

Much More Than a Drop in the Bucket

Impacts of water
debt and shutoffs on
residents and utilities

December 2023



ELEVATE



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Executive Summary

Introduction

As the cost of water service rises nationally, it is imperative that decision-makers understand the scale and scope of water affordability challenges for residents and municipal drinking water utilities, including the impacts of water debt and shutoffs. This report builds on previous work related to water burden in northeastern Illinois, originating with our 2020 report, “Water Affordability in Northeastern Illinois: Addressing water equity in a time of rising costs,” produced by Elevate alongside partners at Metropolitan Planning Council and Illinois-Indiana Sea Grant. Water burden refers to the percent of household income that goes toward paying water bills. Our findings indicated that half of region’s municipalities had at least one census tract where lowest income earners had a “high” water burden.

Municipal Water Debt

Despite a growing understanding of water burden and its impacts on residents, a comprehensive analysis of water debt and shutoffs does not exist. A Circle of Blue analysis of public records in 2020 found the cumulative water bill debt in 12 U.S. cities topped \$1 billion, ranging from \$568,427 in San Francisco to \$341 million in Chicago. For individual households in the study, median past due amounts ranged from \$79.27 in Denver to \$662.80 in Philadelphia.

To understand this trend in northeastern Illinois, Elevate, Metropolitan Planning Council, and Illinois-Indiana Sea Grant conducted analyses of billing data with municipal partners in northeastern Illinois, beginning with the cities of Chicago and Evanston. In Chicago, the average past due amount for customers in single-family homes with an outstanding balance was \$1,357 in 2019. Meanwhile, multi-family buildings represented the highest rates of bill non-payment and the highest levels of water debt over time. Residential customers of the City of Evanston had an average past due amount of \$400, and roughly 1,400 accounts were disconnected for non-payment between April and October 2019.

Next, we partnered with smaller municipalities with lower median income to explore water affordability challenges. City of Harvey residents' median bill was \$59 per month according to billing data covering 2018 and 2019, but approximately 25% of residential customers had water and sewer debt. Among these, just 2% customers held nearly 45% of the total outstanding debt, each with \$300 or more in unpaid balances. Similarly, in the Village of Broadview, a small cohort of consistently past due accounts held a significant amount of debt – 2% of customers (51 accounts) were responsible



for 78% of the total outstanding debt in 2022 – despite 73% of customers having total monthly bills under \$60 including penalties for late payment during the mid-2020 through mid-2022 study period.

These studies combined begin to illuminate trends, but more work on the data side of this issue is required. Until then, to understand the human side of this story, this report includes stories pulled from interviews conducted by Elevate and local media outlets.

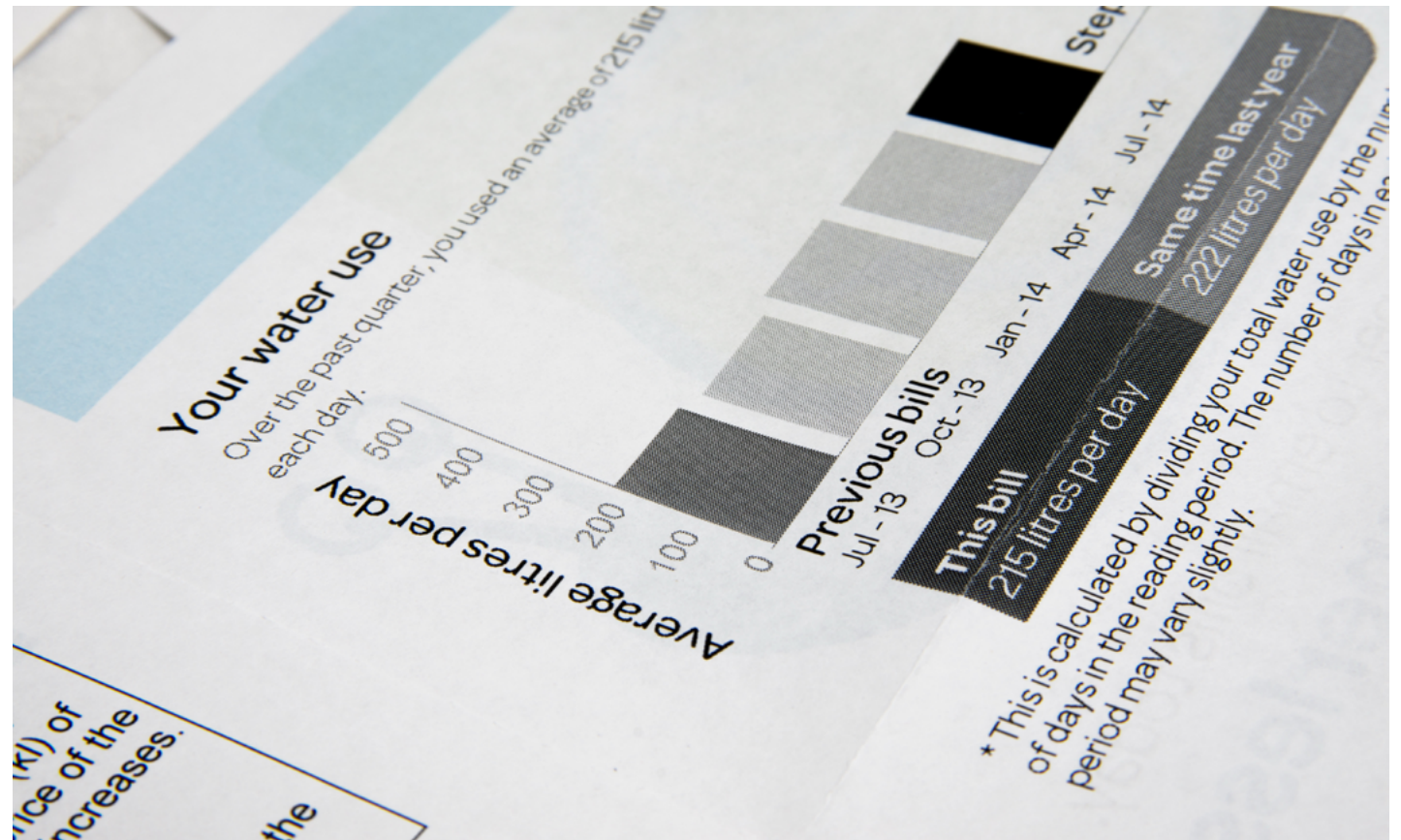
Insights from Interviews with Residents

Water bills and their burden are experienced differently by different people based on water rates, income levels, and a host of other factors. The resident stories included in this report are not intended to represent the average experience, but they discuss the lived experience of residents who struggle, or are unable, to afford their water bills. Stories include the impact of rate increases on residents as well as the steps some take when water service is disconnected. Another story discusses the degradation of premise

plumbing when water service was disconnected for an extended period, and the costly repairs required before service could be restored. Other stories show residents who may be able to pay their bill, though it may represent a significant portion of their monthly income or require sacrifices in other areas. Further still, some stories show the painful consequences of administrative challenges, such as one woman who lost her home in a foreclosure but still ended up responsible for thousands of dollars of water debt because of an oversight in the paperwork. Many of these experiences take an emotional and physical toll on people struggling to afford bills.

Perspectives from Utility Leaders

While we can clearly see how households are impacted by water debt and unaffordable water bills, non-payment of water bills can also negatively affect drinking water utilities' ability to provide essential services, especially for utilities operated by municipal governments. With costs going up and federal and state funding levels generally lower than what utilities received in the past, insufficient ratepayer revenue can impact operations, regulatory compliance, and capital improvements for water infrastructure. Many municipalities struggle to maintain infrastructure that is reaching the end of its useful service life and needs critical maintenance or overhauls – as indicated by high percentages of “non-revenue water,” which includes water lost through leaks and breaks. Despite the damaging effect they can have on residents, utilities often turn to late fees and shutoffs to enforce payment. At the same time, an increasing number of utilities offer customer assistance programs or affordability programs to prevent unnecessary disconnections and support low-income ratepayers. Learning from these interventions and further working to align household affordability and utility revenue stabilization needs will be essential as communities



continue to adapt to the twin challenges of aging infrastructure and rising costs.

Next Steps

The findings of this report clearly demonstrate that more work is needed to address water affordability issues – both for residents' wellbeing and the sustainability of municipal drinking water utilities. Elevate now transitions to continued exploration of state legislation and funding initiatives geared towards improving affordability, local policy changes to help municipalities fund their water

systems without forcing people into debt or disconnecting service, and opportunities for water advocates to support residents and municipalities.

Municipal drinking water utilities can also take steps to address affordability challenges. Promising practices include using data analysis to create tailored solutions, modernizing operations and data management systems, rebuilding trust through improved transparency, broadening customer service and outreach initiatives, prioritizing capital investments, and more.



Introduction

This report is a synthesis of Elevate and other water advocates' work to understand the scale and scope of water affordability challenges for residents and municipal drinking water utilities, with a specific focus on water debt and shutoffs. We explore these issues through: 1) an analysis of existing quantitative data on water debt and shutoffs, including Elevate and its partners' analyses of municipal billing data; and 2) a synthesis of interviews, media stories, and stories shared during Elevate's water reconnection work, highlighting the lived experience of debt and shutoffs, both for residents and utilities. **This is a check-in, not a conclusion. After five-plus years working on this topic, what have we learned?**

Water Service in a Time of Rising Costs

The cost of drinking water service is going up.

According to a long-running analysis by the Institute of Public Utilities at Michigan State University, utility bills are rising faster than many other household expenses and far exceeding the rate of inflation, as measured by the Consumer Price Index. Figure 1 shows that, among these, water and sewer costs have risen the most.^{1,2}

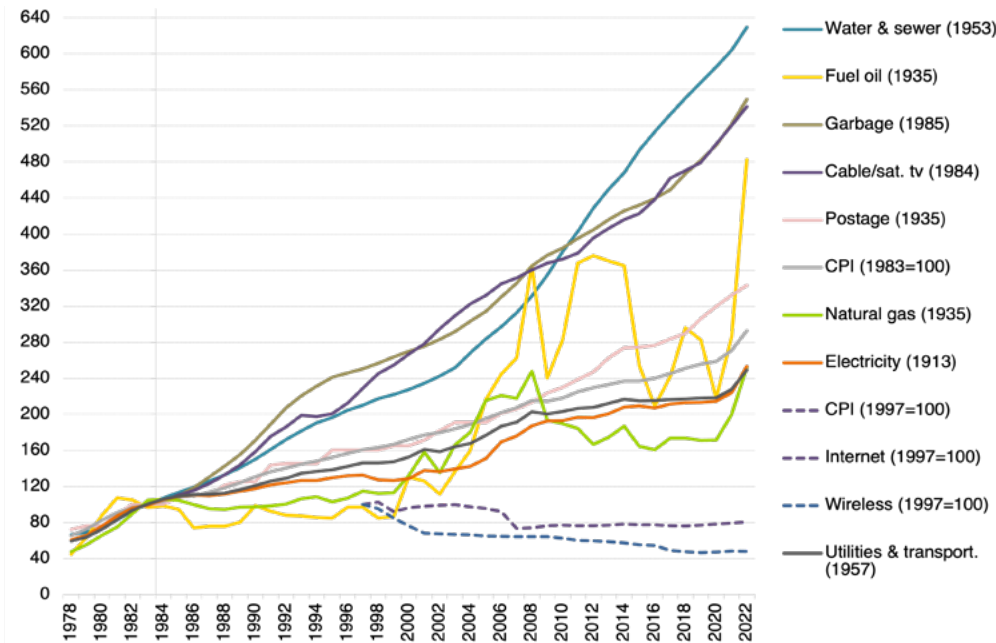
Why? Higher energy costs for pumping and transmission. Higher materials costs for pipes, valves, treatment chemicals, and more. Higher labor costs for water operators, public works staff, administrators, and contractors. Higher fuel costs for meter reading, public works projects, and construction vehicles. Higher costs associated with new regulatory compliance, such as lead service line replacement. And, crucially, much of the water infrastructure is 50-100 years old and coming to the end of its service life, meaning deferred costs are coming due.

Higher costs for utilities eventually translate into higher water bills for residents.

Water Affordability Analysis

Much of Elevate’s past work with partners at Metropolitan Planning Council and Illinois-Indiana Sea Grant has focused on water burden.³ Water burden refers to the percent of household income that goes toward paying water bills. **Income is an integral part of affordability - as opposed to a**

Figure 1. Trends in Consumer Price Index for public utilities



water bill being either affordable or unaffordable, unique experiences exist along a continuum.

In our report, “Water Affordability in Northeastern Illinois: Addressing water equity in a time of rising costs,”⁴ we assessed affordability in several different ways. In one analysis, we used the often misunderstood and misused U.S. Environmental Protection Agency criteria for a “high” water burden, combined water and sewer costs totaling more than 4.5% of household income.⁵ The definition is widely disputed, with many critics even arguing against the use of a single measure of affordability.

While acknowledging the shortcomings of this method, we used these criteria to explore water

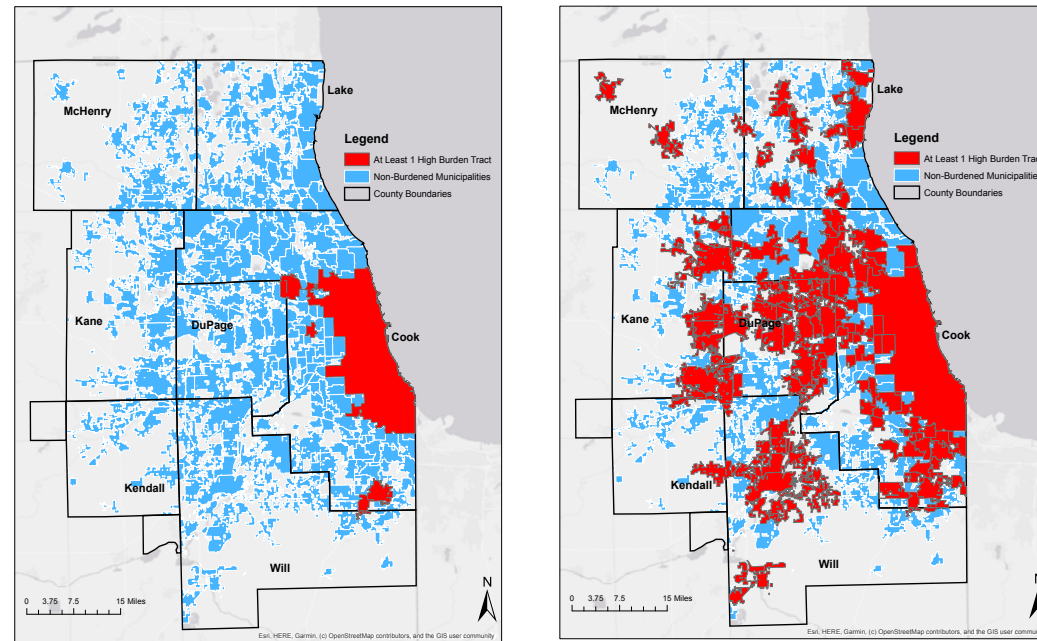
affordability in northeastern Illinois in a standardized approach. We first looked at affordability based on the median household income (MHI) of census tracts⁶ with an assumed usage of 5,000 gallons per month. The map on the left in figure 2 shows municipalities with at least one census tract where residents had a “high” water burden - i.e., households earning the tract’s median income paid more than 4.5% of their income on water and sewer bills.⁷ Based on this analysis, water affordability appeared to be an issue in Chicago and several other municipalities within Cook County alone.

As the growing consensus of water scholars and advocates have noted, we also felt that looking only at MHI to assess an area’s water burden risked

masking the extent of the problem. With this in mind, we also looked at income quintiles and focused specifically on the lowest 20% of earners, which is presumably the group most likely to feel the greatest water burden and the likely target of assistance and affordability solutions. The map on the right in figure 2 shows the result. Instead of just Chicago and a few other Cook County municipalities experiencing water burden, **half of region's municipalities have at least one census tract where lowest income earners have a "high" water burden.**

Based on these findings, we began a dialogue with northeastern Illinois municipalities to explore whether water affordability is a larger issue than previously realized and needs further attention. Because the results were based on assumed rates of consumption, our next step was to partner with municipalities to explore the issue using actual billing data and make recommendations tailored to the municipalities' needs. More on these municipal partnerships is shared later in the report.

Figure 2. Comparison of high burden census tracts by median household income (left) versus lowest income quintile (right)



Understanding Impacts

Throughout this work, we were left with several questions, starting with: What happens when a “high” water burden means a household cannot afford their bill? In many municipalities, the answer is late fees and penalties, shutoff notices and service disconnections, collections referrals, legal action, and more. **But how do these punitive actions impact individual households, and how do customers' cumulative outstanding balances affect utility operations?**

For residents, experiences with a “high” water burden can differ. Some have small past due balances but bring their account current relatively

quickly. Others carry high balances for an extended period. When past due balances lead to shutoffs, residents find ways to access water – whether by relying on the kindness of friends and neighbors or by resorting on more extreme measures, such as reconnecting water service on their own. Individual experiences with a “high” water burden are unique, but there is often a significant emotional and physical toll on all people struggling to afford their water bills.

For drinking water utilities, unpaid customer bills and service disconnections can impact infrastructure maintenance schedules or the ability to afford the debt service for past infrastructure projects. This, in the longer term,

can affect municipal bond ratings and make it harder (or, at least, more expensive) to borrow in the future, potentially resulting in further degradation of the system and higher costs passed onto residents.

Despite the growing understanding of **water burden** and its impacts on customers and utilities, a comprehensive analysis of **water debt and shutoffs** does not exist. In the next section, we compile a sampling of quantitative findings to understand trends in the available data. Then we turn to the human side of this story, with a review of qualitative analysis and stories pulled from interviews conducted by Elevate and others, including local media outlets.



Municipal Data, Unexamined

In our “Water Affordability in Northeastern Illinois” report, we concluded, “Affordability challenges impact not only households unable to pay their water bills, but the financial integrity of the entire water system.”⁸ We highlight the overlap between old infrastructure, rising service costs, and the growing number of households experiencing a “high” water burden. But what is the scope of this challenge? How much cumulative debt exists from unpaid water bills?

Understanding Water Debt in Large U.S. Cities

Management of drinking water utilities is highly fragmented. In northeastern Illinois, there are more than 400 individual community water supply operators, and, in the majority of cases, they are owned and operated by the municipal government. Oversight is limited, with the bulk of regulatory authority related to water quality and withdrawals.⁹ These publicly-owned utilities – as compared to privately-owned utilities who have an additional layer of oversight provided by the Illinois Commerce Commission – are not required to publish data on rates and billing. Comprehensive data are not readily available on the level of water debt in municipalities. The data exist within municipal billing software, but, generally, they are not systematically analyzed outside of periodic reviews for determining rates and, even less frequently, made public.

To begin to understand the scope of this issue, Circle of Blue used public records requests to conduct an analysis of water debt in select large U.S. cities. They received data representing charges from mid-2019 through early 2020 for 12 cities: Atlanta, Chicago, Cleveland, Denver, Detroit, Houston, Los Angeles, Philadelphia, San Antonio, San Francisco, Seattle, and Washington, D.C.¹⁰

According to the analysis, more than 1.5 million households in these municipalities collectively owed over \$1 billion. At the low end was San Francisco with \$568,427 in past due water bills. Chicago was at the other extreme with outstanding balances totaling \$341 million. These figures represent the accumulation of debts from individual households, ranging from a median past due amount of \$79.27 in Denver to \$662.80 in Philadelphia, but the

analysis also acknowledges that many households had much smaller balances. In Atlanta, for example, about 3,000 households owed \$20 or less.¹¹

The analysis took eight months to complete and was not without limitations. For example, the data represent different single points in time for each municipality and include different items on the bill, with municipalities variously adding or omitting things like garbage collection or stormwater fees – but it begins to paint a picture of the significance of water debt for many residents and utilities.

Water Affordability Analyses in Northeastern Illinois

The Circle of Blue findings are consistent with local analysis conducted by Elevate, Metropolitan Planning Council, and Illinois-Indiana Sea Grant in “Water Affordability in Northeastern Illinois.” Building on the findings and regional interest in our report, we partnered with staff and elected officials in four Illinois municipalities to offer pro-bono technical assistance to analyze water billing data, identify potential affordability challenges, and make recommendations. As necessary, these partnerships were formalized via memoranda of understanding and/or data sharing agreements. A high-level summary of findings is included here, and the full reports can be found at ElevateNP.org/Water-Affordability:

- **City of Chicago (population 2,746,388; \$65,781 MHI^{12, 13}):** In 2021, we analyzed nearly 9 million water bills for 577,000 residential accounts in Chicago covering the years 2015

to 2020. Among customers in single-family homes with an outstanding balance, the average past due amount was \$1,357 in 2019. Water affordability is not confined to single-family homes, however, with multi-family buildings – particularly buildings with two units – representing the highest rates of bill non-payment and the highest levels of water debt over time. Additionally, census tracts with majority Black, Latino, and/or Asian populations faced, on average, a higher water burden while using comparatively less water than accounts in majority white tracts. Notably, Chicago’s lowest-income census tracts with a majority Black population pay on average 19% of their income on water bills.¹⁴

Elevate released a follow-up analysis in 2023 about the impact of the Utility Billing Relief program and COVID-19 pandemic on water debt. We found that while UBR is working well and relieving significant burden for those who enroll, it is only reaching about 5% of residents who carry water debt. We also found that water debt levels increased across all building types in the city and across all community areas in 2020 and 2021 compared to pre-COVID years, and, while no area was exempt, these increases continue to be larger in majority BIPOC census tracts.¹⁵

- **City of Evanston (pop. 78,110; \$87,345 MHI):** Also in 2021, we analyzed water and sewer bills for roughly 12,000 residential accounts in Evanston covering the years 2018 and 2019. The analysis found that, for four of Evanston’s 18 census tracts, customers in the lowest income quintile had a “high” water burden, paying 4.5% or more of their annual income on water and sewer costs, and one of those tracts showed a water burden of 33% for the lowest income earners. However, for two of

these census tracts, the income data were skewed by the high number of Northwestern University students living in the municipality. An analysis of shutoff data found that roughly 1,400 accounts were disconnected for non-payment between April and October 2019, and, in this period, the average past due amount for residential customers with outstanding balances was \$400.

- **City of Harvey (pop. 20,324; \$35,572 MHI):** In 2022, we analyzed water and sewer bills for 3,816 residential accounts in Harvey covering the period between January 2018 and December 2019. The median residential bill for this period was \$59 per month, meaning half of bills were under \$60, and the average¹⁶ monthly cost of residential water and sewer service was \$75. Approximately 25% of Harvey’s residential customers had water and sewer debt, but a small number of customers (2%) held nearly 45% of the total \$127,113 of outstanding debt during the study period, each with \$300 or more in unpaid balances.¹⁷

- **Village of Broadview (pop. 7,998; \$56,798 MHI):** In 2022, we also analyzed water and sewer bills for 2,385 residential accounts in Broadview covering the period between July 2020 and August 2022. Broadview’s residential customers generally carried low amounts of water debt, with 73% of customers having total monthly bills under \$60, including penalties for late payment. However, 7% of accounts carried balances for 9-12 months of the two-year study period, and 9% carried a balance for greater than 13 months. Furthermore, a small cohort of consistently past due accounts held a significant amount of debt. In 2022, 2% of customers (just 51 accounts) were responsible

Table 1. Point-in-time debt snapshots for the Village of Broadview

Year	% Residential with no debt	% with <\$100 debt, for Residential with debt	Number of accounts with high debt	% total debt held by accounts with high debt
2020	88%	59%	20 (0.8%)	68%
2021	87%	65%	22 (0.9%)	73%
2023	83%	58%	51 (2%)	78%

for 78% of the approximately \$144,000 of outstanding debt.¹⁸

Trends Begin to Emerge

Table 1¹⁹ from the Village of Broadview analysis illustrates a finding that emerged across our work with some of the other municipalities – **most customers pay on time and in full while some pay late but carry small balances and bring their account current within a few billing cycles. A third, smaller group of customers have a considerable amount of debt and hold it for an extended period.**

At each of three point-in-time debt snapshots for Broadview – specifically, the July billing cycle for each year of the study period – greater than 80% of customers were current on their bill. Indeed, in 2020 and 2021, it was nearly 90%. Among those who were past due, approximately 60% were less than \$100 in arrears. Meanwhile, just 51 customers in 2022 (2% of residential accounts in the study) had greater than \$500 in water debt and were responsible for 78% of Broadview’s total outstanding balances.

Average payouts from two prominent, large-scale customer assistance programs – one state and one federal program – underscore our findings: that most customers pay on time, some pay late but carry small balances for a few billing cycles, and a small group carries a considerable amount of debt for an extended period.

First, the California Water and Wastewater Arrearage Payment Program was a pandemic-era assistance program focused on providing relief for the “unprecedented levels of unpaid water bills that accumulated in the early days of the pandemic.”²⁰ Nearly \$1 billion was allocated to the program, of which approximately \$300 million was paid out for water bill debt with an average benefit of \$545 per individual customer.²¹

Similarly, the Low Income Household Water Assistance Program (LIHWAP) was a federal, pandemic-era debt relief program aimed, primarily, at helping restore water service for income-eligible customers and prevent further shutoffs.²² The program, which ended in mid-2023, was locally administered by community action agencies, such as Community and Economic

Development Association of Cook County (CEDA). According to CEDA, the average LIHWAP benefit as of July 2023 was \$441.63. The maximum benefit available under the program was \$1,500, and CEDA reported that just under 2,200 of the approximately 27,000 approved applications maxed out this benefit.²³ It can be assumed that, if they received the maximum benefit, these customers had more than \$1,500 in outstanding water debt. Additionally, only water and wastewater charges – e.g., new and unpaid base charges and volumetric charges – were eligible under the program while other debt likely remained unforgiven on customer bills for line items such as waste collection, stormwater utilities, and administrative fees.

Expanding on CEDA’s data, 2,200 applicants receiving the maximum benefit is a lot, but it is not the majority. Just 8% received \$1,500. Even the totality of approved applicants – 27,000 residential account holders – is just a sliver (1%) of the two million households in Cook County.^{24,25} Again, though, these findings are consistent with what Elevate and our partners found when examining municipal water billing data in Cook County:

1. Most customers pay on time;
2. Some pay late but bring their account current within a few billing cycles; and
3. A much smaller group carries high outstanding balances, often for an extended period.

It is important to note that water burden is not shared equally across race and geography. Patterns of redlining, segregation, systemic racism, and racial wealth disparities are deeply connected to the distribution of water burden today. As noted by the NAACP Legal Defense Fund in a recent national report, “Unsurprisingly, rising water rates are most likely to impact communities



of color.”²⁶ Clear racial disparities in household water burden was evident in our analysis of water affordability in the City of Chicago, and this has been echoed in a number of other studies. Understanding who carries the highest water burden,

addressing even unintentionally discriminatory outcomes, and developing responsive billing practices and support programs must be part of the path forward for twenty-first century water utilities and policymakers.



People, Not Data

Community water systems provide us with water in our homes that we use to drink, prepare food, bathe, and care for our households by washing and cleaning the clothes we wear and sheets we sleep in. To understand the human side of water affordability, we looked beyond the data and focused on the stories of individuals and families experiencing water burden. The following vignettes explore some of the reasons behind outstanding balances and how individual households are impacted.

Water Use, Leaks, and Unexpected Charges

A leaky toilet should not send a family into months of water debt. Too often, leaks and inefficient fixtures drive up water bills for residents. Sometimes a high water bill is the first time a family even realizes there is a problem. Based on Elevate's conversations with residents, low-income households are more likely to live in homes with leaky pipes and inefficient toilets, showerheads, and washing machines that use more water. For metered accounts, we can draw the reasonable inference that increased usage is a cause of higher bills, and, for some households, higher debt. Indeed, a customer story shared later in this report involves a several-thousand-dollar water bill resulting from a leaky toilet.

Rates, Income, and Affordability

High water use, or water lost to leaks is not always a key driver of water debt. Snapshots of two accounts in the City of Harvey analysis showed outstanding balances of \$1,199.94 and \$907.60 but comparatively low monthly charges of \$40.37 and \$28.35, respectively. If these high balances were the result of leaky pipes or inefficient fixtures, we would expect the monthly charges to be much higher. The fact that they had low monthly charges but high outstanding balances demonstrates there is a mix of abilities to pay, regardless of the bill amount.

In many cases, the high cost of water compared to income is the determining factor. A Chicago Tribune series delved into this topic and found



disparities in water rates throughout northeastern Illinois despite many municipalities having the same source of drinking water - Lake Michigan.²⁷ The Village of Ford Heights (pop. 1,813; \$37,083 MHI), for example, pays almost six times as much as residents of the City of Highland Park (pop. 30,176; \$147,067 MHI) for the same quantity of water. Ford Heights purchases Lake Michigan water from Hammond, Indiana, via Chicago

Heights, Illinois, while Highland Park draws straight from the lake,²⁸ but this cannot fully explain the disparity. Throughout the region, the Chicago Tribune's "The Water Drain" series found that, "towns with median household incomes in the bottom 10 percent of the region pay 31 percent more a month for water than towns with a median household income in the top 10 percent."²⁹

In 2019, the Illinois General Assembly tasked the Government Finance Research Center (GFRC) at the University of Illinois at Chicago with conducting an analysis of water rates and rate-setting practices in Illinois. The three-year study will conclude in 2024 and is intended to inform state and local policy development.³⁰ While the GFRC study will examine factors that influence rate-setting in Illinois, the present report focuses on the impacts of those rates. Our hope is that this growing body of research about water rates, affordability challenges, and municipal water debt will help us and decision makers develop a nuanced understanding of these issues, the impact on residents, and potential solutions to ensure access to safe, clean, affordable water.

First, we look at the impacts on residents told through stories and quotes pulled from media reports and interviews conducted by Elevate.

Unmetered, Unoccupied, and Paying for It

WBEZ Chicago’s “Drowning in Debt” series tells the story of Carla Padgett, a Chicago resident whose twice-annual bill grew from about \$500 in 2011 to \$1,300 in 2019³¹ as a result of multiple rate increases and a new water-sewer tax (implemented in 2017 to help pay Chicago’s pension obligations).³² By 2021, she had accumulated over \$8,000 in outstanding balances plus \$1,700 in penalties, ultimately resulting in lien proceedings.

Carla’s building was unmetered, meaning the water bill did not reflect actual consumption but, rather, was estimated based on the size of the building and the number of water fixtures, among

other factors.^{33,34} Since the building is a duplex, she was billed for the estimated usage of the second unit, too, despite it being unoccupied.

Rate Impacts Near and Far

The City of Chicago’s water rate increases compound affordability challenges throughout the region. Under the administration of former mayor Rahm Emanuel,³⁵ water rates increased by 25% in 2012 and 15% annually in 2013, 2014, and 2015. Between 2012 and 2015, rates rose from approximately \$2.51 to \$3.81 per 1,000 gallons.³⁶ In 2016, Chicago City Council adopted a policy to increase rates by applying the previous year’s rate of inflation, capped at 5% per year.³⁷

Since the Chicago Department of Water Management is a wholesale supplier of treated Lake Michigan water to municipalities throughout northeastern Illinois, these increases are felt far beyond Chicago. Carla Padgett’s resignation over the rising cost of water within Chicago city limits – “It’s not like this is a choice; I have to have water”³⁸ – was echoed in the City of Wheaton (pop. 53,970; \$108,737 MHI), 25 miles from the shores of Lake Michigan. After Emanuel announced the impending rate increases in 2011, former Wheaton mayor, Michael Gresk, said, “Where else are we going to get water? You could get indignant, but the other side of it is, where are you going to go?”³⁹

Living Without Water

While interviewing residents for the Water Drain series, Chicago Tribune reporters spoke with Robert Hylton in the Village of Maywood (pop. 23,512; \$58,764 MHI). Robert’s water service was disconnected while rinsing a cup at his kitchen

sink, forcing him to shower at a friend’s home and use a bucket in the garage as a toilet. Robert had partially paid his bill and was trying to enter into a payment plan for the remaining balance. Once the water had been disconnected, though, his bill would include a \$300 fee to have service restored.

In pandemic-era reporting, WBEZ Chicago interviewed West Woodlawn (Chicago) resident Vernal Green about his daily ritual of filling a 5-gallon jug from a nearby fire hydrant. Vernal opened the hydrant with a wrench and filled a jug for his water needs, saying this was his only source of water after a frozen pipe burst in his home two years earlier, and he could not afford to fix it.⁴⁰

On the same block, Sheila Johnson was living without water during the pandemic because, she assumed, the building was in foreclosure, and the landlord was not paying the bills. Sheila said, “I can’t wash my hands. I use wipes all day [and] sanitizer.”⁴¹

Faced with this choice, many Chicago residents decided to reconnect their own water – almost 62,000 times in a span of 12 years, according to reporting by WBEZ Chicago in 2019. In fact, “Illegal reconnections of water outpaced legal reconnections in six of the 12 years analyzed.”⁴²

Plumbing Woes

Plumbing systems are meant to be used, and when water is not regularly flowing through pipes, significant problems can arise. Elevate spoke with Sharon Adams, a Chicago resident in the Chatham community area, who had unpaid water bills and late penalties adding up to almost \$12,000. Sharon could not afford this sum and had no choice but to let her water

service get disconnected. She lived without water for about two years, during which time she relied on others in her community – bathing, cooking, and sometimes staying in their homes.

When it was time for water service to be restored, Sharon discovered that the pipes in her home had developed leaks and other issues. Elevate worked with Sharon to replace her leaky pipes, water heater, and problematic fixtures in her kitchen and bathroom. We provided her with bottled water while repair work was underway, and, after repairs were complete, connected her with follow-up water quality testing to ensure her water was safe for cooking and drinking. **Sharon’s story shows how water affordability issues can snowball into additional challenges, further compounding barriers to maintain access to this vital resource.**

Not Enough to Go Around

Even when people can afford their bill, there are often tradeoffs required. The Chicago Tribune spoke with two residents of Ford Heights. Ruthie Beasley’s water bill was \$85 per month, but she is on a fixed income and needs assistance from her son to pay the bill while she cuts costs by buying less groceries and forgoing haircuts.⁴³

Illora Walker was also reported to be on a fixed income, receiving \$1,034 per month, of which \$900 goes to rent. Although her water is billed at the senior discount rate of \$65, not much money is left after housing expenses and utility bills are paid. Illora supplements her income by gathering aluminum cans for \$0.25 per pound and gets free meals at the senior center.⁴⁴

Also interviewed by the Chicago Tribune, Charlene McFadden in the Village of Dixmoor often pays more than \$100 per month for water and feels that her complaints about rising utility costs go unheeded, with rate increases taking place without public input or opportunity for residents to weigh in.⁴⁵ As mentioned before, **water affordability is a function of the interaction between cost of service and income, and the same water bill can be affordable to one household but a high burden for another.**

Zombie Foreclosures and Administrative Challenges

For some, the issue is not the cost of water or too little income but, rather, administrative challenges. Elevate spoke with Taleia Becton Nelson about her efforts to take possession of a family home granted to her family through a trust after her great grandmother passed away in 2016. The home had an outstanding water bill of more than \$10,000 attached to it. Because it was unmetered, charges continued to accrue even while it sat vacant.

Taleia tried to apply for Chicago’s Utility Billing Relief (UBR) program – which provides a reduced rate for eligible households and a chance for debt to be forgiven.⁴⁶ Unfortunately, she was ineligible because she does not own the home, and she does not own the home because she cannot afford to pay off the water bill, which is required to receive the full payment certificate needed to authorize the transfer of ownership. Administrative challenges like these can prevent the accumulation of generational wealth.

Another example shows how a simple oversight can lead to thousands of dollars in water debt. Angela Johnson, a Chicago resident, spoke with Elevate about how water debt on a home she no longer owned came back to haunt her.⁴⁷ In 2022, Angela received a court summons only to learn that she had \$14,000 in unpaid water debt for a home she lost in a foreclosure in 2008. The bank had failed to record the deed in its name, leaving Angela listed on the account. Had she known, Angela could have applied for a vacancy so water charges would stop. In any case, the bank did not sell the property for about 10 years, and charges continued to accrue on the unmetered account: \$8,000 for usage (on a vacant home) and \$6,000 in late fees. “They broke down the bill and I was floored,” said Angela. She attempted to dispute the charges, even seeking legal assistance, to no avail.

Angela’s income made her ineligible for the UBR program, “because I’m too rich,” she said, emphasizing “rich” with air quotes. Discussing her experience of receiving a \$14,000 bill for water she did not use in a home she did not own brought tears to her eyes. “It’s made me stronger. It’s made me angry – you know, sometimes I have a pity party,” Angela said, but, mostly, she “feels like a victim.”

Angela is not the only person with challenges resulting from administrative procedures. ABC7 in Chicago ran a story on so-called zombie foreclosures, where the deed is not properly transferred, leaving previous owners responsible for charges. (One example cited was a \$650 fine received in 2022 for overgrown weeds on a property that was sold in 1959.) ABC7 spoke with an attorney who had “nearly 50 potential clients in similar situations,” all being asked to pay water bills, demolition costs, fines, or other charges on properties they no longer own.⁴⁸



Long-term Physical, Mental, and Financial Health Risks

According to research by DigDeep, for 2.2 million people in the U.S., living without running water or basic plumbing in their homes results in quality-of-life issues - including 71,000 reported cases of mental illness annually.⁴⁹

Elevate spoke with Harvey resident, Eleanor Robinson, who has had high water bills and growing

water debt since 2018. Despite entering a payment arrangement to bring her water debt down, the arrangement tacked an additional \$150 onto her \$300-\$400 monthly water bills. As a retiree living on a fixed income, the combined payment was too much for Eleanor, and unpaid balances continued to accrue, topping \$7,000 at one point. The source of the high bills was ultimately traced to an extremely leaky toilet, and she received the maximum LIHWAP benefit of \$1,500 to help with the debt, but a large sum remains unpaid.

Eleanor told Elevate that she has stress-related heart problems due to her years-long struggle

with high water bills and debt. She said it is hard to wake up every day and wonder if her water will be shut off.

The impact is felt beyond the individual household, as well. “Homeowners stuck in water debt can lead to properties stuck in disrepair and communities locked into disinvestment,” according to WBEZ Chicago’s “Drowning in Debt” series. “And communities riddled with hundreds of such homes are hard pressed to attract economic investments,” impacting access to opportunity, schools, jobs, and fresh food.⁵⁰

Prioritizing Sustainable Relief, No Matter How Heavy the Burden

Up until now, we have cited some of the more extreme examples. We do not wish to imply that every person who struggles with water affordability ends up tens of thousands of dollars in debt or living without water for years. For example, Dave Harris of Harvey suffered a job loss and, as a result, was unable to pay his water bill for a period of time. When Dave received a shutoff notice, he experienced extreme stress. Eventually, he found a job and was able to bring his account current and avoid a service disconnection. He has not had major issues since.

Still, the precarity of Dave’s situation is all too common. The stress of water burden, recurring blows to an individual’s dignity, and broader impacts on resident’s quality of life must be considered and valued as policymakers and utility leaders consider solutions to promote water security and reliable access to safe, clean, affordable water for all.



The Cost of Service

The negative impacts of water burden and debt on households are clear and getting clearer. But non-payment of water bills affects drinking water utilities, too, and can impact their ability to provide essential services.

Just as the previous section explored the stories of residents, this section looks beyond the data to understand how revenue from unpaid water bills impacts municipal utilities' ability to provide optimal drinking water service. These perspectives draw from stories shared with Elevate in

interviews and through media coverage, and do not necessarily reflect Elevate’s recommended best practices, which can be found starting on page 27. Elevate strongly encourages utilities to end the practice of shutoffs, property liens, and excessive fees for non-payment and explore ways to promote water affordability instead. There are many harmful health, financial, and social effects that result from shutoffs and mounting debt, and we cannot know what tradeoffs people make to bring their accounts current.

Differing Impacts

Circle of Blue interviewed utility representatives from the cities of Denver, Colorado (pop. 715,522; \$78,177 MHI), and Atlanta, Georgia (pop. 498,715; \$69,164 MHI),⁵¹ whose conflicting views on residential water debt are informative – respectively, customer arrears “have not been a significant issue” versus being “a burden on the entire system.”⁵² Importantly, Denver’s outstanding bills for residential customers totaled a seemingly-significant \$3.2 million. Just as residents’ experiences vary when it comes to paying water bills, utilities also differ in terms of scale, scope, and impact of unpaid customer bills.

Municipalities on the Hook

Looking only at resident stories, it might be easy to misconstrue municipal drinking water utilities as unsympathetic, at best, and, at worst, bad actors who care little for the burden imposed by the service they provide. However, in our interactions with utility leaders, we have generally not found this to be the case.

Some water systems are run by private, for-profit companies, but most are owned and operated by the local, municipal government. While many municipal services are funded by property and sales taxes or fees, water and wastewater services are generally funded by collecting user fees from ratepayers, with revenue generated from water rates often based on the volume passing through a water meter. Meaning, in the case of metered systems, you pay for the amount of water you use. Water supply, treatment, infrastructure, personnel, and debt servicing costs are all factored into a water utility’s pricing or rate setting. Accordingly, non-payment of water bills can correlate with the level of service the local government can provide its water customers.

Despite recent high-profile federal investments in water infrastructure programs, water funding trends have increasingly put the onus on local utilities to generate revenue necessary for operations and maintenance. Municipalities can no longer look to state and federal government for the level of funding support that once flowed to water utilities,^{53,54,55} and municipal staff and officials must identify alternative means to fund daily operations and maintenance of the system – as well as the repayment obligations for the loans, bonds, and other financing mechanisms used to fund critical, long-term repairs, replacement, infrastructure improvements, and increasing need to address water quality standards.

Either Way, There’s a Cost

Faced with less federal and state funding while costs for operations, maintenance, regulatory compliance, and capital improvements are on the rise, many municipalities turn to rate increases. The Village

of Indian Head Park (pop. 4,065; \$93,398 MHI) raised rates to cover the replacement of water meters and a two-mile section of water mains. Similarly, the Village of Clarendon Hills (pop. 8,702; \$107,375 MHI) chose to adopt some of the region’s highest water rates to pay for capital improvements without taking on debt.⁵⁶

Among the alternatives, municipalities can choose not to increase rates, but not raising rates should not be considered the “more affordable” option. Municipalities that purchase water from the City of Chicago (either directly or through one or multiple intermediaries) are responsible to pay for all water that passes through the seller’s master meter. Similarly, groundwater- and other surface water-dependent municipalities pay for treatment costs and the energy to pump water through the system. Utilities must gather sufficient revenue to cover these costs. Charging water rates that are insufficient to finance system operations and maintenance can result in deterioration of water infrastructure and more costly repairs down the road. Ensuring infrastructure is in good condition actually lowers costs overall.⁵⁷

Old Infrastructure

As with the different water affordability impacts felt by residents, there are disparities for the municipalities themselves based on income and population characteristics. The Chicago Tribune states, “many predominantly Black communities lack sufficient funds to meet payrolls and other routine expenses [and] have no money to make urgently needed repairs to water and sewer systems.”

This is true of many of the municipalities in Chicago’s predominantly Black south suburbs, for instance, that grew alongside industrial and manufacturing employment. Residential and

commercial developments grew apace, along with the corresponding infrastructure. Now, with many of those jobs having been replaced by automation or moved overseas, the municipalities have lost residents and experienced diminished demand for commercial development – and the revenue they bring. Regardless, these municipalities remain responsible for financing the maintenance of infrastructure built for the earlier period of peak population.

Timothy Williams, former city administrator for the City of Harvey, reported that over 6,000 properties are either vacant or abandoned and said the lack of investment is a challenge for the city. Necessary infrastructure improvements there are “going to take \$10 million annually that we don’t have. It’s going to take \$3 million just for them to not further degrade.”⁵⁸

Due to the age of this infrastructure, these are often not minor repairs but can entail major system overhauls. “Most of my piping system is over 100 years old,” said Fred Bilotto, Mayor of the City of Blue Island (pop. 22,558; \$51,989 MHI). In the neighboring Village of Dixmoor (pop. 2,973; \$46,406 MHI), which also has hundred-year-old pipes, Mayor Fitzgerald Roberts said, “The pipes are decaying. In the past month we’ve probably had about 25 water main breaks.”⁵⁹

For Frank Podbielniak, Village President of the Village of Posen (pop. 5,632; \$55,371 MHI), “It’s an everyday worrisome feeling [and] the highest issue I have on our priority list.” Yet, he added, “I don’t know where to get the money.”⁶⁰

Punitive Actions

Rates charged by water utilities are intended to cover the costs of providing the service, while late fees,



service disconnections, collections referrals, and lien filings are among the oft-criticized efforts by utilities to enforce payment.

Elevate spoke with Josh Peacock, Finance Director for the Village of Streamwood (pop. 39,577; \$88,824 MHI), who said penalties for late payment only account for about 1% of the total water revenue, clarifying that the fees are not intended as a money-making opportunity.

Rather, late fees and shutoffs (about 50-100 shutoffs each month) are part of their strategy to ensure timely payment.⁶¹ Patrick McAneney, Assistant Director of Public Works, told Elevate the Village of Homewood (pop. 19,463; \$81,940 MHI) performs 20-60 service disconnections per month. On Monday, the Water Department gets a stack of cards, and the addresses on those cards get shut off on Tuesday. Patrick told us, after their

water is shut off, most people come in to pay within 24 hours, and more bring their account current within three days.

According to Patrick, the reason is that many people never signed up for automatic payments, or they did, but the card was declined. Others may be on vacation or simply forgot. Patrick recognizes, though, that some do not pay because they cannot afford the bill, and he said, “It sucks [that] now I’m charging you more money because you couldn’t pay on time.”⁶²

Cash Flow Problems

Streamwood purchases water from Northwest Suburban Municipal Joint Action Water Agency which, in turn, purchases water from Chicago. Homewood recently switched to purchasing Lake Michigan water from Hammond, Indiana, via a connection to Chicago Heights.⁶³ Regardless of whether Streamwood or Homewood’s customers pay on time, they receive a bill for the water that passed through the master meter and need to pay it.

Brian Hanigan, Finance Director for the Village of Lansing (pop. 29,076; \$62,397 MHI), told Elevate the village has \$1.4 million in outstanding water debt out of \$7.7 million billed, meaning 18% of total revenue remains uncollected. (Approximately \$500,000 of that debt is from a municipality that purchases water from Lansing.) This debt results in cash flow problems and capital improvement projects getting delayed or deferred, which can lead to high levels of water loss.⁶⁴

“Water loss” refers to water that enters a drinking water system but is lost or otherwise

not accounted for and includes real losses and apparent losses, such as leaks and metering inaccuracies, respectively. The related term, “non-revenue water,” is the sum of water loss and unbilled authorized consumption, e.g., water used in municipal public works operations.⁶⁵ Lansing’s non-revenue water for 2017 was 19.6%. The average for municipalities with a permit to use Lake Michigan water was 12.9%.⁶⁶

Raising Rates

While the cost of water service continues to rise, and parts of the system continue to reach the end of their service life, municipal drinking water utilities are faced with the difficult decision of pricing water so that everyone can afford it while also charging adequate rates to cover costs. Streamwood is working with a consultant on a water rate study, hoping not to increase rates dramatically in the future. Meanwhile, Village of Flossmoor (pop. 9,704; \$126,085 MHI) voters approved a property tax increase in 2012 to cover the debt service for an eight-year, \$7.28 million water infrastructure project to replace their aging water mains.⁶⁷ The capital improvement should lower the village’s rate of non-revenue water,⁶⁸ but there is an inherent tension in charging more money now to save money in the long run.

For some municipal leaders, this is not an easy decision. In the Village of Homewood – which reported 28% non-revenue water in 2017 – former mayor Kevin Casey stated, “We’re a low-to-medium-income town, and I just can’t pass on a \$1.4 million project to residents.”⁶⁹ According to data reported to the Illinois Department of Natural Resources, five Lake Michigan-dependent municipalities’ non-revenue water topped 30% for 2017. One of which (Village of Maywood) reported 52%.⁷⁰

Enforcing Payment

Given the competing needs and priorities that water utilities must manage, shutoffs for non-payment are often viewed as a necessity by some utility leaders. In interviews conducted by Elevate, some municipal staff expressed concerns that, without the threat of disconnection, fewer people would pay their bills in full and on time, limiting utilities’ ability to fund system operation and maintenance. Lansing reported that they feel they are being taken advantage of because people know the municipality is easy to work with (e.g., setting up payment plans).

Homewood, Lansing, and Streamwood all reported that most people have their water shut off for less than a day, providing evidence that – from some utilities’ perspective – shutoffs are an effective tool to enforce payment. Again, we encourage utilities to end the practice of shutoffs for non-payment and explore ways to promote water affordability as there are many harmful health, financial, and social effects that result from shutoffs and mounting debt.

Water Utilities’ Mission

No one we spoke with chose a career in the water industry with a goal of shutting off people’s water. A study on the impacts of water service in the 20th century concludes, “clean water was responsible for nearly half of the total mortality reduction in major cities, three-quarters of the infant mortality reduction, and nearly two-thirds of the child mortality reduction.”⁷¹ Today’s municipal drinking water utilities carry on this tradition of protecting public health through the provision of clean water.

It can seem like a cruel twist, then, that funding operations and maintenance via ratepayer fees, sometimes going to extremes to enforce collections, can put a water system at odds with the needs and wellbeing of the people it serves. Patrick from Homewood told us, “There’s really nothing worse than going and shutting people’s water off.”⁷²

Yet, in a nationwide survey of large water utilities conducted by Food and Water Watch, 73 responding utilities reported that over half a million households had been disconnected for non-payment in 2016, impacting 1.4 million individuals.⁷³ Across 284 Lake Michigan water service area municipalities, water utilities reported an average of 120 – 360 shutoffs per year.⁷⁴

Among a cohort of eight communities convened by the U.S. Water Alliance to explore alternative collections practices, some municipalities reported that 10-15% of accounts where service was disconnected had experienced shutoffs in the past, indicating that **underlying issues of water affordability are not addressed by shutoff policies**.⁷⁵ Furthermore, where municipalities track such data, they reported frequent overlaps between geographic concentrations of water service disconnections and urban heat islands, poor air quality, high unemployment, and historical redlining.⁷⁶

Shutoff Moratoria

Many states enacted pandemic-era shutoff moratoria, both in acknowledgement of the pandemic’s effect on household finances as well as the vital importance of water for public health.⁷⁷ Some municipalities had shutoff moratoria predating the pandemic.

In the City of Harvey, Mayor Christopher Clark suspended the city’s water shutoff policy shortly after taking office in May 2019. The city implemented an amnesty program whereby, upon full payment of water charges, all fees and penalties were removed from a customer’s account – including fees for late payment, disconnection, and tampering. This program, however, ended in early 2023.

Also in May 2019, then-incoming Chicago mayor Lori Lightfoot suspended water shutoff postings for non-payment and charged staff with identifying alternatives. The result was the aforementioned UBR program, which launched in 2020 and was based on the assumption that, by offering discounted rates and debt forgiveness, the city would collect revenues that they otherwise would not have. Then, in July 2022, Chicago City Council voted unanimously to pass an ordinance to formally end the practice of water shutoffs for non-payment of utility bills.⁷⁸

Promising Practices

Many municipal drinking water utilities are taking important steps to improve water affordability. Effective January 2022, the City of Evanston began offering reduced water and sewer rates for income-qualified homeowners and renters. Homeowners are charged reduced rates while renters can receive an annual payment reflecting their estimated savings.⁷⁹

The City of Baltimore, Maryland (pop. 585,708; \$54,124 MHI),⁸⁰ allows water debt to be paid down through the Water4All program. When customers make an on-time payment, the equivalent amount is credited to their past due balance. Additionally, in 2017, Baltimore

suspended lien filings for outstanding balances comprised solely of water debt.⁸¹

Since 2011, New York City (pop. 8,804,190; \$70,663 MHI)⁸² has offered a leak notification system to notify customers of unusual spikes in usage, and the Leak Forgiveness Program allows for a portion of a high bill attributed to a leak to be forgiven.^{83, 84}

Many more practices to improve water affordability, offer customers assistance, and prevent unnecessary service disconnections are included in our 2021 Chicago Water Affordability analysis and the expansive “Water Affordability Advocacy Toolkit” from NRDC and the National Consumer Law Center.⁸⁵

Mutual Goals

As highlighted in previous sections, there are significant financial, health, and emotional challenges residents experience when a water shutoff occurs. Another consequence of water shutoffs and other punitive actions is that they erode public trust in the utility. As the U.S. Water Alliance points out, “This makes it harder for utilities to get assistance to those who need it, and it damages other aspects of utility operations, like gaining community support for new construction projects.”⁸⁶

Many of the reasons cited for the rising cost of water require that municipal drinking water utilities embrace stronger community engagement and public education strategies. Public trust and buy-in will be necessary to safely remove our nation’s lead service lines, replace our crumbling infrastructure, and promote participation in water affordability programs.



Next Steps

Our work with Chicago, Evanston, Harvey, Broadview, and others has contributed important additional understanding and nuance to the discussion around water affordability in Northeastern Illinois and offers strong local grounding within broader national trends. A more comprehensive analysis of the full, holistic impact of water debt and shutoffs, paired with recent research from University of Illinois Chicago (UIC) about the factors influencing water rates in Illinois, may further this understanding and point towards equitable solutions. For now, it is clear the status quo is not working for far too many households and drinking water utilities.

Rising water costs are resulting in a higher water burden for households and challenges for water utilities throughout the nation. High water burden can turn into high debt and even water shutoffs – both of which have a range of devastating impacts on households and neighborhoods. Simultaneously, these punitive actions have not resulted in utilities achieving full cost recovery even as water infrastructure in many municipalities needs significant work.

Water service provision is complex. The physical infrastructure, operations, billing, administration, workforce, political and fiscal landscapes, and myriad other factors shape the ability of a utility to provide water service and for residents to afford it. What's more, as a highly localized, and somewhat fragmented sector, water utilities each contend with their own realities - a solution that works well in Arlington Heights (pop. 77,676; \$106,996 MHI) would likely be wholly infeasible in Ford Heights (pop. 1,813; \$37,885 MHI). It would be great to be able to say: state legislatures should do X, municipal drinking water utilities should do Y, and we can all leave this topic in our rear-view mirror. While there are no clear-cut solutions, our research indicates that a layered approach and targeting the unique needs of each community will offer utilities and residents a promising path forward.

Water Affordability Best Practices

Through our research, we have identified promising practices for communities to consider in addressing challenges associated with water affordability.

- **Tailor solutions to the local context.** Utilities should use municipality-specific billing and

census data, combined with resident and stakeholder conversations, to better understand the debt and affordability challenges facing members of their community. This type of analysis will help to uncover high-priority challenges, such as a difference in water burden by building type or neighborhood.

- **Develop a strong sense of mission, leadership, and accountability.** Adopting both a mission statement and affordability plan can provide clarity of vision and purpose for a utility. Through interdepartmental stakeholder collaboration and community engagement, utilities display leadership while creating accountability mechanisms to keep them on track to achieving their goals. In addition, continuing to hold to a grounding principle of service will keep the utility rooted in the best outcomes for their community.
- **Modernize operations and data management systems.** Accurate data, robust customer relationship management systems, and updated metering and billing systems can improve operational efficiency and build trust in the community through transparency. Quality assurance, inter-departmental cooperation, and robust data analysis are all part of strong operations.
- **Broaden customer service and outreach approaches.** Intentional efforts to be part of and in service to the community, include developing or strengthening the public-facing elements of the municipal drinking water utility. A Community Advisory Committee, for example, could host community meetings to share about and receive input on programs.

- **Offer flexible payment plans and expand affordability programs.** Billing structure can make a difference for families struggling to make ends meet. Smaller, more frequent bills (monthly instead of quarterly billing), the ability to make partial payments, and access to online billing are all ways utilities can help residents stay out of debt.
- **Proactive programs that forgive debt and reduce bills are needed for all types of residential customer classes.** Municipalities should identify pathways for residents to receive assistance with their water bills and actively share that information with residents. In addition to state and federal funding or utility run customer assistance programs, there may also be opportunities to work with local Community Action Agencies to offer bill and reconnection assistance for low-income residents.
- **Offer assistance for residents who experience large plumbing leaks.** Utilities should work with residents who cannot afford the cost of unexpected leaks. The necessary plumbing repairs and large water bills often lead to unpaid balances that may result in a vicious cycle of debt. A one-time bill adjustment can help keep residents current on their water bills. Not all leaks are obvious until someone reads the meter. Leak alert systems that look for abnormally high water use can catch leaks within premise plumbing, like a running toilet, and enable residents to take proactive steps to stop it before a large bill is received.
- **Stop the practice of water shutoffs.** Water is a basic human need, and cutting off a household from safe drinking water can carry

both immediate and long-term, devastating health and financial impacts on a family. A significant portion of water customers face repeated shutoffs, showing that shutoffs are not an effective mechanism to enforce payment, but rather punish a true inability to pay. Punitive fines and fees, plus the costs of water reconnection only further push customers into debt.

Innovative Funding, Financing, and Efficiency Strategies

We recognize that investing in solutions to tackle water debt and affordability challenges requires financial and staff capacity. The following investments can help municipalities reduce operating costs and improve their ability to offer solutions to water debt and affordability challenges.

- **Prioritize federal dollars for capital improvement projects that will improve water infrastructure.** For example, in addition to traditional capital projects, utilities could leverage low-interest federal loans to invest in innovative technologies such as leak detection, advanced metering infrastructure projects, and water reuse systems that reduce water loss and lower long term operational costs. Reducing non-revenue water (from leaks in the distribution system and underbilled/unbilled water) will help municipalities save money by reducing waste due to costs associated with water treatment, storage, and transmission.
- **Explore how water rates, fees, and taxes impact affordability challenges in the**



municipality. Cost of service and water rate studies help municipalities make data-informed decisions about rate adjustments that can assist with affordability challenges while also maintaining sufficient revenue for utility operations. Technical assistance programs may be available to qualifying utilities to receive pro-bono support with these types of studies.

- **Invest in energy efficiency and renewable energy management projects to generate additional operational savings and revenue.** Energy use is one of the top three overall expenses for water and wastewater utilities. Moreover, energy usage from water and

wastewater treatment plants can account for 30-40% of a municipal government's overall energy consumption. Improving energy efficiency at water and wastewater treatment plants can significantly reduce energy costs, minimize utilities' overall carbon footprint, and improve resilience.⁸⁷

State and Federal Policy Needs

In addition to needed reforms and deeper investments at the local level, state and national

policy can provide much needed support for smaller, historically disinvested communities in particular. Based on our research as well as the voices of others in the water sector, Elevate advocates for the following policy priorities to promote water affordability long term.

- **Establish a permanent LIHWAP program at the federal level.** Utility billing relief programs for energy have been around for years, but funds have not historically been available for water assistance. The pandemic highlighted for many the foundational need for water and COVID-era policies should be developed for the long term for the water sector. The Low-Income Water Customer Assistance Program Assessment Study points to several promising, more efficient models for LIHWAP 2.0.⁸⁸
- **Establish a statewide Customer Assistance Program (CAP).** Due to the fragmented nature of public utilities, and limited capacity

of many small water utilities, a cooperative CAP at the state level could provide assistance to some of the most vulnerable water burdened residents missed by existing CAPs. This should include funding for water reconnections and help reduce fees.

- **Create a statewide resource that aims to stabilize utility revenue.** Through providing technical assistance and funding resources, states can get to the underlying issues of water affordability by helping municipalities make necessary investments in their operational capacity as well as address pressing infrastructure needs. After decades of shrinking investment from state and national governments, more resources need to be made available to replace and maintain deteriorating water infrastructure.
- **Ban water shutoffs and other punitive measures aimed at those unable to pay their**

water bills. A state or countywide ban would be more effective than a patchwork city-by-city approach and encourage utilities to seek alternative methods of payment collection.

- **Establish statewide data transparency laws** requiring public utilities to uniformly publish information on water rates, fees, debt, and affordability programs. This will not only increase accountability, but also provide greater visibility around water burden and needs at scale, which can better inform future program development.

Water is a foundational need. As time goes on, demand, regulations, pressure on utilities, and prices are all increasing while infrastructure is quickly degrading. We believe through these policies, actions, and investments, we can work together with leaders and water advocates to make safe, affordable access to water a possibility for our region.

Acknowledgements

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Notes

- 1 *Institute of Public Utilities (2023). Trends in the Consumer Price Index (CPI) for public utilities (BLS). Michigan State University. (Used with permission.)*
- 2 *Note: In figure 1, parenthetical years indicate when the data series began. CPI with a dashed versus a solid line indicate, respectively, the Consumer Price Index for telecommunications and for other utilities. The “=100” notation indicates the reference year when the index starts.*
- 3 *Elevate (n.d.). Water Affordability. elevatenp.org/Water-Affordability/. Retrieved June 14, 2023.*
- 4 *Metropolitan Planning Council, Elevate Energy, & Illinois-Indiana Sea Grant (2020). Water Affordability in Northeastern Illinois: Addressing water equity in a time of rising costs. elevatenp.org/publications/water-affordability-in-northeastern-illinois-addressing-water-equity-in-a-time-of-rising-costs/*
- 5 *Note: The threshold deemed affordable by the U.S. Environmental Protection Agency is 2.5% of a household’s annual income to pay its water costs and 2.0% to pay sewer costs, for a combined total of 4.5%. Combined water service costs greater than that is deemed a “high” burden under this definition. However, this method was intended as a measure of a municipality’s financial capability for achieving regulatory compliance under the Clean Water Act and Safe Drinking Water Act – it was not intended as a measure of household-level affordability. Therefore, the oft-cited 4.5% threshold is considered arbitrary by water affordability experts.*
- 6 *Note: Census tracts are statistical subdivisions of populations, with an emphasis on delineating geographic units of approximately equal size. Each census tract contains, ideally, 4,000 individuals but can range from 1,200 to 8,000. Census tracts do not cross state or county lines but can cross other jurisdictional boundaries. / U.S. Census Bureau (n.d.). Glossary. [census.gov/programs-surveys/geography/about/glossary.html](https://www.census.gov/programs-surveys/geography/about/glossary.html)*
- 7 *Elevate, Metropolitan Planning Council, & Illinois-Indiana Sea Grant (2020). Water Affordability in Northeastern Illinois: Addressing water equity in a time of rising costs. elevatenp.org/Water-Affordability/*
- 8 *Metropolitan Planning Council, Elevate Energy, & Illinois-Indiana Sea Grant (2020). Water Affordability in Northeastern Illinois: Addressing water equity in a time of rising costs. elevatenp.org/publications/water-affordability-in-northeastern-illinois-addressing-water-equity-in-a-time-of-rising-costs/*
- 9 *Metropolitan Planning Council (n.d.). Drinking Water 1-2-3: A guide for local officials and community leaders. drinkingwater123.metroplanning.org/*
- 10 *Walton, B. (2020, October 15). Chart: Customer Water Debt Data in 12 U.S. Cities. Circle of Blue. circleofblue.org/2020/world/chart-customer-water-debt-data-in-12-u-s-cities/*
- 11 *Walton, B. (2020, August 5). Millions of Americans Are In Water Debt. Circle of Blue. circleofblue.org/2020/world/millions-of-americans-are-in-water-debt/*
- 12 *Note: Unless noted, demographic data in this report come from the Chicago Metropolitan Agency for Planning’s Community Data Snapshots (July 2023 release), retrieved from cmap.illinois.gov/data/community-snapshots.*
- 13 *Note: To put income figures into perspective, at the time of writing, MHI is \$81,102 for the seven-county region of northeastern Illinois and \$72,121 for Cook County, Illinois.*
- 14 *Elevate & Metropolitan Planning Council (2022). City of Chicago Water Affordability Analysis. elevatenp.org/publications/city-of-chicago-water-affordability-analysis/*
- 15 *Elevate (2023). Water Affordability and UBR Findings and Recommendations. <https://www.elevatenp.org/publications/water-affordability-and-ubr-findings-and-recommendations/>*
- 16 *Note: Median and average both included because of bill outliers that skewed the median.*
- 17 *Elevate & Metropolitan Planning Council (2023). City of Harvey Water Affordability Analysis. elevatenp.org/publications/city-of-harvey-water-affordability-analysis/*
- 18 *Elevate & Metropolitan Planning Council (2023). Village of Broadview Water Affordability Analysis. elevatenp.org/publications/village-of-broadview-water-affordability-analysis/*
- 19 *Note: The study period includes pandemic era data and represents a limited period, making it inappropriate to extrapolate long-term trends from these snapshots.*

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