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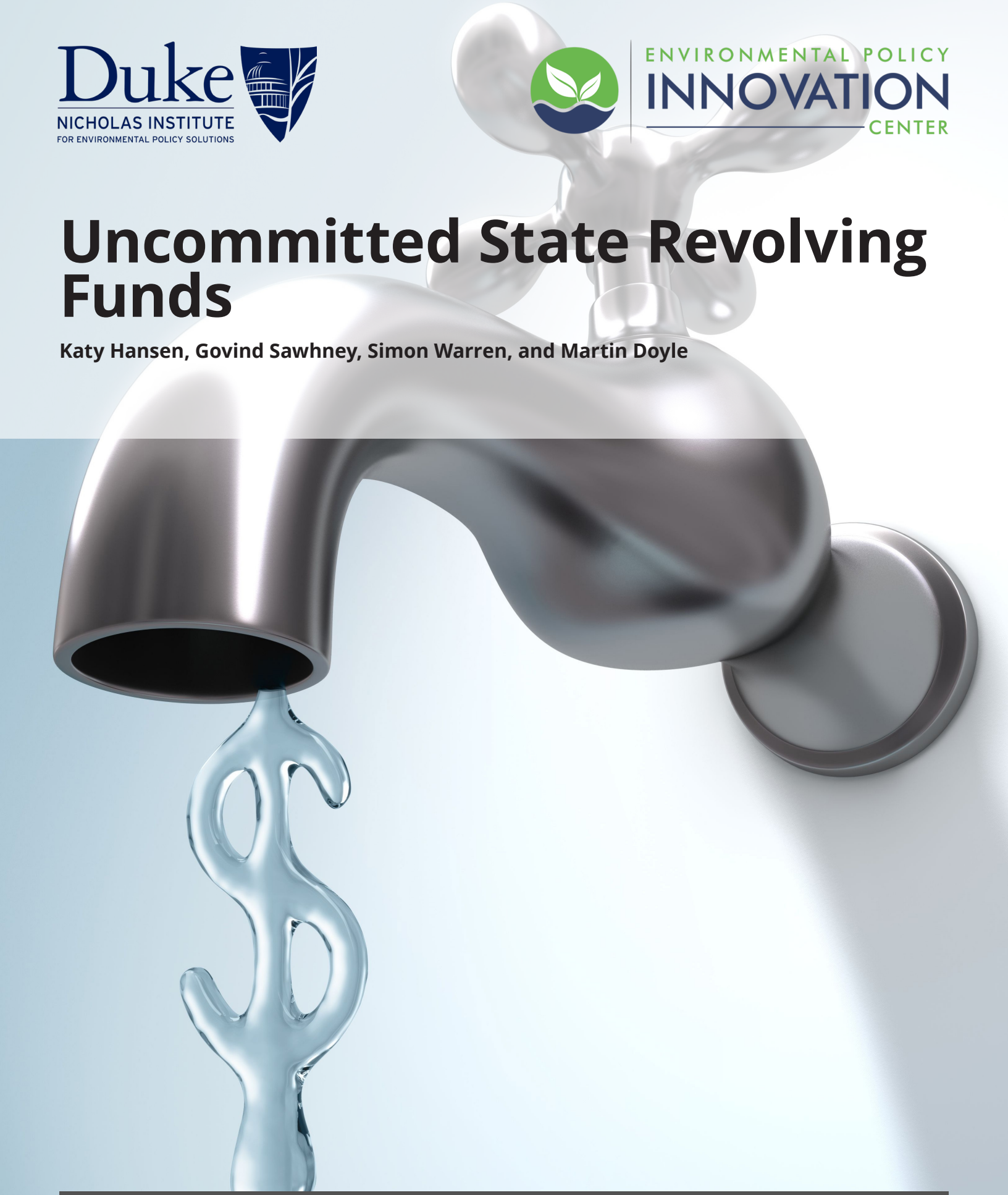
Uncommitted State Revolving Funds

Katy Hansen, Govind Sawhney, Simon Warren, and Martin Doyle



Uncommitted State Revolving Funds

EXECUTIVE SUMMARY

States and the federal government invest in water, wastewater, and stormwater infrastructure by providing subsidized loans and other financial assistance through State Revolving Fund (SRF) programs. Each state and Puerto Rico has a Drinking Water SRF and Clean Water SRF. The funds are capitalized with federal grants, state contributions, leveraged bonds, and loan repayments. Because the programs largely provide loans rather than grants, the repayment of principal and interest replenishes the pool of capital to finance infrastructure over time. Loan repayments are now the largest source of capital for SRFs. The amount of assistance available through the SRFs will increase substantially as state programs receive $55 billion in new funds through the bipartisan infrastructure law over the next five years.

The increase in available funding—from both federal appropriations and loan repayments—makes it more important than ever for states to efficiently commit funds to finance projects. Uncommitted funds represent missed opportunities to improve public health and water quality, spur economic development, and create jobs through infrastructure investment. As federal funds flow to states faster, it is imperative to understand how states can efficiently allocate funds to reach their full potential. We analyzed data from the EPA, interviewed stakeholders, and conducted a survey of over 200 water system decision makers and 30 state SRF administrators to better understand what is driving uncommitted SRF funds.

Nationwide, there is $9.6 billion in SRF programs that states have not committed to projects. This balance is not spread equally across states. Fifteen states fully allocate available funding. These states provide technical assistance, make the application process easier, offer attractive loans awards, and use cash flow models to ensure that every available dollar finances projects. Another 25 states have a modest amount in their coffers, where less than 10 percent of available funds are uncommitted. However, 10 states and Puerto Rico have more than 10 percent of cumulatively available funds sitting unused. These jurisdictions account for nearly half ($4.54 billion of the $9.6 billion) of the uncommitted SRF funds.

The choices of water system decision makers and SRF administrators influence the pace at which loan agreements are signed. Nine of the 30 states in our sample have undersubscribed SRF programs where too few apply for the available funding. There are many reasons why. Most decision makers use either cash on hand or other sources of capital to finance infrastructure rather than SRFs. Many systems may benefit from SRFs, but the staff lack capacity to apply for SRFs: over half the system decision makers in our sample indicated they had insufficient time or training to complete an application. Administrative constraints also lead to underspent SRFs. States with more staff capacity to recruit applicants and manage loans tend to have fewer unspent funds.

We have three main recommendations to help states allocate funds:

1. **Set and track goals for the allocation of funds.** The EPA should encourage allocation to keep pace with available funds; states should try to commit near or above 100 percent of available funds. Congress should require reports on uncommitted funds.

2. **Stimulate demand for funds.** SRF administrators should stimulate demand for SRFs by providing more technical assistance, awarding more planning and development grants, making the application process easier, and awarding more principal forgiveness. States need to be proactive, use available set-asides, subsidize assistance from experts, and rely on intermediaries to help to provide more technical assistance. SRF state administrators should make the application process easier by assessing likeliness of support before water system decision makers start planning and developing projects and adopting rolling acceptance windows.

   EPA and state legislatures can also help. EPA should stimulate demand for funds by encouraging states to provide on-the-ground technical assistance as well as providing training and sample outreach messaging. EPA should also issue guidance on contracting intermediaries to distribute predevelopment funds and create prototype online application portals. State legislatures should stimulate demand by committing to maintain low interest rates and expressly authorizing the use of more additional subsidies.

3. **Enhance effective administrative practices.** SRF state administrators should hire more staff and use cash flow models to make commitments that keep pace with available funds. States can also require borrowers to submit invoices on a quarterly basis to help with cash flow. EPA should continue to study, provide training, and share best practices on how states allocate SRF awards. EPA can provide training on cash flow modeling and track who attends as well as find and feature the best administrative practices. Congress and state legislatures can set targets and establish incentives to reduce the amount of uncommitted funds.

1. INTRODUCTION

Providing reliable water and wastewater services requires sizable and sustained investment in infrastructure. In addition to new projects, much of the existing water infrastructure in the United States needs to be repaired and upgraded: the American Water Works Association estimates that water systems must invest nearly $1 trillion in the next 20 years to ensure reliable service.[1]

The needs are often acute in Black, Indigenous, and people of color (BIPOC) and low-income communities. Water systems that serve these communities have historically been left out of state and federal investment due to structural injustices. Following the U.S. Environmental Protection Agency (EPA), we refer to minority, indigenous, and low-income communities as "overburdened."[2] Other terms, such as "disadvantaged" or "marginalized," are also used.

Water systems fund nearly all infrastructure investments with local revenue. Many—especially those serving overburdened communities—struggle to fund capital projects while maintaining affordable rates. Inadequate investment can undermine public health, environment quality, and economic development.

The State Revolving Funds (SRFs)—the largest source of intergovernmental aid for water systems[3]—provide subsidized loans and other assistance to finance infrastructure.[4] A revolving loan fund creates a pool of capital to finance projects in perpetuity: with capitalization from the federal government, states issue loans, receive repayments, and use the repaid capital to issue new loans. Each state has a fund for clean water and drinking water. SRF-financed projects must improve public health and water quality. Table 1 summarizes the number of projects and amount of assistance provided through each program.

1. American Water Works Association. 2001. Dawn of the Replacement Era: Reinvesting in Drinking Water Infrastructure. https://www.awwa.org/Portals/0/AWWA/ETS/Resources/DawnReplacementEra.pdf?ver=2019-04-02-112931-320.

2. "Overburdened Community - Minority, low-income, tribal, or indigenous populations or geographic locations in the United States that potentially experience disproportionate environmental harms and risks. This disproportionality can be as a result of greater vulnerability to environmental hazards, lack of opportunity for public participation, or other factors. Increased vulnerability may be attributable to an accumulation of negative or lack of positive environmental, health, economic, or social conditions within these populations or places. The term describes situations where multiple factors, including both environmental and socioeconomic stressors, may act cumulatively to affect health and the environment and contribute to persistent environmental health disparities."
U.S. EPA. 2021. "EJ 2020 Glossary." https://www.epa.gov/environmentaljustice/ej-2020-glossary.

3. Public water systems, both privately and publicly owned that serve more than 15 connections or 25 persons, are eligible for Drinking Water SRF funds. Clean Water SRF funds have broader eligibility, primarily publicly owned treatment works, but any public, private, or nonprofit entity for implementation of nonpoint source pollution management, decentralized waste treatment, stormwater control and other watershed restoration projects.
U.S. EPA. 2017. Drinking Water State Revolving Fund Eligibility Handbook. https://www.epa.gov/sites/default/files/2017-06/documents/dwsrf_eligibility_handbook_june_13_2017_updated_508_version.pdf; U.S. EPA. 2021. Types of CWSRF Assistance. https://www.epa.gov/cwsrf/learn-about-clean-water-state-revolving-fund-cwsrf#assistance.

4. Other federal programs that finance water infrastructure include the Water and Wastewater Loan and Grant program administered by the U.S. Department of Agriculture and Community Development Block Grants administered by the U.S. Department of Housing and Urban Development.

Table 1. Summary of the Clean Water and Drinking Water State Revolving Fund programs through 2020

Program	Legislation amended to authorize the program	Year authorized	Number of projects financed	Total amount of assistance provided
Clean Water	Clean Water Act	1987	42,629	$148.8 billion
Drinking Water	Safe Drinking Water Act	1997	16,592	$45.7 billion

Note. Data: SRF Program Information National Summary.[5]

SRFs have five main sources of capital: federal capitalization grants, state contributions, leveraged bonds, loan principal and interest payments, and interest earnings of investment. Each year, states receive federal dollars to capitalize their SRFs. The EPA allocates capitalization grants to states based on a formula and estimates of capital needs. On average, Congress appropriates about $1.75 billion for the Clean Water program and $1 billion for the Drinking Water program annually.[6] Federal statute requires states to add a 20 percent match to the capitalization grants. Some states leverage—or use their capitalization grants as security to issue bonds—to increase the size of their capital pool to loan out.[7]

Figure 1 shows the amount of available funds nationwide from the main sources of capital. Federal capitalization grants were the main source of capital for the first decade of each program. However, by 2020, the largest source of capital in both programs were loan repayments: $5.7 billion annually in the Clean Water program and $1.8 billion annually in the Drinking Water program. In other words, the revolved funds are now more important than annual federal appropriations and state contributions. The ratios will shift as funds from the bipartisan infrastructure law pulse into the SRFs over the next five years, but then the loan repayments will be an even larger source of capital.

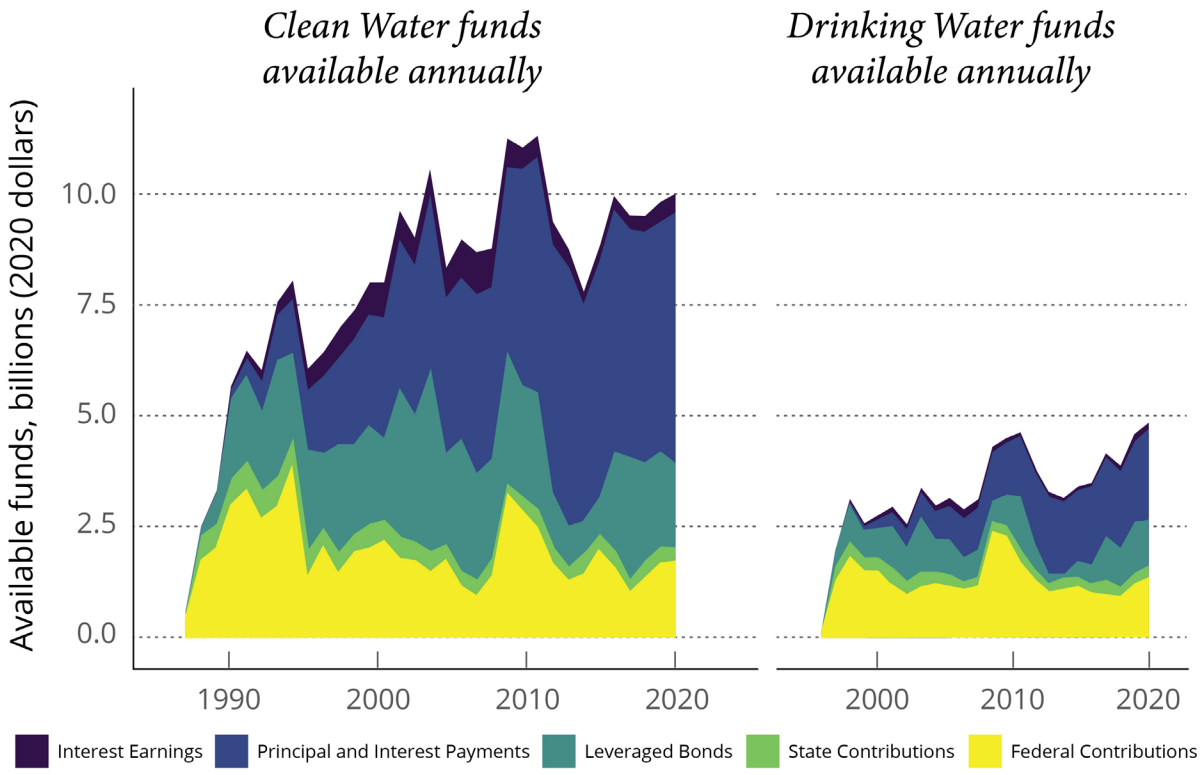
5. US EPA. 2021. Clean Water SRF *Program Information National Summary*. https://www.epa.gov/sites/default/ files/2021-02/documents/us20.pdf; US EPA. 2021. *Drinking Water SRF Program Information National Summary*. https://www.epa.gov/sites/default/files/2020-11/documents/national_summary_0.pdf.

6. Data from the National Information Management System (NIMS). US EPA. 2021. Clean Water State Revolving Fund National Information Management System Reports. https://www.epa.gov/cwsrf/clean-water-state-revolving-fund-cwsrf-national-information-management-system-reports; US EPA. 2021. Drinking Water State Revolving Fund National Information Management System Reports. https://www.epa.gov/dwsrf/drinking-water-state-revolving-fund-national-information-management-system-reports.

7. Barnes, J.A., and A.S. Meiburg. 2008. Relative Benefits of Direct and Leveraged Loans in State Revolving Loan Fund (SRF) Programs. Environmental Financial Advisory Board. https://nepis.epa.gov/Exe/ZyPDF.cgi/P100AA7K.PDF?Dockey=P100AA7K.PDF.

Moore, R. 2018. Go Back to the Well: States and the Federal Government Are Neglecting a Key Funding Source for Water Infrastructure. NRDC. https://www.nrdc.org/resources/go-back-well-states-and-federal-government-are-neglecting-key-funding-source-water.

Figure 1. Annual available funds by source in the Clean Water and Drinking Water SRF. From 1987–2020, the EPA awarded over $92.2 billion in federal capitalization grants. States added $18 billion in matching contributions and $82.5 billion in leveraged bonds.

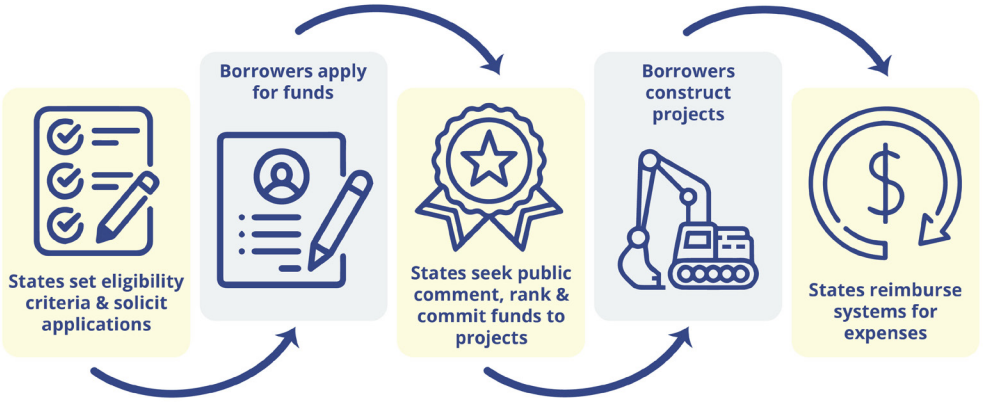


Note. Data: NIMS.

Figure 2 summarizes the administrative process to allocate available funds. State administrators first set eligibility requirements and solicit applications. Eligible borrowers plan projects and apply for the funds. The application includes project designs, financial analyses, environmental reviews, and bids. State administrators then rank project applications, determine the terms of assistance to offer to borrowers, and commit funds to projects. Finally, borrowers construct projects and states reimburse borrowers for expenses.[8]

8. The EPA and SRF administrators refer to the reimbursements as "disbursements." Some previous case studies on SRF cash flows have focused on "undisbursed funds" or the available funds that states have allocated to a project but not yet sent to recipients.

Figure 2. Administrative process of allocating SRF funds



Federal statutes require states to use the available funds "in an expeditious and timely manner."[9] Unspent funds represent missed opportunities not only to repair or expand water infrastructure, but also to improve public health, spur economic development, and create jobs through infrastructure investment.[10] Despite the statutory requirement and consequences, not all available funds are committed to projects each year. Before 2014, the EPA estimated about $2.2 billion that states had committed to projects had not been disbursed in a review of five states.[11] Relatively little is known about the extent of uncommitted SRF funds beyond these limited and dated case studies.

We analyzed data from the EPA on SRF commitments and conducted a survey of over 200 water system decision makers (elected officials, city managers, utility managers, operators, engineers, or consultants) and 30 state SRF administrators to better understand how states allocate SRF funds.

2. AMOUNTS OF UNCOMMITTED SRF FUNDS

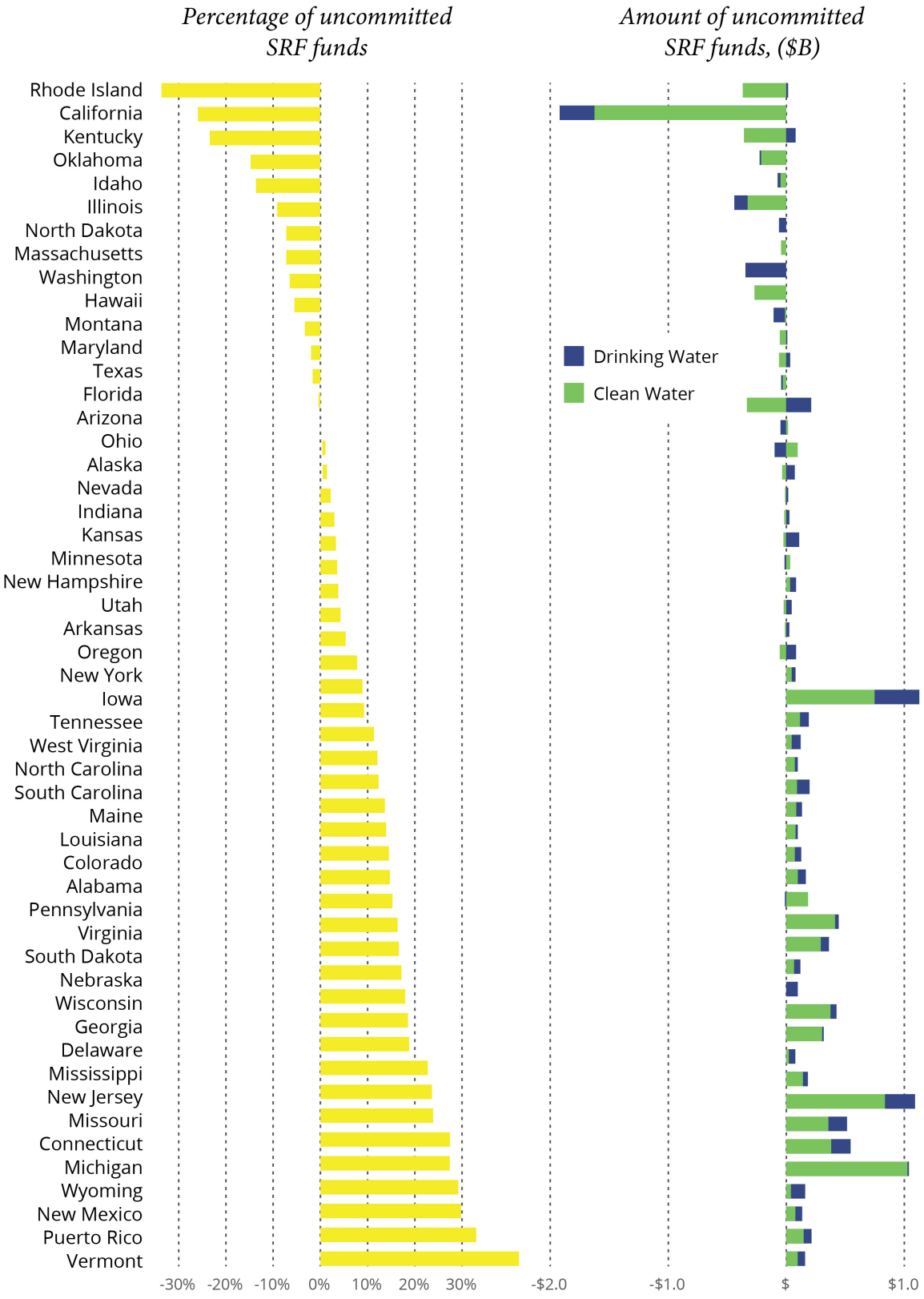
Uncommitted funds are the available funds that states have not allocated to projects.[12] According to the EPA's SRF Funds Management Handbook, states should target allocating "near or above 100 percent" of available funds.[13] It is difficult for any state to fully allocate funds due to the unpredictable appropriations and project delays.[14] There is also a lag in reporting between various stages of the process. Each state may define a realistic benchmark. But committing close to 100 percent is possible with cash flow modeling, advance loan commitments, and leveraging.

9. EPA. 2014. Unliquidated Obligations Resulted in Missed Opportunities to Improve Drinking Water Infrastructure Report No. 14-P-0318. https://nepis.epa.gov/Exe/ZyPDF.cgi/P100RW1Q.PDF?Dockey=P100RW1Q.PDF.
10. EPA OIG 12-P-0102 December 1, 2011 "Enhanced Coordination Needed to Ensure Drinking Water State Revolving Funds Are Used to Help Communities Not Meeting Standards" An earlier assessment yielded similar results. GAO-02-125 January 24, 2002, Key Aspects of EPA's Revolving Fund Program Needed to be Strengthened.
11. EPA. 2014.
12. The EPA refers to funds allocated to a project as "committed." Unspent funds are the difference between the available and committed funds.
13. U.S. EPA. 2018. SRF Fund Management Handbook. https://www.epa.gov/sites/default/files/2018-04/documents/fund_management_handbook_2018final.pdf.
14. For example, as AP News reported, recipients may "cancel their plans and projects get bogged down." Foley, R.J. 2015. "Millions Remain Unspent in Federal Water-System Loan Program," AP News, 26 September. https://apnews.com/article/100d7a060faa456081e9ac484b2eff19.

We use data from the National Information Management System (NIMS) to analyze the amount of uncommitted funds in the SRF programs. These data should be considered with the caveat that NIMS records are a snapshot of SRF accounts at one point in time. Nonetheless, the cumulative data are a decent approximation. The uncommitted funds that SRF administrators reported in our survey tracks relatively closely with NIMS, though SRF administrators indicate the amount is less than NIMS suggests.

From 2011–2020, states committed 97.2 percent of available CWSRF funds. Cumulatively, there were $6.72 billion uncommitted CWSRF funds nationwide in 2020, which is about three times the annual appropriation. The pattern is similar for the Drinking Water program. From 2011–2020, states committed 95.2 percent of available DWSRF funds. There were $2.87 billion unspent DWSRF funds nationwide in 2020, which is about twice the typical annual appropriation. The cumulative nationwide numbers mask large variation between states. Figure 3 shows the cumulative percentage and cumulative amount of unspent SRFs in each state.

Figure 3. Percentage and amount of all available CWSRF and DWSRF funds that are uncommitted in each state



Note. Negative values indicate that the state has spent more than their allocation. Data: NIMS, June 30, 2020.

Fifteen states have allocated more than the amount of available funds (represented in Figure 3 as a negative percentage of unspent funds). As noted in the EPA's SRF Management Handbook, allocating more than available funds indicates "advanced loan commitment" practices, such as cash flow modeling and leveraging.[15] In terms of ensuring that 100 percent of SRFs are allocated, this is laudatory. The states that have the highest pace are Rhode Island, California, and Kentucky.

Balances of more than 10 percent of all available funds remain unused in 10 states and Puerto Rico. Vermont, Puerto Rico, and New Mexico have the highest percentage of unspent SRF funds; New York, New Jersey, and Michigan have the largest dollar amount of uncommitted SRFs. The percentage of uncommitted funds reflects the size of the program: whereas the $1.13 billion in uncommitted funds in New York is only 4.8 percent of the available funds, the $1.05 billion in uncommitted funds in Michigan is 15 percent of available funds.

3. WHY ARE THERE UNCOMMITTED FUNDS?

There are several reasons for an SRF program to have uncommitted funds associated with choices of water system decision makers and state administrators.[16] To better understand the use of SRFs, we interviewed over 40 water system decision makers and state administrators. We then conducted a survey of 229 water systems decision makers and 61 state administrators.[17]

System Capacity and Choices

A state may have uncommitted SRF funds if the demand for financial assistance is low. The demand for SRF funds can be affected by basic awareness of SRF programs, the capacity to apply, and the choices of water system decision makers. Overall, we found that most water system decision makers were aware of SRFs, but many lacked the capacity or chose not to apply.

Most Water System Decision Makers Know about SRFs

Lack of awareness did not limit demand in most states. Only about 8 percent of system decision makers in our survey had not heard of SRFs. We expect this overrepresents awareness: decision makers that reply to a SRF survey are much more likely to be familiar with the program than average (i.e., we suspect those who did not respond to the survey skew towards not knowing about the program). System decision makers that did not know about SRFs tended to have a smaller staff (fewer than 10 employees) and serve smaller populations (fewer than 10,000 people).

15. U.S. EPA. 2018.
16. The water system decision makers included system managers and operators, public works engineers, city managers, elected officials, and consulting engineers.
17. We emailed thousands of water systems based on contact information in the Safe Drinking Water Information System (SDWIS). 343 water system representatives opened the first module and 229 completed the survey. At least one system in every state responded to the survey. We emailed CWSRF and DWSRF administrators in every state. Administrators from 36 CWSRF programs and 35 DWSRF programs opened the first module. State administrators representing 31 CWSRF programs and 30 DWSRF programs completed the survey. The survey instruments are available here: https://duke.ca1.qualtrics.com/jfe/preview/SV_a9uYtv9cSkl0uOh?Q_CHL=preview&Q_SurveyVersionID=current; https://duke.ca1.qualtrics.com/jfe/preview/SV_cu567D7OWeyK8yF?Q_CHL=preview&Q_SurveyVersionID=current.

Many Systems Choose Not or Do Not Have the Capacity to Apply for SRF Assistance

Nationwide, most water systems have not applied for SRF assistance. For example, an analysis of seven states found the proportion of drinking water systems that applied for DWSRF assistance between 2016 and 2020 ranged from 2 to 14 percent.[18] About a third of the system decision makers in our sample had not ever applied for SRFs. Decision makers for small systems (serving fewer than 10,000 people) were least likely to apply.

System decision makers may not apply for SRF assistance if they:

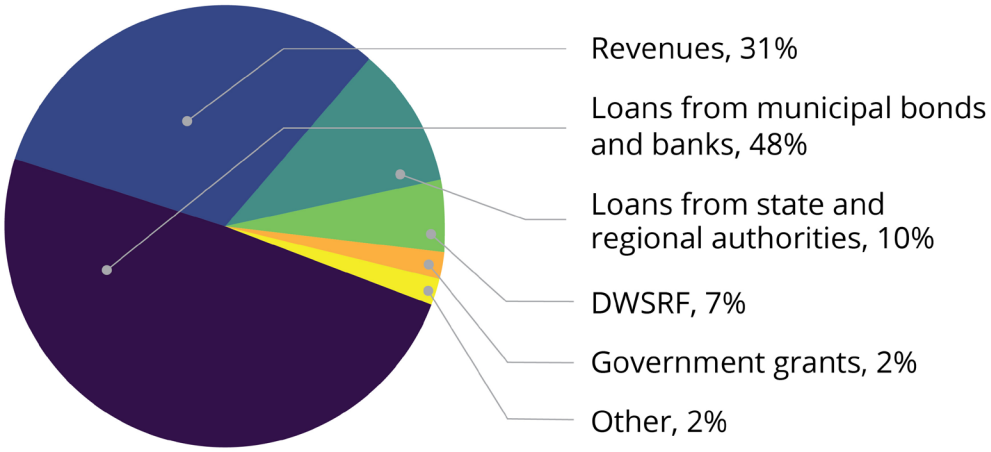
(1) Do not need or use grants or financing (i.e., borrowing).

(2) Choose other sources of borrowing to finance projects.

(3) Do not have the capacity to apply.

First, system decision makers that did not need or use financing did not apply for SRFs. As shown in Figure 4, the EPA's Community Water System Survey found that on average 31 percent of capital projects are funded with revenue collected from ratepayers.[19] System decision makers that pay for projects with ratepayer revenue did not use loans or grants. However, many systems may benefit from financing projects with low-interest rate loans rather than funding projects with cash on hand; financing allows debt to be amortized over 20 or 30 years. The rationale for using cash-on-hand rather than subsidized loans is unclear, although many water systems continue to use cash rather than finance.

Figure 4. Sources of funds for capital investments in drinking water systems



Note. Data: Community Water System Survey.

18. Hansen, K., S. Hughes, A. Paine, and J. Polidori. 2021. Drinking Water Equity: Analysis and Recommendations for the Allocation of the State Revolving Funds. Environmental Policy Innovation Center. https://static1.squarespace.com/static/611cc20b78b5f677dad664ab/t/614a45ffeac8517336243cdb/1632257542836/SRFs_Drinking-Water-Analysis.pdf.
19. U.S. EPA. 2008. 2006 Community Water System Survey Volume I: Overview. https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1009JJI.txt.

Second, many decision makers that finance projects choose sources of capital other than SRFs. Over 80 percent of the system decision makers in our survey reported that they had sufficient access to financing. According to the EPA's Community Water System Survey, water system decision makers tend to turn to the municipal bond market and banks to finance projects.[20] Water utilities borrow over $100 billion per year from the municipal bond market on average.[21] State and federal programs—including the Community Development Block Grants (CDBG) and the Water and Waste Disposal Loan and Grant Program—also provide loans and grants to finance water projects. For drinking water, the SRF makes up only 7 percent of annual capital funding.[22]

Third, many system decision makers did not have the capacity to apply for SRFs. There has been, and remains, a perception that applying for SRF assistance is difficult. Over 65 percent of system decision makers we surveyed considered the technical requirements and time it takes to apply for SRFs to be significant drawbacks. In addition, 54 percent of system decision makers we surveyed felt that their staff had insufficient training or staff time to apply for grants and loans, thus further constraining those applying for SRFs overall.

Factors That Influence the Decision to Apply

Certain conditions make water system decision makers more likely to seek SRF assistance. Interest rates strongly influenced whether or not system decision makers applied for SRF loans: 80 percent of system decision makers we surveyed considered the low interest rate to be a significant factor in their decision to apply. The payback period was also important: nearly 70 percent of system decision makers we surveyed considered the relatively longer payback period to be significant. System decision makers with environmental compliance challenges were also more likely to apply for SRF assistance.

Some types of decision makers were more likely to apply for SRFs. Operators and public works engineers were much more likely to have used SRFs, as compared to elected officials and consulting engineers we surveyed.

Administrative Constraints

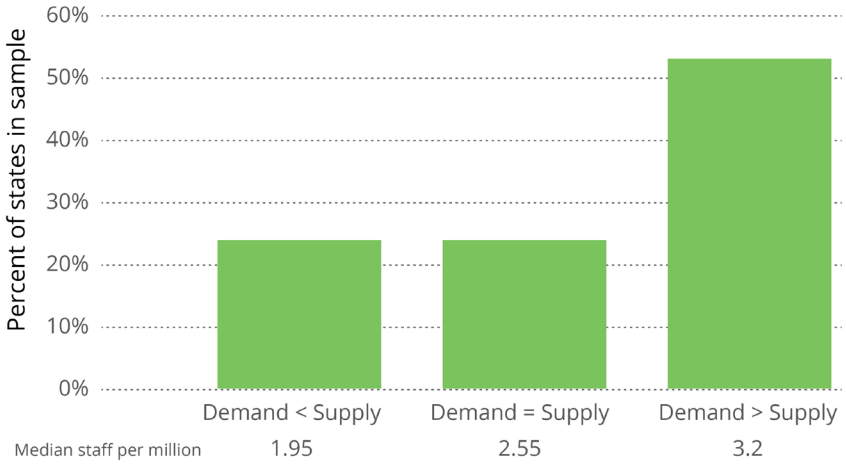
State SRF program staff capacity was also critical to the use of SRFs. Program administrators recruit applications from systems, review applications, process paperwork, and commit and disburse funds. We surveyed state administrators from 31 states about their capacity to assist applicants and process financing requests.

The administration of SRFs varied with demand and supply. Demand for SRFs is the amount that systems apply for, and supply is the amount available funds. Figure 5 shows demand was less than supply in about a quarter of the states in our sample. The number of SRF employees per million residents was lowest in these states in which demand was less than supply. Demand was equal to supply in another quarter of the states in our sample; these states had a median of 2.5

20. U.S. EPA. 2008.
21. Patterson, L. n.d. Affordability. Nicholas Institute for Environmental Policy Solutions. https://nicholasinstitute.duke.edu/water-affordability/water-services.html#ws2-3.
22. U.S. EPA. 2008.

SRF employees per million residents and disbursed between 87 percent and 100 percent available funds on average. Demand exceeded supply in half of the states in our sample; these states had the highest staff per capita ratio and disbursed close to 100 percent of their available funds on average.

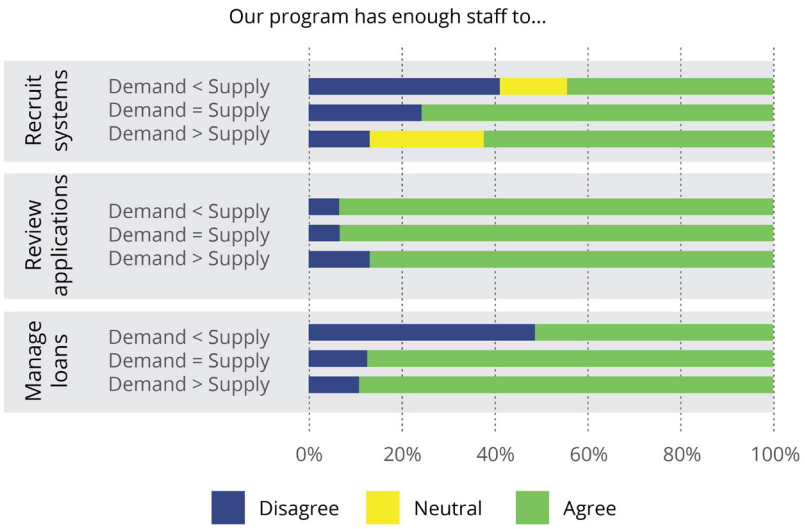
Figure 5. Percent of states with different ratios of demand to supply and median number of staff per million residents for SRF programs



Note. Data: State survey.

Figure 6 shows how the capacity to recruit systems, review applications, and manage loans correlates with the amount that systems apply for and the amount available funds. In states where demand was less than supply, over 40 percent of SRF program managers and staff thought there was insufficient staff to recruit systems and manage loans. Nearly all states in our survey indicated they had sufficient staff to review applications.

Figure 6. Relationship between the ratio of demand to supply and the capacity to recruit systems, review applications, and manage loans



Note. Data: State survey.

4. POLICY RECOMMENDATIONS

There is cumulatively $9.6 billion in the 102 SRF programs that states and Puerto Rico have not committed to finance water infrastructure projects. We believe the amount of uncommitted funds should be below the annual appropriation as a matter of policy. Benchmarked against this reasonable goal, there is an excess of $6 billion in uncommitted SRF funds because the annual appropriation is around $3.5 billion. Water system decision makers, advocates, and policy makers should work to reduce this balance; it is difficult to sustain calls for more federal and state funding when available programs are underutilized.

Reducing the amount of uncommitted funds in the SRF programs requires actions along three axes: setting higher goals, stimulating demand, and reducing administrative constraints. We recommend several steps the EPA, Congress, state administrators, and state legislatures should take towards these aims.

Set and Track Goals for the Allocation of Funds

EPA Should Encourage Allocation to Keep Pace with Available Funds

According to the EPA's SRF Funds Management Handbook, states should target allocating "near or above 100 percent" of available funds. The EPA should set and center this goal for each state more. As loan repayments increase the capital pool in SRF programs, signing loan agreements to keep pace with the amount of funds available for projects is an important goal to prioritize.

Congress Should Require Reports on Uncommitted Funds

Congress should require the White House Office of Management and Budget (OMB) to assess the extent of uncommitted funds for a subset of SRF programs on a rotating basis. OMB should compile the data and interview state SRF administrators to identify barriers to signing loan agreements. These reports will help continually improve the program.

Stimulate Demand for Funds

Recommendations for SRF State Administrators

SRF administrators should stimulate demand for SRFs by providing more technical assistance, awarding more planning and development grants, making the application process easier, and awarding more principal forgiveness.

SRF State Administrators Should Provide More Technical Assistance

Applications for SRF funds can be difficult to complete. Water system decision makers with limited capacity rely on assistance from state agencies or consultants.[23] Technical assistance (TA) reduces the burden that communities must shoulder and can ensure that the SRF programs finance high-quality projects in the communities with the greatest need for investment. States can provide more TA by using set-asides, subsidizing assistance from experts, and relying on intermediaries for help:

- *Be proactive*: States need to be proactive in identifying, recruiting, and providing technical assistance to overburdened communities. States should identify and recruit water systems serving overburdened communities. Proactive TA will ensure better outcomes in terms of more equitable distribution of SRF awards and better projects.
- *Use available set-asides*: Federal statute allows states to use up to 4 percent of their annual capitalization grants for both the DWSRF and CWSRF programs for administration and technical assistance.[24] States may also use an additional 2 percent of their DWSRF capitalization grant for technical assistance to systems serving fewer than 10,000 people.[25] On average, states do not fully utilize these set-asides.[26] States should set aside more funds for technical assistance to help systems apply for SRFs. Maryland is considering legislation that would create a special technical assistance subaccount within their SRF program to reserve and make it easier to track the use of funds for this purpose.[27]
- *Subsidize assistance from experts*: States should subsidize assistance from experts to help with applications. System decision makers, who only occasionally seek SRF support, should lean on experts with extensive experience. For example, the CFO to Go initiative

23. U.S. EPA. 2013. Lessons Learned from Implementing EPA's Portion of the American Recovery and Reinvestment Act: Factors Affecting Implementation and Program Success--Summary of Six Specific Reports. https://nepis.epa.gov/Exe/ZyPDF.cgi/P100HDB2.PDF?Dockey=P100HDB2.PDF.
24. State Revolving Loan Fund, 42 U.S.C. § 300j-12(g)(2)(A)(ii) (1996). https://www.law.cornell.edu/uscode/text/42/300j-12; Water Pollution Control Revolving Loan Funds, 33 U.S.C. § 1383(d)(7) (1987). https://www.law.cornell.edu/uscode/text/33/1383.
25. State Revolving Loan Fund, 42 U.S.C. § 300j-12(g)(2)(C). (1996).
26. Hansen et al. 2021.
27. S.B. 0348 2022, 444th Session, Reg. Sess. (Maryland, 2022). https://mgaleg.maryland.gov/mgawebsite/Legislation/Details/sb0348?ys=2022RS.

in Texas, funded by the Texas Water Development Board, provides free financial consults to utilities to identify problems and develop plans to address them.[28]

- *Rely on intermediaries to help*: Nonprofit organizations and other intermediaries provide support to communities who apply for federal and state awards in the water, energy, housing, and transportation sectors. Grants to these entities—an eligible use under federal law—would allow states to reach and connect more water system decision makers with the resources they need to apply for SRFs.

SRF State Administrators Should Provide More Planning Grants and Predevelopment Funds

Completing an application to finance a water infrastructure project with state and federal funds can be costly. SRF applications typically require several technical reports—such as engineering designs, preliminary engineering reports, and financial audits—which can cost thousands of dollars to complete. For example, estimates suggest the average cost to simply develop and submit application materials for state water infrastructure financing in California is $17,000.[29] Applicants must pay for this work up-front if other funds are not available and many have difficulty bearing these costs.

States should provide more planning grants and predevelopment funds. This support helps water system decision makers assess which problems to tackle, develop projects, involve the community in the decision making, complete paperwork, and submit applications. By separating support for planning and construction into different phases, systems do not need to bear the costs up-front.

Several financial mechanisms are helpful. Systems that serve low-resource populations need grants. For others, states can provide 0 percent loans with deferred repayment or cover planning costs by discounting the interest rate of loans for construction.

Planning grants and predevelopment funds are worthy investments that will help water systems apply for SRF awards, thereby reducing uncommitted funds. Several states such as Colorado,[30] Kansas,[31] and New York[32] provide planning grants and predevelopment funds to water systems, especially to systems that serve smaller populations.

SRF State Administrators Should Make the Application Process Easier

Water system decision makers often describe the SRF application process as "overwhelming," "complex," or "byzantine." Our survey shows that states that have higher demand for SRFs appear to have application requirements that make it easier to apply. State administrators should make it

28. Texas Water Development Board. 2020. Annual Report: Clean Water State Revolving Fund. https://www.twdb.texas.gov/publications/reports/administrative/doc/FY20-CWSRF-AnnualReport.pdf.
29. Sprague, M., K.F. Wilson, and B.E. Cain. 2019. "Reducing Local Capacity Bias in Government Grantsmanship." The American Review of Public Administration 49(2):174–188. https://journals.sagepub.com/doi/abs/10.1177/0275074018814242.
30. Colorado Department of Public Health and Environment. n.d. SRF planning and Design and Engineering Grants. https://cdphe.colorado.gov/wq-planning-design-grants.
31. Kansas Department of Health and Environment: Division of Environment. n.d. Planning Assistance Grants. https://www.kdhe.ks.gov/423/Planning-Assistance-Grants.
32. New York State: Environmental Facilities Corporation. n.d. Wastewater Infrastructure Engineering Planning Grant. https://efc.ny.gov/epg.

easier to apply by assessing the likeliness of support, adopting rolling acceptance windows, and taking on some of the requirements:

- *Assess likeliness of support*: Uncertainty about the likelihood of securing support might keep water system decision makers from planning and developing projects. States should consult with water system decision makers early about the chances of receiving a SRF award to finance a project. Alternatively, states could use the annual Intended Use Plans (IUPs) to indicate the type of projects that states will prioritize. For example, a state could identify lead pipe removal as a priority and use uncommitted funds to support these projects.
- *Adopt rolling acceptance windows*: About 25 percent of the states in our survey only accept applications only once a year. This short window can curtail applications from water systems with limited staff, who may not follow SRF cycles. States should solicit and accept applications on a rolling basis to stimulate demand. Rolling acceptance windows also make it easier to align with other budget cycles.
- *Take on some of the requirements*: States could also make it easier to apply by taking on some of the requirements. Making the applicant responsible for fewer requirements shifts the burden from systems to states. For example, Iowa completes the environmental review for applicants.

SRF State Administrators Should Award More Principal Forgiveness

Water systems that serve low-resource communities cannot collect revenue to repay loans while maintaining affordable rates. States should award more principal forgiveness to low-resource communities.

Recommendations to the EPA

EPA Should Support More Technical Assistance

- *Encourage states to provide on-the-ground technical assistance*: TA must go beyond providing information through instructions, webinars, or other training. EPA should encourage states to provide on-the-ground technical assistance to help water system decision makers complete needs assessments, engage stakeholders, develop project plans, and complete applications.
- *Provide training and templates*: EPA should provide trainings and other support to state SRF administrators to help them strengthen their proactive recruitment and outreach efforts. The EPA should help states prioritize which communities to recruit based on EJ screens, needs assessments, vulnerability indices, and feedback from regulators. The EPA should also develop sample outreach messaging.
- *Create list of TA providers*: EPA Region 1 maintains a list of organizations that provide technical assistance to water systems. The list includes state chapters of associations like the National Rural Water Association and American Water Works Association. This voluntary effort is welcome. EPA should create similar lists in other regions.

EPA Should Issue Guidance on Contracting Intermediaries to Distribute Predevelopment Funds

EPA should consider issuing guidance on how states could contract with intermediaries to distribute predevelopment funds to many smaller communities simultaneously. It is inefficient for states to contract themselves and intermediaries can speed up the planning of shovel-worthy projects.

EPA Should Create Prototype Online Application Portals

Online portals make it easier for systems to apply and submit necessary documentation. The tool can also make it easier for states to process paperwork and award funds. EPA should fund a private sector entity to develop an online portal for SRF applications; this portal should be available to be adapted by states for their specific programs. After EPA funds the prototype, states should be able to fund its adaptation. Importantly, state administrators also noted in our survey that maintaining a paper-based application can help very small systems with limited access to the internet, computers, or digitized records.

Recommendations for State Legislatures

State Legislatures Should Push to Maintain Low Interest Rates

Low-interest rates are one of the main reasons system decision makers apply for SRFs. By statute, SRF interest rates must be lower than the market rate.[33] When over and municipal bond market interest rates rise, low interest rates from SRFs are more important and attractive. This is especially the case for water systems serving places with lower credit scores. State legislatures should adopt stronger guardrails to ensure SRF interest rates are lower than the municipal bond market interest rates.

State Legislatures Should Expressly Authorize More Additional Subsidies

Some state SRF administrators may not allocate additional subsidies due that affect the long-term growth of the program. These decisions sacrifice support for water systems that cannot take on additional debt to access the program any other way. State legislators should expressly authorize allocating additional subsidies in line with the percentage of the federal capitalization grant that Congress has green-lighted. States could go further and set goals for SRF programs that ensure the capital pool grows and additional subsidies are as generous as possible within that limit.

Enhance Effective Administrative Practices

Recommendations for SRF State Administrators

SRF State Administrators Should Hire More Staff

Many SRF programs are understaffed. From 2009 to 2017, the loan volume increased by over 50 percent while the number of employees hardly budged.[34] Congress also added the requirement for SRF recipients to use American Iron and Steel in construction projects. SRF administrators spend a lot of time reviewing applications to ensure projects comply with this requirement, as well as

33. U.S. EPA. 2021. How the Drinking Water State Revolving Fund Works. https://www.epa.gov/dwsrf/how-drinking-water-state-revolving-fund-works.
34. U.S. EPA. 2018. SRF Fund Management Handbook. EPA-830-K-17-004. https://www.epa.gov/sites/default/files/2018-04/documents/fund_management_handbook_2018final.pdf.

the NEPA review and paying prevailing local wages consistent with the Davis-Bacon Act. SRF staff are overextended.

Our survey indicates there is a strong correlation between demand for SRF funds and size of the SRF staff. States, particularly those with less demand, need to hire more staff to administer the funds. In addition, states can hire contractors to help manage awards. States can use a portion of their federal capitalization grant to pay for administration. If states hire more staff, they can administer the program more effectively and efficiently to make better use of available federal funds.

SRF State Administrators Should Use Cash Flow Models

Several states are using "advanced loan commitment" practices, such as cash flow modeling, to commit to loans that exceed the amount of available funds. Cash flow models combine financial planning, budgeting, and forecasting to predict the future amount of available funds based on projected assets, debt, interest rates, and other factors. These models help administrators make realistic forecasts to manage their cash flow. States that develop cash flows models can make more loans to reduce the balance of uncommitted funds without risking cash droughts. Since several states have used cash flow models for years, SRF administrators can adopt their peers' practices. States can also require submission of invoices on at least a quarterly basis to improve record keeping.

Recommendations for the EPA

EPA Should Continue to Study, Provide Training, and Share Best Practices

EPA should continue to study and share best practices about how states allocate SRF awards. The agency should study how different SRF award terms affect the likelihood of water system decision makers seeking funding. EPA can also provide training on cash flow modeling and track who attends.

EPA should also ask Regional Administrators to find and feature the best administrative practices and TA work in their regions and host webinars to highlight best practices. Lifting up more examples like this will help other states understand and replicate innovative practices.

Recommendations for Congress, Governors, and State Legislatures

Set Targets and Establish Incentives

State governors and legislators should establish policies for programs that empower staff to set more accurate allocation targets. The state policies and accounting will be different from many grant programs managed by other state environmental and natural resource agencies.

Congress could provide incentives to states that adopt better cash flow modeling by instructing EPA to allocate a small portion of uncommitted funds from prior years (e.g., up to 0.5–1 percent of annual appropriation) to states that meet or exceed a target. This incentive could spur states to allocate their funds better, thereby reducing the amount of uncommitted funds.

Author Affiliations

Katy Hansen, Environmental Policy Innovation Center

Govind Sawhney, Environmental Policy Innovation Center

Simon Warren, Duke University

Martin Doyle, Nicholas Institute for Environmental Policy Solutions

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Contact

Nicholas Institute
Duke University
P.O. Box 90335
Durham, NC 27708

1201 Pennsylvania
Avenue NW
Suite 500
Washington, DC 20004

919.613.8709
nicholasinstitute@duke.edu

Nicholas Institute for Environmental Policy Solutions

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