

THE PRICE ON OUR TAP: Addressing Water and Wastewater Affordability in Mississippi

POLICY BRIEF BY **MAYUKH DATTA**
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EXECUTIVE SUMMARY

Access to clean drinking water and proper sanitation is a fundamental human right. However, as the price of water has risen by nearly 300 percent throughout Mississippi and the rest of the United States over the past 20 years. Mississippi’s legislators have failed to provide affordable access to clean water to the state’s most vulnerable residents. In Jackson, where more than 80 percent of the population is Black, thousands of residents face water bills that are close to \$1,000 per month—more than 10 times the national average (Peters 2022). This issue is not particular to Jackson: Households throughout the state, especially those in rural and low-income communities, face water bills they cannot afford. And, unable to pay these bills, thousands of Mississippians have been cut off from their municipal water supply, especially in the past five years (Flowers 2021). Researchers and policymakers in Mississippi have been unable to fully study the true extent of water poverty—the inability of a household to afford its water bill—due to a lack of publicly available data on water rates within the state. Even so, activists believe that the root cause of water poverty in Mississippi and throughout the nation is the systematic underfunding of water infrastructure both at the state and federal levels (Flowers 2021; Greer 2020). Mississippi policymakers have sought to improve water infrastructure and address high water prices by privatizing water utilities throughout the state. However, households that have received water services from private water utilities have paid nearly 59 percent more for water than those receiving water from public water utilities. Private water utilities have also been shown to have higher rates of water shutoffs and environmental violations when compared to publicly owned water utilities (Homsy and Warner 2020). This policy brief offers an insight into how policymakers can understand the true extent of water affordability in Mississippi, and outlines solutions that the state legislature can enact to increase funding for the state’s water infrastructure.

First, the Mississippi Public Service Commission and the Mississippi Department of Health must regulate small water utilities within the state and require them to submit data on water affordability and water rates through the annual consumer confidence reporting system. Second, the Mississippi Department of Health must provide technical assistance and targeted outreach for water utilities in rural, low-income, or underserved communities that lack the capacity to apply for the State Revolving Fund Program, which is the primary mechanism through which water utilities finance upgrades to their water infrastructure. And third, the Mississippi Department of Health must ensure that the newly established Low-Income Water Assistance Program is distributed equitably across the state.



INTRODUCTION

Access to clean and affordable water and sewer services is a human right: Clean water and proper sanitation systems ensure the health and well-being of communities.

While 40 countries and the United Nations have deemed access to clean water a human right, the United States has not (Palmer 2016). The price of water is rising rapidly, disproportionately affecting low-income communities (Teodoro 2019). Between 2000 and 2016, the price of water increased by nearly 300 percent and represented the largest price increase of any other household utilities (Broaddus and Kane 2016). At the same time, water infrastructure in America has been severely underfunded. According to the EPA, water utilities around the US require nearly \$800 million in infrastructure investments to ensure that they can provide safe, reliable, and affordable water to their residents (EPA 2019).

“Access to clean and affordable water and sewer services is a human right: Clean water and proper sanitation systems ensure the health and well-being of communities.”

This challenge is especially prevalent in Mississippi. Recently, the city of Jackson came under scrutiny as the city’s low-income residents were unable to afford their high water bills, leading the city’s water utility to cut off water supply to hundreds of low-income residents who could not pay (R. Adams 2019). During a winter storm in early 2021, frozen and busted pipes further damaged the city’s aging water infrastructure and forced water shutoffs to thousands of residents in the city (Fentress and Fausset 2021). Months after the winter storm, nearly 70 percent of Jackson’s residents continue to face boil water notices, which are city-wide notices alerting residents that they should boil their water due to concerns about water contamination, and high water and wastewater bills (Fentress and Fausset 2021). This issue does not only affect urban centers such as Jackson: Smaller towns and rural communities throughout Mississippi also face high water bills and environmental concerns, such as contamination from lead and other pollutants.

A household’s inability to pay the water bills is known as water poverty. Low-income and minority communities in Mississippi often face a significantly higher risk of water poverty than upper-class and predominantly white communities. Controlling for income, Black households throughout the United States are three times more likely to



face water poverty and nearly twice as likely to face water shutoffs due to delinquent water bills (NRDC 2019). It is therefore critical to explore what factors—such as race, income, or geography—impact water poverty in Mississippi. This policy brief outlines the extent of water poverty in Mississippi and offers policy recommendations to solve this crisis.

MEASURING WATER AFFORDABILITY IN THE UNITED STATES

The Environmental Protection Agency considers a household's water bill unaffordable if it costs more than 4.5 percent of the median household income (MHI) within the household's census tract (Mack and Warese 2017; Miroso 2015). However, because median measurements do not consider households at the extreme ends of the income distribution, recent studies have criticized the EPA's 4.5 percent affordability metric as an inaccurate representation of water affordability in low-to-moderate income (LMI) or disadvantaged households (Baird 2020; Cardoso and Wichman 2020; Mack and Wrase 2017). Additionally, the current 4.5 percent affordability metric takes a simplistic view of water affordability, viewing this multifaceted issue through the binary lens of "affordable" vs. "unaffordable." For instance, a household with a water affordability rate of 5 percent and a household with a rate of 15 percent are both considered "unaffordable" and, consequently, receive similar policy considerations (Baird 2020). According to water affordability advocate Catherine Flowers, utility managers across the states of Mississippi and Alabama often use the 4.5 percent MHI standard as an excuse not to address high water burdens in their communities, even if those in the community are unable to pay their water bills (Flowers 2022). While there are clear flaws in the way the US government measures water affordability, the root cause of water poverty is directly linked to federal financing of water infrastructure.

HISTORY OF WATER INFRASTRUCTURE FINANCING IN THE US

Federal funding of water infrastructure has decreased by nearly 75 percent since the early 1970s (Greer 2020). According to the Environmental Protection Agency's most recent infrastructure needs assessment, Congress needs to invest an estimated \$470 billion to upgrade the country's water and wastewater infrastructure (EPA 2015). Without this critical funding, the cost of upgrading water infrastructure has been passed to state and local governments. While some municipalities have been able to make necessary upgrades to their water and wastewater infrastructure, many cash-strapped communities continue to rely on aging water and wastewater delivery



systems—e.g., aging meters, pumps, and pipes (Teodoro 2019). Therefore, to understand water poverty throughout Mississippi, it is necessary to understand the history of water infrastructure financing in the United States.

While the federal government's involvement in financing local water infrastructure goes back to the New Deal, the US did not begin to focus on water pollution and affordability in its regulation and financing of local water infrastructure until the 1960s (Gerlak 2006). Concerned with worsening water quality standards, the Johnson administration passed a series of laws to strengthen the nation's water quality standards. Recognizing that the financial burden of meeting national standards would disproportionately affect small water utilities, Congress passed the Water Resources Research Act of 1964, charging a college or university of each state to conduct research on water resources (Gerlak 2006). Most states focused on both water quality and financing research. However, for unspecified reasons, Mississippi opted out of collecting any data on water affordability and financing (Barefield 2021). As federal and state water quality standards improved, water utilities needed to upgrade their water infrastructure to meet these updated water quality mandates, and most water utilities within the state passed down the cost of infrastructure upgrades to their customers (Barefield 2021). The lack of data related to affordability in Mississippi meant that the state's policymakers and water utilities were inadequately prepared to address the affordability challenges that resulted from utilities needing to upgrade their water infrastructure (Barefield 2021). Today, states that did not opt out of collecting rate and affordability data on water utilities (for instance, Alabama) voluntarily report utility rate and affordability data to sources such as the Environmental Finance Center at the University of North Carolina Chapel Hill (Barefield 2021; EFC 2022). For Mississippi, statewide data on water and wastewater rates remains sparse.

In 1965, the Johnson administration signed into law the Water Quality Act of 1965, requiring water utilities throughout the country to meet certain water quality standards (Ramseur and Tiemann 2019; Gerlak 2006). These standards were not as stringent as those that followed in the Clean Water Act (CWA) of 1972 or Safe Drinking Water Act (SDWA) of 1974. Additionally, the Water Quality Act of 1965 was an unfunded mandate that left states and municipalities with no way of paying for the construction required to meet the water quality standards set forth in the law (Gerlak 2006; Ramseur and Tiemann 2019). States set up to regularly report data on water and wastewater affordability, such as Alabama, Minnesota, and Oregon, were better prepared to enforce the standards set forth by the Water Quality Act of 1965. However, because Mississippi opted out of the 1964 Water Resources Research Act, the nonexistent data collection infrastructure meant that data on water utility affordability, especially in low-income and minority communities, negatively impacted water systems across the state. Without comprehensive data, water utility companies continue to provide unaffordable services to their customers while also failing to meet national regulatory standards (Barefield 2021; Cardoso and Wichman 2020; Teodoro 2022).



Another reason that water and wastewater data is not available for states like Mississippi is that municipal and cooperative water utilities are largely unregulated by the state's Public Service Commission (PSC), the regulatory body for all utilities in Mississippi (Mississippi Code Title 77 2010). Nearly 90 percent of Mississippi's 1,600 water utilities are either municipal or cooperatively owned (Barefield 2021). These utility structures are not regulated by the state's PSC, and therefore not required to report data on rate structure or affordability (Mississippi Code Title 77 2010). If 90 percent of the state's water utilities are not required to report this data, a void emerges in the place of important data that could be used to set equitable water cost structures. States that do regulate municipal and cooperative water utilities, such as Minnesota and Oregon, have collected robust data on their utilities' rate structures and have some of the lowest water prices in the country (Teodoro 2022).

During the 1960s, Congress built upon the Johnson administration's policies to reduce pollution in America's water systems, spurred on by environmental reports on high levels of pollution in the Hudson River and the Chesapeake Bay as well as the infamous 1969 fire caused by an oil spill on the Cuyahoga River. Congress passed the Clean Water Act (CWA) in 1972 and the Safe Drinking Water Act (SDWA) in 1974, which set federal water quality standards for both household wastewater and drinking water. Furthermore, through the CWA and SDWA, the federal government established special project grants that financed local and regional water infrastructure projects (Title II of the P.L. 92-500). Public Law 92-500 allowed the federal government to directly allot money to states and cities for building and improving water infrastructure to meet federal pollution standards set within the CWA and SDWA (Ramseur and Tiemann 2019). However, as old water treatment systems began to break down in the 1980s, Congress realized that it would need to make a more substantial investment into the CWA and SDWA construction grants program to upgrade the nation's water treatment infrastructure.

In the 1980s, neoliberal ideology gained a foothold in policymaking across the country, and state and federal governments began to implement austerity measures within their water and wastewater treatment systems (Gerlak 2006). The federal financing of local water infrastructure has also been subject to historical trends of austerity. Around this time, industries that relied heavily on water systems pressured the Reagan administration to roll back environmental regulations (Gerlak 2006). Sympathetic to the private sector and industrial business needs—and with the hope of reducing federal spending—the Reagan administration passed amendments to the Clean Water Act in 1987, phasing out construction grants and authorizing the EPA to create a revolving loan fund known as the State Revolving Loan Fund, or SRLF (Greer, 2020; Gerlak, 2006; Ramseur and Tiemann, 2019). Under the new program, federal loans would be provided as seed money for state-administered loans to build sewage treatment plants and,



eventually, other water quality projects. Cities, in turn, would repay loans to the state, enabling a phaseout of direct federal funding while the state built up a source of capital for future investments (Ramseur and Tiemann 2019).

Critically, however, the introduction of the SRLF reduced the federal government's contribution to water infrastructure financing from 75 percent before the Reagan administration to less than 50 percent after the shift from grants to loans (Ramseur and Tiemann 2019).

FIGURE 1: FEDERAL SPENDING ON WATER AND WASTEWATER UTILITY INFRASTRUCTURE DECREASED ON THE 1980S AND AFTER 2000
(REPORTED IN BILLIONS OF 2014 DOLLARS)



Source: Congressional Budget Office (March 2015), *Public Spending on Transportation and Water Infrastructure, 1956 to 2014*.

Given the decline of federal support for water infrastructure, states and municipalities turned toward the private sector and the financial market. Today, more than 90 percent of water utilities in the country rely on financial markets, such as the bond market, or have sought to privatize their services (Greer 2020). The decrease in federal support, along with the need for states and cities to finance their own water infrastructure to meet pollution standards, meant that LMI and disadvantaged communities often did not have the sufficient funds to upgrade their water infrastructure and were often incapable of repaying their SRLF loans (Miroso 2015; Gerlak 2006; Ramseur and Tiemann 2019). The lack of water infrastructure has meant that LMI and disadvantaged communities often face higher rates of shutoffs, higher rates of water pollution, and higher rates of water, ground, and air pollution (Flowers 2020).

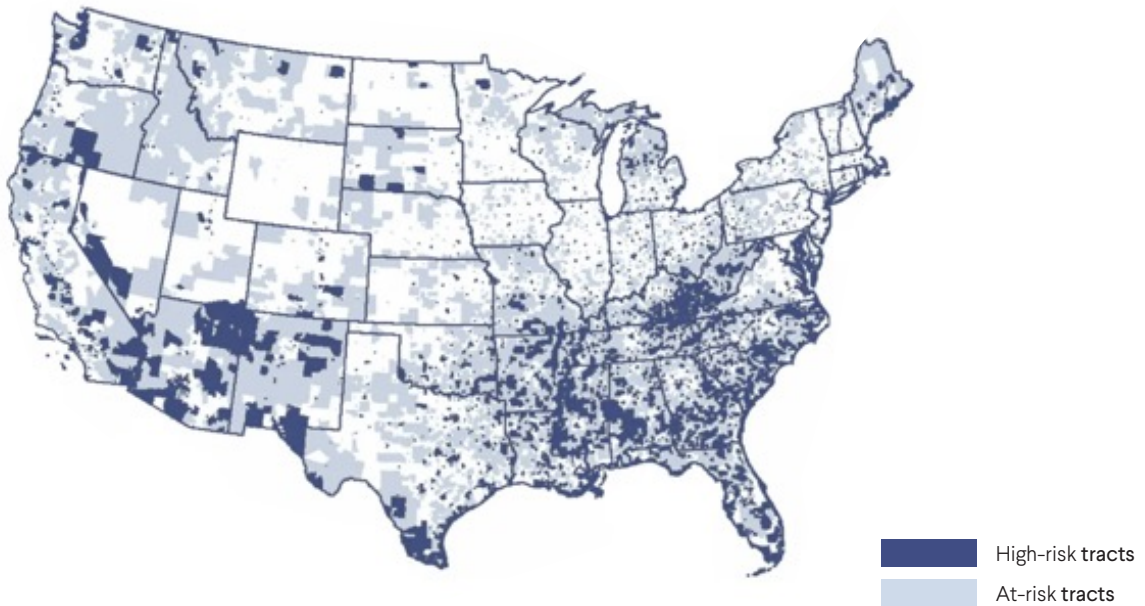
“Today, more than 90 percent of water utilities in the country rely on financial markets, such as the bond market, or have sought to privatize their services.”

WATER POVERTY IN MISSISSIPPI AND THE SOUTH

The lack of water infrastructure—and subsequent water poverty—has led to severe health impacts in LMI and minority communities. The most notable example in the United States is the crisis in Flint, MI. Since early 2014, the debt faced by Flint’s local water utility to the State of Michigan led not only to massive shutoffs, but also to infrastructure austerity measures that caused mass lead poisoning in the city’s predominantly low- to moderate-income and minority communities (Raganathan 2016; Clark 2021; Murthy 2016). Today, thousands of households throughout the city continue to suffer high rates of lead pollution and water shutoffs. In the Southeastern US, Jackson, MS, and Lowndes County, AL, are the two most notable examples of places with health effects caused by declining water infrastructure and households’ inability to afford water infrastructure upgrades. In Lowndes County, the lack of septic tank infrastructure has led to residents dumping raw sewage in their front yards, and the resulting infiltration of raw sewage into drinking water systems has led to higher-than-average infection rates of hookworm within the community (Flowers 2020; Maxcy-Brown 2020; Rangnathan 2021).

In Mississippi, the issue of water poverty is front and center in the capitol city of Jackson. More than 30 percent of the city's residents are unable to afford their water bills, and nearly 60 percent of these residents are either Black or Latinx (Vicory 2021). The Jackson Water Treatment System is unable to meet national environmental standards and yearly maintenance needs without raising the water price for residents, causing widespread water poverty in the city. Last spring, when a winter storm shut down the water treatment plant for more than 20 days, the city shut off water connections for hundreds of residents, and many residents continue to face unaffordable water prices (Ladd 2021).

FIGURE 2: MORE THAN A THIRD OF AMERICANS ARE AT RISK OF LOSING AFFORDABLE DRINKING WATER



Source: Mack and Wrase 2017

In addition to age-related wear and tear, the costs that water providers incur due to the growing pressures of climate change present challenges for water affordability. Wastewater systems endure an increased frequency and intensity of weather events because of climate change, which causes costly strain to these systems (Mack and Wrase 2017; Jones and Moulton 2016; Smith and Cooley 2012). While providers cannot postpone costs incurred through federal mandate compliance, those incurred via climate change-related damage may not be as highly prioritized and deferred in favor of keeping costs low to both providers and consumers. The effects of climate change and water unaffordability are not experienced equally by all communities but are instead exacerbated by existing societal inequalities, meaning marginalized groups suffer disproportionately from the effects of both climate change and rising water bills (Schmeltz 2021; Kaisera and Kronsellb 2014).

Communities are affected differently by climate change due to diverse social and economic factors, rather than simply different levels of exposure to climate hazards. For example, income and resultant access to resources affect a group's ability to prepare for, protect themselves from, and recover from the hazards of climate change, such as hurricanes, tornados, and droughts.

Those with greater resources can secure higher-quality housing that is less exposed to climate hazards and more durable in the event of storms, and can recover lost housing and other resources more quickly (Thomas et al. 2019). Furthermore, resource access influences a group's ability to adapt to a changing climate. The unequal distribution of economic, institutional, and political resources enables highly resourced individuals and groups to adapt more readily to changing climatic conditions compared to those with fewer resources (Thomas et al. 2019). In the US, structural racism and the inequities that result increase the vulnerability of non-white individuals to the effects of climate change.

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Alabama and the broader Southeast are under increased pressure to become resilient to climate change but often lack the necessary funding. The coastal population in Alabama is especially vulnerable due to threats from sea level rise and increased frequency of hurricanes. During 2005, Hurricane Katrina caused more than 1,800 deaths and eroded more than 200 square miles of coastal land in Louisiana and Mississippi. Droughts can also affect water systems in the Southeast. In 2007, droughts caused such a drastic water shortage in Georgia that the state's agricultural industry saw a nearly \$340 million loss due to crop failures (Adams et al. 1999). At the opposite extreme, the 2021 winter storm in Jackson, Mississippi, caused the city's water treatment plant to shut down water services to thousands of residents within the city, and many of these residents remained without water for several weeks after the storm (Lazrus et al. 2021). From droughts to hurricanes to winter storms, it is evident that water utilities will continue to come under significant and heightened pressure as climate-induced disasters increasingly affect the Southeast.



POLICY ANALYSIS: THE COMMODIFICATION OF WATER IN MISSISSIPPI

The change in federal funding through the SRLF from grants to loans has meant that states have had to depend on private financial institutions for support. States have turned to banks, private water utilities, and financial intermediaries such as consulting firms (Greer 2020). However, due to predatory fees and inefficiencies, reliance upon these private financial institutions and firms has resulted in local and state municipalities falling further into debt.

Austerity measures during the Reagan administration and the introduction of the SRLF led to decreased federal funding for water infrastructure across the country (Greer 2020). As a result, local water utilities have had to find other ways to finance upgrades to their water systems. One avenue for ensuring financial sustainability has been for water utilities throughout the country to embrace the neoliberal ideology of privatization. Privatization is the theory that private entities are more economically efficient at providing goods and services because they are driven by a purely profit or efficiency motive (Banerji and Gamble 2017). However, the privatization of public goods—in this case, water—has often left communities with higher water rates, worse service, and job losses (Food and Water Watch 2015). Throughout the country, households that have received water services from private water utilities have paid nearly 59 percent more for water than those receiving water from public water utilities. Private water utilities have higher rates of water shutoffs and higher rates of environmental violations when compared to publicly owned water utilities (Homsy and Warner 2020).

In Mississippi, policymakers and city leaders have sought to privatize water utilities as an option to fix the state's crumbling water infrastructure. In 2012, the city of Jackson entered into a \$90 million contract with private engineering firm Siemens to upgrade the city's water and sewer piping system and to install a more efficient water-sewer billing system (Bayram 2020). The project promised nearly \$120 million in savings, enough to finance the contract with Siemens. However, in subsequent years, residents in Jackson reported broken water and sewer lines. Soon after Siemens installed the

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new billing systems, Jackson residents also reported not receiving their water bill, sometimes for months at a time (Bayram 2020). The contract with Siemens ended up costing Jackson more than \$43 million in delinquent bills, in addition to the initial \$90 million used for the seed funding. Ultimately, Jackson's efforts to privatize its water billing system exacerbated the water affordability challenges faced by the community and resulted in steep losses for the local government.

There are also concerns that existing federal funding of water infrastructure through state revolving funds is not equitably distributed to the water utilities that need them the most. In Mississippi, only 7 percent of eligible water utilities apply for funding through the state revolving fund, and only 10 percent of these utilities received any funding through the state revolving fund program between 2012 and 2020 (Hansen et al. 2021; Barefield 2021). Hansen et al. (2021) have also found that predominantly Black and Latinx counties and small rural counties are half as likely to receive funding through the state revolving funds, compared to predominantly white communities or communities in more urban areas. The decrease in and inequitable distribution of federal loans, along with states and cities having to finance their own water infrastructure to meet pollution standards, results in low-income and disadvantaged communities not having sufficient funds to upgrade their water infrastructure, and these groups are often incapable of repaying the loans they do receive (Miroso 2015; Gerlak 2006; Ramseur and Tiemann 2019). This inability to maintain water infrastructure has meant that low-income and disadvantaged communities face higher rates of shutoffs and of water, ground, and air pollution (Flowers 2020).

Most water utilities in Mississippi are small and decentralized. There are more than 1,600 public and private water utilities in the state, and more than 60 percent of those are located in unincorporated communities—areas that do not have a designated municipal government and in which decisions are made cooperatively by the residents (Mississippi Department of Health 2022). Nearly half of Mississippi's 1,600 water utilities serve fewer than 500 customers, and due to their decentralized nature and the lack of customers, utility providers are unable to raise enough funds to meet requisite infrastructure upgrades (Barefield 2021). Many rural water utilities are often short-staffed and so are unable to prepare for emergencies, such as winter storms (Mayfield 2022). These utilities often lack the technical expertise required to take inventory of aging or broken water treatment equipment. Furthermore, many utilities in Mississippi and throughout the South do not have staff who can apply for federal grants and loans to be used to upgrade the utility's water infrastructure (Hansen et al. 2021; Barefield 2021).

Consolidation can often be a good solution for decentralized water utilities to acquire more funding for infrastructure upgrades and resiliency investments (Torres and Paul 2006). One rural water association in Mississippi, Black Bayou Rural Water Association,



has been consolidating with nearby water utilities for the past 30 years, and has made significant investments in infrastructure and resiliency planning (Bisaha 2021). During the 2021 winter storms that caused total system shutoffs in Jackson and several other communities in Mississippi, Black Bayou had the infrastructure and planning capacity to keep its system online, and the water utility's founder and CEO has credited this to Black Bayou's aggressive consolidation strategies (Mayfield 2022).

As previously discussed in the overview of Johnson administration policies, the lack of data in Mississippi leaves policymakers, advocates, and community members with an unclear understanding of water poverty within Mississippi. Most water utilities are publicly or cooperatively owned, and, because public and cooperative water utilities are not regulated by the Mississippi Public Service Commission, most are not required to report data on rate structure or affordability (Mississippi Code Title 77 2010). As a result, policymakers have found it difficult to legislate on water affordability within the state. In stark contrast, states that do regulate municipal and cooperative water utilities, such as Minnesota and Oregon, have collected robust data on their utilities' rate structures and have some of the lowest water prices in the country (Teodoro 2022). Regulating public water utilities in Mississippi and collecting data on affordability will ensure that policymakers can systematically address water affordability within the state.



POLICY SOLUTIONS: WHAT CAN MISSISSIPPI DO?

Clean and affordable access to water is integral to community and economic development in Mississippi. In recent years, communities throughout the state have struggled to provide clean and affordable water to their residents. However, due to a lack of data, policymakers and advocates often do not have a clear picture of water poverty within the state. This lack of data results from the fact that affordability for public water utilities in Mississippi are, by statute, not regulated by the Mississippi Public Service Commission (MPSC) or the Mississippi Department of Health (MSPSC Rules and Regulations Governing Public Utility Service 2012). As a result, public water utilities within the state do not provide data on their rate structures to the state government (Barefield 2021; Teodoro 2021).

However, the purview of the Public Service Commission is limited by the state legislature. Therefore, as a first step, the state legislature must allow MPSC and the MDH to collect rate data on public and private water utilities within the state. Historically, water utilities that are cooperatively or publicly owned have been excluded from PSC oversight because they have their own governing bodies. However, requiring water utilities to submit their rate structures through the consumer confidence reporting system would ensure that policymakers and advocates get a clear picture of water poverty in Mississippi and are able to enact policies that systematically tackle water affordability within the state.

In addition to data collection funds, policymakers should also focus on reforming current policies related to the State Revolving Loan Fund (SRLF) program. The SRLF is the primary method through which public water providers receive state and federal funding for infrastructure upgrades. Researchers have found that only a small number of water utilities apply for SRLF funding every year; in Mississippi, only 7 percent of eligible water providers applied and received SRLF funding (Hansen et al. 2021).

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Furthermore, Hansen et al. (2021) also found that water providers that operated in predominantly white counties were more likely to receive funding than water providers in predominantly nonwhite counties. Therefore, I recommend that policymakers reform the existing mechanisms through which the SRLF funds are distributed in Mississippi. Counties that face higher risks from climate change, and those located in high-minority areas, should receive special consideration. Currently, only 10 to 15 percent of water utilities have the technical capacity to apply for SRLF funds (Hansen et al. 2021). Small water associations, which are water utilities located in rural areas where there is a lack of broadband access, might not know about SRLF funds nor have the technical capacity to apply for infrastructure grants (Flowers 2021; Barefield 2021; Hansen et al. 2021). As such, the Mississippi Department of Health (MDH), which oversees the implementation of SRLF and other water infrastructure funding, must provide technical assistance to water utilities in low-income and underserved areas that may not have the capacity to access SRLF funding. Furthermore, MDH must also increase its outreach efforts by directly contacting and informing the leadership of small water associations about the availability of SRLF funding in Mississippi.

Another way to alleviate water poverty in Mississippi is to directly provide bill assistance to low-income customers within the state. Within the past year, Mississippi has received nearly \$13.5 million through the American Rescue Plan for the sole purpose of providing bill assistance programs for low-income families. The Mississippi Department of Health has used these funds to start the Low-Income Household Water Assistance Program (LIHWAP). However, advocates throughout the state are worried that the funds will not be distributed equitably. While rural communities have higher rates of water poverty, urban communities have received a larger portion of the funds (Mayfield 2022). One way to alleviate this issue would be to use supplemental funding provided to Mississippi within the newly passed Infrastructure Investments and Jobs Act to offer more bill assistance to customers who receive their water from rural water associations and live in historically marginalized communities (H.R. 3684: Infrastructure Investment and Jobs Act). This policy measure will ensure that the LIHWAP funds are distributed equitably between rural and urban centers, while taking issues of economic, racial, and geographic justice into account.



CONCLUSION

Access to clean and affordable water is the basic building block of a community's economic development, health, and well-being. However, while 40 nations across the world recognize a basic provision of water as a human right, neoliberal policies have prevented the United States from codifying this right into tangible policies. As a result, the federal government has severely underfunded water infrastructure, and the EPA estimates that Congress must invest more than \$800 million per year for the next 10 years to upgrade US water infrastructure. Outdated infrastructure, combined with unregulated water utilities, has led to the price of water and wastewater increasing by nearly 300 percent between 2000 and 2016, while government funding of water infrastructure has fallen by 75 percent since 1975 (Greer 2020).

High water prices have led to a widespread water affordability crisis in the United States, which places an undue burden on historically marginalized communities. This is particularly prevalent in Mississippi. Recently, the city of Jackson came under scrutiny when the city's low-income residents were not able to afford their high water bills, leading the city's water utility to cut off water supply to hundreds of low-income residents (R. Adams 2019).

Lack of data has prevented policymakers from understanding the true extent of water affordability challenges in Mississippi and has likely exacerbated water poverty within the state. Furthermore, inequitable allocation of limited federal funding has led to privatization of water utilities across the state. To remedy these challenges, public water utilities within Mississippi should be regulated by the Public Service Commission. The Mississippi Department of Health must also seek out avenues to equitably distribute drinking water and clean water state revolving funds to counties that need them the most. Finally, with the introduction of the LIHWAP program through the American Rescue Plan in 2021 and the availability of additional funding through the Infrastructure Investment and Jobs Act, it is imperative that the Mississippi Department of Health provide adequate outreach and support to households facing high water burdens in Mississippi. Ultimately, water is a human right, and it is high time that Mississippi codifies this framework in its water policies and practices.

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