



AMERICA'S SECRET WATER CRISIS:

***NATIONAL SHUTOFF SURVEY REVEALS WATER
AFFORDABILITY EMERGENCY AFFECTING MILLIONS***

About Food & Water Watch

Food & Water Watch champions healthy food and clean water for all. We stand up to corporations that put profits before people, and advocate for a democracy that improves people's lives and protects our environment. We envision a healthy future for our families and for generations to come, a world where all people have the wholesome food, clean water and sustainable energy they need to thrive. We believe this will happen when people become involved in making democracy work and when people, not corporations, control the decisions that affect their lives and communities.

Food & Water Watch has state and regional offices across the country to help engage concerned citizens on the issues they care about. For the most up-to-date contact information for our field offices, visit foodandwaterwatch.org.

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Executive Summary

This survey is a first-of-its-kind nationwide assessment of water shutoffs for nonpayment. Food & Water Watch contacted the two largest water systems in each state to request the number of households whose water was shut off for nonpayment in 2016. We received responses back from 73 utilities.

Top findings:

- The average water utility shut off 5 percent of households for nonpayment in 2016.
- Among responding utilities, more than half a million households lost water service for nonpayment, affecting an estimated 1.4 million people in 2016.
- An estimated 15 million people in the United States experienced a water shutoff in 2016.

Overall, there appears to be a regional pattern, with more shutoffs in the South and relatively few in Alaska, Hawaii and the Northeast. The highest water shutoff rates were in Oklahoma, where Oklahoma City and Tulsa disconnected one in five households for nonpayment. Three cities —Eau Claire, Wisconsin; Leominster, Massachusetts; and Champlain Water District, Vermont — did not shut off any household for nonpayment.

Compared to the cities with the fewest shutoffs, the highest shutoff rates occurred in lower-income cities with higher rates of poverty and unemployment. Water service is exceedingly unaffordable for low-income households in Detroit and New Orleans, in particular. More than one in five households in these cities receive water bills that exceed 9 percent of their income. Overall, communities of color had higher water bill burdens. This pattern was seen among the cities with the highest and lowest shutoff rates.

Capital improvements are driving high water bills. On average, the cities with the highest shutoff rates were spending 22 percent more per household each year on capital improvements than the cities with the fewest shutoffs, but there is substantial variation in planned improvements. New Orleans (a high-shutoff city) and Honolulu (a low-shutoff city) had the highest per-household improvement costs. They planned to spend \$2,700 to \$2,800 per residential customer each year.

Local policies are driving high rates of shutoffs. The three utilities with the highest shutoffs gave residents the least amount of time to pay their bills before facing shutoff. In Springdale, Arkansas, which had the third highest shutoff

rate, the minimum time between the date the bill was sent and disconnection of service for nonpayment was a mere three weeks. At the other end of the spectrum, Eau Claire, Wisconsin and Leominster, Massachusetts did not use water shutoffs for collection at all.

Private water utilities overwhelmingly refused to respond to our requests (see box on page 3). This lack of transparency with privatized systems is a particular concern because these companies charge significantly higher water rates than their government peers, suggesting that affordability might be a bigger problem for their customers.

Local, state and federal officials need to take urgent action to curb the tide of water shutoffs in the face of a growing water affordability crisis:

- Local governments can set up affordability programs to tackle the problem head-on and employ best practices to ensure that households have sufficient time and notice to pay their bills prior to disconnection.
- States should require all utilities, including privately owned systems, to disclose shutoff and reconnection rates.
- The federal government can act to support localities by providing the funding relief needed to ensure that every person in the country has access to safe and affordable water service.

Introduction: Our Deepening Water Affordability Crisis

Unaffordable water bills are a growing problem in communities across the country.⁵ A 2017 study found that water bills were already unaffordable for 12 percent of households, and if water charges increased at projected rates, nearly 36 percent of U.S. households would be unable to afford their water bills within five years.⁶ This affordability crisis has already made headlines in cities like Detroit and Baltimore,⁷ but low-income households in communities across the country are struggling to pay their water bills.⁸

Part of the issue is that the federal government has cut back support for water systems, shifting the burden onto local ratepayers. Federal funding for water and sewer systems has fallen by 74 percent in real dollars since its peak in 1977.⁹ At the same time, our water pipes are aging and need to be replaced, while treatment plants need updates to comply with stronger water quality regulations.¹⁰ According to estimates by the U.S.

Environmental Protection Agency (EPA), drinking water, wastewater and stormwater systems need at least \$744 billion over the next 20 years.¹¹ The American Water Works Association put the figure even higher. It found that our drinking water systems alone need more than \$1 trillion over the next 25 years, with the greatest household burden expected in small systems in the southern and northeastern parts of the country.¹²

With lackluster federal support, water systems are having to hike water rates to make improvements.¹³ From 2008 to 2014, water and sewer rates increased by about 40 percent.¹⁴ Over the last 15 years, water bills have increased at three times the rate of inflation, but household incomes have fallen in real terms, after adjusting for inflation.¹⁵

Localities are grappling with water service costs that are increasingly unaffordable for more and more of their residents.¹⁶ This problem becomes especially complex in this period of widening income inequality and reliance on regressive water billing practices, which cause low-income households to pay a disproportionate amount of their income for their water service.¹⁷

Water industry experts have recognized this problem for decades. A 1994 article in the journal of the American Water Works Association predicted that water affordability would become a growing issue over the next decade.¹⁸ By 2012, a utility consultant concluded in the same publication: “The trend in decreasing household incomes and rapidly increasing water and sewer bills places our industry on a collision course where the need for more money is clear, but the customers’ ability to pay is trending down. It’s an affordability challenge.”¹⁹

In the absence of renewed federal support and local policy changes, this water affordability crisis will only deepen.

The Harm of Water Shutoffs

When households receive unaffordable water bills, they may cut back on medicine, groceries or other essentials; or they do not pay for their water service. It is a simple reality that unaffordable bills are often unpaid bills. For utilities, one of the main collection practices for unpaid water bills is service shutoffs.²⁰ This is a punitive measure that can cause substantial harm to low-income households.

Low-income households are particularly vulnerable to water shutoffs because water bills consume a higher share of their income.²¹ One census study found that

Investor-Owned Utilities Overwhelmingly Refused to Reply

Almost all private water companies did not reply to requests for information about their number of shutoffs. Of the 11 privately owned water utilities surveyed, only 1 (Suez Idaho) responded — representing a 9 percent response rate. In comparison, the response rate among public sector providers was 93 percent.¹

The companies that did not reply were:

- Suez’s subsidiary in New Jersey (Bergen and Hudson counties)
- Artesian Water Company in Delaware (New Castle County)
- American Water subsidiaries in:
 - Illinois (the Peoria area)
 - Kentucky (Lexington, Fayette County)
 - Missouri (St. Charles and St. Louis counties)
 - New Jersey (Elizabeth City, Union County, et al.)
 - West Virginia (Charleston, Kanawha County and Huntington, Cabell County)
- Baton Rouge Water Company in Louisiana (Baton Rouge)
- Aqua America’s subsidiary in Pennsylvania (Montgomery County et al.)
- Maine Water Company (Biddeford, York County).²

Private companies have even refused to provide data to federal agencies. American Water refused to provide shutoff statistics to the Government Accountability Office (GAO) for its survey of economically distressed cities.³ This indicates that government mandates are necessary for disclosure from water corporations.

This lack of transparency is a major concern, especially because private companies charge higher rates on average than public sector providers. Food & Water Watch’s survey of the 500 largest community water systems found that privately owned systems charge typical households 59 percent more than public providers charge.⁴ This real-world impact of those higher rates cannot be explored in the absence of data from the private providers.

Table 1 • Water Shutoff Rates in 2016 — A Ranking

Shutoff rank	Utility name	State	Shutoff rate	Households experiencing shutoffs	Estimated number of people affected ⁽⁵⁾
1	Oklahoma City ⁽⁷⁾	OK	23%	44,324	113,913
2	Tulsa	OK	20%	23,903	56,889
3	Springdale Water Utilities	AR	19%	6,072 ⁽¹⁾	18,034
4	Sewerage and Water Board of New Orleans	LA	17%	19,486	46,572
5	JEA (Jacksonville)	FL	16%	41,311	107,409
6	Rapid City	SD	16%	2,953	7,028
7	Des Moines Water Works	IA	15%	11,625 ⁽²⁾	28,946
8	Mobile Board of Water and Sewer Commission	AL	13%	11,491	27,808
9	Detroit	MI	13%	27,588	72,005
10	Columbia	SC	12%	15,463 ⁽¹⁾	35,256
11	Milwaukee	WI	11%	16,342	41,182
12	Tucson	AZ	11%	22,453 ⁽¹⁾	54,336
13	Kansas City	MO	11%	16,262 ⁽¹⁾	38,378
14	Newport News	VA	10%	11,574	28,935
15	Raleigh	NC	10%	17,652	42,718
16	Greenville	SC	9%	13,734	29,528
17	Louisville Water Company	KY	9%	22,152 ⁽¹⁾	53,608
18	Meridian	ID	9%	2,858	8,060
19	Charlotte	NC	9%	21,220	54,535
20	Phoenix	AZ	9%	33,066 ⁽¹⁾	94,238
21	Ogden	UT	8%	1,671	4,612
22	DeKalb County	GA	7%	14,137	37,039
23	Wichita	KS	6%	7,558	19,122
24	Philadelphia	PA	5%	26,479	68,581
25	Billings	MT	5%	1,312	3,109
26	Minneapolis	MN	5%	3,538	8,067
27	East Bay MUD — Oakland City only	CA	4%	4,106 ⁽¹⁾	10,470
28	Albuquerque	NM	4%	7,916 ⁽³⁾	19,711
29	Cedar Rapids	IA	4%	1,861	4,355
30	Saint Paul	MN	4%	3,152	8,069
31	Washington Suburban Sanitary Commission	MD	4%	16,181	44,821
32	Tacoma	WA	3%	3,235	8,055
33	Columbus	OH	3%	8,792	21,013
34	Sioux Falls	SD	3%	1,601	3,890
35	Citizens Water (Indianapolis)	IN	3%	9,443 ⁽¹⁾	23,608
36	DC Water	DC	3%	3,313	7,421
37	Denver Water	CO	3%	6,201 ⁽³⁾	14,324
38	Fairfax County Water Authority	VA	3%	7,948	22,731
39	Metropolitan Utilities District	NE	3%	4,898	12,098
40	Salt Lake City	UT	2%	1,683	4,157
41	Truckee Meadows Water Authority	NV	2%	2,940 ⁽³⁾	7,556
42	Las Vegas Valley Water District	NV	2%	7,818 ⁽¹⁾	21,578
43	Fort Wayne	IN	2%	2,245 ⁽¹⁾	5,545
44	Santa Fe	NM	2%	592	1,362

Table 1 • Water Shutoff Rates in 2016 — A Ranking (continued)

45	Casper	WY	2%	428	1,049
46	Suez Idaho	ID	2%	1,666	4,348
47	Portland	OR	2%	2,751	6,492
48	Providence	RI	2%	1,179	3,006
49	Portland Water District	ME	2%	772 ⁽¹⁾	1,830
50	Cleveland	OH	1%	5,953	13,394
51	Chicago	IL	1%	6,351	16,195
52	Kent County Water Authority	RI	1%	333	793
53	Fargo	ND	1%	370	799
54	Water District No. 1 of Johnson County	KS	1%	1,563 ⁽¹⁾	4,236
55	Los Angeles	CA	1%	5,152	14,580
56	Regional Water Authority	CT	1%	1,078	2,749
57	Seattle	WA	1%	1,804	3,824
58	Juneau	AK	1%	72 ⁽¹⁾	189
59	Boston Water and Sewer Commission	MA	1%	716	1,683
60	Suffolk County Water Authority	NY	1%	3,195	9,553
61	Baltimore	MD	1%	1,192	2,932
62	Manchester	NH	1%	156 ⁽⁴⁾	370
63	Dallas	TX	1%	1,570	4,051
64	Honolulu Board of Water Supply	HI	0%	635 ⁽¹⁾	1,949
65	Bismarck	ND	0%	80	175
66	AWWU (Anchorage)	AK	0%	154 ⁽¹⁾	427
67	Lincoln	NE	0%	223	531
68	Eugene	OR	0%	100	233
69	Burlington	VT	0%	11	24
70	Jackson	MS	0%	42	110
73	Eau Claire	WI	0%	0	-
73	Leominster	MA	0%	0	-
73	Champlain Water District ⁽⁶⁾	VT	0%	0	-
Average			5%		
Total				567,695	1,436,192

- (1) This is the number of shutoffs performed on households. It is possible for the same household to experience multiple shutoffs in a year.
- (2) "This number represents the number of disconnect orders for non-payment of services. It is possible an eligible order may not result in disconnection, for various reasons, including but not limited to: i) the customer was granted additional time to make payment, or ii) the customer made payment after the order was created but before the field work was completed."
- (3) All accounts, including commercial disconnections.
- (4) Estimated at 156 to 520 a year. Only 22 properties disconnected in 2016 have not had service restored, and they are vacant.
- (5) Food & Water Watch calculation based on the U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates, Table S1101.
- (6) Champlain Water District, Vermont, is mostly a wholesale water supply provider. According to the EPA's Safe Drinking Water Information System, the district has the most service connections in the state. Correspondence with the utility clarified that only a couple hundred households are residential retail customers.
- (7) When the Associated Press contacted the Oklahoma City Utilities Department, its spokesperson said the utility made an error and included commercial accounts in the shutoff data provided to Food & Water Watch. The corrected figure for residential-only shutoffs is approximately 26,500 households, or 14 percent, which would move the city's ranking to 7th highest. The data in this report reflect the original responses from the utilities.

SOURCES: Responses to records requests. Sources on file with Food & Water Watch; Miller, Ken and Adam Kealoha Causey. "Report: More than 500,000 US households had water cut off." Associated Press. October 24, 2018.

low-income families were nearly five times as likely as non-low-income households to experience disconnection of their electric or natural gas service.²² Water shutoffs pose a real threat to human health.²³ Without water service, people cannot flush their toilets or wash their hands. Lack of adequate sanitation can cause diseases to spread and allow people to become sick. The elderly, pregnant women, children and people with diabetes and other illnesses would be especially vulnerable.²⁴

Water shutoffs can make homes uninhabitable, forcing families to move.²⁵ Frequent forced moves can negatively impact children's education. Children who change schools frequently are more likely to repeat grades or completely drop out of school.²⁶ When moving is not an option, water shutoffs can tear families apart. Lack of running water can be a reason that parents and other guardians lose custody of children.²⁷ Lack of water access in the home may be considered child neglect in 21 states, and water shutoffs have led to children being taken from their homes under child protection laws.²⁸

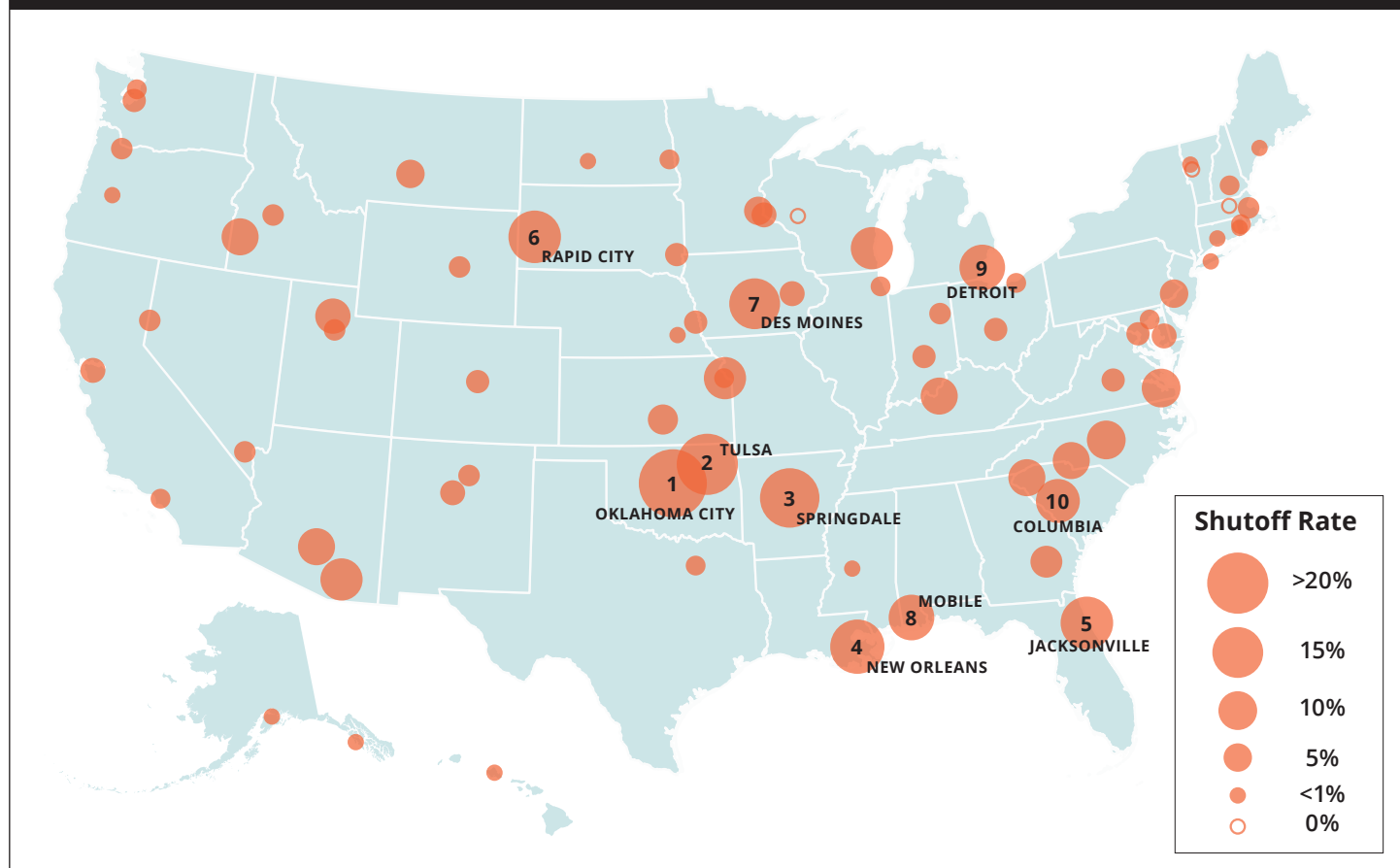
Unaffordable utility bills can lead to homelessness.²⁹ Studies have found strong associations between disconnections of other utilities and abandoned homes.³⁰ Water shutoffs can have community-wide consequences. An analysis from We the People of Detroit found that widespread water shutoffs were dismantling African-American neighborhoods in Detroit.³¹

Despite these far-reaching consequences, information about the prevalence of shutoffs is limited. There is no national dataset of water service disconnections.³² This survey seeks to fill the existing information gap and provide a national snapshot of the extent of the problem.

National Survey: How Widespread Are Water Shutoffs?

Food & Water Watch submitted information requests under state public information laws to the utilities that owned the two largest community water systems in each state.³³ A community water system delivers drinking water to households year-round. Of each utility, we requested the number of

Figure 1 • Water Shutoffs in 2016



Portion of household customers that experienced a water shutoff for nonpayment at the two largest water systems in each state, among responding utilities. Top 10 cities ranked by highest shutoff rate.

households shut off for nonpayment in 2016 and the total number of residential customers for the system. Responses were received from 73 utilities. For these utilities, shutoff rates were calculated to determine the portion of household customers that had service disconnected for nonpayment that year (see Table 1 on pages 4 and 5 for a ranking).

Three key findings among the responding utilities were:

- The average utility shut off 5 percent of households for nonpayment in 2016.
- 567,695 households lost water service for nonpayment among surveyed cities in 2016.
- An estimated 1.4 million people experienced a water shutoff among surveyed cities in 2016.

If we extrapolate the average shutoff rate of responding utilities to all community water systems nationwide, which reportedly served 306 million people in 2016,³⁴ then an estimated 15 million people in the United States experienced a water shutoff that year.

There is great variation in shutoff rates. Three cities — Eau Claire, Wisconsin; Leominster, Massachusetts; and Champlain, Vermont — did not shut off any households for nonpayment, while the two biggest water providers in Oklahoma — Oklahoma City and Tulsa — shut off at least one in five households.

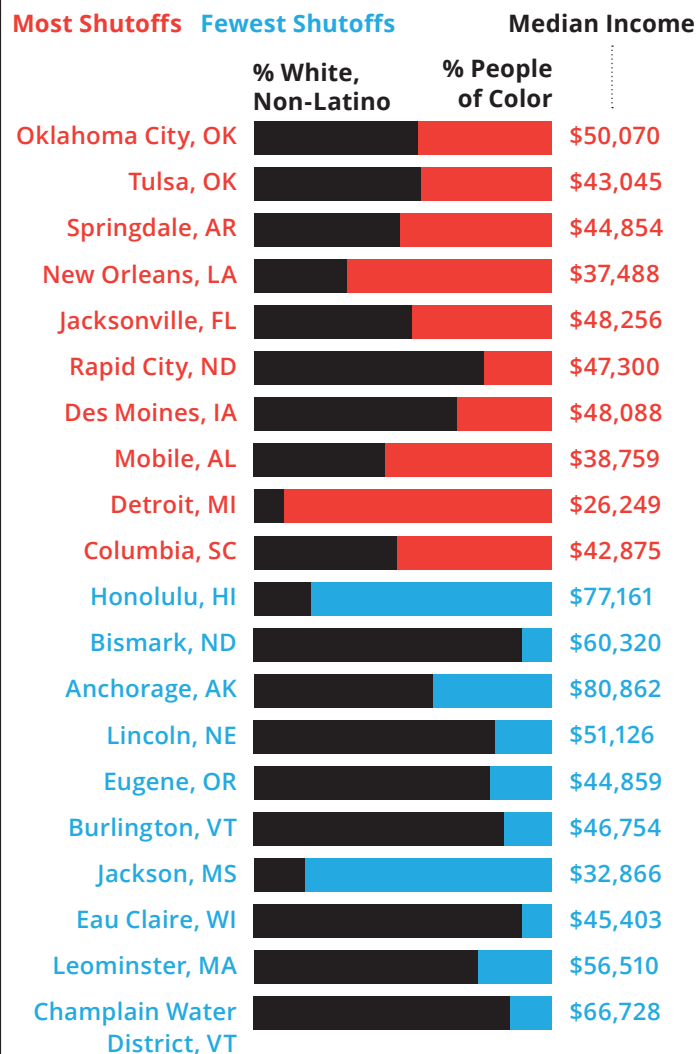
A regional trend is also apparent (see Figure 1 on page 6). The states with the highest water shutoff rates are mostly concentrated in the South: Oklahoma, Arkansas, Louisiana and Florida. Relatively few shutoffs occurred in the Northeast, Hawaii and Alaska.

Overall, the shutoff rates have no obvious direct association with poverty rates, bottom household income quintiles or unemployment rates. There are likely too many other various factors that influence shutoffs, including housing characteristics, water bill burdens and local policies. The following sections explore some of these factors by comparing the jurisdictions with the highest shutoff rates (most shutoffs) and the lowest shutoff rates (fewest shutoffs).

Socioeconomic Trends

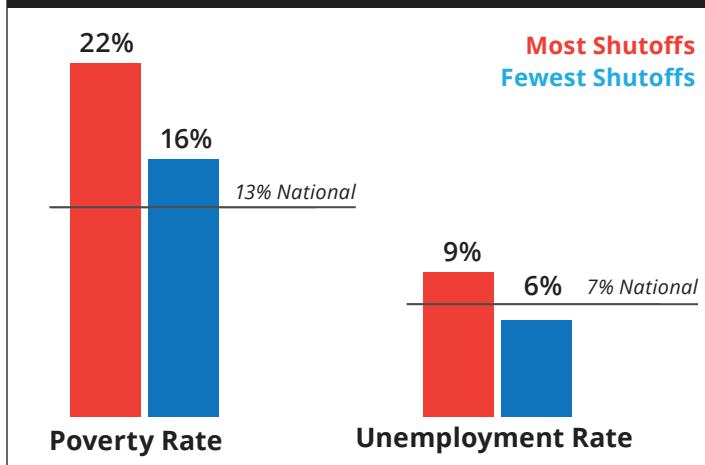
While the full dataset did not show clear associations between shutoff rates and socioeconomic factors, an examination of the systems at the two extremes — with the most and fewest shutoffs — indicates that the highest rates of shutoffs are occurring in cities with relatively higher poverty rates, lower household

Figure 2 • Socioeconomic Indicators of Cities With Most and Fewest Shutoffs



SOURCE: Food & Water Watch calculation based on U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates, American FactFinder. Accessed August 2018.

Figure 3 • Poverty and Unemployment Rates in Cities With Most and Fewest Shutoffs



SOURCE: Food & Water Watch calculation based on U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates, American FactFinder. Accessed August 2018.

incomes and more unemployment (see Figures 2 and 3 on page 7). High shutoff rates were also disproportionately in cities with more people of color.³⁵ Water shutoffs are an issue of environmental justice, as under-resourced communities confront the challenge of repairing aging water systems in the era of widening disparities and climate change.

Compared to the cities with the fewest shutoffs, the cities with the most shutoffs had an average 41 percent higher poverty rate and an average 47 percent higher unemployment rate. The median household income in cities with the highest shutoff rates was only three-quarters the median household income of cities with the lowest shutoff rates.

A GAO survey found high rates of shutoffs in several economically distressed, majority African-American cities. In 2015, about one in five customers in New Orleans, Louisiana and in Gary, Indiana had their service cut off. That year, about one in eight customers lost water service in Birmingham, Alabama; Detroit, Michigan; and Youngstown, Ohio.³⁶ These cities have several characteristics in common, including declining

populations, high rates of poverty and populations that are majority people of color.³⁷ A study of Boston, Massachusetts found that significantly more water shutoff notices were sent to wards with higher proportions of people of color.³⁸

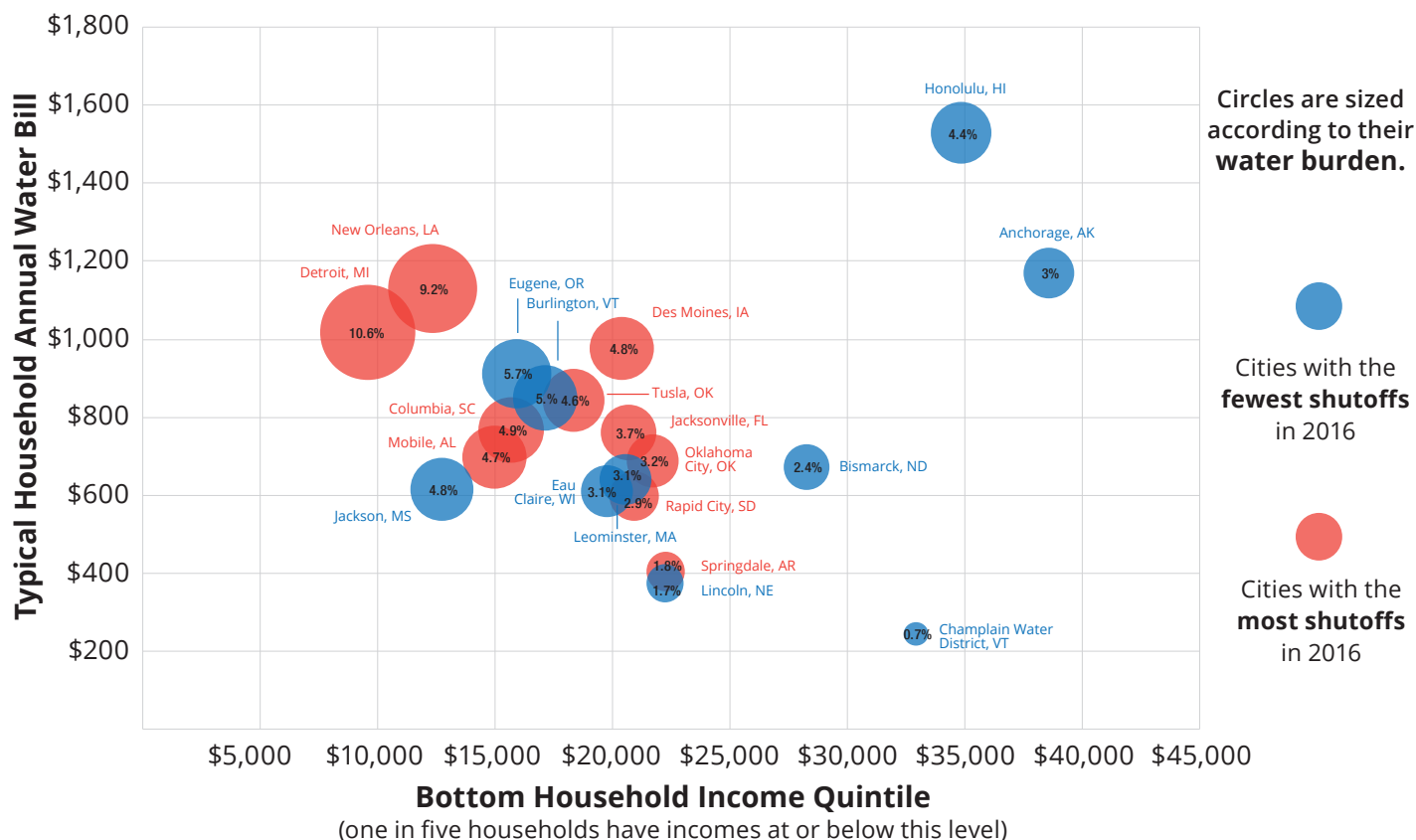
Some cities, like Jackson, Mississippi, however, had higher rates of poverty (31 percent) and low shutoff rates (0 percent). In 2014, voters in Jackson approved an increase to the sales tax to help improve the city's infrastructure, including its water and sewer system.³⁹ Jackson has not had a water or sewer rate increase since then.⁴⁰

While the average city with the most shutoffs is low-income, not all low-income cities engage in mass shutoffs. The use of water shutoffs for collection is a policy decision, and policies can help prevent shutoffs in distressed communities.

Water Burdens and Unaffordable Bills

Water affordability is a bigger challenge in some cities with the highest rates of shutoffs. In Detroit and New Orleans, in particular, water bills are extremely unaffordable.

Figure 4 • Water Burden Is Higher for Lower-Income Households



SOURCES: See Appendix A

Low-income households in these cities have what is known as high water burdens. A water burden is the portion of a household's total income that is spent on their drinking water, wastewater and stormwater service.⁴¹ The United Nations has indicated that for water service to be affordable, charges should not constitute more than 3 percent of a household's income.⁴² California's Department of Public Health has set an affordability threshold of 1.5 percent of household income for drinking water alone.⁴³ Some affordability experts set the threshold for water and sewer affordability at 2 percent of household income,⁴⁴ and others put that combined threshold at 4 percent.⁴⁵ Although utility affordability experts acknowledge that these thresholds are to some degree subjective, they generally accept these thresholds.⁴⁶

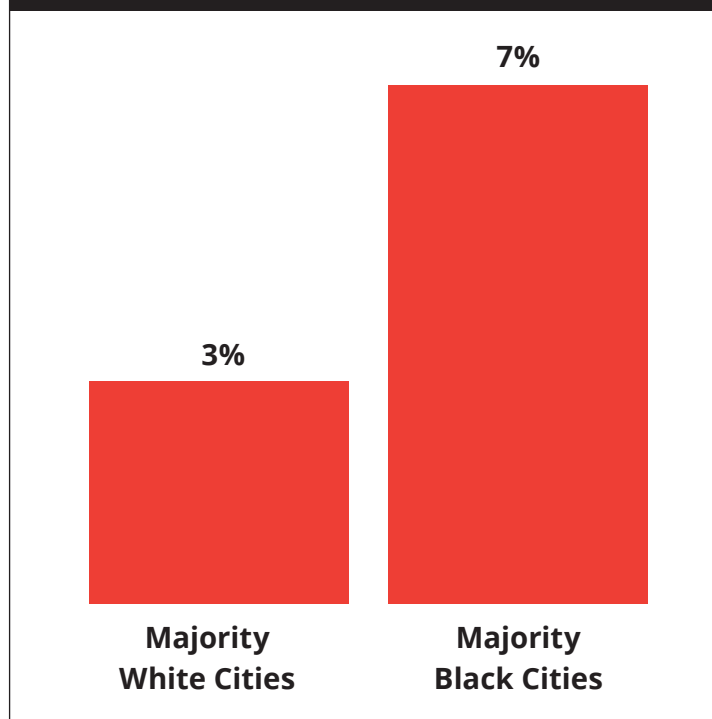
Because comparing water bills to the median household income can obscure affordability challenges for low-income households,⁴⁷ this survey looks at the bottom quintile of household income in each city. One-fifth of households have annual incomes at or below this amount. Typical water bills were calculated assuming 5,000 gallons of water used a month by a household with a 5/8-inch meter inside a utility's main service area. Water bills include charges for drinking water, sewer and stormwater services.

The average water burden for low-income households is 5.0 percent in cities with the most shutoffs and 3.7 percent in cities with the fewest shutoffs (see Appendix A on page 15). Although average water bills are slightly higher in the cities with the fewest shutoffs, water burdens tend to be lower because household incomes are higher (see Figure 4 on page 8).

Notably, a typical household's water bill exceeds \$1,000 a year in Detroit and New Orleans. Among the cities with the highest shutoff rates, these two cities have the largest water bills and the lowest household incomes. They are also predominately African-American communities. For more than one in five households in New Orleans, typical water bills would consume at least 9 percent of their income. Low-income Detroit households are facing water service charges that would consume more than 10 percent of their income. Water service is simply unaffordable for low-income households in Detroit and New Orleans.

A 2018 survey of low-income residents in the Detroit area similarly found that the average household was paying 10 percent of its income on water bills.⁴⁸ Unaffordable water bills were hitting home. That survey found that

Figure 5 • Average Water Bill Burden for Low-Income Households

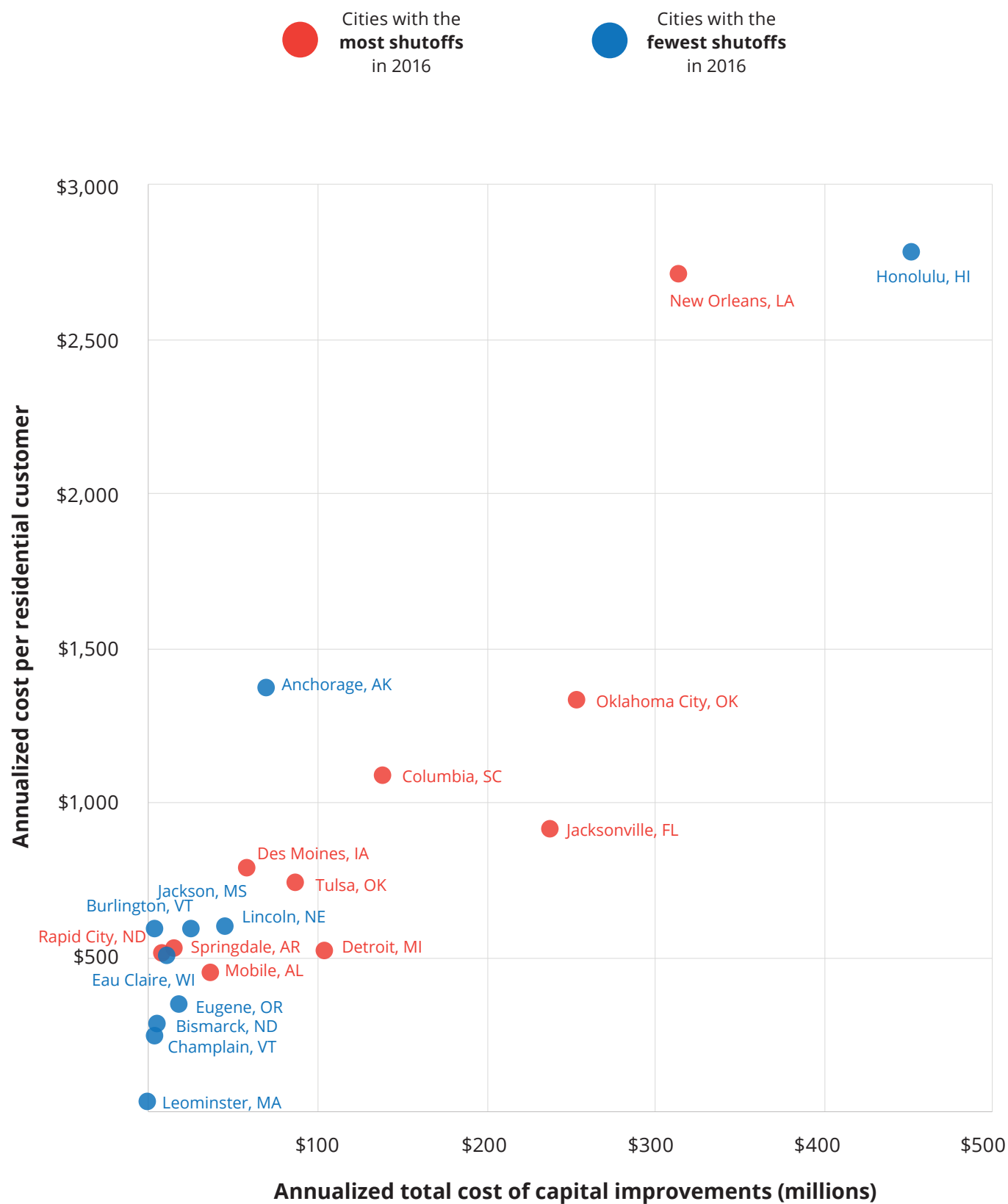


more than 80 percent of households were making difficult tradeoffs to pay their water bills: more than half of surveyed residents reduced spending on their rent or property taxes, clothing, fruit and vegetables, and transportation.⁴⁹ More than half of surveyed residents cut back dramatically or completely on school supplies.⁵⁰

Overall, between the two groups with the most and fewest shutoffs, the water bill burdens were much higher in majority African-American cities. The average majority African-American city had a water bill burden more than twice that of the average majority white city (see Figure 5). In majority African-American cities, low-income households paid more than 7 percent of their income on water on average. In the average majority white city, low-income households paid 3 percent of their income on water.

While this water burden analysis looked only at 20 cities and more research is needed, these results suggest that African-American communities disproportionately face water affordability challenges. Other surveys have found similar trends. A study of Michigan found that communities of color pay higher average household water bills than communities with lower percentages of racial minorities.⁵¹ In 2017, a *Chicago Tribune* survey of the Chicagoland metropolitan area found that black and poor suburbs paid higher water bills than their wealthier, whiter neighbors. It found that majority

Figure 6 • Expensive Improvements Are Driving Rate Increases



SOURCES: See Appendix B

Tax Sales as an Alternative Enforcement Mechanism: The Baltimore Case Study

Unaffordable water bills can become liens against properties in some places, including Baltimore, Maryland.¹²⁸ In 2016, Baltimore had a relatively low shutoff rate with about 1,200 households disconnected for nonpayment. This was a decline from 2015, when the city shut off 8,000 households, mostly in the lowest-income areas of the city.¹²⁹

Instead of using service cutoffs, Baltimore traditionally used tax sales of properties to enforce its water collections.¹³⁰ Unpaid water bills become liens on the property, and the city sells these liens to investors at annual tax sales. In fiscal year 2017, Baltimore sold about 1,800 properties at tax sale over their water bills alone.¹³¹ If a homeowner fails to repay the investor with interest and fees within nine months, the investor can move to foreclose on the home.¹³²

At the end of 2017, in response to public concerns about the impacts of these tax sales, the mayor of Baltimore issued a moratorium on tax sales of owner-occupied homes solely over water bills.¹³³ Because of this moratorium, 3,528 homes were removed from the tax sale list and protected from any water-related foreclosure in 2018.¹³⁴ In 2018, the Maryland legislature expanded this moratorium to renter-occupied housing and extended it through 2019.¹³⁵

In response to the moratorium, the city of Baltimore's Department of Public Works revamped its water shutoff policy, according to rate consultants for the city, "to incentivize on-time payment of customer bills."¹³⁶ However, as the city continued to address issues with the migration of its water billing system, which occurred in October 2016,¹³⁷ the city put a temporary halt to most water shutoffs. There were only four shutoffs in 2017 and none in the first half of 2018.¹³⁸

Baltimore's internal policy of not shutting off water service for nonpayment is highly protective of low-income households. Until the city establishes a comprehensive affordability program, the city should maintain this policy against shutoffs as the city's affordability crisis intensifies. According to an analysis of Baltimore by a utility affordability expert, "2019 is the year that water and wastewater bills become unaffordable for more than half the city at median income."¹³⁹

African-American communities had typical household bills that were 20 percent higher than those in majority white communities.⁵²

System Improvement Costs

As expected, among both groups of cities, cities with larger capital improvement plans were charging higher rates, but some cities with high improvement needs had low rates of shutoffs (see Figure 6 on page 10).

On average, the cities with the highest shutoff rates were spending 22 percent more per household each year on capital improvements than the cities with the fewest shutoffs, but there is substantial variation in the planned capital improvements in water and sewer systems. Nearly all systems are planning millions of dollars of upgrades every year, amounting to an average cost of \$949 per household a year for high-shutoff cities and \$781 among low-shutoff cities (see Appendix B on page 16).

New Orleans and Honolulu, notably, have the highest capital needs among the surveyed cities. New Orleans has one of the highest shutoff rates, while Honolulu has one of the lowest.

New Orleans, a high shutoff rate city, planned to spend \$3.2 billion in total over the next decade,⁵³ which amounts to an annualized cost of \$2,699 per household. As of November 2017, the utility had 253 active projects, totaling \$1.2 billion.⁵⁴ More than 40 percent of those costs are drainage projects to reduce flood damage in the city, still reeling from Hurricane Katrina more than a decade later.⁵⁵ New Orleans has the world's second largest drainage system.⁵⁶ These improvement projects appear to be the driver of the city's high water costs and high water burden for low-income residents.

Honolulu, a low shutoff rate city, has had to increase its rates substantially to pay for capital improvements to its wastewater system because of federal consent decrees.⁵⁷ Honolulu has relatively high water bills as a result, but because of the city's higher household incomes, water burdens for low-income households (4.4 percent) are less than half those in New Orleans (9.2 percent).

These high capital needs indicate that affordability problems will only deepen in the foreseeable future. Cities like New Orleans will need to continue to increase rates that are already unaffordable for low-income households. The city cannot afford not

Table 2 • Cities With the Most Shutoffs — Shutoff Policies and Procedures

Rank	Utility	Notice requirements	Minimum period before shutoff	Assistance programs or safety nets
1	Oklahoma City, OK	Mailed notice 10 days prior; door hanger 2 days prior ⁷⁶	31 days from billing date ⁷⁷	H2O (Help 2 Others) ⁷⁸
2	Tulsa, OK	Notice provided on next bill 10 days prior ⁷⁹	40 days from billing date (10 days after subsequent bill) ⁸⁰	
3	Springdale, AR	Mailed notice 5 days prior ⁸¹	21 days from billing date (6 days past due) ⁸²	Penalty Exempt Program ⁸³
4	New Orleans, LA	Mailed notice 10 days prior ⁸⁴	70 days past due ⁸⁵	Water Help Program, up to \$200 a year ⁸⁶
5	Jacksonville, FL	Mailed notice 7 days prior, phone call 2 days prior ⁸⁷	44 days after billing date ⁸⁸	United Way 2-1-1 ⁸⁹
6	Rapid City, SD	Mailed notice 10 days prior ⁹⁰	45 days after billing date ⁹¹	Water Rate Relief Program ⁹²
7	Des Moines, IA	Mailed notice 10 days prior ⁹³	55 days after billing date ⁹⁴	Project H2O, up to \$125 a year (voluntary) ⁹⁵
8	Mobile, AL		42 days after billing date ⁹⁶	Neighbors in Need (voluntary) ⁹⁷
9	Detroit, MI	First mailed notice 11 days after past due; second notice 10 days prior ⁹⁸	42 days after billing date ⁹⁹	WRAP, up to \$300 a year ¹⁰⁰
10	Columbia, SC	Mailed notice 15 days prior ¹⁰¹	60 days after due date ¹⁰²	

Table 3 • Cities With the Fewest Shutoffs — Shutoff Policies and Procedures

Rank	Utility	Notice requirements	Minimum period before shutoff	Assistance programs or safety nets
10	Honolulu Board of Water Supply	Mailed notice 10 business days prior ¹⁰³	35 days past due ¹⁰⁴	
9	Bismarck, ND	Mailed notice 5 days prior ¹⁰⁵	75 days after billing date ¹⁰⁶	No ¹⁰⁷
8	Anchorage, AK	Mailed or emailed notice 15 days prior; door hanger 2 days prior ¹⁰⁸	70 days after billing date ¹⁰⁹	Coins Can Count (voluntary) ¹¹⁰
7	Lincoln, NE	Mailed or hand delivered notice 7 days prior ¹¹¹	97 days past due ¹¹²	
6	Eugene, OR	Written notice ¹¹³	144 days after billing date ¹¹⁴	Customer Care Program, up to \$200 a year, and other support ¹¹⁵ ; no shutoffs during hot (>100 degree F) or freezing weather ¹¹⁶
5	Burlington, VT	Written notice 14 to 20 days prior ¹¹⁷	44 days after billing date ¹¹⁸	Medical safety net ¹¹⁹
4	Jackson, MS		35 days past due ¹²⁰	No
1	Eau Claire, WI	N/A	Does not shut off water for nonpayment ¹²¹	No ¹²²
1	Leominster, MA	N/A	Does not shut off water for nonpayment ¹²³	No ¹²⁴
1	Champlain Water District, VT	Written notice 14 to 20 days prior ¹²⁵	44 days after billing date ¹²⁶	Medical safety net ¹²⁷

to improve its water system, especially its drainage system in the face of more frequent climate change-fueled storms, but residents cannot afford to pay the bills to make these necessary improvements. The situation in New Orleans, in particular, paints a clear case for the need for federal funding to ensure that every household in the country has access to safe water and an environment safe from flooding.

Water Shutoff Policies and Existing Assistance

Local policies directly influence shutoff rates. These decisions include the use of tax sales as an alternative collection practice, water shutoff procedures and the availability of low-income assistance programs (see Tables 2 and 3 on page 12).

Shutoff procedures appear to drive the high shutoff rates in Oklahoma City, Oklahoma, Tulsa, Oklahoma and Springdale, Arkansas. These three cities with the highest shutoff rates allow the least amount of time in between mailing bills and shutting off service for nonpayment. In Oklahoma City, the monthly bills are due within 15 days, and accounts are subject to shutoff within 31 days after the billing day.⁵⁸ That means a household could experience a shutoff in about a month of receiving a water bill.

Notably, Springdale, Arkansas, which has a relatively low water bill burden for low-income households (1.8 percent) and a high shutoff rate (19 percent), provides the least amount of time for bill payment. It shuts off water service for nonpayment at a minimum of three weeks after sending water bills.⁵⁹ The city's high shutoff rate is likely driven by this policy.

On the other end of the spectrum, Eau Claire, Wisconsin and Leominster, Massachusetts do not shut off water service for nonpayment at all.⁶⁰ Instead, the cities place liens on the property (see box on page 11 for information on tax sales of unpaid liens).⁶¹

Among the cities with the fewest shutoffs, Eugene, Oregon has the highest water burden. Low-income households there face water bills that consume at least 5.7 percent of their income. Eugene, however, grants customers 144 days to pay their bills before being subject to shutoff,⁶² and it offers a low-income assistance program of up to \$200 year as well as other safety nets and protections.⁶³

The largest water provider in Oregon — Portland — was one of the first U.S. water systems to offer affordability programs, in the 1990s.⁶⁴ As of 2017, Portland

(shutoff rate of 2 percent) offered a “customer driven, flexible, no cost and generous payment arrangement system”, and it offers bill discounts, crisis vouchers, a safety net program and assistance with fixture repair.⁶⁵ Portland also uses multiple notification methods: the bill, a bill reminder, a shutoff notice, a call and a door hanger.⁶⁶

Most of the utilities offer some form of assistance, but that assistance can vary. Oklahoma City provides funding to the Salvation Army to help struggling households pay their bills.⁶⁷ Many of the assistance programs apply only to low-income seniors and people with disabilities, including in New Orleans⁶⁸ and Rapid City,⁶⁹ while others are funded by voluntary contributions that may not generate sufficient funding to meet the demand.⁷⁰

Bismarck, North Dakota, indicated that while it does not offer low-income assistance, “We work to factor in affordability and sustainability into our rates.”⁷¹ Similarly, Springdale Water Utilities, Arkansas, does not offer low-income assistance other than waiving late fees for customers on disability or social security. The customer service representative indicated, “We try to keep our water rates as low as possible for every customer.”⁷² Among cities with the highest shutoff rates, Springdale charges the lowest rates.

A 2017 EPA survey of nearly 800 water utilities found that only 30 percent of utilities offered some form of customer assistance program.⁷³ An American Water Works Association survey found that the share of utilities offering assistance and payment plans increased from 39 percent in 2017 to 48 percent in 2018, but in 2018 only 25 percent had actual low-income assistance programs — the rest offered only payment plans or referred people to nonprofits.⁷⁴ A detailed review found that most assistance programs are small with limited capacity and ability to meet the needs of low-income households.⁷⁵

Conclusions and Policy Recommendations

Water affordability is a national problem, and water shutoffs are widespread and affect millions of people across the country. Disconnecting water service poses a very real threat to personal wellbeing. Extensive water shutoffs could potentially create a public health crisis in highly impacted communities. Local, state and federal policy makers need to take urgent action to reverse the tide and prevent mass shutoffs.

Local governments

There are many ways that local governments can reduce water shutoffs even in the face of increasing water bills. Affordability programs can tackle the heart of the problem of water bills colliding with the ability of low-income households to pay. For large cities where low-income households confront high water burdens, percentage-of-income water affordability programs would be an effective solution. These programs cap water bills at a level that each and every low-income household can afford to pay based on its income. In July 2017, Philadelphia launched the nation's first income-based affordability program for the water sector.¹⁴⁰

Other best practices include more-lenient payment schedules, extended periods for payment plans and sufficient notice prior to disconnection.

State legislatures

At the state level, more transparency is urgently needed about water shutoffs. State legislatures should require that all utilities — including privately owned ones — track water shutoffs for nonpayment and reconnections of these affected households, disclose that information to the public on the utility website and at a central location managed by a state agency, and ensure that the information is publicly available.

Congress

Nationally, a robust federal funding program will ease high water burdens and can redistribute costs through a more progressive funding stream. Congress must act and create a dedicated source of federal funding for our drinking water and wastewater infrastructure. The Water Affordability, Transparency, Equity and Reliability Act (WATER Act) is the right vision to ensure that every community can repair aging systems, stop sewage backups and overflows, remove lead pipes, improve school drinking water, help households address contaminated wells and outdated septic systems, and prevent water shutoffs because of unaffordable water bills.

An infusion of federal assistance is critical for cities like New Orleans, which must make substantial investments to protect the health and safety of its residents. The costs of these necessary improvements are leading to rate increases that make water service exceedingly unaffordable for households. We need a major federal investment in our public water infrastructure to ensure universal access to safe and clean water service at an affordable price.

APPENDIX A: Water Burdens and Unaffordable Bills

Table 4 • Cities With the Most Shutoffs — Water Burden

Annual water, sewer and stormwater bills for households with 5/8" meters, using 60,000 gallons a year, 2018

Rank	City	Annual water bill	Bottom household income quintile ¹⁴¹	Water burden
1	Oklahoma City, OK ¹⁴²	\$ 689	\$ 21,721	3.2%
2	Tulsa, OK ¹⁴³	\$ 844	\$ 18,344	4.6%
3	Springdale, AR ¹⁴⁴	\$ 405	\$ 22,276	1.8%
4	New Orleans, LA ¹⁴⁵	\$ 1,130	\$ 12,336	9.2%
5	Jacksonville, FL ¹⁴⁶	\$ 762	\$ 20,698	3.7%
6	Rapid City, SD ¹⁴⁷	\$ 599	\$ 20,931	2.9%
7	Des Moines, IA ¹⁴⁸	\$ 977	\$ 20,419	4.8%
8	Mobile, AL ¹⁴⁹	\$ 697	\$ 14,981	4.7%
9	Detroit, MI ¹⁵⁰	\$ 1,018	\$ 9,574	10.6%
10	Columbia, SC ¹⁵¹	\$ 768	\$ 15,696	4.9%
Average		\$ 789	\$ 17,698	5.0%

Table 5 • Cities With the Fewest Shutoffs — Water Burden

Annual water, sewer and stormwater bills for households with 5/8" meters, using 60,000 gallons a year, 2018

Rank	City	Annual water bill	Bottom household income quintile ¹⁵²	Water burden
10	Honolulu, HI ¹⁵³	\$ 1,529	\$ 34,849	4.4%
9	Bismarck, ND ¹⁵⁴	\$ 673	\$ 28,252	2.4%
8	Anchorage, AK ¹⁵⁵	\$ 1,169	\$ 38,578	3.0%
7	Lincoln, NE ¹⁵⁶	\$ 375	\$ 22,245	1.7%
6	Eugene, OR ¹⁵⁷	\$ 912	\$ 15,920	5.7%
5	Burlington, VT ¹⁵⁸	\$ 849	\$ 17,133	5.0%
4	Jackson, MS ¹⁵⁹	\$ 616	\$ 12,740	4.8%
1	Eau Claire, WI ¹⁶⁰	\$ 611	\$ 19,782	3.1%
1	Leominster, MA ¹⁶¹	\$ 641	\$ 20,564	3.1%
1	Champlain Water District, VT (water-only) ¹⁶²	\$ 245	\$ 32,921	0.7%
Average (excluding Champlain)		\$ 820	\$ 23,340	3.7%

APPENDIX B: System Improvement Costs

Table 6 • Cities With the Most Shutoffs — Capital Improvement Costs

Rank	City	Capital improvement plan or expenditures	Annualized cost	Annualized cost per residential customer ⁽¹⁾
1	Oklahoma City, OK	\$1.3 billion/5 years ¹⁶³	\$254,770,000	\$1,327
2	Tulsa, OK	\$443 million/5 years ¹⁶⁴	\$88,639,600	\$731
3	Springdale, AR	\$85 million/5 year ¹⁶⁵	\$17,000,000	\$524
4	New Orleans, LA	\$3.2 billion/10 years ¹⁶⁶	\$316,265,985	\$2,699
5	Jacksonville, FL	\$1.2 billion/5 years ¹⁶⁷	\$239,526,800	\$904
6	Rapid City, SD	\$48 million/5 years ¹⁶⁸	\$9,509,960	\$501
7	Des Moines, IA	\$299 million/5 years ¹⁶⁹	\$59,841,096	\$777
8	Mobile, AL	\$38 million in 2017 ¹⁷⁰	\$37,679,867	\$440
9	Detroit, MI	\$530 million/5 years ¹⁷¹	\$106,000,000	\$510
10	Columbia, SC	\$140 million for FY2017-18 ¹⁷²	\$139,915,000	\$1,076
Average			\$126,914,831	\$949

(1) Note: Utilities also have other customer classes.

Table 7 • Cities With the Least Shutoffs — Capital Improvement Costs

Rank	City	Capital improvement plan or expenditures	Annualized cost	Annualized cost per residential customer ⁽¹⁾
10	Honolulu, HI	\$2.7 billion/6 years ¹⁷³	\$453,769,167	\$2,773
9	Bismarck, ND	\$30 million/5 years ¹⁷⁴	\$5,917,520	\$273
8	Anchorage, AK	\$429 million/6 years ¹⁷⁵	\$71,493,667	\$1,364
7	Lincoln, NE	\$278 million/6 years ¹⁷⁶	\$46,377,567	\$595
6	Eugene, OR	\$101 million/5 years ¹⁷⁷	\$20,167,800	\$336
5	Burlington, VT	\$26 million/5 years ¹⁷⁸	\$5,160,000	\$580
4	Jackson, MS	\$534 million/20 years ¹⁷⁹	\$26,688,906	\$586
1	Eau Claire, WI	\$61 million/5 years ¹⁸⁰	\$12,189,000	\$495
1	Leominster, MA (budgeted)	\$300,000/1 year ¹⁸¹	\$300,000	\$25
1	Champlain Water District, VT (water-only, total customers)	\$5 million for FY2017-18 ¹⁸²	\$5,278,807	\$235
Average (excluding Champlain)			\$71,340,403	\$781

(1) Note: Utilities also have other customer classes.

Endnotes

- 1 In comparison, 82 out of the 88 public sector entities that were surveyed provided a response, representing a 93 percent response rate. Most nonresponses were from states where public information laws apply to only citizens of that state. Of the public entities that responded, two systems charged prohibitively high fees for searching for the records, and eight systems responded that they did not maintain the records. Data were obtained for 72 of the publicly owned systems, or 82 percent of the public utilities surveyed.
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More Food & Water Watch Research on Water Affordability



Water Injustice: Economic and Racial Disparities in Access to Safe and Clean Water in the United States

Improving our water systems is an issue of public and environmental health, and it is an issue of economic and racial justice. But across the United States, toxic water and unaffordable water bills are infringing on the basic human rights of poor people and communities of color. The dangers of unsafe water and the financial burdens of upgrading aging water systems are not borne equally. The federal government needs to invest in water infrastructure to help ensure universal access to safe drinking water and reliable wastewater disposal.



Water. Jobs. Justice. The Case for the Water Affordability, Transparency, Equity and Reliability (WATER) Act

The Water Affordability, Transparency, Equity and Reliability (WATER) Act is the most comprehensive approach to improving our water systems and helping ensure that every person has access to safe and clean water in the United States. We need a major federal investment in our public water infrastructure to renovate our nation's old and lead-ridden water pipes, stop sewage overflows and avert a looming water affordability crisis. The WATER Act would provide the much needed \$35 billion in federal funding to improve our systems that would simultaneously deliver water justice to the millions of people in the United States who lack access to safe water and create nearly a million jobs.



Five Reasons Baltimore Needs an Income-Based Water Affordability Program

Many Baltimore residents have lost their homes, or access to running water in their homes, simply because they cannot afford to pay the city's ever-increasing water rates. When households cannot afford to pay their water bills, the city shuts off their water service or sends their homes to tax sale. The city needs a water affordability program as one in three households are unable to afford the increasing service rates. The astronomical increases will disproportionately threaten the financial livelihood of many of the city's low-income, elderly and of-color residents.



The Water Crisis in Martin County, Kentucky

Martin County, Kentucky is facing a water emergency comparable to Flint, Michigan and other water systems across the country that have suffered from disinvestment and contamination. The Martin County Water District and the local leadership have failed to address the often-waterless plight of the county residents and have demonstrated an inability to manage and maintain the water system. Residents should not be forced to pay more for bad service, and Kentucky should declare a state of emergency in Martin County over the failure of its water system, which is compromising water that 10,000 people need.

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