

2023

Alabama WATER & WASTEWATER RATES REPORT



SCHOOL OF
GOVERNMENT

Environmental
Finance Center



Alabama Department of Environmental Management



ABOUT THIS REPORT

This report was funded by the **Alabama Department of Environmental Management (ADEM)** and compiled by the **University of North Carolina at Chapel Hill School of Government Environmental Finance Center (EFC)**.

In addition to this report, there is an accompanying set of **tables** and standardized water and wastewater **rate information** for each participating utility. Furthermore, with the online, interactive **Rates Dashboard**, users can compare utilities against various attributes such as geographic location, system characteristics, and customer demographics, as well as financial indicators and benchmarks.

The 2023 Alabama Dashboard Report is named for the year it was released, however utility rates were gathered from 2022-2023. Financials were gathered for years 2020, 2021, and 2022 due to availability. In addition to discussions of data gathered for this report, some small analysis was conducted comparing the EFC 2019 Alabama Dashboard Report to the 2023 Alabama Dashboard Report.



CONTRIBUTORS TO THE REPORT

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4 Myths

About Water Pricing



1

MYTH: High Rates are Bad

FACT: Higher rates do not necessarily reflect poor or inefficient management. Some utilities may not be charging enough to properly maintain assets or have not re-examined rate structures.



2

MYTH: Comparing Rates is Simple

FACT: Rates alone do not tell the entire story. Rates should reflect the cost of providing service and can vary based on many factors. Comparing rates is really just a starting point for more analysis.



3

MYTH: Pricing is Simple

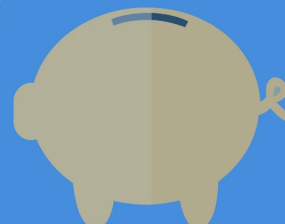
FACT: Utilities employ a variety of pricing structures and should be thoughtful in designing those structures to meet their needs, objectives, and priorities as they evolve over time.



4

MYTH: Promoting Conservation Requires Increasing Block Rate Structures

FACT: Many different types of pricing structures can be employed to encourage conservation, not just increasing block rate. Utilities should aim to focus on all aspects of pricing, not just rate structure design.



INTRODUCTION

Between March 2022 and September 2023 the EFC and ADEM conducted a survey of **500** rate-charging water and wastewater utilities in Alabama.

A total of **342** utilities participated by providing their rate schedules, yielding a response rate of **68.4%** of utilities. Utilities from all 67 counties in the state are represented in this survey group.

Water and wastewater rate setting is one of a local government's most important environmental and public health responsibilities. This report aims to provide utility professionals and public officials with an up-to-date, detailed survey of current statewide rate structures and trends, and thus assist in the protection of public health, improvement of economic development, and promotion of sustainability in Alabama.

Continue reading to find out how water and wastewater rates ultimately determine how much revenue a community has to maintain vital infrastructure.

BY THE NUMBERS



162 utilities serving

WATER AND WASTEWATER



167 utilities serving

WATER ONLY



13 utilities serving

WASTEWATER ONLY

44%

MUNICIPAL

4%

COUNTY/DISTRICT

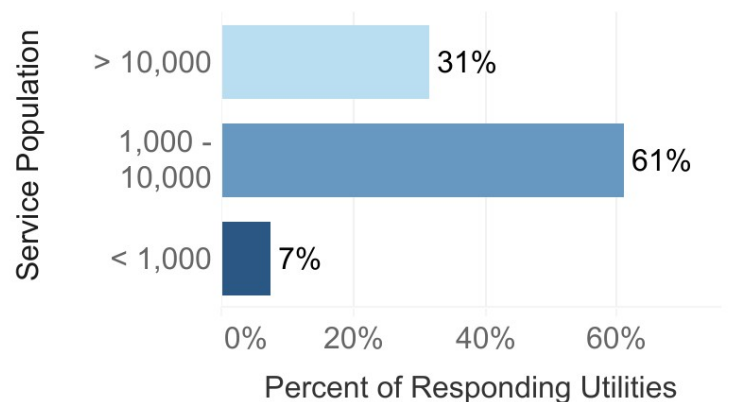
28%

NOT-FOR-PROFIT

24%

OTHER

Distribution of Utilities by Service Population (n=298*)



*Only 298 of the 342 total participating utilities had SDWIS data noting their service population.

WHAT DO RATE STRUCTURES LOOK LIKE?

Base Charges

Considerable variation exists in how utilities model rate structures, but almost all use a combination of a **base charge** and a **volumetric charge**.


Base charges do not vary from one billing period to the next regardless of consumption. These charges can be a constant, universal amount for all customers, or vary based on customer class (e.g. residential vs. commercial) or even meter size.

Base charges sometimes feature a **consumption allowance**, which is a volume of usage included in the base charge.

Larger water utilities tend to have **lower** base charges than smaller utilities, likely because they are able to spread **fixed costs** across a greater customer base. In Alabama, water bills follow this trend but sewer bills do not, as seen in the graph to the right.

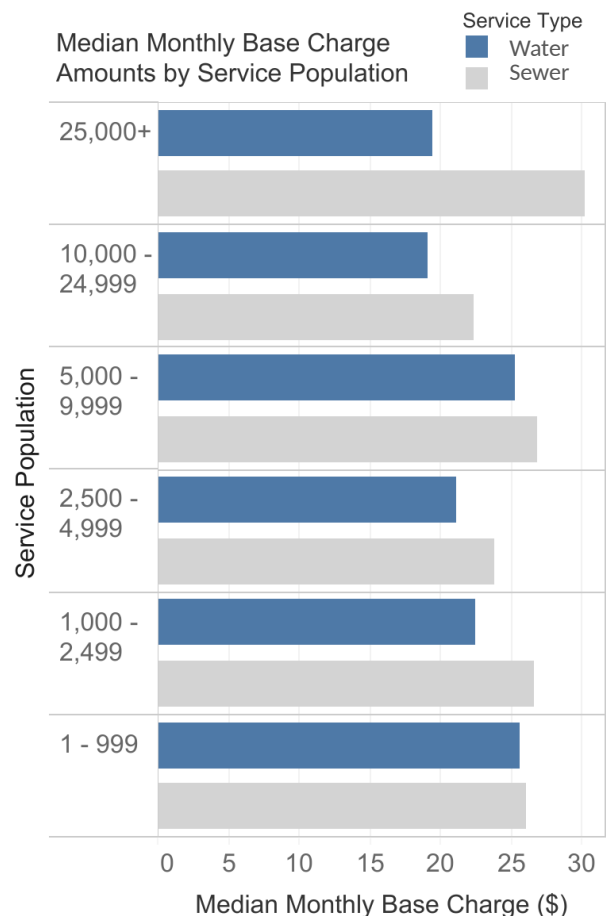
In Alabama, **87.5% of water rate structures** with base charges included a consumption allowance. The median monthly consumption allowance is **2,143 gallons**.

Median Monthly Base Charge

\$22.31 
WATER

\$20.05 
WASTEWATER

\$38.05 
WATER AND WASTEWATER



WHAT DO RATE STRUCTURES LOOK LIKE?

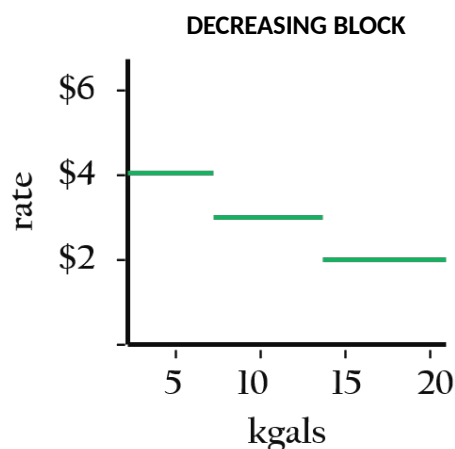
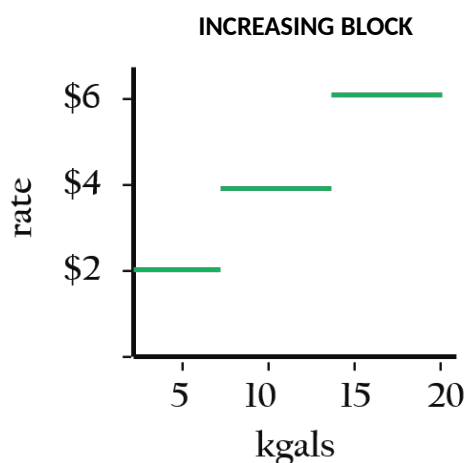
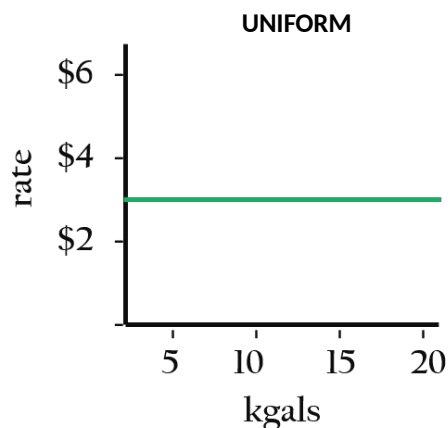
WAYS TO CHARGE FOR VOLUME

As mentioned, most rate structures are a combination of a fixed base charge plus a volumetric charge. Three common ways to charge for volume are uniform, increasing block, and decreasing block rates. The graphs to the right measure usage in 1,000 gallons or kgals.

With a **uniform rate** structure, the rate does not change as the customer consumes more.

In an **increasing block rate** structure, the rate increases as the customer uses more. This structure is often employed by utilities that want to encourage conservation by making higher volumes of consumption more expensive.

The rate per unit decreases with greater consumption in a **decreasing block** structure. This type of rate structure may be used to encourage economic development, but likely will not encourage conservation.



WHAT IS THE MOST COMMON VOLUMETRIC RATE STRUCTURE ?

In Alabama, the majority of residential water (55%) and wastewater (75%) rate structures use a **uniform rate** to charge for volume. Standardized to thousands of gallons, the median uniform rate is **\$6.22 for water** and **\$6.05 for wastewater** services.

WHAT ARE UTILITIES CHARGING?

Alabama's Average Bills

Residential (5,000 Gallons)

Commercial (50,000 Gallons)

\$40.60 | **\$487.00**

\$311.00 | **\$3,733.00**

MONTH

YEAR

MONTH

YEAR

WATER



WASTEWATER



\$39.40 | **\$472.50**

\$299.00 | **\$3,583.00**

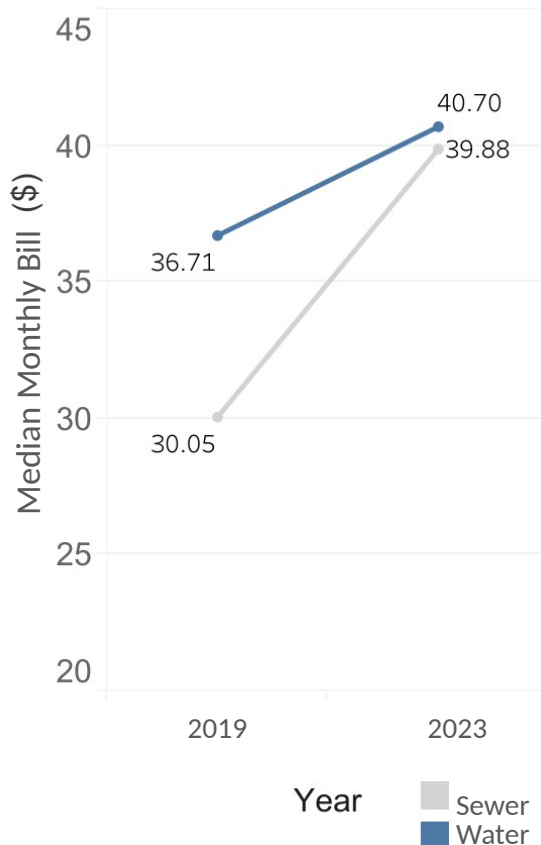
MONTH

YEAR

MONTH

YEAR

Median Monthly Inside* Bill
2019-2023 (5,000 gallons)



RANGE OF BILLS

The graph to the left shows the median monthly residential inside* bill for both water and wastewater at 5,000 gallons of consumption. During the years 2019 and 2023, median water and sewer rates increased steadily.

On average, water rates are 2.14 percent higher in 2023 than water rates during 2019.

*Inside bills are charged to customers inside the utility billing area. Typically there are more customers in this billing sector and the price of water services are cheaper due to proximity

HOW DO OUTSIDE RATES COMPARE?

Inside vs. Outside Rates

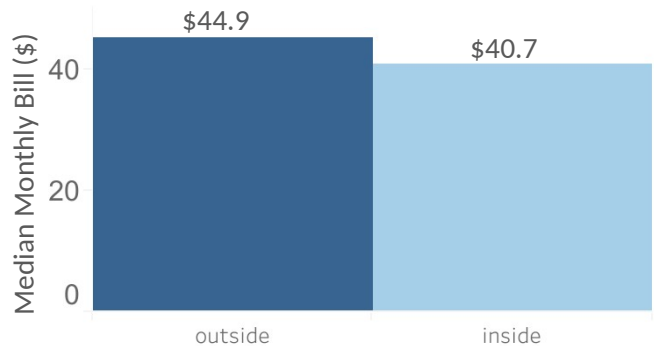
All of the charges presented above refer to what utilities charge customers that live within their political boundaries. Municipal utilities often serve customers who live outside of city limits, and a handful of other utilities specify geographical boundaries within their service areas and identify their customers as residing “inside” and “outside” those boundaries. In many cases, utilities charge different rates for customers living inside or outside the boundary.

In Alabama **14.1%** of water rate structures and **13.5%** of wastewater rate structures include outside rates.

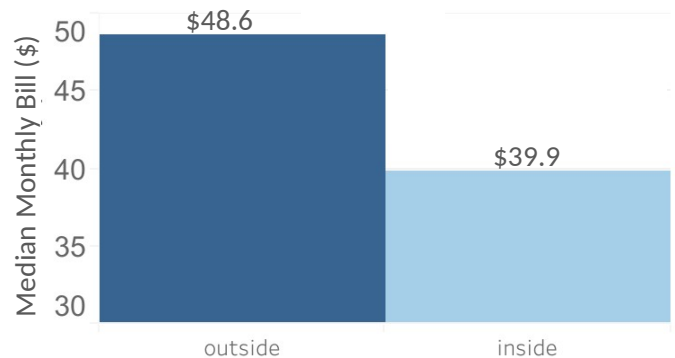
The median monthly outside bill at 5,000 gallons is **1.10 times** the inside bill for water and **1.22 times** the inside bill for wastewater.

The median combined water and wastewater bill at 5,000 gallons is **\$40.99** for customers inside service boundaries and **\$46.25** for those outside of service boundaries.

Median Monthly **Water** Bill
Inside vs. Outside 2023



Median Monthly **Wastewater** Bill
Inside vs. Outside 2023



The graph above shows that on average, outside water rates are about **10% greater** than inside water rates. Generally, outside water rates are greater than inside water rates because customers reside farther, on average, from the water and wastewater treatment plant than inside customers.

WHEN WERE RATES LAST CHANGED?

The **MAJORITY** of utilities have updated rates as of **AT LEAST 2019**.

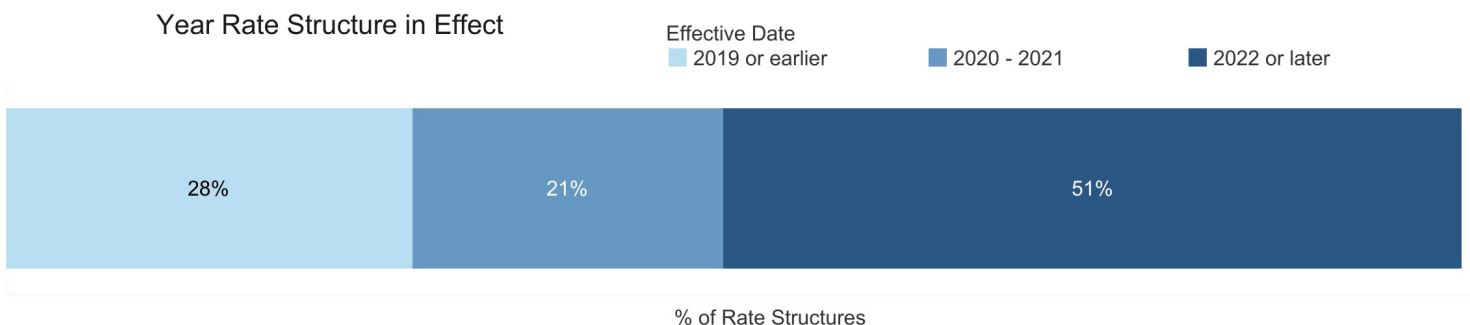
Only about **3 IN 10** utilities have not updated their rates since **2019** or earlier.



In Alabama **most utilities** are actively evaluating and modifying their rate structures every one to two years. The EFC recommends that utilities review their rates **at least every two years**, to keep pace with inflation. An annual or biennial review gives utilities the opportunity to evaluate if their current rates are sufficient to cover operating expenses and depreciation, not to mention savings goals for capital needs, emergencies, or other non-operating expenses.

Utilities that modestly raise rates at more frequent intervals might be able to accumulate more revenue over time than those that implement less frequent, but more drastic rate increases. Customers are also less likely to balk at more gradual, periodic rate increases than a large one-time rate increase.

The most recent year each sampled rate structure was put into effect is shown below.



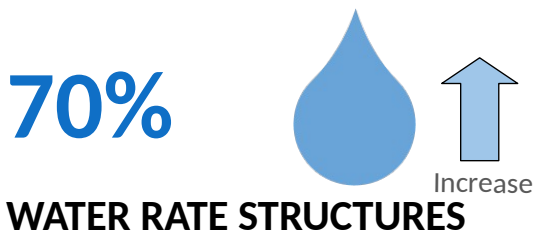
HOW HAVE RATES CHANGED?

As the costs of providing service rise, so should rates. Providing water and wastewater service is costly and infrastructure-intensive. Regular, predictable rate increases are common practice and recommended.

The **presence** of a change as well as the **level** of that change is important when assessing revenue needs for utilities. The figures below reflect changes in residential rates over the last fiscal year. Each figure reflects data from a cohort. The figures below only represent those rate structures present in both the 2019 and 2023 rates surveys.

Percent of Rate Structures Experiencing Increased Residential Rates (2019 Dashboard Rates vs 2023 Dashboard Rates)

Water N=329 Rate Structures, Wastewater N=175 Rate Structures



Given that in most cases bills are quite low, a large percentage rate increase may not translate to a large dollar amount increase. The median bill increase from 2019 to 2023 at 5,000 gallons for rate structures experiencing raises was \$3.69 for water and \$5.40 for wastewater.

Of Those Rate Structures with Increased Rates Since 2019 How Much Did They Increase?

Median Increase Average Increase

4.3% **5.7%**



WATER

5.2% **7.3%**



WASTEWATER

DO PRICES REFLECT THE TRUE COST OF SERVICE?

Utilities sometimes fall into the trap of pricing services based on what their customers have always paid, rather than focusing on the bottom line of their balance sheets. In 2020, 2021, and 2022, financials were available for **116 utilities** out of the total 342 utilities (34%). Let's start with some essential definitions:

WHAT IS OPERATING RATIO?

Operating ratio, also known as cost recovery ratio, is a financial benchmark that determines if an entity is operating at a loss, gain, or just breaking even. The ratio is simply the division of operating revenues by operating expenses, which can include or exclude depreciation. A utility's operating ratio must be *at least 1.0* to break even.

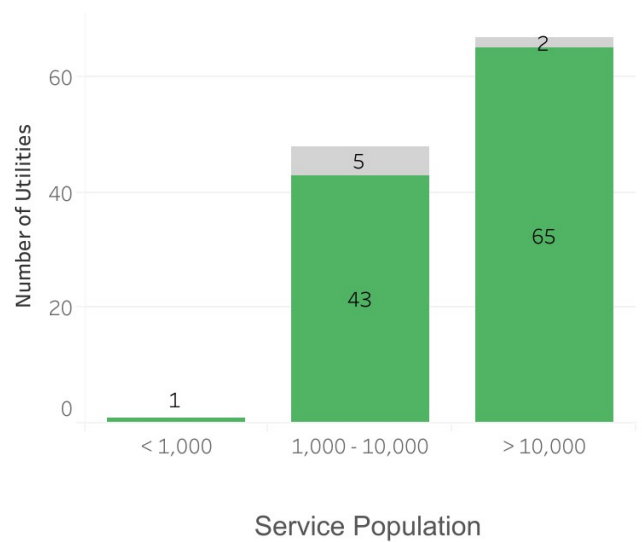
WHY INCLUDE DEPRECIATION?

Whenever possible, depreciation should be included in operating expenses to account for the inevitable cost of replacing equipment and infrastructure at the end of its expected useful life. Depreciation allows costs to be figuratively spread out over time, avoiding a sudden, large expense when the time comes to replace assets.

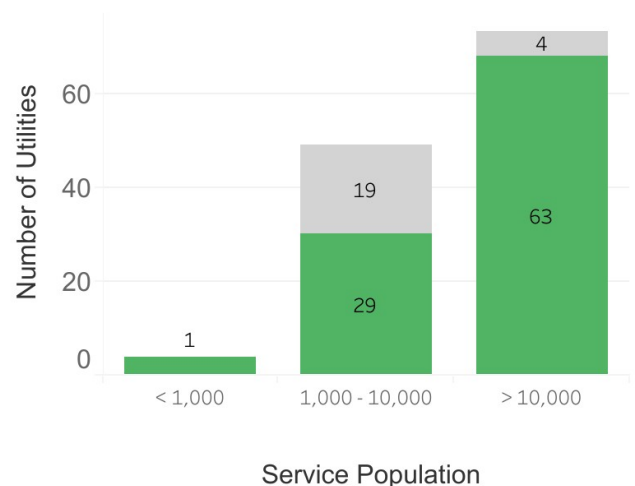
Consider the differences in the graphs below with and without depreciation factored into operating expenses.

- Operating Revenue < Operating Expense
- Operating Revenue >= Operating Expense

Proportion of Unique Utilities with Operating Ratio >= 1, Excluding Depreciation (n = 116)



Proportion of Unique Utilities with Operating Ratio >= 1, Including Depreciation (n = 116 utilities)



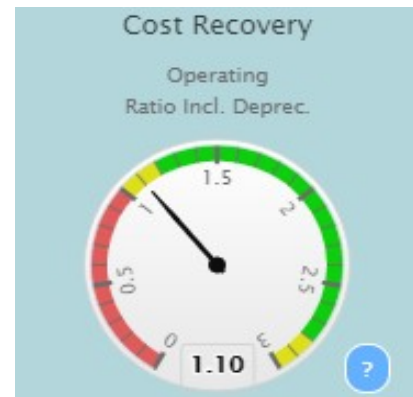
DO PRICES REFLECT THE TRUE COST OF SERVICE?

Without including depreciation, **106 out of 116 (91%)** utilities for which depreciation data was available (34%) generated enough revenue to recover operating costs (operating ratio of 1.0 or greater). Of the utilities that were not able to recover expenses, all 5 serve 10,000 or fewer people.

With depreciation included, **90 of the 116 (78%)** utilities generated enough revenue to cover operating expenses. All utilities face the issue of generating sufficient revenue to pay for the high fixed costs of providing safe and reliable services. However, smaller utilities must spread out those high fixed costs over a smaller customer base. 19 out of 23 of the utilities with an operating ratio of less than 1.0 serve fewer than 10,000 people.

WHAT IS CONSIDERED HEALTHY?

The Cost Recovery dial on the [Rates Dashboard](#) uses red, yellow, and green colored bands to give the viewer a simplified idea of the health of the utility's operating ratio at a glance.



While it is clear that being “in the red” is not a good position, there is no universal standard for what constitutes a healthy operating ratio beyond 1.0. Generally, as the Cost Recovery dial shows in the green band above, an operating ratio including depreciation of **at least 1.2** allows utilities to account for day-to-day operations and maintenance expenses, as well as for future capital costs.

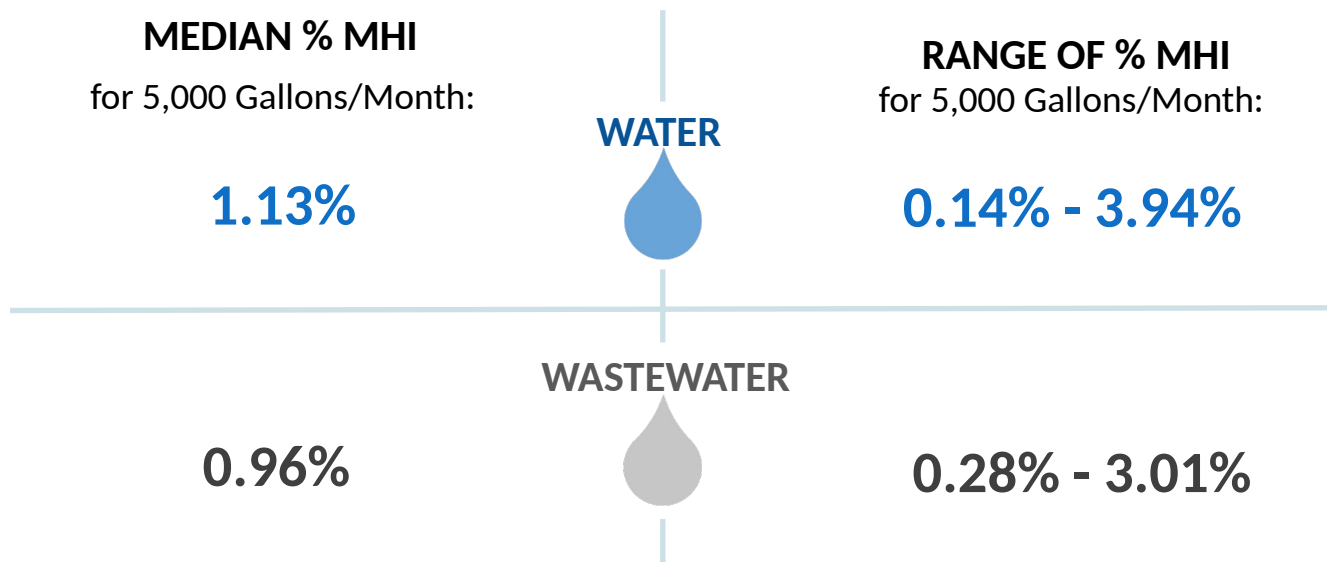
Just 45.31% of utilities have an operating ratio including depreciation of 1.2 or greater.

ADDITIONAL FINANCIAL DATA

The 2023 [Rates Dashboard](#) features more than 10 financial metrics, including **days cash on hand, quick ratio, asset depreciation**, and more!

HOW AFFORDABLE ARE RESIDENTIAL BILLS?

Assessing rate affordability remains a challenge, because there is no one true, universal measure of affordability. The most commonly used indicator, **Percent Median Household Income**, or “**Percent MHI**,” calculates how a year’s worth of water and wastewater bills (~5,000 gallons/month) compares to the MHI of the community served by the utility. MHI is provided by the most recent 5-year estimates of the US Census Bureau’s American Community Survey.



As all communities have a range of income brackets, it is important to keep in mind that what may seem like a small percentage of the community’s MHI can have a proportionally larger impact on lower-income populations. This includes households making less than or equal to the **federal poverty guideline, \$30,000 in 2024 for a family of four**, according to the US Department of Health and Human Services. In Alabama, the 75th percentile water bill and wastewater bill equates to about **1.41% income for water and 1.15% for wastewater**, respectively, at the federal poverty guideline.

As all communities have a range of income brackets, it is important to keep in mind that what may seem like a small percentage of the community’s MHI can have a proportionally larger impact on lower-income populations. For a more in-depth look at the affordability of water and wastewater services in a community, the EFC offers the free, Excel-based [Residential Rates Affordability Assessment Tool](#), available for download on our website.

FURTHER RESOURCES

All of the following free resources are available at:

efc.sog.unc.edu

2023 Water and Wastewater Rates Dashboard

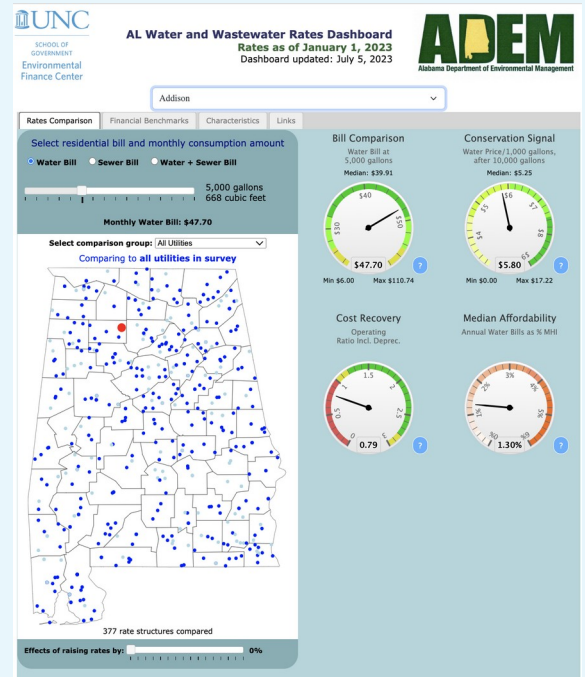
Downloadable tables of rates and rate structures for residential, commercial, and irrigation customer classes for water and wastewater

Tableau software tool with standardized [rate sheets](#) for all utilities in the survey

Need Technical Assistance?

Fill out the form below:

<https://efc.sog.unc.edu/technical-assistance/>



QUESTIONS? FEEDBACK?



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ACKNOWLEDGEMENTS



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