Water Affordability Plan

City of Toledo (Ohio)

Prepared on behalf of:

Toledo Consumer Protection and Water Affordability Task Force

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October 2021

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Glossary

Arrearage. An unpaid balance on a residential customer's bill the accuracy of which is not disputed by the customer.

Arrearage forgiveness (arrearage management): A bill assistance program under which a program participant earns credits toward an unpaid balance existing at the time of program enrollment in exchange for bill payments, such that the combination of bill payments and arrearage credits will reduce the unpaid balance to $0 over a prescribed period of time.

Bill burden: The ratio of a household bill for a designated good or service to household income, with the household bill comprising the numerator and the household income comprising the denominator.

Census tract: A small, relatively permanent statistical subdivision of a county or equivalent entity that is updated by local participants prior to each decennial census as part of the Census Bureau's Participant Statistical Areas Program. The Census Bureau delineates census tracts in situations where no local participant existed or where state, local, or tribal governments declined to participate. The primary purpose of census tracts is to provide a stable set of geographic units for the presentation of statistical data. Census tracts generally have a population size between 1,200 and 8,000 people, with an optimum size of 4,000 people.

Deferred payment plan (arrangement, agreement): See, "Installment payment plan" defined below.

Direct customer: A household that has a relationship existing between Toledo Water wherein Toledo Water issues a bill for service to the household and the household has the bill payment responsibility for each such bill rendered.

Federal Poverty Level: A dollar amount of annualized income published each year by the U.S. Department of Health and Human Services, generally in February, used to determine low-income status based on income and household size. The Federal Poverty Level presents a uniform dollar amount for the 48 contiguous United States, with different data for Alaska and Hawaii.

First Quintile of Income: The portion of a population that represents the 20% of the population with the lowest income (an income smaller or equal to the first cut-off value).

Fixed dollar discount program: A discount provided on a residential water bill the dollar amount of which does not vary based on income or usage. Waiver of all or a portion of a monthly residential customer charge would be a "fixed dollar discount." The fixed dollar amount may, but need not, be tied to a defined charge on a customer bill.

Hardship grant: A dollar grant provided to a utility customer to pay an unpaid balance incurred due to temporary hardship or crisis. Access to grants may or may not be limited by income-eligibility standards, and grant levels may be subject to limitations as to time (*e.g.* one every two years) and amount (*e.g.* not to exceed $250).

Installment payment plan: An agreement between a residential customer and a utility service-provider under which the customer agrees to retire an acknowledged unpaid bill balance in equal payments over a prescribed period of time.

Mean First Quintile Income: The arithmetic average income within the population comprising the "First Quintile" of income.

Median Income (Area, State): The median divides the income distribution into two equal parts: one-half of the cases falling below the median income and one-half above the median. For households and families, the median income is based on the distribution of the total number of households and families including those with no income. State Median Income (SMI) considers a distribution on a statewide basis. Area Median Income (AMI) considers distribution on the basis of a defined geography (*e.g.* metropolitan area, zip code, census tract, county). The 50^{th} percentile.

Near poor: Households whose annual income is at or above 150% of the Federal Poverty Level but that is at or below 250% of the Federal Poverty Level (*see also* "working poor" defined below).

Percentage of bill plan: A bill assistance program under which a straight discount (defined below) is applied to bills at standard residential rates.

Percentage of income plan: A bill assistance program under which bills are capped at a percentage of income defined to be affordable.

Quintile of income: A measure of socioeconomic status that divides the population into five income groups (from lowest income to highest income) so that approximately 20% of the population is in each group.

Self-sufficiency income: An income that is necessary to meet basic needs (including taxes) without public subsidies (*e.g.* public housing, food stamps, Medicaid or child care) and without private/informal assistance (*e.g.* free babysitting by a relative or friend, food provided by churches or local food banks, or shared housing).

Standard residential rates: Rates that are applied according to a residential tariff without discounts.

Straight discount (*see also*, percentage of bill plan): A uniform percentage discount provided on a residential water bill the percentage of which does not vary based on income or usage. For example, while a 30% discount on a $1,500 bill would be higher than a 30% discount on a $700 bill in dollar terms, the 30% figure remains constant.

Upper Income Limit of First Quintile Income: The highest dollar income received by a household remaining in the First Quintile of Income (*see also* First Quintile of Income, defined above).

Working poor: Individuals and families who maintain regular employment but remain in relative poverty due to low levels of pay, combined with dependent expenses.

Executive Summary

The City of Toledo has a serious water affordability problem. While the numbers can be measured, and parsed, and aggregated, and disaggregated any number of ways, the fundamental "story" that was told by Toledo residents who responded to the Water Affordability Survey should never be lost.

- When the City has a substantial population that says they are "always" or "often" concerned about whether they will receive their Toledo Water bill before they can find money to pay that bill, there is a problem.

- When the City has a substantial population that says they are not only "concerned" about whether they will receive a Toledo Water bill before they can find money to pay the bill, but when the *do* receive the bill, they do *not* make their payment, there is a problem.

- When the City has a substantial population that says that they *do* pay their Toledo Water bill always, or almost always, but they reduce their spending on basic household necessities in order to have enough money to make that payment, there is a problem.

There is, however, always a danger in focusing exclusively on the problem. One aspect of the "story" of Toledo Water is the variety of responses that the City has made in past years to address the inability-to-pay of its many residents. Toledo Water has not been a passive bystander in responding to the affordability problems of City residents in the past. Toledo Water has:

- Offered bill discounts to its aging customers, and even higher discounts to its low-income aging customers;

- Offered financial assistance to help customers with unpaid balances pay their bills and avoid the disconnection of service;

- Offered extended deferred installment payment plans through which unpaid balances can be retired over time;

- Offered to help connect customers in need with public and private community resources that would provide helpful services to respond to an inability-to-pay;

- Offered various services in an effort to prevent the use of nonpayment disconnections as a collection technique.

- Designed an arrearage management program to help customers respond to the unique level of unpaid balances that can be attributed to the COVID-19 health pandemic.

And yet, the affordability problems persist. Unpaid balances can be disproportionately tracked to lower-income neighborhoods. Customers are receiving bills which, when viewed from the perspective of water burdens, comprise a far higher percentage of income than can sustain regular payments without significant household difficulties. Despite Toledo Water's best efforts to date, both the unpaid bill and the paid-but-unaffordable bill are common occurrences in the City.

Defining "Low-Income" Status

For purposes of this Water Affordability Plan, "low-income" status will be defined in terms of the ratio of annual household income to Federal Poverty Level. It is reasonable to conclude that households with annual income between 150% and 200% of Poverty can be considered "low-income" for purposes of water affordability planning. Nonetheless, maximum income eligibility for the Toledo Water Affordability Plan is set at 150% of Poverty. Data in the Water Affordability Plan documents that customers with income exceeding 150% of Poverty are receiving affordable bills (as a percentage of income) even without external assistance.

Incomes for households from one to four persons, at three different ranges of Poverty, are set forth in the Table below.

Incomes at Three Different Poverty Levels (2021) (1 – 4 person households)			
Household Size	100% Poverty Level	150% Poverty Level	200% Poverty Level
1	$12,880	$19,320	$25,760
2	$17,420	$26,130	$34,840
3	$21,060	$31,590	$42,120
4	$26,500	$39,750	$53,000

Defining Affordability

Any determination of what percentage of income burden is "affordable" for a particular service is inherently imprecise, whether the service being examined involves home energy, water service, health care, or housing. Despite the imprecision, so long as one recognizes that affordability is a range and not a point, defining an affordable water bill as one that does not exceed 4% of income seems reasonable. Using bills as a percentage of income as a measure of "affordability" is common throughout the United States. Percentage of income burdens are used to define affordability in the areas of housing, health care, education, and home energy.

The Nature of Toledo's Water Affordability Problem.

Toledo Water customers face both a substantial breadth and a substantial depth of unaffordability. For the one-fifth of population with the lowest incomes in each Census Tracts, water bills impose an unaffordable burden in all Census Tracts. Of the 97 Census Tracts with reported First Quintile incomes, 50 have water burdens that exceed 12% of income. In these 50 Census Tracts, not only do water burdens exceed 12% of income, but the average water burden in these Census Tracts (for the First Quintile of income) is more than 27%.

No City Council district in Toledo has a Census Tract for which Toledo Water bills are affordable at income less than 50% of Poverty. In every City Council District, *every* Census Tract has a Toledo Water burden at this range of Poverty exceeding 12% of income, three times higher than the demarcation of affordability. Affordability substantially improves in the next higher range of Poverty Level (50 – 100% of Poverty) but remains well above the definition of an affordable bill. Throughout the entire City, in each City Council district, persons living with income between 50% and 100% of Poverty have Toledo Water burdens that exceed 6% of income but are less than 9% of income.

When incomes reach 125% to 150% of Poverty, there are finally some indications that Toledo Water bills are presenting affordable burdens to City residents. A small minority of Census Tracts have affordable Toledo Water burdens when incomes reach 125% to 150% of Poverty. Citywide, when incomes reach *above* 150% of Poverty, Toledo Water bills present affordable burdens. In both ranges of Federal Poverty Level above 150%, all Census Tracts in every City Council district experience affordable burdens (*i.e.*, at or below 4% of income). At 150% to 185% of Poverty, burdens range from 3.4% to 3.5% of income. At 185% to 200% of Poverty, burdens range from 2.9% to 3.0% of income.

Lessons from Direct Public Input

The development of this Water Affordability Plan engaged in a comprehensive Public Input Survey. Fewer than half of the Water Affordability Survey respondents told Toledo Water that they were "never" concerned about whether their water bill would become due before they could get money to pay it. Just over half said that they were either "never" or "rarely" concerned. In contrast, a solid minority, nearly one-in-five reported that they either "always" or "often" had a concern about whether their water bill would become overdue before they could get money to pay it.

Simply because residents were "concerned" about whether their water bill would become overdue before they could get money to pay it does not mean that the water bill would always (or even frequently) go unpaid. Seven-of-ten residents who reported that they were "concerned" either "always" or "often" still made a bill payment either "always" or "often." At the other end of the spectrum, a sizable portion of respondents who were "always" concerned about their ability to access sufficient money to pay their water bill before it became due said that their financial difficulties caused them to miss payments. Of that group of customers who were "always" concerned about their ability to pay *and* who missed payments, nearly half missed payments frequently. Four-of-ten customers who were always concerned (and who also missed payments) reported that they missed payments "always" or "often."

By far, Toledo Water customers responding to the Survey said that the assistance that would most help them involves direct financial assistance directed toward their bills. The most frequently desired assistance reported was a bill discount that would more closely match their bills to their incomes. More than 70% of Toledo Water customers who said they were concerned about whether they would receive their water bill before they had sufficient funds to pay it expressed interest in a Toledo Water bill discount. Somewhat after that was a desire for financial assistance to help retire an arrearage that already existed on their bills.

The paid-but-unaffordable bill is a real phenomenon amongst Toledo Water customers. Survey respondents report that they reduce their spending on basic household needs in an effort to have enough money to pay their Toledo Water bill. Not surprisingly, the percentage of people reporting taking specific actions is higher within the population who reported being concerned but finding a way to pay than within the total population who simply reported being concerned about whether their water bill would become due before they had sufficient money to pay. Not all such actions, however, are necessarily constructive actions in the long-term. For example, more than 40% of those who "found a way to pay" borrowed money.

Despite reporting that they reduced basic needs spending "always," "often" or "sometimes," these Survey respondents did not have a high awareness of the programs and initiatives offered by Toledo Water to help customers pay their water bills. Roughly 60% of the combined group who said they reduced basic needs spending always, often or sometimes said that they were aware of *none* of the Toledo Water programs, including Toledo Water's senior (low-income) discount, and its efforts to connect customers experiencing an inability-to-pay with local community groups who offer assistance. Somewhat more customers who reported that they always reduced basic needs spending in order to pay their water bill said they were aware of Toledo Water's installment payment plans (42%), while noticeably fewer (14%) said they were aware of Toledo Water's senior (low-income) discount.

Nearly three-quarters of customers who reported that they reduced spending on their basic needs in order to pay their water bill either "always" or "often" said that a rate discount would be the assistance that would most help them. This desire for a rate discount is seen despite the relative lack of awareness of Toledo Water's existing senior (low-income) discount.

The Recommended Affordability Program Components.

In response to this story of unaffordability in the City, Toledo Water has available options to it. Some options are better than others. The best option is to deliver a preventative affordability program such as is recommended in this Water Affordability Plan. Rather than simply responding to unpaid bills as they occur, whether through deferred payment plans or through crisis assistance grants, which responses are likely to recur year-in and year-out, delivering a Rate Affordability Program is recommended.

A percentage of income Rate Affordability Program is recommended. In adopting such a program, Toledo Water can take advantage of the fact that the capacity to administer such a program currently exists in the City's non-profit community that administers Ohio's natural gas and electric percentage of income programs. In addition, Toledo Water currently has relationships with non-profit organizations having with the capacity to engage in the required outreach, income-verification, and enrollment tasks needed to operate such a program.

Other program options are available, each of which has fatal flaws. Options providing an across-the-board discount or fixed monthly credits to low-income customers are not able to achieve affordability. These programs either over-pay or under-pay virtually all program participants. In addition, trying to incorporate a discount into the rate structure for an "essential" level of service faces the flaw that no uniform level of service can be deemed essential over all households, irrespective of age, family size, or family composition. So long as the objective of Toledo Water is to deliver "affordable water service," these alternative program options cannot achieve that purpose.

Beyond the basic Rate Affordability Program, Toledo Water should join the small, but growing, number of water providers who recognize the special needs of multi-family tenants who are not direct customers of the local water company, but rather pay for their water as a component of rent. These customers face affordability problems as well.

Moreover, to respond to the limitation on maximum income eligibility, a specific program component is proposed through which Toledo Water will promote public assistance for the segment of population with income greater than 150% of Poverty but less than 200% of Poverty. Promotion of the Earned Income Tax Credit is important because many of these Toledo residents have incomes that are too high to be eligible for public assistance, but too low to provide adequate resources to consistently meet basic household needs.

This Water Affordability Plan finally recommends that Toledo Water continue its existing program directed toward providing arrearage credits as well as its Bill Payment Assistance Program directed toward providing crisis relief.

Summary of Recommendations

A summary of the structure of the recommended Toledo Water Affordability Plan is as follows:

- Program component #1: A percentage of income-based rate capping bills for current service at an affordable four percent (4%) of income;

- Program component #2: A continuation of the arrearage management approach to low-income arrears first initiated by Toledo Water in response to COVID-19 arrearages.

- Program component #3: A continuation of the existing crisis assistance Bill Payment Assistance Program providing non-means-tested emergency grants to respond to potential shutoffs or growing arrears.

- Program component #4: A fixed-credit monthly credit delivered through owners/managers of muti-family housing where the income-qualified tenant pays for water service as a component of rent, as a dollar-for-dollar pass-through of water bills, or on a sub-metering basis.

- Program component #5: An outreach program directed toward facilitating claims by Toledo's Working Poor of the state and federal Earned Income Tax Credit.

Introduction

The purpose of this report is to review the affordability of water service in the City of Toledo (OH) and to assess the development of programs adopted by public utilities responding to those affordability problems.[1]

The City of Toledo operates and maintains a public water system that supplies treated water to a population of approximately 500,000 located in the City of Toledo together with portions of Lucas, Wood and Fulton Counties in Ohio and portions of southern Monroe County in Michigan.[2] This Water Affordability Plan is limited to the City of Toledo.

Ordinance 538-19, passed by Toledo City Council on November 26, 2019, set Retail Rates (fixed and volume charges) for water service to City of Toledo and Lucas County residents and Wholesale Rates (volume charges) to the respective contract jurisdictions. The water rates, recommended by an independent Toledo Regional Water Commission, are effective from January 1, 2020 through December 31, 2023 with annual increases effective January 1 of each

[1] Throughout this report, references to "water" service are to be construed to include both water and wastewater service unless explicitly noted otherwise or the context clearly indicates to the contrary.

[2] Specifically, Toledo Water supplies water to the regional area per separate Uniform Water Purchase and Supply Agreements executed with each the following contract jurisdictions: Lucas County, Ohio; Fulton County, Ohio; City of Maumee, Ohio; City of Perrysburg, Ohio; City of Sylvania, Ohio; Northwestern Water and Sewer District (NWWSD), Wood County, Ohio; South County Water District, Monroe County, Michigan; and Village of Whitehouse, Ohio.

calendar year.[3] Future retail and wholesale rate increases are anticipated through 2027 as surcharges to the contract jurisdictions are phased out. Rates will support increased operation, maintenance, and replacement (OM&R) costs, and help meet additional debt service requirements to complete the Ohio Environmental Protection Agency's (OEPA) mandated $500 million water capital improvement program (CIP) now underway.

Prior to 2007, the City of Toledo had one of the lowest water and sewer rate structures in Ohio and mid-west United States. However, the rates did not generate sufficient revenue to fund maintenance and replacement needs of the two utilities. Gradually, both the water and wastewater treatment works fell into disrepair. Enforcement action was taken by the U.S. EPA against the City and a Consent Decree was issued by the U.S. District Court in 2001 to clean up discharges of polluted wastewater into area waterways. In 2012, the Ohio EPA also identified several significant deficiencies at the water treatment plant that placed the delivery of safe drinking water to customers at risk. A General Plan of improvements was subsequently prepared and approved by Ohio EPA that included a mandated timeline to replace and/or upgrade identified plant infrastructure. To fund the required capital improvement programs and to meet budgeted OM&R expenses, Toledo City Council has adopted annual water and sewer rate increases for sewer since 2007, and water since 2013.

As rates have increased, the cost for utility service, as a percentage of median household income, has significantly increased affecting the ability of low-income individuals and families to make payments that are affordable for their households. In response, Toledo City Council, City Administration, and the Department of Public Utilities have adopted measures in an attempt to make utility payments more affordable. However, certain components of the City's affordability program do not make utility discounts available to all customers, especially rental households that cannot afford home ownership. Thus, there is a need to develop an Affordability Plan that benefits a greater proportion of the City's low-income population including best practices adopted by other public utilities responding to affordability problems.

In response to this identified need, a Task Force was formed in collaboration with community-based organizations and the City administration. The Task Force is led by Councilman Nick Komives, Chair of the Water Quality and Sustainability Committee of Toledo City Council. It is the goal of the Task Force to implement recommendations of this Water Affordability Plan while meeting its legal obligation to operate the water and sewer utilities in a fiscally sound manner.

As households have been forced to spend a greater percentage of their income on housing and increasing utility costs, it limits how much income is available for other basic needs such as food, healthcare, education, childcare, and transportation. Developing an Affordability Plan for

[3] The City of Toledo levies charges for supplying water to outside city users but has no policy or rate setting authority within their respective service areas.

low-income households is an essential element in sustaining the viability of the City and preserving the economic stability of not just Toledo, but the greater Toledo urbanized area as a whole.

The discussion below presents a comprehensive affordability analysis, along with a recommended Water Affordability Plan through which the City's affordability problems can effectively, cost-effectively, and efficiently be addressed.

The discussion below is set forth in the following sections:

- Part 1 discusses the mechanisms by which income and "affordability" can be measured for the City of Toledo.

- Part 2 tracks water bills and income in Toledo over the past five years. It is through the intersection of these two elements (bills and income) that affordability must be assessed.

- Part 3 identifies water affordability issues in Toledo. The section considers not only Census data on a variety of community characteristics affecting water affordability, but reports on the results of a "public input survey" through which first-hand community input was solicited for incorporation into the Plan.

- Part 4 reviews some typical water assistance programs that are in operation by other water utilities throughout the United States. Observations are offered on "best practices" that can be identified in other utility plans now in operation.

- Part 5 discusses an array of potential water affordability approaches that could be adopted by Toledo. The discussion identifies the strengths and weaknesses of each approach.

- Finally, Part 6 recommends a Water Affordability Plan for the City of Toledo.

The report is preceded by a Glossary of important terms that readers may wish to review before beginning to read the Plan.

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Part 1. Measuring Income and Affordability in Toledo

In order to adequately assess the affordability of Toledo water service,[4] two initial steps should be taken by the City of Toledo. First, the City should designate at what level of income a household will be considered to be "low-income" for purposes of the analysis. Second, the City should designate how it will assess what billing level will be considered to be "affordable." Each of these questions is addressed below.

A. Defining Who is "Low-Income" in the City of Toledo.

Defining who is "low-income" for Toledo should be undertaken with two primary constraints in mind. First, the affordability of water service in Toledo should not be measured for the population as a whole. Nor should affordability be assessed from the perspective of the "middle" of a community. Excessive bill burdens imposed upon households, resulting in difficulties in bill payments, tend to occur at lower levels of incomes.

Second, the definition of "low-income" should not be viewed as an average for the City as a whole. Averaging city-wide data tends to mask the impacts at the highest and lowest levels. Areas of the City with lower incomes are averaged with areas of the City with higher incomes. The result of the City-wide average is that the affordability looks like a disproportionate number of people are in the middle. What needs to occur is for income levels to be considered in as small a geographic area as is reasonably available. For purposes of discussion throughout this

[4] References to "water" are intended to include references to the combined water and wastewater services.

Water Affordability Plan, data is disaggregated at the Census Tract level.[5] In addition, at relevant points, for purposes of public policy discussion, Census Tract data is aggregated by City Council District for the City of Toledo.

Given the limitations identified here, identifying those households who are income-challenged, or "low-income," can be pursued through a variety of mechanisms, some of which are better than others.

1. *Median Income.*

Median income is, by definition, the "middle" of a population when incomes are rank-ordered from highest to lowest. Median income cannot be used as a measure of "low-income." Instead, by definition, the income level which is deemed to be the "median" is that point at which 50% of the population has income lower while the other 50% of the population has income which is higher. Area Median Incomes (AMIs) are annually determined for metropolitan areas by the U.S. Department of Housing and Urban Development (HUD).[6]

AMI is not used as a measure of "low-income" for purposes of this Water Affordability Plan for two primary reasons. First, the Toledo AMI is not limited to the City of Toledo, but rather encompasses the Toledo Metropolitan Statistical Area (MSA) defined by HUD. In 2021, rather

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[5] According to the Census Bureau: Census Tracts

> are small, relatively permanent statistical subdivisions of a county or equivalent entity that are updated by local participants prior to each decennial census as part of the Census Bureau's Participant Statistical Areas Program. The Census Bureau delineates census tracts in situations where no local participant existed or where state, local, or tribal governments declined to participate. The primary purpose of census tracts is to provide a stable set of geographic units for the presentation of statistical data.
>
> Census tracts generally have a population size between 1,200 and 8,000 people, with an optimum size of 4,000 people. A census tract usually covers a contiguous area; however, the spatial size of census tracts varies widely depending on the density of settlement. Census tract boundaries are delineated with the intention of being maintained over a long time so that statistical comparisons can be made from census to census. Census tracts occasionally are split due to population growth or merged as a result of substantial population decline.

Available at: https://www.census.gov/programs-surveys/geography/about/glossary.html (last accessed May 17, 2021).

[6] Available at: https://www.huduser.gov/portal/datasets/il/il2021/2021summary.odn (last accessed May 4, 2021).

than being limited to the City, the Toledo AMI encompasses Fulton, Lucas and Wood counties. In 2021, the Median Family Income for the Toledo metropolitan region was $70,400.[7]

2. *Percentage of Area Family Median Income.*

To focus on more income-challenged households, rather than using AMI, many affordable housing programs funded through the U.S. Department of Housing and Urban Development (HUD) use differing increments of "Area Median Income" (AMI)[8] to determine the type and amount of housing assistance a family is eligible to receive. For purposes of HUD programs, "low-income" is statutorily defined to be 80% of AMI, while "very low-income" is defined to be 50% of AMI. "Extremely low-income" is defined to be the greater of 30% of AMI or the Federal poverty guidelines published each year by the U.S. Department of Health and Human Services.[9]

In reviewing AMI increments, it is important to remember that AMI is calculated using a four-person family as the base. Income is then adjusted to reflect varying family sizes by formula (rounded up to the nearest $50). In 2021, for example, the Toledo Area Median Income by family size was determined as set forth in the Table immediately below. While the base "Very Low-Income" limit (4-person household) in Toledo is set at $35,200 for 2021, the Very Low-Income limit for a 1-person family is $24,640 (given that, by formula, the 1-person household limit is 70 percent of the 4-person limit). Moreover, the "Toledo" AMI (and its varying increments: 80%, 50%, 30%) are not numbers specific to the City of Toledo. Rather, as described above, the AMI is calculated for the Toledo Metropolitan Statistical Area (MSA).

[7] While normally "families" and "households" are considered to be different, HUD does not make that distinction. Under HUD definitions, a "family" is simply one or more individuals who live together. Members of the family do not need to be related by blood, marriage or in any other legal capacity.

[8] The use of Area Median Income (AMI) is to be distinguished from *State* Median Income (SMI). Federal law allows 60% of the SMI to be the maximum income eligibility for benefits through the Low-Income Home Energy Assistance Program (LIHEAP). Since SMI bears no relationship to a determination of *local* utility bill affordability, this LIHEAP income eligibility standard is set aside for purposes of this review of affordability.

[9] The FY 2014 Consolidated Appropriations Act changed the definition of extremely low-income to be the greater of 30/50ths (60 percent) of the Section 8 very low-income limit or the poverty guideline as established by the Department of Health and Human Services (HHS), provided that this amount is not greater than the Section 8 50% very low-income limit. Consequently, the extremely low income limits may equal the very low (50%) income limits.

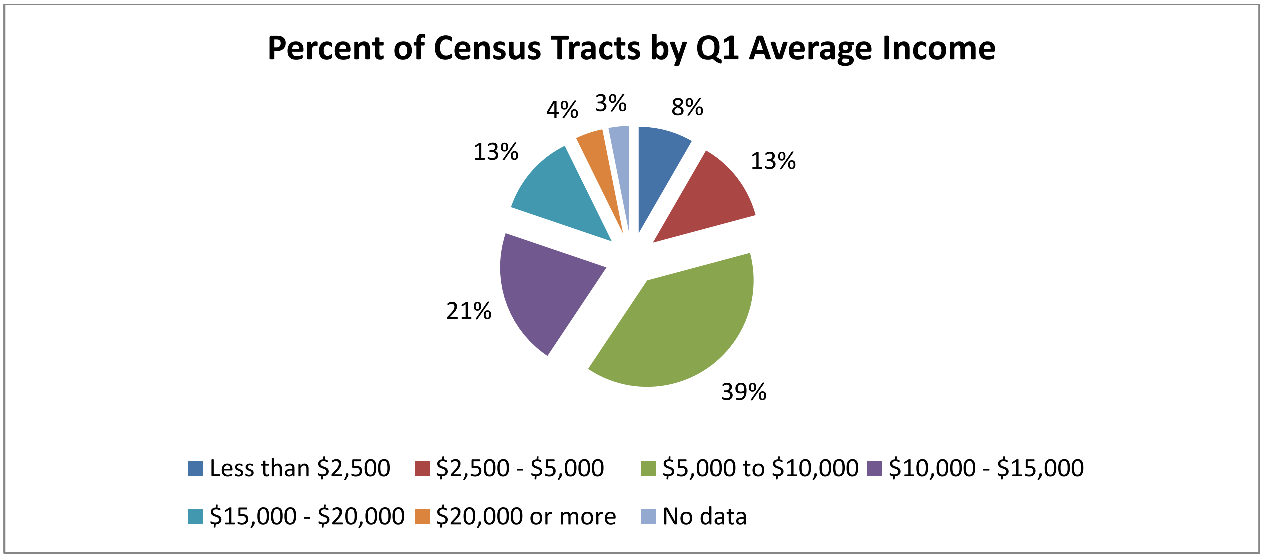
Table 1. Family Size Adjustments and Very Low-Income Limits for Toledo (OH) (2021) ("very low-income" = 50% x Area Median Income) (Toledo MSA Median Income: $70,400)								
	1-person	2-persons	3-persons	4-persons	5-persons	6-persons	7-persons	8-persons
50% of AMI (4-person)	$35,200	$35,200	$35,200	$35,200	$35,200	$35,200	$35,200	$35,200
Family Size Adjustment	x 0.70	x 0.80	x 0.90	x 1.0	x 1.08	x 1.16	x 1.24	x 1.32
Very Low-Income	$24,640	$28,160	$31,680	$35,200	$38,016	$40,832	$43,648	$46,464
Very Low-Income Limit	$24,650	$28,200	$31,700	$35,200	$38,050	$40,850	$43,650	$46,500

As can be seen, the only "real" number for HUD income limits is the 4-person Area Median Income for the Toledo metropolitan area. Other incomes published by family size are adjustments to this base figured based on federally-prescribed formulae.

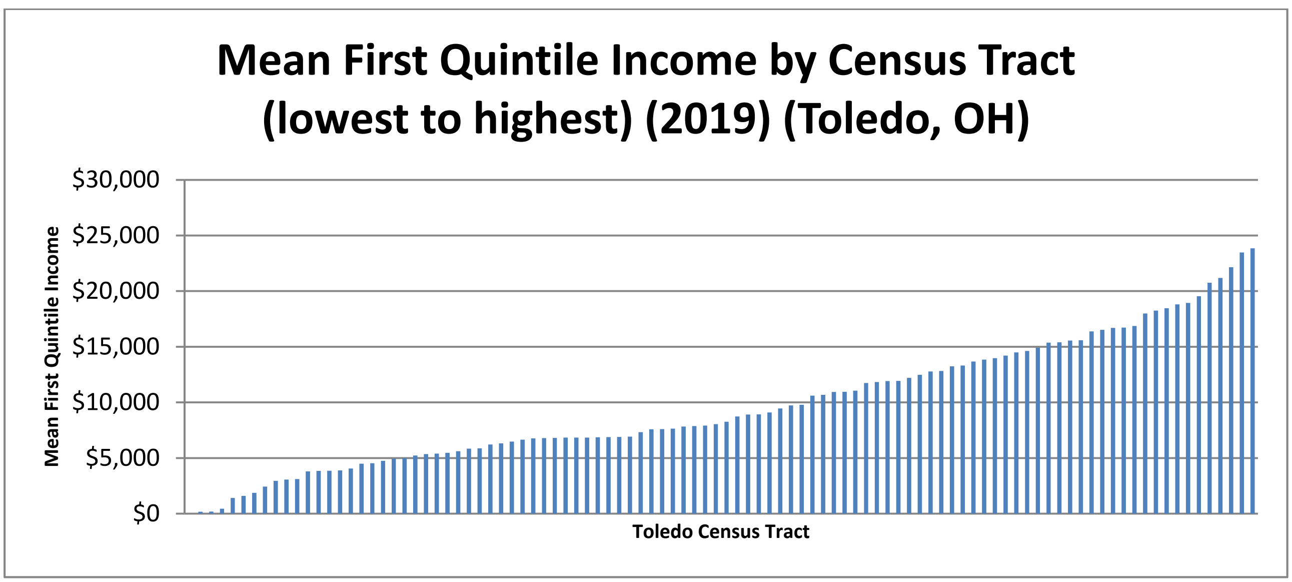
3. *First Quintile of Income.*

Focusing on the "First Quintile" of income in a geographic area has the effect of focusing on the lowest income households in that area.[10] It should be noted, however, that simply because a household is in the lowest one-fifth of income in a particular area, that household is not necessarily a "low-income" household. In an area with very high incomes, the lowest quintile of income can still be quite high. As shown below, in four percent (4%) of Toledo's Census Tracts, the average First Quintile income is $20,000 or more.

[10] In determining "quintiles" of income, the Census Bureau rank orders each household by its annual income by geographic area. That rank ordering is then divided into five equal parts, each part which is known as a "quintile." The First Quintile (sometimes referred to as the "lowest Quintile) is that one-fifth of the population with the ***lowest*** income in the geographic area.



The Chart below, for example, shows a distribution of the average First Quintile income in the Census Tracts comprising Toledo. Of the 103 Census Tracts portrayed, 84 of them have average First Quintile incomes of roughly $15,000 or less. Fifty-seven Toledo Census Tracts have average First Quintile incomes of less than $10,000. In contrast, three Census Tracts have average First Quintile incomes of $22,000 or more. While $22,000 is not an extraordinarily high income in absolute dollar terms, neither is it representative of the population in Toledo within the one-fifth of the lowest income.



Some industry analysts use the Upper Income Limit for the First Quintile as the measure of "low-income" status. However, no rational basis can be advanced for use of this metric. The Upper Limit of the First Quintile of income is not representative of First Quintile households. By using the Upper Limit of the First Quintile of income, the dollar amount used is higher than the income of 100% of the households in the First Quintile who do not have an annual income exactly at the dollar amount of the Upper Income Limit. The Upper Income Limit, in other words, is the top, the maximum, the ceiling.

The Upper Income Limit within a quintile is not intended to be used to represent incomes in any particular income quintile. Rather, the Upper Income Limits, as the Congressional Research Service reports,[11] are intended to represent the *spread* of income within the quintile. As CRS notes: "The distributional range, *the difference between the highest and lowest value, is arguably the simplest measure of dispersion.* In terms of household income, it is the difference between the income of the richest household and income of the poorest household."[12] (emphasis added).

The Upper Income Limits were never intended to be used to typify or represent the income of the quintiles for which they are published. Again, the Congressional Research Service explains:

> The mean and median are the main measures used to describe the center of a distribution *and are prime candidates for describing the experience of the typical household*. Mean income is obtained by dividing total aggregate household income by the total number of households, that is, the simple average or the level of income that each household would have in hand if total income were distributed equally.[13] (emphasis added).

The Upper Income Limit is the "richest" household in a quintile (using the terminology of the CRS above), not the typical household. The Upper Income Limit has no role to play in assessing the affordability of low-income water bills. The mean income is the typical income in a quintile and should be used to define "low income" when the definition of "low-income" is based on income quintiles.

4. *Ranges of Federal Poverty Level.*

The best way to measure low-income status in Toledo is by reference to household income as a percentage of the Federal Poverty Level (FPL). The FPL is published by the U.S. Department of Health and Human Services (HHS) each year.[14] While the dollar limits denoting "the" FPL (*i.e.*

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[11] Congressional Research Service (Feb. 2015). *A Guide to Describing the Income Distribution*, available at : https://fas.org/sgp/crs/misc/R43897.pdf (last accessed May 17, 2021).

[12] *Id.,* at 12. In this regard, the Upper Income Limit is useful because the Upper Income Limit of one quintile is the bottom income limit for the next quintile. Comparing the Upper Income Limit of Quintile 1 to the Upper Income Limit of Quintile 2, for example, shows the income dispersion within Quintile 2.

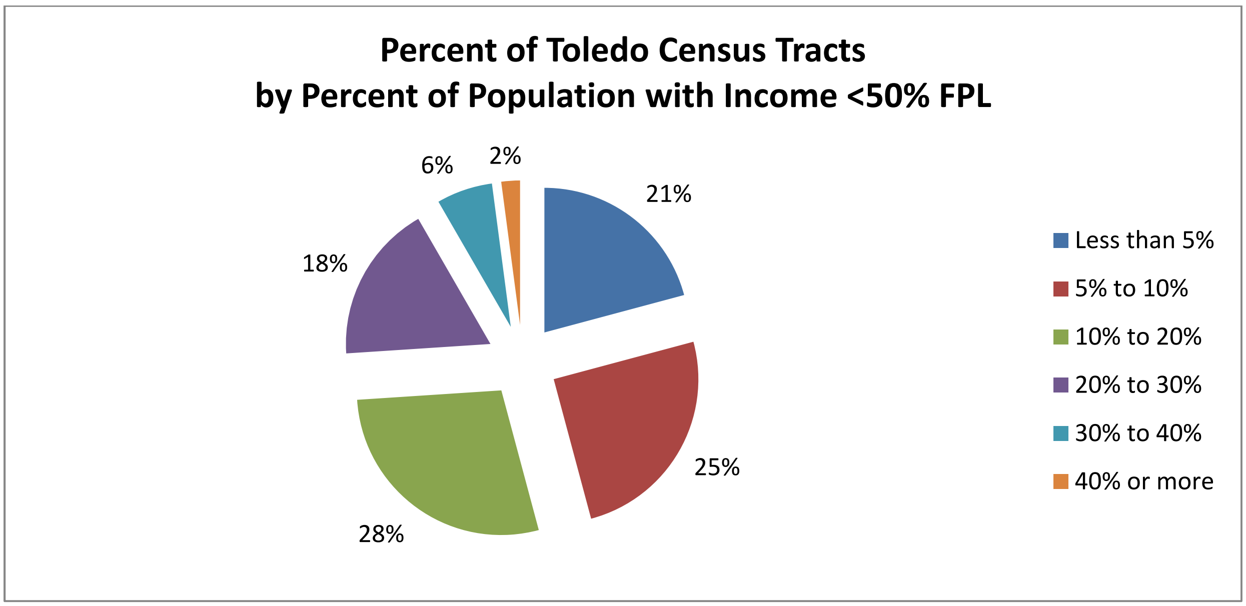
[13] *Id.,* at 11.

[14] The 2021 HHS Federal Poverty Guidelines (along with links to prior years) are available on-line. https://aspe.hhs.gov/2021-poverty-guidelines (last accessed May 18, 2021).

100% of FPL) are uniform for the 48 contiguous states and the District of Columbia[15] the dollar levels of income in each FPL range are specific to Toledo. Use of FPL is an improvement over the use of absolute dollars of income given that FPL takes into account household size. It is better than using the First Quintile of income given that, as seen below, the depth and breadth of low-income status far exceeds the number of households in the bottom one-fifth of income. It is better than Area Median Income given that it can be localized not only specifically to Toledo (rather than to the metropolitan area), but also to areas within Toledo (*e.g.* Census Tracts, City Council districts).

The discussion below reviews three aspects of Federal Poverty Level: (1) "deep poverty," defined to include households with income at or below 50% of FPL;[16] (2) income at or below 150% of FPL; and (3) income at or below 200% of FPL but exceeding 150% of FPL.

"Deep poverty" is recognized as an economic deprivation that is "acute, compounded across dimensions, and often lasts a lifetime or even passes from one generation to the next."[17] Deep Poverty is prevalent in Toledo. In more than one-fourth (26%) (18% + 6% + 2%) of the Census Tracts comprising Toledo, 20% or more of the City's population lives with annual income less than 50% of FPL. Indeed, in one-of-twelve Census Tracts (8%) (6% + 2%), 30% or more of the population lives in Deep Poverty.



[15] Alaska and Hawaii have separate FPLs published.
[16] Center for Poverty and Inequality Research (January 2018). *What is Deep Poverty*, University of California-Davis, available at https://poverty.ucdavis.edu/faq/what-deep-poverty (last accessed May 18, 2021). *See also* Institute for Research on Poverty (2017). *Deep Poverty in the United States*, University of Wisconsin-Madison, available at https://www.irp.wisc.edu/wp/wp-content/uploads/2018/05/FF29-2017.pdf (last accessed May 18, 2021).
[17] Institute for Research on Poverty, supra, at 1.

The distribution of Deep Poverty is not uniform throughout Toledo. City Council District 4 has the broadest penetration of Deep Poverty. Of the eight Census Tracts with 30% or more of their populations living in Deep Poverty, seven fall within City Council District 4. Of the 25 Census Tracts with 20% or more of their populations living in Deep Poverty, 14 fall within City Council District 4. In contrast, of the 51 Census Tracts with 10% or less of their populations living in Deep Poverty, 38 fall within City Council Districts 2 (14), 5 (14) and 6 (10). Considerable percentages of Deep Poverty are found in both City Council District 1 (11 of 16 Census Tracts have between 10% and 30% of its population living in Deep Poverty) and 3 (10 of 17 Census Tracts have between 10% and 40% of its population living in Deep Poverty), but the proportion of population in Deep Poverty is nonetheless noticeably less than District 4.

Table 2. Number of Census Tracts by City Council District
and Percent of Population Living with Annual Income < 50% FPL

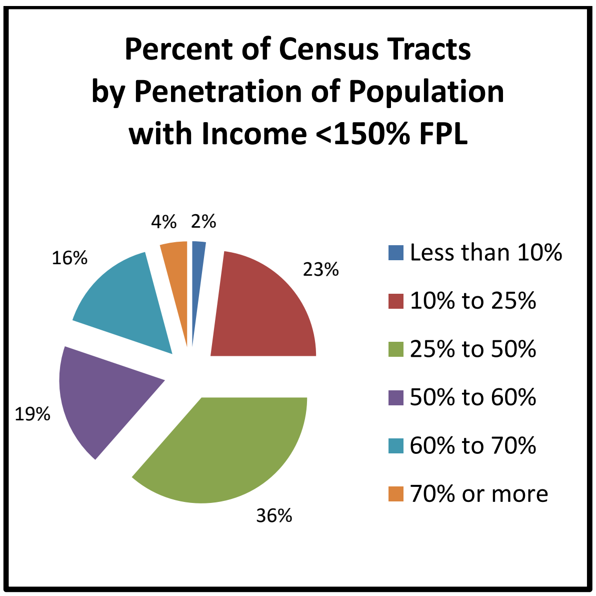
	Number of Census Tracts by City Council District						
Percent Population with Annual Income Below 50% FPL	1	2	3	4	5	6	Grand Total
Less than 5%	1	8	1		8	6	24
5% to 10%	4	6	6	1	6	4	27
10% to 20%	7	3	5	7	1	4	27
20% to 30%	4	0	4	7	2	0	17
30% to 40%	0	0	1	5	0	0	6
40% or more	0	0	0	2	0	0	2
Grand Total	16	17	17	22	17	14	103

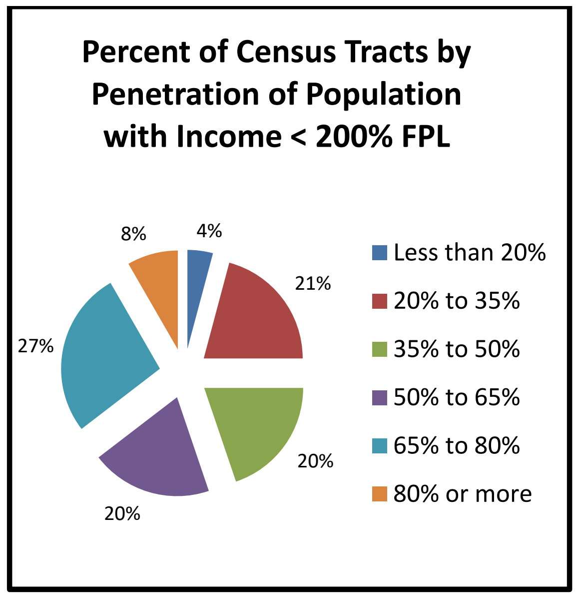
An annual income less than 150% of FPL (or less than 200% of FPL) is important in that it begins to reflect the income ranges that are often used to demarcate income-eligibility for various public assistance programs. For example, the federal SNAP program (Supplemental Nutrition Assistance Program) generally sets, with some limited exceptions, its maximum income eligibility at 130% of FPL.[18] The free school breakfast/school lunch program also has a maximum income eligibility of 130% of Poverty.[19] In contrast, in Ohio, the maximum income-eligibility for the federal Low-Income Home Energy Assistance Program (LIHEAP) is 175% of

[18] Center on Budget and Policy Priorities (September 2020). *A Quick Guide to SNAP Eligibility and Benefits*, available at https://www.cbpp.org/sites/default/files/atoms/files/11-18-08fa.pdf (last accessed May 18, 2021).
[19] 85 Federal Register 16050, available at https://www.federalregister.gov/documents/2020/03/20/2020-05982/child-nutrition-programs-income-eligibility-guidelines (last accessed May 18, 2021).

FPL.[20] Similarly, the reduced cost school breakfast/lunch program has a maximum income eligibility of 185% of Poverty.[21]

The two charts below show the distribution of Census Tracts by the percentage of population in each Census Tract with income below 150% or 200% of FPL.[22] The 150% FPL Chart shows, for example, that nearly four-of-ten (39% Census Tracts in Toledo have 50% or more of their populations living with income at or below 150% of Poverty (19% + 16% + 4%), and one-of-five (20%) (16% + 4%) Census Tracts have 60% or more of their population with income that low. A full three-quarters of Toledo Census Tracts (75%) (36% + 19% + 16% + 4%) have 25% or more of their population living with income at or below 150% of Poverty. Similarly, more than half (55%) (20% + 27% + 8%) of Toledo Census Tracts have 50% or more of their populations living with income at or below 200% of Poverty. Nearly one-in-ten (8%) of the City's Census Tracts have 80% or more of their populations with income that low.



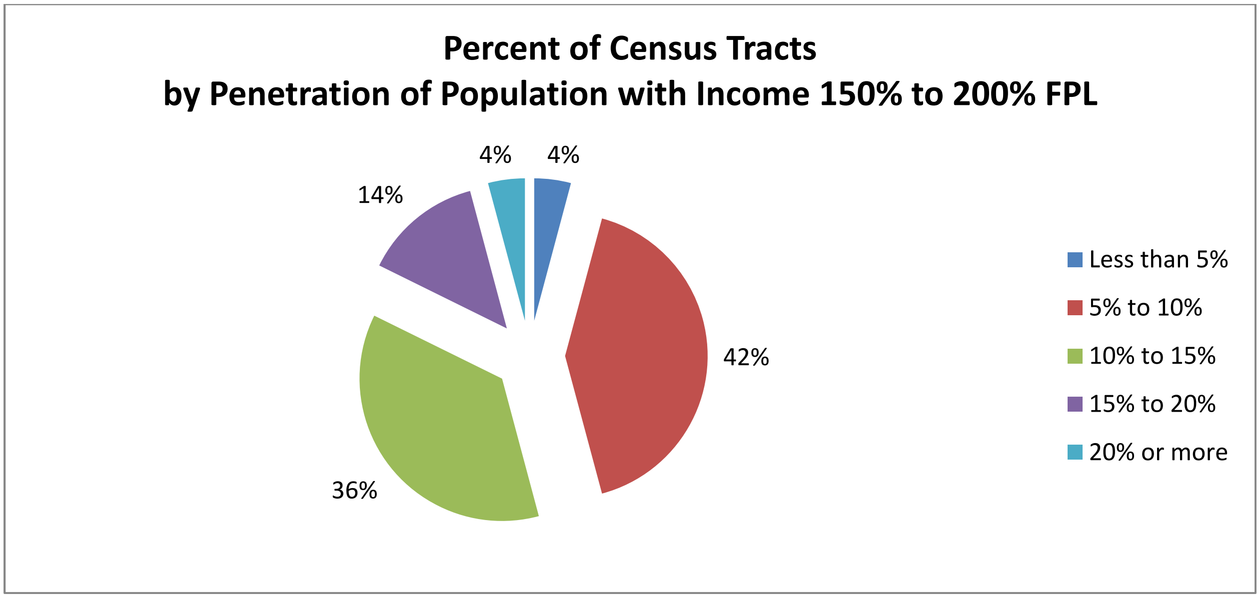


The segment of population with income greater than 150% of Poverty but less than 200% of Poverty is important because many of these Toledo residents have incomes that are too high to be eligible for public assistance, but too low to provide adequate resources to consistently meet basic household needs. As the Chart below documents, more than half of all Toledo Census Tracts (54%) have 10% or more of their *total* population living with annual income that falls in this narrow band (150% to 200% of Poverty Level). Nearly one-of-five Census Tracts (18%)

[20] https://development.ohio.gov/is/is_heap.htm (last accessed May 18, 2021).
[21] 85 Federal Register 16050, available at https://www.federalregister.gov/documents/2020/03/20/2020-05982/child-nutrition-programs-income-eligibility-guidelines (last accessed May 18, 2021).
[22] Note that the Federal Poverty Level percentage ranges in the two charts differ. The left-hand chart is data for at or below 150% of FPL, while the right-hand chart is data for at or below 200% of FPL.

have 15% or more of their total population living with annual income in this band of income too high to qualify for assistance but too low to provide a self-sustaining income.

Understanding the extent to which Toledo households may live with incomes in this shoulder area of low-income status (150% to 200% of Poverty) provides important insights, also, into possible policy responses to an inability-to-pay. Households with incomes in this range of Poverty Level are generally working households (with earned income). As a result, while they may not qualify for some public assistance (*e.g.* Food Stamps, free school meals), they may well qualify for work support. As will be discussed in more detail in a later section of this Plan, for example, the federal Earned Income Tax Credit (EITC) provides considerable financial support for working households. In addition, Ohio supplements the federal EITC with a state-funded EITC.



In sum, in defining "low-income" status, it is important to keep in mind those who may be the "near poor." Households with income between 150% and 200% of Poverty have incomes that are frequently too high to be eligible for most public assistance programs, but too low to allow a household to be able to sustainably pay their Toledo water bills. Even then, some public assistance is made available specifically to support "working" families.

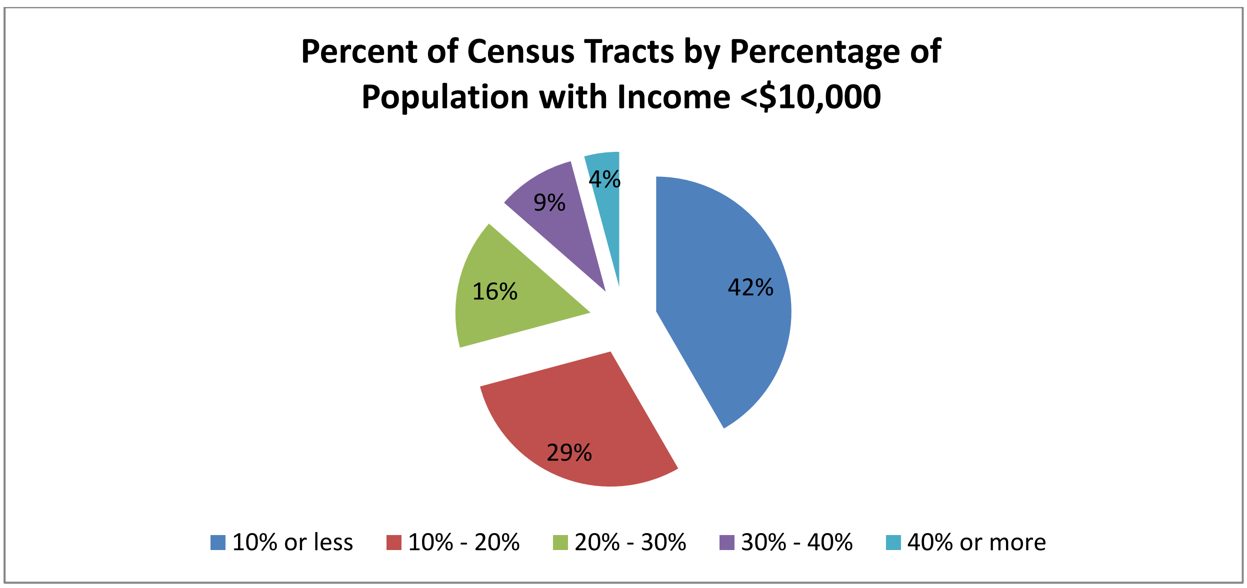
5. ***Absolute Dollars of Income.***

Sometimes it is most helpful to know the absolute dollars of annual income for residents of a city rather than having that income translated into an increment of some other metric (*e.g.* percentage of AMI, percent of FPL). After all, if "affordability" is measured in terms of bill burdens (*i.e.* bills as a percentage of income), an income of $15,000 is $15,000 whether spread over a 2-

person household or a 6-person household.[23] On the other hand, it is generally accepted that household size makes a difference. A 6-person household with an income of $20,000 is considered to be "poorer" than a 2-person household with an income of $20,000.

This section examines the distribution of income amongst Toledo Census Tracts for three different income levels: (1) below $10,000; (2) below $20,000; and (3) below $35,000.[24] The data is set forth in Chart format. The three Charts below show the percentage of Census Tracts disaggregated by the percentage of households in each Census Tract with the prescribed level of annual income. Presenting the data in this fashion allows a reader to consider both the breadth and the depth of low-income status in one Chart. The depth of low-income status is shown by the percentage of households below the designated income level. The breadth of low-income status is shown by the percentage of Census Tracts with the varying degrees of income levels.

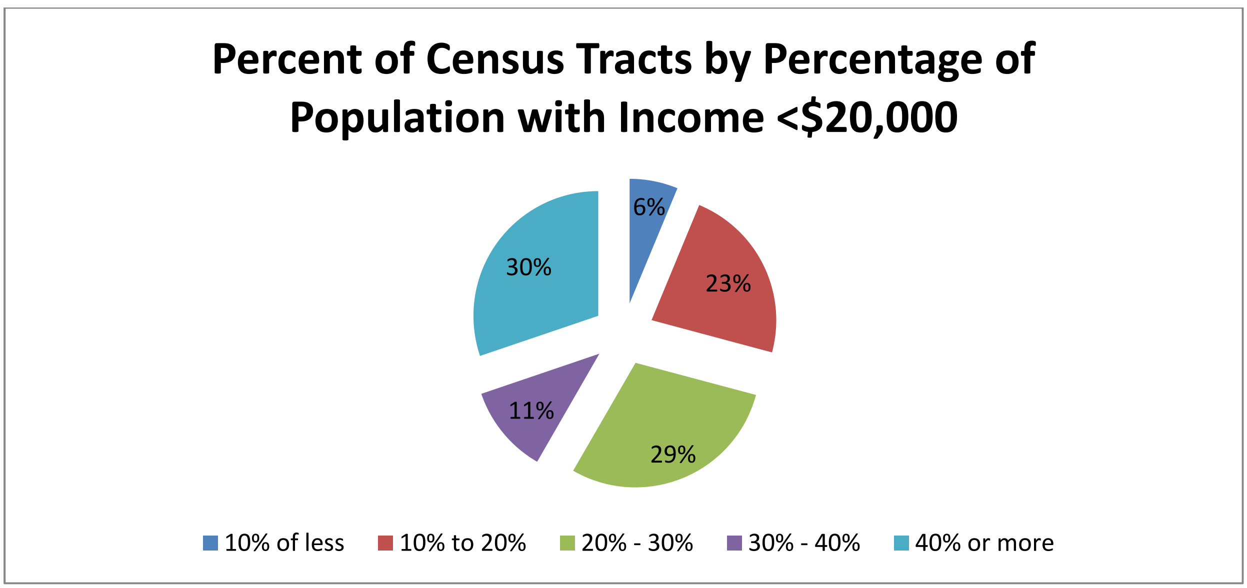
The Chart immediately below shows the percentage of Census Tracts disaggregated by the percentage of households with income less than $10,000. A sizable plurality of Toledo Census Tracts have 10% or fewer of their households reporting an annual income of less than $10,000. Toledo, however, has a substantial low-income population (with "low-income" defined as income less than $10,000). Nearly three-in-ten (16% + 9% + 4% = 29%) Census Tracts have 20% or more of their households with income less than $10,000, while nearly one-in-seven (9% + 4% = 13%) Census Tracts have 30% or more of their households with income that low.



[23] The fallacy in this reasoning is discussed in more detail below.
[24] Take careful note of the measurements here. Each group is a subset of the next higher group. That set of households with income less than $10,000 is a subset of the group of households with income less than $20,000. That group of households with income less than $20,000 is a subset of the group of households with income less than $35,000. What is *not* shown, in other words, is the group of households with income less than $10,000; with income of $10,000 to $20,000; and with income of $20,000 to $35,000.

When one examines annual incomes below $20,000, the breadth of low-income status in Toledo becomes even more evident. As the Chart below documents, more than two-thirds of all Toledo Census Tracts (29% + 11% + 30% = 70%) have 20% or more of their households living with annual income less than $20,000. Indeed, nearly one-in-three Toledo Census Tracts (30%) have 40% or more of their households living with annual incomes that low.

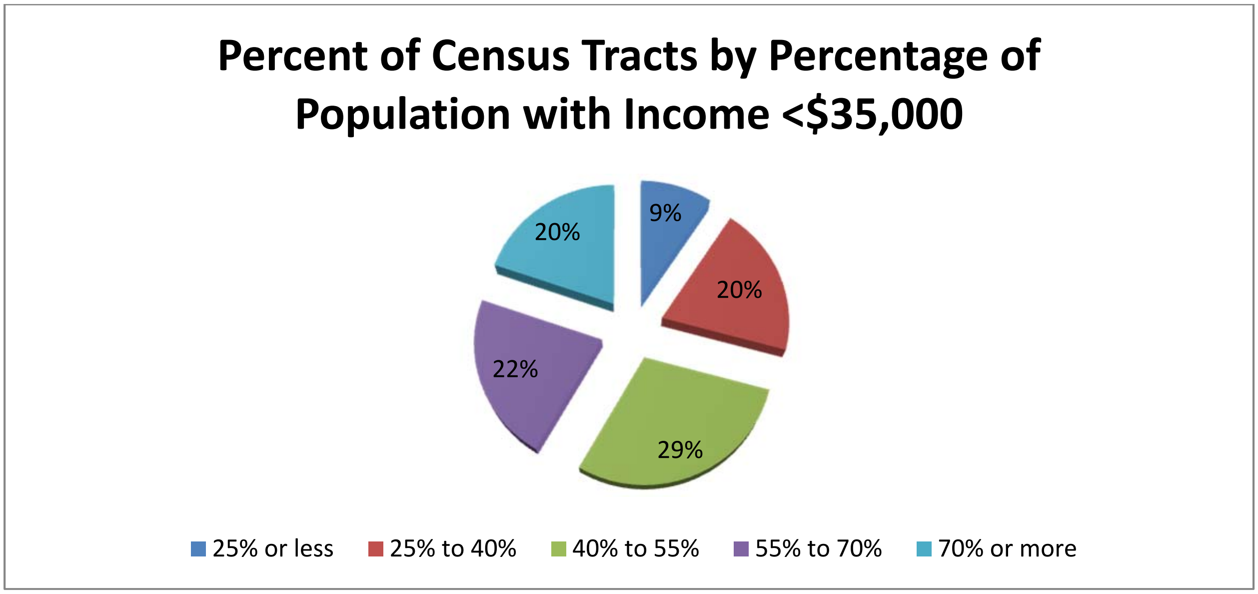
The growth in the number of low-income households, when "low-income" status is defined as below $20,000 rather than below $10,000, is considerable. While only 4% of Toledo Census Tracts have 40% or more of their households with income less than $10,000, 30% of Toledo Census Tracts have 40% or more of their households with income less than $20,000. While 13% of Toledo Census Tracts have 30% or more of their households with income less than $10,000, 41% of Toledo Census Tracts have 30% or more of their households with income less than $20,000. In contrast, the proportion of Census Tracts with small percentages of low-income households falls dramatically. While 42% of Toledo Census Tracts have fewer than 10% of their households with income less than $10,000, only 6% of Toledo Census Tracts have fewer than 10% of their households with income less than $20,000.



At an upper range of low-income status, when such status is measured in absolute dollar terms, the breadth of poverty in Toledo is dramatic. Note the change in the percentage ranges in the Chart below. The Chart documents that one-of-five (20%) Census Tracts in Toledo have 70% or more of their households living with income less than $35,000, while more than seven-of-ten (71%) Census Tracts have 40% or more of their households living with income that low. In only 9% of Toledo's Census Tracts, does the percentage of households living with annual income less than $35,000 drop to below 25%.

An annual income of $35,000 (2019 dollars)[25] can still reasonably be seen as being “low-income.” An annual income of $35,000 is:

- 213% of Federal Poverty Level (2019) for a two-person household (100% of Poverty Level = $16,460 in 2019);
- 168% of Federal Poverty Level (2019) for a three-person household (100% of Poverty Level = $20,780 in 2019); and
- 139% of Federal Poverty Level (2019) for a four-person household (100% of Poverty Level = $25,100 in 2019).



When 42% of Toledo’s Census Tracts have more than half (55% or more) of their households living with annual incomes less than $35,000, and 20% of the City’s Census Tracts have 70% or more of their households with income that low, the City has a both a deep and wide level of low-income when “low-income” is measured in absolute dollar terms.

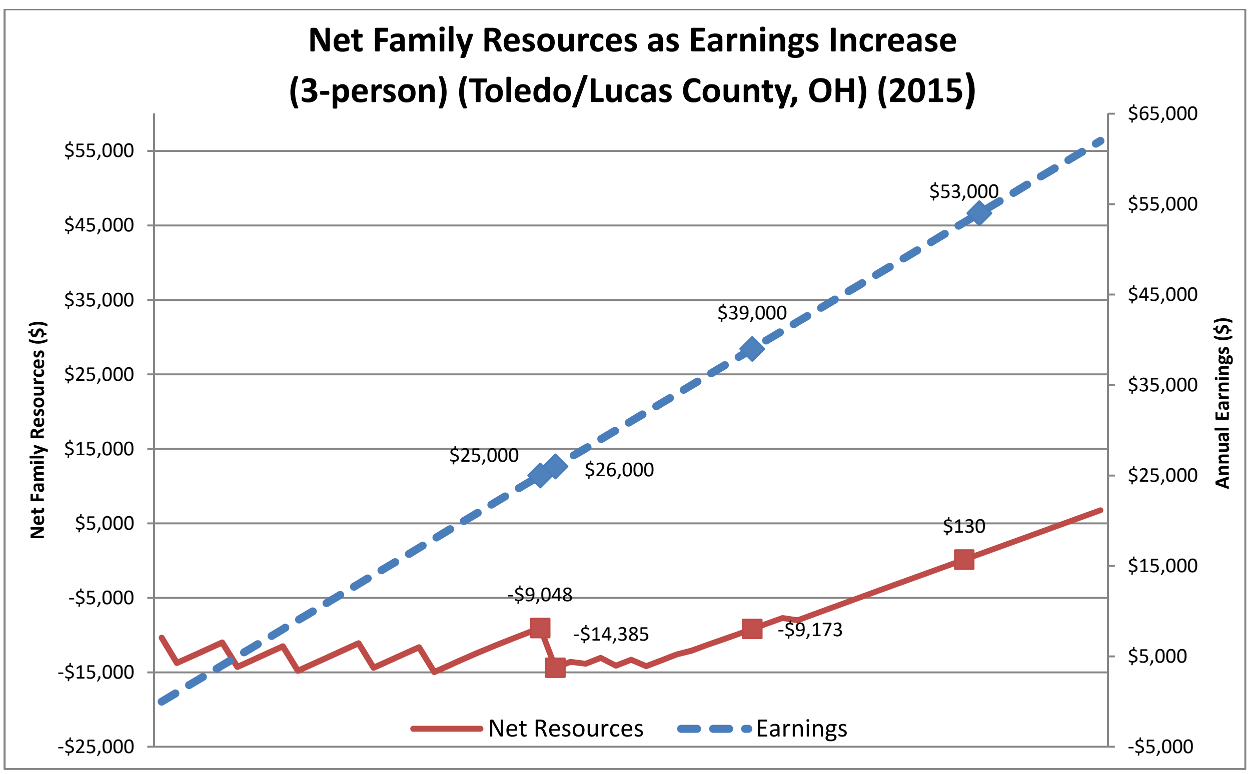
There is a drawback in examining household income in purely dollar terms. Increases in dollars of household income are not necessarily reflected in increases in net family resources. As household income increases, a family’s eligibility for various public assistance programs declines. This decline may result in a reduced level of benefits; at certain points, an increase in household income results in the household exceeding income eligibility altogether, with an elimination of the subsidy provided by the public assistance program.

[25] 2019 is the most recent Census data reported.

The Chart below presents an illustration of this impact for a three-person family (one adult, one pre-school child, one school-age child) living in Toledo. The Chart was generated using the National Center for Children in Poverty's Family Resource Simulator for Toledo (2015). For purposes here, the Chart shows that this three-person household reaches the "break-even" point in household resources when earnings reach $53,000 a year. At that income level, a household has a level of Net Resources (income over expenses) of $130.

More importantly, for purposes here, the Chart shows how Net Family Resources fluctuate as income increases. Family earnings (*i.e.* income) is represented by the dashed line. Net family resources (*i.e.* earnings plus public assistance) is represented by the solid line. The Chart shows, for example, that as the income for this three-person household increases from $25,000 to $26,000 a year, the level of net resources declines by more than $5,000 (from negative-$9,048 to negative-$14,385). In this instance, the decline is associated with the loss of SNAP (*i.e.* Food Stamp) benefits along with increasing income tax obligations. It is not until the household's annual income reaches $39,000 that the net resources (-$9,173) climb back to almost (but not quite) the same level they had reached when earnings were much lower.

In short, "low-income" status when measured in terms of absolute dollars must be considered with care. Simply because a family's annual earnings increase does not mean that that family has more resources to devote to paying their Toledo Water bill.



In sum, knowing the absolute dollar income of households in Toledo provides important insights into the affordability of service provided by Toledo Water. However, knowing those dollar income levels does not provide a complete picture of the income challenges of "low-income" customers. Even as dollars of income increase, at points along the continuum, total household resources may decline. These declines occur at the break-points at which the increase in income pushes the household above maximum income eligibility for particular public assistance programs. In the illustration above –the Chart provides an illustration for one family-size and one family composition— the move from $25,000 to $26,000 in earnings results in a net loss of total household resources. Levels of the absolute dollars of income should not be ignored. Neither should they be given undue weight.

6. Self-Sufficiency Incomes.

The "Self-Sufficiency Standard" for Ohio is a measure of income which "calculates how much income a family must earn to meet basic needs, with the amount varying by family composition and county."[26] The Self-Sufficiency Standard is unique in that it not only takes into account household size, but it also takes into account household composition. A self-sufficiency income is high enough to allow a family to meet its basic needs without public assistance (*e.g.* Food Stamps) and without informal private assistance (*e.g.* free babysitting by a relative). As shown in the Table below, four different households, all of which are comprised of three persons, would have significantly different annual self-sufficiency incomes. Indeed, Ohio's most recent (2019) self-sufficiency income calculation provides incomes for 719 families of different sizes and compositions.

The self-sufficiency income provides insights into low-income status in that it takes into account the cost-of-living facing a family. The cost-of-living is a function not only of location, but also of family size and composition. A two-person family comprised of two adults has a different cost-of-living than does a two-person family comprised of one adult and an infant.

[26] Pearce (2015). *The Self-Sufficiency Standard for Ohio: 2015*, Center for Women's Welfare, University of Washington School of Social Work, prepared for Ohio Association of Community Action Agencies, available at http://selfsufficiencystandard.org/sites/default/files/selfsuff/docs/OH2015.pdf (last accessed May 19, 2021).

Table 3. Self-Sufficiency Income (Lucas County, OH) (3-person family, four selected family compositions) (2019)[27]			
Location	Family Size	Family Composition	Annual Self-Sufficiency Income
Lucas County	3 persons	1 adult, 1 infant, 1 pre-school child	$58,302
Lucas County	3 persons	1 adult, 1 pre-school child, 1 school-age child	$52,880
Lucas County	3 persons	1 adult, 1 pre-school child, 1 teenager	$38,693
Lucas County	3 persons	2 adults, 1 school-age child	$45,419

The self-sufficiency income standard is a helpful tool to use in assessing various public policies relating to education and work-support. It is, however, set aside for purposes of the development of this Water Affordability Plan. The purpose of this Plan is not to make water bills affordable without need for external public assistance. While achieving self-sufficiency (*i.e.* an income to meet basic needs without need for outside assistance) may be a laudable public goal, it is neither the duty, nor the objective, of a Water Affordability Plan by the City of Toledo.

7. Comparing the Results.

The definition of "low-income," as well as the tool used to ascertain low-income status, makes a substantial difference in how Toledo might pursue the development of a Water Affordability Plan. The Table below sets forth a comparison of the various tools identified above. In Toledo, it appears that income at 50% of the Area Median Income (AMI) roughly parallels income at 150% of Poverty Level. As household size increases, 150% of Poverty becomes increasingly higher than 50% of AMI. For a 3-person household, those two income levels are virtually identical (50% AMI $945 less than150% of Poverty). For a 2-person household, 50% of AMI is somewhat more ($2,235), while for a 4-person household, 50% of AMI is considerably less ($4,175).

In contrast, 80% of AMI is consistently higher than 200% of Poverty at each household size. For a 2-person household, 80% of AMI is nearly $10,000 more than 200% of Poverty, while for a 4-person household, the difference decreases to roughly $4,000.

The self-sufficiency income is also considerably more than 200% of Poverty in the City of Toledo. Recognizing that a self-sufficiency income differs by family composition, for the family compositions used in the Table below, the difference between 200% of Poverty and the self-sufficiency income declines as household size increases. For a 2-person household, the self-

[27] While not accompanied by a written narrative, the most recent calculation of the Ohio self-sufficiency standard incomes (2019) is available at http://www.selfsufficiencystandard.org/Ohio (last accessed May 19, 2021).

sufficiency income is more than $20,000 higher than 200 percent of the Federal Poverty Level ($55,107 vs. $33,820). In contrast, for a 4-person household, the difference has declined to only $6,000 ($57,331 vs. $51,500).

Table 4. Comparing Differing Definitions of "Low-Income"
(Citywide Toledo Data) (2019)

	2-person	3-person	4-person
50% of AMI	$27,600	$31,050	$34,450
80% of AMI	$44,100	$49,600	$55,100
100% of FPL	$16,910	$21,330	$25,750
150% of FPL	$25,365	$31,995	$38,625
200% of FPL	$33,820	$42,660	$51,500
Self-Sufficiency (Lucas County) (2019)[28]	$55,107[29]	$52,880[30]	$57,331[31]
Income below $10,000	12.1% of population below $10,000 (not differentiated by household size)		
Income below $20,000	26.2% of population below $20,000 (not differentiated by household size)		
Income below $35,000	45.2% of population below $35,000 (not differentiated by household size)		
Upper Limit First Quintile[32], [33]	$15,068 (not differentiated by household size)		
Average First Quintile	$6,847 (not differentiated by household size)		
Average income (Food Stamp recipients)	$17,967 (not differentiated by household size)		

The average First Quintile income and Upper Income Limit for the First Quintile income provide important benchmarks for determining the prevalence of low-income status in Toledo, but do not provide appropriate metrics by which to define "low-income." Even the Upper Income Limit for the First Quintile income in Toledo is less than 100% of Poverty at each household size. The

[28] Most recent data is for 2019.
[29] Self-sufficiency income varies not simply by family size, but also by family composition. This figure is for a two-person family with one adult and one school-age child. In contrast, a two-person family with two adults would be $30,496. A two-person family with one adult and one pre-school age child would be $40,277.
[30] One adult, one pre-school child, one school-age child. A three-person family with one adult and two school-age children would be $49,685. A three-person family with one adult, one school-age child, and one teenager would be $35,199.
[31] Two adults and two school-age children.
[32] Both figures for First Quintile income, as well as median income for Food Stamp recipients, are based on most recent Census data (2019 1-year data).
[33] Both figures for First Quintile income, as well as median income for Food Stamp recipients, represent city-wide averages.

average First Quintile income in Toledo is less than 50% of Poverty Level. While it is important to know, from a policy perspective, that the households in the lowest 20% of incomes in Toledo have annual incomes less than 50% of Poverty, it is not possible to build a water affordability program directed exclusively to households living at that depth of Poverty.

For purposes of this Water Affordability Plan, "low-income" status will be defined in terms of the ratio of annual household income to Federal Poverty Level. It is clear from the data below that it is reasonable to conclude that households with annual income between 150% and 200% of Poverty can be considered "low-income" for purposes of water affordability planning.[34]

8. Eight Essential Findings.

Based on the data and discussion provided above, the Toledo Water Affordability Plan makes the following findings:

- Median income is, by definition, the "middle" of a population when incomes are rank-ordered from highest to lowest. Median income cannot be used as a measure of "low-income." Instead, by definition, the income level which is deemed to be the "median" is that point at which 50% of the population has income lower while the other 50% of the population has income which is higher.

- The only "real" number used in establishing Area Median Income is the 4-person Area Median Income for the Toledo metropolitan area. Other incomes published by family size are adjustments to this base figure based on federally-prescribed formulae.

- Focusing on the "First Quintile" of income in a geographic area has the effect of focusing on the lowest income households in that area. Simply because a household is in the lowest one-fifth of income in a particular area, however, that household is not necessarily a "low-income" household. In an area with very high incomes, the lowest quintile of income can nonetheless still be quite high.

- "Deep poverty" is recognized as an economic deprivation that is "acute, compounded across dimensions, and often lasts a lifetime or even passes from one generation to the next." Deep Poverty is prevalent in Toledo.

- An annual income less than 150% of FPL (or less than 200% of FPL) is important in that it begins to reflect the income ranges that are often used to demarcate maximum income-eligibility for various public assistance programs. The segment of population

[34] However, as will be explained further later, this does *not* mean that customers in this income range will receive benefits from a rate affordability program.

with income greater than 150% of Poverty but less than 200% of Poverty is important because many of these Toledo residents have incomes that are too high to be eligible for public assistance, but too low to provide adequate resources to consistently meet basic household needs.

- Sometimes it is most helpful to know the absolute dollars of annual income for residents of a city rather than having that income translated into an increment of some other metric (*e.g.* percentage of AMI, percent of FPL). After all, if "affordability" is measured in terms of bill burdens (*i.e.* bills as a percentage of income), an income of $15,000 is $15,000 whether spread over a 2-person household or a 6-person household.

- There is a drawback in examining household income in purely dollar terms. Increases in household income are not necessarily reflected in increases in net family resources. As household income increases, a family's eligibility for various programs declines.

- The "Self-Sufficiency Standard" for Ohio is a measure of income which "calculates how much income a family must earn to meet basic needs, with the amount varying by family composition and county."[35] The Self-Sufficiency Standard is unique in that it not only takes into account household size, but it also takes into account household composition. A self-sufficiency income is high enough to allow a family to meet its basic needs without public assistance (*e.g.* Food Stamps) and without informal private assistance (*e.g.* free babysitting by a relative).

For purposes of this Water Affordability Plan, "low-income" status will be defined in terms of the ratio of annual household income to Federal Poverty Level. It is reasonable to conclude that households with annual income between 150% and 200% of Poverty can be considered "low-income" for purposes of water affordability planning.

B. Defining Whether a Water Bill is "Affordable" or Not.

Once Toledo defines who it will deem to be "low-income," the next important step in developing a Water Affordability Plan is to define how to determine whether a bill is "affordable." A variety of metrics have been used to deem a water bill as affordable or not. Some provide useful insights. Others do not. The advantages and disadvantages of some of the more commonly used metrics are discussed below.

[35] Pearce (2015). The Self-Sufficiency Standard for Ohio: 2015, Center for Women's Welfare, University of Washington School of Social Work, prepared for Ohio Association of Community Action Agencies, available at http://selfsufficiencystandard.org/sites/default/files/selfsuff/docs/OH2015.pdf (last accessed May 19, 2021).

1. *Percent of Available Income*

Using the percentage of "available" income as the metric by which to define whether a water bill is affordable or not seeks to account for the fact that affordability may vary as a factor of household expenses as much as it varies by household income. The process of looking at "available income" begins with an identification of gross (*i.e.* total) household income. From this gross income is subtracted "necessary" or "essential" household expenses. The remainder is deemed to be "available income."

There is some merit to recognizing that differing households face differing expenditure levels. An aging household, for example, is generally considered to likely have higher medical costs, which is certainly noticeable in the "65 and older" data below. At the same time, however, that age range has both lower transportation costs and lower housing costs.

Table 5. Consumer Expenditures on Selected Items by Age of Reference Person (2019)[36]

Item	Younger than 25	25-34 years	35-44 years	45-54 years	55-64 years	65 years and older	65-74 years	75 years and older
Income before taxes	$38,120	$76,187	$103,272	$107,094	$99,606	$55,656	$65,943	$41,937
Average annual expenditures	$39,293	$57,128	$74,890	$77,356	$69,494	$50,220	$55,087	$43,623
Housing	$12,741	$20,499	$24,683	$23,876	$21,192	$17,472	$18,709	$15,806
Transportation	$8,305	$10,296	$13,685	$13,351	$11,380	$7,492	$8,640	$5,960
Healthcare	$1,510	$3,162	$4,822	$5,345	$5,958	$6,833	$6,772	$6,914
Drugs	$152	$202	$373	$469	$607	$737	$692	$799

Moreover, as described in detail above, household budgets for essential needs vary not only by household size, but also by household composition. For example, two three-person households would have different essential need budgets depending on the number of age of children.

There is, in other words, no generalized level of "available income" over which water bills should not exceed a prescribed proportion. Different households have different household needs. It would be impossible to tie water affordability to a designation of whatever is left over.

[36] U.S. Bureau of Labor Statistics, *Consumer Expenditure Survey (by age of reference person)*, available at https://www.bls.gov/cex/tables.htm (last accessed May 25, 2021).

2. *Hours of Minimum Wage*

Using the "hours of minimum wage" as a measure of affordability provides little useful information to decisionmakers. On the one hand, if the Federal minimum wage is used, the information is applicable only to the thirteen (13) states that use the Federal minimum wage. On the other hand, if the state minimum wage is used, the results in any one state are not comparable to the results in any other state. Indeed, even within Ohio, the state minimum wage differs based on the gross annual sales of a business establishment.[37]

Use of the state minimum wage does not allow comparisons across jurisdictions. Ohio's base minimum wage of $8.80 per hour, for example, is comparable to no other state in the country. There are more states (5) with a minimum wage more than $4.00 higher than Ohio than there are either $0.20 higher (3) or $0.20 lower (3). Even within these states, there are variations. For example, Nevada has a minimum wage that differs based upon whether or not the employer provides health insurance. Montana has a minimum wage which, like Ohio, differs based on the gross annual sales of the establishment. California has a minimum wage that differs based on the number of employees.

Table 6. State Minimum Wages (Selected States) (2021)[38]

State	Minimum Wage
District of Columbia	$15.00
California	$14.00
Wisconsin	$13.69
Michigan	$13.69
Massachusetts	$13.50
Delaware	$9.25
Nebraska	$9.00
Nevada	$9.00
Ohio	$8.80
Montana	$8.75
West Virginia	$8.75
Florida	$8.65

[37] In Ohio, the state minimum wage is $8.80 unless the establishment's gross annual sales are less than $305,000. At that point, the minimum wage reverts to the federal figure of $7.25.

[38] Statista (2021). (Available at https://www.statista.com/statistics/238997/minimum-wage-by-us-state/) (last accessed June 24, 2021). In-state variations in minimum wage based on state law are excluded from this Table.

In addition to its conceptual flaws, very few hourly wage workers are paid at or below minimum wage. In Ohio, for example, of the 2.931 million hourly wage employees in 2020, only 43,000 (1.5%) were paid at or below minimum wage.[39] Even if the metric did not have conceptual flaws, in other words, it would apply to a de minimis percentage of low-income households. Given that the Federal minimum wage is used in but a few states, that state minimum wages vary widely across jurisdictions, and that few workers are paid at minimum wage in any event, using an affordability metric based on the "hours of minimum wage" is nothing but an arbitrary figure.

Converting water bills into a multiplier of the federal minimum wage allows a comparison between jurisdictions. However, it is not a particularly meaningful comparison. It is no different than defining "affordability" in terms of the average price of a Cleveland Browns ticket, the average price of a Starbucks White Chocolate Mocha Grande, or some other randomly picked number. It certain provides no insight at all into the affordability of water bills at a household level.

3. Shutoff Prevention

The presence of utility shutoffs is not a metric by which one can accurately measure the unaffordability of water bills. Conversely, the absence of shutoffs does not indicate that a utility is rendering an affordable bill. Two lines of reasoning support this conclusion. The first reason approaches the question from the perspective of the household. The second reason approaches the question from the perspective of the utility.

First, whether a bill gets paid or not frequently bears little relationship to whether the bill was affordable to the customer. While not researched in the water industry, the concept of the "paid-but-unaffordable" bill is commonly accepted in the energy industry. Perhaps the seminal study of what might be called the "paid-but-unaffordable" energy bill was performed by the research firm, APPRISE, Inc., for the federal LIHEAP office[40] in 2010.[41] In its study of the "dimensions of energy insecurity," APPRISE considered the "financial dimensions of Energy Insecurity" by different household characteristics.[42]

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[39] U.S. Bureau of Labor Statistics (Feb. 2021). Characteristics of minimum wage workers, 2020, at Table 3 (available at https://www.bls.gov/opub/reports/minimum-wage/2020/pdf/home.pdf (last accessed June 23, 2021).

[40] LIHEAP is the federal Low-Income Home Energy Assistance Program. The agency administering LIHEAP is the U.S. Department of Health and Human Services, Administration for Children and Families, Office of Community Services, Division of Energy Assistance.

[41] APPRISE, Inc. (Feb. 2010). *LIHEAP Special Study of the 2005 Residential Energy Consumption Survey: Dimensions of Energy Insecurity for Low Income Households*, available at http://www.appriseinc.org/wp-content/uploads/2016/05/LIHEAP-Special-Study-on-2005-RECS-Data-Final-Report.pdf (last accessed June 24, 2021).

[42] APPRISE reported on other actions households would take to be able to pay their energy bills. These actions are not included here (*e.g.* keeping home at unsafe or unhealthy temperature) since they do not appear to have a water/wastewater equivalent.

Table 7 below presents a selection of the data. This Table shows that, at least in the energy industry, low-income households take substantial actions in order to pay their bills when they feel they lack sufficient money to pay those bills. One of the "financial dimensions" identified was that a household "reduced expenses for household necessities due to not having enough money for the energy bill" during the past year. Across-the-board, low-income households reported that they reduced expenses for household necessities in either "almost every month" or "some months" in roughly 40% of the cases. Households with lower incomes reported that they more frequently did so "almost every month." For example, while 22.4% of households with income less than 100% of Poverty reduced expenses in almost every month, only 14.1% of households with income between 100% and 150% did so. While 23.8% of households with annual income less than $10,000 reported reducing household expenditures almost every month, only 14.0% of households with income between $10,000 and $20,000 did so.

Higher energy burdens were also associated with greater problems. Households with "high" energy burdens more frequently reported reducing expenses for necessities both "almost every month" and "some months" than did households with moderate or low burdens. Households with moderate burdens more frequently reported reducing expenses for household necessities "almost every month" (20.7% vs. 18.4% vs. 11.5%) and did so at virtually the same rate in "some months" (22.1% vs. 22.3%).

Table 7. Financial Dimensions of Energy Insecurity (2005)
APPRISE, Inc. "Dimensions of Energy Insecurity for Low Income Households"
(Reduced Expenses for Household Necessities Due to Not Having Enough Money for the Energy Bill During the Past Year)

	Poverty Level		Annual Income		Vulnerability Group (Below Poverty)		Residential Energy Burden[43] (total energy)		
Frequency	<100%	101 – 150%	<$10K	$10K - <$20K	Young Child	Elderly	High	Moderate	Low
Almost Every Month	22.4%	14.1%	23.8%	14.0%	16.7%	13.9%	20.7%	18.4%	11.5%
Some Months	22.3%	26.2%	20.1%	27.7%	26.4%	18.4%	25.2%	22.1%	22.3%
1 or 2 Months	8.0%	5.6%	5.6%	8.5%	12.4%	4.4%	5.2%	8.5%	6.7%
Never / No	47.3%	54.2%	50.5%	49.9%	44.5%	63.5%	48.9%	51.0%	59.6%

[43] APPRISE defined energy burdens as follows: "high" is equal to 10.9% or more; "moderate" is equal to a range of from 6.5% to less than 10.9%; "low" is equal to less than 6.5%.

A second, separate, reason to not consider the presence or absence of utility shutoffs as a measure of affordability considers the perspective of the utility. Utilities rarely, if ever, have sufficient resources to disconnect every bill that remains unpaid. Even accounts that are deeply in arrears (either in dollars or by age of arrears) may not have service disconnected simply because the utility lacks the staff or the vehicles to visit every home that owes sufficient arrears to "merit" disconnection. Utilities operate with what are generally called "treatment amounts." The treatment amount, which is often kept confidential, denotes the age and/or dollar amount an arrearage must reach before the utility begins its collection process. Unpaid receivables that do not reach that specified age or dollar amount do not present a situation where the utility would find it financially beneficial to terminate service. If the number of accounts meeting the "treatment amount" exceeds the utility's available resources, not even an account meeting the treatment criteria will face the disconnection of service. The number of nonpayment disconnections rarely, if ever, equals the number of unpaid accounts.

On the other hand, some utilities engage in geographic-based service disconnections. In order to maximize the use of resources, such a policy specifies that when a specified geographic area has a sufficient number of accounts in arrears, the utility will assign crews to begin service disconnections to all customers in arrears in that geographic area (*e.g.* a neighborhood). One customer may face a service disconnection, while another does not, in other words, not because of their payment history, but rather because of the payment history of their neighbors. The higher number of nonpayment disconnections based on geographic-based collections provides no useful information on whether bills are less "affordable" (or not) in that geographic area.

For purposes here, the conclusion to be drawn for the Toledo Water Affordability Plan is that nonpayment service shutoffs, standing by themselves, do not accurately reflect the extent of potential bill unaffordability. From the household's perspective, a customer that avoids a service shutoff by paying their bills, but does so by reducing expenditures on household necessities "almost every month" or in "some months" in order to do so, cannot truly be said to be receiving an "affordable" bill. From the utility's perspective, whether or not a particular customer is subject to the disconnection of service for nonpayment is frequently, if not generally, a matter of internal utility policy or resources as much as anything else. Neither result associates the termination of service with whether the underlying bill is "unaffordable."

4. Payment-Troubled Status

Using "payment-troubled" status as a measure of underlying bill affordability faces many of the same problems that the use of "service disconnections" faces. Payment-troubled status looks at whether a customer has or has not paid the customer's bill as a measure of whether the bill was affordable. Unfortunately, from the household's perspective, a bill may be paid even though significant sacrifice occurs in other aspects of the household's life. Again, the APPRISE report (cited above) provides insights. A household that pays its water bill each month, but borrows money "almost every month" in order to do so, can hardly be said not to be "payment troubled." A household that pays its water bill each month, but reduces its spending on other basic necessities, can hardly be said not to be "payment-troubled." Similarly, a household who faces the threat of a nonpayment disconnection "almost every month" or in "some months" can perhaps be said to be "payment troubled" whether or not the termination threat results in the actual loss of utility service.

Table 8. Financial Energy Insecurity in the Past 12 Months
Low-Income Households, 2005 (APPRISE, Inc.)

	Percent Almost Every Month	Percent Some Months	Percent 1 or 2 Months	Percent Never
Worry about ability to pay	14.9%	23.6%	7.4%	54.1%
Reduce basic necessities	17.0%	23.35	6.7%	53.0%
Borrow to pay bill	3.9%	11.6%	7.2%	77.3%
Skip paying bill	3.9%	13.0%	9.4%	73.7%
Service termination threat	2.7%	8.7%	9.5%	79.2%
Any financial insecurity	23.6%	25.4%	8.9%	42.2%

Again, similar to the critiques of using "shutoffs" as a measure of bill affordability, whether a household has unpaid bills can be a function of utility policy as much as a function of bill affordability. A utility may choose not to disconnect service in furtherance of a policy not to deprive a household of essential water/wastewater service. Or, conversely, a utility may choose to act aggressively in disconnecting service in order to prevent the build-up of unpaid receivables. In such circumstances, the presence or absence of unpaid account balances is as much a function of the internal utility policy as it is a function of whether the underlying bill is affordable or not.

5. *"Essential" Service Level*

Defining a level of service that the utility deems to be "essential" for purposes of a determination of bill affordability carries with it the same shortcomings that are associated with defining water affordability in terms of gross household income minus essential expenditures. The fundamental flaw can be seen in the discussion above with respect to defining low-income status by reference to a "self-sufficiency" income. As discussed above, the "self-sufficiency" income in Ohio (as elsewhere) varies not only by geographic location, but by family size and family composition as well. For example, looking at self-sufficiency incomes in Ohio demonstrates that:

- A family living in Lucas County (OH) would have a different self-sufficiency income from the identical family living in Hamilton County (OH).

- A family with three members would have a different self-sufficiency income than a family with four members.

- A family with three members (adult, infant, school-age child) would have a different self-sufficiency income than a family with three members (adult, school-age child, teenager).

What is true for total expenditures on household necessities is true for water consumption as well. No single level of consumption could reasonably be deemed to be "essential" with consumption in excess of that level deemed to be "non-essential." Too many factors affect what level of water is consumed by a family on a monthly basis.

Defining affordability in terms of an "essential" level of service has other flaws as well. For example, setting an amount deemed to be "essential" somewhat begs the question of assisting low-income households. Much water usage is higher *because* of the very fact of poverty. Low-income households tend to live in housing units that have older systems that are more prone to inefficiencies and leaks. Low-income households also often live in rental housing units in which they have no dominion over the major water-consuming systems. Instead, decisions on whether to repair or replace water systems rest with property owners who have no responsibility for paying the resulting bills.

Finally, deeming some level of water consumption as "essential" for purposes of defining an "affordable" bill fails to take into account the reality of bill payment. Households do not make separate payments on that portion of the bill which someone has deemed to be "essential usage" and on that portion of the bill that exceeds that essential usage. Nor do collection practices differ based on whether payment has been made, or not, for the usage deemed to be essential. Bills are a unified whole. Whether they exceed an ability-to-pay based on the bill for a level of usage that has been deemed to be "essential," or for the bill for what has been deemed to exceed essential usage, the bill nonetheless still exceeds the ability-to-pay.

6. "Bill Burden" as Percentage of Income

Using bills as a percentage of income as a measure of "affordability" is common throughout the United States. Consider housing, health care, education, and home energy. In the housing industry, the U.S. Department of Housing and Urban Development (HUD) explains the housing burden:

> Housing programs in the United States have long measured housing affordability in terms of percentage of income. In the 1940s, the maximum affordable rent for federally subsidized housing was set at 20 percent of income, which rose to 25 percent of income in 1969 and 30 percent of income in 1981. Over time, the 30 percent threshold also became the standard for owner-occupied housing, and it remains the indicator of affordability for housing in the United States. Keeping housing costs below 30 percent of income is intended to ensure that households have enough money to pay for other nondiscretionary costs; therefore, policymakers consider households who spend more than 30 percent of income on housing costs to be housing cost burdened.[44]

Researchers for the U.S. Census Bureau have observed that "The conventional public policy indicator of housing affordability in the United States is the percent of income spent on housing. Housing expenditures that exceed 30 percent of household income have historically been viewed as an indicator of a housing affordability problem."[45]

Health care has turned to percentage of income burdens to define "affordability" as well. When the Federal Affordable Care Act (ACA) was first enacted, it provided for a shared responsibility to maintain minimum essential coverage. Known as the "individual mandate," the law called for each individual to have basic health insurance coverage or to make a shared responsibility payment when filing a federal income tax return.

For our limited purposes here, however, it is the exemptions under the statute that are important. One such exemption was if the cost of procuring health insurance was unaffordable. An employee eligible to purchase employer-sponsored coverage was exempt from the "individual mandate" requirement if the lowest cost self-only plan offered by the employer cost more than eight percent of household income.[46] For reasons unrelated to this exemption, the "individual mandate" provisions of the ACA have since been repealed. The fact remains, however, that in seeking to define "affordability" when the ACA was first enacted, the definition was done in percentage of income terms.

Percentage of income programs have been adopted by the Federal government to alleviate hardships flowing from student loan repayment. According to the Financial Counseling Association of America, "Income-Based Repayment (IBR) is a federal program created to keep

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[44] HUD Office of Policy Development and Research. *Defining Housing Affordability*, available at https://www.huduser.gov/portal/pdredge/pdr-edge-featd-article-081417.html (last accessed June 24, 2021).

[45] Schwartz and Wilson (2008). *Who Can Afford to Live in a Home: A Look at Data from the 2006 American Community Survey*, U.S. Census Bureau: Washington D.C.

[46] Jost (August 28, 2013). *Implementing Health Reform: Final IRS Individual Mandate Regulations*, Health Affairs Blog, available at https://www.healthaffairs.org/do/10.1377/hblog20130828.033922/full/ (last accessed July 28, 2021).

monthly student loan payments affordable for borrowers with low incomes and large student loan balances. To qualify for Income-Based Repayment, borrowers need to show a partial financial hardship."[47] A partial financial hardship exists when the payment amount on the borrower's student loans under a Standard (10-Year) Repayment Plan is greater than the amount the borrower would pay on the Income-Based Repayment Plan.

Depending on fluctuations in a borrower's income from year to year, the borrower's payment amount could change annually. FCAA observes that:

> Payments on IBR can increase or decrease annually based on changes to a borrower's income. A borrower is required to recertify his or her income each year to maintain income-based payments. IBR payments are based on the borrower's discretionary income. Discretionary income is determined by the borrower's Adjusted Gross Income (AGI) and the poverty guideline for his or her state. The monthly payment amount under IBR will be equal to 15% of the borrower's discretionary income.[48]

Under an IBR, the monthly payment, however will never be higher than the payment under a conventional ten-year repayment plan.

Finally, an affordable burden of 6% has been the standard generally relied upon by policymakers with respect to affordable home energy. The 6% burden has been frequently adopted,[49] including in the states of New Hampshire,[50] New York,[51] New Jersey[52] and Illinois.[53] In

[47] FCAA (2021). *Income-Based Repayment*, available at https://fcaa.org/student-loan-repayment-plans/income-based-repayment/ (last accessed June 24, 2021).

[48] Id.

[49] Six percent is based on the recognition that total shelter costs are generally deemed to be unaffordable to the extent that they exceed 30% of income. Moreover, utility costs tend to equal 20% of total shelter costs. A multiplication of those two data points (20% times 30%) yields the 6% figure.

[50] New Hampshire Public Utilities Commission, Docket No. DE 06-079 (2006). ("The current tiered Low Income Electric Assistance Program (EAP) was designed with the goal of making electricity "affordable" at 4 % of household gross income for power and light usage and 6% of household gross income for electric heat.")

[51] The New York Public Service Commission favored a 6% energy burden level because it appears to be a widely accepted limit for utility payments, including in New Jersey and Ohio; and also reflected by EIA data. New York Public Service Commission's *Order Adopting Low Income Program Modifications and Directing Utility Filings* at 7-48, Case 14-M-0565 (effective May 20, 2016).

[52] New Jersey requires USF customers who use natural gas for heating and electricity will pay 3% for their natural gas service and 3% for their electricity service. If, however, the customer uses electricity for heating, the entire 6% is devoted to the electricity service. The discount provided to customers is based on the difference between their annual utility bill (after LIHEAP is applied) and the required percentage of household income. https://www.state.nj.us/dca/divisions/dhcr/faq/usf.html#q1

addition, the Pennsylvania PUC has capped home energy burdens for households with annual income at or below 50% of Poverty Level at 6% of income.[54]

Which burden represents the upper limit of affordability for water has not achieved the same level of agreement that the definition of home energy affordability has achieved. The burden used to define water affordability in this report[55] is 4% of income.[56] Adopting this definition of affordability takes into account both the 30% limitation on housing burdens as affordable and the 6% limitation on energy burdens that are defined to be affordable. A combination of water burdens and energy burdens should not represent an excessive proportion of total shelter costs. Moreover, an affordable water burden should reflect proportionality when viewed in the perspective of total household expenditures on home energy. Defining an affordable water burden to be one that exceeds an affordable home energy burden, in other words, implies a household water bill that exceeds the household's energy bill. That is unlikely to be accurate.

The Table immediately below compares typical consumer expenditures on water bills to typical consumer expenditures on home energy. As has been described in other parts of this report, references to "water" include all water services (*e.g.* water, wastewater, stormwater). As can be seen, while it is not unusual for water expenditures to exceed natural gas expenditures (for those having natural gas expenditures), water bills are ***always*** less than household expenditures on electricity. Water burdens that would equal or exceed home energy burdens would thus appear to be disproportionate to the dollar levels at which consumers actually incur utility bills. A water burden that exceeds natural gas burdens deemed to be affordable, but that is less than total home energy bills, would appear to be reasonable.

[53] Illinois administers a percentage of income plan (PIP) that charges customers a maximum of 6% of their income for gas and electric service. The maximum PIP credit, however, is $150 per month or $1,800 annually. Illinois Senate Bill 1918 at 108-109. http://www.ilga.gov/legislation/96/SB/PDF/09600SB1918lv.pdf

[54] Pennsylvania PUC (September 19, 2019). Home Energy Affordability for Low-Income Customers in Pennsylvania, Final Policy Statement and Order, Docket M—2019-3012599.

[55] Remember, that unless explicitly noted otherwise, or unless the context clearly indicates, references to "water" in this report are intended to incorporate both water and wastewater.

[56] It should always be noted, however, that affordability is a range and not a point. To assert that 4% of income is affordable, while 4.5% of income is not, implies a precision to the determination that does not exist in reality.

Table 9. Comparative Expenditures on Home Energy and Water (2019) by Selected Income Characteristics (U.S. Consumer Expenditures Survey)						
	All Consumer Units	Lowest 20%	Second 20%	Third 20%	Fourth 20%	Highest 20%
Natural gas	$416	$259	$355	$367	$455	$644
Electricity	$1,472	$1,049	$1,351	$1,446	$1,587	$1,924
Water	$645	$392	$529	$596	$738	$970
	All Consumer Units	Less than $15,000	$15,000 to $29,999	$30,000 to $39,999	$40,000 to $49,999	$50,000 to $69,999
Natural gas	$416	$225	$325	$365	$363	$359
Electricity	$1,472	$977	$1,228	$1,367	$1,398	$1,466
Water	$645	$366	$472	$531	$558	$605

Any determination of what percentage of income burden is "affordable" to a low-income burden for a particular service is inherently imprecise, whether the service being examined involves home energy, water service, health care, or housing. Despite the imprecision, so long as one recognizes that affordability is a range and not a point, defining an affordable water bill as one that does not exceed 4% of income seems reasonable.[57]

7. *Six Essential Findings*

Based on the data and discussion provided above, the Toledo Water Affordability Plan makes the following findings:

- Using the percentage of "available" income as the metric by which to define whether a water bill is affordable or not seeks to account for the fact that affordability may vary as a factor of household expenses as much as it varies by household income. There is merit to recognizing that differing households face differing expenditure levels. Available income, however, differs not only on factors such as the age of household members, but on the size and composition of a family. Two three-person families would have different levels of available income if one is comprised of an adult and two teen-agers and the other is comprised of an adult and two pre-school children. Use of a percentage of available income is not an appropriate metric by which to measure water affordability.

[57] This burden is also consistent with international standards applicable to a combined water and wastewater burdens. See, United Nations Development Program, *Beyond Scarcity: Power, Poverty and the Global Water Crisis*, at 97 (3% affordable standard appropriate).

- Using the "hours of minimum wage" as a measure of affordability provides little useful information to decisionmakers on water affordability. On the one hand, if the Federal minimum wage is used, the information is applicable only to the thirteen (13) states that use the Federal minimum wage. On the other hand, if the state minimum wage is used, the results are not comparable to any other state. Indeed, even within Ohio, the state minimum wage differs based on the gross annual sales of a business establishment. In addition to its conceptual flaws, very few hourly wage workers are paid at or below minimum wage. Even if used only for inter-jurisdictional comparisons, this metric says nothing about affordability at the household level.

- The presence of utility shutoffs is not a metric by which one can accurately measure the absence of utility bill affordability. Conversely, the absence of shutoffs does ***not*** indicate that a utility is rendering an affordable bill. From the household's perspective, a household that avoids a service shutoff by paying their bills, but reduces its expenditures on household necessities "almost every month" or in "some months" in order to do so, cannot truly be said to be receiving an "affordable" bill. From the utility's perspective, whether or not a particular customer is subject to the disconnection of service for nonpayment is frequently, if not generally, a matter of internal utility policy and resources as much as anything else. Neither result associates the termination of service with whether the underlying bill is "unaffordable."

- Using "payment-troubled" status as a measure of underlying bill affordability faces many of the same problems that the use of "service disconnections" faces. Payment-troubled status looks at whether a customer has or has not paid the customer's bill as a measure of whether the bill was affordable. Unfortunately, from the household's perspective, a bill may be paid even though significant sacrifice occurs in other aspects of the household's life. A household that pays its water bill each month, but borrows money "almost every month" in order to do so, can hardly be said not to be "payment troubled." A household that pays its water bill each month, but reduces its spending on other basic necessities in order to do so, can hardly be said not to be "payment-troubled."

- Defining a level of water service that the utility deems to be "essential" for purposes of a determination of bill affordability carries with it the same shortcomings that are associated with defining water affordability in terms of gross household minus essential expenditures. What is true for total expenditures on household necessities would be true for water consumption as well. No single level of consumption could reasonably be deemed to be "essential" with consumption in excess of that level deemed to be "non-essential." Too many factors affect what level of water is consumed by any particular individual family on a monthly basis. Moreover, defining affordability in terms of "essential" level of service begs the question of assisting low-income households. Much water usage is higher ***because*** of the very fact of poverty.

- Using bills as a percentage of income as a measure of "affordability" is common throughout the United States. Percentage of income burdens are used to define affordability in the areas of housing, health care, education, and home energy.

Any determination of what percentage of income burden is "affordable" to a low-income burden for a particular service is inherently imprecise, whether the service being examined involves home energy, water service, health care, or housing. Despite the imprecision, so long as one recognizes that affordability is a range and not a point, defining an affordable water bill as one that does not exceed 4% of income seems reasonable.

Part 2. Trends in Water Bills / Income

Toledo water and sewer bills have escalated substantially in the years since 2010. The rate of increase for each service can be traced through the City's Annual Information Statement (AIS) released after the end of the Second Quarter of each year. While the AIS addresses the finances of the City as a whole, it presents separate data sections on both the Toledo water system and on the Toledo sewer system. Within each data section is a discussion of "rates" for the respective service and an explanation of the basis for the increase in rates.

A. *Water and Sewer Rate Hikes*

Toledo water rates have increased since 2010. Without quoting the AIS for each year, those increases can be tracked over time. In 2015, the AIS reported:

> Historically, the Council has passed rate ordinances that have established rates for four-year periods. On April 30, 2013, the Council passed an ordinance to increase the rates from their then current level by 13.2% annually on January 1 in each year from 2014 through 2017 and by 4.5% in 2018 (the 2013 Rate Ordinance). Previously, in February 2011, the Council enacted a 9% rate increase effective April 1, 2011 and annual rate increases of 9% effective on January 1 in each year from 2012 through 2013, and prior to that, in 2007, the Council enacted a 4.5%

rate increase effective March 31, 2007 and annual rate increases of 4.5% effective on January 1 in each year from 2008 through 2010.[58]

A 4.5% water increase was imposed in 2018,[59] with an additional 10.0% increase each year in 2020 through 2023.[60]

The City's sewer rate increases can be similarly traced. "In 2011, the [City] Council enacted a 3% rate increase effective March 18, 2011 and annual rate increases of 3% effective on January 1 in each year from 2012 through 2014."[61] In addition, "[i]n 2014, the [City] Council enacted a 7.1 % rate increase effective each January 1 starting in 2015 through and including 2019, and a 7.9% increase effective January 1, 2020."[62]

1. *Water / Sewer Rate Increases Compared to Changes in Income*

Increases in Toledo's water and sewer rates have far outstripped changes in the income levels of Toledo residents, particularly at the lower income ranges. Comparisons can be made both directly and indirectly. Direct comparisons are made based on two factors: (1) the average income for the lowest quintile of income (often called the First Quintile)[63] for Toledo as published each year by the U.S. Census Bureau;[64] and (2) the Federal Poverty Level as published by the U.S. Department of Health and Human Services.

[58] City of Toledo Ohio, *2015 Annual Information Statement*, at 30, July 1, 2015. *See also* City of Toledo Ohio, 2013 Annual Information Statement, at 27, May 31, 2013 ("Historically, the [City] Council has passed rate ordinances that have established rates for four year periods. On April 30, 2013, the Council passed an ordinance to increase the rates from their current level by 13.2% annually on January 1 in each year from 2014 through 2017 and by 4.5% in 2018 (the "2013 Rate Ordinance"). . .Previously, in February 2011, the Council enacted a 9% rate increase effective April 1, 2011 and annual rate increases of 9% effective on January 1 in each year from 2012 through 2014, and prior to that, in 2007, the Council enacted a 4.5% rate increase effective March 31, 2007 and annual rate increases of 4.5% effective on January 1 in each year from 2008 through 2010.")
[59] *2018 Annual Information Statement*, at 36, July 31, 2018.
[60] *2020 Annual Information Statement*, at 39, September 15, 2020.
[61] 2013 AIS, at 31.
[62] 2015 AIS, at 36.
[63] In determining "quintiles" of income, the Census Bureau rank orders each household by its annual income by geographic area. That rank ordering is then divided into five equal parts, each part which is known as a "quintile." The First Quintile (or "lowest Quintile) is that one-fifth of the population with the *lowest* income in the geographic area.
[64] The Census Bureau publishes average First Quintile Income through the American Community Survey (ACS) (Table B19081).

Table 10. Water / Sewer Rate Changes vs. Changes in Dollar Income Levels of Lower-Income Households										
	Water Escalation Index		Sewer Escalation Index		Average First Quintile Income			Federal Poverty Level		
	Index	Rate Increase	Index	Rate Increase	Dollars of Income	Pct Change	Index	4-person Income	Percent Increase	Index
2010	100.0	xxx	100.0	xxx	$6,119	xxx	100.0	$22,050	xxx	100.0
2011	109.0	9.0%	103.0	3.0%	$6,294	2.9%	102.9	$22,350	1.4%	101.4
2012	118.8	9.0%	106.1	3.0%	$5,861	-6.9%	95.8	$23,050	3.1%	104.5
2013	129.5	9.0%	109.3	3.0%	$6,156	5.0%	100.6	$23,550	2.2%	106.8
2014	146.6	13.2%	112.6	3.0%	$7,088	15.1%	115.8	$23,850	1.3%	108.2
2015	165.9	13.2%	120.5	7.1%	$6,814	-3.9%	111.4	$24,250	1.7%	110.0
2016	187.9	13.2%	129.1	7.1%	$7,565	11.0%	123.6	$24,300	0.2%	110.2
2017	212.6	13.2%	138.3	7.1%	$7,227	-4.5%	118.1	$24,600	1.2%	111.6
2018	222.2	4.5%	148.1	7.1%	$6,853	-5.2%	112.0	$25,100	2.0%	113.8
2019	222.2	0.0%	158.6	7.1%	$6,847	-0.1%	111.9	$25,750	2.6%	116.8
2020	244.4	10.0%	171.1	7.9%		xxx[65]		$26,200	1.7%	118.8

[65] 2020 Census data is not yet published.

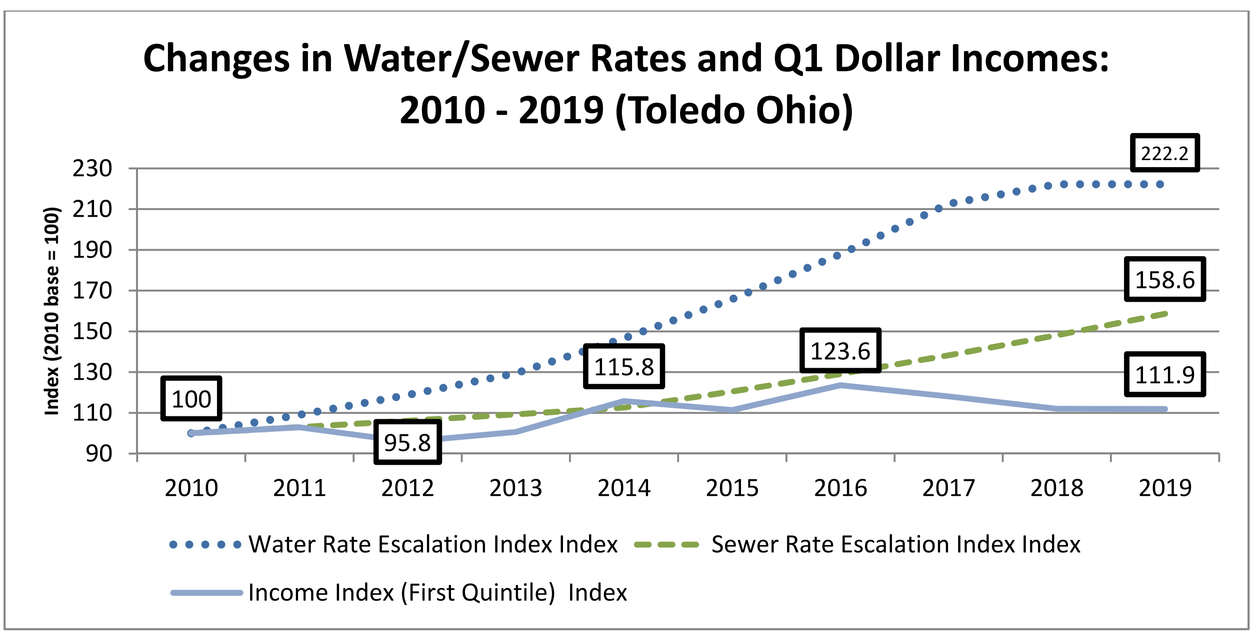
The comparisons are set forth in Table 10. To present the comparison, an "index" is created for each metric (water rates, sewer rates, average First Quintile income, Federal Poverty Level), with 2010 set equal to 100. As rates (and incomes) change year-by-year, the index will either increase or decrease accordingly.[66] Tracking the index allows a comparison to be made of the relative changes in rates and incomes.

[66] This is akin to how the U.S. Bureau of Labor Statistics tracks price increases in the Consumer Price Index (CPI). BLS sets a "base year" equal to 100, and then tracks cumulative changes from that base. In this fashion, even when actual prices may differ widely from one consumer good or service to another, their change in price can be made comparable one to another.

Given the rate hikes identified through the City's Annual Information Statement (AIS), the rate increases for Toledo water and sewer service from 2010 through 2020 far exceed the changes in income levels for Toledo residents at the lower income levels. By 2020, while the water rate index had increased from 100 to 244 (2010 to 2020) (*i.e.* a 144% increase), the sewer rate index had increased from100 to 171.1. In contrast, the index tracking changes in the Federal Poverty Level increased only from 100 to 118.8 (a roughly 19% increase in income).

In contrast to the Federal Poverty Level, 2020 ACS data has not yet been published. The 2019 water index (222.2), and the 2019 sewer index (158.6), however, can be compared to the 2019 index for the average First Quintile income of 111.9 (a roughly 12% increase in the average First Quintile income from 2010 through 2019). Note that average First Quintile incomes did not increase each year 2010 through 2019. In fact, in more than half of the years 2011 through 2019 (5 of 9), average First Quintile incomes declined relative to the immediately preceding year (2012 [-6.9%], 2015 [-3.9%], 2017 [(-4.5%], 2018 [-5.2%] and 2019 [-0.1%]). One cannot assume that as water and sewer bills increase, local incomes will increase at all, let alone increase at a rate sufficient for customers to keep up with the higher bills.

Overall, as the Chart below shows, changes in Toledo's water and sewer rates, as compared to Toledo-specific changes in average First Quintile income, reveal an increasing gap between rates and incomes. In addition to the steady upward pressure of Toledo water and sewer rates, the volatility of income in the lowest income ranges contributes to this result. The average First Quintile income in Toledo increased from 2010 through 2016 (reaching a high index of 123.6 in 2016), before experiencing a decline in the following three years (through 2019).



A separate way to look at the growing difference between income and Toledo water and sewer bills is to consider what Poverty Level incomes would have been had they escalated at the same rate that water and sewer bills have escalated since 2010. In 2010, 100% of the Federal Poverty Level for a 4-person household was $22,050. In 2011, the Poverty Level had increased to $22,350; by 2020, the Poverty Level had increased to $26,200 (for a 4-person household).

The Table below shows what the Federal Poverty Level (4-person household) would have been had the Poverty Level increased at the same rate as Toledo water and sewer bills increased. By 2017, rather than 100% of Poverty Level being $24,600 (as it actually was), had it increased at the same percentage each year as water rates, it would have instead been $46,889, $22,289 higher. If the Poverty Level had increased at the same annual rate as Toledo sewer bills had, by 2020, rather than being $26,200 (at it actually was), the Poverty Level would have been $37,733 (an increase of an additional $11,533).

Table 11. What 100% of Federal Poverty Level Would Have Been if Escalated at Same Index as Toledo Water or Sewer Rates Escalated

Year	Actual Poverty Level	Poverty Level Income if Escalated at Same Rate as Toledo Water / Sewer Rates		Dollar Difference between Actual FPL and FPL if Escalated at Same Index as Toledo Water/Sewer Rates	
		4-person if at Water	4 person if at Sewer	4-person if at Water	4 person if at Sewer
2010	$22,050	$22,050	$22,050	Base Year	Base Year
2011	$22,350	$24,035	$22,712	($1,685)	($362)
2012	$23,050	$26,198	$23,393	($3,148)	($343)
2013	$23,550	$28,555	$24,095	($5,005)	($545)
2014	$23,850	$32,325	$24,817	($8,475)	($967)
2015	$24,250	$36,592	$26,580	($12,342)	($2,330)
2016	$24,300	$41,422	$28,467	($17,122)	($4,167)
2017	$24,600	$46,889	$30,488	($22,289)	($5,888)
2018	$25,100	$48,999	$32,652	($23,899)	($7,552)
2019	$25,750	$48,999	$34,971	($23,249)	($9,221)
2020	$26,200	$53,899	$37,733	($27,699)	($11,533)

The growing gap between Toledo incomes and Toledo water and sewer bills is not the “fault” of the City of Toledo (or anyone else). Nonetheless, failing to recognize the growing gap between incomes and Toledo Water bills would seriously hamper the ability of the City to responsibly address the affordability crisis facing a substantial percentage of the City’s population.

2. Collections and Income

One concern with the increasing gap between local incomes and local water and sewer bills involves the threat to collections that the inability-to-pay may present to Toledo in its capacity as an on-going business. The lowest income zip codes, when ranked by the percentage of population with annual income at or below 150% of Poverty Level, are also those zip codes with the deepest payment difficulties. Toledo's sixteen "standard" zip codes[67] were ranked from those with the highest penetration of population below 150% of Poverty to those with the lowest penetration. The five (5) zip codes with more than 50% of their population with income below 150% of Poverty were then compared to Toledo Water data on two different collections metrics: (1) of Toledo Water's total arrears greater than 90 days old, the percentage contributed by the zip code; and (2) within each zip code, the percentage of total dollars owed that is more than 90 days old.[68] The comparisons are set forth in Table 12 below. Several observations are important from this Table.

First, the zip codes that have the highest percentage of low-income customers –for purposes here, "low-income" is defined as annual income at or below 150% of Federal Poverty Level—also tend to be the zip codes that make the largest percentage contribution of very old arrears to Toledo Water. For example, four of the five zip codes with the highest percentage of low-income customers (43607, 43608, 43609, 43605,) are *also* amongst the five zip codes making the largest contributions to the total Toledo Water arrearages that are more than 90 days old. This is true whether the aging of arrears is considered from the perspective of the number of accounts having the oldest arrears or from the perspective of the dollars of the oldest arrears.

The fact that zip code 43604 does not make a large contribution to Toledo Water's total arrears is not surprising. While zip code 43604 has a high percentage of its population as low-income, it has a relatively smaller total population, with the fifth smallest total population (8,491). In contrast, the same result does *not* flow the other direction. Only one (1) of the other four zip codes making large contributions to old arrears also falls within the five zip codes with the largest populations.

[67] Some zip codes, of course, are unique to certain businesses or institutions. Toledo has numerous additional zip codes that are labelled "unique" by the Post Office or that are assigned to specific post office boxes.
[68] Each collection metric was then examined from two separate perspectives: (1) the number of dollars; and (2) the number of accounts.

Table 12. Selected Collections Statistics for Five Toledo Zip Codes with Highest Penetration of Population with Annual Income Below 150% Federal Poverty Level (Rankings of Toledo's 16 Standard Zip Codes)

	Pct Pop Below 150% Poverty		Percent Zip Code is of Toledo Total Arrears > 90 Days Old				Within Zip Code, Percent of Total Dollars Owed that is >90 Days Old				Total Population	
	Percent	Ranking	Dollars (%)	Dollars (Rank)	Accts (%)	Accts (Rank)	Dollars (%)	Dollars (Rank)	Accts (%)	Accts (Rank)	Total Population	Total Pop (rank)
8600000US43607	51.4%	12	13.1%	16	13.0%	16	72.2%	12	26.2%	12	20,421	9
8600000US43608	52.0%	13	12.2%	14	11.5%	14	77.1%	16	28.1%	14	13,605	6
8600000US43609	53.6%	14	9.6%	13	9.5%	13	69.5%	10	25.0%	8	21,452	10
8600000US43605	54.4%	15	13.1%	15	12.4%	15	69.9%	11	25.6%	10	25,282	12
8600000US43604	68.9%	16	1.7%	3	1.3%	3	68.8%	7	29.5%	15	8,491	5

Second, within each zip code, the same four zip codes are amongst the five zip codes with the largest percentage of arrears for that zip code being very old arrears (*i.e.* arrears that are more than 90 days old). Since the percentages here are calculated within each zip code, looking at this metric eliminates any concerns that the results simply reflect the overall size of population within the zip code. Within each of these low-income zip codes, the percentage of the total dollars owed that, in fact, is more than 90-days old ranges from nearly 70% (zip code 43604: 68.8%) to more than 75% (zip code 43608: 77.1%).

Not surprisingly, those high percentages of dollars that constitute very old arrears involve much fewer accounts. In zip code 43605, for example, while 25.6% of the accounts in that zip code had arrears that were more than 90-days old, 69.9% of the revenue that was owed by those accounts was that old. In zip code 43608, while 28.1% of the accounts in that zip code had arrears that were more than 90 days old, 77.1% of the total dollars owed by accounts in that zip code were that old.

As is evident, low-income status and payment-troubled status for Toledo Water appear to march closely together. A high percentage penetration of low-income population in Toledo Water zip codes implies the likelihood that Toledo Water will also have both a higher percentage of accounts with very old arrears and a higher percentage of dollars that make-up those arrears.

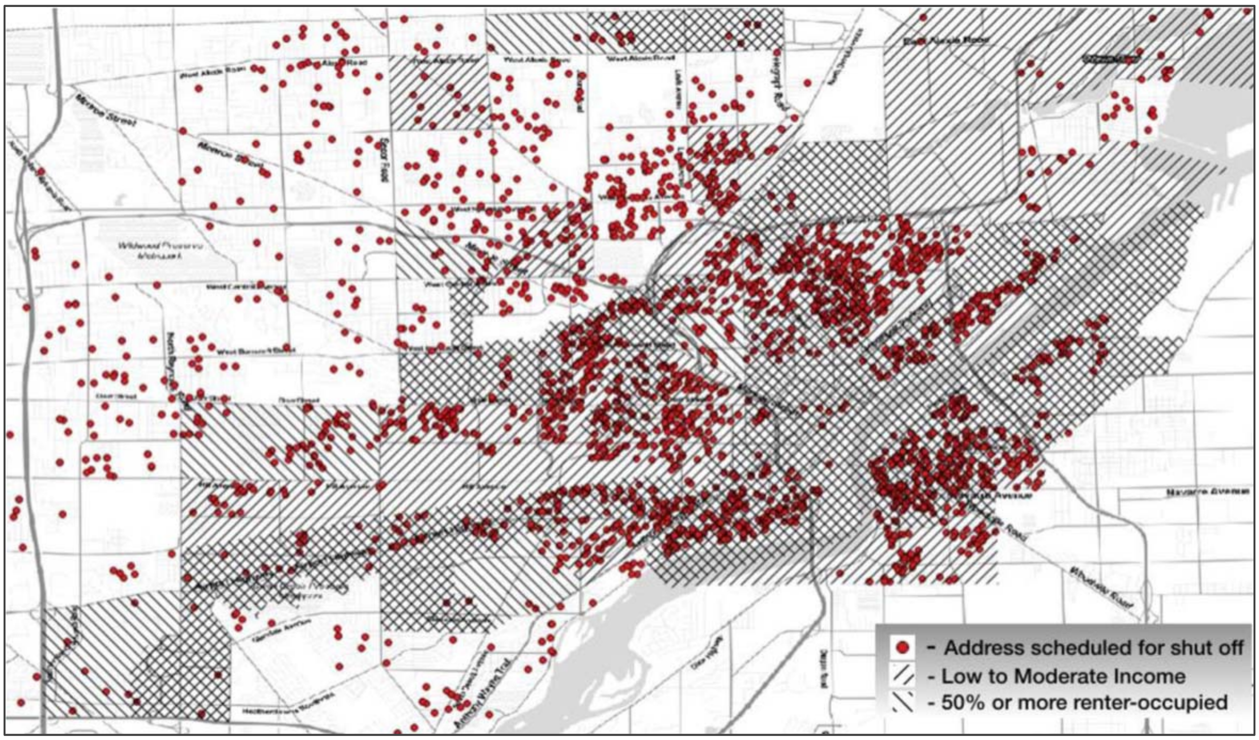
The presence of very old arrears is significant from the perspective of whether Toledo Water can eventually collect the dollars which it bills. Toledo Water establishes an allowance for uncollectible account balances based on the age of arrears. According to the 2020 *Financial Overview* for Toledo's Department of Public Utilities (December 2020), Toledo establishes its uncollectible expectations for Toledo Water:

Table 13. Allowance for Uncollectible Accounts
(2020 Financial Overview, Toledo Department of Public Utilities)

	<30 days	<60 days	<90 days	<180 days	<365 days
Water	1%	5%	20%	40%	75%

As the dollars of arrears falling into older aging buckets increases, Toledo Water finds it increasingly more difficult to collect the dollars that it bills. The dollars of older arrears, in turn, are associated with the presence of Poverty. The highest levels of old arrears, yielding the lowest collection amounts, fall within the areas of the City that are the lowest income.

Finally, the nonpayment of Toledo Water bills frequently leads to the loss of water service. The nonpayment disconnection of water is of concern not only as a business proposition, but because it represents the loss of access to a basic human need. Toledo's recent Fair Housing "Analysis of Impediments" asserts that "access to water and other essential utilities necessary to enjoy the benefits of housing is a Fair Housing issue. . ."[69] The Fair Housing Center noted that "in the Toledo area, water accounts scheduled for disconnection of services during a recent six-month period of 2019 concentrated primarily in [Racially and Ethnically Concentrated Areas of Poverty] low-income and minority neighborhoods.[70] The Fair Housing Center noted, however, that merely because someone had disconnection of water service threatened does not mean that an actual loss of service occurred. To avoid the disconnection of service, people may have paid their bills; may have entered into payment plans; or may have simply not been in the population which was scheduled for a service disconnection in any given month.[71]



The bottom line, however, is that unaffordability, which leads to unpaid balances, also leads to the loss of service. And that loss of service in Toledo has both socio-economic and racial implications to it.

[69] The Fair Housing Center (2020). *City of Toledo Analysis of Impediments to Fair Housing Choice: 2020 – 2025*, at 127.

[70] HUD defines a R/ECAP as a census tract where the number of families in poverty is equal to or greater than 40% of all families, or an overall family poverty rate equal to or greater than three times the metropolitan poverty rate, and a non-white population, measured at greater than 50% of the population.

[71] Moreover, as discussed above, disconnections may not occur because of internal utility policies or resources. This map, however, does not implicate that observation so much, given that the map presents *notices* of disconnection rather than actual disconnections.

B. COVID-19 AND TOLEDO.

This Water Affordability Plan for Toledo Water is not designed to address the economic crisis created by the COVID-19 pandemic. Nonetheless, good judgment seems to dictate that *some* consideration be devoted to the impacts of COVID-19. The implications of COVID-19 can be examined from the perspective of how this health pandemic affected the ability of residents to pay their usual household expenses, including their utility bills. Two sources of information are used for this brief discussion.

- The U.S. Census Bureau completes a "weekly" PULSE survey of the implications of COVID-19. While information is not available at the local level, the Census Bureau publishes "weekly" data at the state level. For purposes below, Ohio data is considered.

- Toledo Water's public input survey included a set of questions devoted exclusively to the experiences of Toledo Water customers during the COVID-19 pandemic. Results from that survey are discussed below.

1. *COVID Impacts on Ability to Pay Necessary Household Expenses.*

The Census PULSE Survey documents that a large number of Ohio residents report they have lost employment income even in the "past four weeks" (*i.e.* at the time of the survey). Table 14 shows that as recently as Week 33 of the PULSE Survey (June 23 through July 5, 2021), more than 15% of Ohio residents (15.3%) reported losing employment income in the past four weeks. The Table shows further that nearly 7% more Ohio residents *expect* to lose employment income "in the next 4 weeks." Nearly one-in-six Ohio residents, in other words, have lost income and an additional one-in-twelve expect to lose income in the next four weeks.

The data shows that there has not been a consistent improvement in the employment difficulties facing Ohio residents. From Week 28 (April 14 – April 26, 2021) to Week 33, Ohio residents reported –the percentages are of those reporting—an increasing percentage of persons both having lost employment (an increase from 12.9% in Week 28 to 17.8% in Week 32) before tapering off slightly in Week 33.

The population bearing the heaviest toll of lost employment income involves those with the lowest incomes with which to begin. In Week 33, households with incomes below $35,000 report both the highest percentage having lost employment income in the last four weeks (roughly 28%) *and* the highest percentage expecting to lose income in the next four weeks (from 8% to more than 20%). As household incomes increase, employment insecurity decreases.

Fewer higher income households have lost employment income; fewer higher income households expect to lose employment income in the future.

Table 15 begins to provide insights into how this loss of employment income affects Ohio's lower income residents. Residents with household incomes less than $35,000 often do not have the ability to rely on the "regular income sources like those received before the pandemic" to pay their household spending needs. Fewer than three-of-five Ohio residents with income below $35,000 report being able to use their "regular" pre-pandemic sources of income. Indeed, only three-quarters (74.4%) of residents with income as high as $35,000 to $50,000 report being able to use their regular pre-pandemic sources of income to meet their living expenses. Not surprisingly, as incomes increase, the ability to rely on the income sources households generally relied upon before COVID-19 increases as well.

If residents cannot use their usual sources of income, it is important to understand what those households *do* use to meet their household spending needs. In the most recent week of the Census PULSE Survey (Week 33: June 23 through July 5, 2021) (as of the time this Water Affordabilitu Plan was prepared), Federal stimulus dollars are important for many at the lower levels of income. Unemployment insurance, however, is not one of the more important sources of income from which basic household spending can be met. High percentages of lower income households (between 30% and 40%) report borrowing from friends or family, a practice that is not sustainable in the long-term. Nearly one-in-five residents also report drawing down from savings or using "credit cards or loans" to meet their household spending needs. Each of these strategies, while perhaps effective in the short-term, cannot provide stable ongoing funding to meet basic household spending needs, including Toledo Water bills.

Of particular concern is the reliance on household savings to respond to the COVID-19 economic crisis. As the COVID-19 economic crisis moves into a more prolonged period, the impact of the lack of savings will become increasingly pronounced, with low-income customers, in particular, unable to draw on these resources to pay day-to-day bills. As the COVID-19 economic crisis continues, these households are now running out of savings to draw down. A Bankrate survey, for example, found that "of households with income below $50,000, about 44% say their savings has dropped, compared with 27% of those earning above that amount. . ." Bankrate reported that 27% of Americans say that they now have emergency savings that would last less than three months; 20% say their emergency savings would last from three to five months; and 25% say their emergency savings would last six months.[72]

[72] Survey: Nearly 3 times as many Americans say they have less emergency savings versus more since pandemic, available at https://www.bankrate.com/banking/savings/emergency-savings-survey-2020/ (last accessed June 4, 2021).

The conclusion to be drawn from this data is that low-wage households are far from achieving any post-pandemic economic stability. Even as the public health crisis associated with COVID-19 may be mitigated through widespread vaccination in the coming months, the associated economic crisis will likely continue. It is that economic crisis, far more than the public health crisis, that Toledo Water should closely monitor. It is the ongoing *economic* crisis that will adversely affect the ability-to-pay of Toledo Water customers.

The third Table below (Table 16) provides state-level information on the difficulties Ohio residents are having in paying their usual household expenses. Again, to gain insight into the extent to which the COVID-19 economic crisis continues, data from Week 28 (April 14 through April 26, 2021) is compared to Week 33 (June 23 through July 5, 2021). In mid- to late-April 2021, roughly half of Ohio residents reported that they were having "no difficulty" in paying their usual household expenses. By early July, the latest data that is available, that number had declined. As compared to the 53% who reported no difficulty in April, only 47% reported no difficulty in July. On the other extreme, the percentage of Ohio residents reporting that it was "very difficult" to meet usual household expenses nearly doubled from mid-April to early July. While 6.1% of Ohio residents reported having a "very difficult" time paying usual household expenses in April, that number was 12.1% in July. Part of this may well be, though not identified and measured by the Census PULSE Survey, that by July, COVID-19 restrictions on utility collections, rental evictions, and related payment enforcement practices had begun to be removed.

Table 14.Experienced and Expected Loss of Employment Income (OH)
By Week of Census PULSE Survey[73]

Household Income	Experienced Loss of Employment Income in last Four Weeks						Expected Loss of Employment Income in Next Four Weeks					
	Week 28	Week 29	Week 30	Week 31	Week 32	Week 33	Week 28	Week 29	Week 30	Week 31	Week 32	Week 33
Total	12.9%	15.4%	16.3%	14.7%	17.8%	15.3%	8.9%	10.3%	12.0%	8.7%	11.5%	6.7%
Less than $25,000	17.2%	28.4%	31.1%	21.0%	17.2%	28.2%	10.6%	14.1%	22.5%	20.2%	16.3%	20.5%
$25,000 - $34,999	19.8%	9.1%	24.9%	12.2%	25.2%	27.7%	12.4%	18.7%	22.1%	3.8%	20.7%	8.1%
$35,000 - $49,999	20.2%	18.6%	18.8%	11.5%	20.9%	18.1%	14.7%	15.4%	9.9%	4.1%	1.6%	2.7%
$50,000 - $74,999	14.6%	10.0%	17.0%	16.2%	28.5%	10.9%	5.5%	5.8%	7.5%	2.4%	13.4%	6.2%
$75,000 - $99,999	5.6%	7.9%	9.3%	16.6%	13.3%	10.6%	6.8%	4.5%	5.6%	6.4%	10.5%	6.3%
$100 - $149,999	5.0%	6.7%	6.3%	11.1%	8.9%	8.9%	2.9%	4.1%	5.5%	10.5%	4.8%	2.1%
$150 - $199,999	13.2%	4.9%	0.4%	2.6%	5.0%	11.4%	3.1%	5.4%	N/A	0.4%	4.8%	6.2%
$200,000+	9.9%	7.7%	2.9%	6.9%	1.5%	1.4%	5.6%	7.2%	N/A	2.5%	1.6%	1.4%

[73] "N/A" refers to no persons reporting data in this category.

Table 15. Used in Last 7 Days to Meet Spending Needs (Week 33 of Census PULSE Survey)
By Household Income (OH)

	Regular income sources like those received before the pandemic	Credit cards or loans	Money from savings or selling assets or possessions	Borrowing from friends or family	Unemployment insurance (UI) benefit payments	Stimulus (economic impact) payment
Week 28 (April 14, 2021 – April 26, 2021)						
Total	65.9%	18.0%	10.0%	5.9%	2.2%	21.5%
Less than $25,000	51.1%	11.7%	5.9%	27.0%	#VALUE!	47.8%
$25,000 - $34,999	71.0%	28.1%	20.3%	7.7%	5.6%	37.5%
$35,000 - $49,999	66.2%	26.9%	12.9%	11.1%	4.7%	45.4%
$50,000 - $74,999	88.2%	25.1%	11.3%	1.4%	4.1%	31.9%
$75,000 - $99,999	86.4%	31.8%	16.3%	3.2%	2.8%	23.6%
$100,000 - $149,999	92.2%	20.5%	10.2%	N/A	2.4%	10.1%
$150,000 - $199,999	95.7%	18.3%	11.1%	N/A	2.8%	3.6%
$200,000 and above	99.5%	25.7%	11.6%	2.0%	3.8%	4.1%
Week 33 (June 23, 2021 – July 5, 2021)						
Total	63.1%	23.6%	15.7%	9.2%	3.1%	15.7%
Less than $25,000	56.0%	26.2%	20.4%	31.0%	15.3%	36.4%
$25,000 - $34,999	59.5%	19.5%	17.4%	37.7%	6.3%	34.5%
$35,000 - $49,999	74.4%	38.4%	15.6%	14.0%	4.7%	17.7%
$50,000 - $74,999	75.5%	34.3%	18.6%	6.0%	0.3%	14.0%
$75,000 - $99,999	94.8%	28.1%	15.6%	4.6%	2.0%	16.2%
$100,000 - $149,999	94.4%	15.1%	18.0%	0.7%	1.3%	10.7%
$150,000 - $199,999	94.8%	35.5%	15.1%	2.5%	N/A	4.0%
$200,000 and above	91.7%	23.9%	5.0%	N/A	N/A	N/A

Table 16.Difficulty in Paying Usual Household Expenses (Week 28 and Week 33 of Census PULSE Survey) By Household Income (OH)

	Not at all difficult	A little difficult	Somewhat difficult	Very difficult
Week 28 (April 14, 2021 – April 26, 2021)				
Total	52.8%	18.9%	12.3%	6.1%
Less than $25,000	26.7%	31.3%	22.4%	19.6%
$25,000 - $34,999	30.5%	26.6%	24.5%	14.9%
$35,000 - $49,999	37.8%	28.0%	26.4%	7.8%
$50,000 - $74,999	60.6%	22.9%	12.2%	4.3%
$75,000 - $99,999	64.1%	23.6%	7.2%	5.1%
$100,000 - $149,999	81.7%	11.0%	3.4%	4.0%
$150,000 - $199,999	86.6%	9.8%	3.6%	N/A
$200,000 and above	85.4%	9.6%	5.0%	N/A
Week 33 (June 23, 2021 – July 5, 2021)				
Total	46.7%	20.4%	12.4%	12.1%
Less than $25,000	13.3%	29.4%	27.9%	29.4%
$25,000 - $34,999	31.6%	25.0%	22.2%	21.2%
$35,000 - $49,999	45.7%	13.9%	16.2%	24.2%
$50,000 - $74,999	46.8%	34.7%	9.0%	9.6%
$75,000 - $99,999	68.9%	19.7%	5.8%	5.6%
$100,000 - $149,999	89.0%	8.6%	2.4%	N/A
$150,000 - $199,999	84.9%	9.1%	4.1%	1.9%
$200,000 and above	92.5%	1.2%	6.3%	N/A

The income implications of the difficulties in paying usual household expenses are dramatic in Ohio as evident in the Tables above. In Week 33 of the Census PULSE Survey, only 13.3% of Ohio residents with income less than $25,000 reported having "no difficulty" in paying their usual household expenses. While that percentage increased as income increases, even at income of $25,000 to $34,999, fewer than one-in-three residents reported having no difficulty in paying usual household expenses. Fewer than half of residents with income as high as $75,000 reported having no difficulty. At the other end of the spectrum, residents with income as high as $50,000 reported having *more* than "a little" difficulty in paying their usual household expenses. From one-quarter (24.2%) to nearly one-third (29.4%) of residents with income up to $50,000 reporting having a "very difficult" time in paying usual household expenses as recently as July 2021.

2. Local COVID Impacts as Identified by Toledo Water Public Input Survey.

The COVID-19 pandemic has had a profound impact on Toledo residents who receive a water bill. Few Toledo residents did not regularly fail to pay their water bill. Only 9% of survey respondents reported that they either "often" or "always" skipped paying their bill because they did not have the money to pay when the bill became due. That, however, understates the payment problems that faced Toledo Water customers. Only 71% of customers reported that they "never" skipped a payment because they did not have the money to pay. More than one-in-five (21%) said they skipped a payment either "sometimes" or more frequently.

The bigger concerns lie in the more nuanced reactions of Toledo Water residents to the receipt of a water bill during the COVID-19 pandemic when they did not have the money to pay for the water bill. More than half reported they were concerned about whether their water bill would become overdue before they could get money to pay, while nearly one-third (32%) said that they were concerned "sometimes" or more frequently. Making a payment on their Toledo Water bill, in other words, cannot be construed as evidence that households had sufficient resources to consider their water bills to be affordable.

While 41% of survey respondents said that "sometimes" or more frequently they "found a way to make a payment" even though the bill became due and they did not have money to pay, more than one-in-five (22%) said that they either "often" or "always" reduced spending on basic needs because they did not have sufficient money to pay for *both* those needs *and* the Toledo Water bill. Indeed, consistent with the 41% of those who said that they "found a way to make a payment" "sometimes" or more frequently, 40% of survey respondents said that they reduced spending for basic needs sometimes or more frequently because they lacked the funds to both pay their water bill and pay their other basic household needs.

Table 17. During the Pandemic, Impact of Water Bill

	Concerned About Whether Water Bill Would Become Overdue Before I Could Get Money to Pay	Water Bill Became Due and Did Not Have Money to Pay But Found a Way to Make a Payment	Water Bill Became Due and I Did Not Have Money to Pay, So Did Not Pay	I Reduced Spending for Basic Needs to Because I Did Not Have Enough Money for Both Water and Basic Needs
Never	45%	48%	71%	49%
Rarely	14%	11%	10%	11%
Sometimes	21%	16%	11%	18%
Often	11%	15%	6%	10%
Always	10%	10%	3%	12%
Total	814	814	814	814

Survey results presented in the Table above indicate the importance that Toledo Water customers place on paying their water bills. More than 80% indicated that they either "rarely" or "never" failed to pay their Toledo Water bill. More than 40% said that even though they found themselves with a water bill that had become due when they did not have the money to pay it, they "found a way" to make the payment.

The loss of employment, as well as the loss of employment-related income, significantly contributed to concerns about Toledo Water bills during the COVID-19 pandemic. More than 20% of the Toledo Water survey respondents reported having lost their jobs during the pandemic, while an ***additional*** 26% reported having experienced lost income due to reduced working hours even though they did not lose their jobs completely.

Of those Toledo Water customers who reported losing their job, roughly 60% reported being concerned about having enough money to pay their water bill before it became due "sometimes" or more frequently. Indeed 37% said they had concerns either "often" (18%) or "always" (19%). A nearly equal percentage of survey respondents having lost their job reported that they had reduced spending for basic needs because they could not both pay their water bills and pay what they needed for basic needs (34%) either "often" (14%) or "always" (20%). Nevertheless, two-thirds (66%) of those with lost jobs who said they experienced a water bill that became due when they lacked the money to pay said that they "never" failed to pay (55%) or "rarely" failed to pay (11%).

Survey respondents who reported lost income due to reduced hours, rather than reporting losing their jobs in their entirety, worried more, but paid more as well. A full three-quarters (74%) of survey respondents reporting that they had lost income due to reduced hours *also* reported that they had either "never" or "rarely" failed to pay their bills even when their water became due and they did not have enough money to pay. In contrast, only 12% reported that they "often" or "always" failed to pay their Toledo Water bills when their water became due and they lacked the money to pay. One-in-seven said that they "always" "found a way to make a payment" even when their bill became due and they did not have sufficient money to make a payment.

Table 18. During the Pandemic, Reaction to Receipt of Water Bill During Pandemic (if job loss or reduced hours)

	Concerned About Whether Water Bill Would Become Overdue Before I Could Get Money to Pay	Water Bill Became Due and Did Not Have Money to Pay But Found a Way to Make a Payment	Water Bill Became Due and I Did Not Have Money to Pay, So Did Not Pay	I Reduced Spending for Basic Needs to Because I did not Have Enough Money for Both Water and Basic Needs
Experienced Job Loss During Pandemic				
Never	25%	28%	55%	31%
Rarely	14%	11%	11%	11%
Sometimes	24%	27%	18%	23%
Often	18%	24%	8%	14%
Always	19%	9%	8%	20%
Total	169	169	169	169
Experienced Reduced Hours Without Losing Job				
Never	31%	31%	57%	34%
Rarely	10%	13%	17%	11%
Sometimes	28%	22%	14%	20%
Often	15%	19%	9%	15%
Always	16%	14%	3%	21%
Total	210	210	210	210

Customers who found themselves lacking household resources to pay their Toledo Water bills in the pandemic appear to rely more on personal resources more than the more formal Toledo Water or private charitable resources for help. As the Table below demonstrates, by far the most common reaction to having insufficient funds to pay Toledo Water bills was to skip or reduce payments for other needed household purchases or repairs (*e.g.* medications, medical appointments, car repairs, food) (44% of those who lost jobs; 47% of those who experienced reduced hours). Another substantial minority (36% of those who lost jobs; 33% of those who experienced reduced hours) borrowed money, either from friends or banks, or by taking out payday loans. In contrast, relatively few contacted Toledo Water (27% who lost jobs; 19% who experienced reduced hours), and even fewer contacted private agencies such as the Salvation Army or United Way for emergency assistance (15% who lost jobs; 8% who experienced reduced hours). What the data does not show is whether people failed to contact these private agencies because they did not know to contact them, or whether they did not make contact because they chose not to make contact.

Table 19. During the Pandemic, Experienced Job Loss or Reduced Hours

	Total	Borrowed Money from Friends, Bank, Payday Loan, Other		Skipped/Reduced Payment for Needed Purchases or Repairs (*e.g.* medications, medical appts, food, auto repairs)		Contacted Toledo Water to Request Extension or Payment Plan		Applied for Assistance through Agency such as United Way or Salvation Army	
		Yes	No	Yes	No	Yes	No	Yes	No
Job Loss	169	61	108	75	94	45	124	25	144
Reduced Hours	210	69	141	99	111	40	170	17	193

Finally, we know from the Toledo Water survey that the economic crisis associated with the COVID-19 health pandemic continues. The economic crisis appears to have a longer term hold on Toledo Water customers than the public health crisis did. Almost exactly half (51%) of the Toledo survey respondents who reported having lost their jobs during the pandemic report further that they remain out of work in the late spring of 2021. More than three-fifths (61%) of the Toledo respondents who reported losing income due to reduced hours indicate that they continue to experience that lost income.

Table 20. Still Out of Work or Still Experiencing Reduced Hours

	Out of Work		Reduced Hours	
	Yes	No	Yes	No
Job Loss (169)	51%	49%		
Reduced Hours (210)			61%	39%

COVID-19 has had two effects on the residents of Toledo which affect the affordability of service delivered by Toledo Water. On the one hand, the public health emergency associated with the pandemic places the well-being of Toledo residents in jeopardy. Flowing from that public health emergency, however, is also the economic crisis created by the pandemic. Many Toledo residents have lost their jobs as a result of COVID-19. Beyond those who have lost their jobs, however, are those who have lost income due a reduction in hours of employment, even if that employment was not eliminated in its entirety. Both the loss of jobs, and the loss of employment income associated with reduced hours, continues to affect the economic life of Toledo residents well into the middle of 2021. It now appears that the economic crisis associated with COVID-19 could far outlive the public health emergency.

In turn, the economic crisis has a severe and ongoing impact on Toledo Water and its residential customers. Many customers have found themselves lacking sufficient resources to pay their Toledo Water bill when that bill is received. Of those, some customers –but fewer than might be expected—simply do not make their water bill payments. Other customers lacking sufficient resources cannot increase their resources, and so they decrease their expenditures on other basic household necessities. Still others borrow money in order to meet their immediate payment needs. The COVID-19 economic emergency in Toledo provides a compelling example of the paid-but-unaffordable bill discussed elsewhere in this report.

While the impact of COVID-19 on Toledo Water is not the type of structural unaffordability that a Water Affordability Plan is designed to address, neither can the impacts of the pandemic be ignored as the basis and delivery of affordability assistance is developed.

C. SEVEN ESSENTIAL FINDINGS.

Based on the data and discussion provided above, the Toledo Water Affordability Plan makes the following findings:

- Toledo water rates have increased since 2010. Historically, the City Council has passed rate ordinances that have established rates for four-year periods. On April 30, 2013, the City Council passed an ordinance to increase the rates from their then current level by 13.2% annually on January 1 in each year from 2014 through 2017 and by 4.5% in 2018 (the 2013 Rate Ordinance). Previously, in February 2011, the City Council enacted a 9% rate increase effective April 1, 2011 and annual rate increases of 9% effective on January 1 in each year from 2012 through 2013, and prior to that, in 2007, the Council enacted a 4.5% rate increase effective March 31, 2007 and annual rate increases of 4.5% effective on January 1 in each year from 2008 through 2010. A 4.5% water increase was imposed in 2018, with an additional 10.0%

increase each year in 2020 through 2023. Similarly, the City's sewer rate increases can also be traced.

- Increases in Toledo's water and sewer rates have far outstripped changes in the income levels of Toledo residents, particularly at the lower income ranges. Given the rate hikes identified through the City's Annual Information Statement (AIS), the rate increases for Toledo water and sewer service from 2010 through 2020 far exceed the changes in income levels for Toledo residents at the lower income levels.

- The growing gap between Toledo incomes and Toledo water and sewer bills is not the "fault" of the City of Toledo (or anyone else). Nonetheless, failing to recognize the growing gap would seriously hamper the ability of the City to responsibly address the affordability crisis facing a substantial percentage of the City's population. One concern with the increasing gap between local incomes and local water and sewer bills involves the threat to collections that the inability-to-pay may present to Toledo in its capacity as an on-going business. The lowest income zip codes, when ranked by the percentage of population with annual income at or below 150% of Poverty Level, are also those zip codes with the deepest payment difficulties.

- Low-income status and payment-troubled status for Toledo Water appear to march closely together. A high percentage penetration of low-income population in Toledo Water zip codes implies the likelihood that Toledo Water will also have both a higher percentage of accounts with very old arrears and a higher percentage of dollars that make-up those arrears.

- As the dollars of arrears falling into older aging buckets increases, Toledo Water finds it increasingly more difficult to collect the dollars that it bills. The dollars of older arrears, in turn, is associated with the presence of Poverty. The highest levels of old arrears, yielding the lowest collection amounts, fall within the areas of the City that are the lowest income.

- A Water Affordability Plan for Toledo Water is not designed to address the economic crisis created by the COVID-19 pandemic. Nonetheless, good judgment dictates that *some* consideration be devoted to the impacts of COVID-19. The U.S. Census Bureau completes a "weekly" PULSE survey of the implications of COVID-19. While information is not available at the local level, the Census Bureau publishes "weekly" data at the state level. As recently as Week 33 of the PULSE Survey (June 23 through July 5, 2021), more than 15% of Ohio residents (15.3%) reported losing employment income in the past four weeks. Nearly 7% more Ohio residents *expect* to lose employment income "in the next 4 weeks."

- The Census PULSE Survey also provides insights into payment difficulties. Comparing data from Week 28 (April 14 through April 26, 2021) to data from Week 33 (June 23 through July 5, 2021) shows that as compared to the 53% who reported no difficulty paying household bills in April, only 47% reported no difficulty in July. On the other extreme, the percentage of Ohio residents reporting that it was "very difficult" to meet usual household expenses nearly doubled from mid-April to early July. While 6.1% of Ohio residents reported having a "very difficult" time paying usual household expenses in April, that number was 12.1% in July.

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Part 3. Water Affordability Issues in Toledo

Toledo Water customers have substantial affordability problems that present themselves particularly to low-income customers. Water affordability issues are examined from two different perspectives below. First, water burdens are examined. Water burdens represent bills as a percentage of household income. To the extent that water burdens exceed an affordable level, customers frequently experience an inability-to-pay. An inability-to-pay may involve actual nonpayment of a Toledo Water bill. However, an inability-to-pay may also involve the payment of a bill resulting in substantial household hardships.

The second perspective of water affordability is based on direct input derived from a customer survey made available to Toledo Water customers over a 15 week period in April 2021 through mid-July 2021. Through these surveys, Toledo Water sought to obtain actual customer experience with the payment and nonpayment of local water bills.

A. Water/Sewer Bill Burdens in Toledo

Water burdens represent bills as a percentage of income. A water burden is a simple ratio. In the calculation, the water bill is placed in the numerator while the household income is placed in the denominator. Given the lack of individualized data, water burdens cannot be calculated for individual households. In assessing water burdens, therefore, information is obtained for each Census Tract in the City.[74] Income information is derived from the American Community Survey

[74] *See*, note 5, supra, for a discussion of Census Tracts.

(2019), the most recent year for which Census data is available. In contrast, water bills are calculated for each Census Tract based on the per-person water usage reported by the Ohio Environmental Protection in its most recent periodic Sewer and Water Rate Survey for the state of Ohio in combination with average household sizes for each Census Tract.[75]

Water burdens throughout Toledo are examined from two different perspectives. On the one hand, burdens for the one-fifth of the population with the lowest income in Toledo (*i.e.* the "First Quintile") are examined. On the other hand, burdens at differing ranges of the Federal Poverty Level are examined.

Care should be taken in what conclusions are drawn from the discussion below. The percentages refer to population, not to customers. Not everyone, of course, is a customer of the local water provider in a particular geographic area. Frequently, for example, renters do not have water separately metered in their own names. Such people might have water included as an undesignated portion of their rent. While water bills might be a cost component that affects the level of rent,[76] and while the renter would unquestionably be a ***user*** of water service, that renter would not be a water customer for whom a water burden (*i.e.* bill as a percentage of income) could and would be determined.

In addition, within each Census Tract, average bills are compared to average incomes (as discussed immediately above) to determine a water burden for each Census Tract at that income and bill level. There will, however, be some people who deviate from the average. Some people will have higher or lower than average bills. Some people will have higher or lower incomes than the average income used. To that extent, while the statement that "x% of people live in Census Tracts with unaffordable water bills" may unquestionably be correct, the statement that "x% of people live with unaffordable water bills" does not follow. People with higher incomes or lower bills than average may have more affordable burdens than on average.

For this reason, the discussion in this section will be limited to the affordability of water bills for Census Tracts (rather than to people or households). An examination of demographics for Census Tracts was presented in an earlier section. Thus, for example, once we know what water

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[75] The Ohio Environmental Protection Agency, Economic Analysis Unit, publishes a periodic *Sewer and Water Rate Survey*. Its most recent survey (2018, published in December 2019), reports (page 2) that "Annual rates were calculated for residential customers within municipal limits, assuming that a household consists of three (3) people individually consuming 85 gallons of water each day. Community annual sewer and water rate calculations assumed one of the following as the average water consumption per household: 7,756 gallons per month (1,037 cubic feet per month)." The daily per person consumption is assumed to include some outdoor usage. The per person usage was thus judgmentally reduced to 55 gallons per day. Burden calculations presented herein incorporate that usage level. Consumption above or below that usage level would result in burdens higher or lower than presented in this report.

[76] This is not to say that rents are cost-based. More generally, rents are market-based, with property owners charging what the market will bear.

burdens are for the population with income at or below 50% of Poverty, data presented earlier in this report provides insights into how big that population is likely to be.

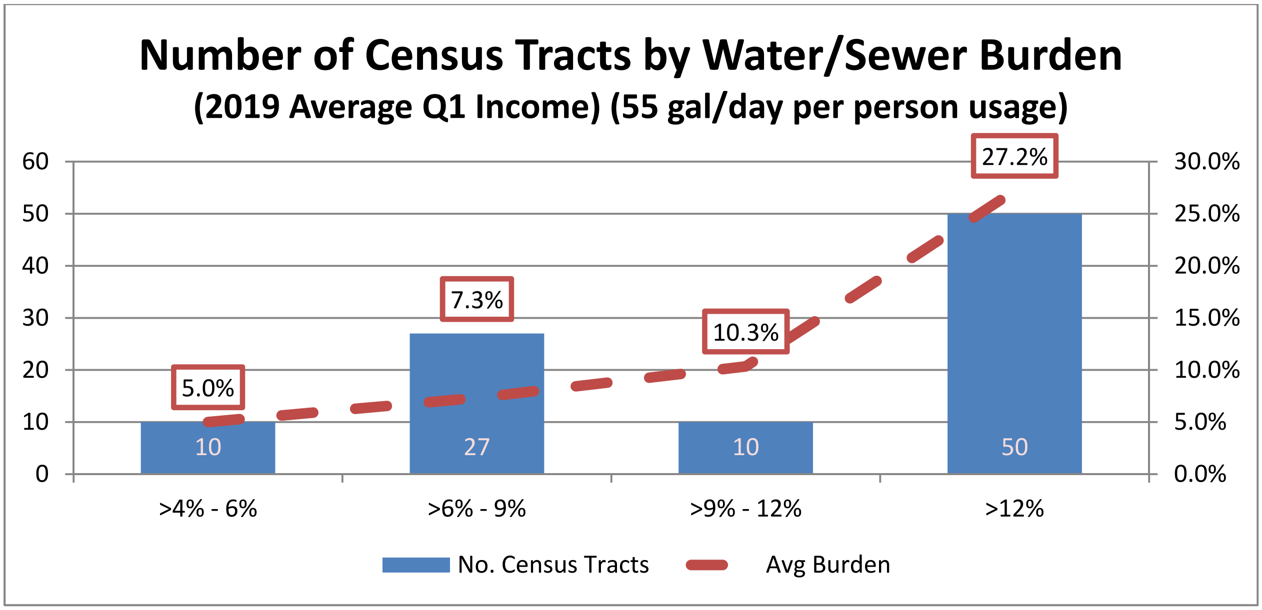
In reviewing water burdens for the City of Toledo, it is important to keep water burdens in proportion both to total shelter expenditures and to expenditures on other home utilities. As explained in detail earlier, a four percent (4%) burden for total water services appears to be a reasonable definition of affordability. Not only is it proportionate to affordable home energy expenditures, but in addition, the combination of an affordable home energy burden (6% of income) plus an affordable water burden (4% of income) (10% total) would not place an undue strain on overall affordable shelter burdens (30% of income).

1. Considering 2019 First Quintile Income

Toledo Water bills reach unaffordable burdens for the First Quintile of income population (*i.e.* that one-fifth of the population with the lowest incomes) throughout the entire City of Toledo.[77] In the Chart below, the number of Census Tracts falling into each range of Toledo Water burdens is presented in the bars. The average water burden (*i.e.* bill as a percentage of income) is presented by the dashed-line in the Chart. The average Toledo Water burden as a percentage of income for each range of burdens is presented in the boxes above each bar of the graph.

The Chart below shows that Toledo Water has both a substantial breadth and a substantial depth of unaffordability. As described above, the breadth and depth of water unaffordability should be viewed in the same fashion. On the one hand, the "breadth" of unaffordability presents the prevalence of unaffordability. How frequently does unaffordability exist? On the other hand, the "depth" of unaffordability presents the magnitude of unaffordability. How unaffordable are bills?

[77] Not all Census Tracts have First Quintile incomes reported. For some areas, when sample sizes are small, the Census Bureau withholds data for privacy purposes.



For the one-fifth of population with the lowest incomes in each Census Tracts, water bills impose an unaffordable burden in all Census Tracts.[78] Of the 97 Census Tracts with reported First Quintile incomes, 50 have water burdens that exceed 12% of income. In these 50 Census Tracts, however, not only do water burdens exceed 12% of income, but the average water burden in these Census Tracts (for the First Quintile of income) is more than 27%. More than half of the Census Tracts with reported average First Quintile income data (50 of 97), in other words, have Toledo Water burdens that, unto themselves, nearly equal the total shelter burden that has historically demarcated the limits of overall housing affordability.

In addition, as the Chart above demonstrates, in 37 more Census Tracts, Toledo Water bills are substantially in excess of an affordable burden. While 27 Census Tracts have water burdens of between 6% and 9% of average First Quintile income (with an average burden of 7.3%), an additional ten Census Tracts have water burdens between 9% and 12% of average First Quintile income (with an average burden of 10.3%).

Even in the Census Tracts with the lowest burdens (between 4% and 6%), the average Toledo Water burden is 5.0% at average First Quintile incomes, above the 4% level that has been defined to be the limit of affordability.

2. *Considering 2019 Federal Poverty Level.*

The discussion above relates to that one-fifth (*i.e.* one quintile) of population within Toledo Census Tracts that have the lowest incomes in each area. The average income for that lowest

[78] Remember that the definition of "water" encompasses all water services, including wastewater and stormwater.

quintile may be very low relative to Federal Poverty Level. Or, on the other hand, in Census Tracts with higher overall incomes, that average First Quintile income may be quite moderate. The levels of First Quintile incomes relative to the Poverty Level were discussed earlier in this report.

Because average First Quintile incomes may have a wide variation in how they reflect incomes as a percentage of Poverty, the discussion in this section directly measures Toledo Water bills as a percentage of Poverty Level. Bills were calculated for 2019 (and usage determined in the manner described above). In addition, the populations at the differing Poverty Levels are presented to allow a determination of the policy significance of burdens at the differing levels of Poverty.

Burdens are calculated for six different ranges of Federal Poverty Level: (1) below 50% of Poverty; (2) 50 – 100% of Poverty; (3) 100 – 125% of Poverty; (4) 125 - 150% of Poverty; (5) 150 – 185% of Poverty; and (6) 185 – 200% of Poverty.[79] Data is presented disaggregated by City Council Districts for Toledo. Each Census Tract was associated with the City Council District in which it is located.

The number of persons in each range of Poverty Level in Toledo is substantial, as is demonstrated in the Table below.[80] The ranges are roughly similar citywide. While there are roughly 34,000 Toledo residents living with income below 50% of Poverty, there are roughly 37,000 living with income between 50% and 100% of Poverty. Similarly, while there are roughly 35,000 Toledo residents with income between 100% and 150% of Poverty, there are somewhat more than 32,000 with income between 150% and 200% of Poverty. In general, however, the population falling within each range of Poverty Level does not substantially different from each other equal range of Poverty.

[79] These ranges are the ranges of Poverty Level for which data is reported by the American Community Survey.
[80] Note that the different ranges are of different sizes. In order to make each comparable, the FPL ranges of 100-125% and 125-150% can be added together, while the ranges of 150-185% and 185-200% can be added together.

Table 21. Population (2019) by Ratio of Income to Federal Poverty Level by City Council District							
	City Council District						Grand Total
Values	**1**	**2**	**3**	**4**	**5**	**6**	
Under .50	6,892	3,989	7,863	8,646	3,320	3,117	33,827
.50 to .99	6,872	6,790	6,834	7,221	3,517	5,475	36,709
1.00 to 1.24	3,468	3,193	4,262	2,590	1,756	2,308	17,577
1.25 to 1.49	3,171	2,530	5,128	1,913	2,077	2,892	17,711
1.50 to 1.84	3,947	4,768	3,810	3,230	3,206	3,282	22,243
1.85 to 1.99	1,142	1,498	2,158	1,325	1,694	2,445	10,262
Total:	45,273	66,185	49,841	36,642	52,012	48,849	298,802

The discussion below looks at Toledo Water burdens for each of the six differing ranges of Poverty. The examination considers the bill burdens for each Census Tract, and distributes Census Tracts over City Council districts. The six ranges of income as a percent of Federal Poverty Level are presented in three separate tables simply for the ease of presentation.

No City Council district in Toledo has a Census Tract for which Toledo Water bills are affordable at income less than 50% of Poverty. In every City Council District, every Census Tract has a Toledo Water burden at this range of Poverty exceeding 12% of income, three times higher than the demarcation of affordability. Overall, City Council District 3 has the lowest Toledo Water bill as a percentage of income at 50% of Poverty (14.6%), while City Council District 4 has the highest burden (15.0%). Clearly, therefore, the average burdens (at 50% of Poverty) for the remaining City Council districts are closely clustered together between those two numbers.

The Table immediately below shows that affordability substantially improves in the next higher range of Poverty Level (50% – 100%) but remains well above the definition of an affordable bill. Throughout the entire City, in each City Council district, persons living with income between 50% and 100% of Poverty have Toledo Water burdens that exceed 6% of income but are less than 9% of income.

At an income level between 50% and 100% of Poverty, the Toledo Water burdens are even more closely grouped, with the lowest burden (City Council District 3, 7.8%) and the highest burden (City Council District 4, 8.0%) being virtually identical. In both City Council districts (*i.e.* the one with the highest burden and the one with the lowest, at 50% - 100% of Poverty), however, Toledo Water burdens at 50 to 100% of income are nearly two times higher than the burden deemed to be affordable.

Table 22. Number of Census Tracts by Bills Burdens, Federal Poverty Level, and City Council District (2019)

	Bill Burdens (0 – 50% Poverty Level)						
City Council District	Less than 2%	2 – 4%	4 – 6%	6 – 9%	9 – 12%	12% or more	Grand Total
1	0	0	0	0	0	16	16
2	0	0	0	0	0	17	17
3	0	0	0	0	0	17	17
4	0	0	0	0	0	22	22
5	0	0	0	0	0	17	17
6	0	0	0	0	0	14	14
Total	0	0	0	0	0	103	103
	Bill Burdens (50 – 100% Poverty Level)						
City Council District	Less than 2%	2 – 4%	4 – 6%	6 – 9%	9 – 12%	12% or more	Grand Total
1	0	0	0	16	0	0	16
2	0	0	0	17	0	0	17
3	0	0	0	17	0	0	17
4	0	0	0	22	0	0	22
5	0	0	0	17	0	0	17
6	0	0	0	14	0	0	14
Total	0	0	0	103	0	0	103

As incomes rise above the 100% of Poverty range, 2019 bills begin to approach an affordable burden. The data is presented in the Table immediately below. At 100 – 125% of Poverty Level, all Census Tracts in every City Council district fall within the burden range of between 4% and 6% of income. Census Tracts, however, tended to be at the upper level of that range of water burdens. In two City Council districts (#2, #5), average burdens were 5.1%, while in three more City Council districts (#1, #4, #6), average burdens were 5.0%. In only one City Council district (#3) were average burdens below 5.0% of income (4.9%).

While that may seem to be "good news," an earlier discussion in this report documented the extent to which water and wastewater rates are escalating at a rate that substantially exceeds the escalation of incomes within the City. Even with incomes at between 100% and 125% of

Poverty Level, therefore, there should be concern about the unaffordability of Toledo Water bills even in the short-term.

The Table immediately below shows further that when incomes reach 125% to 150% of Poverty, there are finally some indications that Toledo Water bills are presenting affordable burdens to City residents. A small minority of Census Tracts have affordable Toledo Water burdens when incomes reach 125% to 150% of Poverty. City Council districts 1, 3, 4 and 6 all have Census Tracts with burdens at between 2% and 4% of income, below the maximum burden deemed to be affordable. Even then, the City Council districts, as a whole, have Toledo Water burdens that are at the maximum level deemed to be affordable. City Council districts #1 and #4 have average burdens of 4.1%, while City Council districts #3 and #6 have average burdens of 4.0%. In each City Council district, each Census Tract with an average burden falling in the 2% to 4% range reaches a burden of 3.9%.

Table 23. Number of Census Tracts by Bills Burdens, Federal Poverty Level, and City Council District (2019)

	Bill Burdens (100 – 125 Poverty Level)						
City Council District	Less than 2%	2 – 4%	4 – 6%	6 – 9%	9 – 12%	12% or more	Grand Total
1	0	0	16	0	0	0	16
2	0	0	17	0	0	0	17
3	0	0	17	0	0	0	17
4	0	0	22	0	0	0	22
5	0	0	17	0	0	0	17
6	0	0	14	0	0	0	14
Total	0	0	103	0	0	0	103
	Bill Burdens (125 – 150% Poverty Level)						
City Council District	Less than 2%	2 – 4%	4 – 6%	6 – 9%	9 – 12%	12% or more	Grand Total
1	0	3	13	0	0	0	16
2	0	0	17	0	0	0	17
3	0	7	10	0	0	0	17
4	0	5	17	0	0	0	22
5	0	1	16	0	0	0	17
6	0	4	10	0	0	0	14
Total	0	20	83	0	0	0	103

Citywide, when incomes reach above 150% of Poverty, Toledo Water bills present affordable burdens. In both ranges of Federal Poverty Level above 150%, all Census Tracts in every City Council district experience affordable burdens. At 150% to 185% of Poverty, burdens range from 3.4% to 3.5% of income. At 185% to 200% of Poverty, burdens range from 2.9% to 3.0% of income. While the population at 150% to 185% of Poverty may present a concern in the longer-term, there is no immediate affordability issue (on average) with persons falling into this income range.

Table 24. Number of Census Tracts by Bills Burdens, Federal Poverty Level, and City Council District (2019)

			Bill Burdens (150 – 185 Poverty Level)				
City Council District	Less than 2%	2 – 4%	4 – 6%	6 – 9%	9 – 12%	12% or more	Grand Total
1	0	16	0	0	0	0	16
2	0	17	0	0	0	0	17
3	0	17	0	0	0	0	17
4	0	20	2	0	0	0	22
5	0	17	0	0	0	0	17
6	0	14	0	0	0	0	14
Total	0	101	2	0	0	0	103
			Bill Burdens (185 – 200% Poverty Level)				
City Council District	Less than 2%	2 – 4%	4 – 6%	6 – 9%	9 – 12%	12% or more	Grand Total
1	0	16	0	0	0	0	16
2	0	17	0	0	0	0	17
3	0	17	0	0	0	0	17
4	0	22	0	0	0	0	22
5	0	17	0	0	0	0	17
6	0	14	0	0	0	0	14
Total	0	103	0	0	0	0	103

In sum, Toledo Water faces a substantial water affordability problem at its lowest levels of income. Throughout the City, persons living in the bottom one-fifth of income (*i.e.*, the First Quintile) face unaffordable Toledo Water bills. For this population in the bottom one-fifth of income, Toledo Water burdens (on average) can range up to more than 27% of income.

Income as a percentage of Federal Poverty Level, however, presents a more accurate picture of the Toledo low-income population as a whole. Rather than focusing on the lowest of the low-income population, examining the Toledo population by reference to different ranges of Poverty allows Toledo Water to develop some insights into the dynamics of unaffordability within the low-income population. Not surprisingly, and perhaps by definition, the largest affordability problems (represented by the highest water burdens) occur at the lowest level of Poverty. As incomes increase, Toledo Water burdens decrease. Not until incomes exceed 150% of Poverty, however, do immediate affordability problems for Toledo Water appear to dissipate. In virtually every Census Tract, the population with incomes exceeding 150% of Poverty appears to experience Toledo Water burdens that are less than 4% of income.

3. *Five Essential Findings.*

Based on the data and discussion provided above, the Toledo Water Affordability Plan makes the following findings:

- Water burdens represent bills as a percentage of income. A water burden is a simple ratio. In the calculation, the water bill is placed in the numerator while the household income is placed in the denominator. Care should be taken in what conclusions are drawn from the discussion below. The percentages refer to population, not to customers. Not everyone is a customer of the local water provider in a particular geographic area. In addition, within each Census Tract, average bills are compared to average incomes to determine a water burden for each Census Tract at that income and bill level. There will, however, be some people who deviate from the average. Some people will have higher or lower than average bills. Some people will have higher or lower incomes than the income used.

- Toledo Water customers face both a substantial breadth and a substantial depth of unaffordability. For the one-fifth of population with the lowest incomes in each Census Tracts, water bills impose an unaffordable burden in all Census Tracts. Of the 97 Census Tracts with reported First Quintile incomes, 50 have water burdens that exceed 12% of income. In these 50 Census Tracts, not only do water burdens exceed 12% of income, but the average water burden in these Census Tracts (for the First Quintile of income) is more than 27%.

- No City Council district in Toledo has a Census Tract for which Toledo Water bills are affordable at income less than 50% of Poverty. In every City Council District, every Census Tract has a Toledo Water burden at this range of Poverty exceeding 12% of income, three times higher than the demarcation of affordability. Overall, City Council District 3 has the lowest Toledo Water bill as a percentage of income at 50% of Poverty (14.6%), while City Council District 4 has the highest burden (15.0%). Affordability substantially improves in the next higher range of Poverty Level but remains well above the definition of an affordable bill. Throughout the entire City, in each City Council district, persons living with income between 50% and 100% of Poverty have Toledo Water burdens that exceed 6% of income but are less than 9% of income.

- When incomes reach 125% to 150% of Poverty, there are finally some indications that Toledo Water bills are presenting affordable burdens to City residents. A small minority of Census Tracts have affordable Toledo Water burdens when incomes reach 125% to 150% of Poverty. City Council districts 1, 3, 4 and 6 all have Census Tracts with burdens at between 2% and 4% of income, below the maximum burden deemed to be affordable. Even then, the City Council districts, as a whole, have Toledo Water burdens that are at the maximum level deemed to be affordable.

- Citywide, when incomes reach above 150% of Poverty, Toledo Water bills present affordable burdens. In both ranges of Federal Poverty Level above 150%, all Census Tracts in every City Council district experience affordable burdens. At 150% to 185% of Poverty, burdens range from 3.4% to 3.5% of income. At 185% to 200% of Poverty, burdens range from 2.9% to 3.0% of income. While the population at 150% to 185% of Poverty may present a concern in the longer-term, there is no immediate affordability issue (on average) with persons falling into this income range.

B. Water Affordability Issues Identified by Public Input Survey

Toledo Water engaged in considerable effort to solicit public input for the development of a City Affordable Water Plan. One element of that input was a public input survey (hereafter "Toledo Water Survey" or "Survey") made available not only through the Toledo Water website, but provided through the assistance of a local grassroots organization The Junction Coalition. The Junction Coalition hired three part-time staffpersons to canvass Toledo neighborhoods and to provide, when requested, assistance with helping in responding to the Survey.

The discussion below examines the results of the Toledo Water Survey for four different populations:[81]

- Those who received a Toledo Water bill and were concerned because they lacked sufficient funds to pay the bill upon receipt.

[81] The Survey asked respondents to provide information for their experiences "before the pandemic."

- Those who were concerned about their Toledo Water bill because they did not have enough money to pay it upon receipt, but “found a way” to pay it.

- Those who were concerned about their Toledo Water bill because they did not have enough money to pay it upon receipt, and did *not* pay it. and

- Those who responded to receipt of a Toledo Water bill by reducing their spending on basic household necessities in order to make their payment.

Each set of respondents will be examined separately below. The Survey results were limited not only to direct customers of Toledo Water, but limited, also, to customers who live within the city limits of Toledo. The Survey made clear that it was asking for information about both water and wastewater (sewer) services.

1. *Concerned About Toledo Water Bill Due to Insufficient Funds to Pay.*

The Survey sought to discern how frequently Toledo Water customers were “concerned” about receiving their Toledo Water bill and how they responded to those concerns. Fewer than half of the respondents told Toledo Water that they were “never” concerned about whether their water bill would become due before they could get money to pay it.

In contrast, a solid minority, nearly one-in-five (19%) reported that they either “always” (8%) or “often” (11%) had a concern about whether their water bill would become overdue before they could get money to pay it. One-quarter of the respondents said that they had this concern “sometimes.” Water bills impose substantial angst on many Toledo residents. Fewer than half of the respondents (41%) reported having “never” been concerned about whether their water bill would become overdue before they could get money to pay it. Just over half (56%) said that they were either “never” or “rarely” concerned.

Table 25. I was concerned about whether
my water bill would become overdue before I could get money to pay it.
(percent of respondents)

Always	8%
Often	11%
Sometimes	25%
Rarely	15%
Never	41%
Grand Total	100%

Simply because residents were "concerned" about whether their water bill would become overdue before they could get money to pay it does not mean that the water bill would always (or even frequently) go unpaid. Seven-of-ten (72%) residents who reported that they were "concerned" either "always" or "often," but still made a bill payment, reported that they either "always" or "often" found a way to pay their Toledo Water bill despite their concern.

In contrast, few of those Toledo residents who reported being concerned either always or often reported that they missed payments. From 21% (always concerned) to 26% (often concerned) of those customers who had frequent concerns, but found a way to pay, said they "sometimes" found a way to make a payment even while being concerned about their ability to get money for that payment. Very few who said they were frequently concerned, but found a way to pay, said they made payments only "rarely." The conclusion to be drawn is that those Toledo Water customers who do find a way to pay, despite having regular concerns about their ability to pay, find a way to make regular ("always" or "often") payments. The residents who find a way to pay despite their concerns do so regularly. Those who find a way to pay despite their frequent concerns, but do so only "sometimes," are much fewer.

Table 26. I was concerned about whether my water bill would become overdue before I could get money to pay it but I found a way to pay (percent of respondents)

How Often Found a Way to Pay	How Often Concerned	
	Always	Often
Always	32%	11%
Often	40%	57%
Sometimes	21%	26%
Rarely	1%	3%

At the other end of the spectrum, a sizable portion of respondents who were "always" concerned about their ability to access sufficient money to pay their water bill before it became due said that their financial difficulties caused them to miss payments. Of that group of customers who were "always" concerned about their ability to pay *and* who missed payments, nearly half missed payments frequently. Four-of-ten customers who were always concerned (and who also missed payments) reported that they missed payments "always" or "often." Substantially fewer (12%) who reported that they missed payments (along with being always concerned) said they missed payments only "rarely."

Those who reported that they were "often" concerned, *and* that they missed payments, actually reported better payment performance. Only 16% of that group of respondents said they missed payments "always" or "often." Far more (33%) reported that they did, indeed, miss payments (in addition to being "often" concerned about their ability to pay), but did so only "rarely."

Table 27. I was concerned about whether my water bill would become overdue before I could get money to pay it and did not pay (percent of respondents)

How Often Did Not Pay	How Often Concerned	
	Always	Often
Always	16%	2%
Often	24%	14%
Sometimes	34%	32%
Rarely	12%	33%

Toledo residents who reported they were either "always" or "often" concerned about whether they would receive their water bill before they could get money to pay took a variety of affirmative actions in an effort to pay their Toledo Water bills. The most common reaction was to either skip payments on other household necessities (*e.g.* food, medications) (33%) or to use "other methods" to obtain necessary household items (*e.g.* food banks, credit cards). A second tier of actions involved efforts to increase income, either by trying to find ways to earn money (18%) or by borrowing money (from friend, family, bank, payday loans).

Few people contacted Toledo Water to ask for an extension of time to pay their bill (16%), and fewer still approached private local social assistance programs (such as the United Way or Salvation Army) (6%). The largest percentage of people who reported being concerned either "always" or "often" about whether they would have money to pay their Toledo Water bill (40%) said that they took none of the listed actions.[82]

[82] This should carefully be distinguished from "doing nothing." This response simply indicates that the respondent did not take any of the actions listed in the Survey.

Table 28. Action I've Taken to Pay My Water bill: I was concerned about whether my water bill would become overdue before I could get money to pay it (always or often).	
Action	Percent
I borrowed money from friends, bank, payday loan, or other entity	21%
I used other methods to obtain necessary items such as food, shelter, other utilities, etc.	29%
I skipped or reduced payments on needed purchases or repairs	33%
I contacted Toledo Water to request an extension or a payment plan	16%
I applied for assistance for my water bill through an agency such as United Way, Salvation Army, etc.	6%
I found ways to make extra money to pay the water bill	18%
I changed my living situation or moved out in order to not have to pay my water bill.	2%
None of the above	40%

Amongst the population who reports being frequently (always, often) concerned about having their water bill become overdue before obtaining sufficient funds to pay it, there is a distinct lack of awareness of the variety of programs that are available to help pay bills. By far, the highest percentage of respondents who were always (57%) or often (60%) concerned reported being aware of *none* of the listed types of assistance. The assistance that generated the greatest awareness was the availability of extended installment payment plans by which to retire arrears. Financial assistance (either through Toledo Water's emergency hardship grant program) or through the Senior Discount (or low-income discount) involved much less awareness.[83] The assistance generating the least awareness among those reporting they were concerned always or often was the ability of Toledo Water to refer customers to private agencies for financial assistance.

[83] Remember that the hardship grants were available for only a few months before the COVID-19 pandemic arose. That grant program was then suspended when Toledo Water suspended residential nonpayment disconnections.

Table 29. Percent of those Who Reported Being Concerned Always or Often By Their Awareness of Selected Programs (percent of respondents)					
How often concerned	Payment Assistance Grants	Installment Plans	Referrals to Community Groups	Senior/Low Income Discount	None of the Above
Always	16%	38%	9%	13%	57%
Often	20%	34%	9%	23%	60%
Total combined	29%	36%	9%	19%	59%

By far, Toledo Water customers responding to the Survey said that the assistance that would most help them involves direct financial assistance directed toward their bills. The most frequently desired assistance reported was a bill discount that would more closely match their bills to their incomes. Somewhat after that was a desire for financial assistance to help retire an arrearage that already existed on their bills. The percentage of respondents (who reported having been concerned "always" or "often") saying they would like financial assistance to help pay arrears, or that they would like extended payment plans, was nearly the same (38% vs. 41%).

Table 30. Percent of those who Reported Being Concerned Always or Often By What They Said Would "Most Help" (percent of respondents)						
How often concerned	Water Conservation	Rate Discount	Arrearage Credit	Installment Payment Plan	Referral to Community Agency	Identify and Fix Leaks
Always	29%	76%	50%	40%	26%	24%
Often	15%	60%	34%	36%	28%	20%
Total combined	21%	67%	41%	38%	28%	22%

Survey respondents who reported being concerned about whether their water bill would become overdue before they could access funds to pay did not seem to have significant interest in help to reduce their consumption. Only one-in-five respondents expressed an interest in either water conservation assistance (21%) or in help with identifying and fixing leaks (22%). Interest in receiving financial assistance from a local community group such as the United Way or Salvation Army was surprisingly low (28%) amongst those respondents was reported being concerned about their water bills either always or often.

2. *Concerned About Toledo Water Bill Due to Insufficient Funds but "Found a Way" to Pay.*

Of the population who had a concern about whether their Toledo Water bill would become due, but nonetheless found a way to make a payment always or often, self-help means of assistance were most prevalent. Skipping payments on needed repairs or purchases was the most frequently reported action taken in order to pay their Toledo Water bill (63%) (of those making a payment always or often), followed by using other methods to obtain necessary items such as food and shelter (using credit cards, food banks) (51%). Relatively few respondents reported that they contacted Toledo Water asking for a payment extension or installment payment plan (30%), with about the same percentage saying they "found ways to make extra money to pay the water bill" (32%).

Table 31. Action I've Taken In an Effort to Pay My Water bill
My water bill would become due, and I did not have the money to pay it but found a way to make a payment (always or often).

Action Taken	Had Concern About Toledo Water bill but Found a Way to Pay Always or Often
I borrowed money from friends, bank, payday loan, or other entity	44%
I used other methods to obtain necessary items such as food, shelter, other utilities, etc.	51%
I skipped or reduced payments on needed purchases or repairs	63%
I contacted Toledo Water to request an extension or a payment plan	30%
I applied for assistance for my water bill through an agency such as United Way, Salvation Army, etc.	12%
I found ways to make extra money to pay the water bill	32%
I changed my living situation or moved out in order to not have to pay my water bill.	5%
None of the above	9%

Not surprisingly, the percentage of people reporting taking specific actions is higher within the population who reported being concerned but finding a way to pay than within the total population who simply reported being concerned about whether their water bill would become due before they had sufficient money to pay. Not all such actions, however, are necessarily constructive actions in the long-term. More than 40% of those who "found a way to pay" borrowed money (44%), compared to 21% of the total who were concerned always or often. More than six-of-ten (63%) of those who "found a way to pay" skipped or reduced payments on needed purchases or repairs, compared to 33% of the total reporting they were concerned always or often. Despite these concerns, more constructive actions were taken as well. While 16% of the total of those saying they were concerned always or often reported contacting Toledo Water for a payment extension or installment plan, compared to nearly twice that number (30%) of those saying they "found a way to pay" contacted Toledo Water. Not quite twice the percentage of respondents who "found a way to pay" said they found ways to earn some extra money, as compared to the total of those who expressed concern "always" or "often" (32% vs. 18%).

Table 32. Concerned but Found a Way to Pay (always or often) (awareness of programs) (percent of respondents)				
Found Way to Pay	Payment Assistance Grants	Installment Plans	Referrals to Community Groups	Senior/Low Income Discount
Always	14%	43%	9%	23%
Often	14%	34%	6%	20%
Total combined	14%	38%	7%	21%

Within the group of Survey respondents who said they were concerned about receiving their Toledo Water bill before they had sufficient funds to pay, but "found a way to pay" always or often, the strongest awareness of available programs was of Toledo Water's extended payments or installment payment plans (38%). A much smaller percentage of customers were aware of Toledo Water's senior (low-income) discount (21%), and relatively few customers were aware of Toledo Water's ability to help customers connect with local community organizations to help with an inability-to-pay (7%). The awareness of programs does not differ between those respondents who expressed a concern about their ability to pay (always or often) and those who expressed such a concern but "found a way to pay."

There does appear to be somewhat of a difference between those who "always" found a way to pay, and those who "often" found a way to pay in the degree of awareness of Toledo Water programs. Those who always found a way to pay had a greater degree of awareness of Toledo Water programs (with the exception of the short-lived emergency assistance grant program).

Table 33. What Would "Most Help" My water bill would become due, and I did not have the money to pay it but found a way to make a payment (percent of respondents)						
Found Way to Pay	Water Conservation	Rate Discount	Arrearage Credit	Installment Payment Plan	Referral to Community Agency	Identify and Fix Leaks
Always	29%	72%	23%	29%	16%	22%
Often	23%	74%	33%	33%	27%	16%
Total combined	26%	73%	29%	31%	23%	18%

More respondents who said they had concerns about whether they would receive their water bill before having sufficient funds to pay, but who nonetheless found a way to pay "always" or "often" expressed an interest in water conservation (26%) and rate discounts (73%), than the respondents who merely said they had concerns "always" or "often" (21%: water conservation; 67%: discount). Those who "found a way to pay" were less interested in, perhaps because of a lesser need, in arrearage credits (29%) or installment payment plans (31%), and were somewhat less interested in Toledo Water assistance to help identify and fix leaks (18%) or help in obtaining referrals to community agencies (23%).

3. Concerned About Toledo Water Bill Due to Insufficient Funds and "Did Not Pay."

Survey respondents who expressed concern "always" or "often" about whether they would receive a Toledo Water bill before they had sufficient money to pay that bill, and ended up not paying their bill (always, often, sometimes) reported taking more actions in response to their inability-to-pay despite not making a bill payment. In particular, when compared to Survey respondents who "found a way to pay," a substantially higher percentage of Survey respondents who said that they did not make a payment (always, often, sometimes) requested Toledo Water payments plans (47% vs. 30%), borrowed money (55% vs. 44%), and applied for assistance from local groups such as the Salvation Army or United Way (22% vs. 12%). When compared to those who said they "found a way to pay," a somewhat greater percentage of respondents who said they missed a payment reported that they used other methods (*e.g.* credit cards, food banks) to obtain necessary items (58% vs. 51%) or skipped or reduced payments for needed purchases or repairs (67% vs. 63%). In addition, two times as many respondents who missed a payment (but still a relatively small number: 10%) said they changed their living situation, or moved out, in order to not have to pay their water bill.

Table 34. Action I've Taken In an Effort to Pay My Water bill
My water bill would become due, and I did not have the money to pay it, so did not pay the bill.

Action Taken	Did Not Have Money So Did Not Pay (always, often, sometimes)
I borrowed money from friends, bank, payday loan, or other entity	55%
I used other methods to obtain necessary items such as food, shelter, other utilities, etc.	58%
I skipped or reduced payments on needed purchases or repairs	67%
I contacted Toledo Water to request an extension or a payment plan	47%
I applied for assistance for my water bill through an agency such as United Way, Salvation Army, etc.	22%
I found ways to make extra money to pay the water bill	29%
I changed my living situation or moved out in order to not have to pay my water bill.	10%
None of the above	2%

When compared to those who "found a way to pay," a higher percentage of respondents who did not make a payment were aware of Toledo Water's emergency grant program (24% vs. 14%) and installment payment plans (45% vs. 38%). They had, however, virtually identical levels of awareness of the Toledo Water senior (low-income) discount (20% v. 21%) and the actions that Toledo Water takes to help refer customers to local community groups for bill assistance (8% vs.

7%). Overall, however, awareness of Toledo Water's help in referring customers with payment troubles to local community groups remains very low.

The difference in awareness of Toledo Water initiatives is noticeable between those who said they did not pay "sometimes" and those who said they did not pay "always" or "often."

- The percentage of respondents saying they did not make a payment "sometimes" and were aware of installment payment plans was 10% higher than those who said they did not pay "always" or "often."

- The percentage who did not pay "sometimes" were more than two times more aware of community group referral (9% vs. 4%) (though still very low) and nearly three times more aware of the senior (low-income) discount (24% vs/ 9%).

Table 35. Aware of Programs
My water bill would become due, and I did not have the money to pay it, so did not pay the bill.
(percent of respondents)

Did Not Pay	Payment Assistance Grants	Installment Plans	Referrals to Community Groups	Senior/Low Income Discount	None of the Above
Always/Often	16%	38%	4%	9%	49%
Sometimes	27%	48%	9%	24%	36%
Total combined	24%	45%	8%	20%	31%

Perhaps most striking is the fact that nearly half (49%) of those who said they did not pay "always" or "often" also said they were not aware of *any* of the Toledo Water programs to help payment-troubled customers, compared to roughly a third (36%) of those who said they did not pay "sometimes."

4. *Reduced Spending on Basic Household Necessities in Order to Pay Toledo Water Bill.*

The inability-to-pay of Toledo Water customers frequently results in adverse impacts to the households that transcend the nonpayment of their water bill. Survey respondents, for example, report that they reduce their spending on basic household needs in an effort to have enough money to pay their Toledo Water bill. The reduction in spending on basic household needs, as a mechanism to generate or preserve money to pay Toledo Water, often is an indicator of other fundamental problems with the household's inability-to-pay, and the broader social, economic and public health consequences that inability-to-pay imposes on the household.

This section examines the population of respondents that reported they reduced spending on basic household needs in an effort to have sufficient money to pay their Toledo Water bill, either "always," "often," or "sometimes." The data also shows what other steps these respondents report having taken in their efforts to have enough money to pay their Toledo Water bill. The data confirms the existence of what is commonly referenced as the paid-but-unaffordable bill. The Table below shows the steps taken by Survey respondents in an effort to respond to the desire to pay their Toledo Water bill when it is received. The biggest difference in responsive actions of those who "always" reduce spending on basic needs and those who do so less frequently, is seen in the frequency with which respondents reported borrowing money to pay their Toledo Water bill and the frequency with which respondents reported that they skipped or reduced payments on needed purchases or repairs. In both instances, the percentage of those respondents who reduced basic needs spending "always" was substantially higher than the percent who did so "often." The percentage who reduced basic needs spending "always" and either borrowed money or skipped or reduced spending on necessary purchases or repairs was more than two times higher (62%) than the percentage who borrowed money, or who skipped or reduced purchases or repairs, only "sometimes" (30%).

Far more respondents who reported that they "always" reduced basic needs spending in order to pay their Toledo Water bill contacted Toledo Water for assistance (43%) compared to those who reduced basic needs spending only "sometimes" (26%). Nearly twice the percentage of those who reduced basic needs spending "always" contacted local agencies for help (18%) compared to the percentage who reported doing so only "sometimes" (10%). People who reported that they reduced basic needs spending in order to pay their Toledo Water bill were about as likely as others to find ways to make extra money to pay their water bill.

Very few of the respondents who reduced their basic needs spending in order to pay their water bill took any of the listed actions to help. Three percent (3%) who reported that they always reduced their basic needs spending said they did "none of the above," while only 5% of those reporting they "often" reduced their basic needs spending said they did "none of the above." Amongst those actions not taken are contacting Toledo Water, applying for assistance through a local organization such as the Salvation Army, trying to find ways to earn extra money, or approaching food banks for assistance on essential need.

Table 36. Action I've Taken In an Effort to Pay My Water bill Reduced Basic Spending (percent of respondents)			
Action Taken	Reduced Basic Needs Spending		
	Always	Often	Sometimes
I borrowed money from friends, bank, payday loan, or other entity	62%	53%	30%
I used other methods to obtain necessary items such as food, shelter, other utilities, etc.	37%	33%	55%
I skipped or reduced payments on needed purchases or repairs	62%	53%	30%
I contacted Toledo Water to request an extension or a payment plan	43%	30%	26%
I applied for assistance for my water bill through an agency such as United Way, Salvation Army, etc.	18%	14%	10%
I found ways to make extra money to pay the water bill	32%	31%	28%
I changed my living situation or moved out in order to not have to pay my water bill.	6%	6%	5%
None of the above	3%	5%	9%

Despite reporting that they reduced basic needs spending "always," "often" or "sometimes," these Survey respondents did not have a high awareness of the programs and initiatives offered by Toledo Water to help customers pay their water bills. Roughly 60% of the combined group who said they reduced basic needs spending always, often or sometimes said that they were aware of *none* of the Toledo Water programs, including Toledo Water's senior (low-income) discount, and its efforts to connect customers experiencing an inability-to-pay with local community groups who offer assistance. Somewhat more customers who reported that they always reduced basic needs spending in order to pay their water bill said they were aware of Toledo Water's installment payment plans (42%), while noticeably fewer (14%) said they were aware of Toledo Water's senior (low-income) discount. While, in the Table above, from one-in-ten (10%) to nearly one-in-five (18%) reported that they had applied for assistance from a local community-based organization, awareness of Toledo Water's involvement with helping to make those community connections happen is quite low.

Table 37. Aware of Programs I reduced my spending for basic needs because there was not enough money to pay for both the water bill and my needs (percent of respondents)					
Reduced Basic Needs Spending	Payment Assistance Grants	Installment Plans	Referrals to Community Groups	Senior/Low Income Discount	None of the Above
Always	17%	42%	11%	14%	60%
Often	19%	32%	10%	23%	58%
Sometimes	19%	38%	6%	24%	62%

Of the group of Survey respondents who said that they reduced their basic needs spending in order to pay their water bill, there are two sets of programs they say would be of most help to them: rate discounts on the one hand, and everything else on the other hand. Nearly three-quarters of customers who reported that they reduced spending on their basic needs in order to pay their water bill either "always" (75%) or "often" (73%) said that a rate discount would be the assistance that would most help them. This desire for a rate discount is seen despite the relatively high lack of awareness of Toledo Water's existing senior (low-income) discount.

The desire to see a Toledo Water program to help refer customers to local community agencies is surprisingly high given the low awareness of Toledo Water's existing efforts to help people make such connections. The percentage of respondents who said that Toledo Water assistance to help identify and repair leaks was noticeably higher for this group (*i.e.* those who reduce basic needs spending) than it was for other populations.

Table 38. What Would "Most Help"
I reduced my spending for basic needs because there was not enough money to pay for both the water bill and my needs (percent of respondents)

Reduced Basic Needs Spending	Water Conservation	Rate Discount	Arrearage Credit	Installment Payment Plan	Referral to Community Agency	Identify and Fix Leaks
Always	25%	75%	42%	35%	29%	25%
Often	28%	73%	34%	38%	26%	24%
Sometimes	19%	65%	19%	22%	13%	18%

Across-the-board, a lower percentage of respondents who said they reduce their basic needs spending only "sometimes" reported any Toledo Water effort as being most helpful, although even this population identified a rate discount far more often than any other given program.

5. Respondent Income.

The problems Toledo residents face with an inability-to-pay Toledo Water bills can be clearly traced to levels of income. The discussion below considers not merely who does and who does not make payments, but also considers the actions that Survey respondents report having taken in order to pay their Toledo Water bills. The discussion ends by examining program awareness by income, along with what Toledo Water programs Survey respondents believe would provide them with the most helpful assistance. The Table immediately below shows that the Survey generated roughly equal percentages of respondents who fall into each income category. Income was bottom-coded at $20,000 (*i.e.* the lowest income level was "less than $20,000") while it was top-coded at $50,000 (*i.e.* the highest income level was "more than $50,000"). The highest income category generated a somewhat higher percentage of respondents.

Table 39. What best describes your annual household income?
(percent of respondents)

Less than $20,000	21%
$20,000 to $35,000	23%
$35,001 to $50,000	21%
More than $50,000	35%
Grand Total	100%

Failing to make a water payment is associated with income in the City of Toledo. A break-point exists between households with income less than $35,000 and those with income more than $35,000 for whether customers failed to make a payment "always" or "often." Five percent of the Survey respondents with income less than $20,000 (and 2% of those with income from $20,000 to $35,000) reported that they missed a payment "always," compared to no-one with income above $35,000 reporting that they always missed a payment. Similarly, 7% of respondents with income less than $20,000 (and 8% of those with income from $20,000 to $35,000) reported that they missed a payment "often," while only 1% with income higher than $50,000 did so.

The break-point can be seen at the other end of the spectrum as well. While between 73% and 83% of Survey respondents with income higher than $35,000 said they "never" missed a payment, only 47% to 62% of Survey respondents with lower incomes said that. Indeed, fewer than half of Survey respondents with income less than $20,000 reported that they "never" missed a Toledo Water payment.

Table 40. Did Not Make Payment

	Did Not Make Payment					
Annual Income	Always	Often	Sometimes	Rarely	Never	Grand Total
Less than $20,000	5%	7%	20%	20%	47%	100%
$20,000 to $35,000	2%	8%	14%	14%	62%	100%
$35,001 to $50,000	0%	4%	13%	11%	73%	100%
More than $50,000	0%	1%	7%	9%	83%	100%
Grand Total	2%	4%	13%	13%	69%	100%

An income-based distinction can be seen as well for Survey respondents who said that they would reduce spending for basic needs because there was not enough money to pay for both their water bill and their other needs. Survey respondents with less than $20,000 were far more likely to report reducing spending on basic needs either "always" or "often," with substantially fewer, but roughly equal percentages, stating this happened for respondents with incomes at $20,000 to $35,000 and from $25,000 to $50,000. In contrast, the percentage of Survey respondents who said they "never" reduced spending for basic needs because they could not afford both their water bills and their basic spending needs increased from one income range to the next. While 14% of Survey respondents with income less than $20,000 said they "never" reduced spending on basic needs, 50% of respondents with income at $35,000 to $50,000, and 69% of those with income exceeding $50,000 saying they never had to make this trade-off.

Table 41. I reduced my spending for basic needs
because there was not enough money to pay for both the water bill and my needs.

	Frequency of Reduced Basic Needs Spending					
Annual Income	Always	Often	Sometimes	Rarely	Never	Grand Total
Less than $20,000	27%	20%	26%	13%	14%	100%
$20,000 to $35,000	6%	15%	30%	23%	26%	100%
$35,001 to $50,000	5%	10%	23%	12%	50%	100%
More than $50,000	2%	3%	15%	11%	69%	100%
Grand Total	9%	11%	22%	14%	44%	100%

Income-based patterns can also be seen in the actions which Survey respondents reported taking in order to pay their Toledo Water bills. A higher percentage of Survey respondents with income less than $20,000 reported borrowing money; using other methods (*e.g.* credit cards, food banks) to obtain necessary items; reducing or skipping payments on needed purchases or repairs; applying to local community organizations for financial assistance; and contacting Toledo Water to request a payment extension or payment plan. Virtually identical percentages of Survey respondents said that they had changed their living situation, or moved out, in order to not have to pay their water bill.

Perhaps most importantly, the percentage of Survey respondents with income less than $20,000 who said that they had done "none of the above" was half the percentage who made that statement while reporting income of $20,000 to $35,000 (15% vs. 33%); less than one-third the percentage who said that while reporting income of $35,000 to $50,000 (15% vs. 46%); and nearly one-quarter of those who said that while reporting income of more than $50,000 (15% vs. 55%).

Clearly, when water affordability planning considers not only payment patterns, but considers those actions a customer must take when they *do* make payments on their Toledo Water bills, there is a low-income population in Toledo that is suffering from substantial unaffordability issues not involving nonpayment.

Table 42. Actions I've Taken In an Effort to Pay My Water bill

Action Taken	Annual Income				
	Less than $20,000	$20,000 to $35,000	$35,001 to $50,000	More than $50,000	Grand Total
I borrowed money from friends, bank, payday loan, or other entity	36%	22%	25%	10%	22%
I used other methods to obtain necessary items such as food, shelter, other utilities, etc.	42%	33%	36%	21%	31%
I skipped or reduced payments on needed purchases or repairs	60%	39%	35%	20%	26%
I contacted Toledo Water to request an extension or a payment plan	26%	14%	12%	7%	11%
I applied for assistance for my water bill through an agency such as United Way, Salvation Army, etc.	11%	7%	4%	2%	5%
I found ways to make extra money to pay the water bill	18%	24%	23%	15%	19%
I changed my living situation or moved out in order to not have to pay my water bill.	2%	3%	4%	2%	3%
None of the above	15%	33%	46%	55%	40%

Despite their greater affordability problems, lower income customers do not necessarily have a greater awareness of Toledo Water programs designed to assist payment-troubled customers. Survey respondents reported an equal knowledge of the existing Toledo Water senior (low-income) discount program as other income ranges. A lesser percentage reported knowledge of the availability of Toledo Water payment extensions or installment payment plans for arrears, while a roughly equal percentage, but quite small, reported knowledge of Toledo Water's efforts to connect payment-troubled customers with local community groups who can provide bill payment assistance. The percentage of Survey respondents at all income ranges who stated that they were aware of none of the Toledo Water initiatives was more than half at all income ranges below $50,000.

Table 43. Awareness of Toledo Water Programs					
Annual Income	Payment Assistance Grants	Installment Plans	Referrals to Community Groups	Senior/Low Income Discount	None of the Above
Less than $20,000	9%	24%	6%	30%	56%
$20,000 to $35,000	14%	36%	7%	30%	57%
$35,001 to $50,000	21%	39%	10%	29%	64%
More than $50,000	22%	28%	6%	25%	46%
Grand Total	17%	32%	7%	28%	54%

With the exception of identifying help to implement water conservation measures, where an equal percentage of Survey respondents said such an effort would be "most helpful" at each income range, the percentage of respondents identifying each possible Toledo Water assistance program as being "most helpful" declined as incomes increased.

Table 44. What Toledo Water Program Would "Most Help"						
Annual Income	Water Conservation	Rate Discount	Arrearage Credit	Installment Payment Plan	Referral to Community Agency	Identify and Fix Leaks
Less than $20,000	17%	75%	28%	27%	35%	21%
$20,000 to $35,000	16%	60%	15%	20%	10%	14%
$35,001 to $50,000	18%	43%	4%	10%	8%	9%
More than $50,000	16%	23%	6%	10%	5%	13%
Grand Total	17%	47%	12%	16%	13%	14%

As the Table immediately above shows, the biggest drop occurred with the identification of a rate discount as the most helpful Toledo Water assistance, falling from 75% who identified this program as most helpful by Survey respondents with income less than $20,000 to only 23% of respondents with income more than $50,000 who identified this program. Respondents with income of more than $35,000 identified Installment payment plans, arrearage credits, and referrals to community agencies in roughly equal increments. Identifying programs to help locate and repair leaks was identified as most helpful by roughly the same percentage of Survey respondents with income greater than $20,000. As might be expected, the interest in each potential Toledo Water program was higher in the group of Survey respondents with income less than $20,000 than in the group of Survey respondents with income greater than $50,000.

6. Nine Essential Findings.

Based on the data and discussion provided above, the Toledo Water Affordability Plan makes the following findings:

- Fewer than half of the Water Affordability Survey respondents told Toledo Water that they were "never" concerned about whether their water bill would become due before they could get money to pay it. Just over half said that they were either "never" or "rarely" concerned. In contrast, a solid minority, nearly one-in-five reported that they either "always" or "often" had a concern about whether their water bill would become overdue before they could get money to pay it.

- Simply because residents were "concerned" about whether their water bill would become overdue before they could get money to pay it does not mean that the water bill would always (or even frequently) go unpaid. Seven-of-ten residents who reported that they were "concerned" either "always" or "often" still made a bill payment either "always" or "often."

- At the other end of the spectrum, a sizable portion of respondents who were "always" concerned about their ability to access sufficient money to pay their water bill before it became due said that their financial difficulties caused them to miss payments. Of that group of customers who were "always" concerned about their ability to pay ***and*** who missed payments, missed payments frequently. Four-of-ten customers who were always concerned (and who also missed payment) reported that they missed payments "always" or "often."

- Toledo residents who reported they were either "always" or "often" concerned about whether they would receive their water bill before they could get money to pay it took a variety of actions in an effort to pay their Toledo Water bills. The most common reaction was to either skip payments on other household necessities (*e.g.* food, medications) or to use "other methods" to obtain necessary household items (*e.g.* food banks, credit cards). A second tier of actions involved efforts to increase income, either by trying to find ways to earn money or by borrowing money (from friends, family, bank, payday loans). Few people contacted Toledo Water to ask for an extension of time to pay their bill, and fewer still approached private local social assistance programs (such as the United Way or Salvation Army).

- Amongst the population who reported being frequently (always, often) concerned about having their water bill become overdue before obtaining sufficient funds to pay it, there is a distinct lack of awareness of the variety of programs that are available to help pay bills. By far, the highest percentage of respondents who were always or often concerned reported being aware of *none* of the listed types of assistance. The assistance that generated the greatest awareness was the availability of extended installment payment plans by which to retire arrears.

- By far, Toledo Water customers responding to the Survey said that the assistance that would most help them involves direct financial assistance directed toward their bills. The most frequently desired assistance reported was a bill discount that would more closely match their bills to their incomes. Somewhat after that was a desire for financial assistance to help retire an arrearage that already existed on their bills.

- The inability-to-pay of Toledo Water customers often results in adverse impacts to the households that transcend the nonpayment of their water bill. Survey respondents, for example, report that they reduce their spending on basic household needs in an effort to have enough money to pay their Toledo Water bill.

- Despite reporting that they reduced basic needs spending "always," "often" or "sometimes," these Survey respondents did *not* have a high awareness of the programs and initiatives offered by Toledo Water to help customers pay their water bills. Roughly 60% of the combined group who said they reduced basic needs spending always, often or sometimes said that they were aware of *none* of the Toledo Water programs. Somewhat more customers who reported that they always reduced basic needs spending in order to pay their water bill said they were aware of Toledo Water's installment payment plans, while noticeably fewer said they were aware of Toledo Water's senior (low-income) discount.

- Of the group of Survey respondents who said that they reduced their basic needs spending in order to pay their water bill, there are two sets of programs they say would be of most help to them: rate discounts on the one hand, and everything else on the other hand. Nearly three-quarters of customers who reported that they reduced spending on their basic needs in order to pay their water bill either "always" or "often" said that a rate discount would be the assistance that would most help them. This desire for a rate discount is seen despite the relative lack of awareness of Toledo Water's existing senior (low-income) discount.

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Part 4. Discount Programs by Other Water Utilities

Water utilities around the nation have adopted a variety of low-income assistance programs. This section will consider the structure of income-restricted (*i.e.* low-income) water affordability programs in selected cities. Beyond these particular cities, a separate discussion of water discounts regulated by the California Public Utilities Commission (CPUC) is included.

In addition, a separate discussion of discounts limited to elderly and/or disabled persons is presented. A special section on three utilities who appear to do an exemplary job of providing discounts to tenants of multi-family housing when the tenant is not the direct customer of the water company is provided.

A. INCOME-RESTRICTED WATER DISCOUNTS.

The program of only one water utility –Philadelphia Water Department—has been designed with "affordability" in mind. Most programs are designed to provide some minimum level of assistance to low-income customers. The amount of assistance has not been empirically determined, nor has the impact of such assistance on ability-to-pay, whether measured by payment patterns or by the presence of the paid-but-unaffordable bill, been considered. The low-income rate discounts of illustrative cities are outlined below. These discounts were selected to be illustrative of programs around the nation, rather than to be a comprehensive review of ***all*** discounts.

The discussion below will examine the following income-restricted water discount programs:

1. The Philadelphia Water Department program (called the Tiered Assistance Program, TAP) is considered.

2. Another Pennsylvania program, the Pittsburgh Water and Sewer Authority (PWSA) Bill Discount Program (BDP) will be examined. The PWSA program, though not designed to achieve any level of "affordability," provides more than minimal levels of assistance. Moreover, the BDP in Pittsburgh incorporates some aspects of affordability.

3. Third, the Customer Assistance Program (Austin Texas) is examined. The Austin CAP extends rate assistance not merely to the City's water (wastewater) customers, but to the customers of its municipal electric utility as well.

4. Fourth, the Seattle Public Utilities Discount Program is examined. Seattle offers a discount rate for each of its municipal utilities. This section, however, is limited to the discount for water and wastewater, setting aside the Seattle City Lights (electricity) discount.

5. Finally, the District of Columbia's Customer Assistance Program is examined. DC Water is one of the few water companies that offers a discount not only to residents who are direct customers, but also to residents are tenants who, in turn, either pay for their water as a component of rent or who are billed through a sub-metering system.

Finally, the California Public Utilities Commission (CPUC) has approved low-income assistance programs for a variety of regulated water utilities. The structure of those programs, along with the CPUC's review of program designs, is presented below.

1. Philadelphia Water Department Tiered Assistance Program.

Legislation unanimously adopted by the Philadelphia City Council prescribed a Percentage of Income Plan (PIP) for the Philadelphia Water Department (PWD). The program was legislatively called the Income-Based Water Rate Affordability Program (IWRAP); when implemented, IWRAP became known as the Tiered Assistance Program (TAP).

Philadelphia's IWRAP legislation provides that: "monthly IWRAP bills shall be affordable for low-income households, based on a percentage of the household's income. . ."[84] Each low-

[84] Amended Philadelphia City Code, Section 19-1605(3)(a) (2017).

income customer's bill, the legislation directed, shall be "based upon each Customer's actual income" and "shall be charged in lieu of the Department's service, usage, and stormwater charges."[85] The following major policy decisions were incorporated into this language:

- Bills "shall be affordable." The purpose of the Philadelphia legislation, in other words, was not merely to provide "some" level of discount to low-income customers. There is, instead, a legislatively-mandated outcome. The level of discount must result in an ***affordable*** bill for low-income customers. This policy works two ways. First, if a customer has a lower income (or a higher bill), the amount of assistance should be increased to reflect the increased dollars needed to make a bill affordable. Second, if a customer has an affordable bill without assistance, the customer does not receive a discount merely because he or she is poor. The bill assistance should be an amount that is sufficient, but only that amount which is sufficient, to make a bill affordable.

- Affordability is to be "based on a percentage of the household's income." As can be seen, affordability was not some generic concept included in the legislation. Instead, Philadelphia specifically mandated that affordability was to be determined as a function of a "percentage of income."

- Affordability is to be "based upon each Customer's actual income." According to the Philadelphia City Council affordability was not to be determined "on average" or on a City-wide basis. Affordability could not be set, for example, based on median income. Affordability was not to be based on some estimated or imputed income. Rather, pursuant to the legislation, affordable IWRAP bills in Philadelphia are to be determined based upon "each customer's actual income."

The Philadelphia IWRAP legislation made clear that the difference between bills that would have been charged at standard residential rates and bills actually charged pursuant to the IWRAP legislation was not to be accumulated for subsequent collection from the IWRAP participants. Instead, IWRAP bills were "in lieu of" the water, wastewater and stormwater charges otherwise charged to residential customers.

TAP is offered to five tiers of low-income customers. For customers with income at or below 50% of Poverty, PWD bills are capped at 2% of monthly income; at 51% to100% of Poverty, PWD bills are capped at 2.5% of income, while at 101% to 150% of Poverty, bills are capped at 3%. Customers who have income above 150% of Poverty, and also have a "special hardship" (defined in the local ordinance), receive bills that are capped at 4% of income. Finally, customers with income between 151% and 250% of Poverty are eligible for an "extended payment plan," under which total payments are capped at roughly 4% of income. In addition,

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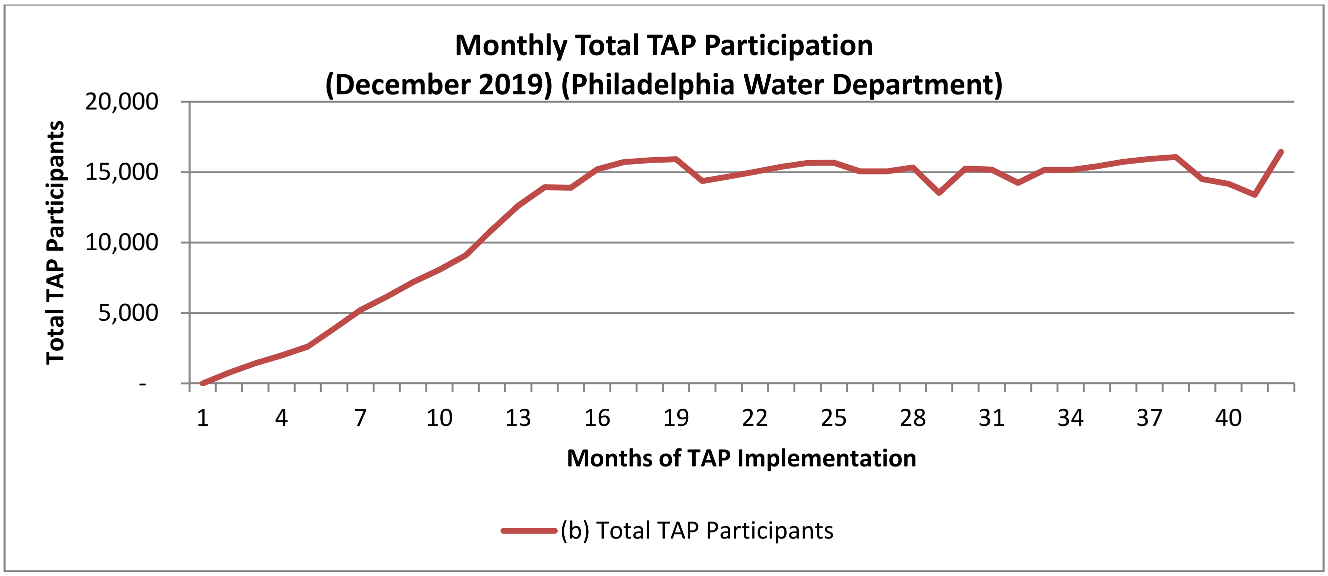
[85] Amended Philadelphia City Code, Section 19-1605(3)(a) (2017).

arrearages that exist at the time someone enrolls in TAP are frozen, and made subject to forgiveness over time as customer payments toward current bills are made.

As of December 2019, there were 15,258 active TAP participants. The participants in the percentage of income component of TAP reached 13,701 as of the end of 2019. Together, these TAP enrollees had approximately $39.7 million in water account arrears at the time of enrollment.



The lost revenue associated with TAP discounts is collected from all remaining PWD ratepayers. Since costs may vary based not only on the number of TAP participants, but on the distribution of TAP participants between income ranges as well, TAP costs are subject to an annual "reconciliation" through a "TAP Rider" reviewed by the Philadelphia Water Board.

2. Pittsburgh Water and Sewer Authority Bill Discount Program (BDP)

The Pittsburgh Water and Sewer Authority (PWSA) is a municipal authority serving the second largest city in Pennsylvania. PWSA implemented a Bill Discount Program (BDP) when the municipal authority became regulated by the Pennsylvania Public Utility Commission (PAPUC) effective in 2018. As of 2021, the BDP serves 4,530 residential customers in the City of Pittsburgh.

While the BDP does not explicitly address whether rates are affordable to low-income customers, PWSA has agreed to incorporate some elements of affordability into its program design. As of August 2021, the BDP provides a 100% reduction of the fixed monthly water and wastewater charges for customers with annual income at or below 150% of the Federal Poverty Level. In addition, the program recognizes the particular problems faced by customers in

Extreme Poverty (*i.e.* below 50% of FPL). Accordingly, PWSA provides an additional 20% reduction in the volumetric charge to those customers in Extreme Poverty. Of the 4,530 program participants, 506 received this additional volumetric discount.

The discount results in a bill reduction of nearly $50 per month. In 2021, while a residential customer would have received a bill of $79.34 a month, the BDP customer would have received a bill of $41.77 per month (a difference of $47.57 per month).

In addition to offering the bill discount, PWSA has begun an "arrearage forgiveness" program. Through that program, income-eligible customers must agree to a reasonable deferred payment plan, through which they will repay their pre-existing arrears existing at the time they enter the program. Program participants receive a $15 bill credit for every "timely" payment which they make.

In a base rate case which PWSA filed with the PAPUC in 2021, PWSA proposed further enhancements to its BDP. According to the utility, PWSA is seeking approval to increase the volumetric discount from 20% to 50% for Bill Discount customers with income at or below 50% of the Federal Poverty Level. In addition, while PWSA proposed to implement a new "stormwater fee" in its 2021 rate case, it also proposed to reduce the stormwater fee by 75% for customers who meet the Bill Discount Program eligibility guidelines. This base rate case is pending before the PAPUC at the time of this Water Affordability Plan.

3. Austin Customer Assistance Program (CAP)

The City of Austin Utilities offers a discount on its municipal utilities to customers with income less than 200% of Federal Poverty Level. In addition to basing discounts directly on income, Austin makes its discount available to any household that currently participates in any one of several public assistance programs: (1) all Medicaid types; (2) Supplemental Nutrition Assistance Program (SNAP) (formerly known as Food Stamps); (3) Children's Health Insurance Program (CHIP); (4) Telephone Lifeline Program; (5) Travis County Comprehensive Energy Assistance Program (CEAP); (6) Medical Assistance Program (MAP); (7) Supplemental Security Income (SSI); or (8) Veteran's Affairs Supportive Housing (VASH).

Austin Utilities provides a waiver of the water service customer charge (along with the corresponding wastewater customer service charge), a "tiered fixed charge" waiver for water; and a Water Volumetric Charge discount (along with a corresponding Wastewater Volumetric Charge Waiver.

In justifying its low-income discount, Austin Utilities noted not only that unaffordable bills resulted in "high stress/anxiety," but that in addition to nonpayment, low-income customers were “suspending basic needs” such a food and medicine. The utility noted, too, that the inability-to-pay municipal utility bills (not distinguishing between municipal water, wastewater and electricity) was resulting in increased “housing instability” for Austin’s low-income residents.

In assessing the need for its CAP, Austin compared “internal utility data” with “external utility data.” It found that there was a substantial overlap between: (1) zip codes with high rates of “nonpayment accounts” and “broken payment arrangements” followed by nonpayment disconnections, and (2) zip codes with high proportions of poverty. Moreover, Austin found that there was a substantial overlap between its “customer contact counts” (by Census Tract) and the zip codes with the highest percentage of Poverty population.

In 2019, Austin Water provided reduced water and wastewater bills to approximately 37,000 low-income customers. Of those, 14,000 recipients were residents of single family homes. The difference (23,000) approximates the number of multifamily accounts that will receive an expanded Austin Water Credit beginning in FY2021. While CAP enrollment has fallen in recent years, the City explains that this decline resulted from a “tightening” of the enrollment process. Customers whose housing structures are valued at $250,000 or more had an enhanced income verification process applied, as did customers who own more than one property. In addition, customers who had been receiving discounts at multiple addresses were identified and removed from the program.

Through the City’s CAP, the City reports, Austin Water “provides waivers for all fixed fees and water and wastewater volume rate discounts for eligible residential CAP customers. This discount provides the average residential CAP customer a 45% discount as compared to regular Non-CAP residential bills.”[86] Overall, in Fiscal Year 2019, Austin Water provided a total of $5,373,762 in assistance to its low-income customers. The discount rates offered by Austin Utilities are funded through a Community Benefit Charge applied to all customer classes served by Austin Utilities. Recipients of the discount are exempt from the Community Benefit Charge.

Austin Water’s program directed toward multifamily customers was approved by City Council in December 2020. The Austin Water multifamily program is discussed in a different section of this report.

[86] Austin Water (May 2021). Austin Water Affordability metrics Report, at 2, available at https://www.austintexas.gov/sites/default/files/files/Water/Rates/AW%20Affordability%20Metric%20Report%202021_FINAL%20PDF.pdf (last accessed August 9, 2021).

4. Seattle Public Utilities Water Discount Program (UDP).

Seattle Public Utilities provides a 50% discount on that city's water and wastewater bills through the Seattle Public Utilities Utility Discount Program (UDP). Seattle established a discount program for water, sewer and solid waste rates for income-qualified elderly customers in 1975. The program was later expanded to include electricity rates (service provided by Seattle City Light).

To be eligible for Seattle's UDP, a household must have income at or below 70% of Washington's State Median Income. From 2002 to 2015, the Seattle program served between 12,000 and 18,000 low-income customers. In 2014, then Mayor Ed Murray announced a goal of doubling enrollment in the UDP—from 14,000 to 28,000—by the end of 2018. By the end of 2015, enrollment had increased to 18,000. By 2016, enrollment had increased to 21,000. In August 2020, nearly 42,000 households were enrolled in the City assistance program. The 2020 enrollment, however, was considered to be a "spike" attributable to the COVID-19 pandemic.

A substantial part of this enrollment increase occurred due to the City's decision to allow "auto-enrollment" of low-income households. In 2015, the City adopted legislation clarifying the authority for the City to work with non-profits and government entities serving UDP-eligible customers to transmit customer eligibility data directly to the City for enrollment purposes. For example, enrollment in the Supplemental Nutrition Assistance Program (SNAP, formerly known as Food Stamps) was deemed sufficient, unto itself, to meet income documentation requirements.

One additional modification considered by many to be an improvement in the Seattle UDP was the 2016 decision to allow tenants of public and assisted housing to participate. In previous years, tenants of the Seattle Housing Authority who would otherwise have been income-eligible to receive discounted bills were kept out of the program. The concern justifying the exclusion was that discounts provided to Housing Authority tenants would benefit the Housing Authority rather than flowing through to tenants. The Housing Authority provided "utility allowances" to help tenants pay their bills. Those utility allowances were delivered by providing a discount on Housing Authority rents. If the UDP were extended to Housing Authority tenants, the concern stated, the tenants would simply see reduced utility allowances (and higher rents) rather than reduced water and sewer bills. City Council approved the change given an agreement between the City and the Housing Authority allowing UDP benefits to be pocketed by tenants.

Seattle delivers assistance not merely to direct utility customers of the Seattle Public Utilities (water and wastewater), but to tenants of multi-family housing as well. As explained in further detail in the section of this report reviewing benefits to multi-family tenants, Seattle delivers assistance by providing a discount on their Seattle City Light bill. For customers billed by Seattle Public Utilities, the UDP reduces their bills by half. Households who do not directly receive a Seattle Public Utilities bill, such as customers living in apartment complexes, but who *do* receive a Seattle City Light bill, and who have utility costs for water and sewer included in their rent, receive a fixed dollar credit to their Seattle City Light bill which *approximates* the 50 percent discount.

5. *District of Columbia Customer Assistance Program (CAP).*

The District of Columbia offers monthly discounts to low-income customers through its Customer Assistance Program (CAP). The low-income CAP is delivered at three tiers. The program for the lowest income provides a discount on the first 400 cubic feet (3,000 gallons) of water and sewer service used each month. Eligible households receive a 75 percent reduction in the monthly CRIAC[87] fee, and a complete waiver of the Water Service Replacement Fee.[88] The CAP discount is approximately $77 a month.

Customers with somewhat higher incomes can participate in the Customer Assistance Program II (CAP2) program. CAP2 provides a discount on the first 300 cubic feet (2,250 gallons) of water and sewer services used each month (with limited exceptions) and a 50 percent reduction in the monthly CRIAC fee. The monthly discount is approximately $50 a month ($550 a year).

Customers at the highest income tier (within the limits of income eligibility) participate in the Customer Assistance Program III (CAP3) program. CAP3 provides a discount of 75 percent off of the monthly CRIAC. The monthly discount is approximately $15 a month ($188 a year).

The maximum income eligibility levels for each CAP tier in D.C. are set forth in the Table below.

[87] The D.C. Department of Energy and the Environment (DOEE) explains the CRIAC: "Over the past 10 years, the Clean Rivers Impervious Area Charge (CRIAC) rates have increased to help pay for a $2.7 billion project to significantly reduce the discharge of raw sewage and stormwater runoff in to the Anacostia and Potomac Rivers and Rock Creek."

[88] In fiscal year 2016, DC Water modified its existing rate structure and implemented a new meter-based Water System Replacement Fee (WSRF) in order to recover the cost of the 1% renewal and replacement program for water service lines. It is anticipated that the new WSRF will generate $40 million per year. The fee is based on meter size and average flow.

Table 45. Maximum Income Eligibility (3-person household) District of Columbia Customer Assistance Program (2021)		
CAP	CAP2	CAP3
$60,698	$90,750	$113,400

The D.C. CAP program was initiated in Fiscal Year 2001 with a discount on water service. It was expanded to include sewer service in January 2009. CAP2 and CAP3 have been more recent additions. In Fiscal Year 2018, DC Water enrolled 2,584 customers in its CAP, while in FY2019, it enrolled 3,294 in CAP. In contrast, in FY2019 (the first year of operation), DC Water enrolled 1,646 customers in its CAP2 program. In contrast, only 27 customers participated in the CAP3 program. A 2019 evaluation of the D.C. low-income programs suggested that DC Water might be well-served to discontinue the CAP3 program and to redirect those funds to providing greater benefits to the lowest income customers in CAP.[89]

6. California Low-Income Water Assistance Programs.

The California Public Utilities Commission (CPUC) has considered, and approved, water affordability programs for a variety of local water utilities over the past 20 years. Not all proposals from water utilities to establish a low-income program have been approved at the time of the initial application. Some applications were initially *dis*approved, with subsequent approvals being granted when appropriate program designs were submitted. In California, Public Utility Code Section 739.8 establishes the general principle that access to safe and affordable water is a basic human right. The code section provides further that the "commission shall consider and may implement programs to provide rate relief for low-income ratepayers" in order to facilitate "access to an adequate supply of healthful water."

The discussion below first examines the CPUC decisions approving the various proposed low-income water assistance programs. It then summarizes the low-income rates as they exist in 2021.

a. Illustrative California Program Designs.

Southern California Water Company (Golden State Water): The Southern California Water Company first filed a proposal for a Low-income Lifeline Rate with the Commission at the order of the CPUC. In a 2000 decision, the CPUC stated that "we are directing SCWC to prepare a lifeline rate plan for Region III to mitigate the effects of high rates on low-income

89 ARCADIS (November 19, 2019). District of Columbia Water and Sewer Authority, Independent Review of Rate Structure and Customer Assistance Programs, at 21.

families." (D.00-06-075). SCWC subsequently submitted a proposal offering all eligible customers a 15% discount on each component of the water bill. SCWC modelled its low-income water lifeline rate after the California Alternative Rates for Energy (CARE) program that the Commission had previously approved for energy utilities.[90] Indeed, SCWC calls its water program the California Alternative Rates for Water (CARW).

SCWC did not view its proposed CARW as an affordability program. Instead, the utility said, the program is "intended to provide *a measure of rate relief* for its low-income customers." (emphasis added). At the time of its approval (2002), SCWC estimated that CARW would yield savings to the average, eligible customer of from \$6 to \$9 each month.

CARW eligibility was set equal to 175% of the Federal Poverty Level, which was a decision that mirrored the California CARE program. All customers on CARW would be required to confirm their income eligibility at least every two years. While CARW was structured to provide eligible customers with a 15% discount on every component of their water bill, including all surcharges, SCWC further proposed that if the CPUC were to raise the CARE discount from 15% to 20% for small energy utilities, it should raise the water discount at the same time.

Since its approval, Southern California Water Company has been renamed the Golden State Water Company. Its program has been renamed the Customer Assistance Program (CAP). Golden State Water, in 2021, provides a flat monthly credit of \$13.10 in its Region 3 and of \$12.10 in its Region 2. Other smaller Golden State Water regions receive differing monthly flat credits.[91]

Park Water Company: Park Water Company proposed a low-income assistance program in 2006. Park Water proposed to deliver rate relief equal to a 25% discount on the service charge for a 5/8" x ¾" meter for eligible customers. Proposed as a California Alternative Rates for Water (CARW) program, Park Water estimated that the proposed discount would deliver assistance of \$3.76 per month. After increasing the discount to \$4.50 per month, the California Commission approved the proposal, stating that the higher discount "represents a more reasonable subsidy amount than that proposed by Park." In 2016, Park Water was acquired by Liberty Utilities. By 2021, the monthly credit had been increased to \$8.17.[92] Customers are income eligible for the Park Water low-income discount if they participate in the local energy utility's low-income CARE program, or if they otherwise document household income of at or below 200% of Poverty. Customers will be automatically income eligible if they document their

[90] SCWC owned an energy utility, the Bear Valley Electric Company, which operated a CARE program.
[91] Golden State Water Company, Revised Tariff Sheet No. 8882-W (Schedule No. LI, Customer Assistance Program, Domestic Service – Single Family Accommodation).
[92] Liberty Utilities (Park Water) Corp., Revised Tariff Sheet 1518-W.

participation in selected public assistance programs (*e.g.* LIHEAP, SSI, National School Lunch, SNAP (Food Stamps)).

San Jose Water Company: In a rate proceeding decided in 2004, the San Jose Water Company adopted a Water Rate Assistance Program (WRAP) for income-eligible customers. While San Jose first proposed a monthly $5.00 discount, the utility ultimately adopted a 15% discount by Settlement of the rate proceeding. That 15% discount remains effective in 2021.[93]

San Gabriel Valley Water Company: San Gabriel Valley Water Company operates a low-income assistance program known as the California Alternative Rates for Water (CARW) program. Through its CARW, San Gabriel Valley provides income-eligible customers a fixed credit of $9.82 per month.[94] Maximum income eligibility is 200% of Federal Poverty Level.

When the SGV low-income program was first approved, San Gabriel offered different methods of rate assistance in the utility's different service territories. In Los Angeles, for example, the discount was 50% of the service charge. In contrast, in Fontana, the discount was a fixed $8.00 monthly credit. Since that time, the programs have been changed to be the same.

San Gabriel Valley offers an example of how the California Commission, despite its support for low-income bill assistance, nonetheless has not approved low-income programs simply because they are offered by a utility. When San Gabriel Valley first proposed a low-income program in 2001, it proposed that qualifying low-income customers would receive a 50% reduction in the monthly service portion of their bills. The utility proposed that income eligibility be set at the same income guidelines used by California's electricity and natural gas utilities for the State's energy CARE program. The utility limited applicability of the low-income program to households residing in permanent single-family accommodations with a one-inch meter or smaller.

The Commission refused to approve the proposal. The Commissions said:

> No testimony articulated the objective of the proposed tariff or stated a rational for selecting the proposed rate design over alternatives. Most notably absent was any description or assessment of the need for this program. All in all, San Gabriel's proposal can best be described as well-intentioned but incomplete.

[93] San Jose Water Company, Revised Tariff Sheet 2112-W (Notice and Application for the Water Rate Assistance Program, WRAP).
[94] San Gabriel Valley Water Company, Revised Tariff Sheet 3115-W.

The Commission found finally that the San Gabriel proposal was not incorporated with other rate design decisions the Company had made.[95]

b. Lessons from a Review of California Program Designs.

Several important lessons can be derived from the discussion of the offer of low-income water assistance by California utilities. First, the California Commission has made clear in its review of proposed water assistance proposals, that a utility should state clearly what objective the low-income rate is designed to accomplish. If the objective is not merely to deliver rate relief, but is also to promote water conservation, for example, the low-income rate should be carefully aligned with the remainder of a utility's rate design as well. Providing a discount equal to all or a portion of a monthly service charge, for example, would generally not align with a conservation incentive. However, if a water utility has a conservation-based inclining block rate structure with which to begin, a discount directed to the fixed monthly service charge may well be appropriate.

From the perspective of Toledo, the California Commission's review of Southern California Water Company's (now Golden State Water) in this regard is important. Unlike Toledo Water, which is seeking to achieve a level of affordability, that California water utility was not. Instead, the utility was seeking only to deliver "a measure of assistance." Defining the objective is important.

Second, no single design of water assistance is "the" correct way to approach low-income rate relief. Even within California, when the low-income rate relief programs are being reviewed by the same regulatory body, different utilities offer different structures of rate relief. One utility offers a discount off 100% of the monthly service charge, while another offers a discount off only a portion of the service charge. Several water companies offer fixed monthly credits (of varying sizes), while other utilities offer a percentage discount off of the total bill. The California water utilities teach that there is no one "correct" approach. There are instead "reasonable" and "unreasonable" approaches.

Third, California teaches that it is beneficial to have a local water utility reflect a rate relief approach that is similar to the rate relief approach offered by the energy (natural gas and electric) utilities serving the same geographic area. Part of the reason for this is to facilitate the administrative processes of identifying low-income customers. A California PUC Staff review of the San Gabriel Valley Water Company's program, for example, reported that "after implementing the data exchange between water and energy industries, enrollment in CARW rose

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[95] I/M/O San Gabriel Valley Water Company Request for Authority to Increase Rates Charged for Water Service in its Los Angeles County Division, Application 01-10-028, Decision 02-10-058 (October 24, 2002).

from 26% of all residential customers to almost a 50% participation rate."[96] Part of this is to defuse any possible confusion amongst potentially eligible customers. Not only is reflecting corresponding energy program design important, but reflecting eligibility guidelines is important as well.

Fourth, while many jurisdictions struggle to define what income results in a finding that any particular household is "low-income," California has made two decisions. On the one hand, low-income status is defined in terms of increments of Federal Poverty Level. Alternative measures such as a percentage of State (or Area) Median Income are not generally used. On the other hand, low-income status is defined to fall at a level of Poverty ranging from 150% to 200%. Not all California water utilities use the *same* maximum income eligibility standard. But none stray from the narrow range of income falling at 150% of Federal Poverty Level to 200% of Poverty Level.

Finally, the California low-income water assistance programs teach the benefits to a utility from relying on external agencies to help identify (and enroll) customers in the program. Enrollment is not undertaken by utility staff. Eligibility is not determined exclusively by utility staff, or by reference to internal utility data. Every California water company that offers low-income rate assistance allows for eligibility to be determined by reference, at least in part, to participation in other public assistance programs. Programs ranging from Free and Reduced School Lunch Programs, the corresponding electric and natural gas CARE (California Alternative Rates for Energy), the federal Supplemental Food Nutrition Program (SNAP, formerly known as Food Stamps), Supplemental Security Income (SSI), and a host of other programs are used to help identify eligible customers.

B. A SELECTION OF SENIOR AND DISABILITY DISCOUNTS.

Water companies around the nation offer a variety of bill discounts based on the customer's status as a "senior" or "disabled" person. Characteristics of these programs vary, including whether (and to what extent) the program is income-restricted; the age at which a person is defined to be a "senior"; the type and amount of bill discount; and what level of disability a customer must demonstrate in order to qualify.

While the details of these senior (and disabled) discounts may differ between specific jurisdictions, any number of similarities do appear. First, jurisdictions that offer senior discounts generally, but not always, *also* offer discounts to persons who are disabled. The programs are generally structured in the alternative. A person must be either a senior *or* disabled (but need not

[96] Kahlon, Truong and Leong (June 2018). *A Case Study of Low-Income Discount Programs for Water Utilities in California*, at 10, California Public Utilities Commission: San Francisco, CA.

be both). The definition of a "senior" falls within a reasonably narrow band, with the lowest age identified in the programs reviewed set at age 60 and the oldest age set at age 65.

Senior and disability discounts are generally also income-restricted. In fact, the income restrictions are often much more stringent than the income restrictions that have been placed on the low-income discounts discussed above. While there are some higher incomes allowed (*e.g.* St. Louis provides for 200% of Poverty, while Cedar Rapids (IA) allows for 150% of Poverty; Salem, Oregon sets its income eligibility equal to 60% of the State Median Income), others are quite low (*e.g.* Ashland, Ohio requires an annual income of less than $12,000).

Disability status has no common definition. Lexington (KY) defines a person as disabled if they receive Social Security Disability (SSD) benefits. Some jurisdictions require that a person must be "fully" disabled, while other jurisdictions require that a person must be "permanently" disabled. Not all customers are provided discounts. Many of the senior and disabled discounts are limited to homeowners,[97] while others are limited to single-family homes. Some jurisdictions (St. Louis, MO; Henderson, NV) require an applicant for the water discount to apply for and be found eligible for the federal fuel assistance program (LIHEAP).

Finally, one jurisdiction imposes a usage restriction as an eligibility standard (Alderwood, Washington), while Ashland, Ohio does not include a usage restriction to be eligible, but instead restricts its discount to a prescribed maximum usage (with any excess over that minimum billed at standard residential rates). Usage restrictions, however, are not common.

[97] What we do *not* know in these jurisdictions, is whether state law might require a property owner to place the water account in the owner's name, so that a tenant would not be in a position to be a water customer.

Table 46. Age and/or Disability-Restricted Water/Wastewater Discounts				
Jurisdiction	Age Restriction	Disability Restriction	Income Qualification	Discount Amount
Atlanta (GA)	At least 65	No	$25,000 or less	30% on water and sewer
Cedar Rapids (IA)	At least 62	Yes (or)	<150 FPL for family of 2	50% of daily service charge
Lexington (KY)	At least 65	Receive SSD (or)	$25,000 or less (adjusted by SSA)	30% of billing amount (or amount of rate for first unit of usage, whichever is greater)
Boston (MA)	Homeowner of at least 65 years[98]	Fully disabled Homeowners (living in one- to four-unit homes)	No	30% discount on water portion of bill.
St. Louis (MO) Sewer	At least 62	Yes (or)	200% FPL (or)[99] (acceptance by energy assistance program, such as LIHEAP)	50% sewer rate reduction
Henderson (NV)	At least 62	Permanently disabled (or)	Enrolled in NV Energy Assistance Program (elderly)	Waive monthly water customer charge and sewer basic service charge
Cleveland (OH)	At least 65	Totally and permanently disabled (or)	Less than $23,340 for 1-person (increasing with larger HH sizes)	40% discount on all standard water charges (quarterly fixed cost recovery charge, consumption charge). Automatically enrolled in NE Ohio Regional District affordability program.
Ashland (OH)	At least 65	No	$12,000 or less	50% discount on bill for 300 CF or less (standard rates for higher use)
Salem (OR)	At least 60 (single family utility accounts)	Yes (or)	60% of Oregon Median Income	60% of wastewater base fee (smaller additional local fee waivers)
Alderwood (WA)	At least 62 (annual use not in excess of 100 CCF)	Permanently disabled (or)	Not to exceed $30,000	Water and sewer bill discounted by 34%

The discounts provided through these senior and disability programs appear to be consistently greater than the California low-income discounts discussed above, but not of the other municipal discounts offered to low-income customers generally (*e.g.* Philadelphia, Pittsburgh, Austin, Seattle). Discounts of 30% to 40% or more of the water (and/or sewer) portions of the bill (depending on the type of utility offering the discount) were not uncommon. Care must be taken in reviewing these discount figures, of course. For example, while Alderwood (WA) offers a discount of 34%, it limits its program to those who have an annual usage of less than 100 CCF. While Ashland (OH) offers a discount of 50%, the discount is applied only to the first 300 CF per month.

[98] Only owner-occupied dwellings are eligible. Does not include condos. Properties held in trust eligible if the applicant is both the trustee and the beneficiary of the trust.
[99] Income for seniors and disabled increased up to 250% of Federal Poverty Level.

The Cleveland program merits particular recognition for its design incorporating collaboration with the local sewer provider. Enrollment in the Cleveland *water* discount automatically results in a customer being enrolled also in the corresponding *wastewater* discount program offered by a different utility.

C. A CAUTION ABOUT "LOW-INCOME DISCOUNTS" BY WATER UTILITIES.

A review of water assistance programs around the nation reveals an important caution to readers interested in studying low-income water rate assistance around the nation. When considering the prevalence of the type and amount of low-income assistance around the nation, it is critical to examine the structure of programs offered in varying jurisdictions more than to examine the name or characterization of such programs. Consider, for example, that the U.S. Environmental Protection Agency (EPA) released a compendium of "Drinking Water and Wastewater Utility Customer Assistance Programs" around the nation in April 2016. EPA's compendium categorized "Customer Assistance Programs" as bill discounts, flexible terms, lifeline rates, temporary assistance, or water efficiency.

Classifications, however, particularly self-classifications, can be misleading. Consider that:

- Huntsville (AL) classified its Project Share as a "bill discount." Project Share, however, is an assistance program administered by the Salvation Army that delivers benefits during the months of January through March. The program dollars, completely funded by community contributions, are distributed not only for water bills, but for gas and electric bills as well.

- Boca Raton (FL) reports that it offers a "bill discount" program. What the Boca Raton program does, however, is to assist eligible homeowners who live in neighborhoods the City determines are affected by the city's septic system connect to the central sewer system. "The funds may be used to pay costs associated with connection to the sewer system, including city impact fees, city special assessment fees, and private plumber sewer system connection fees." Even then, the program does not provide a grant but rather a deferred payment, zero percent interest, loan secured by a mortgage on the property. Loans will be forgiven after the completion of a 7-year term. This program, while unquestionably serving a public need, is perhaps not a "bill discount" program as most readers would imagine the term. (Cape Coral, Florida, has a similar program which it labels a "bill discount" that helps pay the cost of the utility connection, meter installation fee, and septic abandonment permit fee.)

- The City of Miramar (FL) offers its Miramar Assisting Seniors in the Home (MASH) which it cites as a "bill discount." The program, however, offers customers who are facing temporary financial difficulty the ability to create a payment arrangement. To be eligible, customers must be facing a temporary financial difficulty and have demonstrated a good prior payment history.

- Des Moines (IA) cites its Project H2O (Help to Others) as a low-income "bill discount." The program is funded by voluntary contributions and administered by the local community action agency and Salvation Army to provide a grant of up to $125 to help prevent the loss of water service in emergency situations.

- Virginia American Water Company also cites its H2O (Help to Others) program as a "rate discount." The program, administered by a third party (Dollar Energy), offers grants of up to $500 for customers who have received a utility shutoff notice or who have already had their service disconnected for nonpayment. Customers must have made a "sincere effort to pay" (at least $50 on the outstanding water bill in the past 90 days) in order to receive a grant.

Citing each of the utility programs in the discussion above is not intended to denigrate the importance of, or the public purpose served by, any one of these utility programs. The "caution" is simply to be wary of how a water company characterizes its program. What may be seen as a "bill discount" by one water company may well be seen as a temporary emergency crisis grant by another. Programs that offer a one-time emergency grant, conditioned upon there being a need to prevent (or to remediate) a disconnection for nonpayment, or to address an otherwise short-term arrears, do not represent "bill discounts" in what is generally viewed as "bill discounts." Viewers should be careful about reaching conclusions about the prevalence of "bill discounts" amongst water utilities unless and until they have an opportunity to review each program to see what assistance the program does, in fact, offer and under what circumstances.

D. Water Utilities that Deliver Assistance to Multi-Family Residents.

Any number of water utilities provide assistance to residents of multi-family residents. Residents of multi-family dwellings present issues to a water company in two ways: (1) if the residents have water costs included as part of rent; and (2) if residents are sub-metered, a situation where they receive a water bill, but that bill is not rendered by the water company.

Seattle Public Utilities, the provider of city water and wastewater service (contrasted to Seattle City Light, which is the electricity provider), provides a discount to residents of multi-family properties as well. Seattle's provision of a discount is facilitated by the fact that the City provides *both* water/wastewater service *and* electric service. Seattle provides that if a person is a tenant whose Seattle Public Utilities services are paid by a condominium association or by a landlord, the tenant can receive specified credits on their *electric* bill designed to provide water/wastewater assistance.

A similar approach is taken by the City of Austin. Austin also provides both energy and water/wastewater service through city utilities. Austin serves 5,600 multifamily complexes each of which has a single master meter for water. For most of these complexes, Austin Energy meters and bills each multifamily unit separately and provides a CAP discount to qualified customers. For these units, Austin provides a credit on the electric bill designed to provide relief for water and wastewater users. According to the City, implementing this approach will reach over 98% of the multifamily complexes served by Austin Water. As of December 2020, Austin was still working to develop other mechanisms to provide discounts for eligible CAP customers who reside in the remaining complexes. Through its multi-family program, Austin Energy provides a monthly credit of $17, composed of an $11.00 water credit and a $6.00 wastewater credit. At the $17 credit level, providing assistance to multifamily residents is estimated to have an annual cost of approximately $4.7 million.

The City of Columbus (OH) offers one of the most comprehensive discounts for multi-family properties. In Columbus, a master-metered multi-unit property is eligible for a Low-Income Discount if the property owner or agent bills the tenants for water/sewer services (*i.e.* lease states the tenant pays for the water or service services) *and* at least 80% of the units have income levels of at or below 150% of Poverty Level *or* 80% of the units have occupants who participate in designated programs (*e.g.* Food Stamps, Medicaid, LIHEAP, Social Security Disability, subsidized or public housing). In Columbus, if the total multi-unit property is eligible based on these guidelines, the owner/manager obtains the same discount (20% on water and sewer commodity charges) provided to individual customers.

The District of Columbia began operating its Multifamily Assistance Program for Low-Income Multifamily Tenants in February 2021. The intended purpose is to reduce the amount due in rent by the amount due for the tenant's share of the water bill. Through the D.C. program, for each unit where a qualifying tenant resides, DC Water will post a credit to the owner's water service account. The participating owner will then post 90% of the credit to the qualifying tenant's rental account. An owner can decline to participate in the program.

DC Water has identified just over 10,000 potential multifamily and commercial mixed-use accounts with almost 180,000 associated units. DC Water estimates that roughly one-third of these units would meet the income guidelines for an eligible pool of about $16.8 million in assistance.

The California PUC has historically been reticent to provide discounts to multi-family properties with master-metered water/wastewater service. The concern of the CPUC has been that there exists no procedure by which the provider of the discount can ensure that any discount is actually passed through to the non-account-holder. The CPUC notes that, in California, the issue often presents itself in the context of mobile home parks that use sub-metered billing for service provided through a master meter.

In assessing how a water discount of 15% to low-income customers might be appropriately calculated for a master-metered water bill, and how "the mechanics of flowing that discount through on the submeter bills" might operate, the CPUC noted that the same method could be used for water bills that is used to calculate the electric and natural gas CARE (low-income) discount for submetered customers for gas and electricity at mobile home parks (MHP). The CPUC noted that two variables must be established: the number of non-lifeline submeter customers at the MHP, and the number eligible for the lifeline discount. Given this information, the process would work as follows for a 15% bill discount:

> (1) bill the master-metered customers at the usual total volumetric charge and monthly service charge, (2) calculate the average usage per submetered customer, (3) calculate the total discount on the volumetric and service charges for the total of the CARW (water discount) customers in the park, and (4) then subtract the total discount from the master-meter bill. The master-meter customers will then be compelled to bill the CARW customers at a 15% discount from the usual domestic water rate.

The CPUC described this as "a useful model for discounts to submeter water customers. The approach is simple, practical and fair."

Providing water discounts to multifamily users in this fashion, the CPUC said, would also mirror the energy CARE program in other respects. The verification process "requires cooperation between the MHP master-meter customer and [the water company]." Each master-meter customer would:

> need to provide [the water company] with annually verified counts of the number of submeter customers at the MHP who qualify for a lifeline rate discount under the low-income guidelines approved by the Commission. Considering that [the water company] has a customer relationship with the master-meter customers, and not the submeter customers, and that the discounts flow through to benefit the submeter customers, we think annual verification is reasonable.

As the CPUC found with respect to mobile home parks, the structure presented appears to be a "useful model" for discounts provided to master-metered water customers. No reason appears evident that the process articulated by the CPUC is applicable only to sub-metered customers, or only to mobile home parks.

The approaches taken in Columbus (OH) and Washington D.C. appear to be an even more reasonable. The Columbus (OH) approach to providing has the benefit of simplicity. The DC Water approach has the benefit of careful targeting. The Seattle and Austin approaches could be used to the extent that Toledo would have no policy problem with providing benefits applied to non-city-owned electric utilities. Adopting either the Columbus or DC Water model would avoid the need to address that issue.

Part 5. Water Affordability Program Options

A public utility such as Toledo Water has multiple program options through which it can deliver low-income bill assistance. The purpose of the discussion below is to consider the different forms of assistance the City of Toledo might deliver. The discussion below will use local data to assess the advantages and limitations of the various forms. A recommendation based on that discussion will occur in the final section of this Water Affordability Plan.

A. Percentage of Bill Program.

A Percentage of Bill Program is a utility rate which provides a straight percentage discount to income-eligible customers. Toledo Water, for example, currently offers a discount of 15% to income-eligible customers. A 15% discount implies that participants in the Percentage of Bill Program are paying 85% of what the bill would have been at standard residential rates.

A Percentage of Bill Program is often referred to as a "straight" discount because a single discount is offered to participating customers irrespective of the size of the customer's bill or the level of the customer's household income (assuming the customer is, indeed, income-eligible). A program participant with an income of $25,000 and an annual bill of $500 would receive the same discount as a program participant with an income of $10,000 and an annual bill of $800.

1. *The Administrative Advantage of a Percentage of Bill Program.*

Due to the non-changing nature of the discount offered, a Percentage of Bill Program has both advantages and disadvantages. Perhaps the primary advantage is that eligibility for a Percentage of Bill Program presents a yes/no toggle. A customer *is* either income-eligible or is *not* income-eligible. For example, assuming a maximum income eligibility of 150% of Federal Poverty Level, since the discount remains constant, no difference arises between a customer who has an annual income equal to 140% of Poverty Level and a customer who has an annual income equal to 24% of Poverty Level. Each customer receives the same percentage discount off of their bill.

Moreover, the use of a yes/no toggle for determining program eligibility provides easier access to a water discount program. If the only question to be determined is *whether* the customer is income-eligible, use of categorical eligibility (also known as Express Lane Eligibility) is possible. Categorical eligibility involves using participation in one program, with similar income eligibility guidelines, to establish eligibility in the Percentage of Bill Program. Consider:

- Assuming a maximum income eligibility of 150% for the Water Affordability Program, for example, participation in Food Stamps (which has a maximum income eligibility of 130% of Poverty Level) could automatically qualify a customer for the Percentage of Bill Program. The customer would need only document receipt of Food Stamps without need for establishing the *exact* level of household income.

- In the alternative, if the maximum income eligibility for the Water Affordability Program was 200% of Poverty, a customer could establish the household's eligibility by demonstrating receipt of federal energy assistance (known as the Low-Income Home Energy Assistance Program, LIHEAP), which has a maximum income eligibility in Ohio of 175% of Poverty Level.

In either instance, eligibility to receive the one benefit would necessarily establish eligibility to receive the Percentage of Bill Program discount.

2. *The Substantive Disadvantage of a Percentage of Bill Discount.*

Despite the administrative advantages of enrolling customers into a Water Affordability Program operated as a Percentage of Bill Program, there are distinct substantive disadvantages. A Percentage of Bill Program does not result in a distribution of resources based on need. A customer with an extremely low-income receives the same percentage discount as a customer with a moderately higher income. Even when both customers are income-eligible, the lower-income customer may well be found to have a greater need. Similarly, a customer with a higher bill (whether due to a larger family, or some other reason) would receive the same discount as a customer with a lower bill. Even when both customers are income-eligible, the higher-use customer may well be found to have a greater need.

In each of these situations, it is likely that the customer with the greater need is being under-paid through a Percentage of Bill Program, while the customer with the lesser need is being over-paid. It is easier to determine that the customers are eligible for the program, but once in the program, the customers are not receiving the assistance that is required to achieve affordability.

Even when utilities seek to address this issue of matching assistance to need by targeting Percentage of Bill Program discounts to an "average" (or "typical") customer, over- and under-payment will occur. A customer would consume at a utility's average residential consumption only by happen chance. Because discounts are based on average consumption, in nearly every case, low-income customers will receive either more benefits than are needed to reduce their expenditure to an affordable burden or fewer benefits than are needed.

And this result does not even consider the fact that average consumption is combined with the use of the mid-point of an income range in targeting assistance.[100] Even if a customer consumes exactly at a company's average, unless that customer *also* has annual income exactly at the mid-point of the income bracket for which the discount is established, a Percentage of Bill Program discount will give the customer either "too much" or "too little."

The response to this, of course, is that, setting aside whether the discount is *exactly* correct in its reduction of water burdens to an affordable level, in *every* case, the customer is likely to be *better off* than had the customer received no discount at all. The adage that it is better to be approximately correct than precisely wrong informs this observation. Even if the lowest income customers do not have their water burdens reduced to exactly four percent (4%), paying eight percent (8%) with the discount leaves the customer better off than paying 20% without the discount.

3. *Examining Mis-Targeting in a Toledo Water Program.*

As a matter of program design, a Percentage of Bill Program would achieve affordable water bills for few Toledo households. A Percentage of Bill Program would generate a bill that is 4% of income only in the rare instance when a household:

- has an income equal precisely equivalent to the fictional average income for the City; *and*
- has a water bill equal to the average city-wide water bill.

[100] See, note 102, infra, and accompanying text.

For bills to meet an affordability criterion of 4% of income, *both* of these factors must be met.[101] As documented by the discussion below, however, this rarely occurs. As a result, a Percentage of Bill program would over-pay many Toledo residents while significantly under-paying many others, with the result being that the majority of the benefits delivered represent an ineffective and inefficient use of ratepayer funds. In addition, a Percentage of Bill program would redistribute benefits from lower income Toledo neighborhoods to higher income neighborhoods.

Assessing this impact can be based upon actual Census data for the analysis. As with above, average bills are calculated based on the 2019 Toledo Water rate structure and a water consumption of 55 gallons per person (using the average household size for each Census Tract in the City). The examination begins with bill burdens at no discounts. It then assesses the impact in each City Council district by applying an across-the-board discount beginning at 15%, and increasing in 15% increments (*e.g.* 15%, 30%, 45%) to a maximum discount of 75%. At each level of discount, water burdens are determined by City Council district and incomes at differing levels of Federal Poverty Level.[102] The results are set forth in the Table below. As was noted above, given the manner of calculating average water bills (*i.e.* water usage per person times average household size), water burdens in this analysis do not substantially vary between City Council districts.

The Table demonstrates why it is difficult to seek to achieve an affordable water bill through application of a Percentage of Bill Program. As can be seen, a 15% discount will, on average, reduce Toledo Water bills to an affordable percentage of income for households with annual income between 100% and 150% of Poverty Level. A 15% discount reduces burdens to a narrow band around roughly 3.5% of income for households with income at 125% to 150% of income, and a narrow band slightly exceeding 4% of income for households with income between 100% and 125% of Poverty.

[101] It matters not what percentage of income is defined to be "affordable." The same results appertain whether affordability is set at any specific percentage of income.

[102] Incomes for each range of Poverty Level are set at the mid-point of the range. For the range of 50% to 100% of Poverty Level, for example, the income is set at 75% of Poverty. For the range of 125% to 150% of Poverty, the income is set at 137% of Poverty. The exception is the range below 50% of Poverty. Experience counsels that setting an income for that range at 25% tends to under-state income. Income for the below 50% of Poverty Level is thus set at 40% of Poverty.

Table 47. Burdens by City Council District at Differing Percentage Discounts

City Council District and Ratio of Income to Poverty Level	Level of Toledo Water Discount					
<50% FPL	0% Discount	15% Discount	30% Discount	45% Discount	60% Discount	75% Discount
1	14.0%	11.9%	9.8%	7.7%	5.6%	3.5%
2	14.3%	12.2%	10.0%	7.9%	5.7%	3.6%
3	13.7%	11.7%	9.6%	7.5%	5.5%	3.4%
4	14.1%	12.0%	9.9%	7.8%	5.6%	3.5%
5	14.2%	12.1%	10.0%	7.8%	5.7%	3.6%
6	13.9%	11.8%	9.7%	7.6%	5.5%	3.5%
City average	14.0%	11.9%	9.8%	7.7%	5.6%	3.5%
50-100% FPL	0% Discount	15% Discount	30% Discount	45% Discount	60% Discount	75% Discount
1	7.5%	6.3%	5.2%	4.1%	3.0%	1.9%
2	7.6%	6.5%	5.3%	4.2%	3.1%	1.9%
3	7.3%	6.2%	5.1%	4.0%	2.9%	1.8%
4	7.5%	6.4%	5.3%	4.1%	3.0%	1.9%
5	7.6%	6.4%	5.3%	4.2%	3.0%	1.9%
6	7.4%	6.3%	5.2%	4.1%	3.0%	1.8%
City average	7.5%	6.4%	5.2%	4.1%	3.0%	1.9%
100-124% FPL	0% Discount	15% Discount	30% Discount	45% Discount	60% Discount	75% Discount
1	5.0%	4.2%	3.5%	2.7%	2.0%	1.2%
2	5.1%	4.3%	3.6%	2.8%	2.0%	1.3%
3	4.9%	4.2%	3.4%	2.7%	2.0%	1.2%
4	5.0%	4.3%	3.5%	2.8%	2.0%	1.3%
5	5.1%	4.3%	3.6%	2.8%	2.0%	1.3%
6	5.0%	4.2%	3.5%	2.7%	2.0%	1.2%
City average	5.0%	4.3%	3.5%	2.8%	2.0%	1.3%
125-150% FPL	0% Discount	15% Discount	30% Discount	45% Discount	60% Discount	75% Discount
1	4.1%	3.5%	2.9%	2.2%	1.6%	1.0%
2	4.2%	3.5%	2.9%	2.3%	1.7%	1.0%
3	4.0%	3.4%	2.8%	2.2%	1.6%	1.0%
4	4.1%	3.5%	2.9%	2.3%	1.6%	1.0%
5	4.2%	3.5%	2.9%	2.3%	1.7%	1.0%
6	4.0%	3.4%	2.8%	2.2%	1.6%	1.0%
City average	4.1%	3.5%	2.9%	2.3%	1.6%	1.0%

In contrast, however, a 15% discount does not achieve affordability objectives for households with income less than 100% of Poverty. For households with annual income at 50% to 100% of Poverty, a 45% discount would be required to reduce burdens (on average) to roughly 4% of income. Providing a 45% discount, however, would continue to under-pay households with income less than 50% of Poverty. The Toledo Water burdens at this Poverty Level would continue to approach 8%. At the same time, providing a 45% discount would begin to substantially over-pay households at 100% to 150% of Poverty. A 45% discount, for example, would reduce Toledo Water burdens to just over 2% for households with income between 125% and 150% of Poverty.

It is not possible to achieve an affordability objective of 4% of income for households with income less than 50% of Poverty without substantial Toledo Water discounts, if across-the-board discounts are being used as the affordability mechanism. A 75% discount, for example, would result in Toledo Water burdens in a narrow band around 3.5% for the below-50% of Poverty population.

To the extent that an across-the-board discount can achieve affordability for this lowest range of Poverty Level, households at the higher income levels, even though "low-income," will receive a greater discount than is needed to achieve affordability for them. Modifying a potential discount in 1% increments (rather than the 15% increments presented in the Table above) reveals that a discount of 71% or 72% is required to achieve an affordability objective for Toledo Water customers with income less than 50% of Poverty. The impacts on Toledo Water burdens for other income ranges are set forth in the Table below. While an affordable burden for the below 50% of Poverty Level (*i.e.* a burden of between 3.9% and 4.1%), the over-payment of every other income range is evident, as demonstrated by their burdens substantially below the 4% marker.

Table 48. Impact on Toledo Water Burdens by Federal Poverty Level
(Citywide average of Toledo Census Tracts)
Given Discounts Achieving 4% Burden for Below 50% of Poverty Population

Ratio of Income to Federal Poverty Level	Levels of Toledo Water Discount		
	0%	71%	72%
<50% FPL	14.0%	4.1%	3.9%
50 – 100% FPL	7.5%	2.2%	2.1%
100 – 124% FPL	5.0%	1.5%	1.4%
125 – 150% FPL	4.1%	1.2%	1.1%

The problem of using an across-the-board discount becomes more acute if one uses an average income across all affected Poverty ranges rather than a separate income for each Poverty range. The data set forth in the Table below considers affordability discounts as applied to a weighted average income for households with annual income at or below 150% of Poverty. In this analysis, the water burden is calculated using the following ratio: the numerator remains the Toledo Water bill (determined based on household size and usage per person); the denominator is the weighted average income of households with income below 150% of Poverty.

Using this weighted average income would indicate that a Toledo Water discount of somewhat less than 45% would achieve, on average, a water burden of 4%. From the Table above, however, we know that, in reality, a 45% discount results in an affordable water burden only for households with income between 50% and 100% of Poverty. A 45% discount substantially over-pays customers with income greater than 100% of Poverty, while it substantially under-pays customers with income less than 50% of Poverty Level.

Table 49. Average Burden by City Council District
Using Average Income Across All Relevant Poverty Ranges (0 – 150% of Poverty)

City Council District	Average of Avg Burden <150 FPL	Average of 15% disc	Average of 30% disc	Average of 45% disc	Average of 60% disc	Average of 75% disc
1	7.1%	6.1%	5.0%	3.9%	2.9%	1.8%
2	6.8%	5.7%	4.7%	3.7%	2.7%	1.7%
3	6.6%	5.6%	4.6%	3.6%	2.6%	1.7%
4	8.0%	6.8%	5.6%	4.4%	3.2%	2.0%
5	7.1%	6.0%	5.0%	3.9%	2.8%	1.8%
6	6.5%	5.5%	4.5%	3.6%	2.6%	1.6%
Grand Total	7.1%	6.0%	5.0%	3.9%	2.8%	1.8%

The conclusion need not be that the use of Percentage of Bill Program is per se inappropriate for Toledo Water. The divergence of income between areas within the City, along with the divergence of water bills within different areas of the City, simply shows that such a program would, if it was designed not to overpay at higher incomes or lower water bills, continue to provide unaffordable bills to a substantial proportion of the low-income residents of the City. In contrast, if the program is designed not to underpay at lower incomes or higher water bills, the program would provide assistance to a substantial number of customers who do not need such assistance or would provide greater assistance than is needed by those customers. The instances where the Percentage of Bill Program provides the amount of assistance needed, but only the amount needed, to achieve affordability would be limited. What the City "buys" with this mis-targeting, however, is the ability to enroll low-income customers more easily and with greater certainty into a low-income affordability program. By providing an across-the-board discount, Toledo Water needs to know only whether a customer has income at or below 150% of Poverty. The question of how _much_ below Poverty an income is does not present itself. The discussion above supports the conclusion that there is a cost, either in over-payment or under-payment, to use of such a simplified system.

4. A Minor Modification to a Percentage of Bill Program.

Having noted the cost of over-payment and under-payment, one alternative to the use of an across-the-board discount, which would mitigate though not completely eliminate these costs, presents itself in the Tables above. Rather than using a single across-the-board discount, Toledo Water could instead adopt a Tiered Discount Program. Through a Tiered Discount Program, Toledo Water could divide its low-income population into the four income tiers studied above (differentiated by ranges of the Federal Poverty Level). _*Different*_ discounts would then be offered to the different income tiers. Based on Table 47 above, for example, a Tiered Discount Program would provide a discount of 71% to households with income below 50% of Poverty; a discount of 45% to households with income between 50% and 100% of Poverty; and a discount of 15% to households with income between 100% and 150% of Poverty.

A Tiered Discount Program would not completely eliminate the mis-targeting of benefits. Such a program is still based on average incomes (within each tier) and calculated usage (and thus calculated bills). Nonetheless, a Tiered Discount Program addresses the primary mis-targeting shortcomings of an across-the-board discount by differentiating the discount provided in order to approximate an affordable Toledo Water burden.

Moving to a Tiered Discount Program, however, eliminates the primary administrative advantage of a Percentage of Bill Program. No longer is program eligibility a yes/no toggle. In order to deliver benefits through a Tiered Discount Program, one needs to know not simply that someone is income-eligible, but needs to know, also, what income the program participant is. Which discount tier is applied to a participant's bill depends on what level of income the participant has.

5. An Important Side Lesson from the Examination of the Percentage of Bill Program.

One important limitation on a Toledo Water affordability program can be derived from the examination of bill burdens given differing discounts at different ranges of the Federal Poverty Level. Table 47 above shows bill burdens both without a discount and with alternative levels of escalating discounts. The Table makes clear, however, that Toledo Water bills for customers in the range of 125% to 150% of Poverty are at (or approaching) the affordable 4% percentage of income even without a discount.

Without dwelling on the technicalities of the calculation, this is one instance where a review of the calculation is merited. In calculating burdens for the differing ranges of Poverty Level, incomes are set at the mid-point of the range. Income for the range of 125% to 150% of Poverty Level range, for example, is set at 137.5% of Poverty. If a burden was calculated using the maximum income in that range, the burdens expressed in the Table for that income range would be even lower than reported in the Table.

The lesson to be gleaned from Table 47 is that, so long as Toledo Water seeks to measure the need for assistance by reference to an affordable percentage of income, expanding income eligibility for an affordability program beyond 150% of Poverty will offer an illusory expansion of the program's scope. The current data appears to demonstrate that Toledo Water bills for households with income exceeding 150% of Poverty are affordable without further assistance provided at ratepayer expense. This is the reason that while income at or below 200% of Poverty may well still be considered "low-income," the program is designed to direct benefits to customers with income at or below 150% of Poverty.

B. FIXED DOLLAR DISCOUNT.

A Fixed Dollar Discount operates by providing a prescribed bill credit to low-income customers on their monthly bills. A Fixed Dollar Discount takes one more step away from achieving an affordability objective by further separating the calculation of the discount from the level of a bill. With a Percentage of Bill program, for example, while the percentage discount does not vary with a customer's income (unless a Tiered Discount Program is adopted), the program does operate such that to the extent that a customer's bill increases, the dollar amount of the discount will increase as well (even if the percentage of discount remains the same).

To illustrate in simplified terms, a 45% discount on a $100 bill is greater than a 45% discount on a $50 bill, but is lower than a 45% discount on a $150 bill. In contrast, a Fixed Dollar Discount of $25 per month would remain the same whether the underlying monthly bill is $50, or $100, or $150. An assessment of the affordability impacts of a Fixed Dollar Discount program is presented in the Table below. Toledo Water burdens are calculated without a discount. They are then recalculated with credits that are increased in $15 monthly increments. Four levels of monthly credits are considered ($15, $30, $45, $60).

Table 50. Burdens by City Council District at Differing Fixed Dollar Credit

City Council District and Ratio of Income to Poverty Level	Level of Toledo Water Fixed Dollar Credit				
<50% FPL	$0 Credit	$15 Credit	$30 Credit	$45 Credit	$60 Credit
1	14.0%	11.5%	9.0%	6.5%	4.0%
2	14.3%	11.8%	9.2%	6.7%	4.2%
3	13.7%	11.4%	9.0%	6.6%	4.3%
4	14.1%	11.6%	9.0%	6.5%	3.9%
5	14.2%	11.7%	9.2%	6.65	4.1%
6	13.9%	11.4%	9.0%	6.6%	4.2%
City average	14.0%	11.6%	9.1%	6.6%	4.1%
50-100% FPL	$0 Credit	$15 Credit	$30 Credit	$45 Credit	$60 Credit
1	7.5%	6.1%	4.8%	3.5%	2.2%
2	7.6%	6.3%	4.9%	3.6%	2.2%
3	7.3%	6.1%	4.8%	3.5%	2.3%
4	7.5%	6.2%	4.8%	3.4%	2.1%
5	7.6%	6.2%	4.9%	3.5%	2.2%
6	7.4%	6.1%	4.8%	3.5%	2.2%
City average	7.5%	6.2%	4.8%	3.5%	2.2%
100-124% FPL	$0 Credit	$15 Credit	$30 Credit	$45 Credit	$60 Credit
1	5.0%	4.1%	3.2%	2.3%	1.4%
2	5.1%	4.2%	3.3%	2.4%	1.5%
3	4.9%	4.1%	3.2%	2.4%	1.5%
4	5.0%	4.1%	3.2%	2.3%	1.4%
5	5.1%	4.2%	3.3%	2.4%	1.5%
6	5.0%	4.1%	3.2%	2.4%	1.5%
City average	5.0%	4.1%	3.2%	2.4%	1.5%
125-150% FPL	$0 Credit	$15 Credit	$30 Credit	$45 Credit	$60 Credit
1	4.1%	3.4%	2.6%	1.9%	1.2%
2	4.2%	3.4%	2.7%	2.0%	1.2%
3	4.0%	3.3%	2.6%	1.9%	1.2%
4	4.1%	3.4%	2.6%	1.9%	1.1%
5	4.2%	3.4%	2.7%	1.9%	1.2%
6	4.0%	3.3%	2.6%	1.9%	1.2%
City average	4.1%	3.4%	2.7%	1.9%	1.2%

The impact of a Fixed Dollar Discount Program on Toledo Water affordability largely mirrors the impact of a Percentage of Bill Program. The Table above presents the data. A fixed dollar credit on a monthly Toledo Water bill:

- would result in a substantial underpayment for customers with the lowest incomes if affordability is measured by the higher Poverty Level ranges. A monthly credit of $15 would result in affordable bills for customers with income at 100% to 150% of Poverty. That $15 credit, however, would leave bill burdens approaching 12% for those with income below 50% of Poverty. They would leave bill burdens exceeding 6% of income for customers with income between 50% and 100% of Poverty.

- would result in a substantial overpayment for customers with incomes in the higher ranges of Poverty (recognizing that all customers considered are "low-income") if credits are targeted to customers at the lower Poverty Levels. A monthly bill credit approaching $45 would yield an affordable burden for customers with income between 50% and 100% of Poverty. A $45 monthly credit, however, would generate bill burdens of less than 2.5% for customers with income between 100% and 125% of Poverty, and less than 2.0% for customers with income between 125% and 150% of Poverty.

- would result in substantial overpayment for all customers with incomes above 50% of Poverty if credits are targeted to achieve affordability for that lowest Poverty range. A monthly bill credit of $60 would be required to achieve an affordable burden for the below 50% of Poverty population. That level of bill credit, however, generates bill burdens of roughly 2% of income for customers with income between 50% and 100% of Poverty, and bill burdens substantially below 2% of income for customers with income above 100% of Poverty.

As with a Percentage of Bill program, a Fixed Dollar Discount need not necessarily depend on a single level of bill credit to operate. Just as percentage discounts could be "tiered" for customers with income at differing Poverty Levels, fixed credits could be tiered as well. A tiered Fixed Dollar Discount, for example, might offer monthly credits of $60 for customers with income below 50% of Poverty; of $40 for customers with income between 50% and 100% of Poverty; and of $15 for customers with income at or above 100% of Poverty.

C. PERCENTAGE OF INCOME PLANS.

A Percentage of Income Plan (PIP) is sometimes referred to as a "fixed payment" low-income assistance program. Under a PIP, bills are capped at an affordable percentage of income. Rather than defining a specific low-income population by setting a maximum income-eligibility for providing a prescribed amount of assistance, a PIP seeks to identify that population of low-income customers in need and then seeks to tailor the amount of assistance to resolving that need. Unlike a Percentage of Bill Program, where the percentage discount remains the same irrespective of whether a household's income is low, average or high (within the definition of "low-income"), and irrespective of whether a household's bill is low, average, or high, a Percentage of Income Plan varies the level of benefits provided to a customer based on whether greater or lesser benefits are needed in order for the customer to be able to sustainably make bill payments.

Generally, customers enrolled in a PIP agree to make monthly payments based on household family size and gross income. These regular monthly payments, which may be for an amount that is less than the current bill, are made in exchange for continued provision of utility service.[103]

1. The Principle Underlying a PIP.

The fundamental principle underlying a PIP is that bills which have been set at an affordable percentage of income are more likely to be sustainably payable by the customer receiving the bill. The principle underlying a PIP was perhaps best articulated more than 30 years ago, when the Pennsylvania Public Utility Commission (PUC) directed Columbia Gas to begin a pilot Energy Assistance Program (EAP).[104] The PUC approved the EAP, stating:

> We, in conjunction with utilities, and social service agencies, have all worked hard to devise ways to [e]nsure that low-income Pennsylvanians have utility services which really are necessities of life as the tragic fire deaths associated with the loss of utility service underlined. . .
>
> However, for the poorest households with income considerably below the poverty line, existing initiatives do not enable these customers to pay their bills in full and to keep their service. . .Consequently, to address realistically these customers' problems and to stop repeating a wasteful cycle of consecutive, unrealistic payment agreements that cannot be kept, despite the best of intentions, followed by service termination, then restoration, and then more unrealistic agreements, we believe that new approaches like. . .the [Office of Consumer Advocate's] proposed EAP program should be tried.[105]

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[103] Pennsylvania Public Utility Commission, *Policy Statement on Customer Assistance Programs (CAP)*, Docket No. M-00920345, at 2 (July 2, 1992).
[104] Pennsylvania Public Utility Commission v. Columbia Gas of Pennsylvania, R-891468, Final Order, at 150 – 160 (September 19, 1990). (hereafter Columbia Gas EAP Order).
[105] Id., at 159.

Based on this analysis, the Commission directed Columbia Gas to begin a 1,000 customer pilot EAP.

Only two years after initiating the Columbia Gas pilot, the Pennsylvania PUC expanded the use of universal service programs to the state's other natural gas and energy utilities. Consistent with its view of the function of such programs as expressed in the early Columbia Gas decision, the policy decision of the Commission was that low-income rate affordability programs were a necessary tool for utilities to use in combating the problem of nonpayment. Indeed, the decision to implement what would become known as Pennsylvania's Customer Assistance Programs (CAPs) arose out of the PUC's investigation into the control of uncollectible accounts.[106] Through that investigation, the Pennsylvania PUC concluded that "as a result of our investigation, the Commission believes that an appropriately designed and well implemented CAP, as an integrated part of a company's rate structure, is in the public interest. . .These guidelines prescribe a model CAP which is designed to be a more cost-effective approach for dealing with issues of customer inability-to-pay than are traditional collection methods."

2. *The Benefits Arising from a PIP.*

While not well-studied in the water industry, PIPs have been in operation sufficiently long in the energy industry to have generated empirical evaluations. The New Jersey Board of Public Utilities (BPU), for example, adopted a PIP when it promulgated New Jersey's Universal Service Fund (USF). The BPU subsequently retained a New Jersey-based firm (APPRISE, Inc.) to evaluate the impacts of that program.

The New Jersey evaluation expressly found that increasing the percentage of income burdens charged to USF participants had an adverse impact on the ability of USF participants to maintain payment compliance under the program.[107] As the evaluation noted, "more than 80% of households with a [net energy burden] below 3 percent covered 100 percent or more of their annual bill. Less than 60 percent of households with a [net energy burden] at or above 8 percent covered 100 percent of their annual bill." Indeed, while 25.6% of the participants with net energy burdens exceeding 8% of income paid between 50% and 90% of their bill, only 6.0% of households with energy burdens of between 2% and 3% had coverage rates that low.

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[106] In the Matter of the Investigation into the Control of Uncollectible Accounts, Docket No. I-900002 (initiated October 11, 1990).

[107] Apprise, Inc. (2006). *Impact Evaluation and Concurrent Process Evaluation of the New Jersey Universal Service Fund*, prepared for the New Jersey Board of Public Utilities, Apprise, Inc.: Princeton (NJ).

Table 51. Distribution of Effective Coverage Rate by Net Energy Burden New Jersey Universal Service Fund (USF)				
Net Energy Burden	Coverage Rate			
	<50%	50% - <90%	90% - <100%	100% or more
Less than 2%	0.0%	2.7%	5.3%	92.0%
2% - 3%	0.0%	6.0%	11.5%	82.5%
3% - 4%	0.0%	10.0%	13.2%	76.9%
4% - 6%	0.0%	11.6%	16.6%	71.6%
6% - 8%	0.4%	16.6%	17.4%	65.5%
Over 8%	1.0%	25.6%	16.1%	57.4%

This same experience was documented to arise as a result of the Philadelphia Water Department (PWD) program as well.[108] One expected impact of PWD's low-income TAP was to help the Philadelphia water utility improve the collectability of its billed revenue. Historically, while PWD tracked the collectability of its billed revenues for customers as a whole, it did not track the collectability of residential bills in general, let alone the collectability of low-income residential bills in particular. With the adoption of TAP, however, PWD began to track such data.

A 2021 analysis of the PWD program found that the amount of the TAP discount for FY18, FY19, and FY20 ranged from roughly $3.1 million in the first year of TAP (FY18) to nearly $9.9 million in the third year of the program (FY20). The amount of discount substantially increased in FY19 and FY20 due to an increase in TAP enrollment.

Table 52. PWD TAP Discounts by Fiscal Year			
	Total Discounted Bills	Total Undiscounted Bills	Amount of Discount
FY20	$5,977,181.32	$15,850,317.25	$9,873,135.93
FY19	$5,668,382.88	$15,440,890.43	$9,772,507.55
FY18	$1,673,117.68	$4,818,597.63	$3,145,479.95

[108] Colton (March 2021). *The Impact of Philadelphia's Tiered Assistance Program (TAP) for Water/Wastewater Bills on Low-Income Payment Patterns*, prepared for Philadelphia Public Advocate for presentation to Philadelphia Water Board, City of Philadelphia.

Assessing PWD's *net* collections involved comparing what PWD actually collected to what it would have collected without the discount. PWD reported the collection rate both for TAP participants and for TAP-eligible non-participants. The subsequent evaluation examined collectability at the 24-month mark (2-years). Two years of collectability data (for both FY18 and FY19) were available.[109]

A review of TAP first examined the collectability of revenue to TAP-eligible non-participants for the same Fiscal Year in which the revenue was first billed.[110] If revenue is billed in FY18, for example, the collectability of that revenue is tracked for the 24 months subsequent to the month of FY18 in which the revenue was billed.

Table 53. Collectability with and without TAP at 24-Month Mark

	With TAP			Without TAP			
	Total Bill	Collection Rate	Dollars Collected	Total Bill	Collection Rate (same FY)	Dollars Collected	Reduced Collections
FY19	$5,668,383	87.89%	$4,981,942	$15,440,89	52.59%	$8,120,364	$3,138,423
FY18	$1,673,118	95.70%	$1,601,174	$4,818,597	39.77%	$1,916,356	$315,183

In FY2018, TAP participants received a discounted bill of $1,673,117.68. PWD collected 95.70% of those billed dollars ($1.60 million). For dollars billed to low-income TAP non-participants in FY18, however, PWD had a collection rate of only 39.77%. Had TAP participants been billed at standard residential rates ($4,818,597.33), and collected at the same rate as low-income TAP non-participants, PWD would have collected only $1,916,356.16 in cash. In FY18, in other words, while PWD provided a discount of $3,145,499.95, it collected only $315,182.54 fewer dollars in cash.

The same result can be seen in Fiscal Year 2019.[111] PWD provided a discounted bill of $5,668,382.88 to TAP participants. It had a collectability rate of 87.89% at the two year (24-month) mark, meaning that it had collected $4,981,941.71 in actual revenue. In contrast, if PWD would have billed at standard residential rates ($15,440,890.43) and collected at the same rate as low-income TAP non-participants, it would have collected $8,120,364.28 in cash. In FY19, therefore, while PWD provided a discount of $9,772,507.55, it collected only $3,138,422.56 fewer dollars.

[109] For FY20, there is only one year of collections. For FY2017 and before, there was no TAP program.
[110] PWD operates on a July through June Fiscal Year. Fiscal Year 2018, therefore, is July 2017 through June 2018.
[111] Fiscal Year 2020 cannot be used since two years of collections have not yet elapsed since bills were first issued.

A second metric by which the outcomes of PWD's low-income TAP were assessed examined the extent to which, if at all, PWD received more timely payments. Looking at the question of bill payment timeliness for TAP participants involved an examination of the percentage of bills paid at different points in time. Since TAP data is available for two Fiscal Years (2018, 2019), the two measurement points were: (1) 12-months; and (2) 24-months. The comparisons examined TAP participants (who, by definition, are low-income) and low-income TAP non-participants.

Philadelphia Water's TAP resulted in a substantial improvement in the timeliness of payments by TAP participants in comparison to low-income TAP non-participants.[112] A consistency in the improved timeliness of payments by TAP participants is seen at both the 12-month and 24-month mark. For all three years, at the 12-month mark, TAP participants out-performed the non-TAP low-income (non-TAP LI) customers by 35% to nearly 50%. The proportion of bill paid by TAP participants at the 12-month mark in FY18, for example, was more than 47% higher than the proportion of bill paid by low-income TAP non-participants (74.51% vs. 27.22% at the same mark). The proportion of bill paid by TAP participants at the 12-month mark in FY20 (72.82%) was 35% higher than the proportion of bill paid by low-income TAP non-participants (72.82% vs. 38.14%) at 12-months.

The improved timeliness of payments expanded through the second year of collections. In FY19, for example, while 87.90% of TAP participant bills had been paid by the 24-month mark, only 52.59% of low-income TAP non-participant bills had been. An even greater performance difference can be seen in FY18, with the TAP participant payment of 95.73% by Month-24 being more than 61% higher than the low-income TAP non-participant performance (34.30%).

Table 54. Timeliness of Bill Payment (TAP and Non-TAP Low-Income [LI])

	Percent Paid in 0 – 12 Months		Percent Paid in 0 – 24 Months	
	TAP	Non-TAP LI	TAP	Non-TAP LI
FY20	72.82%	38.14%	N/A[113]	N/A
FY19	72.17%	33.38%	87.90%	52.59%
FY18	74.51%	27.22%	95.73%	34.30%

Experience both in the energy industry and in the water industry counsels that implementation of a PIP will, by increasing the affordability of the underlying bill burdens, also improve the collection of revenue from low-income customers.

[112] The years of comparison in the Table below are FY18 (the first year of TAP operation), FY19, and FY20. FY20 is included even though, because of its recent nature, it has collections data only for twelve months.
[113] 24 months have not elapsed since FY 2020.

3. The Substantive Concerns with a PIP.

Notwithstanding the beneficial payment outcomes generated by a PIP, from the perspective of low-income stakeholders, using bill burdens (bills as a percentage of income) as the foundation for a water affordability program does have some difficulties. Particularly when combined with income eligibility set as a percentage of Poverty, a percentage of income approach may well work to the detriment of larger households. A household of five persons in 2021, for example, has an income of $46,560 if living at 150% of the Federal Poverty Level, while a household of three persons would have an income of only $32,940. At a four percent (4%) water burden, therefore, the five person household would be required to pay $1,862 for a water bill before receiving assistance, while the three-person household would receive assistance for bills exceeding $1,318 despite the fact that each lives at 150% of Poverty.

Even aside from these differing impacts, a percentage of income approach also necessarily implies that some households who would be income-eligible (*i.e.* low-income) would nonetheless receive no assistance if their bills did not exceed the level deemed to be affordable. Under a percentage of income approach, assistance is provided in the amount, but only in the amount, needed to reduce the bill to an affordable burden (*i.e.* bill as a percentage of income). If the bill is affordable without assistance, the low-income household receives nothing, even though that household is income-eligible. The purpose of a PIP is explicitly to target bill payment assistance based on need. The purpose is ***not*** to provide an income-supplement to low-income customers simply because they are low-income.

Finally, setting bills equal to an affordable percentage of income often generates the political problem of policymakers being concerned about capping payments without capping usage. Under this reasoning, once a household reaches its percentage of income payment, no additional payment is associated with increasing usage further. Under this concern, no "incentive" is provided for households to control their consumption. While a political concern, in the 30-plus years that percentage of income programs have operated for home energy, not one independent third-party evaluation of a PIP has found this concern to have arisen in reality in empirical assessments of usage before and after PIP participation.[114]

[114] Moreover, the reality that has been found is that high arrears more frequently serve to eliminate any incentive to conserve. If a household has an arrearage of $500, whether the household receives a bill for current service of $50 or $80 provides no price signal.

D. Emergency Assistance.

An Emergency Assistance Program (sometimes known as a "crisis assistance program") is generally designed to provide short-term financial assistance to prevent the disconnection of service. Care must be taken, however, to ensure that Emergency Assistance is used precisely for that, emergency assistance, and not as an additional annual supplemental financial grant to help pay for ongoing water bills.

Toledo Water currently has a Bill Payment Assistance Program, albeit one that is on temporary hold as the Toledo Water moratorium on water shutoffs continues. The existing Toledo Water program provides a grant of up to $250 to help pay past due balances. Grants are applied against an account that is past-due or disconnected. To qualify for a grant, a customer must: (1) have annual income at or below 200% of the Federal Poverty Level; (2) live in a single family residence; and (3) be a City of Toledo customer. Customers who have received a grant within the past two years are not eligible to receive an additional grant.

Toledo Water's Bill Payment Assistance Program began in January 2020 and ran until March 2020, the date on which the COVID-19 moratorium on nonpayment shutoffs was implemented. No grants were issued after March 2020 (unless they were already in the process of being issued). Handling applications for Toledo Water Bill Payment Assistance grants was performed by external resources. Enrollment was administered by ProMedica's Financial Opportunities Center. In applying for a grant, documentation of income and household information was required, along with a valid form of identification.

A total of $28,000 was provided through 135 applications, an average of just over $200. That grant level was provided irrespective of whether the grant retired the entire outstanding unpaid balance. Indeed, Toledo Water does not track the average arrears for accounts receiving grants.

While Toledo Water is not currently administering its Bill Payment Assistance Program due to local restrictions on collections processes, on an on-going basis, such a program would be an important component to a Water Affordability Plan.

1. Responding to the "Fragility" of Household Incomes.

While Toledo Water's Bill Payment Assistance Program serves an important need, it cannot serve as a basic affordability program. The function of the Bill Payment Assistance Program is to address temporary, occasional, exigencies that place access to water service in jeopardy.

One attribute of low-income customers, or low-wage customers in any event, is not merely the *level* of their income, but is the *fragility* of their income as well. Low wage workers frequently, if not generally, do not have access to paid leave time (*e.g.* personal leave, vacation leave, sick leave). As a result, small crises can lead to interruptions in income that result in a temporary inability-to-pay a Toledo Water bill. For such households, while the payment of Toledo Water bills may be marginally affordable under normal circumstances, these interruptions in income create a "hole" which the customer finds no way to climb out of. What begins, by its nature, as a temporary problem for the customer builds into nonpayment ultimately threatening the loss of service altogether. The Bill Payment Assistance Program, as an emergency grant program, helps to interrupt that slide into crisis.

The Table below shows that occupations with these marginal earnings are not uncommon in Toledo. Occupations with these lower levels of earnings are common, for example, in the "service" occupations. Of Toledo's 120,000 total civilian workers (age 16 and over), fully one-in-five work in these occupations. Service workers in Toledo have a median earnings of just below $17,000. A large proportion of the service occupations include those workers who are in healthcare support occupations, food preparation and serving, and building and grounds cleaning and maintenance. In addition, more than half of those who are employed in sales and office occupations are in sales, with a median annual earnings of less than $20,000.

Table 55. Median Earnings and Number of Workers by Selected Occupations (Toledo, OH) (2019)

	Median Earnings	Number of Workers		
		Male	Female	Total
Total employment (civilian workers age 16 and over)	xxx	61,185	58,797	119,982
Service occupations:	$16,978	9,114	15,269	24,383
Healthcare support occupations	$22,272	689	6,326	7,015
Protective service occupations: Firefighting and prevention, and other protective service workers including supervisors	$23,176	1,268	554	1,822
Food preparation and serving related occupations	$13,616	3,281	5,017	8,298
Building and grounds cleaning and maintenance occupations	$16,388	2,384	1,725	4,109
Personal care and service occupations	$15,560	604	1,611	2,215
Sales and office occupations:	$25,828	9,638	16,101	25,739
Sales and related occupations	$19,646	6,172	7,208	13,380

In addition, to the workers identified above, employed in occupations that would likely lack flexible hours and paid leave time, a common phenomenon in low wage occupations, is the instability in the number of hours that a worker can expect to experience over the course of the year. Commonly referred to as "involuntary part-time employment" (or, sometimes, known as "part-time for economic reasons"), the U.S. Bureau of Labor Statistics defines involuntary part-time employment as a situation in which individuals *want* to work full-time but currently work part-time because they cannot find a full-time job or face slack work conditions in their current job. Data for Toledo is set forth in the Table below.

Table 56. Employment Status by Hours and Weeks Worked Per Year
(Population 16 to 64 years)

Total	175,725
Usually worked 35 or more hours per week	93,763
50 to 52 weeks	77,438
48 to 49 weeks	1,303
40 to 47 weeks	3,583
27 to 39 weeks	1,754
14 to 26 weeks	4,191
1 to 13 weeks	5,494
Usually worked 15 to 34 hours per week	29,017
50 to 52 weeks	14,210
48 to 49 weeks	688
40 to 47 weeks	2,464
27 to 39 weeks	3,214
14 to 26 weeks	3,243
1 to 13 weeks	5,198
Usually worked 1 to 14 hours per week	5,985
50 to 52 weeks	1,248
48 to 49 weeks	92
40 to 47 weeks	424
27 to 39 weeks	1,166
14 to 26 weeks	1,639
1 to 13 weeks	1,416
Did not work	46,960

Recognizing that not all part-time employment represents "involuntary part-time employment," the Table above shows the extent of part-time employment in Toledo in 2019. Of the roughly 130,000 Toledo residents (age 16 to 64) who worked in 2019 (175,225 population age 16 to 64 minus 49,960 who did not work), only somewhat more than half (93,763) worked full-time (35 or more hours) during some portion of the year. Indeed, of those who worked full-time in some portion of the year, only 83% (77,438 of 93,763) worked full-time for 50 to 52 weeks in the year. Only a small percentage worked a small number of hours (from 1 to 14 hours per week) during the year, while a considerable number of Toledo residents (29,017) found themselves usually working between 14 and 35 hours per week.

The lesson to be drawn here is ***not*** that all part-time workers are experiencing involuntary part-time employment. Nor is the lesson that all part-time workers are likely to be unable to pay their Toledo Water bills in a full and timely fashion. Nonetheless, there ***is*** a lesson to be learned. There is a significant portion of Toledo residents who are employed, but who are employed in occupations that are likely to introduce an element of fragility to their income. People in such circumstances are more likely to need occasional assistance to help pay their Toledo Water bill in light of household financial emergencies.

2. The Presence of "Unbanked" Households in Toledo.

A corollary reason why Toledo Water should consider the need for an emergency assistance program, is because lower income households tend not to have savings tucked away to help them weather the storms of financial crises as they present themselves. Having even small amounts of savings has been shown to generate substantially positive impacts on the ability to continue to make utility bill payments.

One aspect of the inability to maintain such savings involves the proportion of households that are "unbanked." While not exclusively a low-income phenomenon, households that are unbanked –they lack any checking or savings account in a traditional financial institution—are predominantly low-income households. The Table below presents five year estimates of the proportion of Toledo households that are unbanked, as found by the "economic inclusion" initiative of the Federal Deposit Insurance Corporation (FDIC).[115] While the data is presented in somewhat different formats in the varying years, the results are sufficiently similar to provide insights into the ability of Toledo residents (and thus Toledo Water customers) to maintain a financial safety net of some sort to address short-term financial exigencies as they may arise.

The Table below presents the data for Toledo.[116] The Toledo MSA has somewhat declined in population since the first FDIC five-year survey (2009 – 2013) was released. The 2015 – 2019

[115] Available at https://economicinclusion.gov/five-year/ (last accessed July 19, 2021).
[116] The data is for the Toledo Metropolitan Statistical Area (MSA), not for the City of Toledo on a stand-alone basis.

population for the MSA of 215,000 people is reported to be nearly 40,000 (17%) fewer than it was when the research on banking was first performed. In that first survey, the FDIC found that more than one-in-ten Toledo MSA residents were "unbanked."[117] In the next two surveys, FDIC considered not only those who were "unbanked," but those who were "under-banked" as well.[118] The percentage of total population that was completely unbanked declined by a small amount. The FDIC found, however, that nearly one-in-five Toledo MSA residents were under-banked. In the most recent survey, the FDIC has again changed its terminology. It distinguishes between a person who is "unbanked" and a person who "has a bank account." Again, roughly one-in-ten Toledo households do not have a bank account. From Toledo Water's perspective, customers without bank accounts often lack even the modest savings from which utility bills can be made in times of short-term crises.

Table 57. Five Year Estimates of Household Use of Bank Account (Toledo, OH MSA)

5-Year Estimate	No. of HHs (1000s)	Pct of Households	Unbanked	Has Bank Account	
2009 – 2013	252	100.0%	11.6%	88.4%	
5-Year Estimate	No. of HHs (1000s)	Pct of Households	Unbanked	Banked: Underbanked	Banked: Fully Banked
2011 – 2015	259	100.0%	9.7%	19.1%	69.9%
2013 – 2017	235	100.0%	10.4%	19.2%	67.5%
5-Year Estimate	No. of HHs (1000s)	Pct of Households	Unbanked	Has Bank Account	
2015 — 2019	215	100.0%	9.0%	91.0%	

The conclusion to be drawn from this FDIC research on Toledo is that there is a small, but not insignificant, minority of Toledo residents who cannot be expected to maintain savings to be able to access as a safety net in the event of financial instability. These Toledo residents may well be those Toledo Water customers who face a periodic financial emergency for which an Emergency Assistance Program such as the Toledo Water Bill Payment Assistance Program would represent an important water affordability service.

3. The Inability of Emergency Assistance to be an Affordability Program.

There are three inherent limitations to any reliance on an Emergency Assistance Program as a response to the "affordability" of water service. An examination of Installment Plans is used

[117] An "unbanked" resident is one who lacks a bank account.
[118] An "under-banked" person is one who, notwithstanding the fact they have a bank account, is reliant on services such as payday loans, cash advances and other "alternative" products. These men and women are largely reliant on cash.

here as a surrogate for customers who are behind in their bill payments, but have sufficient information and motivation to contact Toledo Water to address those unpaid balance.

- The first and most obvious limitation is that unpaid water bills are frequently not associated with short-term emergency situations, but rather with long-term structural inability-to-pay. In such circumstances, a customer who receives an Emergency Assistance grant in one year may have resolved their immediate crisis, but can be expected to fall back into crisis again in the future. While Toledo Water's existing Bill Payment Assistance Program will not provide more than one grant every two years, that limitation does not mean that recurring arrears do not present themselves to customers. According to Toledo Water, for example, between October 2018 and February 2021, 11,874 different customer accounts established 26,185 Installment Plans, an average of 2.2 Installment Plans per customer over that 29 month period.

- Second, customers in crisis often face unpaid bills that extend beyond the level of an Emergency Assistance grant to retire. Toledo Water's existing Bill Payment Assistance Program, for example, places a limitation of $250 on any given grant. Unpaid balances above that level must be paid by the customer, either out of their own resources or out of public or private funding that the customer can find to supplement their personal resources. Again using accounts entering into Installment Plans as a surrogate for potential Emergency Assistance recipients, Toledo Water reports that from October 2018 to February 2021, 26,185 Installment Plans were negotiated, addressing a total arrears of $20,813,927. Those Installment Plans, in other words, represented an average unpaid balance of nearly $800 ($20,813,927 balance / 26,185 accounts = $795 balance per Installment Plan account). Low-income customers would still need to access a substantial cash payment even after receiving a $250 crisis grant.

- Finally, addressing the needs of customers in crisis is inherently reactive in nature. It forces a customer to experience the nonpayment crisis before a grant is provided. In short, an emergency grant program addresses the results of an unaffordable bill without addressing the underlying affordability itself. Again, consider Installment Plans as an illustration of the shortcoming. As noted immediately above, from October 1, 2018 through February 2021, Toledo Water entered into 26,185 new Installment Plans. Of those payment agreements, 16,349 defaulted. Of the 11,874 accounts entering into Installment Agreements during that time period, 5,004 were ultimately disconnected for nonpayment notwithstanding the negotiation of an Installment Agreement.

These observations are not criticisms of an Emergency Assistance Program. For all the reasons discussed above, an emergency assistance program is an essential component of responding to low-income inability-to-pay. The observations do indicate, however, that an Emergency Assistance Program cannot operate as a response to inability-to-pay on a stand-alone basis. Like an Installment Plan, even if the response to the customer's payment difficulty is positive in the short-term, the long-term effect on generating payments is not assured.

E. DEFERRED PAYMENT PLANS (AGREEMENTS, ARRANGEMENTS).

One of the most accepted mechanisms through which to provide "assistance" to payment-troubled customers is to allow customers with an unpaid balance to repay that balance over an extended period of time. Toledo Water's policy on installment payment plans (as they are frequently called) says in relevant part that:

> installment plans are part of our customer assistance program. They are designed to aid customers who fall into delinquent status on their utility account. It is the intent that DPU will work with its customers to assist them in getting back into good payment history and avoid termination of water service when possible.[119]

1. The Current Toledo Water Policy on Installment Payment Plans.

Toledo Water provides its staff general guidelines on how to approach the offer of an installment payment plan through which to retire a residential arrearage.[120] Without quoting the entire set of Guidelines on Installment Plans here, the Toledo Water Guidelines provide in relevant part:

- A customer is allowed no more than two (2) Installment Plans per year;
- The first offer by Toledo Water, when a customer expresses an inability-to-pay a balance in full, should be an extension of up to seven calendar days.
- A more extended Installment Plan would involve, first, an offer of a Plan comprised of a 25% down upfront payment, with the remaining balance spread in equal installments over five additional months.
- If a customer is unable to make a 25% downpayment, a Plan will be offered of six equal installments.

[119] City of Toledo, Department of Public Utilities, Division of Utilities Administration, Installment Plans, November 8, 2019.

[120] The Policy as applicable to back billing, to water-turn-off scenarios, and to theft of service scenarios, is set aside for purposes of this discussion. These do not directly relate to the question of affordability.

- If monthly payments of a six-month plan are not affordable to a customer with an unpaid balance (assuming that the customer can make the requested downpayment), Toledo Water will extend its offer of an Installment Plan up to a period of twelve months.

- If a twelve-month plan is unaffordable to the customer, a temporary "dunning hold" will be placed on the account to allow review by a Supervisor.

In all instances of a negotiated Installment Plan, the customer *must* pay a sum at least equal to the monthly budget billing amount for the property in addition to the Installment Payment through which to retire the unpaid balance.

2. *Active Installment Plans with Toledo Water Customers in Arrears.*

As of February 2021, Toledo Water had 339 active Installment Plans with an outstanding balance of $269,467. The length of Installment Plans cannot be easily generalized. Toledo Water's active Installment Plans (as of February 2021) ranged from one month to 54 months in length. The bulk of plans (188 of the 339 active plans, representing $137,392 of the $269,467 in arrears) (51.0% of outstanding balance) fell between six and 12 months long.[121] In contrast, the plans that were one to five months in length were negotiated with 93 accountholders (representing $24,027 of the total outstanding balance) (8.9% of the outstanding balance). The dollars of outstanding balance subject to Installment Plans that were from 13 to 18 months in length ($29,714 in balances for 38 of the 339 total number of Plans) was roughly the same as the dollars subject to Plans that were fewer than six months long.

Toledo Water appears to make a good faith effort to provide longer Installment Plans for deeper arrears. Three levels of Installment Plans are considered in the Table below: (1) arrears greater than $500 but less than $1,000; (2) arrears greater than $1,000; and (3) arrears greater than $2,000.[122] Each group of Installment Plans was, in turn, grouped by the term (in months) of the Plans.

[121] Data on the original length of the Installment Plans was not available. The available data related to the number, and dollar amounts, of installments still outstanding.

[122] Note that the last two buckets overlaps. The group of accounts with arrears greater than $2,000 is a subset of the group of accounts with arrears greater than $1,000.

Table 58. Toledo Water Installment Plans
by Size of Initial Arrears and Length of Plan (in months)
(Toledo Water active plans: February 2021)

		Term of Installment Plans (in months)			
Unpaid balance:	Total	<10 Months	10 – 11 Months	12-17 Months	18+ Months
>$500 - <$1,000	128	64	41	18	5
Greater than $1,000	70	9	11	27	23
Greater than $2,000	13	0	0	0	13

As can be seen, as the outstanding arrears made subject to an Installment Plan increases, so, too, does the term of the Installment Plan (in months) increase. No customer with an unpaid balance of $2,000 or more has an Installment Plan of less than 18 months. Of the customers with an unpaid balance of $1,000 or more, 70% (50 of 70) were provided an Installment Plan of 12 months or more, while fully one-third (23 of 70) were provided Installment Plans of 18 months or more.[123]

The Installment Plans offered with terms of 18 months or more provide insights into the negotiation of such Plans with customers. Of Toledo Water's 301 active Installment Plans (as of February 2021), 28 were for a term of 18 months or more. A summary of the attributes of those long-term Installment Plans is presented in the Table below. Of those 28 plans, four (4) had a payment date for the last installment of August 2023 or later; eleven (11) had a payment date for the last installment of January 2023 or later.

The extended nature of the Installment Plans cannot be attributed to extremely low installment amounts. Of these 28 plans (out of 301 active Installment Plans in February 2021), only five (5) had an installment payment of $50 or lower. In contrast, only four (4) had installment payments of more than $100. The bulk of these long-term plans (19 of 28) had required installment payments of between $50 and $100.

[123] As previously referenced, and as would apply to this entire discussion of Installment Plans, two observations must be kept in mind. First, the data applies ***only*** to "active" Installment Plans. Installment Plans that had previously been agreed to, but defaulted upon, are not in the data base. Second, the data is point-in-time data. It is not possible to determine from this data how many of these active Installment Plans might default before their final payment is due in the future.

Table 59. Active Payment Plans (as of February 2021) with Terms of 18 Months or More (28 Total)			
End Date	Number	Installment Amount	Number
July 2022	5	$50 or lower	5
August 2022	2	$51 - $75	8
September 2022	2	$76 - $100	11
October-December 2022	8	$101 - $125	3
January – March 2023	7	$126 or more	1
August 2023	1		
January 2024	1		
November 2024	1		
July 2025	1		

3. Defaulted Installment Plans with Toledo Water Customers.

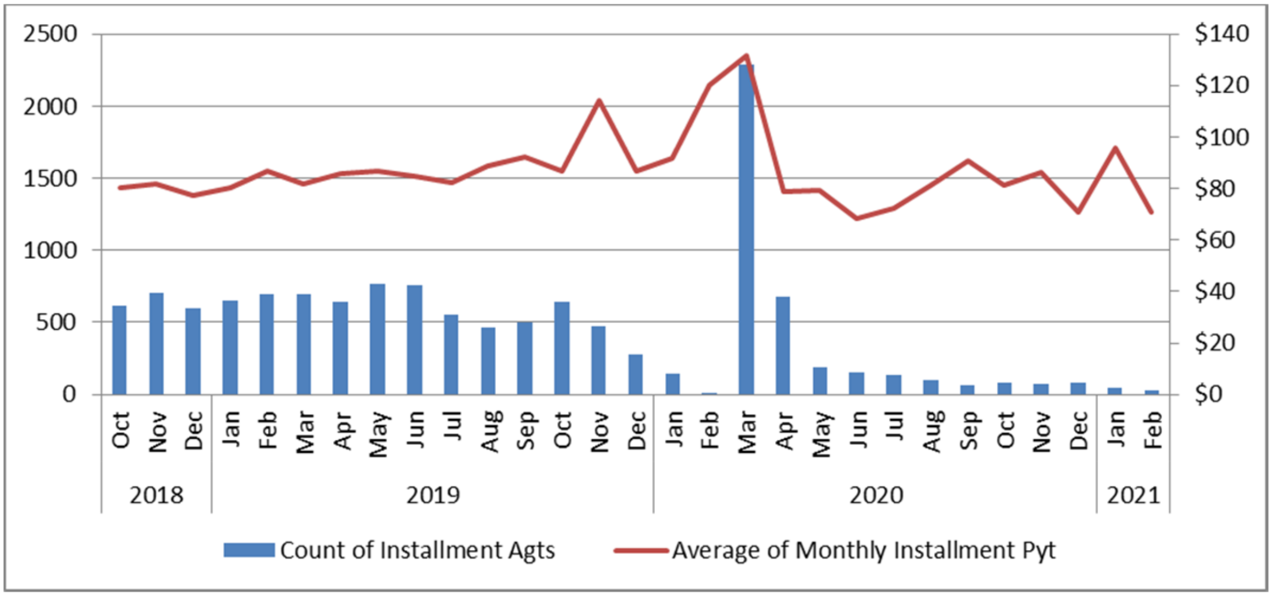
It now appears that far more of Toledo Water's Installment Payment Agreements fail than succeed. Data provided by Toledo Water indicates that more than 13,100 Installment Agreements defaulted between October 1, 2018 and February 2021.[124] The number of Toledo Water Installment Plans that defaulted each month consistently ranged just over 500 for October 2018 through April 2020.[125] The decision of Toledo Water to refrain from collections (including defaulting customers from Installment Plans) during the COVID-19 pandemic is evident in May 2020 through February 2021.

Just as significant as the ***number*** of defaulted Installment Plans per month is the average unpaid balance for those Plans that result in a default. Again setting aside the months of February and March 2020 as atypical, defaulting Installment Plans consistently had monthly installments of roughly $80 per month. This data belies any conclusion that defaulted Installment Plans are associated with the size of the monthly installment amounts. It is consistent with the data presented in the Table immediately above indicating that, more Installment Plans of 18 months

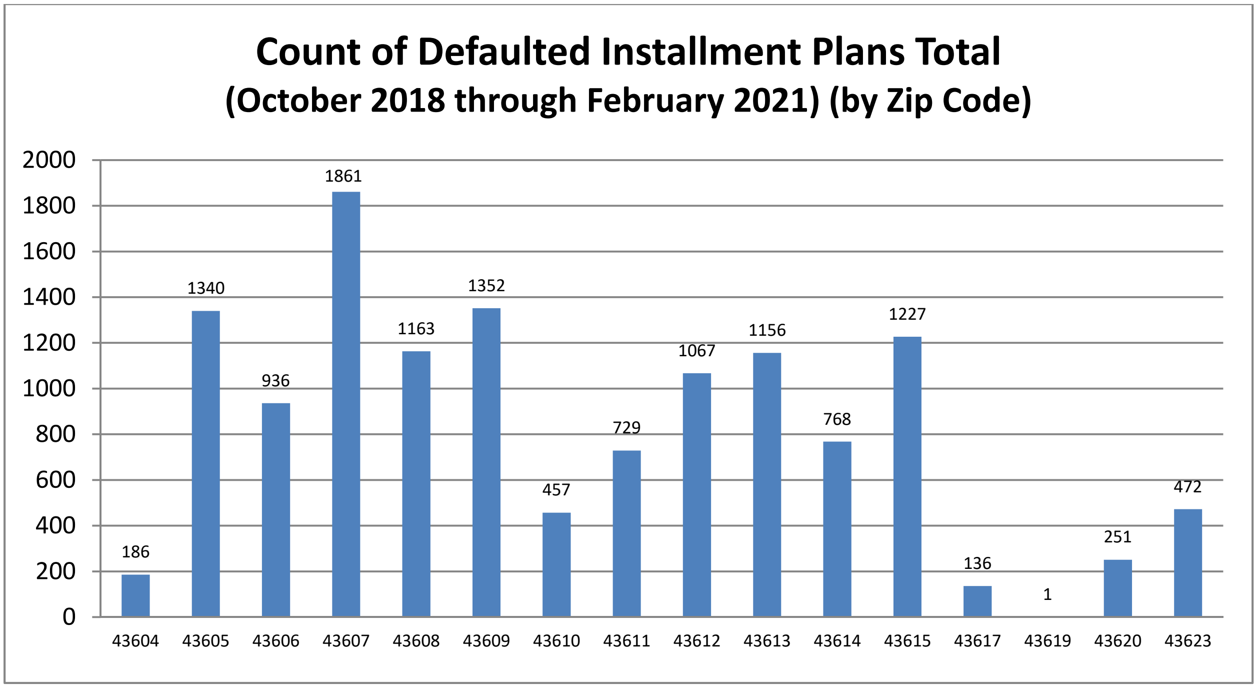
[124] Some accounts may have had more than one Installment Agreement which were found to have defaulted. This number may differ from other data discussed below having been adjusted for accounts outside the City, accounts with incomplete addresses, and other data entry shortcomings that did not permit their inclusion.

[125] January, February and March 2020 seem to be months inconsistent with the overall trend on a monthly basis but consistent with the trend if averaged over the three-month period. This would seem to indicate a data entry timing difference at play.

or longer had a required monthly installment payment of between $80 and $100 than any other installment payment amount.



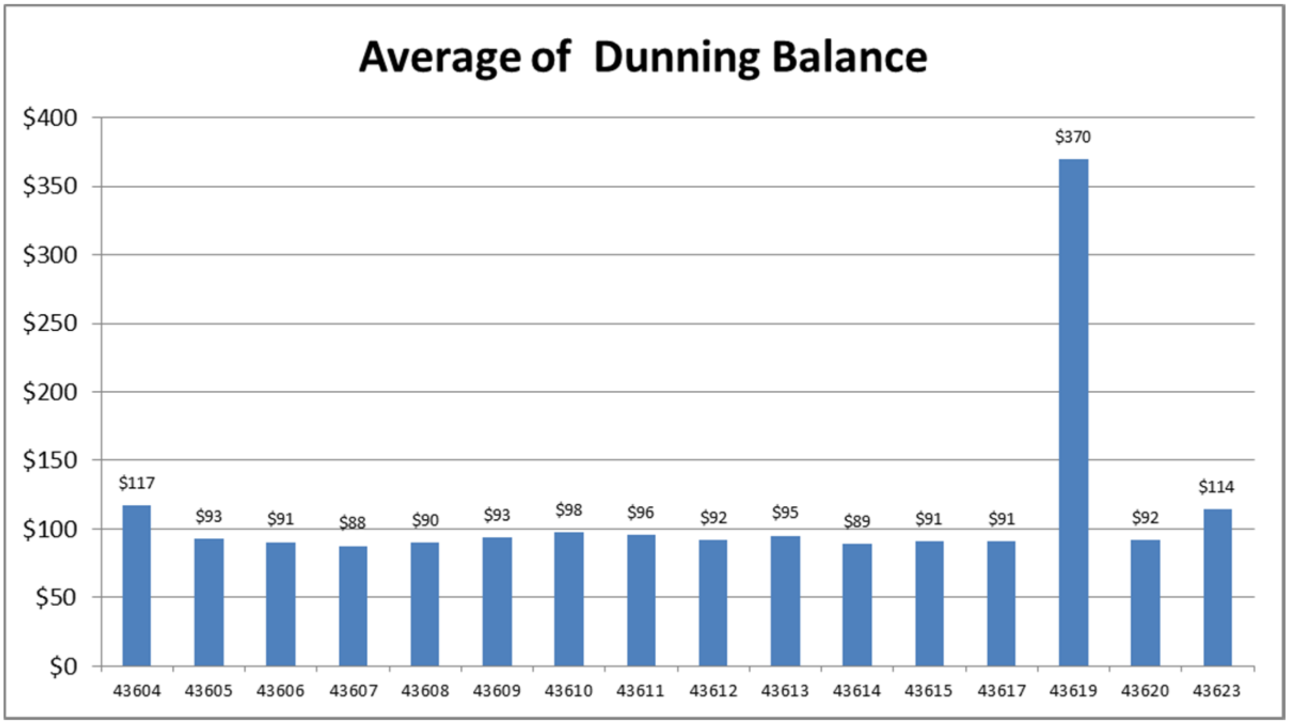
As a general rule, more of Toledo Water's defaulted Installment Plans occur in Toledo's lower income zip codes than in other zip codes in the City. As discussed in more detail above, five zip codes have been identified as being "low-income" for purposes of this Affordability Plan (43604, 43605, 43607, 43608, 43609). Over the time period for which defaulted Installment Plans was studied –recognizing that 2018 had only three months (October – December) and 2021 had only two months (January-February)—these zip codes had more defaulted Plans than did other zip codes. Four of the low-income zip codes (all but 43604) were amongst the five zip codes with the highest number of defaulted Installment Plans.



It should be remembered that data on the number of active Installment Plans for prior years is not available. Accordingly, it is not possible to determine the *rate* at which Installment Plans default. It may be that the number of defaulted Installment Plans in low-income zip codes is higher simply because the total number of Installment Plans is higher in those zip codes. For our purposes here, however, that observation is not significant. The fact that that high number of defaults arises in low-income zip codes simply because there is a need for more customers to enter into Installment Plans does not detract from the conclusion that high numbers of customers are losing access to deferred payments as a way to respond to an unpaid balance on their account.

An examination of the average monthly installment, by zip code, indicates that the number of defaults does not substantially vary when taking into consideration the level of the required monthly installment. Consistent with the data above, the chart below indicates that the average monthly installment for defaulted Plans is virtually identical in each zip code.[126] That average monthly payment does not vary on a geographic basis within the City amongst defaulted Installment Plans. Zip codes 43604 ($117) and 43623 ($114) have somewhat higher average monthly installment payments for defaulted Plans, but do not appear in the zip codes with the highest number of defaulted Plans.

[126] While zip code 43619 stands out as being high, it should be noted that that zip code only had one (1) defaulted Installment Plan.



The conclusion that appears to be supported is that Toledo Water appears to aim for an Installment Payment of between $90 and $100 a month.

4. A Consideration of Installment Plans from an Affordability Perspective.

Even an extended Installment Payment Plan can be expected to be unsuccessful in many, if not most, instances of an unpaid arrearage if the combined total bill (*i.e.* bill for current service plus bill for arrearage installment) presents an unaffordable burden to the affected customer. To the extent that Toledo Water seeks to improve the ability-to-pay by, and thus the ability-to-collect from, its low-income customers, it needs to address the arrearages that have been incurred by low-income customers prior to the time they enroll in a program providing an affordable bill for current service. Providing affordable bills for current service and providing an arrearage management program are interrelated. People do not make separate payments for the bill for current service and for their arrearages. Rather people make a payment toward their *total* bill. From an affordability perspective, therefore, it makes no difference whether that total payment is unaffordable due to the bill for current service or due to a pre-existing arrearage.

Based on the discussion above, the way to assess the affordability of an arrearage for Toledo Water is to examine the affordability of the installment payment that will likely be required. As demonstrated above, Toledo Water appears to take considerable effort to avoid simply dividing an unpaid balance by an arbitrary number of months and requiring that balance to be retired in that time period. Monthly installment payments instead tend to vary in a relatively narrow band around $90. Accordingly, three dollar amounts will be used in the discussion in this section: (1) $80; (2) $90; and $100. Assuming three alternative Installment Plan terms (three months, six months, twelve months), the annual arrearage payment required through a Toledo Water Installment Plan would vary from a low of $480 (6 months x $80 per month) to a high of $1,200 (12 months x $100 per month).

For purposes of testing the affordability of an arrearage payment, water burdens are deemed to be affordable at two percent (2%) of income.[127] Given this affordable burden, the incomes required to make monthly arrearage payments ranging from $80 to $100 affordable on an annual basis are as set forth in the Table immediately below. It would appear from the Table below that if a customer has an arrearage of $300 or less, spreading that unpaid balance over a three-month installment payment would not present unreasonable *annualized* burdens. An annual income of $12,000, for example, would support repayment of an unpaid balance of $240 ($80/month x 3 months). Similarly, an annual income of $13,500 would support repayment of an unpaid balance of $270 ($90/month x 3 months), while an annual income of $15,000 would support repayment of an unpaid balance of $300 ($100/month x 3 months).

The fallacy of this conclusion, however, is that the full *annual* income is not available if the term of the Installment Agreement is less than 12-months. If the term of the Installment Agreement is only three-months, only one-fourth (3 / 12 = 0.25) of the annual income is available to support the Installment Plan monthly payments. Accordingly, while an annual income of $12,000 would support a 3-month Installment Agreement of $80/month, the monthly income that would be required would reach $4,000 for the monthly installments to be affordable (at 2% of income). While an annual income of $13,500 would support a 3-monthly Installment Agreement of $90/month, the required monthly income that would be necessary for each monthly installment to be affordable would be $4,500.

There is, in other words, a different (and substantially greater) need for a monthly income to meet monthly Installment Plan payments than would be required if the same total unpaid balance is spread out over twelve months (in smaller monthly installments). Moreover, as should be evident, the data below examines the burdens flowing only from the repayment of arrears. Actual monthly payments that would be required of customers would not be limited to the arrearage installments, but would also include the monthly bill for current service.

[127] This implies an affordable burden of 4% of income for a combined water/wastewater bill.

Table 60. Affordability of Three Alternative Installment Payments Over Three Installment Payment Plan Terms (3 months, 6 months, 12 months)									
	$80/Month Installment Payment			$90/Month Installment Payment			$100/Month Installment Payment		
	Total Payment	Required Monthly Income ($80 per month)	Required Annual Income	Annual Payment	Required Monthly Income ($90 per month)	Required Annual Income)	Annual Payment	Required Monthly Income ($100 per month)	Required Annual Income
3-month Installment Plan	$240	$4,000	$12,000	$270	$4,500	$13,500	$300	$5,000	$15,000
6-month Installment Plan	$480	$4,000	$24,000	$540	$4,500	$27,000	$600	$5,000	$30,000
12-month Installment Plan	$960	$4,000	$48,000	$1,080	$4,500	$54,000	$1,200	$5,000	$60,000

The ultimate conclusion for a Water Affordability Plan is that the affordability of an Installment Plan through which to retire arrears is driven by the monthly installment amount rather than by the total amount of arrears to be retired. When applied to the data from Toledo Water, while Toledo Water's offer of Installment Plans with the level of installment payments evident in the data above may appear reasonable in light of the total dollars owed per unpaid balance, the resulting monthly burdens, for lower income customers in any event, may well be contributing to the large number of defaulted Installment Agreements.

F. PUBLIC ASSISTANCE OUTREACH.

Little question exists but that low-income households frequently do not have sufficient household resources to consistently pay their utility bills in a full and timely fashion. The survey results for Toledo Water, along with the discussion of bill arrearages by zip code, both support the conclusions that the poor, in particular, have a difficult time with Toledo Water bills. What is more surprising is the extent to which inability-to-pay is increasingly reaching into the Near Poor. The Near Poor include those households having an annual income that exceeds 150% of Poverty but that is insufficient to allow the household to meet basic household needs.

Toledo Water can help address these inability-to-pay issues for the Near Poor by targeting specific programs to assist the working poor in the City.

1. Recognizing the Inability-to-Pay within the Population of "Near Poor" and "Working Poor."

The fact that inability-to-pay is increasingly reaching into the Near Poor can be seen through a comparison of average incomes in the Second Quintile to self-sustainability incomes reported for

Lucas County.[128] As discussed above, self-sufficiency incomes are determined by family composition. A 3-person family with one adult and two school-age children, for example, would have a different self-sufficiency income than a 3-person family with one adult and two preschool children. The self-sufficiency incomes in Lucas County for 3-person families (with one adult) are set forth in the Table immediately below:

Table 61. Self-Sufficiency Incomes
(3-person family with one adult) (Lucas County, OH) (2019)

Adult	Adult	Adult	Adult	Adult	Adult	Adult	Adult	Adult	Adult
Infant	Infant	Infant	Infant	Preschooler	Preschooler	Preschooler	School-age	School-age	Teenager
Infant	Preschooler	School-age	Teenager	Preschooler	School-age	Teenager	School-age	Teenager	Teenager
$60,529	$58,302	$55,107	$41,996	$56,075	$52,880	$38,693	$49,685	$35,199	$22,593
Income as Percent of Federal Poverty Level									
284%	273%	258%	197%	263%	248%	181%	233%	165%	106%

As can be seen, the self-sufficiency incomes for a 3-person family (with one adult) frequently, if not generally, reach well above 200% of Poverty Level in Lucas County. Of the ten family compositions (with one adult), six have self-sufficiency incomes exceeding 200% of Poverty. Only one of the ten has a self-sufficiency income that is less than 150% of Poverty Level.

Aside from the self-sufficiency income for Lucas County, it is also important to realize that being employed (*i.e.* having a "worker" in the household) does not necessarily imply a non-Poverty income. Table 62 below, for example, shows the number of families with income less than the Federal Poverty Level in the City of Toledo for the years 2015 through 2019.[129] The Table shows that for "married-couple families," there are more below-Poverty married-couple families *with* one or more workers in 2019 than married-couple families with*out* workers than there have been since 2015. For "other families" (*i.e.* male, no wife; female, no husband) more of the below-Poverty households had one or more workers than had no workers.

[128] Self-sufficiency incomes were discussed in more detail above. See, notes 26 - 27, supra, and accompanying text.
[129] It is important to remember the distinction between "families" and "households." Not all households contain families. Under the U.S. Census Bureau definition, family households consist of two or more individuals who are related by birth, marriage, or adoption, although they also may include other unrelated people. Nonfamily households consist of people who live alone or who share their residence with unrelated individuals.

Table 62. Poverty Status in the Past 12 Months of Families by Family Type by Work Experience of Householder and Spouse in the Past 12 Months (Toledo OH) (2015 – 2019) (ACS B17016)

	2015	2016	2017	2018	2019
Total	65,290	64,735	65,265	65,102	64,509
Income in the past 12 months below poverty level	14,944	14,723	14,362	13,575	13,223
Married-couple family	3,454	3,550	3,426	2,987	2,879
Householder worked full-time, year-round in the past 12 months	498	478	476	461	538
Householder worked full-time, year-round / Spouse worked full-time, year-round	34	51	18	19	11
Householder worked full-time, year-round / Spouse worked part-time or part-year	83	83	89	86	125
Householder worked full-time, year-round / Spouse did not work	381	344	369	356	402
Householder worked part-time or part-year in the past 12 months	1,061	1,252	1,149	910	931
Householder worked part-time or part-year / Spouse worked full-time, year-round	51	148	156	207	209
Householder worked part-time or part-year / Spouse worked part-time or part-year	424	490	410	261	229
Householder worked part-time or part-year / Spouse did not work	586	614	583	442	493
Householder did not work in the past 12 months	1,895	1,820	1,801	1,616	1,410
Householder did not work /Spouse worked full-time, year-round	283	272	247	215	115
Householder did not work / Spouse worked part-time or part-year	365	336	353	289	250
Householder did not work / Spouse did not work	1,247	1,212	1,201	1,112	1,045
Other family	11,490	11,173	10,936	10,588	10,344
Male householder, no wife present	1,933	1,821	1,763	1,694	1,527
Householder worked full-time, year-round	210	275	254	248	254
Householder worked part-time or part-year	979	846	820	734	536
Householder did not work	744	700	689	712	737
Female householder, no husband present	9,557	9,352	9,173	8,894	8,817
Householder worked full-time, year-round	1,447	1,284	1,422	1,428	1,476
Householder worked part-time or part-year in the past 12 months	4,187	4,233	4,141	4,215	4,121
Householder did not work in the past 12 months	3,923	3,835	3,610	3,251	3,220

Table 63. POVERTY STATUS IN THE PAST 12 MONTHS OF FAMILIES BY HOUSEHOLD TYPE BY NUMBER OF WORKERS IN FAMILY (Toledo, OH) (2015 – 2019) (ACS B17014)

	2015	2016	2017	2018	2019
Total	64,020	63,263	64,456	61,697	63,603
Income in the past 12 months below poverty level	13,647	13,411	13,533	11,638	12,790
Married-couple family	2,902	3,184	2,758	2,454	2,309
No workers	1,284	896	899	1,353	693
1 worker	1,214	1,041	1,276	656	1,205
2 workers	377	993	407	406	411
3 or more workers	27	254	176	39	0
Other families	10,745	10,227	10,775	9,184	10,481
Male householder, no wife present	1,730	1,346	1,363	1,788	1,077
No workers	356	263	589	700	831
1 worker	1,332	1,083	723	1,088	246
2 workers	42	0	51	0	0
3 or more workers	0	0	0	0	0
Female householder, no husband present	9,015	8,881	9,412	7,396	9,404
No workers	2,460	2,641	3,545	1,892	3,554
1 worker	6,192	5,477	5,237	4,759	5,076
2 workers	363	698	630	745	601
3 or more workers	0	65	0	0	173

Table 63 shows the result even more clearly. This Table shows the number of families with income below the Federal Poverty Level by the number of workers in the family. Of the 2,309 married-couple families with income below Poverty in 2019, only 693 had no workers; of the 10,481 "other" families with income below Poverty in 2019, only 4,600 (1,077 + 3,554 = 4,631) had no workers. The number of families in Toledo with income below Poverty, and no workers, was higher in 2019 (5,033) than it was in 2015 (4,100). The number of married-couple families with no workers has substantially declined in the period 2015 to 2019 (from 1,284 to 693), as has the number of families with a male householder (no wife) (from 1,730 in 2015 to 1,077 in 2019). The number of families with a female householder (no husband) with no workers has, correspondingly, substantially increased (from 2,460 in 2015 to 3,554 in 2019).

2. Using the Earned Income Tax Credit (EITC) as Utility Bill Payment Assistance

Recognizing the work status of the Near Poor and Working Poor of Toledo is important to Toledo Water because there are specific actions that Toledo Water (or the City of Toledo) can take to respond to the lack of sufficient household resources to meet basic water needs. Even should the "unaffordability" relate primarily to housing costs, for example, those unaffordable household expenses may manifest themselves in unpaid utility bills as households make trade-offs on which bills they will pay in any given month.

Helping income-eligible households claim their entire federal Earned Income Tax Credit (EITC) is one initiative that Toledo could pursue for its Near Poor and Working Poor families. The EITC is the nation's primary anti-poverty program. Nationwide, the average EITC received as of December 2020 was roughly $2,461.[130] In the City of Toledo alone:[131]

- In 2018,[132] 35,700 Toledo households claimed a total of $94,402,000 in Federal EITC credits (an average credit of $2,644). Of that $94.4 million, $86.5 million was provided as a cash refund to 33,150 recipients;[133]

- In 2017, 36,510 Toledo households claimed a total of $95,603,000 in Federal EITC credits (an average credit of $2,619), of which $86,623,000 was provided as a cash refund to 32,850 recipients;

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[130] https://www.eitc.irs.gov/eitc-central/statistics-for-tax-returns-with-eitc/statistics-for-tax-returns-with-eitc (last accessed July 6, 2021).

[131] Data is provided by the Internal Revenue Service on a zip code basis. IRS data on EITCs was summed for Toledo zip codes.

[132] References are to tax years. For example, "2018" refers to federal tax returns filed in 2019 for the tax year 2018. 2018 is the last year for which data is now available.

[133] The EITC is a "refundable tax credit." The EITC is first applied against any tax liability the taxpayer may owe. Any excess over that tax liability is provided as a cash refund to the taxpayer.

- In 2016, 37,110 Toledo households claimed a total of $95,533,000 in Federal EITC credits (an average credit of $2,574), of which $86,846,000 was provided as a cash refund to 33,490 recipients;

- In 2015, 38,440 Toledo households claimed a total of $99,134,000 in Federal EITC credits (an average credit of $2,579), of which $90,012,000 was provided as a cash refund to 34,620 recipients.

As can be seen, not only did Toledo households receive between $90 and $100 million in EITC payments in each of the last four tax years for which data is available, but, in 2018, 93% of the EITC recipients received cash refunds equal to 92% of the total dollars of EITC received.

The EITC tends to serve more moderate income populations. As shown in the Table below, for Tax Year 2018 (tax returns filed in 2019),[134] maximum incomes ranged up to nearly $55,000 (depending on marital status and the number of children or relatives claimed as dependents). For example, a household filing jointly as "married" with two children could claim an EITC with an income of $51,492 for the 2018 tax year. A married household filing jointly with three children could claim an EITC with an income of $54,884 in 2018.

Table 64. Maximum Allowable Adjusted Gross Incomes (AGI) for Federal EITC (Tax Year 2018)

	Maximum Adjusted Gross Income	
Children or Relatives Claimed	Filing as Single, Head of Household, or Widowed	Filing as Married Filing Jointly
Zero	$15,270	$20,950
One	$40,320	$46,010
Two	$45,802	$51,492
Three	$49,194	$54,884

According to the Center on Budget and Policy Priorities (CBPP), the Washington D.C.-based organization operating the national EITC Outreach Campaign, working families with children that have annual incomes below about $34,000 to $41,000 (depending on marital status and the number of children in the family) generally are eligible for the EITC. Also, poor workers without children that have incomes below about $13,000 ($16,000 for a married couple) can receive a very small EITC.

[134] Tax Year 2018 is used here given that it is the most recent year for which statistical data is available. To provide some context, the 2019 maximum AGI for a "married, filing jointly" with three children was $55,952. For the 2020 tax year, the maximum AGI for this household would be $56,844.

Increasing EITC claims would directly benefit Toledo Water. According to a study of EITC recipients in New York, performed by faculty at Colgate University, 40% of the households reporting using their EITC to pay bills used those benefits to pay utility bills, a higher percentage than those using the EITC to pay for rent (31%), credit cards (28%), car payments (22%), and groceries (21%).[135] Another study found that 65% of EITC recipients have a "making ends meet" use for their credits, with the payment of utility bills and rent the most important uses, followed by the purchase of food and clothing.[136]

[135] Simpson, et al. (October 2006). *The Efficacy of the EITC: Evidence from Madison County* (New York), Colgate University Department of Economics.

[136] Smeeding, et al. (December 2000). *The EITC: Expectation, Knowledge, Use and Economic and Social Mobility*, National Tax Journal, 53(4): 1187, 1198. Smeeding is with the Center for Policy Research, The Maxwell School, Syracuse University (NY).

Part 6. Affordability Recommendations.

Based on the information and discussion presented throughout this report, the following structure is recommended for a Water Affordability Plan for Toledo Water.

A. Program Components.

A Toledo Water Plan should address water issues throughout the City through multiple prongs of action. The objective of a Toledo plan, unlike many of the water assistance programs adopted in other jurisdictions, is not merely to provide "some measure of assistance" to low-income customers, but rather is to address affordability issues facing Toledo Water customers. The City now knows from this work that affordability issues present themselves not only in the form of bill nonpayment, but also in the form of the paid-but-unaffordable bill.

When discussing the delivery of water affordability assistance, there is often a tendency for water jurisdictions to think only in terms of "customers." One vulnerable population that remains unserved given that approach involves that group of people who are residents of multi-family dwelling units that are master-metered. Those tenants may be sub-metered; they may have a dollar-for-dollar pass-through of water costs; they may have water bills included in their rent. The Toledo Water Affordability Plan proposes that Toledo Water follow the leadership of other urban areas in developing a mechanism through which affordability assistance can be offered to the City's multi-family tenant population.

In addition to addressing underlying affordability, Toledo needs to continue to address pre-existing arrears. In this COVID-19 era, the City has already recognized the need to address unpaid account balances that have been incurred by Toledo Water customers. The City should take the learning leading to that COVID-19 relief and apply it to the ongoing efforts to address affordability by low-income customers.

An important lesson that has been learned in Toledo is that one attribute of being "poor" in the City involves not only the *level* of incomes, but involves, also, the *fragility* of incomes. Even when bills for current service are delivered at an affordable percentage of income, low wage workers, in particular, are subject to a temporary reduction in hours due to the fact that they are hourly employees frequently, if not generally, lacking paid leave. A crisis assistance program is a necessary component of delivering water affordability.

While the City of Toledo should make a commitment to delivering affordable water service to its low-income customers, Toledo Water should not bear the entire burden of funding that response to unaffordability. It is *not* the responsibility of Toledo Water, as a municipal utility, to "solve poverty." It is instead the responsibility of Toledo Water to aim as many community resources as possible to those customers who are in need of additional assistance. One particular program is aimed at low wage workers. Promoting that program, and incorporating it into Toledo Water activities, not only will improve issues of unaffordability –be they payment difficulties or paid-but-unaffordable manifestations—but will help deliver dollars to support the economic vibrancy of the community, including supporting jobs and wages.

Finally, one disheartening message that has been learned frequently throughout the development of this Water Affordability Plan is the fact that customers are frequently unaware of the programs that Toledo Water offers that could be of assistance if only those programs were more fully utilized. People who want Toledo Water to offer a rate discount are not aware of the existing rate discount offered by Toledo Water. People who express interest in receiving additional financial assistance are unaware not only of the types of financial assistance that are available, but unaware of the role that Toledo Water would currently play in making connections with those sources of financial assistance if asked to do so.

With these opening observations, the specific components of a Toledo Water Affordability Plan are presented below.

1. Bills for Current Service.

The first critical component of a Water Affordability Program is a program directed toward making bills for current service affordable (a "Rate Affordability Program," RAP). Through this program component, the price of water/wastewater is set at a level that will generate the greatest ability of low-income customers to make actual payments. Building a Rate Affordability Program consists of six basic steps:

1. **Eligibility:** Defining the eligibility for the Rate Affordability Program should allow the program to be *open to enrollment* by any low-income consumer.[137] For purposes of this program, a "low-income consumer" is any consumer with gross household income at or below 150% of Poverty Level.[138]

2. **Outreach:** Informing low-income customers of the availability of the Rate Affordability Program involves both education about the *existence* of the program and education about *how to enroll* in the program. The most effective forms of outreach for utility affordability programs involve the use of community-based organizations as well as organizations that deliver benefits to the same households that are eligible to receive universal service benefits. Outreach should also occur through Toledo Water channeling customers to the program when, based on utility records, those customers are found to be payment-troubled. Inter-utility collaboration with electric and natural gas utilities providing rate affordability assistance to Toledo residents is important.

3. **Intake:** Enrolling customers in the Rate Affordability Program involves making customers into program participants. The primary intake should occur by contracting with relevant public and private agencies to "match" electronic lists of residential customers with lists of social assistance program participants. This income verification is effective and inexpensive. In addition, consumers should be given the opportunity to complete an in-person application through a community-based site

[137] Defining eligibility and targeting outreach are two distinctly different tasks. The utility may define eligibility so that all low-income customers may participate, but nonetheless seek to target *outreach* to specific payment-troubled customers. Targeting places special emphasis on enrolling a particular class of customers from among those classes that are eligible.

[138] A rate affordability program that distributes assistance based on energy burdens is not geared to serve customers living with even moderate incomes. As a general rule, customers with even moderate incomes will have water bills that do not exceed the affordable burden that serves as the basis for the affordability benefits. Assume, for example, a household living with an income of $40,000. If the affordable water burden is 4% of income, that household would need to experience a water bill of $1,600 or more to benefit from the rate affordability program. Accordingly, extending the eligibility to these higher income households offers an illusory sense of program expansion. Few, if any, of these higher income households benefit from a burden-based program.

whether or not they participate in another social assistance program. The enrollment process is discussed in further detail below in the section on program administration.

4. **Benefits:** Distributing rate assistance benefits should be on a fixed credit basis. The fixed credit benefits are delivered to the program participant as part of a levelized monthly billing plan. The levelized bill under the Rate Affordability Program will represent the annual bill, minus the annual fixed credit, divided into twelve equal monthly installments.

5. **Collections:** Enforcing customer payment obligations after a customer receives Rate Affordability Program benefits should occur through the same credit and collection activities directed toward any residential customer. If a customer receiving a Rate Affordability Program benefit does not make appropriate payments, that customer enters the collection cycle with the same rights and responsibilities as any other customer. In this fashion, no new or special administrative process is created for the program participants.

6. **Recertification:** Recertifying income for customers whose income cannot reasonably be determined to be non-variable over the long-term should occur on an annual basis. Most participants will have their income recertified automatically through a contract with the appropriate public or private agency. For those customers whose income cannot be recertified in this fashion, the customer will be notified at an appropriate time before his or her anniversary date of the need for recertification.

In summary, a Toledo Water Affordability Program directed toward bills for current service should be modelled on the Philadelphia Income-based Water Rate Assistance Program (IWRAP). A copy of the Philadelphia municipal legislation unanimously approved by the Philadelphia City Council is attached to this report as Appendix A.

Having provided this summary, the remainder of this section will address the structural issues of Rate Affordability Program in more detail.

Rate affordability assistance should be tied to the current Federal Poverty Level. In 2021, 150% of Poverty Level is as follows by household size:

- 1-person household: $19,320
- 2-person household: $26,130
- 3-person household: $32,940

- 4-person household: $39,750

It should be recognized, as discussed in the section on affordability program options above, that under a Rate Affordability Program that is based on affordable burdens, if, because of relatively higher income or relatively lower home bills, the pre-determined percent of a household's income will exceed their annual bill, the household will receive no benefit (though the household may still participate in the arrearage forgiveness program). In those instances, the water bill is deemed "affordable" and Toledo Water will collect the entire fully-embedded rate. Only in those instances where the household, due to low-incomes or high bills, faces a bill that exceeds the designated percentage of its income, is the bill deemed to be "unaffordable" and the Rate Affordability Program is offered to reduce the burden to an affordable level.

Assistance through a Toledo Rate Affordability Program should be distributed on a percentage of income basis. Using a percentage of income approach to targeting provides a more efficient use of scarce rate affordability resources. This can be demonstrated by comparing an across-the-board discount to a percentage of income approach. While a percentage of income approach delivers those benefits, but only those benefits, needed to bring low-income bills into an affordable range, an across-the-board discount does not. Using an across-the-board discount, the Rate Affordability Program would pay some customers *more* than is necessary to bring bills into an affordable range while paying other customers *less* than is necessary to bring bills into an affordable range. Accordingly, it is most appropriate to base the component of the Rate Affordability Program directed toward bills for current service on a percentage of income targeting mechanism.

Although a variety of percentage-of-income based approaches exist, delivery of rate affordability assistance using a fixed credit approach is most appropriate. The fixed credit approach begins as an income-based approach. In order to be eligible for the rate, a household must meet *both* eligibility criteria: (1) that the household income is at or below 150% of Poverty; and (2) that the household Toledo Water burden exceeds the burden deemed to be affordable.[139]

The fixed credit approach next calculates what bill credit would need to be provided to the household in order to reduce the household's Toledo Water bill to a designated percent of income. To calculate the fixed credit involves three steps: (1) calculating a burden-based payment; (2) calculating an annual bill; and (3) calculating the fixed credit necessary to reduce the annual bill to the burden-based payment. Each step is explained below.

[139] A customer may still participate in the arrearage management program component even if he or she does not participate in the Rate Affordability Program component.

1. **Burden-based payment:** The first step in the fixed credit model is to calculate a burden-based payment. Assume —simply for the sake of illustration here—that the household has an annual income of $8,000 and is required to pay four percent (4%) for its Toledo Water bill. The required household payment is thus $320. This is determined as follows: $8,000 x 4% = $320.

2. **Projected annual bill:** The second step is to calculate a projected annual household Toledo Water bill. This calculation is to be made using whatever method Toledo Water *currently* uses to estimate annual bills for its levelized Budget Billing Plan (where bills are paid in equal installments over 12 months).

3. **Fixed credit determination:** The final step is to calculate the necessary fixed credit to bring the annual bill down to the burden-based payment. Simply to illustrate, given a hypothetical annual bill of $1,040 and a burden-based payment of $320, the annual fixed credit would need to be $720 ($1,040 - $320 = $720). The household's *monthly* fixed credit would be $60 ($720 / 12 = $60).

   The fixed credit is made subject to two policy constraints. First, each customer is required to make a minimum monthly payment. The minimum payment recommended is $10 per month. Second, each customer is subject to a maximum ceiling on the amount of affordability benefits Toledo Water will provide. The maximum credit ceiling recommended for Toledo Water is $1,500.

In addition to various administrative benefits from use of a fixed credit, the fixed credit offers the advantage of providing a strong conservation incentive to the low-income customer. Under the fixed credit model, in the hypothetical above, Toledo Water provides a $60 fixed credit to the low-income household irrespective of the household's actual bill. If the household increases its consumption, and thus has a higher bill, the household pays the amount of the increase. If, in contrast, the household conserves water and thus lowers its bill, the household pockets the savings.

The administrative advantages of the fixed credit program are two-fold. First, use of fixed credits as a benefit distribution mechanism allows the program to work within a fixed operating budget. Once a low-income customer is enrolled in the universal service program, the maximum possible financial exposure for the time of the enrollment is established. At no time, can the maximum financial exposure exceed the budgeted program revenues. Systems can be easily designed to track funds that are obligated and expended to ensure that the budget is not exceeded.

In addition to this budgeting advantage, the fixed credit approach makes the billing less complicated as well. Using the same process that currently exists to establish a levelized budget-billing plan, fixed credits can be subtracted from a customer's levelized annual bill. The monthly bill is then rendered based upon this one-time annual adjustment. Toledo Water does not need to make monthly billing adjustments.

If, because of budget constraints, it does not appear that an entirely "pure" affordability program can be implemented, modest changes can be made to the affordable burden. One reasonable response to a strict budget constraint would be to modestly increase the percentage burden that a customer is required to pay. Setting the "affordable" burdens at 5% (rather than 4%), for example, could well bring the program within the budget.

Intake should be automated to the extent possible. This conclusion is based in both policy and operational considerations. An "automated intake" process involves entering into an agreement with a public or private agency to certify whether customers are income eligible for the Rate Affordability Program and calculate the fixed credit needed to be provided to the customer.

The impact of this automated approach is that Toledo Water would not need to devote substantial stafftime for enrollment or income verification. The Pennsylvania Public Utility Commission (PUC) has specifically said that "we have found that automatic referrals to CAP when a customer calls to make a payment arrangement and intake certification by government agencies are simple to administer and cost-effective."

In sum, four critical components of the proposed rate affordability component of a Universal Service Program are proposed above:

- Eligibility is set at 150% of Poverty Level;
- Enrollment should be, to the maximum extent feasible, implemented through an automated data exchange with public and private agencies;
- Rate affordability benefits are to be delivered through a fixed credit approach;
- The level of "affordability" should be set at 4% of household income.

2. Multi-Family Tenant Assistance.

Toledo Water should adopt a multi-family tenant assistance program based on the DC Water Multi-family Assistance Program (MAP) model. A copy of the municipal legislation establishing the DC Water MAP is attached to this report as Appendix B.

While the Austin (TX) and Seattle (WA) models commend themselves for their simplicity, they are not easily adapted to Toledo, which lacks a municipal electric utility. The Columbus (OH) model, too, offers a commendable structure. Through the Columbus model, however, the water utility provides benefits to *every* unit in an income-qualified building (*i.e.* more than 80% of the tenants are income-qualified) even though some units may not be "low-income." Moreover, the Columbus model presents challenges to Toledo Water in keeping its records up-to-date on the percentage of tenants in any given building which would income-qualify for a tenant discount.

Through the DC Water model, Toledo Water would post a credit to the building owner's water service account for each qualifying tenant. Toledo Water would contractually agree with the building owner that 90% of these credits will be passed through to tenants on a monthly basis. A fixed charge credit of $30 a month would yield a total credit for each unit of $360 annually. Tenants would, therefore, receive an annual credit of roughly $325 as compensation for water bills included in their rents.

A $30 monthly credit does not appear to be unreasonable. In Toledo, while rents are not reported by income level, the median gross rent is $744 per month, while the median monthly contract rent is $594, a difference of $150 per month. "Gross rent" is the term used to cover the "contract rent" plus the estimated average cost of all utilities. In turn, "contract rent" is the monthly rent agreed to or contracted for, regardless of any furnishings, utilities, fees, meals, or services that may be included. A $30 monthly credit would thus cover 20% of the difference between Toledo's median "gross rent" and Toledo's median "contract rent."

A building owner can, at the owner's discretion, decline to enter the program. In addition, a building owner would be removed from the program in the event of a default on the agreement to compensate tenants with the bill credits that are being posted to the owner's water account.

3. Earning Credits toward Pre-Existing Arrearages.

As part of its Water Affordability Plan, Toledo Water should make permanent its Arrearage Management Program (AMP) adopted as a response to COVID-19 payment difficulties. Arrearages accumulated prior to customer enrollment in the Water Affordability Plan should be addressed through a customer co-payment based on a percentage of income, and retirement of pre-existing arrearages —matched to customer co-payments. No provision is made for the retirement of arrearages accumulated after program enrollment.

An arrearage credit program directed toward pre-existing arrears consists of several elements. Each of these elements is described below with a brief policy or empirical basis for their adoption.

- A bill credit toward pre-existing arrears should exist. It does not resolve the problem of unaffordability to address bills for current service if a customer has an arrears, incurred during a time when bills were *unaffordable*, that would push the customer's total payment into an unaffordable range. Affordability is driven by total bill payments, not simply by payments for current usage.

- A customer should be required to make a payment toward his/her pre-existing arrears (called a "copayment"). The arrears credit program should recognize the need for every customer to take ***some*** payment responsibility toward his/her pre-existing arrears.

- The customer copayment toward his/her pre-existing arrears should be equal to 1% of income. The ***total*** payment for combined water/sewer bills would thus be 5% of income pending retirement of the arrearage balance. The 1% payment is based on the observation that the payment should be large enough to make a difference in program cost compared to retirement with no copayment.

  At the same time, however, while being large enough to make a difference, the customer payment should not be so large as to make the total payment unaffordable. Adding 1% to the bill for current service does not tip the scale into unaffordability. Finally, making a copayment equal to a percentage of income implements the philosophy that a customer with a somewhat higher income should make a somewhat higher payment toward his/her arrears. Proportionately, the payment is the same (1%), but the ***dollar*** amount will be greater as incomes increase.

  The 1% percentage of income payment has the effect of creating a lower limit to the size of arrears subject to retirement. A 3-year retirement period is generally deemed to be reasonable. Accordingly, assume that a customer has an annual income of $10,000. That customer would pay 1% of income toward his/her arrears. At 1%, the customer would pay $100 each year ($10,000 x .01 = $100) toward his/her arrears. For the 1% customer, there would thus be no retirement for any arrears less than $300, since the pre-existing arrears would all be paid by the customer copayment.

  The arrears subject to retirement, in other words, are only those arrears that are ***greater than*** the percentage of income payment times the customer's annual income times the number of years in the retirement program.

- Arrears should be retired over a three-year period subsequent to a customer's enrollment in the Water Affordability Program. The shorter the time period, the better. However, the time period also has budget implications. Forgiving arrears over a three-year period imposes a lower annual cost to the total affordability budget than forgiving the same amount of arrears over a two year period.

- Arrears credits should be earned as bills are paid over time, whether or not those payments are made in a "timely" fashion. The offer of an arrearage credit should not be viewed as an incentive to make a prompt bill payment. Customers should not need incentives to make payments. Rather, the principle underlying this program is as follows: we realize that you may not have made payments in the past when bills were unaffordable. We have agreed to address that problem. Having done our part by making bills affordable, we need you to now do *your* part by making your payments. Accordingly, we will match your arrearage payments as they are made; but if you do *not* make your payments, the consequence is not simply the loss of arrearage credits. The consequence is that you go into the collection cycle, as would anyone else who has received an affordable bill.

- The grant of arrearage credits should not be conditioned on "timely" payments. It is reasonable to expect program participants to pay 90% or more of their bills over an annual basis. Toledo Water must recognize, however, that while that will be the *annual* result, low-income customers may miss an occasional payment and then make that payment up the next month. The important "lessons" to be "teaching" through the arrearage program are two-fold. First, it is important to make *some* payment even if the customer cannot make the *entire* payment. If the customer cannot pay an entire $80 bill, he or she should make the $40 payment they can make, so that the first $40 in the next month gets them their arrearage credit. Second, it is important to continue making regular payments even if those payments don't always cover the entire current month's bill. Both of these "lessons" are directed toward communicating and understanding the importance for a customer to avoid falling into a hole and becoming stuck there.

There is no special provision for arrearages accumulated after the customer enters the Rate Affordability Program. Nonpayment for service provided under the Rate Affordability Program's provisions will be met by placing the customer into the same collection process as that which would be faced by any other customer. Nonpayment does not result in suspension from the program; it does not result merely in the denial of an arrearage credit. The customer continues to receive affordability credits, but nonpayment of the customer's payment obligation would eventually (based on Toledo Water practice) place the program participant in the collection process.

4. Crisis Assistance.

Toledo Water should make permanent its Bill Payment Assistance Program first initiated in January 2020. According to Toledo Water's "Bill Payment Assistance Program Plan," the intent was to provide up to $500,000 a year to help low-income customers pay their bills. Households would be eligible with annual income at or below 200% of the Federal Poverty Level. ProMedica Ebeid Institute's Financial Opportunity Center would be used to verify the income of potential grant recipients.

Customers who would potentially benefit from this program would frequently be identified by Toledo Water staff. Customer Service Representatives would refer these customers to ProMedica after reviewing the customer account. In addition to using in-house staff as a "door" through which to enter the program, Toledo Water has also proposed, and should pursue, use of referrals by Community Action Agencies or other community-based organizations. Providing as many access points as possible would help address the issues identified in this report about customers who exhibit a need for crisis assistance, and express a desire to access such assistance, but who report having no knowledge about Toledo Water's existing programs.

The crisis assistance grant, to the extent that it does not cover the entire outstanding balance of a program applicant, should be used as a downpayment on an extended installment payment agreement. Restrictions that might otherwise apply for such a deferred payment plan should be waived to allow customers who may have previously defaulted on such plans to enter into another plan using the Crisis grant as a downpayment.

Certain restrictions on the receipt of crisis assistance would be reasonable to adopt. First, the crisis assistance should be available only once every 24 months. Crisis assistance is intended to respond to unforeseen emergency situations in order to prevent a shutoff (or substantial nonpayment) situation. Crisis assistance is *not* intended to be used as a regular supplemental source of bill payment assistance. Second, it is reasonable to require applicants for crisis assistance to have a minimum level of arrears (both in age of arrears and in dollar level of unpaid bills). The availability of crisis assistance is intended to provide help in situations where the customer is unlikely to be able to respond to an unpaid bill in the absence of the assistance. Requiring a minimum arrears of $180 (which could be repaid in $15 installments over 12 months) and 90-days in age is not unreasonable.

Crisis assistance should be funded at a rate to be determined by Toledo Water each year. The crisis assistance fund, once exhausted in a year, would stop making grants.

Crisis assistance is to be distinguished from the Arrearage Management Plan recommended above. Arrearage Management is a program directed toward low-income customers who, upon entering the Affordability Program for current service have a pre-existing arrearage which, if added to the bill for current service, would frustrate the objective of the Affordability Program by making _total_ payments unaffordable.

5. External Financial Assistance Outreach.

Recognizing that not all affordability assistance need come from the local water company, Toledo Water should commit, as part of its Water Affordability Plan, to take certain action steps directed toward the Working Poor (low wage) customer population. This Working Poor population is a population frequently comprised of customers having income too high to qualify to receive benefits through the affordability program component directed toward bills for current service, but too low to ensure that they will be able to make Toledo Water bill payments on a consistent basis without incurring household hardship.

Toledo Water can generate substantial new “water assistance” benefits for its high-range poverty households by supporting efforts to promote the Earned Income Tax Credit (EITC). The view frequently articulated is that few jurisdictions exist that cannot, with a reasonable amount of effort, increase the penetration of income-eligible households claiming their EITC by at least five percent. In the City of Toledo, alone, a five percent (5%) increase in the number of EITC claims would result in nearly 1,800 households newly receiving the EITC, generating an additional $4.7 million in benefits flowing to the City of Toledo. Local-level participation rates are not published by the IRS, although state-level participation is. While the national participation rate is 78% (Tax Year 2017), the Ohio EITC participation rate has ranged from 82.3% (2015), to 81.3% (2016), to 80.1% (2017).[140] While Ohio’s 2017 EITC participation was just a tick above the national average, Ohio’s participation has declined every year since 2014 (from 82.6% in 2014 to 80.1% in 2017).

Given the benefits arising from the receipt of EITC, Toledo Water should consider taking the following action steps as part of its Water Affordability Plan:

- Toledo Water should direct targeted EITC outreach to customers in arrears. Indeed, combining its identification of low-income customers through other programs, Toledo Water could direct EITC outreach to payment-troubled customers that the utility has previously identified as being low-income.

- Toledo Water should fund, through a competitive grant process, outreach efforts targeted toward populations that under-utilize the EITC. Rather than doing generic outreach campaigns, however, Toledo Water should help fund “gap-filling” outreach. According to the national EITC Outreach Campaign, women fill a disproportionate number of part-

[140] 2017 is the last year for which state-level participation rates have been published.

time and low-wage jobs. Newly employed women, in particular, are less likely to file for EITC benefits. Moreover, Hispanic parents are much less likely to file for EITC benefits. An Urban Institute study found that only 32% of low-income Hispanic parents knew about the EITC, and only 20% of such parents claimed their EITC. Toledo Water could direct funding to specific organizations that can document their ability to reach these under-served populations.

- Toledo Water should add seasonal EITC outreach to its existing contacts with its customers. Adding an EITC information message during the call-center hold time would be helpful. Adding EITC outreach materials to the Toledo Water web site would reach a different population. Including EITC outreach with shutoff notices would provide an opportunity for payment-troubled customers to seek additional financial resources.

Finally, while this Water Affordability Plan recommends specific action steps for Toledo Water to take as the local utility, not all steps need be funded and advanced by Toledo Water. Increasing the number of EITC claims in Lucas County would benefit the community as a whole, including the business community. The EITC not only results in increased utility bill payments, it also generates an economic multiplier effect and supports local job creation. Accordingly, Toledo Water should convene a business roundtable in the City, along with appropriate leadership within the nonprofit community, to develop and implement plans specific to Lucas County for EITC outreach above and beyond that outreach that Toledo Water directs to its own low-income, payment-troubled population.

B. PROGRAM COSTS.

In this section, the costs of a Rate Affordability Program for combined water/wastewater customers are estimated. The discussion below does *not* consider water-only customers or wastewater-only customers. The number of customers taking those stand-alone services is not high enough to allow a cost-estimate to be developed. The number of customers by service, as provided by Toledo Water (August 2021), is as follows: (1) water-only: 369 customers; (2) wastewater-only: 31 customers; and (3) combined water/wastewater: 85,095 customers.

1. Bill For Current Service

The development of costs for a Toledo Water Affordability Program is based on the use of Census Tracts and zip codes as the building blocks. The process begins with calculation of an average residential bill for each Toledo Census Tract. An average residential monthly bill was determined using an estimated consumption of 55 gallons per person per day. The estimated bills for each Census Tract were averaged to determine an average monthly bill of $1,020 for 2021.

An average income at 100% of Federal Poverty Level ("FPL") was then calculated for the City using a weighted average household size by zip code. Once an income at 100% of FPL was determined, incomes were set at the mid-point of each of the income ranges used in this calculation: (1) 0 – 49% FPL; (2) 50 – 99% FPL; (3) 100 – 124% FPL; and (4) 125 – 149% FPL.[141]

This data for income and bills, was combined to determine the water bill burden (*i.e.,* the bill as a percentage of income) by Poverty range within each zip code. To illustrate using a hypothetical number, a bill of $800, combined with an income of $4,800 represents a bill burden of 16.7% ($800 / $4,800 = 0.167). The cost of the Rate Affordability Program involves the dollars needed to reduce those experienced burdens to the affordable burden of 4% of income.

Households with income exceeding 150% of FPL are not used in this analysis. As discussed in detail above, a preliminary analysis found that households with income above 150% of FPL did not, given the percentage of income burdens defined to be "affordable" for these purposes, have bill burdens that require a ratepayer subsidy in order to be affordable. Water bill burdens for Toledo households with income greater than 150% of FPL, in other words, are less than four percent of income (4%) even without a Rate Affordability Program discount.

Two levels of "costs" are calculated for the Toledo Rate Affordability Program. First, the "lost billings" determines the dollars that would be required to reduce a non-discounted bill (*i.e.* a bill at standard residential rates) to an affordable burden. This calculation assumes that in the absence of the Rate Affordability Program discount, Toledo Water would collect 100% of the revenue that is billed to low-income customers. As indicated above, however, experience counsels that this is far from the reality facing Toledo Water (or any other community). Experience reveals that there is a substantial level of lost revenue embedded in bills at standard residential rates.

Accordingly, second, the "lost receipts" determines the dollars, if any, that would be lost between the revenue that Toledo Water could reasonably expect to actually collect at standard residential rates (called the "standard receipts") and the dollars that Toledo could reasonably expect to collect at the discounted rates (called the "discounted receipts").

The aggregate dollar amount of Lost Billings and aggregate dollar amount of Lost Receipts depend, in part, on the expected participation in the Rate Affordability Program. It is

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[141] Rather than using the mid-point for 0 – 50% of FPL, the income for this range was set at 40% of FPL. Experience with calculating a Home Energy Affordability Gap based on FPL has demonstrated that income set at the mid-point (25%) is too low and does not accurately represent the income of that Poverty range. www.HomeEnergyAffordabilityGap.com.

unreasonable to expect participation to equal, or even approach, 100% of the eligible population. Based on experience with income-based utility bill discount programs in other jurisdictions, an expected participation rate of 40% was used for this cost analysis.

Determining the eligible population for a Toledo Rate Affordability Program begins with a residential customer population for Toledo of roughly 85,000 customers. These water customers are distributed by the percentage of population in each Poverty Range. For example, and simply to illustrate, if 15% of Toledo's population lives with income between 0% and 49% of FPL, 15% of Toledo's water customers are allocated to that Poverty Range as well. Overall, 35.6% of Toledo's water customers are found to have an annual income at or below 150% of Poverty Level. Those customers are finally distributed by Poverty Range.

Table 65. Water Customers by Federal Poverty Range (Toledo City)

0-49% FPL	50-99% FPL	100-124% FPL	125-149% FPL	Total <150% FPL
9,769	10,490	4,983	5,058	30,300

The Lost Billings associated with a Toledo Rate Affordability Program have been determined using a uniform affordable bill burden. This affordable burden is compared to the bill burdens that would exist in the absence of the Rate Affordability Program. For bills at 2021 Toledo water rates, the average water burden for Toledo ranged from 3.5% (125 – 149% FPL) to 12.2% (0 – 49% FPL).

Table 66. Average Bill Burdens by Ratio of Income to Poverty Level
in Absence of Affordability Program (Toledo)

0-49% FPL	50-99% FPL	100-124% FPL	125-149% FPL
12.2%	6.5%	4.4%	3.5%

Use of an affordable water burden of 4% for a Toledo Rate Affordability Program, and the expected 40% participation rate, yields an aggregate Lost Billing (*i.e.* discount) of $4.041 million.[142]

The Lost Billings does not represent the true cost of a Toledo Rate Affordability Program. Instead, Toledo Water should consider Lost Receipts. The Lost Receipts from a Toledo Rate Affordability Program recognizes that Toledo would not collect 100% of the revenue billed to low-income customers even in the absence of a Rate Affordability Program. Lost Receipts

[142] This result assumes a full participation rate. In the early years of a Rate Affordability Program while participation ramps up over time, the Lost Billings and Lost Receipts will both be lower.

examines the difference in dollars actually collected with and without the Rate Affordability Program.

This notion that bill collectability declines as bill burdens increase is not new. And it is not unique to Toledo water. The Philadelphia water discount program is a good example. That program, called "TAP" as described above, revealed the collection improvements that can be generated through an affordability program.

In FY2018, TAP participants received a discounted bill of $1,673,118. PWD collected 95.70% of those billed dollars ($1.60 million). For dollars billed to low-income TAP non-participants in FY18, however, PWD had a collection rate of only 39.77%. Had TAP participants been billed at standard residential rates ($4,818,597), and collected at the same rate as low-income TAP non-participants, PWD would have collected only $1,916,356 in cash. In FY18, in other words, while PWD provided a discount of $3,145,500, it collected only $315,183 fewer dollars in cash.

The same result can be seen in Fiscal Year 2019. PWD provided a discounted bill of $5,668,383 to TAP participants. It had a collectability rate of 87.89% at the two year (24-month) mark, meaning that it had collected $4,981,942 in actual revenue. In contrast, if PWD would have billed at standard residential rates ($15,440,890) and collected at the same rate as low-income TAP non-participants, it would have collected $8,120,364 in cash. In FY19, therefore, while PWD provided a discount of $9,772,508, it collected only $3,138,423 fewer dollars.

Rather than using these Philadelphia figures, an offset of 20% is included in the analysis to assess the reduction, if any, in actual receipts.[143] Taking into consideration lost receipts, the lost receipts from a Toledo Rate Affordability Program at a 40% participation rate would be $3.232 million.

Finally, a 10% figure was provided to account for administrative costs ($323,247). The total annual lost receipts (plus administrative costs) of the Toledo Rate Affordability Program, given a 40% participation rate, is thus $3.556 million. The total annual lost receipts (plus administrative costs) at a 35% participation rate is $3.111 million. A higher participation figure would result in a higher cost, while a lower participation figure would result in a lower cost. The total costs, given different participation rates, is set forth in the Table below. An estimated participation rate of 35% to 40% is a reasonable participation to expect for a Toledo Rate Affordability Program.

[143] Toledo Water's internal processes assume that billings that are between 60 and 90 days old will generate a 20% uncollectible rate.

Table 67. Cost of Toledo Rate Affordability Program Given Alternative Participation Scenarios					
	Participation Rate				
	25%	30%	35%	40%	50%
Number of participants	7,600	9,100	10,605	12,100	15,200
Lost revenues	$2,525,368	$3,030,411	$3,535,515	$4,040,588	$5,050,735
Lost receipts	$2,020,294	$2,424,353	$2,828,412	$3,232,470	$4,040,588
Total cost (lost receipts + admin)	$2,222,323	$2,666,788	$3,111,254	$3,555,717	$4,444,647

Spreading the costs of the Rate Affordability Program over all Toledo Water usage within the City, and multiplying by an average residential consumption, yields an annual cost to an average residential customer of $15.31 or a monthly cost of $1.28.

The costs of the Rate Affordability Program should further be offset by federal dollars that are made available to low-income ratepayers through the Low-Income Household Water Assistance Program (LIHWAP). The extent of those funds, and the mechanism by which they will be distributed, however, has not yet been determined at the State level. Accordingly, it is not possible to assess the extent to which they will offset the costs of a Toledo Water program. What can be said at this point is that there will be "some" impact, with the extent of the "some" not yet known or knowable.

The costs of the Rate Affordability Program should finally be offset by dollars currently devoted to the Senior Low-Income Discount program, which would be supplanted by the Rate Affordability Program proposed here. According to the Toledo water rate ordinance, those programs provide the following discounts:

> Those water consumers residing inside the City limits who are eligible for the Senior Water Discount Program. . .and are furnished 1,000 cubic feet of water per quarter or less, shall pay a quarterly charge which is based upon 1,000 cubic feet of consumption. Those consumers who qualify for the Senior Water Discount Program shall pay a quarterly rate which is twenty-five percent (25%) less than the rates established herein for the first 2,000 cubic feet consumed. . .
>
> * * *
>
> Those consumers who qualify for the Senior Water Discount Program and have an eligible total income shall pay a quarterly rate which is forty percent (40%) less than the rates established herein for the first 2,000 cubic feet of consumed. . .

Standard residential rates apply to all consumption in excess of 2,000 cubic feet consumed per quarter. Income eligibility is set at 100% of the Federal Poverty Level. The Senior Discount Program is not affected by adoption of the Rate Affordability Program. The Senior Low-Income Discount Program would be replaced by the Rate Affordability Program. The dollars currently devoted to the Senior Low-Income Discount Program should thus be applied to funding the Rate Affordability Program.

2. Multi-Family Tenant Assistance.

A Toledo Multi-Family Tenant Assistance Program should be funded in a way that differs somewhat from the corresponding Ratepayer Affordability Program. Rather than estimating a need, and committing to a full funding to meet that need, the recommendation is to create a Multi-family Tenant Assistance Fund which will be distributed until exhausted. Once the program funding is exhausted, program enrollment and participation will be closed until the next year.

Table 68. Cost of Toledo Rate Multi-Family Assistance Program Given Alternative Participation Scenarios

	Participation Rate (7,813 Toledo multi-family rental units with income <$35,000 and housing burden >40%)				
	25%	30%	35%	40%	50%
Number of participants	1,953	2,344	2,735	3,125	3,907
Annual rent credit per unit	$360	$360	$360	$360	$360
Program Cost	$703,170	$843,804	$984,438	$1,125,072	$1,406,340
Benefit to tenants	$632,853	$759,424	$885,994	$1,012,565	$1,265,706
Benefits to tenants plus 10% admin	$696,138	$835,366	$974,593	$1,113,822	$1,392,277

An annual program budget of $0.835 million in recommended for the Multi-Family Tenant Assistance Program. This funding is recommended based on the following observations. First, there are estimated to be roughly 7,800 multi-family units occupied by renters with income less than $35,000 and having a housing burden of 40% of income or more. This estimate is based on the total number of rental units with that income and housing burden adjusted for the percentage of units estimated to be multi-family units. Second, the Multi-Family Tenant Assistance Program should be somewhat proportionate to the Rate Affordability Program. Third, given that the Multi-Family Tenant Assistance Program does not deliver direct water affordability assistance to tenants, and that tenants are more mobile (and thus less likely to participate in a water assistance program), it can be expected to attract fewer participants. A program participation of between 25% and 30% is estimated. A 10% administrative fee is included in the cost estimate as well.

3. Arrearage Management and Crisis Assistance.

A separate arrearage management budget has not been estimated for a Toledo Water Arrearage Management Program. The City of Toledo has implemented (and funded) a COVID-19 response involving arrearage forgiveness. Rather than independently estimating a cost for a permanent program, the better approach is to allow the City to administer its current program. Based on the experience gathered through that program, City Council can decide to what extent, if at all, it wishes to make arrearage forgiveness a permanent component of a Water Affordability Program.

Similarly, a separate crisis assistance budget has not been estimated. Before the COVID-19 pandemic began, the City had decided to implement a Bill Payment Assistance Program, albeit one that is on temporary hold as the moratorium on water shutoffs continues. The existing Toledo Water program provides a grant of up to $250 to help pay past due balances. Grants are applied against an account that is past-due or disconnected. The City should reinstate that program at existing funding levels subject to a future evaluation of whether the program is achieving the objectives first envisioned for the program.

4. EITC Outreach.

Toledo Water should set aside a budget of $50,000 per year to promote the Earned Income Tax Credit through a competitive grant process. This recommended budget is largely based on the experience of Entergy, a multi-state electricity company serving the Middle South. Entergy perhaps leads the nation in supporting the promotion of the EITC amongst utility companies. According to Entergy's EITC spokesperson, Elizabeth Brister, Entergy has used utility dollars to promote the EITC to the Company's 2.8 million customers for more than a decade. Entergy spends more than a half million dollars a year on its EITC outreach.

The Company begins with a Comprehensive Media campaign. This plan involves paid media, including print, on-line, and social media. The media campaign not only encourages taxpayers to determine if they qualify for the EITC, but also points people to the Entergy.com EITC website which identifies all free tax preparation sites available to taxpayers in the EITC service territories.

In addition to its paid media, Entergy uses two bill inserts a year –one produced by the Company and the other produced by the Internal Revenue Service (IRS)--- to promote the EITC. The IRS EITC mailers, Brister says, are the only non-Entergy literature the Company allows to be included with its bills. The billing inserts are circulated with the December and January bills, the two months in which the Company's customers begin to think about tax filing. A taxpayer must file a tax return to claim the EITC.

Aside from this written literature that Entergy provides to its customer case, Entergy also targets outbound telephone calls to remind customers who the Company has reason to believe are low-income to remind the customers that it is tax season; to encourage customers to determine if they are eligible for the EITC; and to point people toward the Entergy.com web site to find local free tax preparation clinics.

Entergy seeks to help its low-income customers keep the full tax credit for their own use as well. One drain on the tax credit occurs when people use paid tax preparers to file their returns. Not only do such tax preparers charge hundreds of dollars for the relatively simple returns involved with EITC recipients, but many also prey on the financial problems of low-income households by offering "tax anticipation loans" with exorbitant interest rates. The annual interest rates on tax anticipation loans –under which the preparer offers to provide the tax filer with a short-term loan to be repaid when the tax refund is received—often reach as high as 200%.

To try to keep more of the EITC in the low-income household, for the past four years, Entergy has sponsored 422 Volunteer Income Tax Assistance (VITA) sites providing free income tax preparation for income-qualified households. For the past three years, Entergy has supplemented these sponsored sites with "a couple of hundred" Company employees who donate their time as volunteers to help staff the sites.

Given its years of experience with EITC promotion, the Entergy staff now says that they no longer need to "prove" the value of the effort to Company management. The value of the tax refunds they help to generate is large and getting larger each year. From 2011 through 2015, for example, Entergy's efforts helped generate $125 million in assistance in its four-state service territory. In 2016 alone, the Company reports, Entergy helped its customers receive more than $35 million in tax credits. In addition to helping customers pay their bills, Brister says, these dollars help generate economic activity throughout the Company's service territories, thus benefitting not only the customers directly receiving the benefits, but also benefitting all customers, including those whose employment and wages is supported by the additional economic activity. In all these cases, Brister unabashedly "admits" that Entergy, in its capacity as the electricity supplier, also receives direct financial benefits through its EITC outreach efforts.

C. PROGRAM ADMINISTRATION.

The administration of a Rate Affordability Program can be broken into two fundamental elements: (1) those components that will be handled external to Toledo Water; and (2) those components that will be handled internal to Toledo Water. While the bulk of program delivery occurs through a third-party contractor (or contractors), there are elements of program administration that can only be accomplished within the structure of Toledo Water itself. The purpose of the discussion below is to outline the fundamental elements of program administration. Developing a detailed implementation plan, however, is beyond the scope of this project.

Toledo Water has the advantage of having operated multiple income-based assistance programs upon which it can build. For example, Toledo Water currently offers its low-income senior discount, the availability of which depends on customer enrollment and income verification. In addition, Toledo Water offers an arrearage management program, for which a customer must apply and be found eligible, and aspects of which are income-dependent. Unlike many, indeed most, water providers, in other words, Toledo Water has a history of developing programs that depend upon an administrative process which identifies and enrolls income-eligible customers.

1. *Administrative Tasks that should be Contracted to a Third Party.*

The bulk of program administration of the recommended Rate Affordability Program and Multi-family Tenant Assistance Program should be contracted to a third party external to Toledo Water. The three fundamental program components, as outlined in the recommendation above, consist of: (1) intake; (2) income determination/certification; and (3) water burden determination (and thus bill credit calculation). In addition, "income determination" would involve the process by which program participants periodically recertify their income-eligibility to remain in the program.

Despite operating a low-income senior discount program, Toledo Water does not have general knowledge of who its low-income customers are. To enroll in the Rate Affordability Program, therefore, a customer would need to contact the Company and engage a process by which income documentation can be presented and verified. Once such income verification occurs, an electronic transfer of eligibility information must occur for Toledo Water to enter into its customer information system to allow a billing at the appropriate rate.

Toledo Water benefits by having at least two organizations which perform precisely this type of intake and income verification task. First, to qualify for Toledo Water's existing Bill Payment Assistance Program, its crisis assistance program, a customer must have annual income at or below 200% of the Federal Poverty Level. To income-qualify customers for the existing Bill Payment Assistance Program, customers must enroll (and be found income-eligible) through ProMedica's Financial Opportunities Center. In applying for a grant, documentation of income and household information is required, along with a valid form of identification. This process, in other words, need not be newly "invented" for a Rate Affordability Program. In addition, Toledo's local community action agency, Pathway, Inc., already performs an intake and income-verification process for the Percentage of Income Plans delivered by the local natural gas and electric utilities serving the City of Toledo. As with Promedica, the administrative advantage of contracting with Pathway (in lieu of or in addition to ProMedica) would be that the agency would need not develop new expertise or new processes to perform similar tasks for Toledo Water.

In both instances, the external agencies in Toledo have the experience and expertise to schedule intake appointments, review and verify income documentation, determine income eligibility, and communicate enrollment determinations to Toledo Water as the local utility. In this era of continuing concerns about COVID-19 transmission, Toledo Water would want to ensure that either or both ProMedica and Pathway has the enhanced information technology to allow submission of income documentation electronically.

The third-party administrator retained to operate the Rate Affordability Program would also need to have sufficient information technology to track data on Rate Affordability Program participants over time. Such data tracking is required to allow continuing review of the profile of Program participants as well as contribute to a periodic review of Program outcomes.

2. Administrative Tasks that Require In-House Attention.

Four primary tasks would need to be performed with in-house Toledo Water resources.

First, Toledo Water would need to integrate the Rate Affordability Program into its billing system. Given that Toledo Water currently operates an Arrearage Management Program, incorporating such a program component into a Rate Affordability Program presents nothing new for Toledo Water to develop. Layering a process of providing Affordability Program bill credits on to the existing billing system, however, would require the development of new processes. The billing process would need to be capable not only of delivering a monthly credit, but also capable of delivering a monthly credit within the constraints of the minimum monthly payments and maximum annual credits recommended above.

Second, Toledo Water would, as with any other program, need to develop its internal budgeting process by which it would estimate the cost of the Rate Affordability Program on an annual basis. Using these costs to budget expected revenue from program participants, Toledo Water would decide the process for reconciling actual costs to budgeted costs (and the mechanism, if any, for adjusting future rates to account for over- or under-expenditures).

Third, Toledo Water will need to develop information transfer processes between itself and its third party administrator(s). This information transfer would need to be capable of both sending and receiving data. Toledo Water would need to be able to send data to the third party administrator(s), upon request, including an estimated annual water/wastewater bill for Program applicants, and the extent to which that bill has already been paid by outside assistance (such as the new federal LIHWAP initiative). Toledo Water would need to be able to receive data from its third party administrator(s) such as an identifier for newly enrolled Program participants and the credit that should be billed for each Participant.

Fourth, Toledo Water would need to assure itself that its new information technology is capable of generating desired periodic data reports. These data reports might include, for example, information on both the billings to, and payments from, program participants; the number of payment plans entered into (and successful or defaulted); the number of call center contacts; and the amount and age of participant arrears on a monthly basis.[144] Given Toledo Water's new information technology, and its enhanced capacity to produce data reports (effective 2021), developing this data reporting should not pose a substantive problem.

Finally, the process of credit and collection remains with Toledo Water. The recommendation above is that Rate Affordability Program participants not be subject to "special" credit and collection procedures. The recommendation, for example, is that payment of discounted bills not be "enforced" by whether a participant remains "on" the program or is removed from the program. Instead, for credit and collection purposes, a Rate Affordability Program participant should be treated the same as any other residential customer. If payments are not made by a Program participant, that participant goes into the same collection cycle as any other customer. By delivering the discounted bill, specifically structured to meet affordability objectives, Toledo Water can be said to have fulfilled its part of a "bargain" with Program participants. Program participants are then expected to fulfill *their* part of the bargain by making the discounted payments.

In addition to these program tasks, Toledo Water would need to develop staff training modules to inform both call center and field staff about the new affordability program. It would need to develop a communications plan by which to educate the community, policy-makers (local, state and federal), and its own customer base of the new program as well. Toledo Water has in-house staff that is charged with developing precisely this type of material.

In sum, Toledo Water is uniquely positioned to implement a Rate Affordability Program. More than most utilities, Toledo Water has existing initiatives that would use the same, or very similar, processes that would be required for the Rate Affordability Program recommended herein. Toledo Water does need to take care, however, to not take more on itself than it should. The most effective, and most cost-effective, way for Toledo Water to administer the recommended Rate Affordability Program is to retain a third party administrator who has the experience with performing similar tasks either for Toledo Water or for Toledo's energy utilities.

[144] Data reports need not be produced on a monthly basis. When they are produced, however, they should produce monthly data.

3. The Administrative Promise of "Promise-Pay"

Finally, Toledo Water should seek to integrate its Rate Affordability Program into its new processes involving PromisePay. The PromisePay platform would allow customers to self-identify whether they believe themselves to be income-eligible for the Rate Affordability Program. Information about these self-identified potential program participants would be transferred to the third party administrator for follow-up to verify income documentation and determine the appropriate level of bill credits to be provided to program participants. In addition to a "doorway" through which Toledo Water customers can access the Rate Affordability Program, PromisePay should be viewed as a type of outreach that is fully integrated into existing Toledo Water processes. In this fashion, identifying potentially-eligible Rate Affordability Program participants would not differ from identifying potentially-eligible Senior Discount customers, potentially-eligible Bill Payment Assistance (*i.e.* crisis assistance) recipients, or customers who do not qualify for a Toledo Water program, but who are nonetheless seeking an extended Installment Payment Plan.

Concluding Observations

The City of Toledo has a serious water affordability problem. While the numbers can be measured, and parsed, and aggregated, and disaggregated any number of ways, the fundamental "story" that was told by Toledo residents who responded to the Water Affordability Survey should never be lost.

- When the City has a substantial population that says they are "always" or "often" concerned about whether they will receive their Toledo Water bill before they can find money to pay that bill, there is a problem.

- When the City has a substantial population that says they are not only "concerned" about whether they will receive a Toledo Water bill before they can find money to pay the bill, but when the *do* receive the bill, they do *not* make their payment, there is a problem.

- When the City has a substantial population that says that they *do* pay their Toledo Water bill always, or almost always, but they reduce their spending on basic household necessities in order to have enough money to make that payment, there is a problem.

There is, however, always a danger in focusing exclusively on the problem. One aspect of the "story" of Toledo Water is the variety of responses that the City has made in past years to address the inability-to-pay of its many residents. Toledo Water has not been a passive bystander in responding to the affordability problems of City residents in the past. Toledo Water has:

- Offered bill discounts to its aging customers, and even higher discounts to its low-income aging customers;

- Offered financial assistance to help customers with unpaid balances pay their bills and avoid the disconnection of service;

- Offered extended deferred installment payment plans through which unpaid balances can be retired over time;

- Offered to help connect customers in need with public and private community resources that would provide helpful services to respond to an inability-to-pay;

- Offered various services in an effort to prevent the use of nonpayment disconnections as a collection technique.

- Designed an arrearage management program to help customers respond to the unique level of unpaid balances that can be attributed to the COVID-19 health pandemic.

And yet, the affordability problems persist. Unpaid balances can be disproportionately tracked to lower-income neighborhoods. Customers are receiving bills which, when viewed from the perspective of water burdens, comprise a far higher percentage of income than can sustain regular payments without significant household difficulties. Despite Toledo Water's best efforts to date, both the unpaid bill and the paid-but-unaffordable bill are common occurrences in the City.

One part of the story that does not get told as often as it perhaps should is the impact which water unaffordability has on the City in its capacity as a municipal government. As a municipal utility, Toledo Water has a special role to play in the life of the community. But it also has a special role to play in helping to ensure that municipal government operates as efficiently and effectively as possible.

One impact of unaffordable water service, for example, is the forced mobility of households. "Forced mobility" occurs when households are required to change residences, either inside or outside a utility's service territory, in response to unaffordable service. This mobility may occur because the current residence is rendered uninhabitable due to the lack of water service; because the household has insufficient funds to reasonably expect that its arrears to Toledo Water will ever be retired and thus moves; or because the household simply seeks shelter with more affordable utility costs. Toledo's Water Affordability Survey identified that while forced mobility is not the most common household response to unaffordable Toledo Water bills, it was *one* of the responses.

Adverse education outcomes result from this frequent mobility.[145] Third-graders who have changed schools frequently are two-and-a-half times as likely to repeat a grade as third-graders who have never changed schools. Of the nation's third-graders who have changed schools frequently, 41 percent are below grade level in reading, compared with 26 percent of third-graders who have never changed schools. 33 percent of children who have changed schools frequently are below grade level in math, compared with 17 percent of those who have never changed schools. Toledo Water's actions, in other words, have an impact on the efficiency and effectiveness of the Toledo schools in educating the City's kids.

Unaffordable water has been found to contribute to the loss of a City's tax base as well. As early as 2004, for example, the high rate of water service disconnections in Detroit gained the attention of the United Nations.[146] More than a decade later, the issues remained. In March 2018, the Detroit Free Press reported that nearly 17,500 Detroit water customers were subject to the potential disconnection of service.[147] Just like mortgage foreclosures, these water shutoffs frequently caused households to lose their homes with a resulting abandonment of the housing structure. One study found clusters of between 51 and 88 shutoffs in nine Detroit Census Block groups in 2016, with more than 100 additional Census Block groups having clusters of between 27 and 51 shutoffs that same year. This study reported that "while some of the occupants of these houses are surviving on donated water and water sharing with neighbors, a still-untold number of those houses have been vacated or abandoned."[148] Toledo Water's actions, in other words, have an impact on maintaining the ability of the City to deliver the full range of municipal services supported by the City's tax base.

In response to this story of unaffordability in the City, Toledo Water has available options to it. Some options are better than others. The best option is to deliver a preventative affordability program such as is recommended in this Water Affordability Plan. Rather than simply

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[145] Colton (1996). *A Road Oft Taken: Unaffordable Home Energy Bills, Forced Mobility and Childhood Education in Missouri*, 2 Journal on Children and Poverty 23.

[146] UN News. *In Detroit, -backed water shut-offs 'contrary to human rights,' say UN experts*, 20 Oct 2004. https://news.un.org/en/story/2014/10/481542-detroit--backed-water-shut-offs-contrary-human-rights-say-un-experts *See also* Fried. *Groups Pressure United Nations to Restore Water Service in Detroit*. Food & Water Watch. June 18, 2014. http://www.foodandwaterwatch.org/news/groups-pressure-united-nations-restore-water-service-detroit.

[147] Stafford (March 26, 2018). *Controversial water shutoffs could hit 17,461 Detroit households*, Detroit Free Press, https://www.freep.com/story/news/local/michigan/detroit/2018/03/26/more-than-17-000-detroit-households-risk-water-shutoffs/452801002/

[148] We the People of Detroit Research Collective (2016). *Mapping the Water Crisis: The Dismantling of African-American Neighborhoods in Detroit*, at 20 – 21, We the People of Detroit Research Collective: Detroit (MI).

responding to unpaid bills as they occur, whether through deferred payment plans or through crisis assistance grants, which responses are likely to recur year-in and year-out, delivering a Rate Affordability Program is recommended. In addition, Toledo Water can join the small, but growing, number of water providers who recognize the special needs of multi-family tenants who are not direct customers of the local water company, but rather pay for their water as a component of rent. These customers face affordability problems as well.

In light of the data and discussion presented above, the Water Affordability Plan presented herein is commended for consideration by the City of Toledo.

Appendix A: Philadelphia IWRAP legislation.

City of Philadelphia

City of Philadelphia -1-
(Bill No. 140607-AA)
AN ORDINANCE

Amending Title 19 of The Philadelphia Code (Finance, Taxes, and Collections), Chapter 1600 (Water and Sewer Rents), by providing for installment payment agreements, all under certain terms and conditions.

THE COUNCIL OF THE CITY OF PHILADELPHIA HEREBY ORDAINS:

SECTION 1. Chapter 19-1600 of The Philadelphia Code is hereby amended to read as follows:

CHAPTER 1600. WATER AND SEWER RENTS.

* * *

§19-1605. Limitation on Action to Enforce Collection*; Income-Based Water Rate Assistance Program*.

* * *

(1) The Department may waive any claim for unpaid water, sewer and stormwater charges (also referred to in this Chapter as "water or sewer rent") after the expiration of 15 years following the year in which such charges become due.

(2) Definitions. For purposes of this Section 19-1605, each of the following terms has the meaning specified or referred to in this section:

- *(a) Customer means a natural person who (i) is receiving or (ii) is in the process of requesting or simultaneously requests to receive or restore service from the Water Department at such person's primary residence in Philadelphia. A person shall cease to qualify as a customer under the second category if his or her application for service is ultimately denied.*
- *(b) Income shall have the same definition as for Section 19-1305.*

(b.1) FPL means the Federal Poverty Level, as determined annually by the United States Census Bureau, or, at the discretion of the Revenue Department, roughly equivalent levels of income measured by Area Median Income, as determined annually by the United States Department of

Housing and Urban Development. Any limitations based on FPL may be translated into their rough equivalent in Area Median Income.

(c) IWRAP means the Income-Based Water Rate Assistance Program described in this section.

(d) Low-income shall be defined as income equal to or less than one hundred fifty percent (150%) of FPL.

(e) Monthly household income means the monthly income received by the customer and all adults residing in the customer's household.

(f) Special Hardship may include, but is not limited to, the following conditions: (i) the addition of a dependent; (ii) a seriously ill household member; or (iii) circumstances that threaten the household's access to the necessities of life if payment of a delinquent bill is required.

(3) The IWRAP program is authorized under the following terms and conditions:

(a) Monthly IWRAP bills shall be affordable for low-income households, based on a percentage of the household's income and a schedule of different percentage rates for (i) households with income up to fifty percent (50%) of FPL, (ii) households with income from fifty percent (50%) to (100%) of FPL, and (iii) households with income from one hundred percent (100%) to one hundred fifty percent (150%) of FPL, and shall be charged in lieu of the Department's service, usage, and stormwater charges. That goal shall be achieved through a discount on generally-applicable residential rates or other bill calculation mechanism based upon each Customer's actual income and, if practicable, historical usage, in a manner consistent with applicable federal law. The percentage of income limitations to be imposed at each level by the first sentence shall be determined by the Water, Sewer and Storm Water Rate Board, which also shall have discretion to establish more, but not fewer, Low-Income tiers. Bills issued pursuant to this IWRAP program shall be deemed to comply with Philadelphia Code Section 13-101(4)(d). The Department shall have discretion to offer more favorable terms than the standard rates upon an individualized finding of Special Hardship. Historical usage shall not include significant usage attributable to leaks or activities not customary to a residential setting.

(b) Individual Financial Assessment. Customers may request an individual financial assessment comparing household income and expenses in order to demonstrate Special Hardship.

(c) More Affordable Alternative. Prior to enrolling a customer in IWRAP and upon each recertification of eligibility, the Department shall determine whether, on the basis of such customer's monthly bills, the customer would receive more affordable bills under another available payment agreement or rate discount. In such event, the Department shall provide the customer with such more affordable payment agreement and rate discount, if applicable, in lieu of IWRAP.

(d) Timely payment of his or her monthly IWRAP bill shall satisfy all of a customer's current water liabilities, so that there is no addition to his or her arrears. Timely payment shall be payment postmarked or received within one month of that payment's due date.

(e) Any amount paid for a monthly IWRAP bill in excess of the customer's current water liabilities shall reduce the balance of his or her arrears.

(f) In the event an IWRAP customer's service is terminated for nonpayment of IWRAP bills, such customer shall be entitled to restoration of service (i) upon payment of such unpaid IWRAP bills and other charges assessed during the period such customer's service was off, (ii) upon such customer's entry into a payment agreement with the Department regarding such unpaid IWRAP bills or other charges, as applicable, or (iii) upon a finding of Special Hardship by the Department. Upon restoration of service pursuant to this subsection (f), a customer shall automatically be entitled to continue in IWRAP, or to apply for IWRAP, as appropriate.

(g) Eligibility for the IWRAP program shall be understood in all cases to require showing of financial or Special Hardship. Customers demonstrating monthly household income that is Low-Income shall have satisfied this eligibility requirement.

(h) Total bill. Low-income customers who are enrolled in IWRAP shall be required to make no additional payment in respect to any pre-IWRAP arrears to maintain service.

(h.1) Minimum bill amounts consistent with the goal of providing affordability may be established for cases where a bill calculated under rates set pursuant to subsection (3)(a) would result in a nominal amount.

(h.2) Earned forgiveness. Earned forgiveness of arrearages shall be available under such terms and conditions as are adopted by regulation. Customers with household income from one hundred fifty percent (150%) to two hundred fifty percent (250%) of FPL, shall be offered payment plans that result in a total bill – including arrearages – that is affordable.

(i) Eligibility and Enrollment in IWRAP.

(.1) A Customer shall be enrolled in IWRAP upon approval of a completed application on or with which the applicant shall be required to provide proof that he or she (i) is a resident at the property in question; and (ii) qualifies for IWRAP because of financial hardship or Special Hardship. The Department shall design an appropriate application and shall set appropriate standards for what constitutes proof of those criteria. Requirements for proof of criteria other than ownership should be consistent with those under Philadelphia Code Section 19-1305.

(.2) The Department shall accept determinations of income and/or residency made within the prior twelve months pursuant to §19-1305.

(.3) The Department may deny a customer's eligibility for IWRAP or a payment agreement for good cause, provided that such denial shall constitute an adverse decision subject to the provisions of subsection (3)(g) of this Section. A customer who is otherwise eligible for an IWRAP agreement under this Section shall not be denied an IWRAP agreement based on the customer's nonpayment of prior bills due to the Department or default or failure to comply with a non-IWRAP payment agreement.

(j) IWRAP Enrollment Confirmation. Upon a customer's entry into an IWRAP agreement, the Department shall provide a written statement setting forth the terms and conditions of the customer's participation in IWRAP.

(k) Decisions in writing. Any decision or determination of the Department relating to (i) initial or continued eligibility for IWRAP, (ii) a Department payment agreement, (iii) the amount of IWRAP or other arrears for which the customer is responsible, (iv) the completeness of a customer's application, and the adequacy or completeness of any documentation submitted in connection with an application, for an IWRAP or a Department payment agreement, or (v) the customer's performance of his or her obligations under an IWRAP or a Department payment agreement, shall be provided to the customer in writing, and shall include a specific reason for the decision or determination, and a statement of the customer's right to an administrative hearing to dispute such decision.

(l) The Tax Review Board is authorized to review any adverse final decision or determination of the Department relating to initial or continued eligibility for an IWRAP agreement or to the Customer's performance of his or her obligations under an IWRAP agreement with the same effect as a petition for review pursuant to Chapter 19-1700 of this Title.

(m) The Department and the Water Department shall promulgate standards governing stay, postponement, and holds of pending enforcement actions or service terminations to allow customers time to apply for and enter into IWRAP or other payment agreements, and/or to seek legal representation or assistance from community based organizations. The Department and the Water Department shall also promulgate standards regarding circumstances under which pending enforcement actions shall be discontinued after a customer enters into IWRAP. (n) Warning of Risk of Water Foreclosure Action. No less than ninety days before filing any water foreclosure action, the Department shall send the customer, and shall deliver to each dwelling unit at the service address, a Warning of Risk of Water Foreclosure Action containing the following information:

(.1) a brief description of any possible legal action and its consequences, including a clear and conspicuous statement, where appropriate, that the customer will become in danger of losing his or her home or property if he or she does not act; a brief description of IWRAP and the other available assistance programs available for residential customers; the steps the customer must take to enter into such programs, and the deadline for doing so; and a brief description of any charges, fees, penalties, or interest that may be imposed;

(.2) the total amount required to pay off the arrears in full, the date by which it must be paid, the addresses where payments can be made, and accepted forms of payment;

(.3) a statement explaining the types of other City-related debt that may be capable of being liened against a property including, without limitation, property tax, nuisance and demolition fees and fines, and a brief explanation of how the customer may request confirmation as to the existence and amounts of any such debt;

(.4) lists of the free housing counseling agencies and the legal services agencies that offer relevant services and may be available to assist the customer, including addresses and phone numbers.

(o) IWRAP Recertification, Recalculation, and Repayment Agreements. Upon written request of the Department and no more frequently than once every year, a customer must re-certify to the Department his or her income and eligibility. No person shall intentionally make any false statement when applying to enter into an IWRAP agreement. If it is determined that a customer entered into an IWRAP agreement on the basis of an intentionally false statement, the agreement shall be null and void.

(p) In the event of a change in household income or household size, prospective IWRAP bills will be calculated according to subsection (3)(a) above and such recalculation shall be done promptly at the request of the customer. A customer also may request a determination or redetermination of Special Hardship at any time he or she experiences a change in circumstances. In the event of a change in household income that results in a determination that the customer is no longer eligible to participate in IWRAP, such customer shall receive the benefit of any forgiveness earned during the period of the IWRAP agreement.

(q) Conservation Measures. Each participating IWRAP customer shall agree to accept and reasonably maintain any free conservation measures offered to the customer by the Water Department.

(4) Arrears Determination.

(a) Upon the customer's enrollment in an IWRAP agreement, the Department shall determine and notify the Customer in writing of the amount of such customer's arrears.

(b) The Department's determination of arrears shall not impair a customer's ability to request review of, or to challenge in any informal hearing, appeal, or other administrative or legal process, the validity or amount of any such arrears.

(c) A customer qualifying for an IWRAP agreement shall receive IWRAP bills pursuant to subsection (3)(a) notwithstanding the customer's request for review of, or challenge to, the Department's arrears calculation. In the event of any adjustment to the arrears, the amount of forgiveness earned by such customer shall be recalculated as if such adjusted arrears were determined as of such customer's IWRAP enrollment.

(5) Information for Residential Customers.

(a) Both the Department and the Water Department shall provide information about the IWRAP program and about organizations that can assist in applying for IWRAP to any individual who contacts those departments under circumstances that suggest the individual may qualify for and may benefit from the program.

(b) Information Available Online. The Department shall clearly and conspicuously post information regarding IWRAP on its website.

(c) Language Access/Non-English Speakers. The Department shall take reasonable steps to ensure meaningful access to IWRAP and other payment agreements for Limited English Proficient (LEP) persons. Such steps shall include providing copies of all vital documents in English and Spanish, both on-site and on-line translations of all vital documents, including notices and agreements, as well as providing translated "taglines" on all English language notices in Spanish and other languages advising LEP persons that telephone interpreter services are available at the Department.

(6) Rules and Regulations. The Department shall promulgate such rules, regulations, written policy, forms, and other documentation as are deemed necessary to effectuate the purpose of this Section, including but not limited to a schedule of documentation that shall be accepted as proof of ownership consistent with subsection 2(f).

(7) Reporting.

(a) By March 31 of each year, the Department shall submit a written report to the Mayor, with a copy to the President and Chief Clerk of Council, regarding activities undertaken pursuant to this Section during the previous calendar year.

(b) Each such report shall include the following information for the twelve-month period covered:

(.1) how many applicants were enrolled in IWRAP and a breakdown of such enrollments by income level, and the gross amount of arrears calculated;

(.2) how many applicants were not enrolled in IWRAP and a breakdown of the reasons for the same (e.g., lack of residency, failure of customer to follow up, and so on);

(.3) the total number of non-IWRAP payment agreements and a breakdown of such payment agreements by type, term, and amount covered, which amount shall be further broken down into principal, interest, penalties, and other fees or costs; and

(.4) the total number of IWRAP customers who defaulted during the applicable period and the reason(s) (e.g., non-payment, failure to recertify eligibility) for the default.

(8) Access to Records. Any customer or his or her designated representative (who need not be an attorney) seeking an agreement under this chapter, may request in writing or may visit the Department in person during regular working hours, to review and receive copies of any available records relevant to the water, sewer and storm water service at such individual's primary residence. As used in this section, the term "records" refers to all physical and electronic records in the Department's possession.

(9) Implementation. The IWRAP program shall go into effect as soon as practicable after the first decision by the Water, Sewer and Storm Water Board on new rates and charges, but in any event the later of July 1, 2017 or 15 months following such decision by the Board.

* * *

SECTION 2. This Ordinance shall be effective immediately.

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Appendix B: DC Water Multi-Family Assistance Program legislation.

These rules were adopted as final on May 6, 2021 by resolution, and will become effective upon publication of this notice in the D.C. Register.

Chapter 41, RETAIL WATER AND SEWER RATES AND CHARGES, of Title 21 DCMR, WATER AND SANITATION, is amended as follows:

Section 4102, CUSTOMER ASSISTANCE PROGRAMS, is amended by adding a new Subsection 4102.10 to read as follows:

4102.10 *DC Water Cares: Multifamily Assistance Program (MAP)*

(a) *The DC Water Cares: Multifamily Assistance Program (MAP) provides up to two thousand ($2,000) per eligible unit of emergency relief to an eligible Occupant residing in a participating Multi-Family Customer's premises.*

(b) *For purposes of this subsection, Non-Residential Customers whose premises has four or more dwelling units, are deemed Multi-Family Customers, as defined in 21 DCMR 4104, and eligible to apply to participate in the MAP.*

(c) *For purposes of this subsection, the term "Occupant" includes a person that resides in a dwelling unit in an apartment, condominium, or cooperative housing association.*

(d) *Multi-Family Customers and their eligible Occupants may participate in the MAP by complying with the requirements in this subsection.*

(e) *To participate in the MAP, a Multi-Family Customer shall:*

(1) *Maintain an active DC Water account and be responsible for paying for water and sewer services at a Multi-Family Customer's property that is:*

(A) *Not owned or operated by the District of Columbia or the Federal Government; or*

(B) *Not currently receiving federal assistance to pay for water and sewer services, including, but not limited to District or federally funded COVID-19 rental assistance.*

(2) *Have one or more eligible Occupant in an active lease or rental agreement, condominium housing association deed or title, or cooperative housing association occupancy agreement or title to reside in their premises;*

(3) *Complete and submit a DC Water Cares: Multifamily Assistance Program Terms and Conditions Application and comply with DC Water requests for information and access to the premises as necessary to determine compliance with the MAP requirements;*

(4) *Upon approval to participate in the MAP, comply with all the MAP Terms and Conditions, post the MAP flier in a conspicuous location in the building or include the MAP flier in a notice or invoice to all unit Occupants to inform the Occupants about the MAP and encourage them to apply for assistance, if eligible;*

(5) *Upon receipt of MAP Credits, apply ninety percent (90%) of the MAP Credits to the DC Water approved eligible Occupant's account within thirty (30) days of receipt of the MAP Credit, and*

the remaining ten percent (10%) shall be maintain as a credit on the DC Water account;

(6) *Notify the eligible Occupant in writing that the credits were applied to their account within thirty (30) days of the receipt of the MAP Credit;*

(7) *Enter a payment plan agreement with DC Water for any remaining arrears outstanding on the DC Water account within sixty (60) days of receipt of the first MAP Credits;*

(8) *Notify DC Water within thirty (30) days of any change in ownership or the eligible Occupant's occupancy.*

(f) *To be eligible to participate in the MAP, an Occupant shall be (1) named on the occupancy agreement, including, but not limited to a lease or rental agreement, condominium deed or title, or cooperative housing association occupancy agreement or title, (2) reside in a Multi-Family Customer's property that is master metered and approved to participate in the MAP, and (3) meet one of the following requirements:*

(1) *Reside in an Affordable Housing Unit as defined in 21 DCMR § 199.1, provided the Occupant does not notify DC Water to be excluded from receiving MAP assistance within ten (10) days of receipt of notice of eligibility from DC Water; or*

(2) *Meet the annual household income limits equal to or below eighty percent (80%) of the Area Median Income (AMI) for the District of Columbia, not capped by the United States median low-income limit as follows:*

(A) *Occupant submits a Resident Application for DC Water Cares: Multifamily Assistance Program to the District of Columbia Department of Energy and Environment (DOEE) and DOEE determines that the applicant meets the annual household income requirements;*

(B) *Occupant that is eligible to receive Low-Income Energy Assistance Program (LIHEAP) or Utility Discount Program (UDP) assistance during Fiscal Year 2021 as* *determined by DOEE, shall be categorically eligible to participate in the MAP, provided they do not notify DC Water to be excluded from participating within ten (10) days of receipt of the notice of eligibility from DC Water; or*

(C) Occupant that is eligible to receive assistance for public benefits programs during Fiscal Year 2021, including, but not limited to, the Temporary Assistance for Needy Families (TANF), Supplemental Nutrition Assistance Program (SNAP), or medical assistance programs, through Medicaid, Alliance and DC Healthy Families programs as determined by the District of Columbia Department of Human Services, shall be categorically eligible to participate in the MAP, provided they notify DC Water that they agree to participate in the MAP within ten (10) days of receipt of the notice of eligibility, but not later than September 21, 2021.

(3) Occupant is not eligible to receive MAP assistance if they:

(A) Reside in a dwelling unit that is 100% subsidized; or

(B) Received emergency assistance for water and sewer charges for the period of April 1, 2020 through September 20, 2021.

(g) DC Water shall notify the approved Multi-Family Customer and approved Occupant(s), setting forth the amount of the approved MAP Credits.

(h) DC Water shall apply up to two thousand dollars ($2,000) in MAP Credits per eligible unit during Fiscal Year 2021 on an approved Multi-Family Customer's DC Water account that has one or more eligible Occupant as follows:

(1) The MAP Credits provided per eligible unit shall be calculated based on the greater of A. or B., which is then divided by the total number of dwelling units in the premises:

(A) The average of the Multi-Family Customer's DC Water charges billed from April 1, 2020 to December 31, 2020 subtracting any amount of water and sewer charges applicable to any retail/commercial units and that result is multiplied by three (3); or

(B) Total amount of the outstanding balance on the Multi-Family Customer's DC Water account as of December 31, 2020 subtracting any water and sewer charges applicable to any retail/commercial units.

(2) DC Water shall revoke the amount of the MAP Credits applied to a Multi-Family Customer's DC Water account and charge the customer's account the full amount of the MAP Credits, if one or more of the following violations is not corrected within ten (10) days of the date of the notice of violation from DC Water:

(A) Failure to comply with the MAP Terms and Conditions;

(B) Failure to enter into a payment plan agreement within sixty (60) days of the receipt of the first MAP Credits to establish a payment schedule for any remaining outstanding charges;

(C) Failure to apply the MAP Credits to the Occupant's account within thirty (30) days of receipt of the MAP Credits; or

(D) Multi-Family Customer or Occupant commits fraud or makes false statements in connection with the MAP.

(i) Multi-Family Customer that receives MAP Credits on their DC Water account shall:

(1) Apply ninety percent (90%) of the total MAP Credits for the approved Occupant on their account within thirty (30) days of the date of the notice of the amount of the Credits from DC Water, and the remaining ten percent (10%) shall be maintain as a credit on the DC Water account;

(2) Notify the approved Occupant, in a statement or separate writing, that the credit has been applied to their account within thirty (30) days of receipt of the MAP Credits from DC Water;

(3) Notify DC Water within thirty (30) days of any change in ownership if DC Water has not applied the MAP Credits to the Multi-Family Customer's DC Water account;

(4) Notify DC Water within thirty (30) days of any change in the Occupant's occupancy if the MAP Credits have not been applied to the Occupant's account;

(5) Provide the Occupant any MAP Credits remaining in their account if the Occupant terminates their occupancy;

(6) Provide, upon DC Water's request, documentation confirming that the MAP Credits have been applied to the Occupant's account;

(7) Provide DC Water access to the premises and records to conduct an audit to determine compliance with these regulations and the MAP Terms and Conditions;

(8) Maintain all documents related to the MAP Terms and Conditions Application, receipt and handling of MAP Credits, and notices to approved Occupant(s).

(j) The DC Water Cares MAP shall continue in Fiscal Year 2022 if authorized by the DC Water Board of Directors.

(k) To continue receiving MAP Credits in Fiscal Year 2022 without interruptions, the Multi-Family Customer must submit a renewal DC Water Cares: Multifamily Assistance Program Terms and Conditions Application to DC Water within the renewal deadline. A Multi-Family Customer that submits their renewal DC Water Cares: Multifamily Assistance Program Terms and Condition Application after this period, and is subsequently approved by DC Water, will receive benefits as of the date of receipt of the Application.

(l) To continue receiving MAP Credits in Fiscal Year 2022 without interruptions, an Occupant residing in multifamily properties must submit

a renewal Resident Application for DC Water Cares: Multifamily Assistance Program to DOEE in accordance within the renewal deadline. An Occupant that submits their renewal Application after this period, and is subsequently approved by DC Water, will receive benefits as of the date of receipt of the Application.

(m) If DC Water determines that budgeted funds are insufficient to provide DC Water Cares MAP Credits, DC Water may:

(1) Suspend the process for accepting DC Water Cares MAP applications; or

(2) Suspend or adjust providing DC Water Cares MAP Credits to eligible Multi-Family Customer's DC Water account.

(n) DC Water shall notify a Multi-Family Customer or Occupant if they are denied eligibility for the MAP by issuing a Notice of Denial, which shall contain a written statement of the basis for the denial and advising the Multi-Family Customer or Occupant of the following:

(1) Multi-Family Customer or Occupant may challenge the denial of eligibility to participate in the MAP by:

(A) Submitting a written Request for Reconsideration within fifteen (15) days of the date of the Notice of Denial; and

(B) Providing a statement of the basis why they should be eligible and supporting documentation.

(2) The General Manager shall review the Request for Reconsideration and make a final determination of eligibility.

(3) The Multi-Family Customer or Occupant may request an Administrative hearing in writing, within fifteen (15) days of the date of the General Manager's written final determination, if he or she is not satisfied with the General Manager's determination; and

(4) The Customer shall be notified in writing of the date and time of the Administrative Hearing, if requested.