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DWSRF Disadvantaged Community Definitions: A Reference for States

U.S. ENVIRONMENTAL PROTECTION AGENCY

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Contents

Introduction

The 1996 amendments to the Safe Drinking Water Act (SDWA) established the Drinking Water State Revolving Fund (DWSRF) to help water systems finance infrastructure improvements needed to ensure compliance with drinking water standards or otherwise advance the public health protection objectives of the SDWA. To achieve this goal, DWSRF financing is subsidized through below-market interest rates and extended loan terms. However, this subsidized financing may still be insufficient for some water systems that face greater challenges to financing and implementing critical drinking water infrastructure improvements. To assist these water systems, the SDWA requires that each state[1] establish affordability criteria to define "disadvantaged communities" (DACs) in the state.

Water systems that qualify as DACs are eligible for even more affordable assistance to ensure that critical drinking water system improvements are affordable for all customers. The SDWA requires DWSRF programs to provide between 12 percent and 35 percent of their annual federal capitalization grant as DAC additional subsidy in the form of grants, negative interest loans, loan principal forgiveness, and through buying, refinancing, or restructuring debt.[2] State programs can also offer water systems serving DACs longer loan terms, lower interest rates, and other assistance to help them successfully implement critical infrastructure improvements.

Some communities face greater challenges to financing and implementing critical drinking water infrastructure improvements. The SDWA directs states to provide a minimum level of additional subsidy to DACs and includes provisions for states to provide more affordable infrastructure financing to water systems serving DACs.

States have broad discretion in defining DACs, establishing loan rates and loan terms, deciding how much of their capitalization grant to award as additional subsidy, and establishing criteria for the distribution of additional subsidy. Consequently, there is significant variation across the country in the amount of assistance directed to DACs and the characteristics of communities that qualify for this assistance. The purpose of this report is to serve as a resource for states interested in revising their DAC assistance programs by:

- Presenting the range of indicators states currently use to define DACs.
- Identifying key considerations for evaluating how different DAC criteria can capture communities in need.
- Discussing the relationship between DAC definitions and additional subsidy distribution policies.

[1] This report uses "states" to refer to all 50 states and Puerto Rico.

[2] The Bipartisan Infrastructure Law (BIL) (P.L. 117-58), also known as the "Infrastructure Investment and Jobs Act of 2021" (IIJA) amended the SDWA to expand the forms of additional subsidy states may provide for projects serving disadvantaged communities, specifying that grants, negative interest loans, other loan forgiveness, and buying, refinancing, or restructuring debt are allowable forms. It also stipulated that loans with zero or higher interest rates are not considered additional subsidy. The BIL also increased the minimum amount of disadvantaged community additional subsidy that states must provide, from 6% to 12% of their annual federal capitalization grant. The State program policies reviewed in this document were developed prior to passage of the BIL, when the minimum required disadvantaged community additional subsidy was 6% and the allowable forms were limited to principal forgiveness or negative interest.

- Providing information to help states explore options for refining DAC assistance programs to better support communities in need.

Section 1 of this report summarizes the indicators states currently use to define DAC. It discusses advantages and limitations of indicator types and discusses considerations for reexamining DAC definitions. Section 2 describes states' methodologies for distributing additional subsidy and the extent to which they target DACs in their overall additional subsidy allocation. Section 3 includes a discussion of important considerations for states seeking to improve assistance to DACs.

Section 1: Disadvantaged Communities Definitions

Under the SDWA, a "disadvantaged community" is defined as "the service area of a public water system that meets affordability criteria established after public review and comment by the State in which the public water system is located."[3] State DAC definitions establish criteria for providing additional financial assistance through DWSRF. This section summarizes state DAC definitions and discusses options to refine these definitions. A complete list of state DAC definitions is included in the Appendix.

A clear and readily accessible definition of DAC is critical for implementation of a state DWSRF program so that state managers and EPA can clearly identify which water systems may receive DAC additional subsidy or other forms of financial assistance. It is also important for communicating available financing terms to water systems in the state and building demand for DWSRF assistance among potentially eligible communities. About two thirds of states' DAC definitions are clear and relatively accessible, based on a review of federal fiscal year (FFY) 2021 state Intended Use Plans (IUPs). The remaining states' DAC definitions are less clearly articulated as definitions, and instead typically take the form of methodologies for distribution of DAC assistance outlined in an IUP. In some cases, these methodologies incorporate specific criteria. Despite the absence of clear DAC definitions in these states, the following discussion of state DAC definitions incorporates those methodologies and criteria when possible.

Indicators Used to Define Disadvantaged Communities

Overall, states use 17 different indicators to establish affordability criteria for their DAC definitions. These indicators can be grouped into six broad categories: socioeconomic, demographic, financial, public health, environmental justice (EJ), and other. Specific indicators that fall within each category are listed in Table 1.

Out of 51 states, 49 use socioeconomic indicators to define DAC. States use these indicators as a measure of a community's ability to pay for water service. All but two states use median household income (MHI) or a similar measure of income[4] to define DACs; eight of these states use MHI or a similar measure of income as the only indicator. Financial indicators are also very common, including water rates (used by 27 states), and water system size (16 states).[5] Unemployment rate is also common (10

[3] SDWA §1452(d)(3)

[4] Two states use adjusted gross income or per-capita income.

[5] Water system size, as measured by the number of people served by the water system or the number of connections in the water system, is categorized as a "financial" indicator in this report because it is a measure of the number of bill-paying customers in the water system. These customers form the financial base of the water system. A small financial base means that capital costs are spread across fewer people and the water system does not have the advantage of economies of scale.

states). Nearly all these indicators speak to a community's ability to pay for water infrastructure projects.

It is less common for states to use indicators that represent broader hardship or vulnerabilities. Two states currently consider public health risks stemming from SDWA non-compliance, such as presence of contaminants or frequent boil water notices. Two states include EJ or similar designations that consider environmental exposures or other broader vulnerabilities, and three states use defined categories (such as colonia). The following table summarizes the indicators states use to define DACs. These indicators are described in detail following the table.

Table 1. Indicators States Use to Define DACs

Type of Indicator	Indicators	Number of States Using Indicator
Socioeconomic	Median Household Income[a]	49
	Unemployment Rate	10
	Poverty Rate	8
	Percentage of Population Receiving Government Assistance[b]	1
	Labor Force Participation Rate	1
Demographic	Population Trends	7
	Age Composition	2
Financial	Water Rates	27
	Water System Size (Population Served or Number Connections)	16
	Water System Debt	7
	Municipal Bond Rating	2
	Proposed Loan Amount	1
	Property Value	3
Public Health	Human Health-related Factors	2
EJ	EJ Community or Similar Designation	2
Defined Categories	Specifically defined and identified category or group	3

a. Includes two states that do not use median household income but do use adjusted gross income or per capita income as indicators.

b. Government assistance includes Social Security, Supplemental Security Income, cash assistance, or Supplemental Nutrition Assistance Program (SNAP).

Commonly used indicators and some strengths and limitations to their use are described below.

Median Household Income (MHI). While nearly all states use MHI as part of their DAC definition, they employ widely different methodologies and thresholds for developing their criteria. These methodologies and thresholds are described below.

- States typically use MHI to establish a community's income relative to the rest of the state, expressed as a percentage of the statewide average (i.e., community MHI as a percentage of state MHI). Of states that use this approach:
    - Fourteen set a threshold at or below state MHI (100 percent or less of state MHI).

    - Ten set the threshold at 80 percent or below state MHI.
    - Three set the threshold at an amount greater than state MHI (e.g., Nebraska uses less than or equal to 120 percent of statewide MHI). One of these three states defines DACs as those with an MHI at or below the national MHI (which is higher than the state MHI).
    - Five states establish tiers of MHI that serve as thresholds for providing different levels of assistance.
- Ten states use MHI in a ratio. States that use MHI in a ratio often compare the community's water rates to MHI and establish a threshold or evaluate a community's ratio relative to those of other applicants in a funding cycle. For example, Virginia defines DAC as water systems with water rates greater than or equal to 1 percent of the MHI for the city, town, or county in which the water system is located, and Alabama allocates principal forgiveness to communities with the highest ratio of annual average water bill to MHI.
- Three states use MHI in a formula. For example, Tennessee incorporates MHI as part of an affordability index, which is a formula that incorporates several indicators.
- Three states use MHI as part of a points system in which a community is awarded a specified number of points based wholly or in part on its MHI and qualifies as a DAC if it scores above a specified threshold.

Figure 1 provides a breakdown of how states use MHI or adjusted income to establish thresholds for DAC definitions.

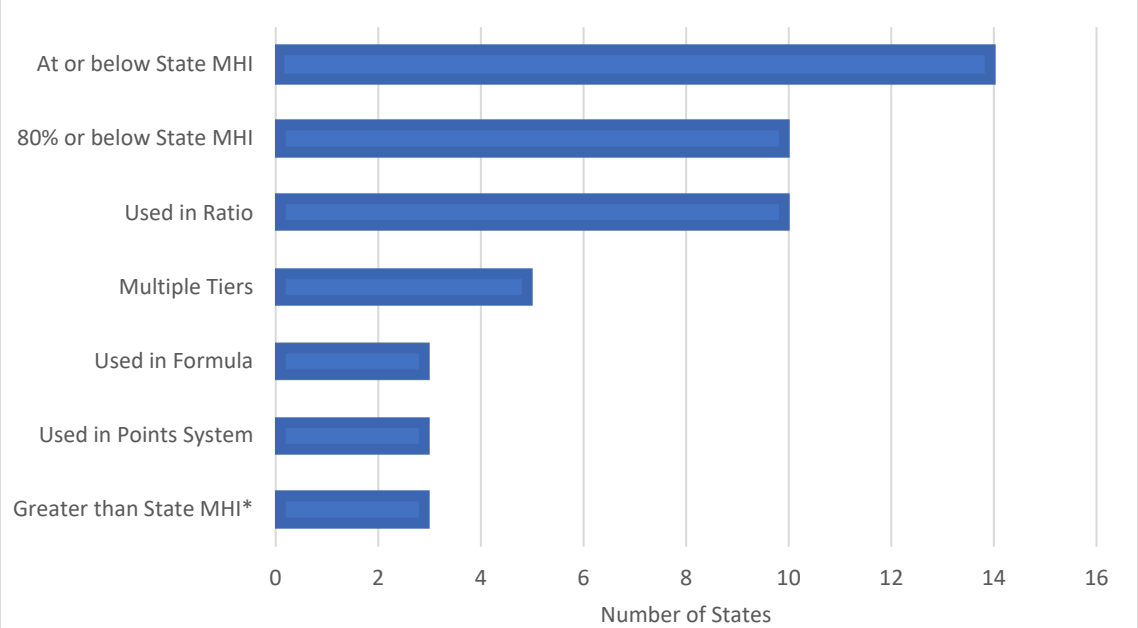


Figure 1. Use of Median Household Income (MHI) to Establish Thresholds for Defining DACs

MHI is an indicator of the overall community and is strongly correlated to the presence of low-income households.[6] Comparing community MHI to statewide MHI is relatively straightforward administratively, and the data are readily accessible from the U.S. Census Bureau. However, MHI may obscure the prevalence of households in poverty, especially in communities with a skewed or wide income distribution. MHI describes the community's overall income but does not capture whether a subset of the community's population might struggle with rate increases associated with existing or new water infrastructure debt. It also does not capture, by itself, whether the actual cost of water paid by customers is affordable—which is a function of the relationship between costs and means. Poverty rate and water rates, discussed below, can more directly address these issues.

Geographical boundaries of water system service areas may not align with those used by the U.S. Census Bureau to report MHI, in which case the reported community MHI may not accurately reflect the income of the actual water system users. This can be a more significant problem in rural areas where water systems may serve only a small portion of a town and where Census geographic areas can be large. Some states seek to address this by allowing water systems to conduct an income survey, but this can add administrative burden on the community. In addition, very small communities may need very high response rates to develop a valid survey, and this can be difficult when requesting sensitive personal information.

Water Rates. Water rates establish costs of drinking water to customers and are the second most common indicator used. States typically use water rates in relation to MHI as a measure of affordability of drinking water. Most of the 27 states that use water rates establish a threshold of water rates as a percentage of state MHI in their DAC definition. If water rates meet or exceed that threshold, water is considered unaffordable, and the community is designated disadvantaged. Water rates thresholds set in DAC definitions are typically between 1 percent to 2 percent of community MHI for water-only systems.[7] Because MHI is a median value, these thresholds reflect the community's overall ability to pay for water, and have the same limitation as use of MHI alone in their ability to capture the portion of households within a community whose income falls well below the community average and for whom water rates constitute a greater portion of their income.

Some states use water rates in combination with other criteria. In Missouri, a community is defined as disadvantaged only if the applicant's average user rate for 5,000 gallons is at or above 2 percent of the community's MHI *and* the MHI is at or below 75 percent of the statewide MHI.

Some states set a specific dollar value threshold for rates, above which communities are determined to be disadvantaged. For example, one of the criteria Indiana uses to define a DAC is having an estimated post-project user rate greater than $45 per month. Tying DAC definitions to a specific dollar amount presents challenges in setting the "right" amount and in regularly updating it.

When used in combination with a measure of household income and expressed as a percentage of MHI, including water rates in a DAC definition can capture the real effects on communities that might not appear to be disadvantaged based on MHI alone, but that have relatively high water costs. DAC definitions that set a threshold dollar value for water (e.g., $300 or more for 5,000 gallons) address the

[6] Rubin, Scott J. (2001). Criteria to Access the Affordability of Water Service. *Rural Water Partnership Fund.* Accessible at

[7] Some states, such as Delaware and Montana, set a higher level for combined water and wastewater systems.

perception of what is the "right" amount to pay for drinking water services but do not address costs relative to ratepayers' incomes or wealth. High-poverty communities may still struggle with a dollar-per-gallon level that is affordable for the average customer. Furthermore, definitions that use specific dollar values should be regularly updated to account for cost-of-living increases and inflation.

States use water rates as a representation of the cost of providing water service, but some water rates might not reflect the true cost of sustaining a system. DAC definitions that do not use rates that reflect the true costs likely to be borne by users (such as from emergency repairs and replacement of aging assets) over the lifetime of the debt service for the contemplated DWSRF loan may overestimate affordability. System administrators may struggle to set rates at an adequate level because there can be a discrepancy between public perception of what is a reasonable amount to pay for water and what is needed to cover operations, debt, and future asset replacement. A low current rate could mean that the utility has not adequately planned for future costs.

Water System Size. Approximately one-third of state definitions consider the number of people served by the water system. Ten states use a threshold of 10,000 or fewer people as one of their criteria to designate DACs, aligning with the SDWA definition of small water systems. Using size of population served can capture challenges that small systems face with high fixed costs and lack of economies of scale. However, small communities do not always struggle with affordability, and some may be wealthy areas that can afford higher costs.

Kansas: Targeting Very Small Systems, Measured Two Ways

Kansas defines a DAC as a municipality that serves a population of 150 residents or fewer. Data from the Kansas Division of Budget is used to determine the population of cities, while the population of rural water districts is determined by multiplying the number of residential meters in each community by 2.5. The Kansas Division of Health and Environment confirms the residential meter counts for rural water districts.

Demographics. Demographic criteria such as population change or age also inform an understanding of affordability. Consideration of the relative proportion of the population that is of working age, such as through an age-dependency ratio, captures how much of the population is likely to be employed and earning income to pay water rates. However, older populations do not necessarily lack wealth, regardless of unemployment status. Population growth or loss informs whether debt is spread over a larger or smaller population compared to when the debt was incurred. This type of data is also readily accessible from the U.S. Census Bureau.

Unemployment Rate. The unemployment rate measures the portion of the labor force that is not currently employed and earning wages or income and therefore may be unable to pay for water services. Based on the percentage of the workforce earning income, the unemployment rate represents a fairly straightforward proxy for household ability to pay and is available using data from the U.S. Census Bureau. The disadvantage to using the unemployment rate comes from the way unemployment is calculated: employed and unemployed populations are based only on those in the labor force (those working or actively looking for work), not the total population. The unemployment rate of communities with low labor force participation might not reflect the true percentage of people working and earning an income because some portion of the population will not be counted as either employed or unemployed. Georgia addresses this shortcoming by considering both the unemployment and **labor force participation rates**. The labor force participation rate measures the labor force as a percentage of

the total working-age population. This can provide a better representation of the true percentage of people working and earning an income. Neither the unemployment rate nor the labor force participation rate accounts for wealth or other sources of income, but wealth and other sources of income may be of minimal relevance for high-poverty areas.

Poverty Rate. The poverty rate, which is the portion of households with income less than the federally defined poverty threshold, can capture uneven distribution of income in a community, particularly the presence of subpopulations that face extreme financial hardship. The poverty threshold accounts for household size and cost of providing basic necessities, making it a good indicator of affordability at the household level.

Because the poverty rate is set at the national level rather than state level, states with a relatively high overall cost of living may find that the poverty rate does not capture the full extent of households that face significant financial hardships. As with MHI, there may also be a mismatch between a water system's service area and the boundaries used by the U.S. Census Bureau for reporting poverty. The poverty threshold is intended to define the purchasing power a household needs to procure basic necessities, but it has several limitations as an indicator of affordability: it uses pre-tax rather than post-tax income; it does not consider that a family may provide economic support to unrelated household members, or family members living elsewhere; it does not account for non-cash assistance benefits (such as food or housing assistance); and it does not account for the way in which the costs of basic necessities like housing have shifted relative to food costs since the poverty rate was initially established in the 1960s. Despite these limitations, the poverty rate may be the single best indicator of the presence of people who face severe financial hardship, and for whom even modest increases in rates would present a burden.

Water System Debt. Current water system debt informs a system's ability to take on more debt for new capital improvements, determining viable potential sources of financing. Water system debt also provides information on costs borne by ratepayers and can be a helpful supplement to looking at water rates alone, particularly in evaluating whether current rates accommodate long-term debt service or if increases are likely necessary to maintain financial health. Because they are only one component of user rates, water system debt is not likely a suitable stand-alone measure of user costs. Like user rates more generally, the impact of debt service will vary across the population according to individual household economic means and should be considered in the context of the user population.

Human Health-related Factors. Only two states include a consideration of human health-related factors in their DAC definition, although these are frequently considered in the evaluation of projects for placement on state priority lists. For example, to be considered disadvantaged, Ohio specifies that projects must meet multiple criteria, including that the drinking water system must have "documented human health-related factors (nitrate, VOCs [volatile organic compounds], HAB [harmful algal blooms], boil water issue, DBP [disinfection byproducts], TTHM [total trihalomethanes], radionuclides, etc.)." Louisiana defines a DAC project as one for which "assistance is necessary to correct an imminent threat to public health as a result of a noncompliance issue with the SDWA resulting in an Administrative Order." These reflect the urgency of the project and immediate, drinking water-specific health impacts and burdens placed on the population. Using human health-related factors tied to regulatory compliance requires that compliance data be regularly and consistently updated to enable DWSRF program administrators to make informed decisions about systems.

Municipal Bond Rating. Municipal bond ratings capture the terms under which the water system can borrow and obtain financing. Depending on how the state's program is structured, this could indicate their need to use DWSRF financing or receive additional subsidy and the viability of alternative sources of financing. One potential drawback is that bond ratings—whether municipal or private—are most relevant to larger cities and water systems. Many small municipalities or water systems may not be rated at all, and instead go through an underwriting institution. Municipal bond ratings are based on financial management and governance practices, as well as the stability of the income stream. While rating agencies also look at demographic indicators like population growth and affluence, it is not always the case that poorly rated municipalities serve DACs or that well-run, highly rated municipalities do not.

Other Financial Measures. Some DWSRF programs use other measures, such as the portion of a population receiving Social Security, Supplemental Security Income, Supplemental Nutrition Assistance Program (SNAP), or other public assistance. These programs have established administrative infrastructure at the federal or state level for evaluating eligibility, requiring little administrative work on the part of DWSRF programs. A shortcoming of using these assistance programs is that they may not capture segments of the population that are not able to receive, or do not seek, assistance from these programs despite need. Additionally, the geographical areas in which information is available may not correspond to water system service areas, and information may not be updated regularly.

Environmental Justice. New York and Maryland consider disadvantaged more broadly through their use of "Environmental Justice areas" (NY) or "Environmental Benefits Districts" (MD). New York's "hardship" criterion includes projects that serve an identified EJ area (see profile). Maryland's DAC criteria include several ways in which a community could qualify, including MHI, water rates, unemployment, and population decline, as well as projects located in or benefitting defined Environmental Benefits Districts, of which two have been designated to date: central Prince George's County and east Baltimore City.

While definitions of communities with EJ concerns vary, they intend to recognize the disproportionate environmental and health burdens borne by certain populations; to ensure fair and inclusive processes in decisions about public investment and development in and near these communities; and to direct resources to try to redress some of the lasting effects of past harms. Identifying communities with potential EJ concerns involves much more than just a DWSRF program and can be a long and complicated process calling for broad stakeholder engagement. In states where this process has already been undertaken, DWSRF programs can take advantage of the work without needing to commit significant administrative resources to the effort. Incorporating EJ can be an important strategy through which DWSRF programs can account for broader financial, social, political, and environmental burdens.

Tiers. Some states establish multiple tiers or levels of DACs. Colorado classifies DACs as either a "Category 1" or a "Category 2" based on a combination of primary and secondary factors tied to debt and MHI. California also uses tiers (see profile). Establishing different levels of criteria allows DWSRF programs to distinguish among degrees of hardship and direct a higher level of assistance to communities determined to have greater need.

California: Two Tiers of DACs

California defines two tiers of disadvantaged communities. A Small Disadvantaged Community (DAC) has a population under 10,000 with a combined MHI between 60% and 79% of the statewide MHI. A Small Severely Disadvantaged Community (SDAC) has a population under 10,000 and a combined MHI under 60% of the statewide MHI. Both DACs and SDACs are eligible for additional disadvantaged community assistance, but SDACs receive a higher level of assistance. This approach enables California to systematically target greater assistance to communities most in need according to their MHI.

Indices. Some states use composite indices that incorporate multiple factors. Composite indices may produce a more refined picture of the community and can be a valuable tool for objectively comparing communities based on multiple factors. Indices can be customized to reflect a state's priorities by weighting some factors more than others, and they can incorporate non-economic factors to broaden the scope of consideration. However, complex indices may require more time and effort to maintain. Tennessee, for example, uses a fairly complicated calculation to establish an Ability To Pay Index (see profile), but relies on a third-party provider to calculate scores. Indices can also create an appearance of objectivity that obscures the many value judgements embedded in them.

Tennessee: Ability to Pay Index to Score and Identify DACs

Tennessee provides principal forgiveness to small and economically disadvantaged communities. Tennessee defines economically disadvantaged communities as those scoring a 50 or below on the Ability to Pay Index (ATPI). The ATPI, which was developed by the University of Tennessee's Institute of Agriculture, factors in seven socioeconomic criteria: median household income (MHI), unemployment, food stamp dependence, families in poverty, community bond rating, community debt, and change in population. All factors are weighted equally in the index. For 2021, the ATPI is being updated to add community assets, debts, revenues, and expenditures into the calculation to better capture the most current fiscal changes and trends across the state.

Property Value. Three states consider property value. For example, Colorado uses a combination of "primary" and "secondary" factors to define DACs. One of the primary factors is community median home value (MHV) less than 100 percent of state MHV. Property value may be used to describe the wealth of a community in general terms. It may also help capture the ability to pay of certain households that do not have high income but have high wealth. However, rate payers and water users may not be property owners and the link between community need and property value may not be strong. Communities with high proportions of renters or a large presence of commercial property may not be well-reflected. Additionally, property is not a particularly liquid asset and the instability of the housing market introduces the potential for fluctuation and boom or bust cycles.

Defined Categories. States can develop specific, defined categories to identify communities in need. Defined categories can be used to identify DACs that other quantitative measures would overlook, such as historically marginalized communities or groups of people that face specific or unique challenges. For example, Arizona designates DAC status to "colonia" communities (see profile). Vermont specifies municipally owned schools as categorically disadvantaged, and Oregon designates non-viable water systems DACs if they are pursuing a project that will eliminate the water system. Defined category definitions can be used in combination with a more general calculated or measured definition, as is the case with Arizona, Vermont, and Oregon, which all have a general definition based on MHI, in addition

to a defined category definition. Identifying specific categories in a DAC definition can supplement a more general definition based on characteristics to address a specific gap.

In other sectors, use of categories to describe communities that experience disproportionate economic, social, or environmental burdens is commonplace.

Arizona: DAC Status Designated to "Colonia" Communities

Arizona defines DAC as one that is a designated "colonia" community or one that receives 60 or more Local Fiscal Capacity points on the DWSRF Project Priority List. A "colonia" community is a federal designation of Arizona, California, New Mexico, and Texas communities located outside of heavily-populated urban areas (standard metropolitan statistical areas with 1 million or more people) and within 150 miles of the U.S. – Mexico border, and that lack potable water supply, adequate sewage systems, or "decent, safe, and sanitary housing" (42 U.S.C. 1479(f)(8)). Colonia communities must have been in existence as such before November 28, 1990.

Local Fiscal Capacity points are determined based on three criteria: MHI, user fee index (calculated by combining the residential user fees, rates and charges for 7,500 gallons a month multiplied by 12 months and divided by MHI), and indebtedness index. The indebtedness index is calculated by dividing the debt per connection by the community's MHI. Debt per connection includes existing debt plus the debt anticipated as a result of the project. Communities whose debt per connection exceeds 0.5% of their MHI receive additional Local Fiscal Capacity points.

Limitation to Municipalities Only. A few states restrict the DAC designation to municipalities only. This may be an effort to ensure that only public entities receive the greatest benefit, but public water systems provide a critical public service, irrespective of ownership. Furthermore, many privately owned water systems serve communities that no municipal entity is willing or able to serve. Withholding affordable financial assistance from privately owned water systems that serve populations that otherwise qualify as DACs will further limit the community's access to safe and affordable drinking water.

Summary of Strengths and Limitations of Different Indicators

Indicator	Strengths	Limitations
Median Household Income	• Strong correlation with presence of households with income below state/national median income. • Straightforward and easy-to-use proxy for household ability to pay. • Readily accessible data from the U.S. Census Bureau.	• Does not show presence of households in poverty (with very low incomes). • May not accurately capture what the poorest households can afford. • Service area of systems may not align with the geography of the area reported by the U.S. Census Bureau, especially in rural areas. • Does not address actual water costs borne by ratepayers.
Water Rates	• Provides a measure of actual costs to users. • When used in combination with other measures such as MHI, can identify communities that do not appear to face financial hardship	• Current rates are not always set at a level high enough to sustain the water system over the long term. • Definitions that use a specific dollar amount (e.g., $300 for 5,000 gal) as a threshold for affordability require

Indicator	Strengths	Limitations
	based on income alone, but for whom the relative cost of water is high.	regular updating, can be challenging to set, and may still be too high for very low-income households to afford.
Water System Size	• Addresses challenges faced by small systems, such as high fixed costs, lack of economies of scale, lack of access to capital markets, and other resource and capacity constraints, such as staffing limitations.	• Small size alone does not determine affordability. Some small systems have low operations and maintenance costs and low debt. Other small systems serve wealthy communities that can afford higher costs.
Demographics	• Proportion of the population that is of working age captures how much of the population is likely to be employed and earning income/wages to pay water rates. • Population growth or loss informs whether debt is spread over a larger or smaller population compared to when the debt was incurred. • Readily accessible data from the U.S. Census Bureau.	• Older populations, regardless of employment status, do not necessarily lack wealth.
Unemployment Rate	• A relatively straightforward and easy to use proxy for household ability to pay based on the portion of the workforce earning income. • Readily accessible data from the U.S. Census Bureau.	• Does not account for portion of the population not in the workforce because they are no longer looking for work. • Does not account for wealth or other sources of income.
Labor Force Participation Rate	• Compared to the unemployment rate, the labor force participation rate is a better representation of the true percentage of people working and earning an income.	• Does not account for wealth or other sources of income.
Poverty Rate	• Captures households in the lower end of the economic spectrum that may be particularly challenged by increased costs. • Sensitive to household size and costs of basic needs that impact individual households' finances. • Addresses the potential for uneven distribution of wealth in a community (e.g., the presence of very poor subpopulation in an otherwise average community as judged by MHI).	• Still has some limitations in addressing affordability due to methodology and complexity of determining what is truly affordable for households with very tenuous finances. • Poverty levels are set at the national level rather than state or regional level and therefore may not capture an accurate cost of living. • Geographic area for which information is available may not match system service area.
Water System Debt	• A proxy for current costs passed on to ratepayers. • Informs a system's ability to take on more debt.	• Does not address the characteristics of the population over which costs are spread. • Does not include other components of user rates.

Indicator	Strengths	Limitations
	• Can be informative when considered in the context of the population over which these costs are spread.	
Human Health Factors	• Addresses the urgency of the project and immediate health impacts to the population served.	• If regulatory compliance data is not regularly or consistently updated, DWSRF program administrators may not have equally current data to support a fair comparison between systems.
Municipal Bond Rating	• Addresses the terms under which the system could take on new debt and obtain financing.	• Most applicable to larger municipalities and water systems. • Not always available for smaller systems. • Not always the case that poorly rated municipalities serve DACs or that well-run, highly rated municipalities do not.
Environmental Justice	• Explicitly incorporates environmental justice into DWSRF programs.	• Identification of communities with EJ concerns can be a lengthy process and involves more than just the DWSRF program.
Percentage on Public Assistance	• Allows DWSRF programs to use established evaluation criteria and administrative infrastructure for evaluating eligibility.	• Geographic area for which information is available may not match water system service area. • Does not capture people who do not seek out these programs or are not visible to the government (e.g., undocumented populations). • Information may not be updated regularly.
Property Value	• Might capture the ability to pay of certain households that do not have high income but have high wealth. • Can be used to describe the wealth of a community in general terms.	• Rate payers and water users may not be property owners; areas with a high portion of renters may be misrepresented. • The presence of commercial or other high-value real estate can distort average values. • Use of property values typically requires comparison to something else, the selection of which can be difficult. • Real estate market can fluctuate and is prone to boom/bust cycles. • Real estate is illiquid and does not necessarily indicate available cash.
Defined Categories	• Can be used to identify DACs that other quantitative measures would overlook, such as historically marginalized communities or groups	• Concepts such as historically marginalized communities or people that face specific or unique challenges are not always clear-cut.

Indicator	Strengths	Limitations
	of people that face specific or unique challenges. • Can act as a supplement to a general definition to address a specific gap. • Use of categories may be administratively easier.	

Heavy Use of Few Socioeconomic Considerations

Definitions of DACs show wide variation within a narrow band of socioeconomic considerations. No two states are exactly alike, but it is common for states to incorporate only a few types of indicators in their definitions. Nearly all definitions of DACs use indicators of a community's or household's financial ability to pay as the primary indicators. With few exceptions, the variability among states' definitions lies not in what indicators they use, but in how they use them to establish criteria for the DAC definitions and determine which communities receive greater financial assistance. In some states, having an MHI that is at or below the state MHI brings access to more affordable financing. In other states, the community's MHI must be 80% or below the state MHI, or they must also live in a city with fewer than 10,000 people. This discretion enables states to identify and address the most pressing affordability issues in their state, but the variability in how states use common indicators can result in inconsistent access to assistance across the country.

Looking Beyond Socioeconomics

In recent years, a broader national conversation about EJ, the disproportionate adverse health and environmental impacts experienced by some populations, and disparities in wealth, opportunity, and access to basic services has been growing and evolving.

DAC designations help identify communities that face greater challenges meeting primary drinking water standards and obtaining safe drinking water. Economic indicators that approximate the ability to pay for drinking water infrastructure projects are important elements of a DAC definition, but they often do not capture other hardships communities face in accessing resources. They also do not capture risk factors, such as other environmental exposure and health burdens, that lead to unequal health outcomes even given the same level of water service. Disadvantage also stems from structural inequality that tracks along racial, cultural, health, geographic, and other lines, and from the cumulative effects of many harms experienced by some communities. A combination of these characteristics can present more barriers for communities to achieve positive outcomes, like successfully completing water infrastructure improvements.

DWSRF program administrators may wish to evaluate how DAC definitions take into consideration the specific challenges faced by populations negatively affected by multiple burdens. For example, a community may experience the effects of historic racial and ethnic discrimination, institutional neglect, and negative consequences of industrial and transportation development. DWSRF programs can use resources such as EJSCREEN and the Justice40 Initiative to evaluate these characteristics in context of their DAC definitions.

Using a more encompassing definition of DAC that accounts for these burdens may help DWSRF programs better ensure that all people have access to clean, safe, affordable drinking water. Below are some considerations:

Resources Available to States to Identify and Evaluate Environmental Justice Indicators

EPA's EJSCREEN, an EJ mapping and screening tool combines 11 environmental and 6 demographic indicators. This tool is available to all states for a better understanding of communities potentially facing EJ issues across the state.

President Biden's Justice40 Initiative provides an interim definition of DACs, which recommends that agencies consider a combination of variables that may include racial and ethnic residential segregation, linguistic isolation, high transportation cost burden and/or low transportation access, and disproportional environmental stressor burden, among others.

- Expanded use of defined categories of DAC to include specific groups or overburdened communities that potentially experience disproportionate environmental harms and risks.
- Expanded use of situational-based defined categories to include specific aspects of water systems themselves that cause substantial adverse effects on the communities they serve, such as a high prevalence of lead service lines.
- Refinement of the meaning of "community" to consider subpopulations or segments of the water system service area.

The Challenge of Defining "Community"

While SDWA defines "community" as the service area of a water system, differences and disparities can exist within a water system's service area. Socioeconomic data for an entire town or service area may obscure the presence of a smaller population facing greater financial or other hardships. Increases in water rates that are affordable for the larger community may still be unaffordable for these sub-populations. There may also be unevenness in a service population across the spectrum of relevant characteristics, such as income, employment, racial composition, presence of air and water pollution and ground contamination, and access to critical services. By understanding the presence of subpopulations with characteristics or circumstances that fall far outside the average for the community, DWSRF program administrators may be able to direct affordable financing more effectively to those for whom additional assistance is most critical.

Identifying Specific Neighborhoods for Providing Affordable Lead Service Line Replacement

PENNVEST allows for examination of the impact of rate increases on specific neighborhoods.

"For those systems with lead service line replacement needs that have adequately mapped and designated high-need areas and reach an action level under the Lead and Copper Rule, PENNVEST could consider the rate impact on those specific areas or neighborhoods within the larger system in lieu of overall system users. This could provide a more realistic picture of the consequence of the capital improvement on the specific community impacted and allow for these types of projects to be eligible for additional subsidy, thus expediting correction and addressing the public health and environmental hazard." – Pennsylvania DWSRF IUP for 2021-2022

Current DAC definitions that evaluate entire water system service areas may miss opportunities to direct assistance to these sub-populations. Innovative approaches that can account for variability within water system service areas can be a means of directing the right level and type of assistance to the populations that need it most. EPA's EJSCREEN Tool provides data on socioeconomic, demographic, and environmental indicators. The basic geographic level of EJSCREEN is the Census block group[8], the smallest geographic level at which socioeconomic and demographic Census data are available. Figure 2 is an example of EJSCREEN data for low-income population in Los Angeles, California. Red denotes the Census blocks with the highest proportion of low-income populations nationally.

[8] Each block group is defined by the U.S. Census Bureau and represents the smallest level of geography you can get basic demographic data for, such as total population by age, sex, and race.

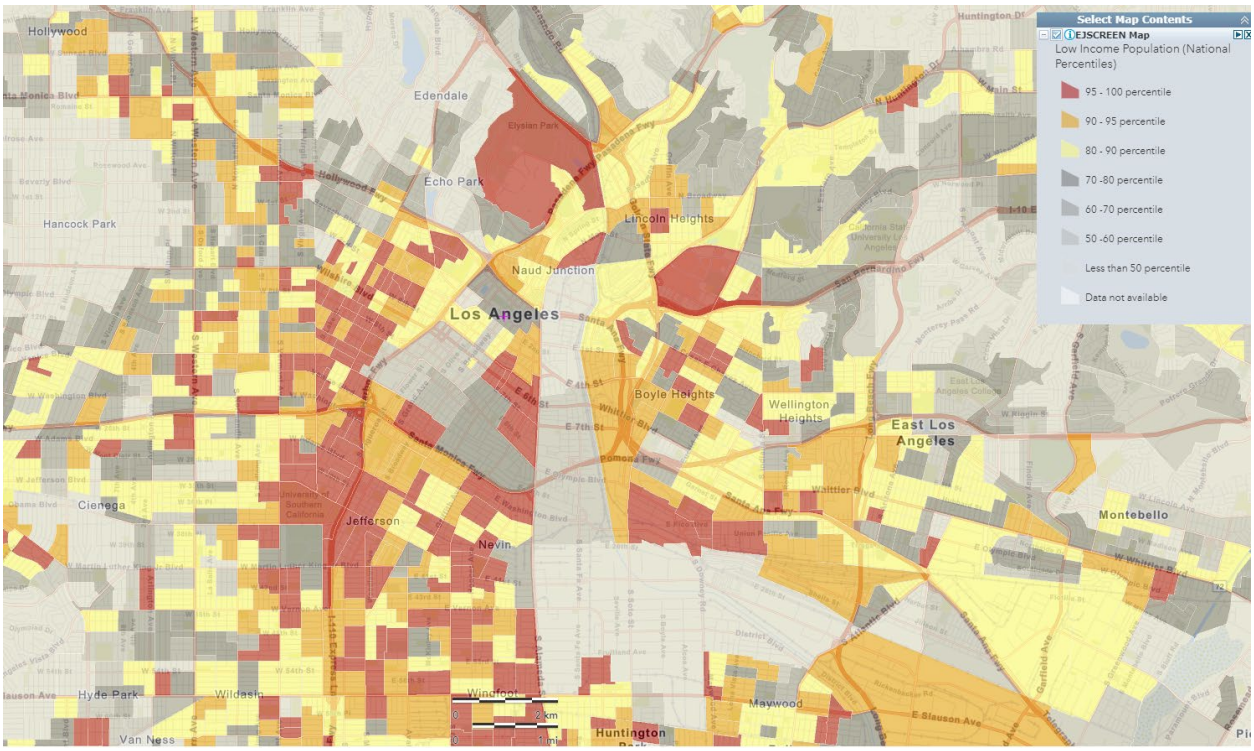


Figure 2. Snapshot of EPA's EJSCREEN for Low Income Populations in Los Angeles, California (captured October 7, 2021).

Figure 2 illustrates the disparities that can occur within clusters of Census blocks within the one water system. Locating these disparities within water system service areas can be a first step toward developing strategies that most effectively target and provide assistance to populations that may be overlooked when evaluating a water system service area.

Section 2: Additional Subsidy Distribution Methodology

Additional subsidy is a powerful tool to improve affordability of DWSRF assistance agreements for DACs. The DWSRF's low interest rates and extended repayment periods reduce the cost of borrowing, but additional subsidy, in the form of financial assistance that does not need to be repaid, is the most effective means to improve affordability for the communities that need it most.

The DWSRF program offers two types of additional subsidy (which are additive):

- **DAC additional subsidy:** This additional subsidy was established by the SDWA with the purpose of specifically addressing the affordability challenges faced by communities most in need. Twelve to 35 percent of capitalization grants are required to be provided as additional subsidy for state-defined DACs. DAC additional subsidy may be in the form of grants, principal forgiveness, or negative interest loans, and through buying, refinancing, or restructuring debt.
- **Congressional additional subsidy:** This additional subsidy is provided through annual federal appropriation and may be in the form of grants, principal forgiveness, or negative interest. The FFY 2021 Congressional appropriation requires states to provide 14 percent of their capitalization grant as Congressional additional subsidy, which any DWSRF-eligible recipient may receive.

Because additional subsidy does not revolve back through the DWSRF program, designating a higher percentage of the capitalization grant to additional subsidy can reduce a state's lending capacity in later years. DWSRF program administrators balance the need for additional subsidy and the long-term effects on the health and financial sustainability of the fund when determining the amount of funds to award as additional subsidy.

The SDWA defines broad parameters for use of both types of additional subsidy, and state DWSRF programs have considerable flexibility regarding their use. Once the base SDWA requirements are met for additional subsidy, states determine:

- Which projects may receive additional subsidy;
- Which assistance recipients may receive additional subsidy;
- Form and amount of additional subsidy; and
- Total amount of disadvantaged additional subsidy made available.

SDWA Flexibility in Awarding Additional Subsidy to DACs

SDWA allows states to provide DAC additional subsidy to communities that currently meet the DAC criteria, as well as those that will meet the criteria as a result of the project:

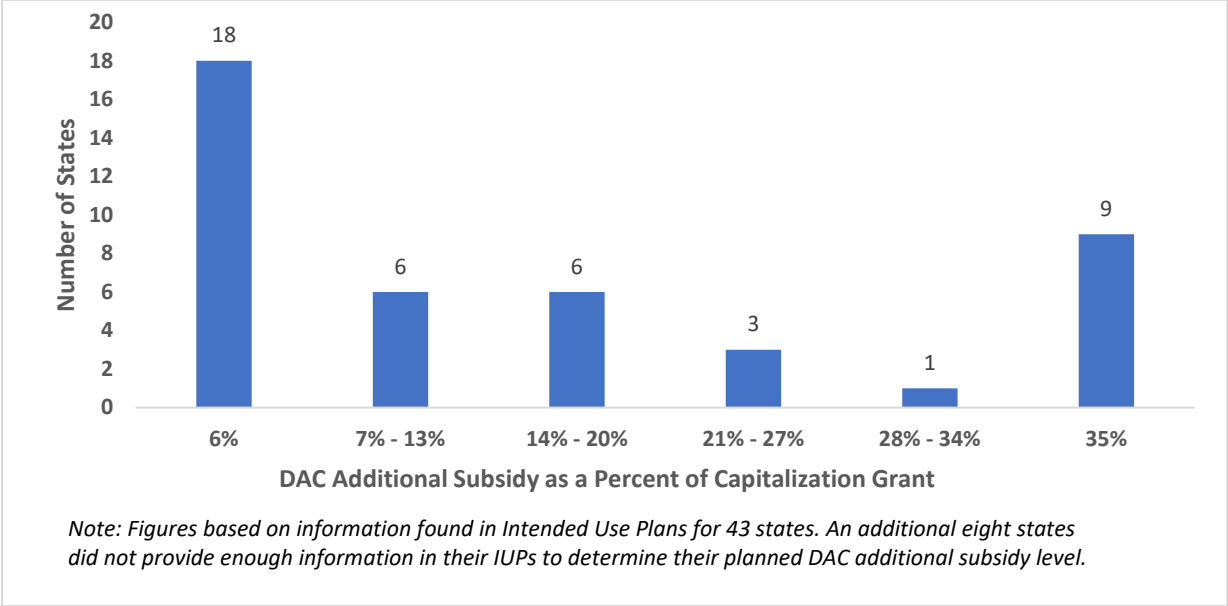
"…in any case in which the State makes a loan… to a disadvantaged community or to a community that the State expects to become a disadvantaged community as the result of a proposed project, the State may provide additional subsidization…" §1452(d)(1)

This section summarizes the portion of capitalization grants states plan to award in the form of additional subsidy for FFY 2021 (which was based upon the previous statutory floor of 6 percent DAC additional subsidy). It also summarizes the criteria states use to award those funds. These data derive from publicly available information in state Intended Use Plans (IUPs) and reflect states' planned use of their capitalization grants. However, states' actual use of capitalization grants and additional subsidy in FFY 2021 may vary from what is proposed depending on several factors that influence which projects on the priority list proceed to loan agreement and project completion, such as readiness to proceed, bid environment, system technical, financial, and managerial capacity, and the availability of other funding sources.

State Use of the Disadvantaged Community Additional Subsidy

Programs' proposed use of the DAC additional subsidy clusters on the ends of the allowable range, with over half offering either the minimum (18 states) or maximum (9 states) allowable. Fewer programs propose to offer an amount of additional subsidy in the middle of the allowable range. Overall, there is a greater prevalence towards offering lower amounts. This is likely due to the fact that, as noted above, this funding does not revolve back through the program, and states have to balance the long-term effects on the program.

Figure 3 shows the percentage of the federal capitalization grant that DWSRF programs propose to use for additional subsidy for DACs in FFY 2021 IUPs.



Note: Figures based on information found in Intended Use Plans for 43 states. An additional eight states did not provide enough information in their IUPs to determine their planned DAC additional subsidy level.

Figure 3. Amount of Capitalization Grants Designated by States as Disadvantaged Additional Subsidy (FFY 2021)

For both types of additional subsidy, nearly all states use forgiveness of loan principal. Negative interest is not commonly used, but Puerto Rico and Utah retain the option to use it. Four programs offer grants or retain it as an option for their Congressional additional subsidy.

Combined Congressional and Disadvantaged Community Additional Subsidy

States adopt a variety of strategies for awarding both types of additional subsidy. Thirty-two states combine the Congressional and DAC additional subsidy and award them using the same methodologies. Twenty-four of these states award the combined total additional subsidy to DACs only. The remaining eight states make an administrative distinction on the source of additional subsidy provided based on whether the assistance recipient meets the DAC definition. For example, a state may offer principal forgiveness for water to replace lead service lines, or for small systems, regardless of whether they meet the definition of DAC; DACs will receive this principal forgiveness from the state's DAC additional subsidy allotment, and non-DACs will receive it from Congressional additional subsidy.

Nineteen states make a clear distinction between the use of the different additional subsidy. For example, Vermont offers Congressional additional subsidy only for planning loans, regardless of the assistance recipient, and DAC additional subsidy for construction loans to assistance recipients meeting the DAC criteria. These different strategies may be designed to support different programmatic or fund objectives, such as bringing more projects to a point of construction-readiness. Figure 4 below shows how many states use the same criteria for distributing both types of additional subsidy.

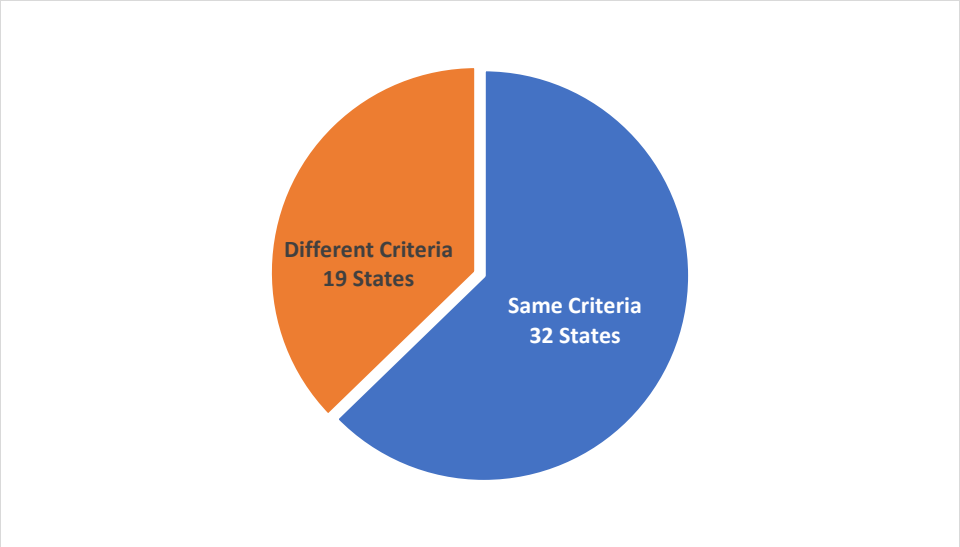


Figure 4. Number of States That Use the Same or Different Criteria for Awarding Congressional and DAC Additional Subsidy.

By awarding both types of additional subsidy to DACs, states can bring greater resources to DACs, potentially allowing states to subsidize a larger portion of the loan for DACs or to offer additional subsidy to more projects benefitting DACs. It can also provide some administrative efficiencies. However, using the additional subsidy types additively places greater importance on the DAC definition. Meeting the definition of DAC becomes the sole determining factor for whether a water system receives additional subsidy, which could prove decisive in a water system's ability to make needed improvements. Such a strategy presents the risk that some water systems may have difficulty qualifying for a loan because they are too under-resourced to afford a "regular" DWSRF financing package, but too over-resourced to qualify for additional assistance.

When states apply the same criteria or methodology for awarding Congressional and DAC additional subsidy, whether a community meets the definition of a DAC takes on greater significance. Water systems serving communities that do not meet the DAC definition but that still have financial or other limitations may be unable to complete projects.

Strategic Use of IUPs

States strategically use IUPs to establish criteria and methodologies for the distribution of their Congressional and DAC additional subsidy that address specific program priorities or assistance recipients. Across both types of additional subsidy, 27 states have established policies that target specific concerns related to the project or assistance recipient. It is slightly more common to direct Congressional additional subsidy to specific uses or assistance recipient characteristics (26 states) than the DAC additional subsidy (21 states). Common criteria that states use in their IUPs for distributing additional subsidy include:

- **System size:** States most frequently prioritize small systems for both types of additional subsidy. Thirteen states prioritize small systems for the Congressional additional subsidy and 15 states

prioritize small systems for the DAC additional subsidy. Prioritizing small systems for the Congressional additional subsidy enables states to address the affordability challenges small systems face regardless of whether those systems meet the state's DAC definition.

- **System Consolidation or Regionalization:** Eleven states prioritize consolidation or regionalization projects in their application of Congressional additional subsidy, and five states prioritize these types of projects for their DAC additional subsidy. This approach recognizes that consolidation and regionalization, particularly of very small or struggling water systems, can be an important approach to affordably solve water quality problems and ensure water systems have the technical, managerial, and financial capacity to maintain assets and sustain operations into the future. Providing additional subsidy to help cover the up-front costs can yield immediate water quality solutions and long-term efficiencies resulting from shared services.
- **Sustainability:** Five states prioritize "green" or "sustainable" projects in their Congressional additional subsidy; three states prioritize these types of projects for DAC additional subsidy.

Some states use other targeted criteria such as lead service line replacement. For example, North Dakota provides Congressional additional subsidy of up to 90 percent of loan value for lead line replacement. Idaho set aside a portion of its FFY 2021 combined additional subsidy for "emergency" projects and lead remediation. In FFY 2021, Vermont limits its Congressional additional subsidy to planning projects only and provides a larger amount of additional subsidy to planning projects that include a comprehensive system hydraulic evaluation.

These examples illustrate the broad authority states have to define priorities and use additional subsidy as a tool to address the greatest needs and priorities for their states. The annual IUP cycle, as well as mid-year updates, gives states the benefit of receiving timely feedback, enabling them to adjust and refine their policies accordingly. Thus, state IUPs offer an incredibly powerful opportunity to implement creative solutions and practice continuous improvement. Depending upon whether DAC is defined in state statute, rule, or policy, DWSRF programs may be able to use the IUP process to develop and refine use of DAC additional subsidy, Congressional additional subsidy, or both.

State IUPs offer an incredibly powerful opportunity to implement creative solutions and practice continuous improvement in the effort to support DACs and other communities in need.

Some states use the flexibility of the IUP process to establish policies for use of Congressional additional subsidy that effectively create an alternate, programmatic definition of disadvantaged to encompass a wider set of circumstances. This can mitigate some of the limitations of a state's definition of DAC, allowing the DWSRF program to direct additional subsidy to water systems whose circumstances warrant additional help, but that may not meet the state's definition of disadvantaged for the purposes of SDWA §1452. This approach offers an alternative or intermediate short-term solution for DWSRF programs seeking to incorporate a broader sense of what it means to be disadvantaged. For example, Arkansas defines DAC as having a community MHI less than the statewide MHI, but it applies Congressional additional subsidy for systems with water rates that are 1.5 percent of community MHI or where 51 percent of customers have a low to medium income as defined by the United States Department of Housing and Urban Development's Community Block Grant Program, with water rates of 1.25 percent of community MHI. See Section 3 for further discussion of how states can use this discretion to make progress in assisting DACs.

Use of Additional Subsidy Caps

Many states limit the percentage or total amount of additional subsidy offered per assistance recipient or per project, but the threshold for additional subsidy caps differs widely across states. Thirty-three states list caps on DAC additional subsidy amounts as a percentage of the loan amount, and 30 states list caps on Congressional additional subsidy amounts as a percentage of the loan amount. Of these, the caps range from 4 percent to 100 percent of eligible project costs or loan amount. Figure 5 shows the distribution of states that limit additional subsidy as a percentage of loan amount.

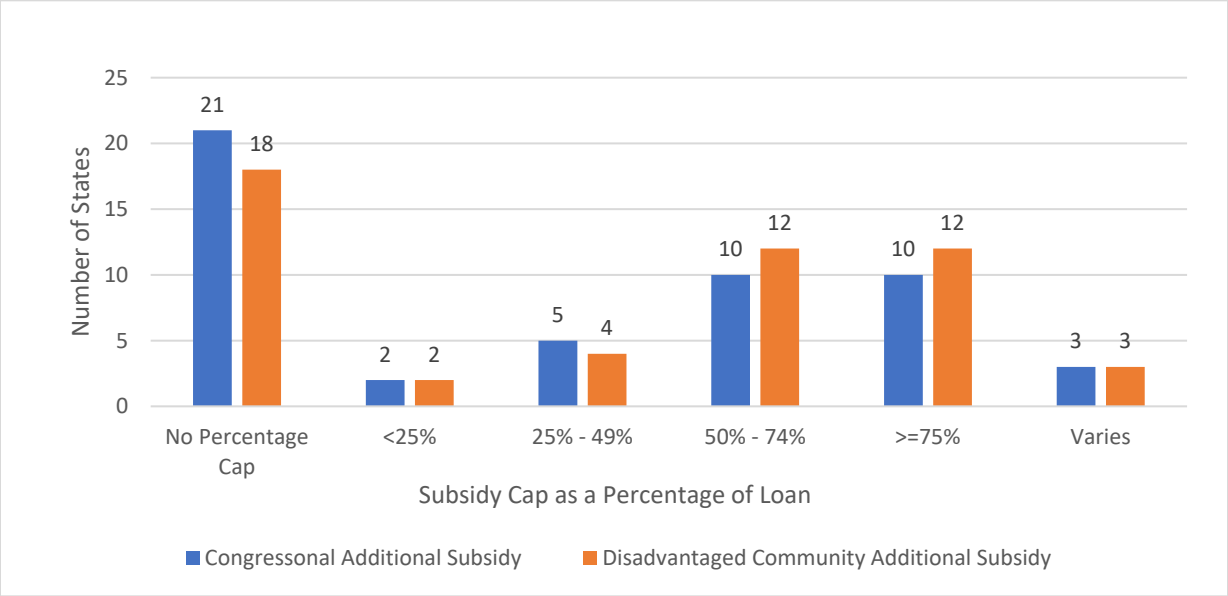


Figure 5. Summary of Additional Subsidy Caps as a Percentage of Loan Amounts.

In a general sense, states impose additional subsidy caps to balance potentially conflicting goals of:

- Providing enough assistance to make projects affordable.
- Maximizing the number of water systems that benefit from the additional subsidy.
- Meeting their long-term obligations to maintain sustainable fund balances.

The risk of setting additional subsidy maximums too low is that a state may not have the ability to provide enough assistance to enable some water systems to overcome their financial barriers to afford critical projects. A low cap may be particularly burdensome for DACs or other water systems facing financial hardship. For some water systems, taking on almost any level of new debt is infeasible.

If the maximum additional subsidy amount is set too high, however, fewer water systems will be able to receive it, potentially affecting systems for which even a small amount of additional help would have been sufficient to make their project viable, but that are unable to proceed without any additional subsidy. States that use additional subsidy caps sparingly retain the most flexibility in meeting assistance recipients' needs.

Section 3: Considerations for States Seeking to Improve Assistance to Disadvantaged Communities

DWSRF programs across the country must balance numerous responsibilities and priorities to help drinking water systems achieve the public health protection objectives of the SDWA through the provision of safe, reliable, and affordable drinking water. Helping DACs access affordable drinking water is one of several priorities defined by DWSRF programs. The diversity that exists across water systems, communities, states, regions, and programs themselves means there is no one-size-fits-all definition of "disadvantaged community," and no perfect strategy for the use of additional subsidy.

DWSRF programs seeking to better meet the needs of DACs might consider the following actions in evaluating how to improve assistance to DACs:

Use data to inform decisions: The more a DWSRF program understands about the effects of past policies as well as the broader context—water systems, communities served, environmental and social context—the better the program will be able to shape effective programs. Every state already reports basic program activity information to EPA. The exercise of gathering and evaluating information on number and types of assistance recipients, level of assistance provided, type of projects funded, and communities assisted can be very useful for identifying program strengths and potential improvements. Programs can also use existing tools, such as EJSCREEN, to better understand the characteristics of the communities in which infrastructure has been financed in the past, and the characteristics of communities that have not yet received financing.

Ask critical questions: Programs can gain critical insights into opportunities for improving assistance to DACs by asking strategic questions. Critical questions will help states identify and define characteristics of communities in need that might be currently excluded from DAC assistance, define what it means to be successful in assisting DACs, and understand other barriers to providing DWSRF assistance to DACs. DWSRF programs will be effective in establishing and meeting their goals when armed with answers to questions such as:

- Does the DAC definition potentially violate Title VI of the Civil Rights Act of 1964 and EPA's implementing regulation at 40 C.F.R. § 7.35(b) by using "criteria or methods of administering its program or activity which have the effect of subjecting individuals to discrimination because of their race, color, national origin, or have the effect of defeating or substantially impairing accomplishment of the objectives of the program or activity with respect to individuals of a particular race, color, or national origin"?
- Does the DAC definition capture the water systems that struggle the most to comply with SDWA requirements or that struggle to plan, design, and construct needed improvements?
- Are there water systems with subpopulations that experience significant hardships not reflected in the overall community?
- What is the larger conversation about equity, access, or EJ in your state; what people, organizations, or institutions are active in this space?
- On what DAC outcomes does the program place the greatest priority? For example, a rate of SDWA compliance, high number of completed projects, or reaching certain populations.
- How is DWSRF program assistance marketed to DACs?
- What portion of water systems serving DACs seek DWSRF financing?

- Does the DWSRF program have trouble using the minimum percentage for DAC additional subsidy because there are insufficient applications? If so, why are water systems not applying? Has the state considered changing its DAC definition?

Consider all DWSRF affordability tools: DACs may benefit most from DWSRF programs that think holistically about how they can use both types of additional subsidy, extended loan terms, interest rates, fees, and other assistance provided through set-asides to assist DACs.

Direct benefits to subpopulations with the greatest need: Where water systems serve a population with wide variation in circumstances, DWSRF programs can consider ways in which additional assistance to a water system can primarily benefit specific subpopulations, rather than all users as a whole.

Use a strategic approach to accomplish desired changes: DAC may be defined in state statute, rule, or simply as a policy in an IUP. Where DAC is defined will, to some extent, determine how a DWSRF program might refine their program to better assist communities most in need—whether it be through changing the definition, through refining program policy, or some combination of these. A DWSRF program's ability to devote staff, administrative, and financial resources to support the effort is a critical consideration when identifying the best approach. Revising statute or rule may be a lengthy and difficult process, depending upon a state's legislative climate and procedure. Policies, especially as adopted in annual IUPs, could represent the simplest, lowest-risk way to develop and refine methods for providing broader-reaching assistance to communities needing additional assistance. IUPs are also relatively accessible because their development includes a public process with an open public comment period, and they are available online.

Consider the balance between "narrow" and "broad": States must find the balance between a narrow DAC definition that risks excluding some communities that genuinely need additional help, and a broader definition that risks including some communities that could have afforded the project without the additional help. A narrow definition that excludes communities that need extra help could result in continued non-compliance with SDWA standards. For example, a definition that limits DACs to water systems serving populations of 10,000 or less may exclude larger communities that meet other DAC criteria or that have subpopulations with significant financial or public health needs. These narrow definitions may perpetuate disproportionate effects – bad water quality is in itself a disadvantage that causes public health harms. The DAC definition is just one of several factors states use to determine which projects or water systems receive additional assistance. States also use additional subsidy distribution methodologies, IUPs, and set-aside programs to refine who receives additional assistance and in what form. It is possible to set a more inclusive DAC definition and then adopt policies that try to address variability in community circumstances.

Find the "right" amount of additional subsidy for DACs: When considering the amount of additional subsidy to provide assistance recipients, DWSRF programs should consider how much is "enough" additional subsidy. Even DWSRF programs that use a calculation for determining the appropriate amount of additional subsidy to offer per project or system (for instance, to target a post-project user rate of 1 percent MHI), rely to some extent on the judgement of program administrators and those they consult about what is affordable. As with other aspects of policy, DWSRF programs can use the iterative nature of the annual IUP cycle to refine their policies to better achieve their objectives.

Engage stakeholders in the process: Equally important to finding the optimal elements of a DAC assistance program is the process used to develop it. A core tenant of assisting disadvantaged or marginalized groups is to actively involve them. This is different than making draft DAC definitions and IUPs available for public comment prior to finalization, which often yields only minimal engagement from well-resourced entities. The conversation about equity, inequality, and EJ is happening in every state in the country. DWSRF programs can engage the people and groups active in this conversation in their state to help inform efforts to improve DAC assistance. States can benefit from using an intentionally inclusive process that encourages wide participation up front. States can use this process to ask what people need, what they think, and how specific policies impact water systems' ability to pay for critical improvements. Deliberate engagement will almost certainly yield valuable insight into what does and does not work, as well as build trust and good will with communities.

As DWSRF programs seek to better meet the needs of DACs, they can learn from how other states approach the issues identified in this document. The Appendix includes a complete list of current (FFY 2021) state DAC definitions, which may prove a helpful reference. Periodically reviewing DAC definitions and policies, and revising them as necessary, should be a regular part of states' DWSRF program administration. Circumstances affecting access to affordable water infrastructure financing may change, as will states' understanding of the barriers to water infrastructure financing. The ability to evolve is a core element of DWSRF programs, and ensures they continue to effectively provide affordable assistance to communities and water systems with the greatest need.

Appendix: Current State Definitions of Disadvantaged Community

State	Definition[9]	Source of Definition[10]
AK	A utility is considered disadvantaged if it meets one or more of the following criteria: 1. Median Household Income (MHI) is less than the state average MHI that is currently published by the Alaska Department of Labor and Workforce Development, Research and Analysis. For privately owned water systems, the MHI is based on the community in which the utility is located; OR 2. Rate of unemployment is above the state average unemployment rate that is currently published by the Alaska Department of Labor and Workforce Development, Research and Analysis. For privately owned water systems, the unemployment rate is based on the community in which the utility is located.	2021 IUP
AL	The Department expects to allocate principal forgiveness exclusively to project in communities determined to be disadvantaged with the highest ratio of annual average water bill to MHI. Up to 50% of project loan costs not to exceed $500,000 will be provided as principal forgiveness to the highest rated communities until the requirement is met.	2021 IUP
AR	In Arkansas, a disadvantaged community has been defined as any community: With a Median Household Income (MHI) below that of the State's MHI. Arkansas' MHI is the average of the most recent three (3) years of available data on the ACS 5-year estimates provided by University of Arkansas Little Rock (UALR). Arkansas' MHI for SFY2022 is $45,712.	2021 IUP
AZ	The Board may designate an applicant as a Disadvantaged Community if the applicant satisfies one of the following: 1.The community is a designated "colonia" community through the federal government, OR 2.The community received 60 or more Local Fiscal Capacity points on the Drinking Water State Revolving Fund (DWSRF) project priority list (PPL.) "Colonia" is defined in 42 USC 1479(f)(8), which reads: (8) "Colonia" defined: For purposes of this subsection, the term "colonia" means any identifiable community that— (A) is in the State of Arizona, California, New Mexico, or Texas; (B) is in the area of the United States within 150 miles of the border between the United States and Mexico, except that the term does not include any standard metropolitan	2021 IUP; 42 USC 1479(f)(8); Water Infrastructure Finance Authority PPL

[9] Some state disadvantaged community definitions are not clearly articulated as definitions, and instead typically take the form of methodologies for distribution of DAC assistance outlined in an IUP.

[10] Definitions are from the Federal Fiscal Year 2021 state Intended Use Plans (IUPs), unless otherwise noted. These current state definitions are based on publicly available information, represent a point in time, and are subject to change.

State	Definition[9]	Source of Definition[10]
	statistical area that has a population exceeding 1,000,000; (C) is determined to be a colonia on the basis of objective criteria, including lack of potable water supply, lack of adequate sewage systems, and lack of decent, safe, and sanitary housing; and (D) was in existence as a colonia before November 28, 1990. Local fiscal capacity is composed of 3 factors: MHI, user fee index (residential user fees, rates and charges for 7,500 gallons/month, multiplied by 12 months, divided by MHI), and indebtedness index (debt per connection/MHI; debt per connection is existing debt plus estimated cost of project/number of connections to system).	
CA	"Small Disadvantaged Community" means a community with a population less than 10,000 persons and with a combined median household income (MHI) less than 80 percent of the statewide MHI. "Small Severely Disadvantaged Community" means a community with a population less than 10,000 persons and whose combined MHI is less than 60 percent of the statewide MHI.	2021 IUP
CO	Disadvantaged communities are defined by having a population of 10,000 or less and by meeting certain primary, or a combination of primary and secondary factors. Primary factors are community MHI (less than or equal to 80% state MHI), community median home value (MHV) (MHV less than 100% of state MHV), and county 24-month unemployment rate OR country 10-year job change (unemployment rate greater than state plus one percent or loss of total jobs in 10-year period). Secondary factors are county MHI (less than or equal to 80% state MHI), 10-year change in population (lost population over a 10-year period), assessed value/household (less than the median CO municipality), current and project system debt per tap to MHV (current and projected system debt per tap to MHV is greater than that of the median CO municipality), and system full-cost per tap to MHI OR required revenue per tap to MHI (full cost or require revenue is greater than median CO municipality). Disadvantaged communities are classified as either Category 1 or Category 2. If a community meets any one of the three scenarios above, the community is a Category 1. If, at the time of loan application review, a community's Current and Projected System Debt to Median Home Value (MHV) and Required Revenue per Tap to Median Household Income (MHI) are greater than the median municipality, the applicant will be recommended to be a Category 2. Additional detail can be found in CO's IUP.	2021 IUP
CT	A community Public Water System (PWS) shall be eligible for loan subsidization under this Disadvantaged Community Assistance Program (DCAP) if one of the following conditions are satisfied: A. The PWS's project will benefit one or more distressed municipalities (defined below). The Department of Public Health (DPH) shall utilize the Department of Economic and Community Development's (DECD) "distressed municipality" list when assigning a project a "disadvantaged community" designation. Such designation shall be applied	2021 IUP

State	Definition[9]	Source of Definition[10]
	to the project if it serves one or more qualifying communities during the year in which they receive a DWSRF loan for that project or at any point within the 3 years prior. B. If the PWS serves less than 1000 people and it does not meet the affordability criteria in subsection A, an income survey may be conducted to include each residential rate payer for the purpose of determining the Median Household Income (MHI) of residential rate payers. The PWS will qualify as a disadvantaged community if: 1. the outcome of the survey shows that the rate payers' MHI is less than 80% of the Connecticut statewide MHI as determined by the results of the US Census Bureau's latest American Community Survey, and; 2. the average annual residential rate payers' water bill equals or exceeds one percent of the rate payers' MHI or, if the PWS also provides sewer service to their residential customers, the average annual combined water and wastewater bill equals or exceeds one and one half percent of the rate payers' MHI. CT's distressed municipality criteria as defined in Connecticut General Statute 32-9p(b): 1. Per capita income for 2019, weight 1 2. % of poverty in population for 2019, weight 1 3. Unemployment rate for 2020, weight 2 4. % Change in population from 2010 to 2020, weight 1 5. % Change in employment from 2010 to 2020, weight 1 6. % Change in per capita income from 2010 to 2019, weight 1 7. % of house stock built before 1939 in 2019, weight 1/3 8. % Population with high school degree and higher in 2019, weight 1 9. Per Capita Adjusted Equalized Net Grand List in 2021-2022, weight 1	
DE	A community considered for the DWSRF Disadvantaged Community Program may receive additional loan subsidies as outlined below: A lower interest rate may be made available based on projected residential user rates as a percentage of Median Household Income (MHI) above 1.5 percent for a single wastewater or drinking water utility, and 3.0 percent for a combined wastewater and drinking water provided utility, only after other alternatives such as extended repayment terms, principal forgiveness or supplemental grants are exhausted.	2021 IUP; Additional correspondence with state
FL	The principal forgiveness (PF) percentage received by projects will be determined using a linear equation that includes MHI and population of the service area as the variables. This formula is: PF = 1760/9 – 160 (MHI/State MHI) – 7/4800 * Population Served.	2021 IUP; Additional

State	Definition[9]	Source of Definition[10]
	Projects with service area populations of less than 10,000 will get preference for the grant funds. That is, if there are grant funds available after the projects with small service areas have all been funded, the projects with large service areas will compete for the remaining grant funds based on priority score.	correspondence with state
GA	Georgia Environmental Finance Agency's (GEFA's) affordability criteria is used to award principal forgiveness to Georgia's most disadvantaged communities. The criteria include median household income (MHI), unemployment percent, percentage not in labor force, poverty rate, percentage on Social Security, percentage on Supplemental Security Income (SSI), percentage with cash public assistance, percentage with Supplemental Nutrition Assistance Program (SNAP), age dependency ratio, and population trend from the U.S. Census Bureau's 2018 American Community Survey. The borrower's data is categorized in 25th, 50th, and 75th percentiles and used to calculate an affordability score.	2021 IUP
HI	A disadvantaged community is currently defined as a public water system's community with an affordability score of 45 or greater (out of 100), based on the DWSRF Priority Scoring Model and as demonstrated in the Population and Housing Characteristics, State of Hawaii, By Census Tracts: 2012-2016. Factors in the affordability section of the Priority Scoring Model include poverty level, user fees (proposed annual average residential fees/area MHI), and unemployment.	2021 IUP
IA	State Code: The department shall find that a regulated entity and the affected community are a disadvantaged community by evaluating all of the following: a. The ability of the regulated entity and the affected community to pay for a project based on the ratio of the total annual project costs per household to median household income. b. Median household income in the community and the unemployment rate of the county in which the community is located. c. The outstanding debt of the system and the bond rating of the community. IUP: Community public water systems serving populations that contain a majority (51 percent) of Low to Moderate Income (LMI) persons will be considered disadvantaged for the purpose of receiving the 1.75% interest rate on an extended term loan. This criterion does not apply to any other DWSRF assistance such as additional subsidization. Low to moderate income is defined as 80 percent of the median household income in the county or state (whichever is higher) using the most recent federal census or income survey data. Privately owned community public water systems will be considered eligible for disadvantaged community status if an income survey indicates that the service area	Iowa Code Section 455B.199B; 2021 IUP

State	Definition[9]	Source of Definition[10]
	meets the LMI criteria. Rural water systems will be considered eligible for disadvantaged community status if an income survey indicates that the area benefiting from the improvements meets the LMI criteria. The FFY 2019-FFY 2021 Capitalization Grants also require that an additional 6% of the state's allocation be used to provide loan forgiveness to Disadvantaged Communities (DAC). Disadvantaged communities are areas where 51 percent of the residents are low-and moderate-income persons.	
ID	To qualify for a disadvantaged loan, a loan applicant must have an annual cost of drinking water service for residential customers that exceeds 1.50% of the median household income. The annual cost includes all operating, maintenance, replacement, and debt service costs, both for the existing system and upgrades being financed with state debt.	2021 IUP
IL	A Disadvantaged Community is a public water supply owned by a local government unit or not-for-profit water corporation that qualifies for either the Small Community Rate or Hardship Rate as defined in Section 662.210. A Small Community Rate is a public water supply with a service population less than 25,000 that also meets any of the following 3 criteria: MHI less than state MHI; unemployment rate higher than state rate; or annual user charge is greater than 1% of community MHI. A Hardship Rate is a PWS with a service area of less than 10,000 that meets any of the following 3 criteria: MHI below 70% of state MHI; unemployment rate is at least 3% greater than state rate; or PWS annual user charge is greater than 1.5% of community MHI.	35 Ill. Adm. Code Part 662; 2021 IUP
IN	The Indiana Finance Authority defines a disadvantaged community as an eligible Participant that meets one of the following criteria: 1) A project area with an MHI below $43,460 (80% of the State MHI), as established by 2014- 2018 American Community Five Year Survey; 2) An estimated post project user rate greater than $45.00 per month; 3) An average annual residential post project user rate that would exceed one (1%) percent of the Participant's Median Household Income (MHI).	2021 IUP
KS	The Kansas Public Water Supply Loan Fund (KPWSLF) has defined a disadvantaged community as any municipality that serves a population of 150 or less.	2021 IUP
KY	Kentucky has one standard interest rate and two non-standard interest rates for the DWSRF program dependent upon the community's Median Household Income (MHI).	2021 IUP

State	Definition[9]	Source of Definition[10]
	1. The standard rate is applied when the MHI is equal to or above the Kentucky MHI of $48,392. 2. The first non-standard rate is applied for the following reasons: a. When the MHI is greater than 80% but less than the Kentucky MHI; b. Projects that meet the definition for regionalization; or c. Projects necessary for compliance with an Agreed Order or Consent Decree. 3. The second non-standard rate is applied when the MHI is equal to or below 80% of the Kentucky MHI. This rate is also known as the Disadvantaged community rate (DCR). Projects that qualify for the DCR are eligible for principal forgiveness consideration and may request a loan amortization up to 40 years but not beyond the expected design life of the project.	
LA	A disadvantaged community project is one for which assistance is necessary to correct an imminent threat to public health as a result of a noncompliance issue with the Safe Drinking Water Act (SDWA) resulting in an Administrative Order. This determination will be made by the Louisiana Department of Health (LDH) utilizing one of the following requirements: 1. The public water system is located in a state where the median household income is below the national median household income of the United States according to the U.S. Census Bureau. 2. Assistance is necessary to resolve noncompliance issues with the SDWA that have resulted in an Administrative Order being issued against the water system. 3. The public water system serves a community with a population under 10,000.	2021 IUP
MA	Massachusetts has established an Affordability Criteria to calculate and distribute loan forgiveness. The assignment of communities to an affordability tier is based on an Adjusted Per Capita Income (APCI) calculation. Tier 1: greater than 80%, but less than 100% (minimum 6.6% PF). Tier 2: Greater than 60%, but less than 80% (minimum 13.2% PF). Tier 3: Less than 60% (minimum 19.8% PF). With the establishment of the Disadvantaged Communities program, all projects that are eligible for additional subsidy on the 2021 DWSRF IUP and PPL are now considered Disadvantaged Communities (DC) and will be reported as such. The establishment of a formal DWSRF DC program does not change the distribution of loan forgiveness and does not require any additional actions from eligible communities beyond the requirements already in place for loan forgiveness.	2021 IUP

State	Definition[9]	Source of Definition[10]
MD	In 2015, the Disadvantaged Community (DAC) eligibility criteria was revised to make it consistent with Water Quality SRF program as follows: 1. Water user rate per year per Equivalent Dwelling Unit (EDU) > 1% of Community Median Household Income (MHI); or 2. Project is physically located and benefits an MDE-approved Environmental Benefit District; or 3. Project is physically located and benefits a community with MHI less than 70% of State MHI; or 4. Project is physically located and benefits a community in a Maryland County (including Baltimore City) with a high unemployment rate (upper 33rd percentile); or 5. Project is physically located and benefits a community in a Maryland County (including Baltimore City) where the U.S. Census data shows a declining population.	2021 IUP
ME	A Disadvantaged Community PWS is defined as any PWS that serves a community and can demonstrate that its year-round residential water consumers have a median household income of $53,024 per year or less. DWSRF Disadvantaged Community PWS Assistance will only be allowed where the disadvantaged water consumers will directly benefit from the assistance.	2021 IUP
MI	(c) "Disadvantaged community" means a municipality in which all of the following conditions are met: (i) Users within the area served by a proposed public water supply project are directly assessed for the costs of construction. (ii) The median annual household income of the area served by a proposed public water supply project does not exceed 120% of the statewide median annual household income for Michigan. (iii) The municipality demonstrates at least 1 of the following: (A) More than 50% of the area served by a proposed public water supply project is identified as a poverty area by the United States Bureau of the Census. (B) The median annual household income of the area served by a proposed public water supply project is less than the most recently published federal poverty guidelines for a family of 4 in the 48 contiguous United States. In determining the median annual household income of the area served by the proposed public water supply project under this subparagraph, the municipality shall utilize the most recently published statistics from the United States Bureau of the Census, updated to reflect current dollars, for the community which most closely approximates the	Part 54, Safe Drinking Water Assistance, MCL 324.5402; 2021 IUP

State	Definition[9]	Source of Definition[10]
	area being served. If these figures are not available for the area served by the proposed public water supply project, the municipality may have a survey conducted to document the median annual household income of the area served by the project. (C) The median annual household income of the area served by a proposed public water supply project is less than the most recently published statewide median annual household income for this state, and annual user costs for water supply exceed 1% of the median annual household income of the area served by the proposed public water supply project. (D) The median annual household income of the area served by a proposed public water supply project is not greater than 120% of the statewide median annual household income for this state, and annual user costs for water supply exceed 3% of the median annual household income of the area served by the proposed project.	
MN	Principal Forgiveness and/or Water Infrastructure Fund (WIF) funds may be granted to a DWRF project if the average annual residential drinking water system cost would otherwise exceed 1.2 percent of the median household income (MHI) of the project service area.	2021 IUP
MO	State regulations define a disadvantaged community as any applicant serving a population of 3,300 or fewer, whose average user rates for 5,000 gallons will be at or above two percent of the recipient median household income, and the recipient median household income is at or below 75 percent of the state average.	2021 IUP
MS	The amount of PF for which a potential "Loan Recipient" (LR) may be eligible will be determined by calculating the percentage of the "Median Household Income" (MHI) of the potential LR versus the MHI of the State of Mississippi ($45,801) as a whole. MS sets several thresholds for DAC principal forgiveness for communities whose MHI is under the statewide MHI.	2021 IUP
MT	A community is considered economically disadvantaged when its combined annual water and wastewater system rates are greater than or equal to 2.3% of the community's Median Household Income (MHI). If the community has only a water system, the percentage is 1.4% of the community's MHI.	2021 IUP
NC	Projects that receive project purpose points when the applicant has less than 20,000 residential drinking water connections, at least three of five Local Government Unit (LGU) indicators worse than the state benchmark, an operating ratio (future) of less than 1.3, utility rates greater than the state median, and/or project cost per connection that project to increase the utility rates above the 70th percentile of the state will receive principal forgiveness following the affordability criteria grant percentage matrix in Appendix E.	2021; Additional correspondence with state

State	Definition[9]	Source of Definition[10]
	LGU Indicators: North Carolina uses a combination of MHI, poverty rate, population change, total appraised property value per capita, and rates per 5,000 gallons to determine disadvantaged communities. Each indicator is measured against the state average and is updated annually.	
ND	Criteria for determining the amount of loan forgiveness is on a project-specific basis. Loan forgiveness will be based on the relative future water cost index (RFWCI). The RFWCI is defined as the ratio of the expected average annual residential water user charge resulting from the project, including costs recovered through special assessments, to the local median household income (based on the most-recent American Communities Survey 5-Year Estimate). For 2021, projects with a RFWCI of 2.0 percent or greater will qualify for 75 percent loan forgiveness. Projects with a RFWCI of 1.5 percent to 1.9 percent will qualify for 40 percent loan forgiveness.	2021 IUP
NE	The purpose of the affordability criteria is to determine which of the projects receiving funds from the DWSRF may also qualify for financial assistance beyond the ordinary benefits available through the DWSRF. Eligible PWSs may qualify for additional financial assistance if their population is equal to or less than 10,000 people with an MHI less than 120 (one hundred twenty) percent of the state MHI. Systems that meet the minimum disadvantaged criteria determination are also eligible for extended loan terms up to 40 years. NE sets several thresholds for DAC principal forgiveness for communities based on population size: population of 10,000 or less (20% PF); population of 3,300 or less (25% PF); population of 500 or less (30% PF). Additional assistance for Disadvantaged Communities through loan forgiveness will utilize the Affordability (Disadvantaged) Criteria provided in Appendix F. Additional assistance of loan terms up to 40 years will be available to communities which have a Median Household Income (MHI) less than or equal to 120% of the State MHI, using the 2014-2018 American Community Survey (ACS) data set published by the U.S. Census Bureau.	2021 IUP
NH	A disadvantaged community or system is defined as a community public water system or community that serves residents whose median household income (MHI) is less than the statewide MHI based on the most recent census data and/or income survey. If an applicant for DWSRF assistance meets the definition of “disadvantaged” and if the resulting project user rate (which is the total of the existing rate in addition to the rate that results from the new project) exceeds the statewide affordability criteria (see 8C), it may be eligible for subsidies from the Disadvantaged Community/System Program. Subsidies will be available in the form of principal forgiveness. Affordability is determined by a ratio that compares the average water rate to the median household income of the community that is applying for funding. An affordable project is one that results in user rates that do not exceed 0.8% of the system or town MHI. (Points awarded based on this ratio are provided below.) Only year round communities that are considered disadvantaged will be eligible for these points. The water rates are based on the most recent	2021 IUP

State	Definition[9]	Source of Definition[10]
	information compiled by New Hampshire Department of Environmental Services (NHDES) in its 2021 water rate survey report or from information provided directly by the applicant. The median household income (MHI) is the income data compiled by the U.S. Census Bureau 2015-2019 American Community Survey. The affordability ratio is calculated by dividing the water rate by the community median household income times 100%. Affordability index of 0.8 to <1.50 is 10% min PF; 1.50 to <2.00 is 15% min PF; greater than/equal to 2.00 is 20% min PF.	
NJ	The Department of Environmental Protection (DEP) determined that for the purposes of the DWSRF Program, a municipality whose median household income equal to or less than 65% of the State's MHI (New Jersey's MHI was $68,911 as reported in the 2010 Census) is a Disadvantaged Community. The DEP sets DWSRF base program shares for the financing package wherein 50% of the allowable project costs for publicly owned water systems are provided by the DEP interest free, 25% of the allowable project costs for privately-owned water systems are provided by the DEP interest-free, and the remaining allowable project costs are financed by the I-Bank.	2021 IUP
NM	Disadvantaged Median Household Income (MHI) - Communities with an MHI of the water service area between 100% - 80% of the State's MHI fall under this level. MHI is based on the most recent 5-year average of Median Household Income from U.S Census Data or through a household income survey acceptable to the New Mexico Finance Authority (NMFA). Severely Disadvantaged Median Household Income (MHI) - Communities with an MHI below 80% of the State's MHI. MHI is based on the most recent 5-year average of Median Household Income from U.S Census Data or through a household income survey acceptable to the New Mexico Finance Authority.	2021 IUP
NV	Nevada defines a disadvantaged community as an area served by a public water system in which the median [middle] household income is less than 80 percent of the state median household income (MHI) (NAC 445A.675245).	2021 IUP
NY	Hardship Eligibility Criteria: To be considered for hardship assistance including grant and/or interest-free financing, public water system projects must meet the following criteria: • Must be a municipally-owned or NYS Public Service (PSC) Regulated Privately owned drinking water infrastructure project; • Must be listed on the Annual List with a score equal to or greater than the score at the Hardship Evaluation Eligibility line. If insufficient qualifying projects exist above the line to award all the required additional subsidy,	2021 IUP

State	Definition[9]	Source of Definition[10]
	projects below the line may be considered in public health priority order until all of the required additional subsidy is awarded; • Municipal population must be less than 300,000 per the 2017 American Community Survey. Alternatively, a public water system with a population greater than 300,000 can qualify if the project is for an established water district or a service area with a population less than 300,000. An income survey of the water district or service area would be required; • At least one of the following must also be met: - The Median Household Income (MHI) of the municipality must be less than 80% of the regionally adjusted statewide MHI; - For projects in communities with an MHI of between 80% and less than 100% of the regionally adjusted statewide MHI, the community must have an American Community Survey family poverty rate greater than the statewide family poverty rate of 11.3%; - At least 50% of the project cost or project scope must serve, protect, or benefit an identified Environmental Justice (EJ) area. • Projects for communities with an MHI of 100% or greater than the regionally adjusted statewide MHI are not eligible; • An income survey, Census Designated Place (CDP), or other acceptable demonstration of a more accurate MHI for the service area may be used in lieu of the American Community Survey published MHI.	
OH	Systems eligible to apply for the Disadvantaged Community Loan Program (DCLP) are all systems eligible for the Water Supply Revolving Loan Account (WSRLA) program with the exception of some privately owned systems. To be eligible for disadvantaged community reduced interest loans and principal forgiveness, drinking water projects must meet the following criteria: 1. Community public water system with service area less than 10,000 people 2. Documented human health-related factors (nitrate, VOCs, HAB, boil water issue, DBP, TTHM, radionuclides, etc.) 3. Average water and sewer rates combined comprise more than 2.5% of MHI (1.2% if only water)	2021 IUP

State	Definition[9]	Source of Definition[10]
	• Where a community only has either water or wastewater rates, the rates must exceed the rate/MHI benchmark for water or wastewater, respectively. 4. Most recent ACS 5-year MHI estimate less than statewide average value or ACS 5-year poverty rate estimate greater than statewide average value Additionally, a minimum of 50 percent of the residing council members or governing board members for the water system must complete the following Rural Communities Assistance Program (RCAP) Courses within the five years prior to loan award: 101 Utility Management for Local Officials and 201 Financial Management for Local Officials.	
OK	A "disadvantaged community" means those communities with a median household income that is less than or equal to 85% of the national median household income according to the United States Census Bureau/American Community Survey.	2021 IUP
OR	For the purposes of federal reporting, a disadvantaged community is one that has a MHI below the state average. Regardless of MHI, a project that results in the elimination of a non-viable public water system is also considered disadvantaged.	2021 IUP
PA	PENNVEST utilizes a financial capability analysis that compares various community specific demographic data to similarly situated communities across the Commonwealth to determine a percent of the community's adjusted median household income (MHI) that should be available to pay for water service. The amount that should be available to pay for water service by residential customers will range from one to two percent of the community's adjusted MHI dependent upon the specific socio-economic factors that are provided by the Pennsylvania Department of Community and Economic Development. This process aids in an equitable distribution of residential user rates. Each applicant is evaluated against several demographic factors to measure the local economic circumstance of the community: MHI, percentage of population over age 64, percentage of population below poverty level, and rate of population change in the community between Census data collection.	2021 IUP
PR	Puerto Rico's definition of a disadvantaged community (DAC) is those systems that meet the affordability criteria and that are less than 10,000 (small systems). The Department of Health (DOH) will consider a disadvantaged system those systems serving 25 or more persons or 15 or more connections for more than 60 consecutive days and up to 10,000 persons and may or may not be connected to a PRASA system whether or not in the next 5 years, and may or may not be considered isolated due to their topographic condition.	2020 IUP

State	Definition[9]	Source of Definition[10]
	This Criterion is design to assist systems most is needed on a household basis. The points awarded for this Category are documented by the latest census information. For those systems, identified as disadvantaged, priority points will be awarded based on the Median Household Income Levels (MHIL).	
RI	As mandated in the Act, the State of Rhode Island has developed criteria for awarding additional financial assistance to those water suppliers whose service area is determined to be economically disadvantaged. The Rhode Island Department of Health (RIDOH) and the Bank submitted the following criteria to all public and community water suppliers in the State and EPA for their review and input in August of 1998: • To participate in the Disadvantaged Community Program, an eligible borrower must be a community public water system; • The water supplier must make application to RIDOH for inclusion on the PPL and application to the Bank for a loan in the current year; • The water supplier must have a service area Median Household Income figure (MHI) less than or equal to the State MHI which is currently $71,169 (source: 2019 American Community Survey 1-Year Estimates); • A debt service schedule for a standard Program loan (25% interest subsidy) will be calculated for the project loan being contemplated. The schedule will be added to the water supplier's existing rate structure and the resultant annual user fee, when compared to the service area MHI, must be greater than 0.999 percent RI also has a "disadvantaged very small system program" for non-municipal community and non-transient, non-community systems that are nonprofit public water systems, that serve a population of 1,000 people or fewer. A disadvantaged very small system is defined as a system that can demonstrate that user rates are 1% or more of the community's median household income.	2021 IUP
SC	For SC DWSRF a Disadvantaged Community System is defined as a small system (population less than 10,000) with an MHI less than the State MHI that cannot qualify for an SRF loan. The SC DWSRF program is administered by two state agencies, SC Department of Health and Environmental Control (DHEC) and SC Rural Infrastructure Authority (RIA). DHEC receives the SRF grants from EPA and manages the technical aspects of the program. RIA manages the financial responsibilities of the program. RIA staff conduct financial reviews of potential sponsors to determine if they can qualify for an SRF loan. Sponsors that RIA determines "cannot qualify for an SRF loan" and fit the other additional subsidy criteria are eligible for additional subsidy in SC.	2021 IUP; Additional correspondence with state

State	Definition[9]	Source of Definition[10]
SD	Communities that meet the disadvantaged eligibility criteria described below may receive additional subsidies. This includes communities that will meet the disadvantaged criteria as a result of the project. To be eligible for loan subsidies a community must meet the following criteria: (1) for municipalities and sanitary districts: (a)the median household income is below the state-wide median household income; and (b)the monthly residential water bill is $30 or more for 5,000 gallons usage; or (2) for other community water systems: (a) the median household income is below the state-wide median household income; and (b) the monthly water bill for rural households is $55 or more for 7,000 gallons usage.	2021 IUP
TN	The SRF Program continues to respond to requests from Governor Lee regarding rural community assistance by prioritizing allocation of subsidy for drinking water infrastructure (in the form of principal forgiveness and lower interest rates) to communities identified as both small and economically disadvantaged. Eligibility of DWSRF principal forgiveness will be determined based on the most current Ability to Pay Index (ATPI). Small communities are those with a population of 10,000 or less per designation by EPA guidelines. To be considered disadvantaged, the community must score 50 or less on the ATPI. Tennessee's DWSRF Loan Program developed a small and disadvantaged community loan forgiveness process that prioritizes allocation of subsidy for disadvantaged communities with an ATPI of 50% or less. The index is determined based on a normal distribution of affordability scores for cities and for counties. The affordability score is a simple average of nine (9) factors unique to each community. Together, these factors include: median household income, unemployment, food stamp dependence, families in poverty, community assets, revenues, debt, and expenditures, and change in population determine a community's Ability To Pay Index value. Tennessee intends to update the ATPI annually to capture the most current fiscal capacity, changes, and economic trends of communities across the state.	2021 IUP
TX	A disadvantaged community is a community that meets the DWSRF's affordability criteria based on income, unemployment rates, and population trends. An eligible disadvantaged community consists of all of the following: 1. The service area of an eligible applicant, the service area of a community that is located outside the entity's service area, or a portion within the entity's service area if the proposed project is providing new service to existing residents in unserved areas; and 2. meets the following affordability criteria:	2021 IUP; Additional correspondence with state

State	Definition[9]	Source of Definition[10]
	(a) Has an Annual Median Household Income (AMHI) that is no more than 75 percent of the state median household income using an acceptable source of socioeconomic data, and (b) the Household Cost Factor (HCF) that considers income, unemployment rates, and population trends must be greater than or equal to 1 percent if only water or sewer service is provided or greater than or equal to 2 percent if both water and sewer service are provided. The Household Cost Factor in the IUP is the cost of water and wastewater utilities per household (after completion of the proposed project) in the project service area compared to the project area's current median household income level, with two adjustments. Specifically, the formula is: A=Average annual water bill per household B= Average annual wastewater bill per household C= Annual loan cost per household of the new financing D= AMHI for the project service area HCF = (A + B + C) / D In addition, the state includes two adjustments that can only increase the HCF (i.e., benefit the applicant). These adjustments are only included if they are a positive amount. E = Unemployment Rate Adjustment [(Unemployment Rate – State Rate)/State Rate] * 2 F = Population Adjustment [(Prior Population - Current Population)/Prior Population] * 6.7 The Unemployment Rate Adjustment may not result in a HCF increase greater than 0.75, and the Population Adjustment may not result in a HCF increase of greater than 0.5. The formula with these adjustments is (A + B + C)/D + E with limits + F with limits	
UT	The Board has defined disadvantaged communities as those communities located in an area which has a median adjusted gross income which is less than or equal to 80% of the State's median adjusted gross income, as determined by the Utah State Tax Commission from federal individual income tax returns excluding zero exemption returns, or where the established annual cost of drinking water service to the average residential user exceeds 1.75% of the median adjusted gross income.	2021 IUP
VA	The "Disadvantaged Community" status no longer needs Financial and Construction Assistance Program (FCAP) Staff to make the determination. It is 1% of the Median Household Income (MHI) for the city, town, or county in which the waterworks is located. (FY 2022 updates)	Website (2022); 2021 IUP

State	Definition[9]	Source of Definition[10]
	Disadvantaged waterworks: Virginia Department of Health (VDH) is only using the 1% of MHI as a determinant for target rates. Disadvantaged criteria has been modified as follows: Disadvantaged waterworks are those who meet the following criteria: Currently have or will have after project completion user rates that meet or exceed the target rate or are willing to adjust/raise rates in accordance with a VDH approved schedule. (From IUP)	
VT	(12) "Disadvantaged municipality" means a municipality or the served area of a municipality that: (A) has a median household income below the State average median household income as determined by the Secretary and that, after construction of the proposed water supply improvements, will have an annual household user cost greater than one percent of the median household income as determined by the Secretary; or (B) has a median household income equal to or greater than the State average median household income as determined by the Secretary and that, after construction of the proposed water supply improvements, will have an annual household user cost greater than 2.5 percent of the median household income as determined by the Secretary.	24 V.S.A. Section 4752
WA	To calculate affordability, we use the Affordability Index, a formula that considers an applicant's water rates and median household income. The Affordability Index is based on actual median household income (MHI), existing average monthly water rate, proposed loan amount, and total connections. Starting with the highest scoring applicants, the program awarded subsidy using the following criteria: • Water systems with an affordability index of 2.01–3.50 percent will receive 30 percent principal forgiveness on their loan. • Water systems with an affordability index of 3.51 percent or more will receive 50 percent principal forgiveness on their loan. • Restructuring and consolidation projects that involve acquiring other noncompliant, failing, or struggling public water systems that have water quality problems or deteriorated infrastructure will receive 50 percent principal forgiveness on their loan. Water systems with a Debt Service Coverage Ratio of less than 1.20:1 (i.e., $1.20 in net income for every dollar of debt payments due in a year) may also be considered for subsidy if subsidy dollars are still available after using the screening methods above.	2021 IUP
WI	The Safe Drinking Water Loan Program (SDWLP) offers a lower interest rate to local governmental units that meet two eligibility criteria. This interest rate is 33% of the state's market rate. The two eligibility criteria are: 1) the local governmental unit's population must be less than 10,000; and	2021 IUP

State	Definition[9]	Source of Definition[10]
	2) the local governmental unit's MHI must be 80% or less of the state's MHI. Principle Forgiveness distribution methodology: population points from 0-50 (highest points assigned to smallest populations); MHI points from 0-100 (based on municipality's MHI percentages of State MHI; highest points for lowest MHI); additional points for the following activities: LSL replacement (10 pts); corrosion control study recommendations (10 pts); develop asset management plan (10); update asset management plan (5); PWS partnerships (5). NOTE: starting in SFY2022, Table 3 (the additional points) will no longer exist as part of the PF allocation methodology.	
WV	The affordability standard for the annual water user rate is set at 1.25% of Median Household Income (MHI) for 3,400-gallon monthly usage as defined by the Infrastructure Council rules unless the project sponsor can clearly show that a magisterial district census income reflects the affordability more appropriately. Water rates equal to or greater than this affordability standard will be considered disadvantaged. Water rates below this affordability standard will be considered non-disadvantaged.	2021 IUP
WY	Wyoming State Loan and Investment Board (SLIB) determines the actual amount of principal forgiveness awarded to individual projects based on criteria set forth in SLIB Rules and Regulations Chapter 16 and on the actual applications received. The rules base eligibility for principal forgiveness primarily on disadvantaged community criteria that are based on income data, unemployment data, and population trends. (From 2021 IUP) Office of State Lands and Investments (OSLI) shall determine if an applicant is disadvantaged by awarding points based on population trend, income data, and unemployment data. Applicants whose total points are six (6) or greater are eligible for Additional Subsidies of up to 75% of their loan amount. Applicants whose total points are between 4 and 5 are eligible for additional subsidies up to 50% of their loan amount. Applicants whose total points are between 2 and 3 are eligible for additional subsidies up to 25% of their loan amount. Applicants whose total points are less than 2 are not considered disadvantaged and are not eligible for additional subsidies. (From SLIB Regulations, Chapter 16) Population: 500 or less (3pts); 501-3300 (2pts); 3301-10,000 (1pt); 10,001 (0pts). Annual MHI (from ACS survey): <60% (5); 60-70% (4); 70-80% (3); 80-90% (2); 90-110% (1); >110% (0). Unemployment: unemployment rate is equal to or greater than state rate (1); if less than (0).	2021 IUP; SLIB Regulations Chapter 16