

Privatization, poverty threaten water affordability

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While paying more for food and gas, low-income Americans may be squeezed by another rising cost, Cornell research suggests: tap water at home.

Many aging urban water systems need to invest in expensive upgrades, and some may opt to privatize—both factors likely to increase water rates, said Mildred Warner, M.S., Ph.D., professor of global development in the College of Agriculture and Life Sciences (CALS) and of city and [regional planning](#) in the College of Architecture, Art and Planning (AAP).

Water costs already pose a challenge for many [low-income households](#), particularly in places with older infrastructure, Warner said. And with more than 30 states ending pandemic moratoriums on water shut-offs, she said, policymakers and [water utilities](#) should prioritize [affordability](#) programs to assist the neediest customers.

"Water affordability is a widespread and growing problem in the U.S., especially for low-income communities and communities of color," Warner said. "This is not just a problem of aging infrastructure and poverty; private ownership contributes significantly to higher water bills and lower affordability."

Warner is a co-author of "Water Pricing and Affordability in the U.S.: Public vs. Private Ownership," published March 17 in the journal *Water Policy*, with Xue Zhang, M.S., Ph.D., a postdoctoral associate in the Department of Global Development (CALS) and lecturer in the Department of City and Regional Planning (AAP); Marcela González Rivas, assistant professor at the University of Pittsburgh; and Mary Grant of Food and Water Watch.

The researchers analyzed rates charged by the 500 largest community water systems in the U.S., collectively serving about 140 million people in 48 states and Washington, D.C. They assessed the influence on water rates of a system's size and age; [water source](#) (groundwater or [surface water](#)); regional drought level; ownership structure (government-owned, cooperative or investor-owned); regulatory environment; poverty level;

and water scarcity.

Controlling for all those factors, the team determined private ownership had the largest impact on annual water bills, which averaged \$144 higher in privately owned systems than in public sector systems. Low-income households served by private operators spent 4.4% of their income on water service, about 1.5 percentage points more than in communities with public ownership.

The U.S. Environmental Protection Agency recommends households spend no more than 3% of their income on water, Warner said.

Some of the highest annual water bills were in New Jersey and Pennsylvania—states that have approved regulations more favorable to private operators, according to the study. California has the most investor-owned water systems, but requires them to provide affordability assistance programs to low-income customers.

The primary driver of affordability challenges was a system's concentration of poverty, the study found. But the next most important factor was private ownership of the water utility.

"Our research calls attention to the need for regulations that protect ratepayers and ensure long-term affordability," Warner said.

Federal pandemic relief and infrastructure bills promise to invest billions of dollars in water infrastructure improvements, including replacing lead service lines and pipes. But that will only partially cover modernization costs that otherwise are likely to be covered through rate increases, Warner said. And the [federal spending](#) does not subsidize affordability programs, which are typically aimed at the lowest income quintile and could include guaranteed minimum water allotments.

"We have these policies for energy, we have them for telephone service—but we don't have them for water, a basic human need," Warner said. "We need to step up to design effective water affordability programs to make sure people don't get their water shut off."

More information: X. Zhang et al, Water pricing and affordability in the US: public vs. private ownership, *Water Policy* (2022). [DOI: 10.2166/wp.2022.283](https://doi.org/10.2166/wp.2022.283)

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