How the COVID-19 Pandemic has Affected Water/Wastewater Utilities in North Carolina

2020 CIFA SRF Workshop

October 29, 2020

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Environmental Finance Center

Common COVID-19 Issues Affecting Utility Finance

- Changes in consumption patterns
  - Residential
  - Non-residential
  - Difficulty in forecasting
- Income and job losses affecting ability to pay
- Shifting policies regarding billing, payments, collections, shut-offs, etc.
  - Voluntary or mandatory prohibitions on fees, shut-offs
  - Payment plans and other customer assistance programs
- Changes to plans for rate increases
- Changes to capital projects/funding
- Managing revenue shortfalls

efc.web.unc.edu

Financial Implications of COVID-19 for Water and Wastewater Utilities

MARCH 26, 2020 / SHADI ESKAF / 4 COMMENTS

Print PDF

Water and wastewater utilities are adapting to the rapidly changing conditions imposed across the country and the world by the COVID-19 pandemic. With stay-at-home orders, closures of schools, restaurants, and other businesses, and major disruptions to the workforce and operations, utilities are changing practices and procedures every day to continue to operate and provide the general public with an essential public service. How will these changing conditions and operations affect utility finances? How will utilities accommodate these financial effects?

awwa.org

The Financial Impact of the COVID-19 Crisis on U.S. Drinking Water Utilities

APRIL 14, 2020

American Water Works Association

ASSOCIATION OF METROPOLITAN WATER AGENCIES

This project was funded by the Water Industry Technical Action Fund of AWWA

nacwa.org

The COVID-19 pandemic underscores the critical importance of clean, safe water in ensuring proper sanitation and hygiene to protect public health. Families, businesses, hospitals and first responders around the country are counting on drinking water and clean water agencies to help save lives and keep people healthy. Utilities are working around the clock to ensure customers have safe and reliable water services while keeping their own essential workforce safe.

The drinking water and clean water sectors are facing major losses in revenue and significant costs for maintaining services to low income and financially vulnerable households during the pandemic. The sector is committed to providing service to all households during the pandemic regardless of ability to pay. But this does not come without cost—and as revenues fall, utilities may face hard decisions regarding how to address shortfalls including potentially delaying planned water infrastructure investments, impacts to staffing, and facing new pressures to raise rates at a time many households can ill-afford rate increases. *As Congress responds to the COVID-19 crisis, significant funding should be allocated to help offset revenue losses by water and wastewater utilities and to support the continuation of services to all users.*

Impacts to Drinking Water: Lost Utility Revenues & the Costs of Maintaining Water Access Are Estimated at $13.9 Billion[1]

cifanet.org

CIFA
COUNCIL OF INFRASTRUCTURE FINANCING AUTHORITIES

June 30, 2020

The Honorable Nancy Pelosi
Speaker, U.S. House of Representatives
Washington, D.C. 20515

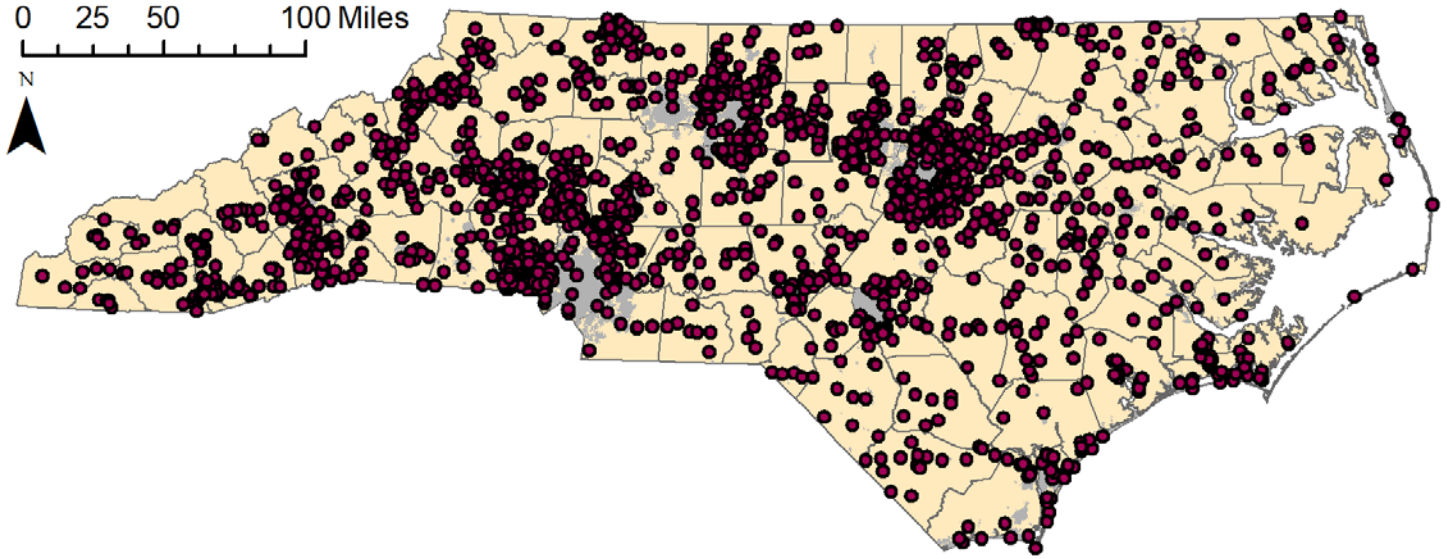
The Honorable Kevin McCarthy
Minority Leader, U.S. House of Representatives
Washington, D.C. 20515

Dear Speaker Pelosi and Leader McCarthy,

Thank you for your long-standing support of the Clean Water and Drinking Water State Revolving Funds (SRFs), the nation's premier programs for financing water infrastructure that protects public health and the environment. During the last three decades, $68 billion in federal funding to the SRFs has generated a total investment of $179 billion in water infrastructure. An estimated $75 billion in loan repayments remain revolving in these subsidized loan programs, funding water infrastructure projects that may never have been built if the SRFs were established as a traditional federal grant program.

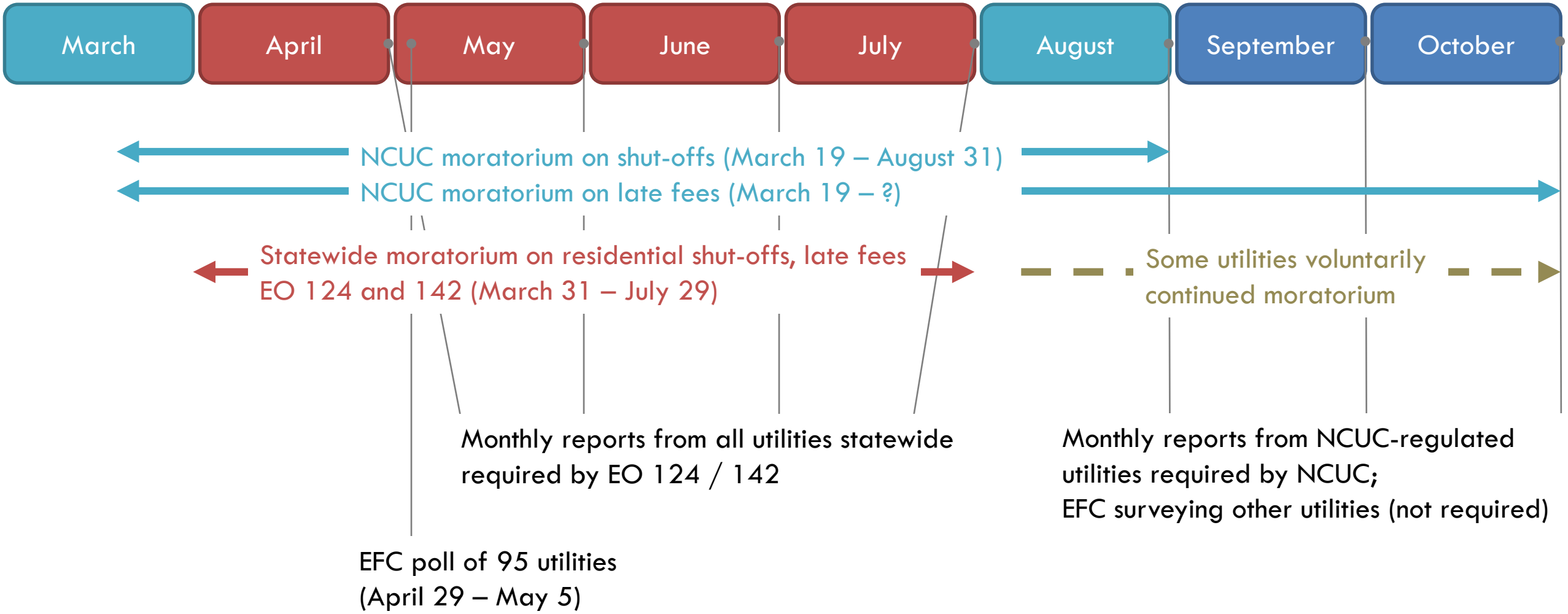
THE CONTEXT OF NORTH CAROLINA

North Carolina Water/Wastewater Utilities



- Nearly 2,000 community water systems
- About 490 local government utilities, serve ~90% of service populations. >$3.1 billion in rev.
- Fewer than 10 large investor-owned utilities with multiple systems
- Few large non-profit water associations; many small, independently-owned systems

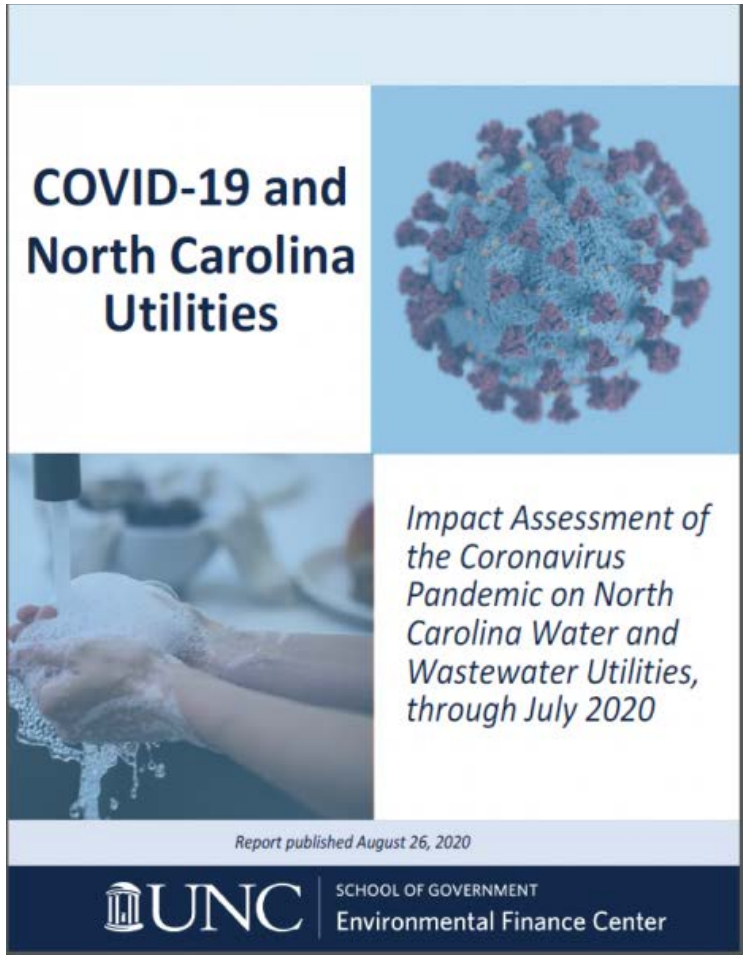
Timeline in North Carolina



Impact Assessment of the Pandemic

http://efc.sog.unc.edu/covid19nc

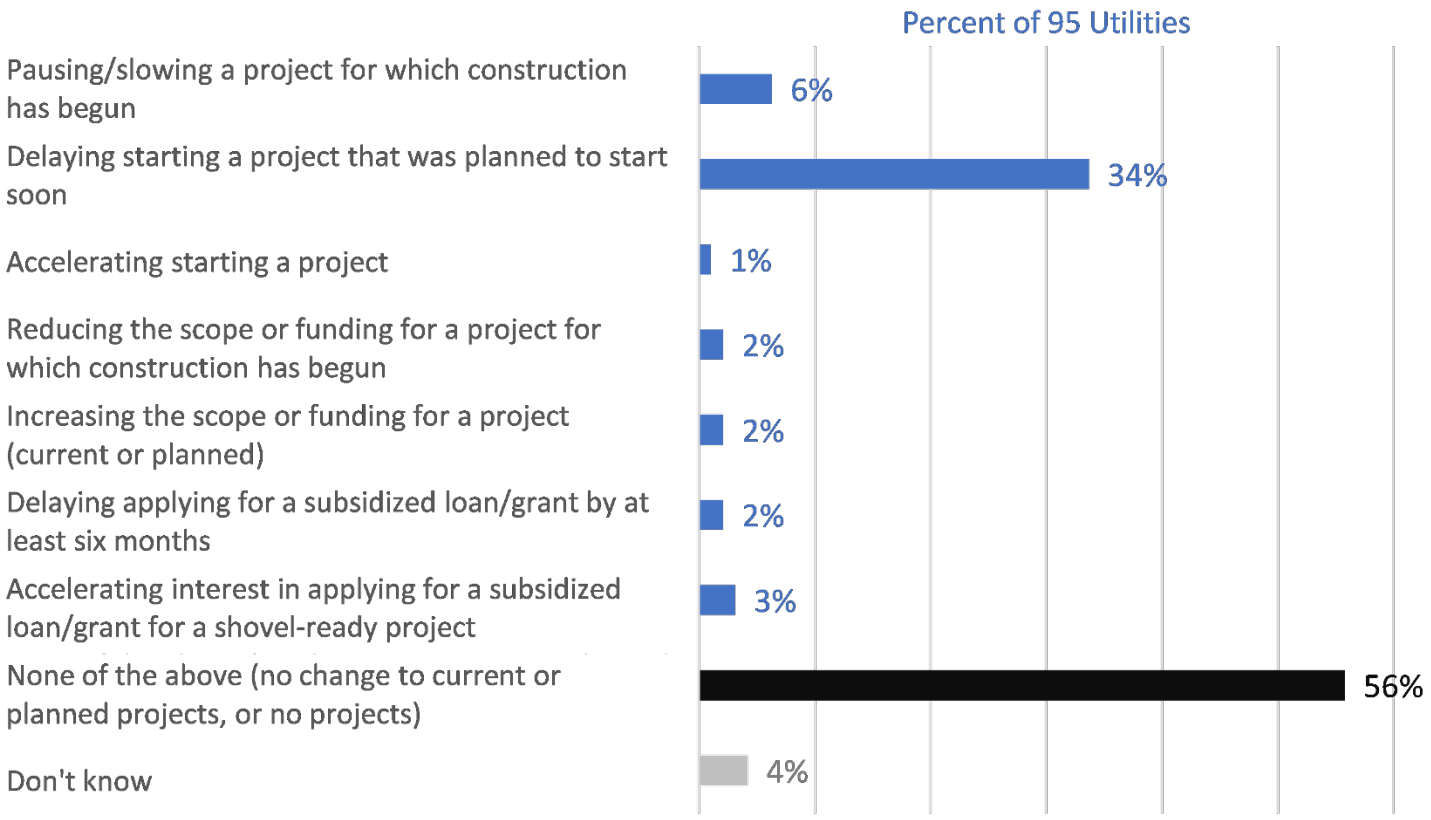
- Statewide assessment of all reporting utilities (August 26)
- Survey results of early pandemic effects on 95 utilities (April-May)
- All utilities' data during entire EO 124/142 period (April through July)
- Case studies of two utilities
- Resources for resilience



EARLY CONCERNS (BEGINNING OF MAY)

Some Delays to Capital Projects

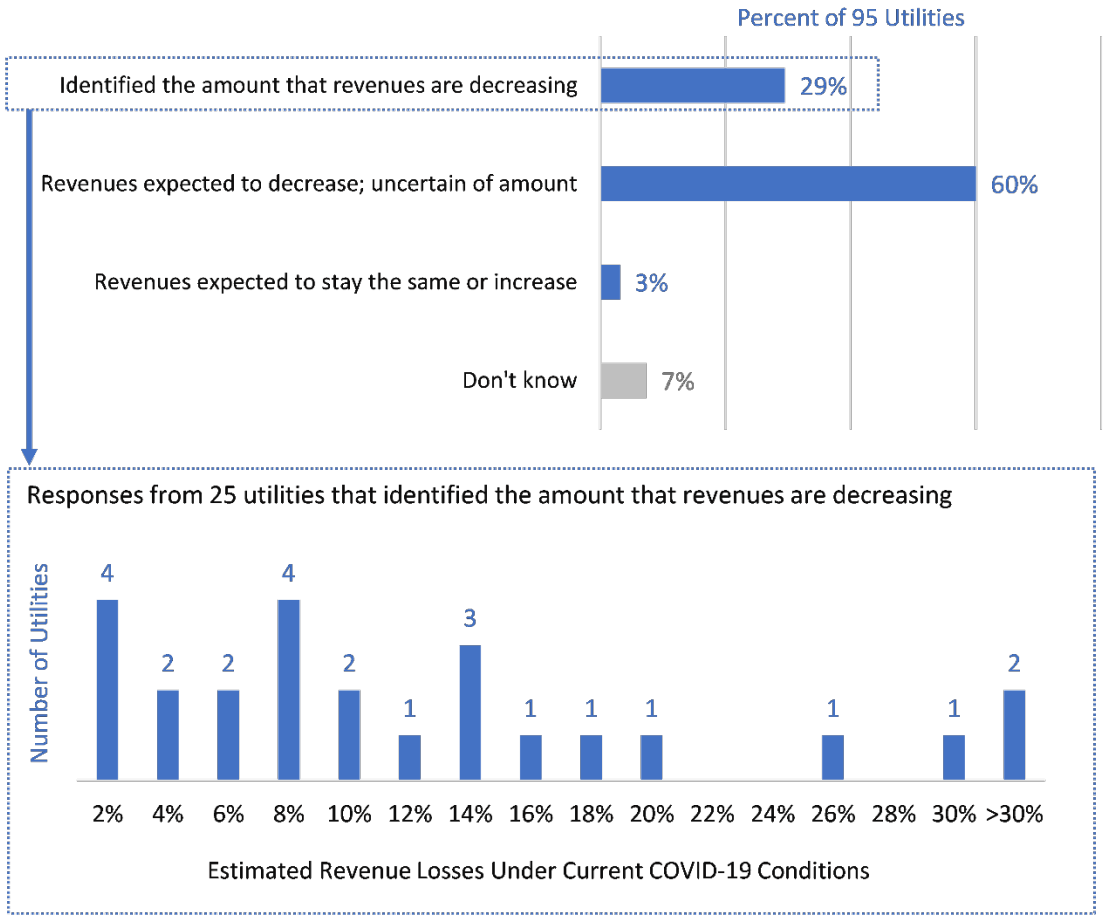
Roughly one-third of responding utilities reported delaying the start of a new capital project due to the pandemic



Results from utilities responding to a poll by the UNC Environmental Finance Center between April 29 - May 5, 2020. Not displaying "Other" responses. Total is greater than 100% because utilities could select more than one response. "None of the above" and "Don't know" are mutually exclusive of all other responses.

Early Evidence and Fears of Net Revenue Losses

Nearly all utilities expected revenues to decrease, even if those decreases had not yet been realized

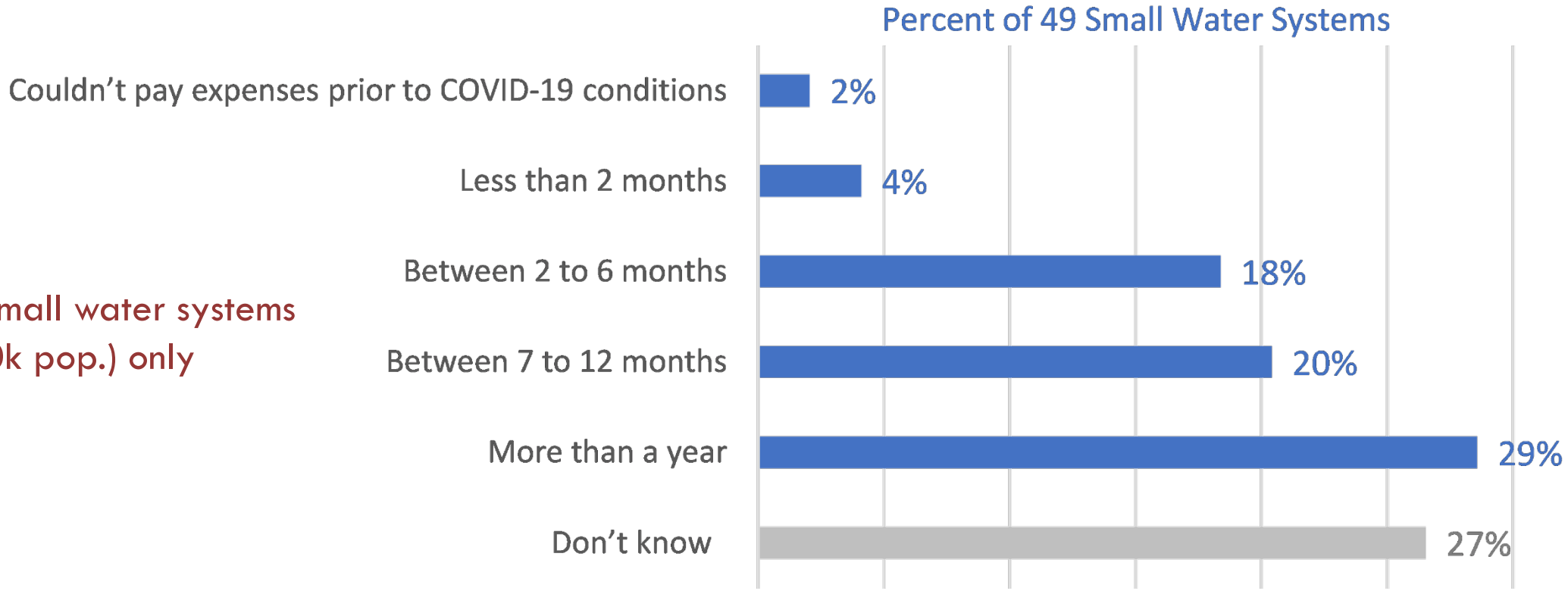


Results from utilities responding to a poll by the UNC Environmental Finance Center between April 29 - May 5, 2020. The first graph displays the full response of 95 utilities. The second graph displays summary data from text responses provided by 25 utilities that responded "Identified the amount that revenues are decreasing". Midpoints of reported ranges are displayed. Where dollar amounts of losses were reported, their percentage relative to FY2019 total operating revenues are calculated and displayed.

Concern about Financial Viability Over Extended Period

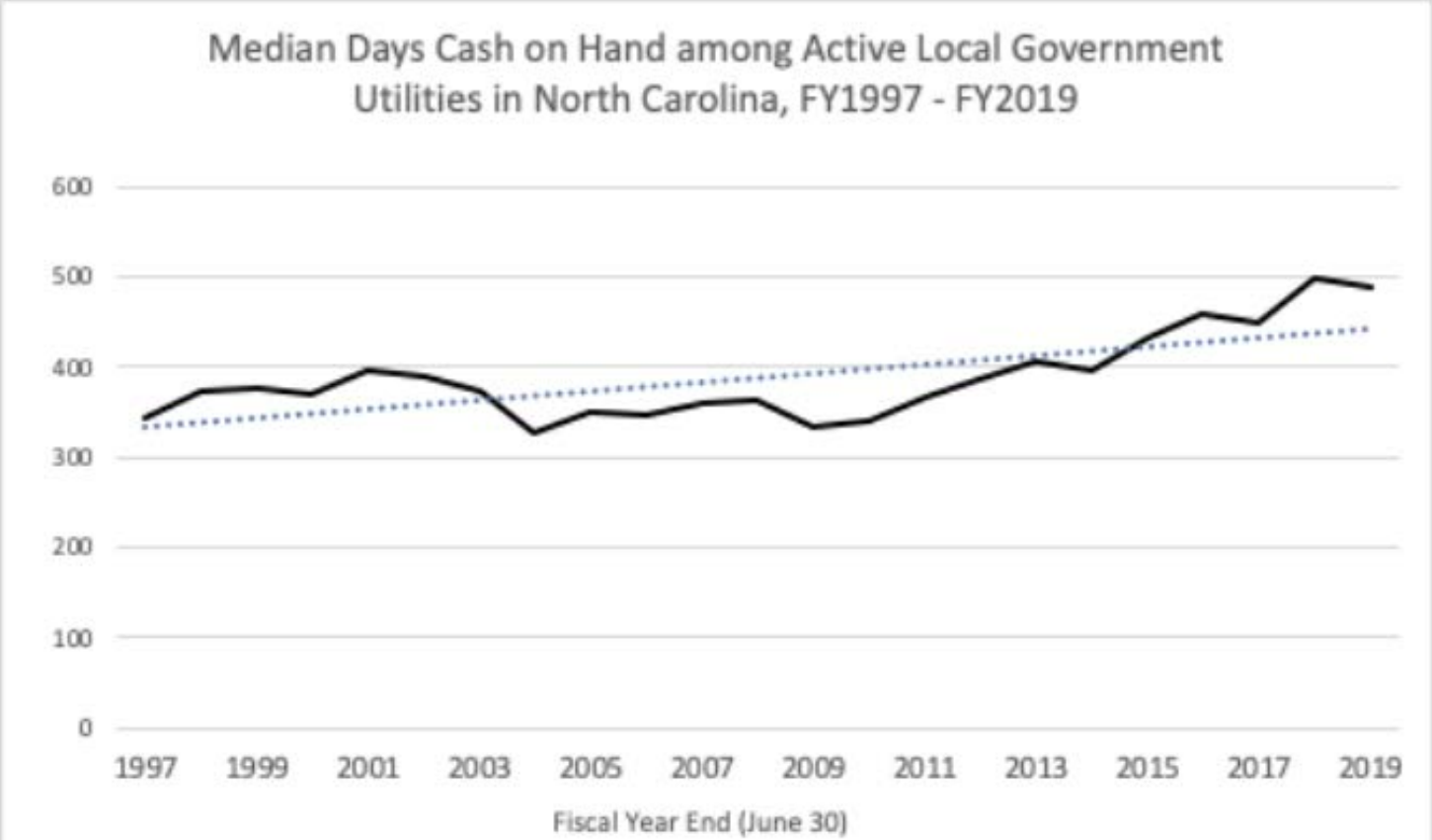
Only half of the small water systems were confident that they can continue to pay their expenses if current conditions lasted more than six months

Results of small water systems (<10k pop.) only



Results from utilities responding to a poll by the UNC Environmental Finance Center between April 29 - May 5, 2020. Only small water systems' (<10,000 service population) responses are displayed.

The Good News?
Reserves Had Grown Prior to the Pandemic



Analysis by the Environmental Finance Center at the University of North Carolina, Chapel Hill.
Data Source: North Carolina Department of State Treasurer, State and Local Government Finance Division: database of Enterprise Fund metrics from audited financial statements of local governments, FY 1997 - FY 2019. Active utilities varied from year to year.

EFFECTS DURING STATEWIDE MORATORIUM (APRIL – JULY)

Aggregated Statewide Effects After Four Months of a Moratorium

	Reported (not all utilities reported)	Estimated for Entire State	
Total arrears as of end of July	$ 52.9 million	$ 61.7 - $81.5 million	
Late fees and penalties forfeited	$ 20.1 million	$ 23.2 - $30.8 million	

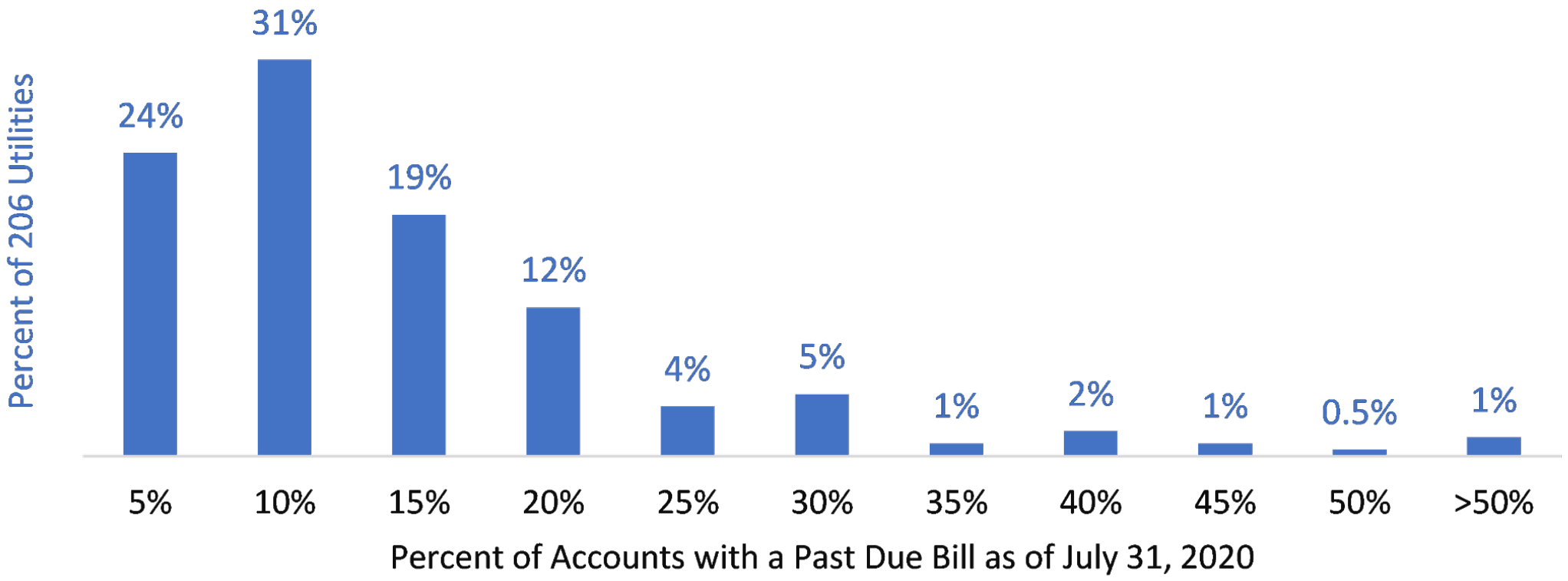
Aggregated Statewide Effects After Four Months of a Moratorium

	Reported (not all utilities reported)	Estimated for Entire State	Aggregated % of Operating Revenues
Total arrears as of end of July	$ 52.9 million	$ 61.7 - $81.5 million	~ 2.5%
Late fees and penalties forfeited	$ 20.1 million	$ 23.2 - $30.8 million	< 1%

Results vary widely across individual utilities.

% of Accounts with Past Due Bills (End of July 2020)

Nearly 15% of utilities reported more than 20% of their customers had past due bills as of July 31

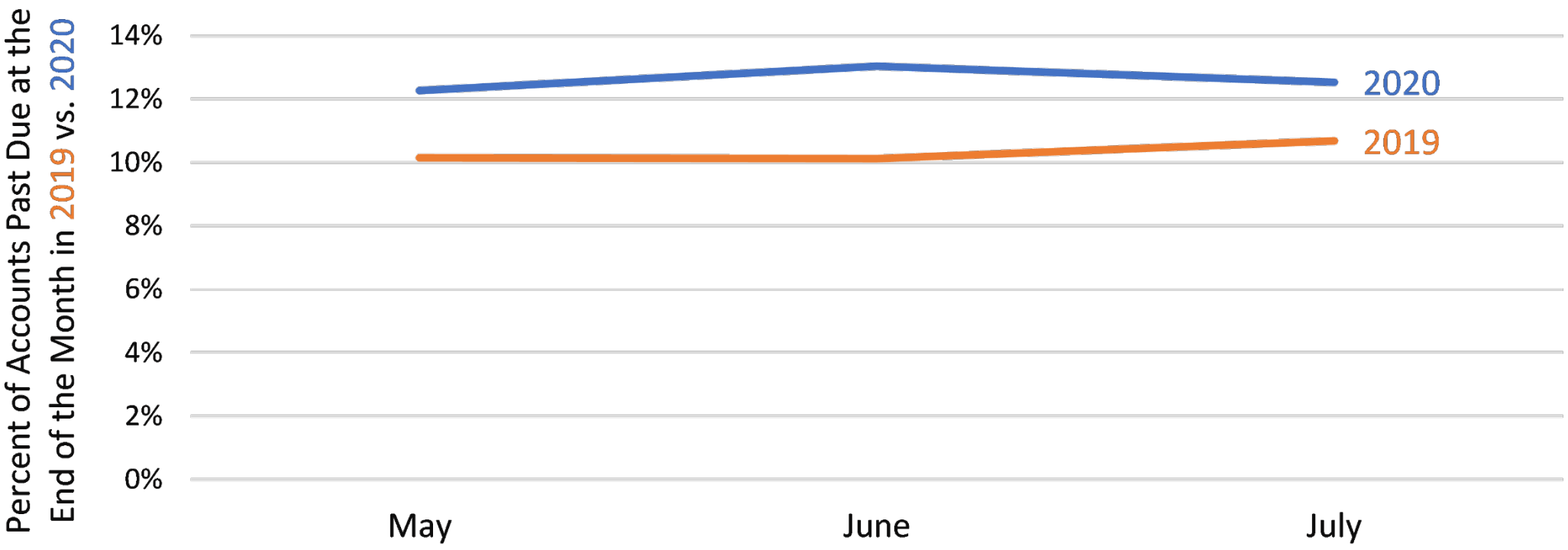


Assessing data from 206 utilities that reported at least one account with past due bills as of July 31, 2020.

Analysis of all North Carolina water/wastewater utilities that reported data in accordance with EO 124/142.

Accounts with Past Due Bills Increased from Last Year

Accounts with past due bills were 17%-29% higher in 2020 than at the same time last year

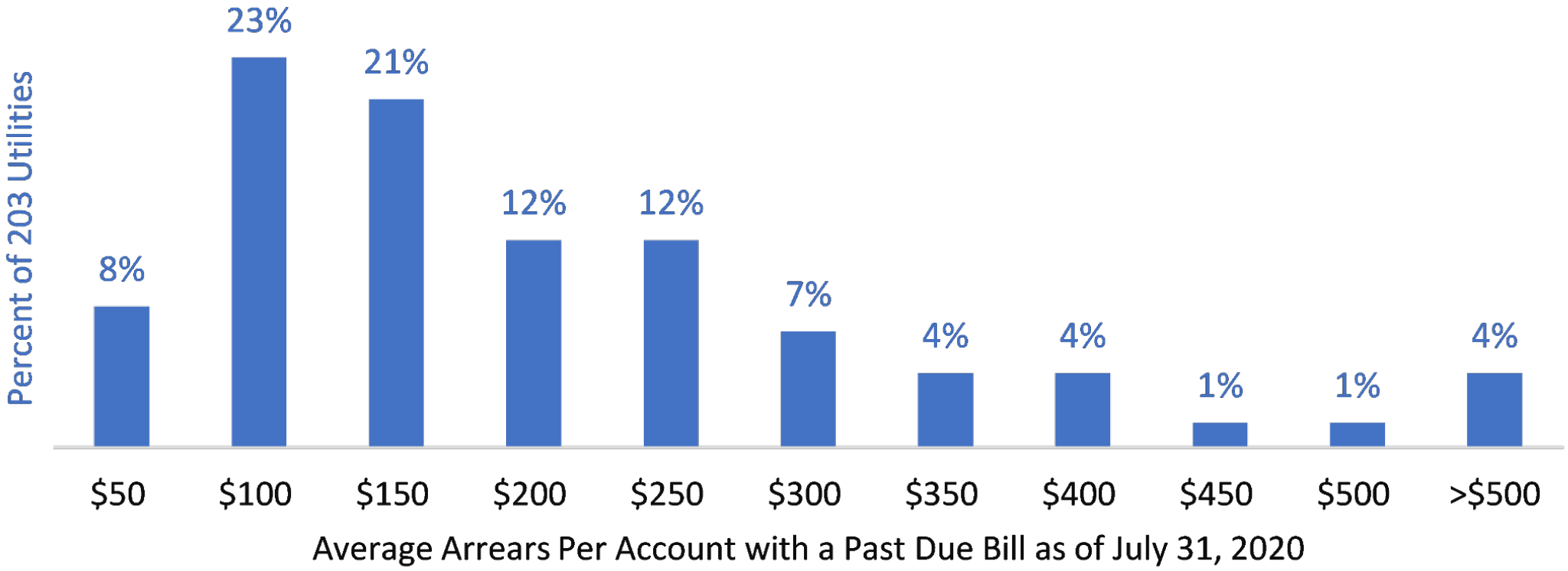


Assessing data from 84 utilities that reported at least one account with past due bills in each month in 2019 and in 2020.

Analysis of all North Carolina water/wastewater utilities that reported data in accordance with EO 124/142.

Average Amounts on Past Due Bills (End of July 2020)

Average past due bills as of July 31, 2020 were less than $200 for 65% of utilities



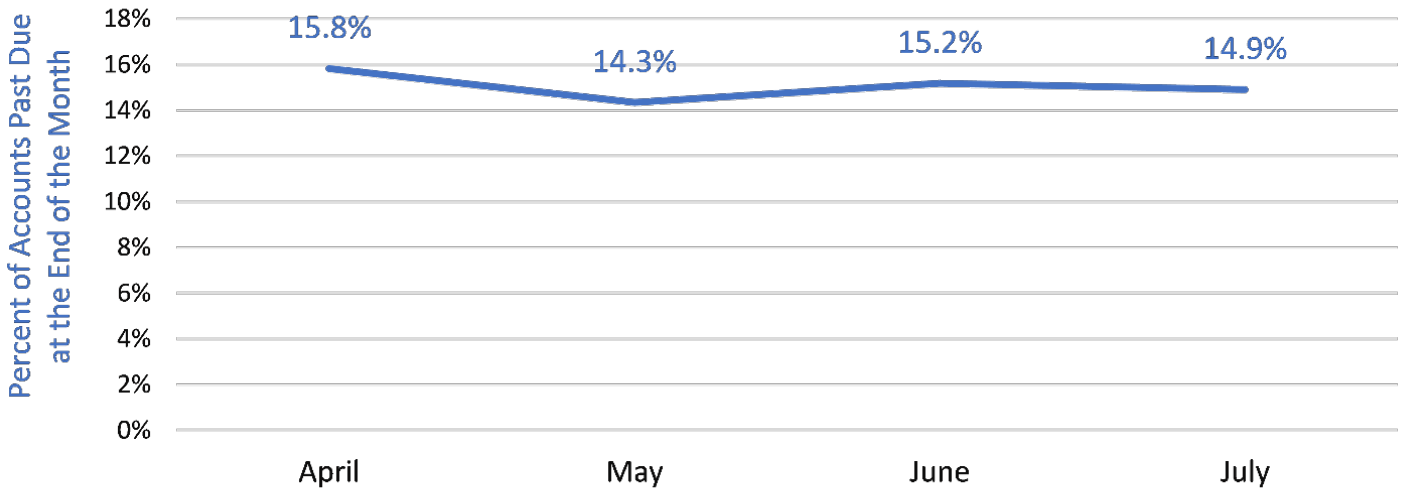
Assessing data from 203 utilities that reported >$0 in arrears and at least one account with past due bills as of July 31, 2020.

Analysis of all North Carolina water/wastewater utilities that reported data in accordance with EO 124/142.

Trends During the Moratorium: April through July 2020

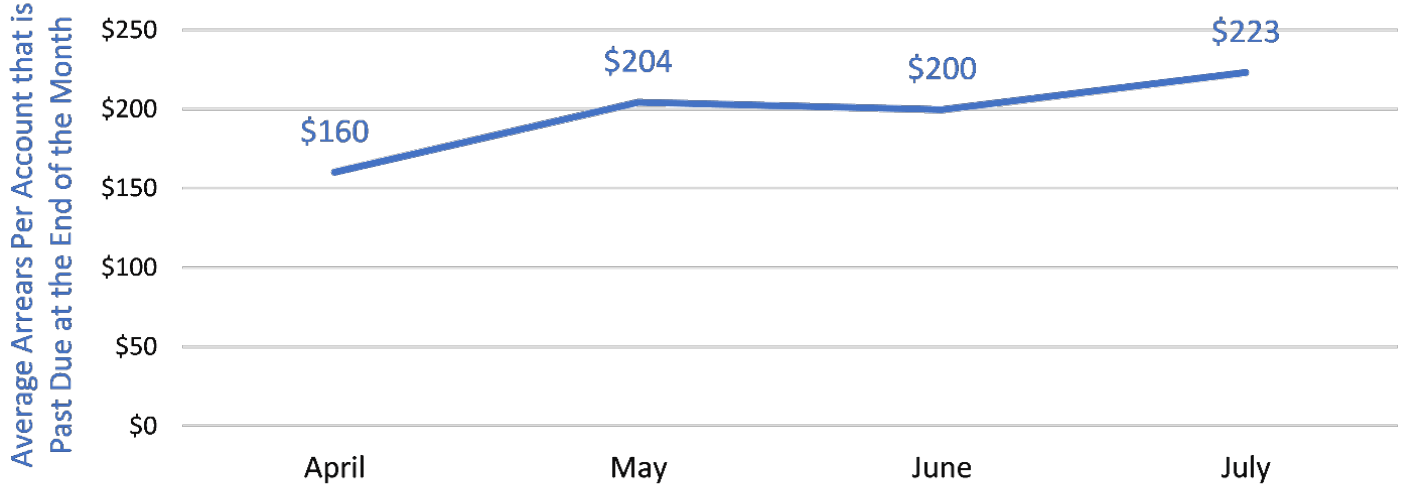
Number of accounts with past due bills generally did not increase, but the average amount owed increased

Between April and July, the percentage of accounts considered past due remained relatively stable



Assessing data from 147 utilities that reported at least one account with past due bills in each month between April and July.

Average arrears among accounts that are past due increased after April

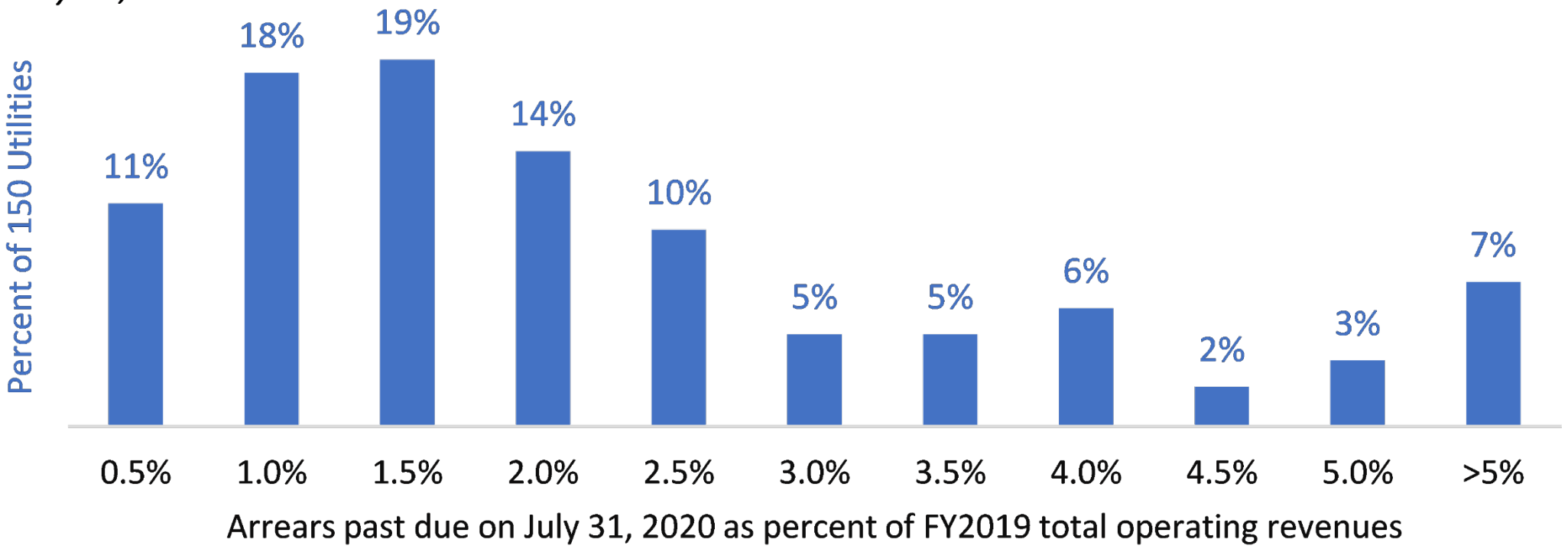


Assessing data from 139 utilities that reported >$0 arrears and at least one account with past due bills in each month between April and July.

Analysis of all North Carolina water/wastewater utilities that reported data in accordance with EO 124/142.

Arrears as % of Operating Revenues

Nearly 23% of utilities had the equivalent of more than 3% of total operating revenues in arrears as of July 31, 2020

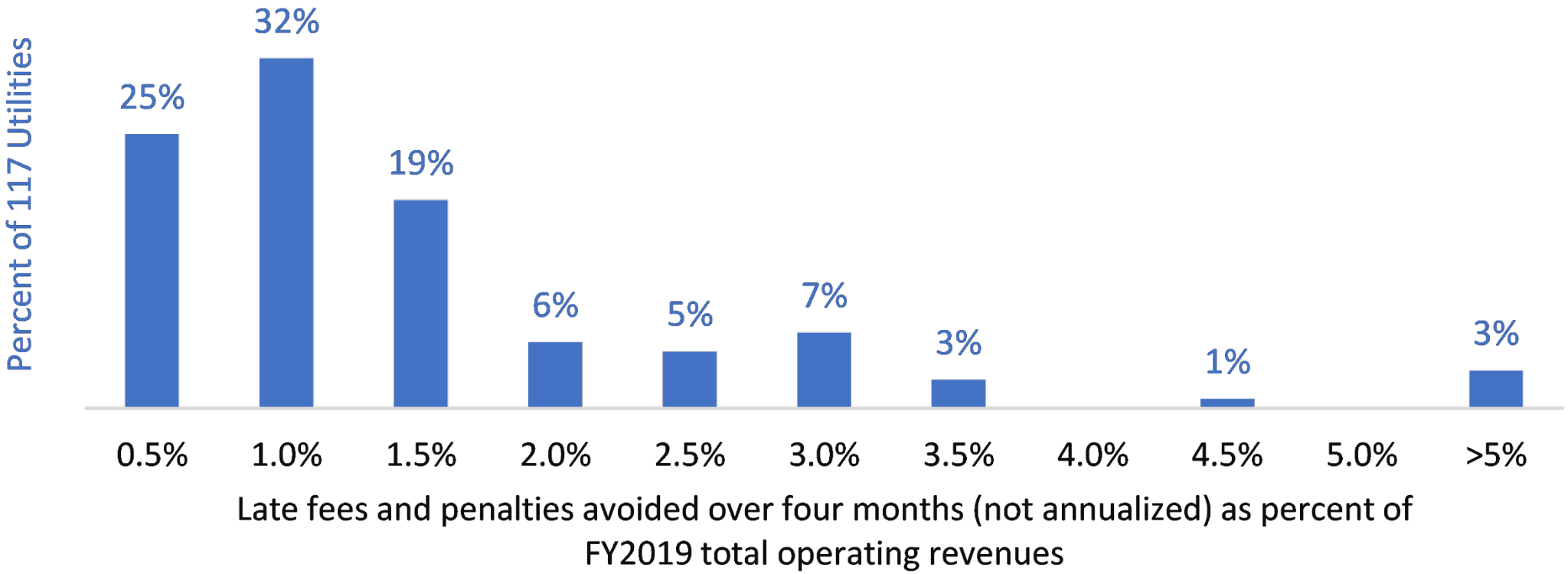


Assessing data from 150 local government utilities that reported >$0 in arrears as of July 31, 2020, and for which their FY2019 total operating revenues were known (source: Local Government Commission at the NC Department of State Treasurer).

Analysis of all North Carolina water/wastewater utilities that reported data in accordance with EO 124/142.

Forfeited Late Fees as % of Operating Revenues

Nearly 56% of utilities lost less than 1% of total operating revenues after four months of voiding late fees and penalties

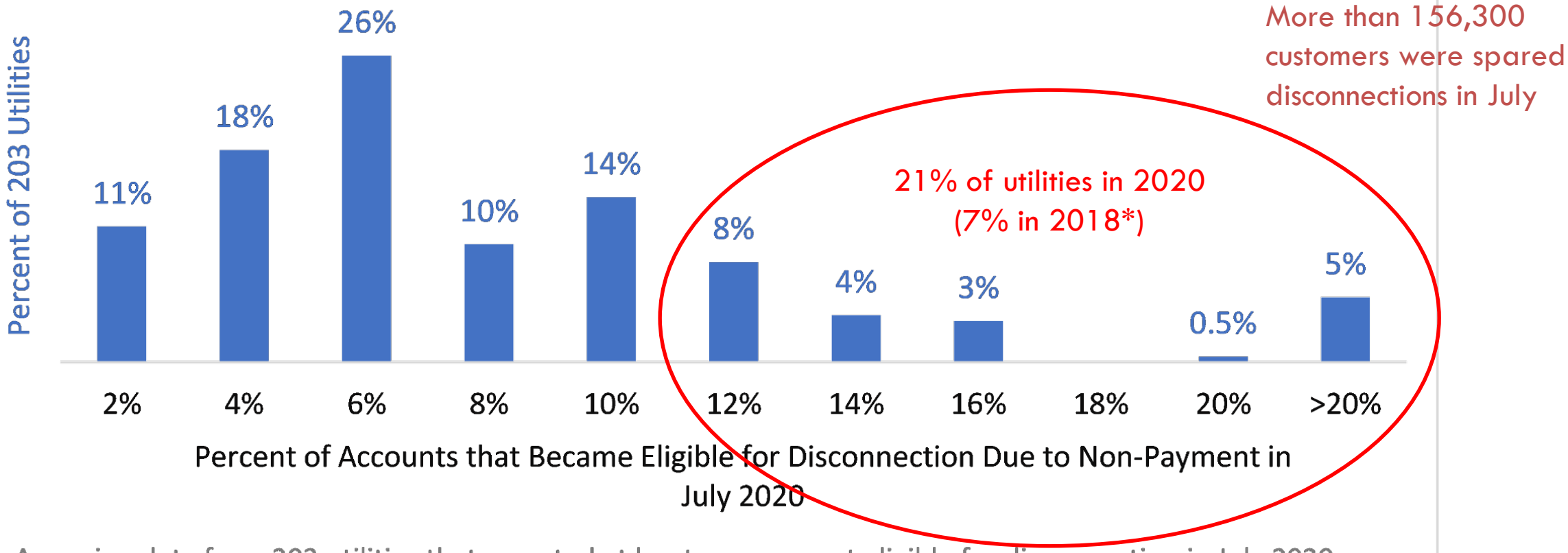


Assessing data from 117 local government utilities that reported >$0 late fees and penalties that were avoided in each month between April and July, 2020, and for which their FY2019 total operating revenues were known (source: Local Government Commission at the NC Department of State Treasurer).

Analysis of all North Carolina water/wastewater utilities that reported data in accordance with EO 124/142.

Accounts that were Eligible for Disconnection in July 2020

Nearly 22% of utilities could have disconnected more than 10% of their customer accounts



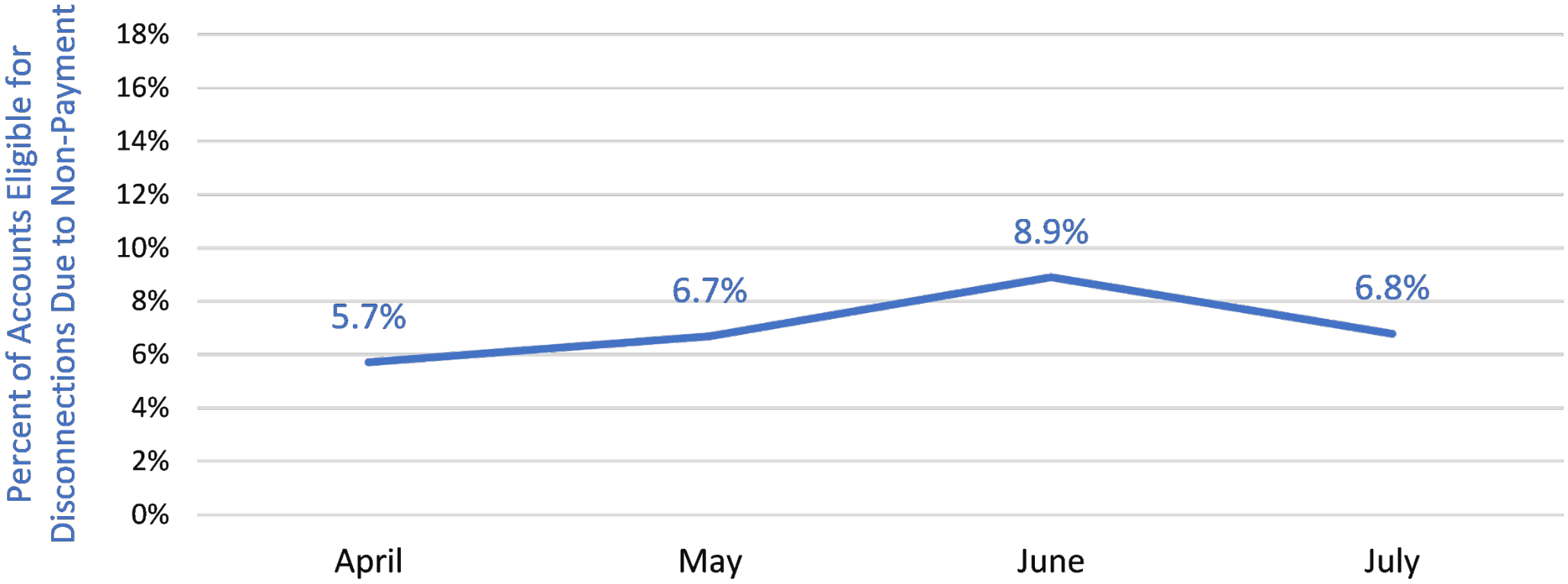
Assessing data from 203 utilities that reported at least one account eligible for disconnection in July 2020.

Analysis of all North Carolina water/wastewater utilities that reported data in accordance with EO 124/142.

* Based on a survey of 137 North Carolina utilities conducted in 2017-2018 by the UNC EFC and North Carolina League of Municipalities. Samples of utilities were different in both years.

Accounts that were Eligible for Disconnection (April – July 2020)

Number of customers that could have been disconnected for non-payments increased between April and June, but decreased in July



Assessing data from 155 utilities that reported at least one account that was eligible to be disconnected due to non-payment in each month between April and July.

Analysis of all North Carolina water/wastewater utilities that reported data in accordance with EO 124/142.

Blog Post Summaries

http://efc.web.unc.edu

Financial Implications of COVID-19 for Water and Wastewater Utilities

MARCH 26, 2020 / SHADI ESKAF / 4 COMMENTS

Municipal Finance in a Pandemic: How is the Market Responding?

APRIL 22, 2020 / AUSTIN THOMPSON / 0 COMMENTS

COVID-19 and North Carolina Utilities: Impact Assessment of the Coronavirus Pandemic on North Carolina Water and Wastewater Utilities

AUGUST 27, 2020 / ELSEMARIE MULLINS / 0 COMMENTS

Water System Reserves During the COVID-19 Pandemic

APRIL 16, 2020 / CHRISTIAN LUTZ / 0 COMMENTS

How are North Carolina Utilities Faring During the Pandemic? Four Key Insights from Survey Results

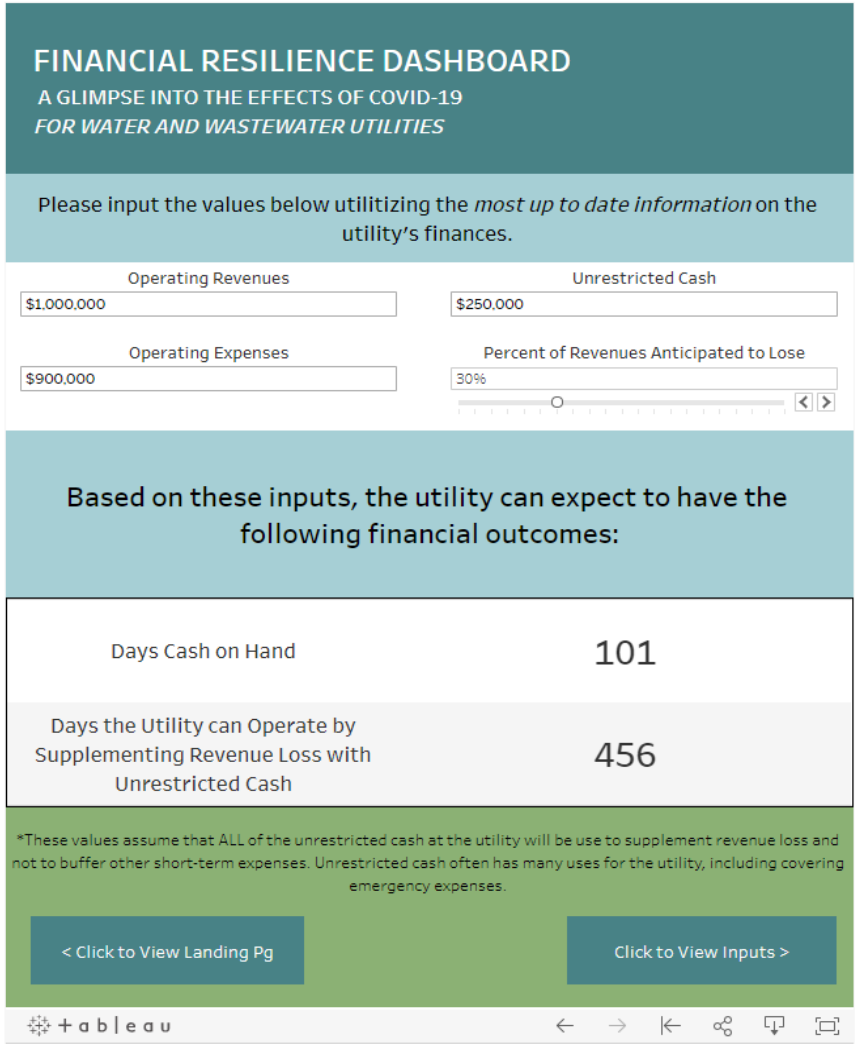
JUNE 18, 2020 / RADHIKA KATTULA / 0 COMMENTS

Financial resiliency tool and case study of COVID-19 impacts on a system

Elsemarie Mullins

Financial Resilience tool

- Use unrestricted cash to see how much revenue loss a system can withstand
- How long will your unrestricted cash and reserves offset different levels of revenue losses and still cover expenditures on O&M?



http://efc.sog.unc.edu/financialresiliencedashboard

For North Carolina:

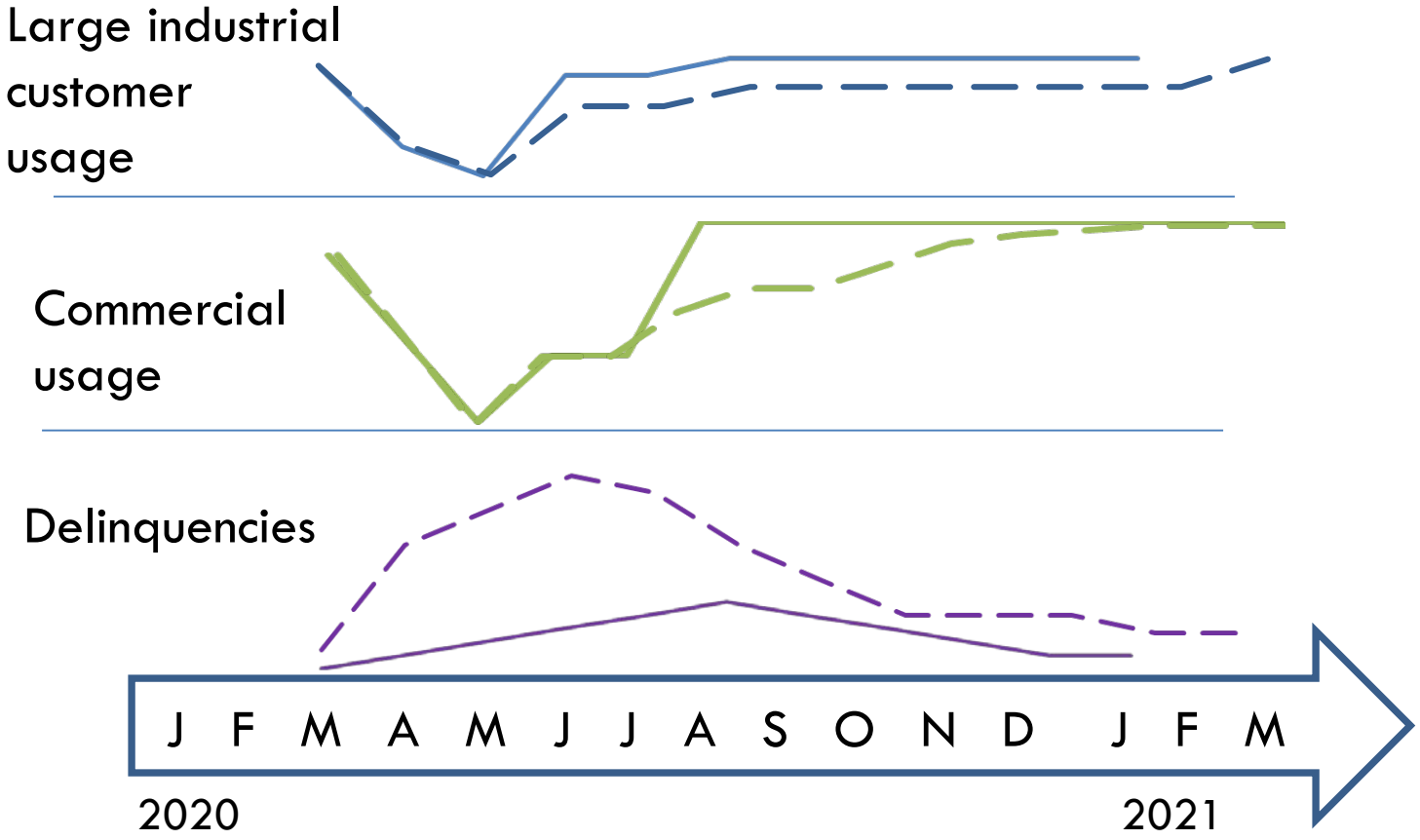
- Inserted data for North Carolina utilities
- 2019 Financials
- 10% decrease in revenue
- No depreciation

Number of Days Utility Can Cover Operations	Just Operating Expenses	Operating Expenses and Debt Service
<180	5%	7%
180-364	5%	9%
365 or more	91%	84%

Even including debt service coverage, most utilities have enough cash on hand to cover 10% revenue losses for more than 365 days (n=433).

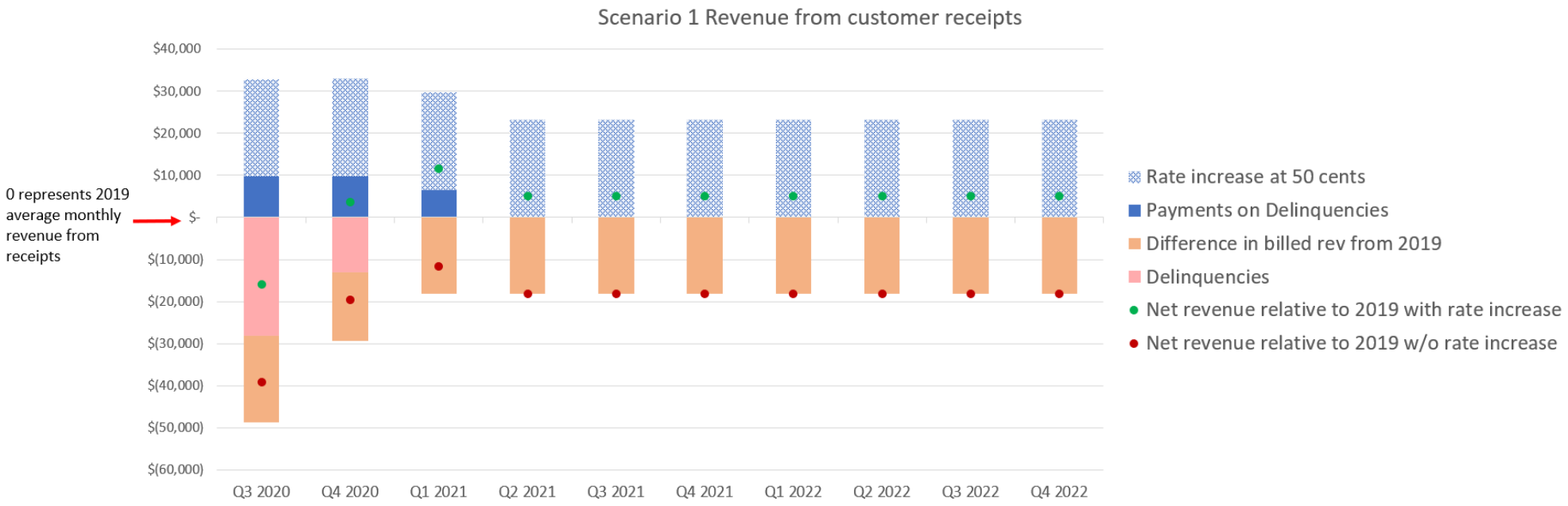
Case Study: Yadkin Valley Sewer Authority

Scenario 1 and 2 Inputs



Case Study: Yadkin Valley Sewer Authority

- Deficit going into FY21; tightened O&M budget
- 50c/Base, 75c/Volumetric rate increase



Other financial resilience highlights:

- Systems who rely on one big customer are more vulnerable to large decrease in revenue if that customers consumes less (universities, industrial plants, schools)
- Rate structures by customer class affects revenue when consumption shifts
- Donation programs can help with revenue recovery
- Wide range in interpretation of use of CARES funds
- Impact of delayed rate increases (or capital projects) will be seen in the years to come.

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