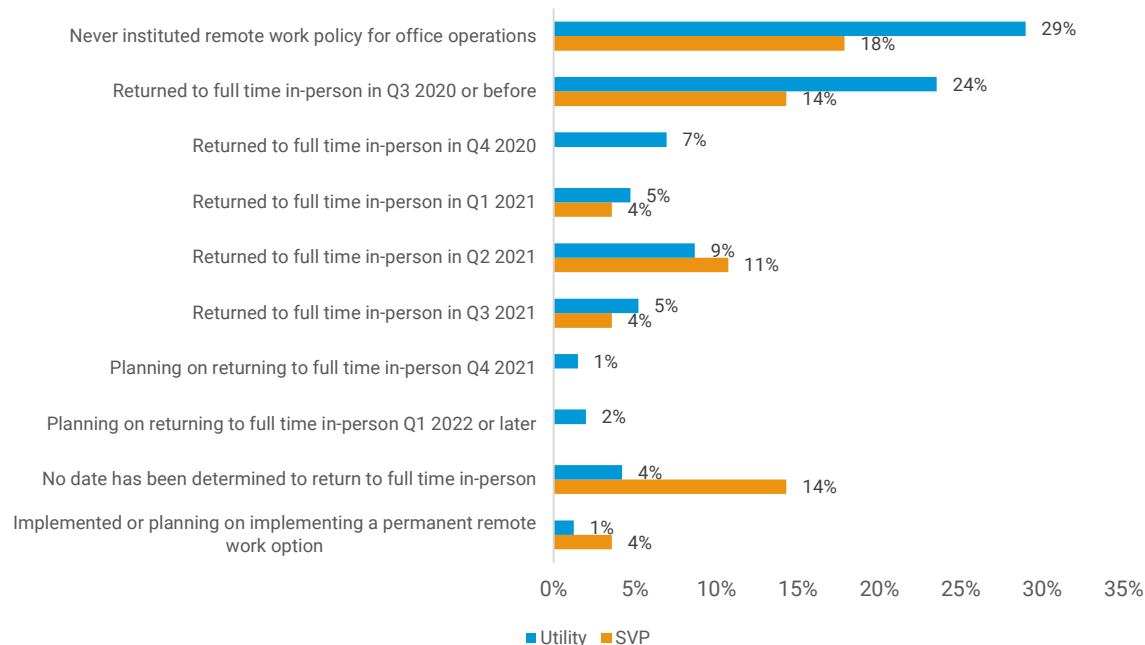
Unless noted results in this section include both utility and service provider responses (described as water sector organizations)

Nearly 70% of utilities had some sort of remote work policy in place earlier in pandemic, but most of those have returned to the office

Twenty-nine percent (29%) of utilities never instituted a remote work policy for office operations. Of the nearly 70% that did, most returned to the office by Q2 in 2021 with less than 10% have still not returned full-time to the office. Only 1% said they are going with a permanent remote option.

Surveyed service providers were more likely to have put a remote work policy in place and they are more likely to have yet to return to the office full-time.

Status of Remote Work Policies by Organization Type

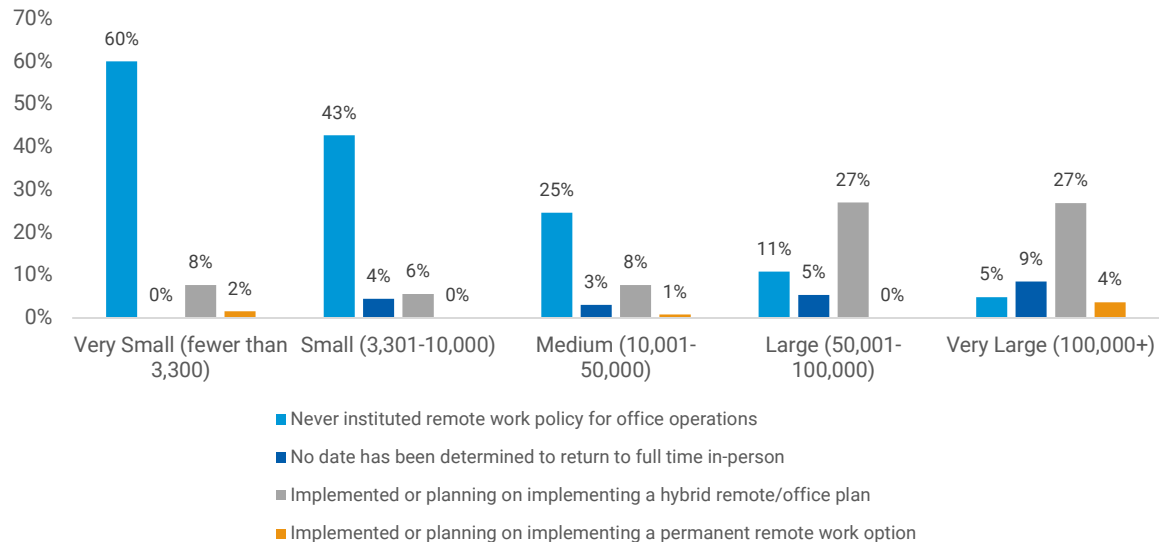


Larger utilities are much more likely to have instituted remote work policies during the pandemic as well as implementing hybrid work plans

Huge differences exist in how different sized utilities approached remote work during the pandemic. Sixty percent (60%) of very small and 43% small utilities never had a remote work policy, compared to only 5% of very large and 11% of large utilities that didn't have a remote work policy.

Also, less than 10% of medium sized utilities or smaller have or are thinking about implementing a hybrid work model, compared to 27% of large and very large utilities.

Status of Remote Work Policies by Utility Size*



Q18: What statement best describes your organization's remote work for office operations/employees who can perform their jobs remotely?

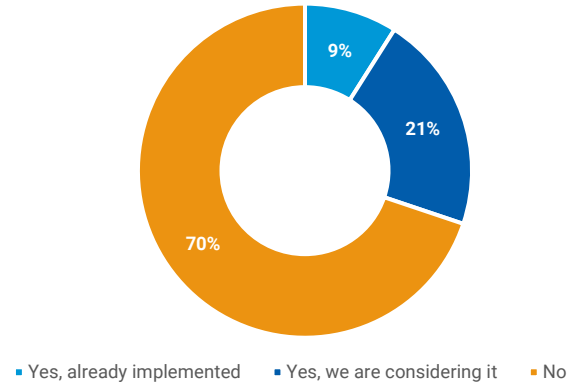
* Missing percentages due to removal of answers indicating already returned to full-time office

Most utilities are not implementing or considering hybrid working arrangements, but larger utilities are more likely to at least be considering

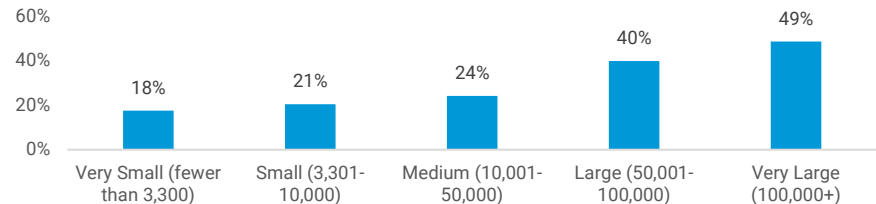
As seen on the previous slide, larger utilities are more likely to have implemented hybrid work policies and here they are also more likely to be considering making the policy permanent.

Overall, only 9% of utilities said they've already implemented hybrid work arrangements, but 21% said they are considering it. In total, 30% of all utilities are at least considering it. But this number is higher for utilities serving over 50k.

Status of Hybrid Work Policies - Utilities



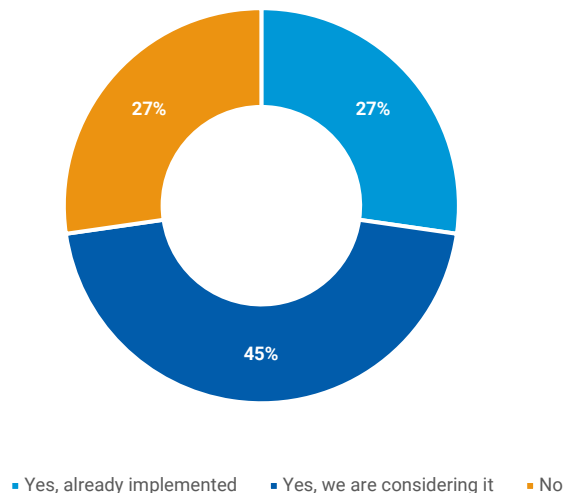
Implemented or Considering Hybrid or Full-time Remote Work Policies



More than 70% of surveyed service providers have instituted or are considering hybrid working arrangements – much higher than utilities

Just about a quarter of surveyed service providers said they have already implemented a hybrid work plan (27%), with the same number saying they haven't and are not considering it. The remaining 45% said they are still considering whether to have permanent hybrid working arrangements.

Status of Hybrid Work Policies – Service Providers

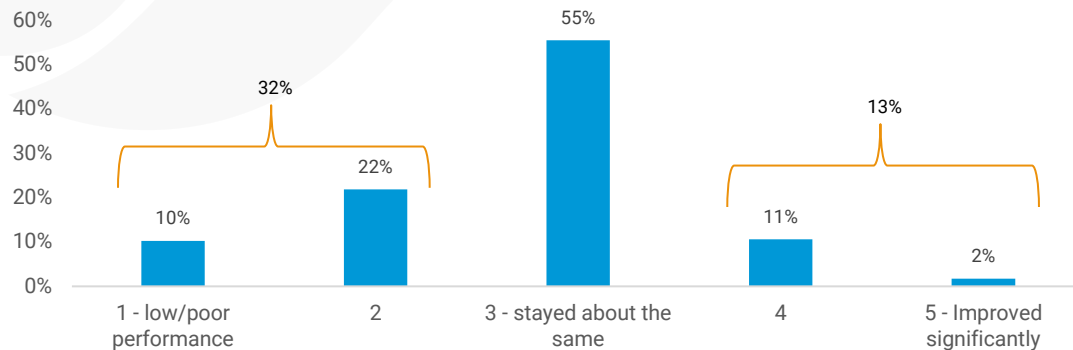


For the most part remote work's effectiveness was rated “about the same” with utilities more likely to say it resulted in lower performance

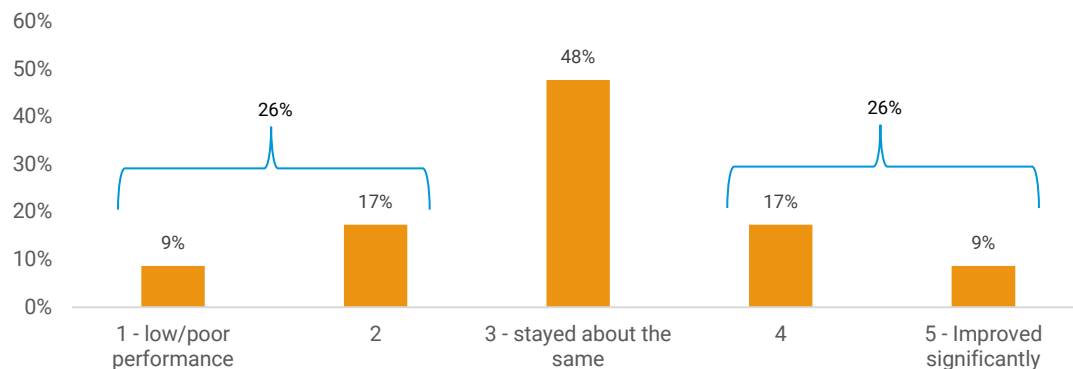
Over half (55%) of utilities who instituted a remote work policy said work effectiveness stayed about the same, with 32% said it decreased some and 13% said it improved some.

Surveyed service providers were more likely than utilities to say remote work improved (26%) with, but the same number saw a decrease (26%).

Effectiveness of Remote Work - Utilities



Effectiveness of Remote Work – Service Providers

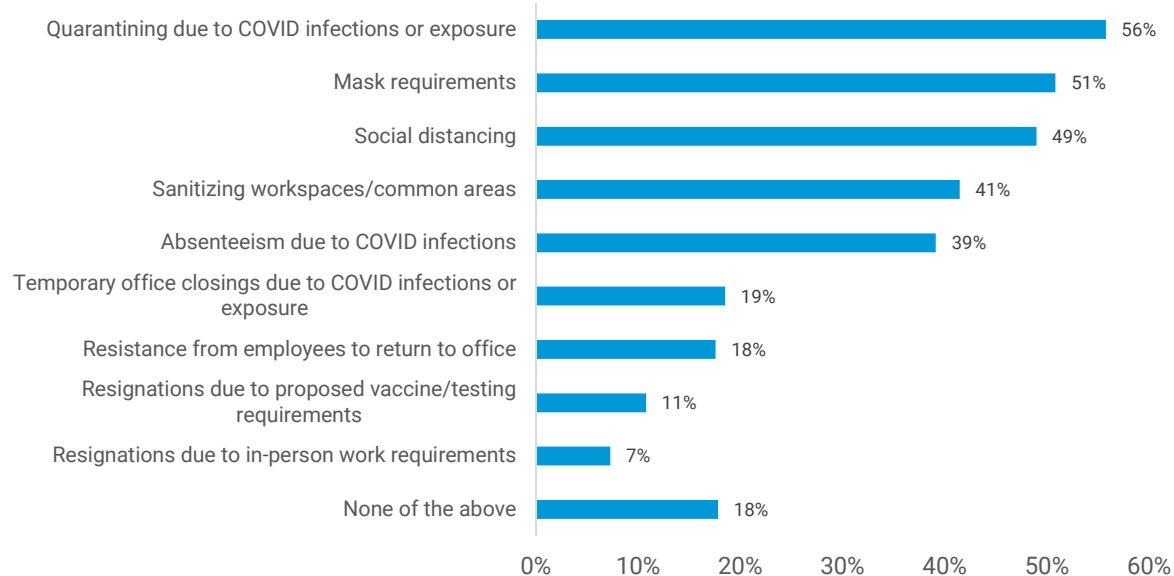


Most common challenges to returning to the office are related to slowing the spread of COVID; few report resistance from employees to returning to the office

Dealing with quarantining due to COVID exposure was listed as the most common challenge to returning to the office (56%). This was followed by mask requirements (51%) and social distancing (49%).

Just under 1 in 5 (18%) reported resistance from employees to return. Smaller number report resignations due to vaccine/testing (11%) or in-person work (7%) requirements.

Challenges to Returning to In-Person Office Work



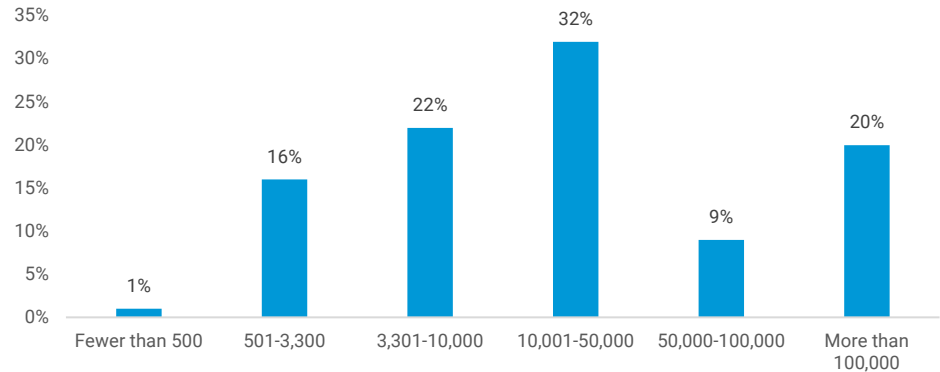


RESPONDENT CHARACTERISTICS

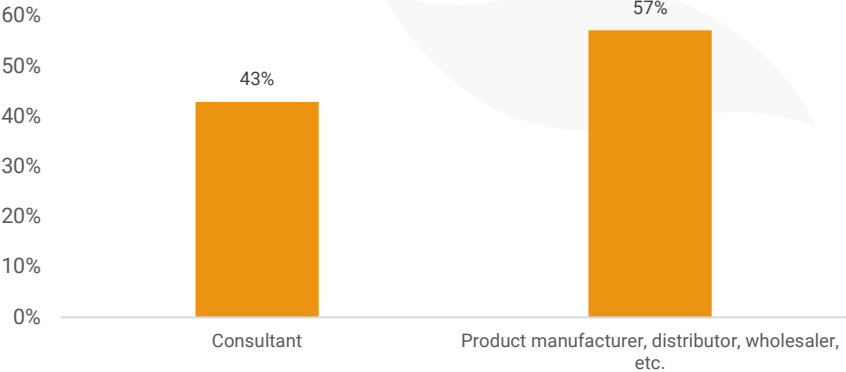


Respondent Characteristics

Responses by Utility Size



Responses by Service Provider Type



Utility Response by Region w/ Current AWWA Utility Members

