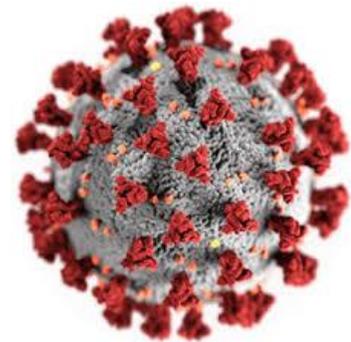


Water and the COVID-19 Pandemic

Equity Dimensions of Utility Disconnections in the U.S.

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Water is essential to public health. While the vast majority of American households served by water utilities receive a reliable supply of high-quality drinking water, there remain homes where water and wastewater services have been shut off or disconnected due to non-payment. There are no national and few state-level requirements for water utilities to report on water disconnections, so it is difficult to assess the scope of the problem. Previous research has demonstrated that race is the strongest predictor for access to plumbing, but further research is needed to understand the equity issues underlying utility disconnection. This Issue Brief offers a summary of what is currently known about differences in water disconnections due to non-payment in the U.S. across income, race, and housing type. Given the COVID-19 pandemic of 2020, ensuring safe water for all is an increasingly urgent public health and racial justice issue.



TRACKING WATER DISCONNECTIONS

In the U.S., there are no nationally standardized or regulated approaches or mandates for water utilities to track and report their procedure for or number of disconnections to residential customers. There are some examples of optional reporting schemes at the state and local levels, such as California's [annual survey of drinking water systems](#), but no dataset offers a complete picture at the national level.

In the absence of a national dataset of water utility disconnections, previous efforts to assess their prevalence and impact have primarily depended on small surveys of the water utility industry.¹ While these efforts provide useful insights on disconnection rates at the utilities surveyed, the results of

¹ For example, Food & Water Action's 2018 report, *America's Secret Crisis: National Shutoff Survey Reveals Water Affordability Emergency Affecting Millions*, contacted the two largest water utilities per state, receiving responses from 73 utilities.

these efforts are not nationally representative. Instead of a survey directed at utilities, we use household survey responses from the U.S. Census Bureau's nationally representative 2017 American Housing Survey (AHS) to explore trends regarding which utility customers face disconnections across the United States. Although both the nature of the problem and potential solutions differ between urban, suburban, and rural systems, the AHS data provide insight into which Americans are disconnected due to nonpayment.

ABOUT THE AMERICAN HOUSING SURVEY (AHS)

The AHS is a biennial survey of U.S. households conducted by the U.S. Census Bureau. The 2017 AHS included questions investigating general trends on household disconnections and evictions by income, race, and housing type. The survey assesses which households reported receiving notices in the last three months warning that access to utility services will be shut off because of nonpayment, as well as which households reported being disconnected in that time frame. However, the AHS is an imperfect tool for assessing water-specific shutoffs: the survey groups all utilities, including electricity, gas, fuel oil, water, sewage, and trash collection (U.S. HUD and U.S. Census Bureau 2017a). Because of this, it is not possible to distinguish between notice and disconnection rates by utility type. However, preliminary research by one of the authors on water utility-specific data from seven investor-owned water systems in California corroborates findings on overall household disconnection notices and household disconnection rates.

DISCONNECTIONS BY INCOME, RACE, AND HOUSEHOLD TYPE

In the U.S. in 2017, an estimated three million people across 1.2 million households experienced a utility disconnection in the three months prior to being surveyed. Fifteen percent of American households reported receiving a utility disconnection notice during the three months prior to being surveyed, while one percent of households experienced a utility shutoff in that time.

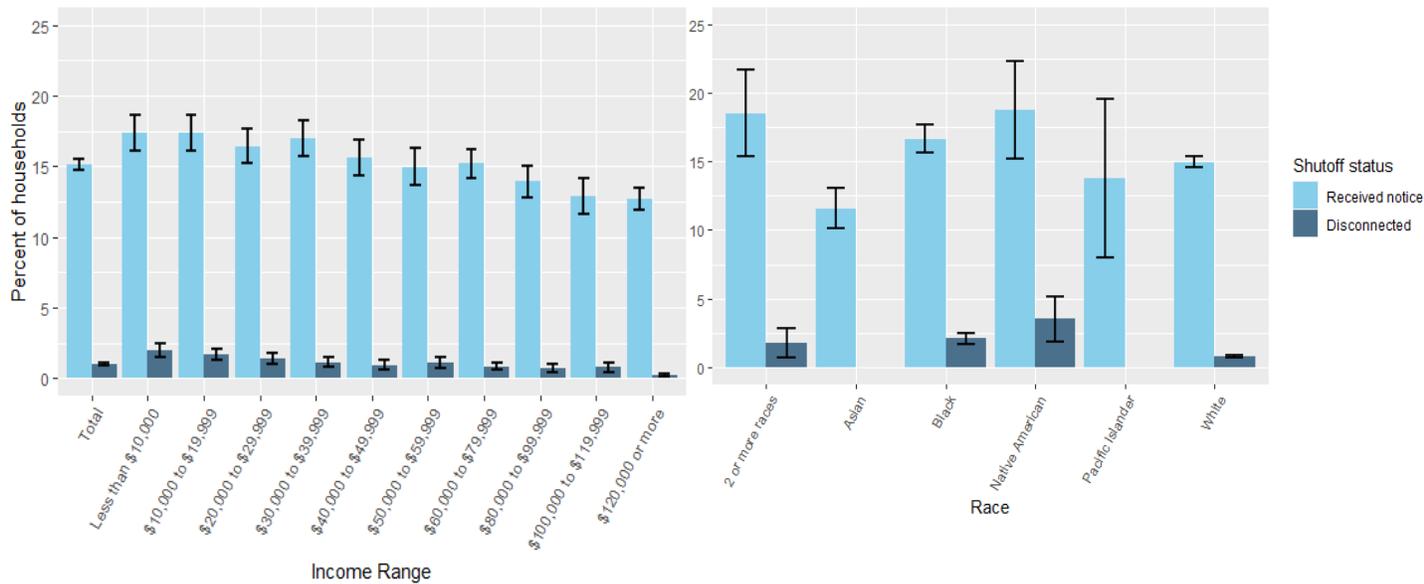


Figure 1. Percent of U.S. Households that Received Notices and Disconnections in 2017 by Household Income and Race

Source: U.S. HUD and U.S. Census Bureau 2017b

Note: Error bars represent the 90 percent confidence interval based on AHS error estimation for percentages (U.S. Census Bureau, Department of Commerce, and HUD 2018).

Upper-income households received disconnection notices at almost the same rates as low-income households, but were far less likely to lose service (Figure 1). This indicates that middle- and upper-income households frequently fail to pay their utility bills on time and pay only upon receipt of a disconnection notice. While low-income households are only slightly more likely to receive a disconnection notice, they are much more likely to experience loss of service, presumably in part because more low-income families are unable to pay their bill.

Black, Native American, and mixed-race households are disproportionately impacted by utility disconnections compared to other races. Although Black and White households receive notices at similar rates, Black households are disconnected more frequently. Black households make up approximately 14 percent of U.S. housing stock but represent 29 percent of the total disconnections (Table 1). By contrast, White households represent 78 percent of the housing stock, but only experience 61 percent of the disconnections. Native American or Alaska Native households were disconnected at the highest rate of any race—although approximately one percent of all U.S. households are Native American or Alaska Native, these households experience four percent of disconnections. Additional analysis is needed to indicate whether race was a factor in disconnections beyond income, or whether this effect could be explained by the differences in median household income across racial groups. The AHS data report a median household income of \$59,000 for White households, \$36,640 for Black households, and \$36,870 for Native American or Alaska Native households. Additionally, Latinx groups should be examined in

future analysis; they were not considered separately during this analysis because they are classified as an ethnicity rather than a race in the AHS.

Table 1. 2017 Count (in Thousands) and Percent of U.S. Households, Shutoff Notices Received, and Disconnections, by Race

	Households		Received Shutoff Notice (Total)		Received Shutoff Notice & Disconnected	
	Count (Thousands)	Percent by race	Count (Thousands)	Percent by race	Count (Thousands)	Percent by race
White	95,324	78%	14,276	78%	737	61%
Black	16,552	14%	2,758	15%	345	29%
Native American/ Alaska Native	1,483	1%	278	2%	52	4%
Asian	5,891	5%	682	4%	NA	NA
Pacific Islander	436	<1%	60	<1%	NA	NA
Mixed Race	1,874	2%	347	2%	33	3%
Total	121,560	100%	18,402	100%	1,200	100%

Source: U.S. HUD and U.S. Census Bureau 2017b.

Note: To view error bounds for the AHS count estimates, visit the AHS Table Creator tool (U.S. HUD and U.S. Census Bureau 2017b)

Black households receiving a notice are twice as likely to be disconnected as White households receiving a notice. The percentage of households receiving a notice that are eventually disconnected can be expressed as a conversion rate. For White households, the conversion rate is five percent. For Black households, the conversion rate is 13 percent. For Native American or Alaska Native households, the conversion rate is more than three times as high as for White households. While these discrepancies could be explained by differences in income, they could also reflect differences in water utility policies in different areas, or inconsistency in how customer service policies are implemented for customers of different races.

While residents of mobile homes and apartment buildings often are not responsible for paying their own utility bills, they are still subject to disconnections for failure to pay. The AHS classifies each household as a detached house, duplex or attached unit, apartment of several size classes, or mobile home, among other categories. Mobile homes and apartments, where utility payment may be partially or completely handled by a third party, received notices at higher rates than non-attached houses. Two percent of mobile homes and apartments in two- to four-unit complexes were disconnected. By comparison, less than one percent of detached houses were disconnected.

RECOMMENDATIONS AND NEXT STEPS

The COVID-19 pandemic has highlighted both the public health importance of access to safe and affordable water and the risk that communities face when water disconnections are used as a tool for enforcing payment of utility bills. Given the lack of standardized, representative data on water service

disconnections, our recommendations focus on gaps in data collection that will help to inform effective and equitable policy, program design, and implementation. An exploration of policy responses to ensure water access during the COVID-19 crisis may be found in the Pacific Institute Issue Brief [“Water and the COVID-19 Pandemic: Ensuring Access to Water as Shutoff Moratoriums Lift.”](#)

The American Housing Survey (AHS) should disaggregate disconnection data by utility type. The AHS lumps water utility shutoffs with disconnections for other utilities such as gas and electricity. Although there are public health implications to all utility disconnections—not just water—gas and electric service shutoffs are regulated differently than water.² Water and sanitation access represents a distinct and important public health need and merits standalone consideration.

The U.S. Congress should authorize a federal agency to collect and standardize water disconnection data from utilities. Living without water threatens personal and public health, housing security, economic security, and human dignity. Until there is publicly available information on water disconnections, researchers and policy makers will be less able to understand the scope of the challenge and propose solutions to address it. National legislation to require water utilities to track and report water disconnections should be proposed. This legislation should enable a federal agency, likely the U.S. Environmental Protection Agency (U.S. EPA), to create a standardized approach to tracking and reporting disconnections, as well as collect and maintain public access to the information. This role could be added under the U.S. EPA’s Clean Water Act and Safe Drinking Water Act authorities.

Researchers should investigate water utility disconnections across race and income, and whether disconnections impose disproportionate burdens on communities of color. Previous research has demonstrated that access to plumbing is strongly influenced by race (U.S. Water Alliance and DigDeep, 2019). Additional research is needed around the issue of utility disconnections, including to determine whether Black, Latinx, and Native American or Alaska Native households are disconnected at higher rates than can be explained solely by differences in income. If race correlates with higher rates of disconnections even when controlling for income, what is the explanation? Are water rates higher in communities of color, as indicated by one analysis of Michigan census data (Butts and Gasteyer 2011)? Do utilities serving communities of color have fewer customer assistance programs to provide bill assistance? Or are policies on debt and disconnections applied differently between races? Researchers could also contribute to the policy conversation by documenting the number of households that file for bankruptcy to escape utility debt. If, as some prior research suggests, utility debt is a common motivation for Black households to file for bankruptcy (Kiel and Fresques 2017), expanding the social safety net for utility bills may be an important strategy to address broader social inequities.

Use pilot studies to better understand the impact of disconnection moratoriums on rate of payment for middle- and upper-income households. The high rate of disconnection notices for middle- and upper-income households suggests there is potential for high-income customers to fail to pay their bills if

² More than 15 states limit shutoffs of energy utilities during cold weather. Source: Low Income Home Energy Assistance Program. “Seasonal Termination Protection Regulations.” U.S. Department of Health and Human Services, 2020. Accessed June 25, 2020. <https://liheapch.acf.hhs.gov/Disconnect/SeasonalDisconnect.htm>

shutoffs are no longer a consequence. Informed policy requires a better understanding of how often middle- and upper-income households fail to pay their bills when utilities enact shutoff moratoriums, as many did in response to the COVID-19 crisis. Future research should also explore compromises between blanket moratoriums and fully reinstating shutoffs, such as requiring a household to assert that it cannot pay its bill to avoid a shutoff.

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ACKNOWLEDGEMENTS

We would like to thank all of those who contributed ideas, information, and feedback to this issue brief, including Katy Lackey, Zoë Roller, Eric Rothstein, Nicole Lampe, and Heather Cooley. The views expressed in this issue brief are solely those of the authors and may not reflect the opinions of those who provided input and feedback.