Tapping Potential: The Economic Benefits of Investing in Water Infrastructure

thevalueofwater.org

the **Value** *of* **Water** *Campaign*

PROLOGUE & ACKNOWLEDGMENTS

This work breaks new ground, providing deep and novel insights into water infrastructure's role in the U.S. economy.

Through this research, the Value of Water Campaign and our partners are proud to equip advocates and decision-makers alike with deeper insights into:

- **The scale of funding needs and gaps** in previously underexplored segments of water infrastructure, like stormwater, PFAS, and lead service lines.
- **The extent of unmet water investment needs** in rural America specifically, including what those needs equate to on a per capita basis.
- A more **precise and compelling picture of the multiplier effect that water infrastructure investment delivers** to the national economy.
- How **closing the water infrastructure investment gap connects to the nation's interests in becoming a global leader in artificial intelligence.**
- A clear, data-driven approach for **understanding the consequences of every 10% cut to current federal water funding levels.**
- Each **state's specific funding needs, gaps, sector vulnerabilities, water workforce trends, economic prospects** from closing their funding gap, and more.
- **Trends between historic water infrastructure spending and water workforce development.**

In partnership with the Value of Water Campaign Steering Committee:

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American Water Works Association

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Valley Water

Water Environment Federation

This edition of the Value of Water Campaign's Economic Benefits of Investing in Water Infrastructure also delivers what partners have come to rely on:

— The latest **assessment of what it will take to bring the nation's drinking water, wastewater, and stormwater infrastructure into a state of good repair**—and how current spending compares.
— **Projections of how much of an investment gap will be passed to future generations** if water spending continues at levels authorized in 2021 versus reverting to pre-2021 levels.
— **The economic boost—jobs, income, GDP, and industry impacts—that would come from closing the gap.**
— **Ways to communicate the consequences of failing to invest** in water infrastructure in clear, economic terms.

An endeavor of this magnitude would not have been possible without an unprecedented show of unity among key water sector leaders and allies – each recognizing what is at stake in whether the country rises to the challenge of securing the bedrock of our economic future or falls even further behind.

The Value of Water Campaign extends deep gratitude to our steadfast Steering Committee and all those who partnered on and sponsored this research.

We especially thank the team: Ben Stewart, Zac Koch, Everett Delate, Bill Zieburtz, and Andy Burnham with Stantec; Janet Clements and Claire Sheridan with One Water Econ; Emily Simonson, Renée Willette, Scott Berry, and Mary Morton with the US Water Alliance; and Jonathan Nelson with JDN Strategies for their creativity, dedication, insight, and guidance.

The consequences of water infrastructure failure are profound. Failures disrupt our most basic needs—safe communities to live in, clean water to drink, and healthy, stable ecosystems. Failures and inadequate infrastructure can stifle growth, undermine, and even halt the economy.

This report is brought to you by our generous sponsor organizations:

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Section 1

Water Infrastructure at a Crossroads

Water defines our present and future. It enables and shapes every facet of our daily lives—the food we eat, the communities we live in, the places we recreate, and the businesses that drive our economy. Water is life's most essential ingredient.

Yet for most Americans, the infrastructure we depend on every day to make safe, reliable water for people and the environment possible is largely invisible. The miles of pipes, treatment plants, pumps, and other key systems it takes to deliver clean water and treat it before reusing it or returning it to the environment are out of sight and out of mind—until something goes wrong.

Today, those systems are under mounting stress. Growing and shifting populations, new and increasing demand from industries, pollution, and more extreme weather all put pressure on infrastructure that, in many cases, has been working around the clock for a century or more. Much of the country's water and wastewater systems are well past their intended lifespan, and the risks of failure are growing.

The consequences of water infrastructure failure are profound. Failures disrupt our most basic needs—safe communities to live in, clean water to drink, and healthy, stable ecosystems. Failures and inadequate infrastructure can stifle growth, undermine prosperity, and even halt the economy.

Investing in water, wastewater, and stormwater infrastructure is critical, yet far from guaranteed.

Against this backdrop, the Value of Water Campaign is releasing this report at a pivotal moment. The 2021 Infrastructure Investment and Jobs Act (IIJA) brought long-overdue increases in financial resources for water infrastructure. Yet, that surge may be temporary. Commitment to sustained and additional federal funding appears weak, even as needs and public support continue to grow.

Insights in this report include:

Historical Funding and the National Investment Needs: Context on long-term funding trends from federal, state, and local funding sources, alongside updated assessments of needs—including needs to keep up with stormwater issues, PFAS, and lead service line replacement (LSLR).

Investment Scenarios: Analysis of two scenarios illustrating the costs of deferring investment and offering an approach for understanding the consequences of every 10% cut to key water funding programs.

Economic Impacts of Investment: Evidence of water infrastructure's multiplier effect, demonstrating how investment supports jobs, income, gross domestic product (GDP), and economic growth.

Disruption Costs: Analysis illuminating the consequences of failing to invest in water infrastructure through the lens of service disruptions, at national, household, and industry scales.

Employment Trends and Workforce Impacts: Review of workforce patterns showing how investment supports efficient pathways to good jobs, while connecting current challenges to future opportunities.

The View from the States: Maps and analysis of how needs are distributed across states, how closing the gap would deliver economic benefits to each state, and how water infrastructure investments in one state impact other states.

> *Federal support once covered 50-60% of all capital funding for water infrastructure during the late 1970s and early 1980s.*

This is not a new story. Federal support covered 50-60% of all capital funding for water infrastructure during the late 1970s and early 1980s. By 2021, prior to Congress passing the IIJA, that share had fallen to about 7%. The IIJA's historic funding infusion was essential, but it still represents only a fraction of what is needed to modernize and secure the nation's water infrastructure.

As a result, communities across the country are left grappling with compounding pressures and little support. Aging pipes and treatment facilities are long overdue for replacement. Fast-growing regions strain to keep up with demand, while other communities face shrinking populations and fewer customers to keep up with costs and make needed investments. Climate change is altering weather patterns, intensifying storms, and prolonging droughts. Contaminants like per- and polyfluoroalkyl substances (PFAS) and lead threaten water quality. At the same time, households and local governments—still recovering from the COVID-19 pandemic and facing higher costs of living—struggle with affordability. State and local governments face difficult fiscal choices as they wrestle with uncertainty and rising costs. Without greater federal support, the burden of investing in water infrastructure will continue to fall on water and wastewater utilities and their ratepayers, deepening disparities and leaving the most vulnerable communities further behind.

But there is another side to this story. Investing in water is not just a cost to bear – it is a tangible opportunity to promote economic growth, support good jobs, and strengthen communities. Every dollar spent upgrading pipes, treatment plants, and distribution systems reduces the likelihood of costly main breaks, boil-water advisories, sewage overflows, flooding, and service outages that disrupt lives and cost billions. Every project creates jobs in construction, operations, and supply chains. Water sector jobs are not only well-paying, but more resilient during economic downturns. With targeted funding for training, they can open accessible pathways to stable, local, well-paying careers for workers across the country.

This report explores both the risks of inaction and the economic benefits of closing the water infrastructure investment gap. **The findings show why investing in water is not only essential, but also one of the smartest, highest-return decisions our nation can make.**

Section 2
Study Methodology

The Value of Water Campaign partnered with Stantec and One Water Econ to conduct this assessment. To estimate funding needs, the team drew on the most recent U.S. Environmental Protection Agency (EPA) Infrastructure Needs Surveys and supplemented them with targeted estimates for lead service line replacement (LSLR), stormwater upgrades, PFAS-related costs, and operations and maintenance (O&M) expenses.[1] These additions help fill critical gaps in federal data, providing a more complete picture of total need. Current and projected funding levels—covering both capital and O&M—are based on federal reporting[2] and refined using expert judgment, as detailed in the Technical Appendix to this report, provided as a separate document.

Available data limit the focus of this study to the pipes, treatment plants, pump stations, and other infrastructure that make up the nation's drinking water, wastewater, and stormwater systems. The funding gap analysis does not include drinking water supply infrastructure, such as dams and levees. However, we do report out on what limited information is available as an aside from the analysis.

To estimate the economic impacts associated with necessary water infrastructure investments, the team used IMPLAN, a nationally recognized economic input-output model. IMPLAN tracks how spending in one sector impacts others, generating direct, indirect, and induced effects—such as job creation, business activity, and household spending. IMPLAN measures these impacts across key economic indicators, including economic output, gross domestic product (GDP or total value added), labor income, and employment. Economic output refers to the total value of goods and services produced by an economy, including both final goods and intermediate goods used in production. While GDP captures only the value of final demand for goods and services (excluding intermediate inputs), economic output encompasses the full value of production, making it a broader measure of economic activity. Employment impact estimates from IMPLAN displayed herein reflect annual jobs, including full-time, part-time, and seasonal employment.

Key Terms:

IMPLAN: a nationally recognized economic input-output model that tracks how spending in one sector impacts others, generating direct, indirect, and induced effects—such as job creation, business activity, and household spending. It measures these impacts across key economic indicators, including economic output, gross domestic product (GDP or total value added), labor income, and employment.

Economic Output: the total value of goods and services produced by an economy, including both final goods and intermediate goods used in production. It encompasses the full value of production, making it a broader measure of economic activity.

Gross Domestic Product (GDP): captures the total monetary value of all final goods and services produced within a country's borders over a specific period, typically within a year.

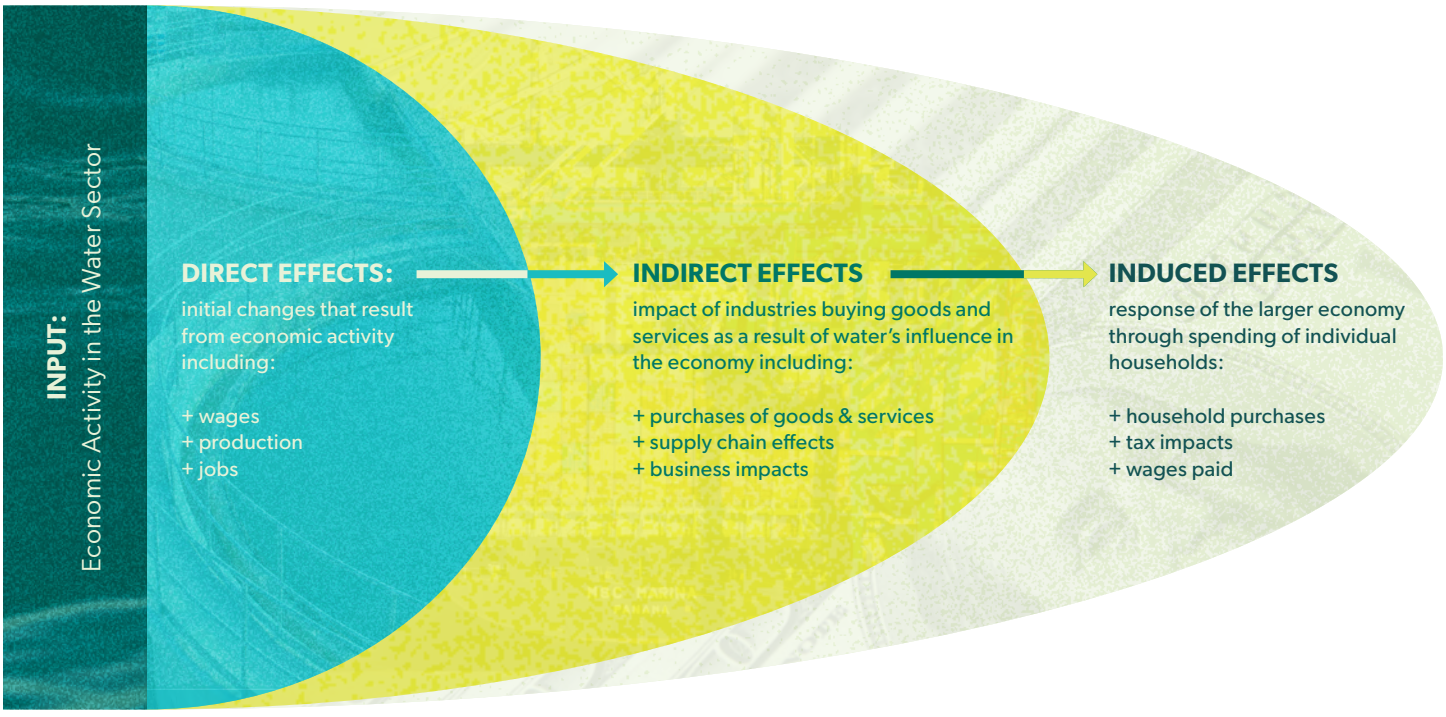
Operations & Maintenance (O&M) Expenses: the recurring expenses required to run and maintain a facility, project, or water system in good working order. These costs cover everything from daily activities like cleaning and utilities to periodic tasks like inspections and repairs. O&M expenses are distinct from capital costs, which cover long-term investments.

Infrastructure Needs Surveys: the national Drinking Water Infrastructure Needs Survey and Assessment (DWINSA) and Clean Watersheds Needs Survey (CWNS), conducted by the U.S. EPA each year, are used to track known infrastructure needs over time.

It is important to note that when evaluating economic impacts of government spending, like those discussed in this report, the funds spent on water infrastructure would likely come from reductions in other government budgets, increases in tax revenues, or other sources. These would in turn have other potentially partially offsetting impacts. These decisions and trade offs are outside the scope of this study, and the economic impact results presented should therefore be understood as the "gross" impacts of investment in water infrastructure, not net impacts after accounting for other changes that may accompany investment.

This report goes beyond a traditional economic impact assessment by also quantifying the cost of inaction. Using IMPLAN and industry research, it highlights the economic consequences of water service disruptions across key sectors, including industries, businesses, households, and public services. All figures are presented in 2025 U.S. dollars unless otherwise noted.

Figure 1:
Implan Modeling Process Utilizing Inputs to Estimate Direct, Indirect, and Induced Effects.



Section 3
Water Infrastructure Funding

Water infrastructure funding from local, state, and federal sources has varied significantly over time. Funding in recent years has been impacted by the IIJA, which passed in 2021 and began funding water infrastructure projects in 2022. Table 1 is provided as a reference with funding values for 2021 (the last pre-IIJA year) and 2023 (the most recent year of available data including IIJA funding).

Capital Investment in Water: Trends over Time

Over the past four decades, the federal role in funding water infrastructure has steadily declined, leaving states and utilities to increase their contributions to meet growing needs. Historically, states and local governments have borne 37% to 100% of capital investments in water infrastructure—costs they may finance with other public or private funding and that ultimately flow to customers through their water bills.

Overall, capital investments from all levels of government have grown since the late 1950's, increasing by 183% in real dollars from 1956 to 2021. Yet most of this growth has come from state and local sources. Federal spending fell from $25.3 billion in 1981 (when it was about half of the total) to a recent low of just $4.0 billion in 2021 (about 7% of total funding).[3]

> *"Federal investment in water has fallen from covering half of all capital funding to just 7% today—leaving states, communities, and ratepayers to shoulder the burden.*

Table 1:
Historical Funding Summary Pre-IIJA (2021) and Including IIJA (2023) ($ Billions, 2025 Dollars)

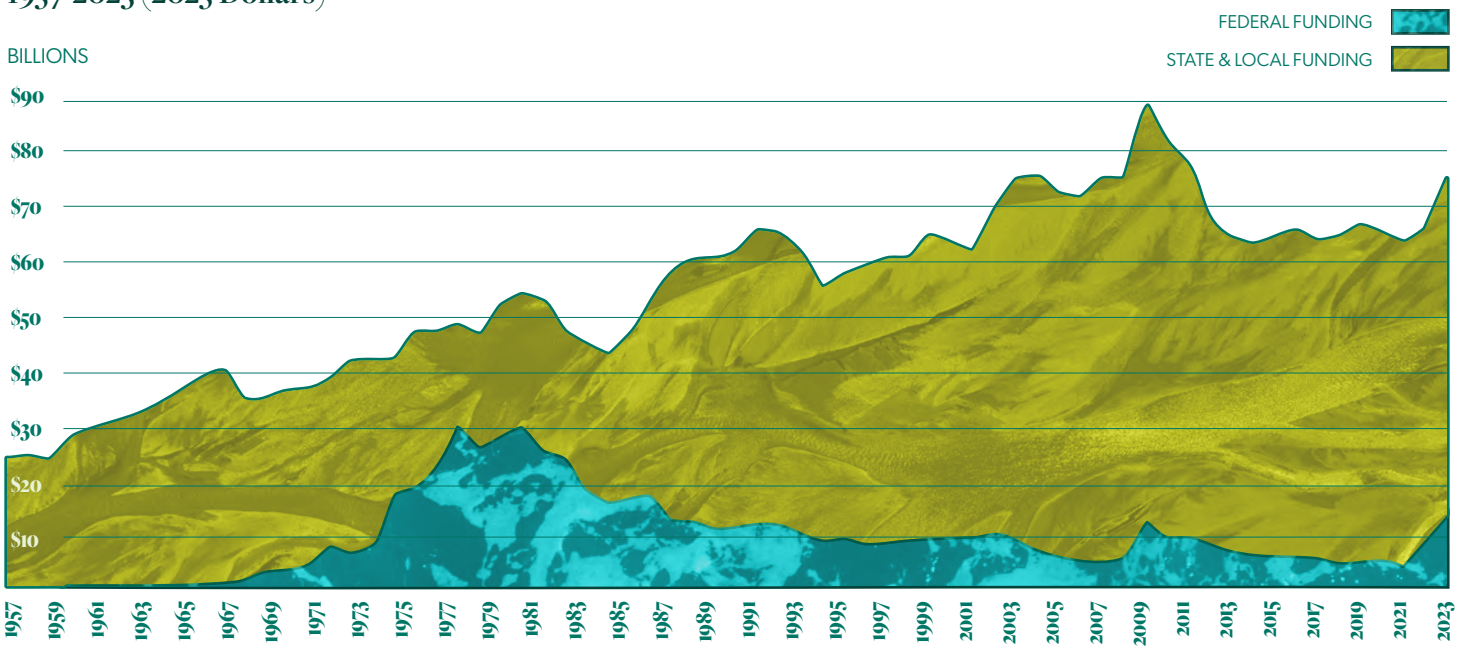
	Federal	State & Local	Total
2021 Funding Summary, Pre-IIJA Funding			
Capital	$4.0	$54.8	$58.8
O&M	$1.1	$115.6	$116.7
TOTAL	**$5.0**	**$170.4**	**$175.5**
2023 Funding Summary, Including IIJA Funding			
Capital	$14.1	$57.0	$71.1
O&M	$1.6	$119.4	$121.0
TOTAL	**$15.6**	**$176.4**	**$192.0**

The trendline is clear: federal funding plateaued in the 1990s, declined after 2003, and only temporarily rebounded during the Great Recession. Between 2003 and 2021, total water infrastructure investment fell 15% in real terms, driven by federal spending cuts. By 2021, state and local sources contributed more than 90% ($54.8 billion) of the $58.8 billion invested in water that year.

To begin to address under-investment in many forms of infrastructure, including water infrastructure, the federal government passed the IIJA in late 2021. The IIJA reversed the downward trend somewhat, providing an uptick in federal spending starting in 2022 and increasing further in 2023, as seen in Figure 2.

The IIJA delivered funding directly to states and utilities by boosting the Drinking Water State Revolving Fund and Clean Water State Revolving Fund.[4] It also dedicated funds for LSLR and for addressing emerging contaminants, including PFAS. In total, the IIJA allocated $48.4 billion[i] for water infrastructure needs over five years, from 2022 to 2026, with $43 billion of which set for distribution through the State Revolving Loan Funds. Funding through the IIJA is allocated and distributed annually to the states, based on formulas including EPA's 2023 Drinking Water Infrastructure Needs Survey and Assessment (DWINSA) and 2022 Clean Watershed Needs Survey (CWNS).[5] While funding in the IIJA alone will not close the nation's water infrastructure gap, it marks an important step in narrowing it.

Figure 2:
Federal, State, and Local Capital Investments from 1957-2023 (2025 Dollars)



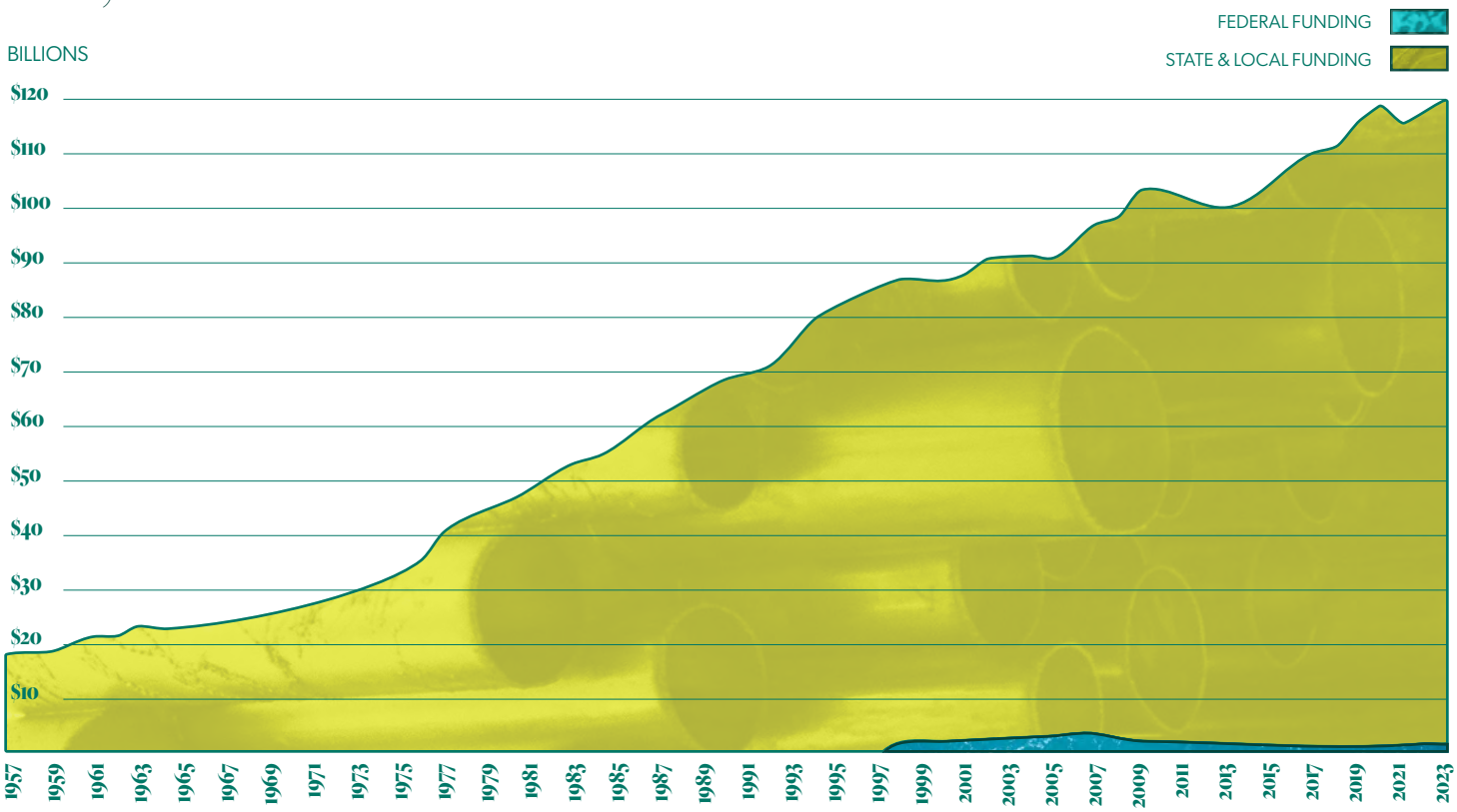
The picture of America's water infrastructure needs is more complete than ever at nearly $3.4T, or an average of $168B every year for 20 years. When adding in O&M, the total need climbs to almost $7.7T—or $384B every year for 20 years. These estimates are conservative, underscoring the scale of investment the water sector requires.

"Capital dollars are only part of the picture. O&M spending shows how deeply the cost burden of water service falls on local communities.

Water Operations & Maintenance Spending: Trends Over Time

In 2023, spending on operations and maintenance (O&M) reached $121.0 billion—and nearly all of it ($119.4 billion) came from state and local sources (Figure 3).[6] Federal and state O&M contributions are largely tied to major water supply projects, such as dams, canals, and other supply and conveyance infrastructure (which are excluded from Figure 3). This means 99% of day-to-day O&M costs fall to local governments and water utility providers. Funding is mostly provided directly by ratepayers, challenging local utilities to balance raising enough revenue from rates, state funds, private financing, and public and private partnerships to keep up with system needs without burdening customers with bills they struggle to pay or cannot afford.

Figure 3:
Federal, State, and Local O&M Funding from 1957-2023 (2025 Dollars)



Section 4
Water Infrastructure Funding Needs

In total, the U.S. needs to spend an estimated $3.4 trillion in capital investments over 20 years to bring up to date, secure, and modernize critical water infrastructure. This includes $1.6 trillion for drinking water and $1.8 trillion for wastewater and stormwater systems. That translates to $168 billion every year. Adding in what the U.S. needs to spend in annual O&M expenses, the total need rises to $384 billion every year for 20 years.[7]

These estimates build on EPA's national DWINSA and CWNS, supplemented with additional data sources to update and fill known gaps: the Water Environment Federation's (WEF) more complete stormwater needs estimates, PFAS removal and compliance cost estimates developed in response to EPA's recent regulations, and new EPA survey data on LSLR costs.[8] These new categories add about $1.1 trillion in estimated needs over 20 years, relative to prior surveys.

Even so, the estimate remains conservative. Current surveys and research used do not fully capture needs like expanding capacity in fast-growing regions, responding to natural disasters, or adapting to climate change. Recognizing that federal funding programs almost entirely support investments in the capital need of the nation's water infrastructure, this report primarily focuses on the drinking water, wastewater and stormwater capital needs in the United States.

Note: Federal Water Supply Infrastructure

In 2021, the U.S. Bureau of Reclamation projected $5.6 billion in investment needs over five years and $14.5 billion over 30 years (in 2025 dollars) to rehabilitate and replace Bureau-owned water infrastructure in western states, including dams, canals, and hydropower facilities.[9] While these assets are certainly part of the nation's water infrastructure portfolio, they are not included in the primary analysis because they fall under distinct funding structures separate from the municipal- and utility-scale systems that are the focus of this report.

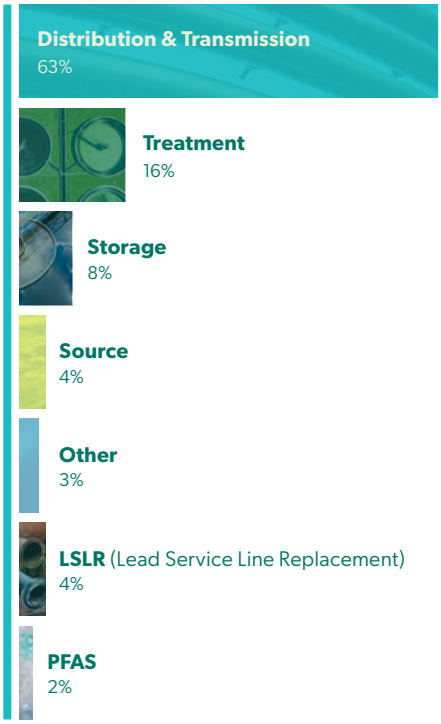
Table 2:
Funding Needs Summary 2025-2044 ($ Billions, 2025 Dollars)*

	Total 20-Year Need	Average Annual Need
Capital Summary		
Drinking Water Capital	$1,574	$79
Wastewater / Stormwater Capital	$1,786	$89
Total Capital	$3,360	$168
O&M	$4,325	$216
TOTAL	$7,684	$384

** Data separating O&M spending between drinking water and wastewater is not available at this time.*

Figure 4:
20-Year Water Infrastructure Funding Need by Capital Type and O&M

Figure 5:
Drinking Water Funding Needs by System Function

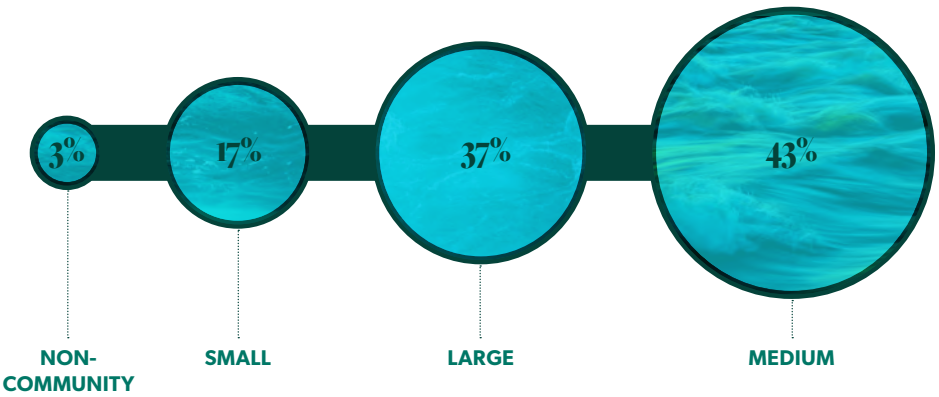


Drinking Water Capital Investment Need

Based on EPA's Drinking Water Infrastructure Needs Survey and Assessment (DWINSA), combined with the additions of PFAS and LSLR investment needs, total estimated funding needs for water infrastructure from 2025 to 2044 amount to $1.6 trillion.[10] Drinking water distribution and transmission systems account for the majority (63%) of necessary investments (Figure 5). Medium and large systems (serving over 3,300 people) account for roughly 80% of the total need, requiring an estimated $1.2 trillion to maintain, manage, and upgrade their existing systems (Figure 6). Critically, the DWINSA does not account for capital investments needed to expand drinking water systems to serve new customers, meaning the true need is likely higher in areas experiencing significant population growth.

EPA finalized PFAS drinking water standards in 2024, with monitoring required by 2027 and compliance by 2029. Exposure to PFAS, also known as forever chemicals because they accumulate in the environment, is known to be harmful to human health.[11] Impacted systems will be required to treat drinking water for certain kinds of PFAS, resulting in additional capital expenditures. Although these new regulations are important, associated updates to treatment infrastructure will add a total of $39.4 billion to the investment need for impacted systems.

Figure 6:
Drinking Water Funding Needs by System Size



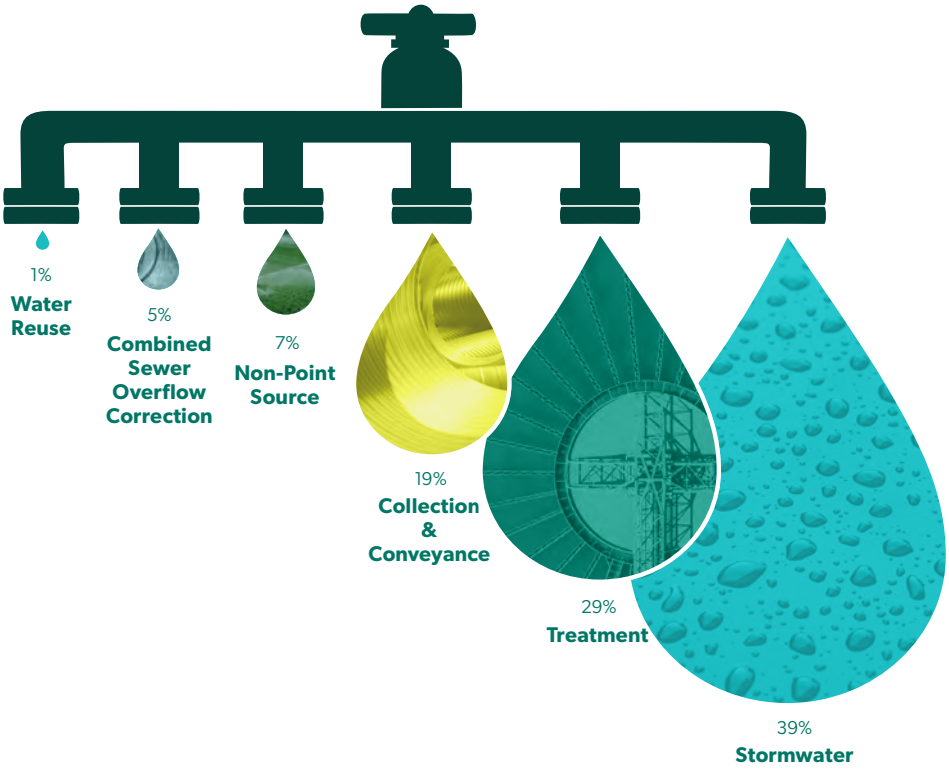


Figure 7:
Clean Watersheds Funding Needs by Function

Wastewater and Stormwater Capital Investment Need

EPA's Clean Watershed Needs Survey (CWNS) estimates investment needs in wastewater collection, conveyance, and treatment, and WEF's survey of municipal separate storm sewer systems (MS4s) estimates stormwater infrastructure needs.[12]

Based on these sources, $1.8 trillion will be necessary to meet wastewater and stormwater needs between 2025 and 2044. Over $675 billion is required for stormwater infrastructure alone (39% of the $1.8 trillion total), with major wastewater needs concentrated in treatment (29%) and collection and conveyance (19%; Figure 7). Needs in this category are more evenly distributed across system sizes compared to drinking water, with small and large systems making up an equal share (Figure 8).

Figure 8:
Clean Watershed Funding Needs by System Size

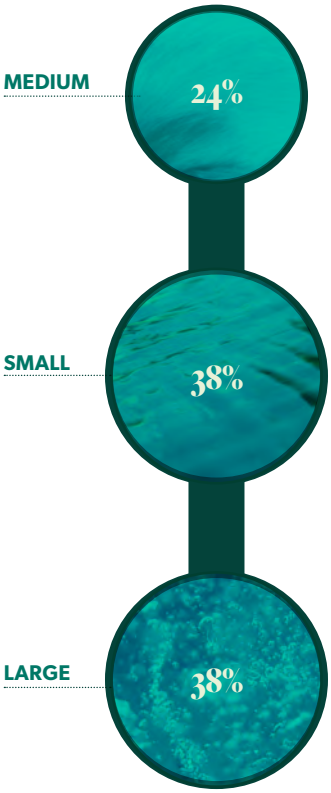
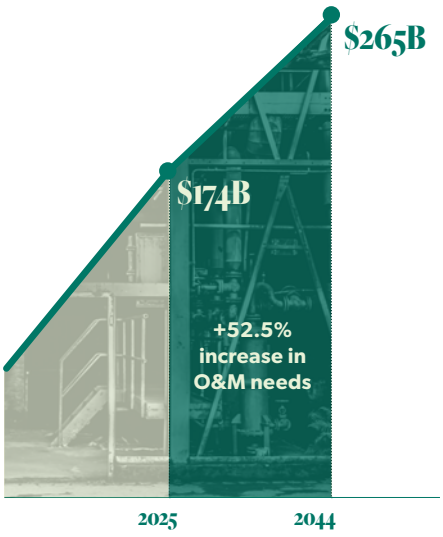


Figure 9:
O&M Funding Needs (Drinking Water, Wastewater, Stormwater)



O&M Funding Needs

O&M costs add further cost pressure, with a total need of $4.3 trillion over 20 years ($216 billion annually, on average). While O&M spending has grown in recent decades, rising to $121 billion in 2023, it has not kept pace with actual maintenance needs, widening the funding gap. O&M costs overall are growing faster than inflation, contributing to the increase in O&M over time. Compliance for new PFAS regulations is projected to require an additional $13.8 billion in O&M costs through 2044 for impacted systems. This figure does not account for ongoing monitoring for systems currently below contamination limits, nor for funding the many small water systems across the U.S. that currently do not have monitoring systems in place. The true cost of PFAS regulations for all systems is likely much higher. Without greater federal or state support, utilities will need to raise customer rates to cover these expenses—shouldering affected communities with affordability challenges as they address PFAS-related health risks.

> *"Rural communities face per capita water infrastructure needs equal to one-third of annual income.*

Comparing Needs Across the Urban-Rural Divide

For the first time, this report explored differences in need between urban and rural communities—and the results are striking. Rural communities face particularly significant water cost burdens. On a per capita basis, water infrastructure needs in rural counties average $13,800 over 20 years (excluding adjustments for stormwater, PFAS, and lead service line replacement needs, for which data were not available to differentiate between urban and rural). That is almost twice the $7,800 per capita need in urban counties. With rural per-capita income averaging $35,000 in 2023, the investment required amounts to more than one-third of annual income.[13] Over 80% of states and territories show higher per capita needs in rural areas compared to urban areas . These estimates are conservative given lower response rates to EPA's needs surveys in rural areas of the country.

Capital investment needs in water total $3.4T over 20 years. State and local sources are projected to cover $1.3T. Whether IIJA level funding continues or not, a capital investment gap of $2.8 to over $2.9T will remain, or an annual gap of $88 to $95B—a figure that is less than what the government spends on Social Security in a month.[14]

"Put simply, 31% of U.S. water needs—$99.6B ($68.5B in capital and $31.1B in O&M)—will be unmet in a single year.

Section 5

The Water Infrastructure Funding Gap Now and Into the Future: Two Scenarios

This section estimates the 20-year water infrastructure funding gap from 2025 to 2044 based on two scenarios: one in which federal investment levels revert to pre-IIJA levels after IIJA expires in 2026 and one in which IIJA investment levels remain through 2044. Table 3 provides a reference for the total and average annual funding needs and the total and average annual funding gap figures for the two scenarios. Funding needs remain constant across scenarios.

The U.S. has long underinvested in water. In 2025 alone, the total need (O&M plus capital) is estimated to be $323 billion but only $223 billion in funding will be available.[ii] Put simply, 31% of U.S. water needs—$99.6 billion ($68.5 billion in capital and $31.1 billion in O&M)—will be unmet in a single year. This needs gap represents a significant increase from past years and will continue to grow, largely due to PFAS-related capital investment needs and O&M spending

Table 3:
Funding Need and Funding Gap 2025-2044 ($ Billions, 2025 dollars)

Funding Needs		
	20-YEAR FUNDING NEED	AVERAGE ANNUAL FUNDING NEED
Capital	$3,360	$168
O&M	$4,325	$216
TOTAL NEED	**$7,684**	**$384**

Funding Gap				
	20-YEAR FUNDING GAP		AVERAGE ANNUAL FUNDING GAP	
	Without IIJA Funding Levels	**With IIJA** Funding Levels	**Without IIJA** Funding Levels	**With IIJA** Funding Levels
Capital	$1,900	$1,761	$95	$88
O&M	$1,040	$1,040	$52	$52
TOTAL GAP	**$2,941**	**$2,801**	**$147**	**$140**

beginning in 2026, per new federal rules and requirements. Left unaddressed, annual shortfalls become more costly over time, creating a snowplow effect that has already produced a massive backlog of deferred projects as new infrastructure needs continue to emerge.

Understanding the size of this deferred investment—and what it means for future generations—is critical. Consider two possible scenarios that could play out from now until 2044. Scenario 1 assumes Congress continues to fund water infrastructure at the same levels set by the IIJA ($12.7 billion per year). Scenario 2 assumes Congress returns to pre-IIJA levels of funding ($4.9 billion per year). Because the IIJA funding continues through 2026, the two scenarios diverge in 2027. A brief dip in annual needs occurs around 2030, when capital expenditures to treat PFAS are complete and only ongoing O&M for treatment and compliance continues.

Table 4:
Funding Gap Summary in 2025, 2044 and Over 20-year Forecast for Scenarios 1 and 2 ($ Billions, 2025 Dollars)

2025	Funding Gap	
Capital	$68.5	
O&M	$31.1	
2025 TOTAL	**$99.6**	
	Scenario 1: Continued IIJA Levels	***Scenario 2:*** Pre-IIJA Levels
2044	**Funding Gap**	**Funding Gap**
Capital	$112.8	$120.6
O&M	$76.4	$76.4
2044 TOTAL	**$189.2**	**$197.0**
20-Year Total	**Funding Gap**	**Funding Gap**
Capital	$1,761	$1,900
O&M	$1,040	$1,040
20-YEAR TOTAL	**$2,801**	**$2,941**

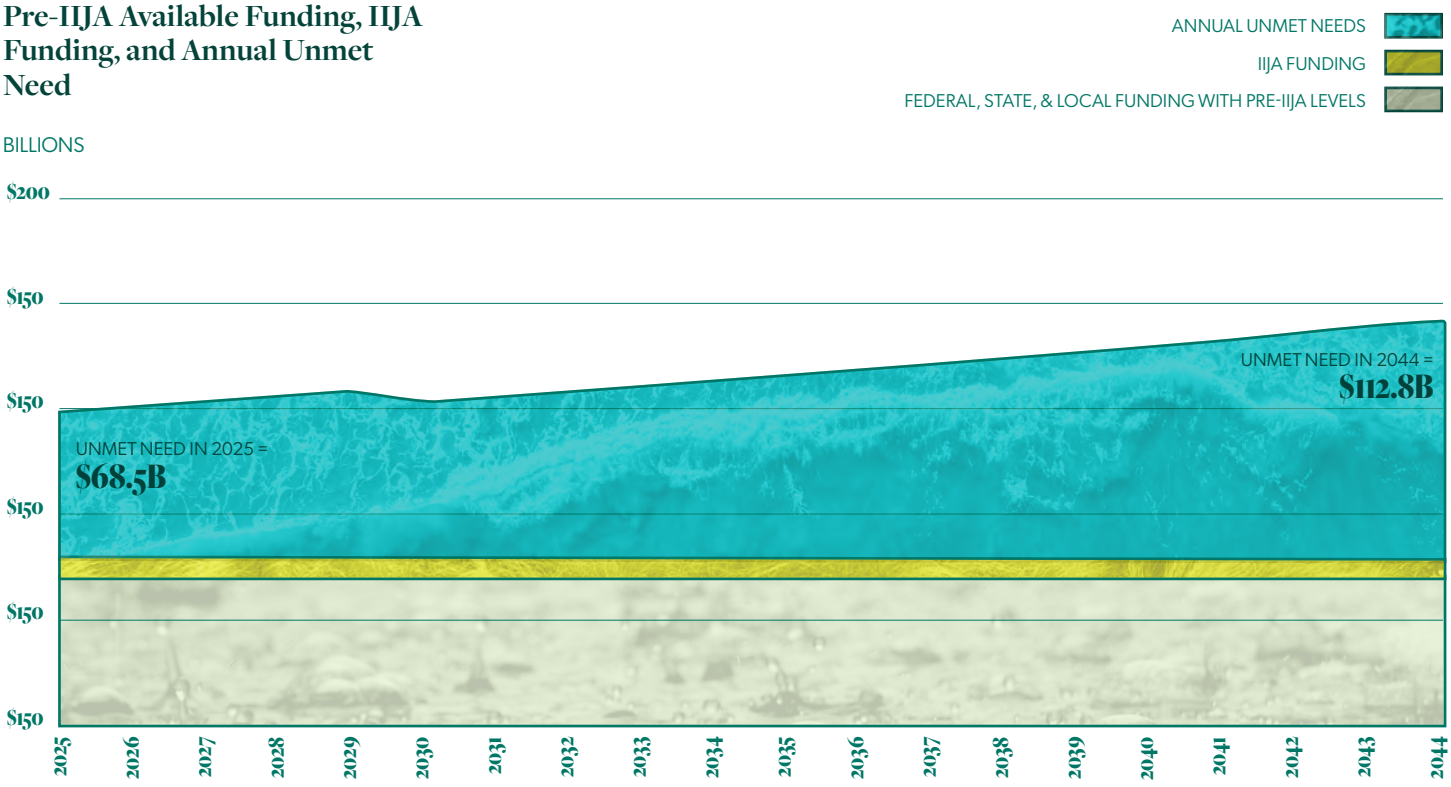
> *Even if IIJA funding levels continue, the 20-year growth in the water funding gap is staggering. Reverting to pre-IIJA levels, is cumulatively $139.4B worse.*

Scenario 1: **IIJA funding levels continue.** The nation's $99.6 billion annual water funding gap ($68.5 billion in capital and $31.1 billion in O&M) from 2025 would rise to $189.2 billion ($112.8 billion in capital and $76.4 billion in O&M) by 2044. From 2025 to 2044, cumulative capital and O&M needs will amount to $7.7 trillion. Even with IIJA-level funding, the cumulative gap in investment compared to need would reach $2.8 trillion.

Scenario 2: **Pre-IIJA funding levels resume.** The annual water funding gap would grow faster, reaching $197.0 billion annually by 2044 ($120.6 billion in capital and $76.4 billion in O&M). While the cumulative need remains at $7.7 trillion through 2044, the funding gap climbs to over $2.9 trillion—almost $140 billion greater than under Scenario 1.

Figure 10 shows a forecast of how much funding could be available for water infrastructure under these two scenarios and the gap in funding levels. This chart only focuses on capital funding and does not include O&M needs, since those stay the same in both scenarios. Table 4 summarizes the funding gap between the two scenarios and the growth in the annual funding gap from 2025 to 2044.

Figure 10:
Capital Funding Gap Comparing Pre-IIJA Available Funding, IIJA Funding, and Annual Unmet Need



A 10% cut to federal water funding from IIJA levels beginning in 2027 would increase the total capital funding gap by about $23B. That lost investment translates into thousands of lost jobs per year, billions in lost GDP, and higher risks of service failures for communities across the country.

Keeping in mind that deferred investment can lead to disruptions in the management of a critical resource needed for public health and safety, the scale of the funding gap in both scenarios would be dire. While continuing to invest at IIJA levels helps to decrease the cumulative funding gap by $139.4 billion, it is not nearly enough. Roughly two decades from now, the nation would be facing a funding gap of $2.8 trillion in unmet needs—about $8,200 per capita, of which approximately $5,200 is attributed to the infrastructure capital funding gap (Table 4). This would add more than $1,000 per year to the average household water and sewer bill. Based on data from the Bureau of Labor Statistics, this is a more than 125% increase for households in the median income bracket and a 220% increase for low-income households, who on average pay less for water than higher income households.[15] Without stronger, sustained investment, the gap will deepen, increasing risks and costs. Closing it, by contrast, offers significant economic returns.

Note: Reactive Repairs vs Proactive Investment

As the funding gap widens, water and wastewater utilities are forced into a cycle of emergency repairs, reacting to failures rather than preventing them. Numerous studies examine the costs of pipeline failures and compare the expenses of reactive repairs to proactive maintenance.

One study estimates that pipeline failures in North America cost $2.8 billion annually, based on roughly 260,000 water line breaks per year and an average repair cost of approximately $10,800 per break (in 2025 dollars).[16] Another analysis finds **reactive pipeline repairs average $645 per linear foot (LF), compared to just $30-$215 per LF for proactive replacement.** The disparity is even greater for larger pipe sizes: failures of 12-inch water mains can cost about $4,450 per LF, compared to $40-$1,200 per LF for scheduled renewal projects.[17]

As utilities adopt advanced data analytics and refine strategic asset management practices, they are also realizing significant savings—up to 30% in O&M costs and 10-20% savings in capital expenditures—through more proactive investment and optimized timing for repairs and replacements.[18]

These figures are striking, yet they still do not account for the ripple effects of service disruptions on residents and businesses, which are addressed later in this report. In short, deferring investment does not save money—it guarantees communities pay more to patch failing systems, instead of investing wisely for the long term.

Section 6

The Economic Cost of a Day Without Water

> *"A single day without water would cost the U.S. economy nearly $122B—including nearly 527,000 jobs, $39.2B in wages, and a $69B hit to GDP.*

While the size of the nation's water infrastructure funding gap is daunting, the consequences of failing to close it are significant. When infrastructure breaks down, it is not only service that suffers—effects ripple across every sector in the economy.

Right now, much of the nation's water and wastewater infrastructure consists of aging pipes and distribution networks and treatment systems at or nearing the end of their useful life. In some communities, systems lack the capacity to deliver water and manage the wastewater needs of growing populations. Without renewed investment in aging water systems, more communities will face failures that lead to service disruptions to homes and businesses, significant water loss, emergency response challenges, pollution, flood damage, and public health risks.

To put this risk in perspective, consider the economic consequences if the entire nation experienced a 24-hour disruption in water service. Section 9: The View from the States and Appendix A of this report reveal some of these vulnerabilities at the state level.

A nationwide 24-hour service disruption to water supply would mean the U.S. economy would lose an estimated $121.8 billion in economic output — equivalent to $359 per person. This loss includes a $69.0 billion hit to GDP, equal to 0.23% of the entire U.S. economy. Annual GDP growth typically ranges from 2% to 3%, making this figure roughly a 10% reduction in typical annual GDP growth.

Table 5:
Total National Economic Losses from a Day Without Water

	Direct Losses to Key Industries	Indirect Losses to Supply Chain Partners	Losses from Reduced Household Spending	Total Losses
Output ($ Million)	-$51,038	-$34,611	-$36,101	-$121,750
GDP ($ Million)	-$29,643	-$17,867	-$21,497	-$69,007
Labor Income ($ Million)	-$17,060	-$10,523	-$11,587	-$39,170
Employment	-213,409	-127,372	-168,215	-526,996
Employment per $1 Million	-4.53	-3.68	-4.66	-4.33

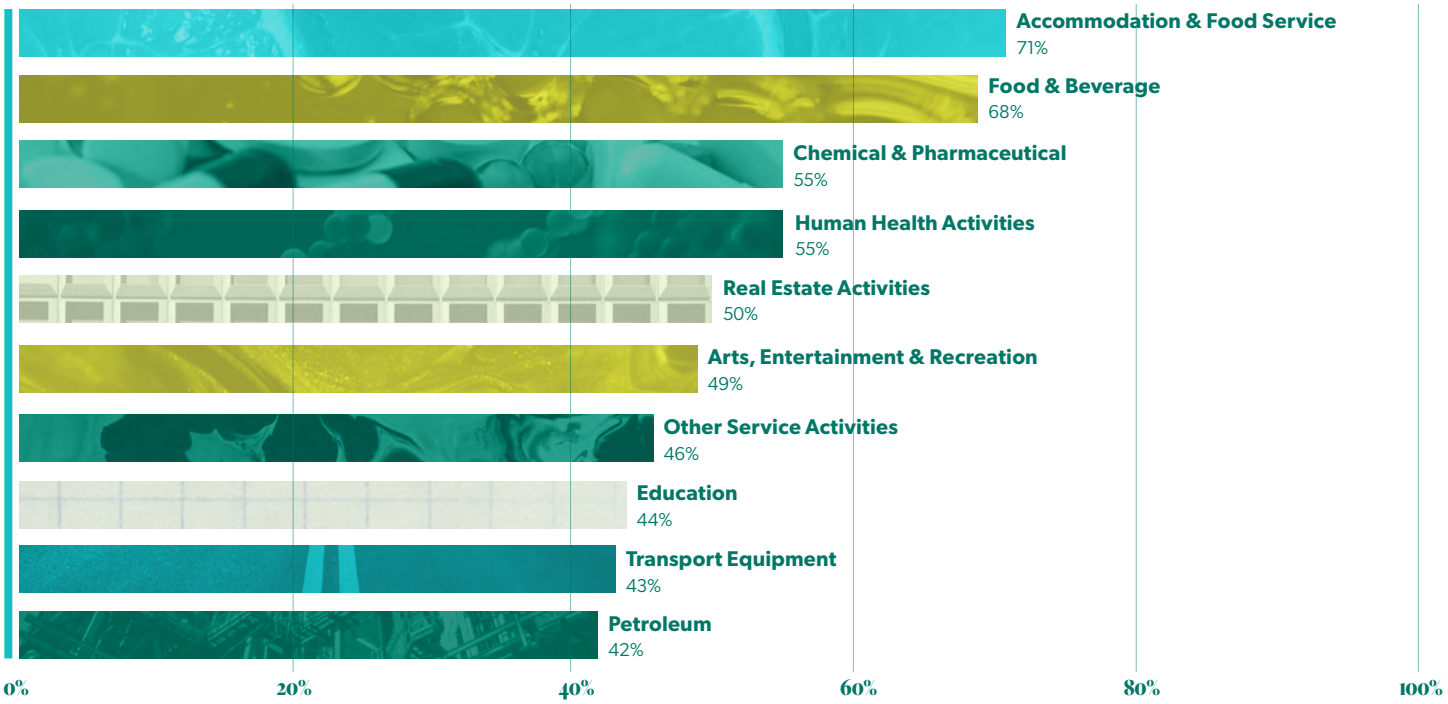
The economy would also stand to lose nearly 527,000 jobs[iii], putting $39.2 billion in labor income at risk. For every $1 million in output lost because of a water service disruption, 4.3 jobs are lost in the national economy (Table 5).

The economic toll of a day without water is staggering—billions in lost output, more than 40% in daily losses for heavily water-dependent industries.

Many sectors would face significant percentage reductions in output from a loss in water service. Hotels, food service, food and beverage, manufacturing, pharmaceutical, and healthcare sectors stand to lose more than 50% of daily output from just one day without water. Figure 11 shows the industries facing the greatest percentage reductions in economic output resulting from a day without water (a 24-hour service disruption).[19]

The healthcare sector is the most at-risk of experiencing significant economic losses when water disruptions occur (Table 6). A 24-hour service disruption to healthcare alone could lose $13.0 billion in economic output—reflecting its reliance on water, its inter-industry supply chain relationships, and the importance and value of output from this sector. Notably, this value does not include the high stakes of critical public health risks from losing healthcare capacity, even for a day.

Figure 11:
Largest Percent Reductions in Output by Industry Sector from a Day Without Water



> *The household toll of a water service disruption is also high. The economic value of a day of clean, reliable water services to an average U.S. household is $209. This is equal to roughly 6 hours of work at the average hourly wage.*

Over 95% of U.S. households depend on community water systems. FEMA estimates that a service disruption costs $83.64 per person per day—combining both the value people place on avoiding outages (i.e., the "hassle factor") and the cost of replacing basic daily water needs (i.e., drinking water and basic sanitation).[20] For the average American household (2.5 people),[21] that equates to $209 per day—roughly six hours of work at average wage, or nearly a full week's work (29 hours) at minimum wage.[22]

Research suggests these costs would not be felt evenly: a 2012 study found that rural households may spend more than twice as much as urban households during water disruptions.[23] Altogether, for the 325 million people served by community water systems, a nation-wide disruption adds up to more than $27.2 billion in household-level losses every day.

Note: Disruptions to AI and data manufacturing

Artificial intelligence and the broader information economy depend on reliable water. Data centers, which power AI and digital services, require enormous amounts of water for cooling and operations. A single day without water service could cause daily economic losses of up to 20% in this sector, or nearly $2 billion.[24] If the United States intends to lead the world in AI innovation, it must also lead in modernizing water infrastructure—because without resilient water systems, the backbone of the digital economy is at risk.

Note: The Cost of America's Hidden Water Access Gap

While this report focuses on infrastructure investment and its multipliers, it is essential to remember that more than 2.2 million Americans still lack basic running water and indoor plumbing.[25] That access gap imposes at least $8.58 billion in economic losses. For every household without running water or basic plumbing, the U.S. economy loses $15,800 per year in health care costs, time spent collecting and paying for bottled water, loss of time at work or at school, and premature death (in 2022 dollars).[26]

Table 6:

Largest Economic Losses by Sector from a Day Without Water

Key Industry	Total Output Losses
Healthcare Activities (Hospitals, outpatient facilities, doctors/dentist offices)	-$13.0 billion
Administrative and Support Services (Architecture, engineering, programming, public relations, management)	-$12.1 billion
Real Estate Activities (Commercial leasing, property management, occupied housing)	-$11.8 billion
Financial and Insurance Activities (Banking, insurance carriers, investment firms)	-$9.4 billion
Accommodation and Food Service (Hotels, restaurants, bars)	-$8.9 billion
Public Administration and Defense (Government programs, legal services, public utilities)	-$8.7 billion
Food and Beverage (Food manufacturing, breweries, wineries)	-$8.5 billion
Other Service Activities (Car washes, landscaping, dry cleaning and laundry)	-$7.0 billion
Construction	-$4.9 billion
Durable Goods Manufacturing (excluding transportation equipment and heavy machinery manufacturing)	-$4.3 billion
Transport Equipment (Motor vehicle equipment, aircraft equipment, railroad and ship manufacturing)	-$3.9 billion
Arts, Entertainment, and Recreation (Movie and video, broadcasting, cable, commercial sports, amusement parks, fitness and recreation	-$3.4 billion
Chemical and Pharmaceutical (Petrochemical manufacturing, pharmaceutical manufacturing, other chemical and fertilizer production)	-$3.2 billion
Transportation and Storage (Air, rail, water, and truck transportation, warehousing and storage, pipeline transportation)	-$3.1 billion
Wholesale and Retail (Wholesale equipment, machinery parts, motor vehicles and parts, grocery and drug, furniture, appliances)	-$3.1 billion
Machinery Manufacturing and Leasing (Heavy equipment manufacturing, industrial equipment manufacturing, semiconductor manufacturing)	-$2.8 billion
Energy	-$2.6 billion
Information and Communication (Data centers, internet, data processing and hosting, wireless telecommunications)	-$1.9 billion
Petroleum Refineries	-$1.8 billion
Crop and Animal Production	-$1.5 billion
Education	-$1.1 billion
Metal Products (Metal smelting and refining, iron and steel forging, hardware manufacturing, copper alloy, ammunition and small arms, fabricated pipe fitting and plumbing materials)	-$1.0 billion

Every $1M in water infrastructure investment generates $2.6M in economic output, 10 jobs, $837,000 in labor income, and a GDP contribution of $1.4M. Closing the $1.8T infrastructure gap could generate $4.6T in economic output.

Section 7

Economic Benefits of Investing in Water Infrastructure

While the scale of the investment gap and its consequences can seem daunting, this challenge is also a powerful opportunity. Every dollar spent on water infrastructure multiplies into jobs, income, and long-term economic growth—strengthening the nation's economic competitiveness.

Investing in water, wastewater, and stormwater infrastructure generates tangible economic benefits. Closing this funding gap would deliver significant economic gains nationwide, with investment driving direct, indirect, and induced effects that boost employment, income, GDP, and total economic output.

Table 7:
Impacts per $1 Million Invested in Water

	Direct	Indirect	Induced	Total
Per $1 Million Total Impacts				
Employment	3.4	3.1	3.6	**10.0**
Labor Income	$321,000	$265,000	$246,000	**$832,000**
GDP	$483,000	$445,000	$454,000	**$1,382,000**
Economic Output	$1,000,000	$854,000	$764,000	**$2,618,000**
Per $1 Million Impacts from Infrastructure Investment				
Employment	4.4	2.6	3.6	**10.6**
Labor Income	$364,000	$226,000	$247,000	**$837,000**
GDP	$539,000	$392,000	$457,000	**$1,388,000**
Economic Output	$1,000,000	$764,000	$769,000	**$2,533,000**
Per $1 Million Impacts from O&M Investment				
Employment	2.4	3.5	3.5	**9.4**
Labor Income	$282,000	$301,000	$244,000	**$827,000**
GDP	$431,000	$494,000	$452,000	**$1,377,000**
Economic Output	$1,000,000	$939,000	$760,000	**$2,699,000**

Table 8 details the annual economic impact of meeting the nation's water infrastructure funding needs in 2025 and over the next 20 years when accounting for direct, indirect, and induced effects using the per $1 million impacts displayed in Table 7.

The U.S. needs to spend an additional $2.8 trillion in capital investments and O&M over 20 years to bring critical water infrastructure into a good state of repair—about $140 billion per year above current funding levels. In 2025, current total funding levels were estimated at $223 billion including infrastructure and O&M funding. This level of investment supports a total of 2.2 million jobs, $307.9 billion in GDP, and $588.4 billion in economic output throughout the national economy when accounting for economic multiplier effects. On an average annual basis, closing the gap would mean an additional direct investment of $140 billion towards infrastructure and O&M spending. If this additional spending occurs, the investments could add more than 1.4 million jobs, $193.7 billion in GDP and $362.9 billion in economic output per year to the national economy. Closing the total investment gap over 20 years could support more than 1.4 million jobs each year, $3.9 trillion in total GDP, and $7.3 trillion in total economic output.

Table 8:

Economic Impacts Based on Funding Levels Listed for 2025 Spending, Closing the Average Annual Gap, and Meeting the Full Need Annually Over 20 Years ($ Billions, 2025 Dollars)

	O&M	Capital	TOTAL
2025 Funding Levels	**$142 Billion**	**$81 Billion**	**$223 Billion**
Employment	1,343,282	858,042	**2,201,325**
Labor Income	$117.5	$67.7	**$185.2**
GDP	$195.5	$112.4	**$307.9**
Output	$383.3	$205.1	**$588.4**
Funding to Close Average Annual Gap	**$50 Billion**	**$90 Billion**	**$140 Billion**
Employment	472,987	953,380	**1,426,367**
Labor Income	$41.4	$75.3	**$116.6**
GDP	$68.8	$124.9	**$193.7**
Output	$135.00	$227.9	**$362.9**
Funding Needed to Close Total 20-Year Gap	**$1 Trillion**	**$1.8 Trillion**	**$2.8 Trillion**
Annual Employment	472,987	953,380	**1,426,367**
Total Labor Income	$827.5	$1,505.1	**$2,332.6**
Total GDP	$1,376.6	$2,498.1	**$3,874.7**
Total Output	$2,699.2	$4,558.6	**$7,257.9**

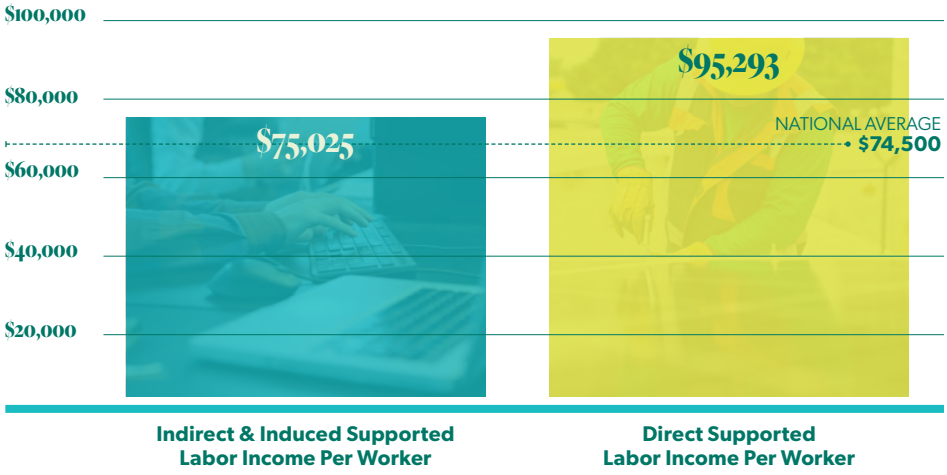
> *"Closing the infrastructure spending gap directly supports 396,000 jobs per year, and the broader impacts to the economy support a total of more than 950,000 jobs per year. Closing the entire gap ups these to 472,000 and 1.4M jobs per year.*[28]

Right now, funding from the IIJA accounts for about 10% of annual capital funding available for water projects—roughly $8 billion per year. Per the effects shown in Table 7, that level of funding supports more than 80,000 jobs annually, nearly $6.7 billion in labor income, contributes about $11.1 billion to the nation's GDP, and produces $21.0 billion in total economic output each year. Any cuts to the IIJA levels of funding may directly reduce these economic benefits. Cutting even 10% of the IIJA funding could reduce the number of jobs supported by 8,000 per year, GDP by $1.1 billion per year, and total economic output by $2.1 billion per year.

Infrastructure funding is more than just restoring and replacing infrastructure, it is a wise investment that can unlock new value. A recent WEF study estimates that U.S. utilities could tap into an additional $47 billion annually by adopting a circular water economy approach[27] — strategies that reduce waste, avoid costs, generate revenue from energy and resource recovery from wastewater, and regenerate natural water systems. This work shows that water investment can be seen not just as a cost to manage, but as a platform for innovation and sustainable growth.

The cumulative water infrastructure and O&M spending gap through 2044 is estimated to be $2.8 trillion. Closing this gap would support more than 472,000 jobs per year directly and over 1.4 million annual jobs overall.[29] Many of the jobs directly related to capital investments and O&M of water, wastewater, and stormwater systems are well-paying. On average, direct jobs in water infrastructure provide 24% higher labor income per worker than the broader set of jobs investing in water infrastructure creates in the overall economy.[30]

Figure 12:
Labor Income per Worker by Impact Type (Fully Loaded Payroll Including Benefits)



Over 20 years, closing the $2.8T gap could result in cumulative GDP gains of $3.9T and cumulative economic output gains of $7.3T. Put another way, every $1 million invested in water infrastructure and O&M supports $2.6M in economic output and $1.4M in GDP.[31]

Note: Rural Water Infrastructure, a Powerful Economic Engine

The benefits of water investment in rural America extend far beyond county lines. Rural communities are home to agriculture, energy, and supply chains that fuel the national economy. Looking exclusively at rural counties, every $1 million invested in water infrastructure generates more than $1.4 million in economic output, 8 jobs, $437,000 in labor income, and a GDP contribution of nearly $700,000. Meeting rural America's 2025 funding need of $11.6 billion, as reported in U.S. EPA's 2023 drinking water and 2024 clean watersheds needs surveys, would increase GDP by more than **$8 billion**, create nearly **90,000 jobs,** generate **more than $16.7 billion** in economic output. Because rural response rates in the needs surveys are lower than other areas, these figures very likely understate the true economic impact of closing the rural water investment gap, which could be up to twice as large.

The benefits of closing the water infrastructure investment gap extend far beyond the water industry itself. It would generate significant positive economic impacts across many related industries nationwide. Through ripple effects such as supply chain activity, inter-industry relationships, and the additional household spending made possible by higher labor income, industries directly supported by water infrastructure investment could experience economic output increases between 6.5% and 14.7%, while industries indirectly connected to water infrastructure could see annual economic output rise by as much as 1.6%. Table 9 shows the estimated increase in annual economic output by industry resulting from investment levels sufficient to close the water infrastructure investment gap.

Table 9:

Annual Increase in Industry Output from Meeting Full Needs of Investment

Industry Description	Industry Output* (Millions of Dollars)	Impact to Output of Full Needs Investment (Millions of Dollars)	Increase in Industry Output
Government Enterprises and Utilities	$1,360,069	$199,332	14.7%
Construction	$2,443,168	$158,495	6.5%
Administrative/Support and Waste Management and Remediation Services	$1,595,635	$25,447	1.6%
Transportation and Warehousing	$1,651,487	$24,571	1.5%
Professional, Scientific, and Technical Services	$3,991,446	$58,325	1.5%
Mining, Quarrying, and Oil and Gas Extraction	$708,445	$10,191	1.4%
Wholesale Trade	$2,799,863	$40,103	1.4%
Finance, Real Estate, Rental and Leasing	$8,970,652	$118,873	1.3%
Manufacturing	$8,399,599	$103,446	1.2%
Management of Companies and Enterprises	$782,592	$9,632	1.2%
Retail Trade	$2,193,889	$26,954	1.2%
Other Services (except Public Administration)	$1,162,492	$13,347	1.1%
Information	$2,523,466	$28,947	1.1%
Accommodation and Food Services	$1,788,087	$18,720	1.0%
Arts, Entertainment, and Recreation	$508,692	$5,173	1.0%
Educational Services	$354,035	$3,388	1.0%
Health Care and Social Assistance	$3,250,866	$30,098	0.9%
Agriculture, Forestry, Fishing and Hunting	$583,503	$4,285	0.7%

** IMPLAN results are based on 2023 data. Dollars have been converted to 2025 dollars.*

Section 8

Trends, Insights, and Opportunities to Strengthen the Water Workforce

> *"Jobs created through water infrastructure investment are low-barrier-to-entry, well-paying, and resilient to economic swings.*

Behind every dollar of economic return are people. The jobs created by water investment strengthen families and communities, but they also depend on the nation's ability to build and sustain a strong water workforce. Who makes up the water workforce and the challenges and opportunities they face are important to understand. Building on previous research on the water sector workforce,[32] this economic study uncovers new insights and deeper understanding of the national water workforce and water workforce pipeline.

The water sector directly employs more than 2 million people. Over a quarter of the water workforce is over 55 years old and only 5% are 20-24 years old. The sector must attract younger workers over the next decade to build a sustainable workforce.

The water workforce is, on average, older than the broader U.S. workforce. A greater share of water employees are over 55, while a smaller share are between 20 and 24 compared to other industries.[33] This imbalance puts the water sector in a vulnerable position: as many more experienced workers near retirement, the risk of losing critical institutional knowledge grows, and too few younger workers are entering the field to replace them.

Figure 13:
Percentage of Water Sector Workforce above 55 Years Old and less than 25 Years Old

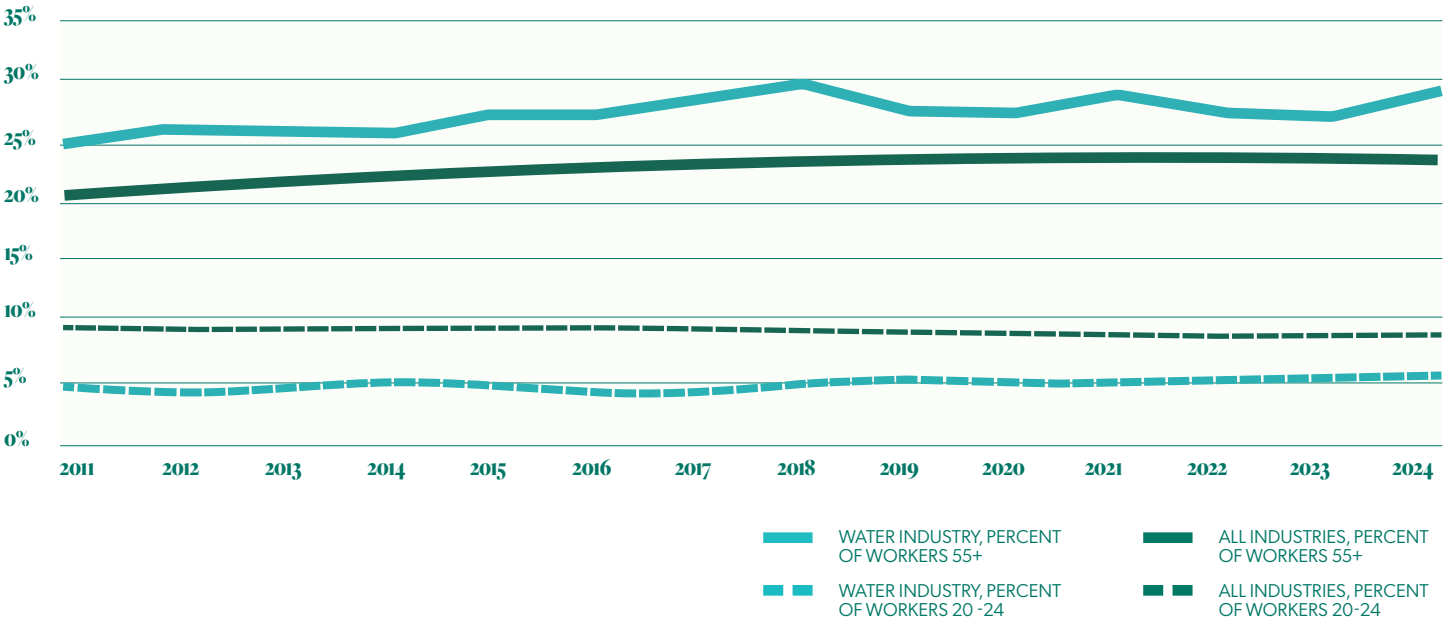
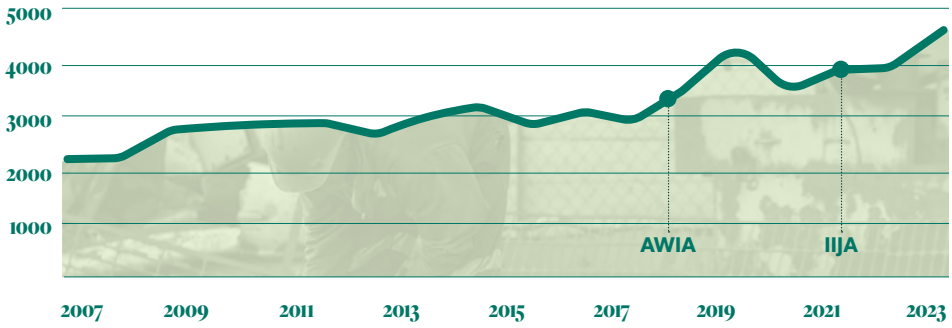


Figure 14:
Water Industry Job Training and Education Program Completions



In recent years, when water infrastructure funding is passed, the number of people completing water workforce training programs increases. Most programs take less than two years to finish—putting people to work faster.

Completions of water sector educational and training programs have steadily increased over the last two decades, rising nearly 17% from 2022 to 2023 alone.[34] Participation appears to track closely with major federal infrastructure investments, especially when those packages include funding for skills training and education. Following passage of the America's Water Infrastructure Act (AWIA) in 2018 and the IIJA in 2021, program completions rose substantially (Figure 14).

Most of these programs are short in duration: 43% of the recent completions were training or certifications requiring less than one year to finish, and almost 90% were programs lasting two years or less (Figure 15). This underscores that water sector careers often have low barriers to entry, creating opportunities for both new workers and those changing careers.

Figure 15:
Program Completions by Type and Duration of Program

These estimates are limited to programs directly tied to the water sector. Programs with broader applications—such as civil engineering—were excluded, even though they often serve as pipelines into water careers. This framework for evaluating program completions as an indicator of workforce development is a new contribution to the field. The Value of Water Campaign hopes it can provide a foundation for further research on building the water workforce.

Many of the employment gains generated by investments in water infrastructure would be in occupations related to construction, which typically have low barriers to entry and do not require advanced degrees. Two of the top ten occupations, General and Operations Managers and Logisticians and Project Management Specialists, have average incomes above $100,000 per year, higher than the average 2024 personal income in the United States of $67,920 (2024 Dollars; Table 10).[35]

Table 10:
Top Occupations and Associated Incomes Supported by Investing in Water Infrastructure

Occupation	Average Wage & Salary Income
General and Operations Managers	$159,067
Logisticians and Project Management Specialists	$104,578
First-Line Supervisors of Construction Trades and Extraction Workers	$75,070
Water and Wastewater Treatment Plant and System Operators	$69,743
Driver/Sales Workers and Truck Drivers	$62,198
Carpenters	$58,863
Customer Service Representatives	$57,523
Construction Laborers	$46,363
Office Clerks, General	$45,884
Laborers and Material Movers	$44,809

"Eight of the top ten occupations associated with water infrastructure spending have average wages above national median personal income—and two pay more than $100,000 a year.[36]

Beyond the jobs most tied to infrastructure investment, the water sector generally offers higher-than-average wages in a field that has proven resilient through economic downturns. In 2024, the average water sector employee earned $79,187 per year (2024 Dollars)—about $10,000 more than the national average across all industries. In all states, water sector jobs pay more than the statewide average across all industries. The sector has also shown strong stability during major recessions. For example, during the Great Recession, overall U.S. unemployment approached 10%, while unemployment in water and wastewater utilities[iii] never rose above 5% (Figure 16).

From 2014-2024, the total water workforce has grown by 27.8%—adding 443,000 jobs—compared to just 13.3% growth in the national workforce over the same period. This strong relative growth underscores that the water sector is a healthy and expanding job market. Combined with higher wages and low unemployment, the sector offers an especially attractive field for workers; however, just as water infrastructure is often out of sight and out of mind, so are these essential workers. More needs to be done to bring visibility to careers in water.

Figure 16:
Unemployment Rate for Water Utilities Compared with All U.S. Industries

Section 9
The View from the States

> *"Water infrastructure funding needs vary by state, ranging from $8,000 to more than $30,000 per capita.*

At the state level, the story comes into sharper focus—revealing needs, risks, benefits, and workforce dynamics at a deeper level. Many of the national scale analyses can be applied at the state level to better understand specific capital funding needs for water infrastructure, impacts of service disruptions, how investments affect key industries, and more. This lens is particularly important as the water sector faces a sharp federal funding cliff that impacts every state.[37] Key data are provided by state in Appendix A, and detailed fact sheets for each state are available through the Value of Water Campaign.

States have widely varying water infrastructure funding needs, reflecting differences in population, infrastructure age, regulatory requirements, and other factors. To show how these needs translate to residents, Figure 17 presents total capital funding needs over the next 20 years by state on a per capita basis.

Figure 17:
20-Year Per-Capita Capital Funding Needs by State

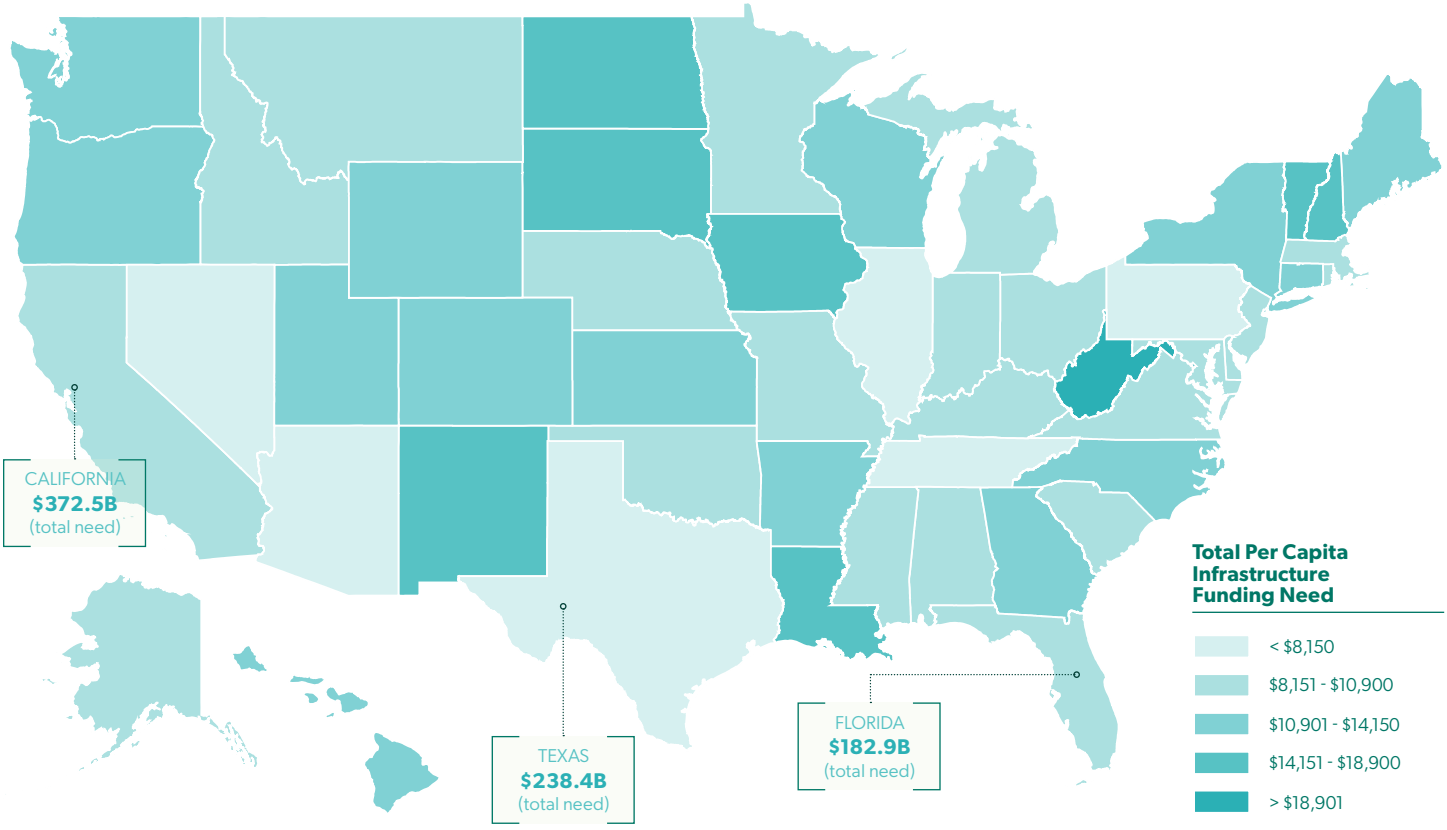
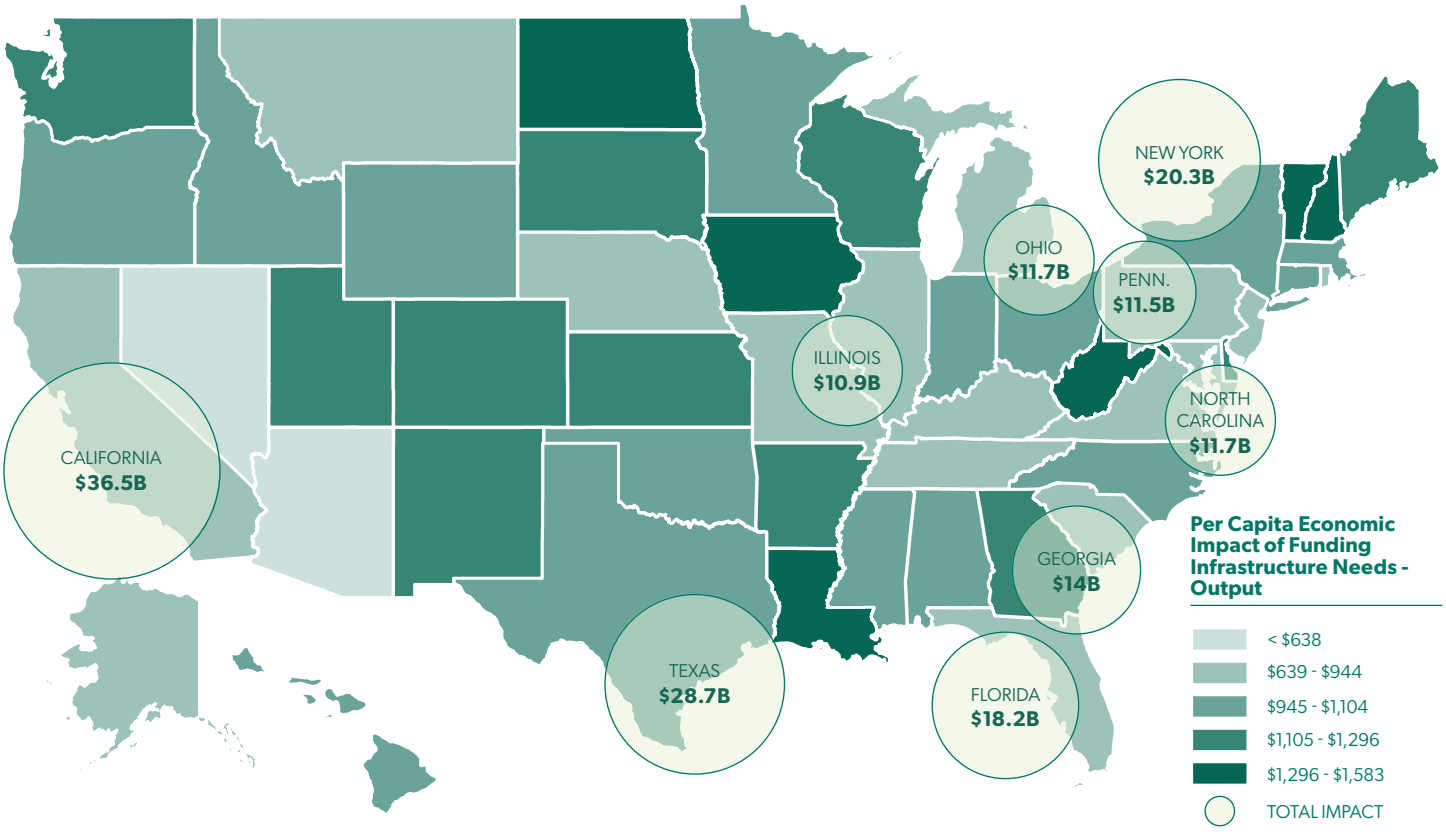


Figure 18:

Annual Per-Capita Economic Impacts of Meeting the Capital Funding Needs by State



"Every state economy stands to gain from closing the nation's water infrastructure investment gap.

Meeting state-level water infrastructure funding needs would bring broad benefits—improving service reliability, protecting water quality, safeguarding the environment, and ensuring access to clean water. As shown in the national analysis, every state's economy would also benefit from making these critical investments in infrastructure.

Figure 18 illustrates these benefits on an annual per-capita basis, showing the total economic output that would be generated by meeting each state's needs. These impacts reflect not only in-state benefits, but also the spillover effects of investments made in other states that boost output within each state. More details on these inter-state impacts are highlighted in the state fact sheets that accompany this report.

Equally important as the dollar-value economic impacts, investing in water infrastructure drives job creation in every state. Investments benefit not only residents of the state where projects occur but also neighboring economies through spillover effects across state lines. Table A-4 and Table A-5 in Appendix A show job gains by state. Table

11 shows the significance of these impacts by illustrating job creation resulting from water infrastructure investment in the top ten states listed as a percentage of that state's existing workforce. For example, in West Virginia, full national water investment would support or create 14,300 jobs every year. In a state with a workforce of 694,000 people, total investment in water infrastructure would contribute an additional 2% to West Virginia's employment level.

Not only are a considerable number of jobs created in each state as a result of meeting the nation's water infrastructure funding needs, but these are good jobs. The water sector pays more than the average wages for all employees in every state.

As shown at the national level, the jobs created by meeting water infrastructure funding needs are good jobs. The same is true at the state level, where average wages in the water sector are consistently higher than average wages among all employees in each state. Figure 19 illustrates this by showing the percent difference between water sector wages and average wages for all employees in each state—where larger percentages indicate a greater wage premium for water sector jobs.

> *"Investing in water infrastructure creates jobs in each state—with some states set to gain more than 150,000 new jobs from closing the investment gap.*

Table 11:
Top Ten States by Percentage of Jobs Supported or Created by Meeting the Water Infrastructure Funding Needs

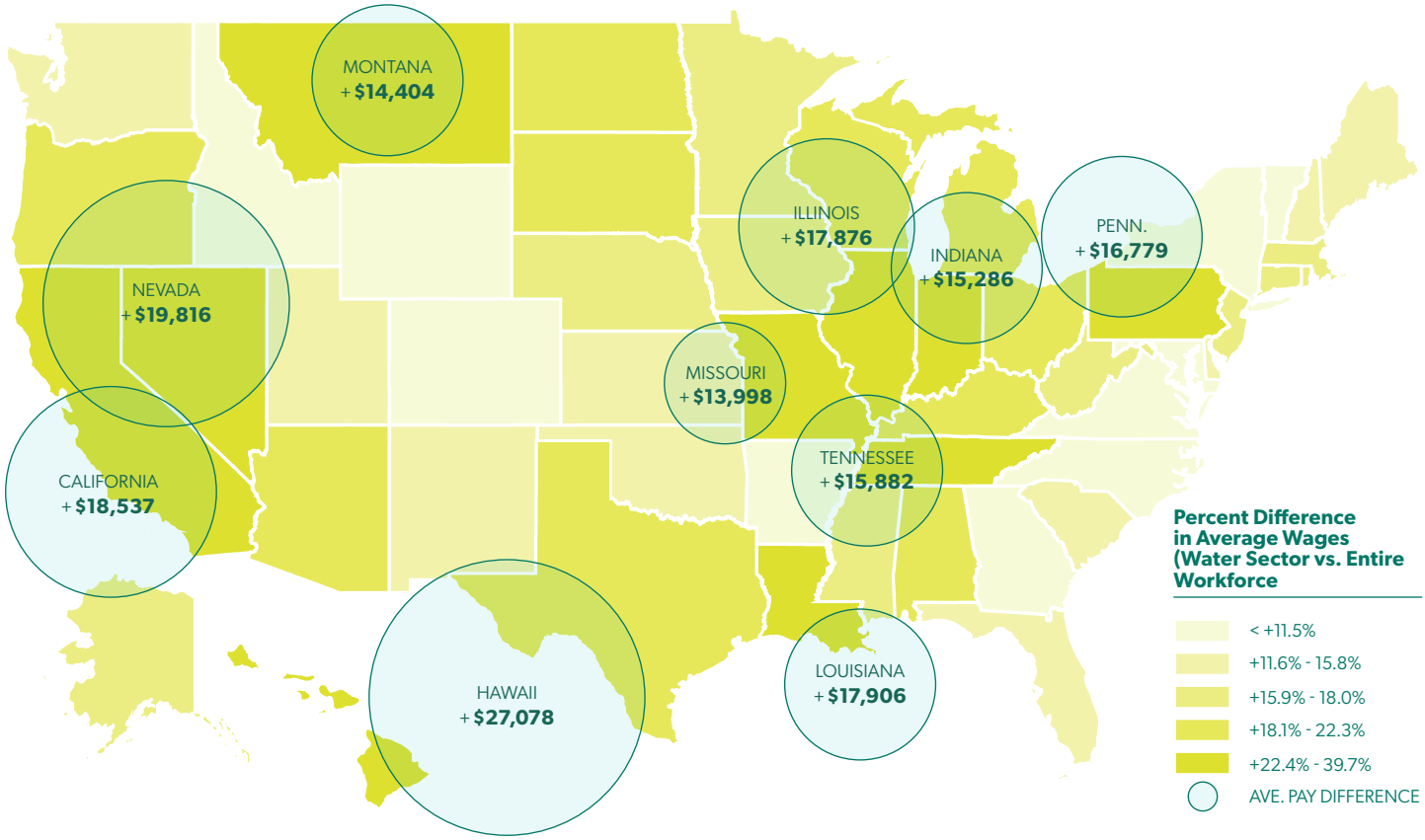
State	Jobs Supported or Created through Investment as Percent of State Workforce	Employment Impact (Total Number of Jobs Supported or Created)
West Virginia	2.1%	14,319
Louisiana	1.7%	33,305
Vermont	1.7%	5,099
Iowa	1.6%	24,559
New Hampshire	1.5%	10,273
New Mexico	1.5%	12,928
Maine	1.4%	9,355
Arkansas	1.4%	17,821
Georgia	1.4%	65,774
Mississippi	1.3%	15,444

Finally, the economic impacts of service disruptions vary by state, depending on the major industries that drive each state's economy. State economies driven by industries that are especially vulnerable to water and wastewater service disruptions face greater economic risks and steeper consequences from inaction and infrastructure failure.

Table 12 presents the ten industries with the lowest resilience to water service disruptions (i.e., the lowest water resiliency factors) and identifies the five states with the greatest share of their economies linked to each of those industries. The percentages shown represent the share of each state's total economic output tied to that industry. For example, in Nevada, 11% of state output comes from "Accommodation and Food Service," making it the top at-risk state in that category. The table's final row shows the top five states with the highest overall share of economic output coming from these ten least-resilient industries. Louisiana has the highest economic exposure to water service disruptions, with 47% of its economy concentrated in the 10 least disruption-resilient industries. Other states in the top five have cumulative exposure of more than 40%.

Figure 19:

Percent Difference in Wages for Water Sector Workers vs All Workers by State



Without investments, states driven by industries most susceptible to water infrastructure failures gamble upwards of 40% of their economies.

Table 12:

States Most Economically Dependent on the Ten Industries Most Vulnerable to Water Service Disruptions, by Share of State Output from Those Industries

Low Resiliencey Industries	1st	2nd	3rd	4th	5th
Accommodation and Food Service	Nevada 11%	Hawaii 9%	Vermont 6%	Rhode Island 5%	Florida 5%
Food & Beverage	Iowa 11%	Nebraska 10%	Wisconsin 8%	Arkansas 7%	Idaho 7%
Chemical and Pharmaceutical	Louisiana 9%	Texas 4%	Indiana 4%	New Jersey 3%	Iowa 3%
Human Health Activities	West Virgina 10%	Maine 10%	Rhode Island 9%	Vermont 9%	Pennsylvania 9%
Real Estate Activities	Florida 14%	Hawaii 14%	Maine 13%	Colorado 13%	Arizona 13%
Arts Entertainment and Recreation	New York 4%	Nevada 4%	California 4%	District of Columbia 3%	Tennessee 3%
Other Service Activities	District of Columbia 10%	Washington 10%	Utah 6%	Massachusetts 6%	Colorado 6%
Education	District of Columbia 2%	Rhode Island 2%	Massachusetts 2%	Connecticut 1%	Vermont 1%
Transport Equipment	Michigan 11%	Indiana 9%	Kentucky 9%	Alabama 9%	South Carolina 6%
Petroleum	Louisiana 12%	Montana 8%	Wyoming 6%	Mississippi 6%	Texas 4%
COMBINED	**Louisiana 47%**	**Montana 43%**	**Hawaii 42%**	**Vermont 42%**	**Michigan 42%**

Section 10

A Call to Unite for Water

America's water infrastructure is at a crossroads. Years of underinvestment have created a massive funding gap measured in the trillions over two decades. Even after the IIJA's temporary boost, about one-third of the nation's water needs—nearly $99.7 billion—will go unmet in 2025. If current funding trends continue, that annual shortfall will nearly double by 2044, compounding into a cumulative gap of roughly 2.8 trillion even with IIJA-level support moving forward. Left unresolved, these unmet needs will snowball into more frequent main breaks, service outages, and public health emergencies, while passing an untenable financial burden to future generations.

The cost of inaction is steep. Modeling shows that a single nationwide day without water service would cost the U.S. economy over $120 billion in lost output, shaving $69 billion off GDP, and stalling more than half a million jobs. Every year of delay compounds these risks, eroding U.S. competitiveness, straining households, and jeopardizing health and safety.

Yet the path forward is also clear—and hopeful. Closing the water infrastructure investment gap is not only possible, it is critical to public health, safety, and economic prosperity, and it yields high return on investment for the nation. Adequate funding would create and sustain hundreds of thousands of well-paying jobs in construction, operations, manufacturing, and more, while boosting economic output across nearly every sector. Over 2 million people work directly in water and current funding levels for water infrastructure and O&M produce nearly $600 billion in output and over $300 billion in GDP per year. Closing the funding gap and meeting the nation's full needs for water infrastructure and O&M could produce an increase of more than $360 billion in output, over $190 billion in GDP and more than 1.4 million jobs per year. Every dollar invested now prevents costly failures down the line and delivers strong returns to communities and businesses alike.

THE OPPORTUNITY AHEAD

Investing in water is one of the highest-return choices we can make. Every $1 million invested in water generates:

$2.6 million
in economic output

10+ jobs

$832,000
in labor income

$1.4 million
in GDP

"Closing the funding gap and meeting the nation's full needs for water infrastructure could produce an increase of more than $360B in output, over $190B in GDP and more than 1.4M jobs per year.

Leadership at every level, but especially the federal level, is essential to maintain momentum beyond the IIJA and ensure the burden does not fall disproportionately and unevenly on local ratepayers, especially in rural and low-income communities. At the same time, innovative funding strategies, regionalization and partnerships, and robust workforce development are also needed to meet the challenge.

The bottom line is simple: closing America's water funding gap is both an urgent necessity and a generational opportunity. By acting now, every community can secure safe, reliable water and fuel economic growth, strengthening the nation's resilience and ability to compete. The choice is simple: continue to defer action or summon the public and political will to invest in the water systems that are, quite literally, the foundation of America's future.

APPENDIX

The View from Each State

Table A-1:

Total Water Infrastructure Capital Investment Need by State ($ Millions, 2025 Dollars)

State	Drinking Water Capital Investment Need	Clean Water Capital Investment Need	Total State Capital Investment Need	Percent Of National Need
Alabama	$29,872	$24,149	$54,021	1.6%
Alaska	$3,358	$4,130	$7,488	0.2%
Arizona	$28,404	$20,086	$48,490	1.5%
Arkansas	$19,546	$17,946	$37,493	1.1%
California	$197,195	$175,275	$372,470	11.2%
Colorado	$32,875	$44,776	$77,651	2.3%
Connecticut	$12,647	$27,626	$40,272	1.2%
Delaware	$4,789	$5,337	$10,126	0.3%
Florida	$69,268	$113,688	$182,956	5.5%
Georgia	$50,431	$71,225	$121,656	3.7%
Hawaii	$6,406	$11,434	$17,840	0.5%
Idaho	$7,629	$12,968	$20,597	0.6%
Illinois	$59,230	$42,708	$101,938	3.1%
Indiana	$29,818	$37,480	$67,298	2.0%
Iowa	$24,983	$34,145	$59,128	1.8%
Kansas	$17,703	$17,782	$35,485	1.1%
Kentucky	$20,433	$27,081	$47,513	1.4%
Louisiana	$23,236	$51,585	$74,822	2.3%
Maine	$5,176	$12,697	$17,873	0.5%
Maryland	$36,033	$27,002	$63,035	1.9%
Massachusetts	$37,182	$38,257	$75,439	2.3%
Michigan	$40,489	$44,194	$84,682	2.6%
Minnesota	$26,421	$30,350	$56,771	1.7%
Mississippi	$20,340	$10,468	$30,808	0.9%
Missouri	$27,599	$30,700	$58,299	1.8%
Montana	$6,203	$4,772	$10,975	0.3%
Nebraska	$8,159	$10,635	$18,794	0.6%
Nevada	$15,365	$4,642	$20,007	0.6%
New Hampshire	$7,111	$12,657	$19,768	0.6%
New Jersey	$32,201	$44,369	$76,570	2.3%
New Mexico	$8,083	$24,817	$32,900	1.0%
New York	$86,951	$133,617	$220,568	6.6%
North Carolina	$49,238	$70,550	$119,788	3.6%

Table A-1 con'd:

Total Water Infrastructure Capital Investment Need by State ($ Millions, 2025 Dollars)

State	Drinking Water Capital Investment Need	Clean Water Capital Investment Need	Total State Capital Investment Need	Percent Of National Need
North Dakota	$8,229	$5,611	$13,841	0.4%
Ohio	$43,093	$66,294	$109,386	3.3%
Oklahoma	$23,061	$18,610	$41,671	1.3%
Oregon	$23,988	$22,432	$46,420	1.4%
Pennsylvania	$63,212	$41,687	$104,899	3.2%
Rhode Island	$5,175	$5,199	$10,374	0.3%
South Carolina	$20,180	$31,874	$52,054	1.6%
South Dakota	$6,400	$6,828	$13,228	0.4%
Tennessee	$29,613	$20,044	$49,657	1.5%
Texas	$144,258	$94,145	$238,403	7.2%
Utah	$12,925	$28,472	$41,397	1.2%
Vermont	$4,991	$5,100	$10,090	0.3%
Virginia	$23,417	$49,997	$73,414	2.2%
Washington	$42,134	$51,555	$93,688	2.8%
West Virginia	$11,606	$23,647	$35,253	1.1%
Wisconsin	$30,217	$46,080	$76,297	2.3%
Wyoming	$3,812	$3,806	$7,619	0.2%
District of Columbia	$8,444	$9,448	$17,892	0.5%
Total	**$1,549,129**	**$1,769,977**	**$3,319,104**	**100%**

Note: Totals here may not match national reported needs amounts because state totals do not account for American Indians, Alaskan Natives, or Island Territories.

Table A-2:
Rural Vs. Urban Annual Average Per Capita Needs

State	Rural Per Capita Need	Urban Per Capita Need
Alabama	$530	$230
Alaska	$720	$110
Arizona	$360	$260
Arkansas	$560	$410
California	$1,110	$260
Colorado	$1,040	$480
Connecticut	$610	$560
Delaware	$280	$280
Florida	$720	$390
Georgia	$640	$550
Hawaii	$1,190	$420
Idaho	$1,190	$260
Illinois	$370	$190
Indiana	$840	$360
Iowa	$860	$780
Kansas	$650	$390
Kentucky	$450	$350
Louisiana	$630	$850
Maine	NA	$580
Maryland	$600	$450
Massachusetts	NA	$630
Michigan	$1,200	$530
Minnesota	$960	$270
Mississippi	$490	$480
Missouri	$400	$290
Montana	$440	$230
Nebraska	$200	$350
Nevada	$590	$180
New Hampshire	$420	$410
New Jersey	NA	$320
New Mexico	$980	$800
New York	$550	$530
North Carolina	$810	$460
North Dakota	$1,400	$610
Ohio	$470	$420
Oklahoma	$520	$290
Oregon	$640	$330
Pennsylvania	$1,280	$350
Rhode Island	NA	$480
South Carolina	$420	$530
South Dakota	$500	$840
Tennessee	$240	$260
Texas	$710	$330
Utah	NA	$370
Vermont	$860	$910
Virginia	$3,390	$860
Washington	$960	$420
West Virginia	$1,740	$850
Wisconsin	$960	$390
Wyoming	NA	$630
District of Columbia	NA	$1180

Note: Total need values used in estimating urban and rural per-capita needs are based solely on the EPA CWNS and DWINSA survey results and exclude adjustments for underreporting, stormwater, PFAS, and lead service line replacement needs. The real need may be higher given lower rural area response rates to these surveys. Data were not available to differentiate between urban and rural communities for these need categories. Combining the urban and rural needs in a state will therefore not equal the total needs of the state, nor will the sum of all states equal the national total.

Table A-3:

National Multiplier Effects of Investing in Each State, Per Million Dollars Invested

State	Output	GDP	Employment	Labor Income
Alabama	$1,954,925	$1,027,369	9.4	$500,720
Alaska	$1,892,633	$1,054,534	8.3	$550,311
Arizona	$1,976,630	$1,125,062	8.8	$543,522
Arkansas	$1,995,751	$1,004,168	10.0	$488,938
California	$1,930,699	$1,132,263	8.0	$572,098
Colorado	$1,969,298	$1,112,023	8.7	$556,185
Connecticut	$2,024,423	$1,126,370	9.2	$560,990
Delaware	$2,287,015	$1,074,498	10.3	$620,571
Florida	$2,035,989	$1,105,109	9.6	$540,850
Georgia	$2,260,872	$1,102,882	10.4	$590,563
Hawaii	$1,848,437	$1,083,224	7.9	$518,795
Idaho	$1,997,287	$1,033,804	9.7	$511,865
Illinois	$1,975,696	$1,125,786	8.7	$589,838
Indiana	$1,913,122	$1,059,599	8.8	$510,864
Iowa	$1,909,125	$1,018,747	9.1	$514,328
Kansas	$1,923,383	$1,044,236	8.9	$485,596
Kentucky	$1,993,548	$1,039,694	9.8	$532,890
Louisiana	$1,968,285	$1,047,036	9.5	$511,973
Maine	$2,173,620	$1,087,622	11.1	$576,926
Maryland	$1,922,184	$1,052,552	8.4	$541,073
Massachusetts	$2,084,300	$1,163,338	9.2	$676,684
Michigan	$2,040,913	$1,097,383	9.7	$578,209
Minnesota	$1,966,162	$1,128,544	8.6	$565,869
Mississippi	$2,060,924	$978,517	10.9	$480,214
Missouri	$1,997,740	$1,080,485	9.4	$545,886
Montana	$2,029,239	$1,031,599	10.2	$546,104
Nebraska	$1,906,997	$1,037,860	8.9	$505,833
Nevada	$1,772,529	$1,061,281	7.4	$476,349
New Hampshire	$2,158,320	$1,142,402	10.5	$621,715
New Jersey	$1,954,082	$1,118,948	8.6	$570,840
New Mexico	$1,929,504	$1,011,134	9.3	$525,123
New York	$1,888,120	$1,121,699	7.9	$572,800

Table A-3 con'd:

National Multiplier Effects of Investing in Each State, Per Million Dollars Invested

State	Output	GDP	Employment	Labor Income
North Carolina	$2,003,771	$1,070,884	9.5	$536,948
North Dakota	$1,869,107	$1,017,940	8.6	$544,274
Ohio	$2,043,752	$1,103,307	9.7	$555,628
Oklahoma	$2,067,653	$1,031,118	10.4	$517,049
Oregon	$1,988,407	$1,106,279	9.2	$590,306
Pennsylvania	$2,008,768	$1,115,562	9.3	$578,199
Rhode Island	$1,984,171	$1,094,665	9.4	$562,411
South Carolina	$1,921,632	$1,041,966	9.1	$488,974
South Dakota	$1,980,446	$1,025,060	9.7	$518,932
Tennessee	$2,134,198	$1,129,440	10.2	$563,497
Texas	$2,070,669	$1,129,632	9.5	$563,162
Utah	$1,907,385	$1,096,466	8.3	$491,113
Vermont	$2,155,503	$1,058,166	11.2	$577,289
Virginia	$1,833,627	$1,045,101	8.0	$496,940
Washington	$1,841,487	$1,105,844	7.2	$526,885
West Virginia	$1,894,063	$996,331	9.2	$516,993
Wisconsin	$2,015,768	$1,090,790	9.5	$568,266
Wyoming	$1,811,571	$943,503	8.7	$468,927
District of Columbia	$1,769,197	$1,039,541	7.6	$597,917

Table A-4:

Annual Average State-Level Impacts of Meeting the National Funding Need

State	Output	GDP	Employment	Labor Income
Alabama	$5,281,712,117	$2,716,043,429	25,368	$1,345,013,687
Alaska	$638,547,727	$363,884,024	2,719	$177,702,844
Arizona	$4,639,026,149	$2,645,393,655	21,185	$1,283,636,306
Arkansas	$3,519,211,675	$1,740,227,605	17,821	$844,078,515
California	$36,495,639,282	$21,620,509,742	150,298	$10,839,131,028
Colorado	$7,364,920,581	$4,169,534,077	32,783	$2,085,549,712
Connecticut	$3,869,303,378	$2,193,090,819	18,331	$1,119,106,622
Delaware	$1,126,318,036	$568,410,961	4,828	$283,624,144
Florida	$18,223,736,732	$9,906,952,877	87,856	$4,878,459,404
Georgia	$14,021,407,966	$6,926,547,595	65,774	$3,783,608,205
Hawaii	$1,439,438,725	$851,265,949	6,324	$402,436,072
Idaho	$1,855,618,484	$947,206,806	9,382	$463,018,034
Illinois	$10,920,756,720	$6,228,972,499	47,867	$3,302,344,331
Indiana	$6,678,853,012	$3,580,354,561	29,934	$1,707,559,750
Iowa	$5,004,413,251	$2,646,560,710	24,559	$1,329,944,994
Kansas	$3,343,691,545	$1,804,802,106	15,362	$818,343,189
Kentucky	$4,256,393,189	$2,195,919,851	21,519	$1,139,437,396
Louisiana	$7,207,678,572	$3,705,063,420	33,305	$1,750,445,615
Maine	$1,742,388,256	$858,835,087	9,355	$458,831,159
Maryland	$5,745,142,466	$3,178,587,853	25,836	$1,644,927,828
Massachusetts	$7,328,196,049	$4,125,962,215	32,683	$2,453,801,185
Michigan	$8,524,144,662	$4,545,366,997	41,121	$2,438,653,080
Minnesota	$5,816,547,453	$3,319,648,657	25,285	$1,682,310,606
Mississippi	$2,861,115,083	$1,289,778,655	15,444	$621,813,122
Missouri	$5,721,908,347	$3,082,988,831	27,359	$1,579,180,064
Montana	$1,027,514,988	$498,389,134	5,134	$257,570,867
Nebraska	$1,699,045,567	$935,008,343	7,986	$447,837,641

Table A-4 con'd:

Annual Average State-Level Impacts of Meeting the National Funding Need

State	Output	GDP	Employment	Labor Income
Nevada	$1,791,080,676	$1,062,742,562	7,570	$479,751,675
New Hampshire	$2,020,801,610	$1,088,386,399	10,273	$618,546,493
New Jersey	$8,029,928,008	$4,668,131,864	35,608	$2,385,255,223
New Mexico	$2,568,689,429	$1,329,112,033	12,928	$690,111,004
New York	$20,341,717,025	$12,362,420,225	84,832	$6,264,202,192
North Carolina	$11,684,070,882	$6,217,534,048	56,062	$3,148,429,094
North Dakota	$1,169,007,684	$631,743,065	5,354	$328,072,062
Ohio	$11,702,476,712	$6,238,798,082	54,363	$3,088,607,015
Oklahoma	$4,093,557,172	$2,009,384,446	20,523	$974,622,320
Oregon	$4,587,449,190	$2,512,263,010	21,230	$1,351,506,592
Pennsylvania	$11,455,398,038	$6,296,172,911	53,091	$3,413,315,743
Rhode Island	$907,916,404	$505,328,985	4,539	$263,403,097
South Carolina	$4,916,618,190	$2,640,633,989	23,645	$1,260,875,322
South Dakota	$1,140,243,501	$589,852,958	5,795	$293,361,359
Tennessee	$5,462,772,824	$2,870,983,772	26,206	$1,436,011,086
Texas	$28,725,328,830	$15,467,984,088	123,688	$7,489,675,572
Utah	$3,816,378,903	$2,181,735,284	16,630	$970,225,140
Vermont	$922,392,109	$442,154,208	5,099	$244,381,879
Virginia	$6,784,759,868	$3,917,957,429	30,682	$1,935,423,736
Washington	$9,097,470,052	$5,543,988,656	35,001	$2,621,121,388
West Virginia	$2,823,259,713	$1,475,140,275	14,319	$762,713,569
Wisconsin	$7,207,646,923	$3,855,889,160	34,513	$2,019,284,071
Wyoming	$627,933,472	$322,884,365	2,937	$146,511,129
District of Columbia	$1,197,374,738	$731,629,319	5,009	$460,464,692

Table A-5:

Annual Average State-Level Per Capita Impacts of Meeting the National Funding Need

State	Annual Output per Capita	Annual GDP Per Capita	Annual GDP Per Capita
Alabama	$1,045	$537	$537
Alaska	$870	$496	$496
Arizona	$638	$364	$364
Arkansas	$1,160	$574	$574
California	$930	$551	$551
Colorado	$1,267	$718	$718
Connecticut	$1,075	$609	$609
Delaware	$1,120	$565	$565
Florida	$831	$452	$452
Georgia	$1,296	$640	$640
Hawaii	$996	$589	$589
Idaho	$980	$500	$500
Illinois	$860	$491	$491
Indiana	$980	$526	$526
Iowa	$1,566	$828	$828
Kansas	$1,138	$614	$614
Kentucky	$944	$487	$487
Louisiana	$1,560	$802	$802
Maine	$1,265	$624	$624
Maryland	$931	$515	$515
Massachusetts	$1,048	$590	$590
Michigan	$848	$452	$452
Minnesota	$1,018	$581	$581
Mississippi	$969	$437	$437
Missouri	$928	$500	$500
Montana	$930	$451	$451
Nebraska	$864	$476	$476
Nevada	$570	$338	$338
New Hampshire	$1,456	$784	$784
New Jersey	$867	$504	$504
New Mexico	$1,215	$628	$628

Table A-5 con'd:

Annual Average State-Level Per Capita Impacts of Meeting the National Funding Need

State	Annual Output per Capita	Annual GDP Per Capita	Annual GDP Per Capita
New York	$1,024	$622	$622
North Carolina	$1,104	$587	$587
North Dakota	$1,500	$811	$811
Ohio	$993	$530	$530
Oklahoma	$1,025	$503	$503
Oregon	$1,082	$593	$593
Pennsylvania	$882	$485	$485
Rhode Island	$829	$461	$461
South Carolina	$943	$507	$507
South Dakota	$1,268	$656	$656
Tennessee	$782	$411	$411
Texas	$969	$522	$522
Utah	$1,146	$655	$655
Vermont	$1,430	$685	$685
Virginia	$784	$453	$453
Washington	$1,175	$716	$716
West Virginia	$1,582	$827	$827
Wisconsin	$1,223	$654	$654
Wyoming	$1,083	$557	$557
District of Columbia	$1,782	$1,089	$1,089

Table A-6:

2025 Economic Impact of IIJA Funding By State*

State	IIJA Funding Amount	Output	GDP	Employment	Labor Income
Alabama	$115,072,000	$224,957,087	$118,221,460	1,083	$57,618,833
Alaska	$76,250,000	$144,313,241	$80,408,243	631	$41,961,186
Arizona	$102,691,000	$202,982,077	$115,533,748	903	$55,814,778
Arkansas	$100,252,033	$200,078,138	$100,669,865	1,002	$49,017,052
California	$570,135,000	$1,100,758,963	$645,542,837	4,542	$326,172,999
Colorado	$109,919,333	$216,463,919	$122,232,839	955	$61,135,495
Connecticut	$103,944,200	$210,427,044	$117,079,673	959	$58,311,616
Delaware	$73,370,000	$167,798,258	$78,835,900	758	$45,531,281
Florida	$454,050,067	$924,441,009	$501,774,641	4,337	$245,573,153
Georgia	$161,168,000	$364,380,211	$177,749,280	1,683	$95,179,911
Hawaii	$80,959,000	$149,647,581	$87,696,739	643	$42,001,088
Idaho	$73,370,000	$146,540,917	$75,850,185	715	$37,555,535
Illinois	$442,280,433	$873,811,519	$497,913,023	3,861	$260,873,670
Indiana	$183,312,967	$350,700,147	$194,238,181	1,611	$93,648,058
Iowa	$113,481,700	$216,650,800	$115,609,172	1,037	$58,366,833
Kansas	$88,140,000	$169,526,949	$92,038,985	786	$42,800,449
Kentucky	$101,367,000	$202,079,969	$105,390,637	991	$54,017,438
Louisiana	$137,150,767	$269,951,756	$143,601,722	1,300	$70,217,481
Maine	$80,948,000	$175,950,168	$88,040,835	901	$46,700,997
Maryland	$160,025,000	$307,597,436	$168,434,620	1,349	$86,585,237
Massachusetts	$193,296,667	$402,888,170	$224,869,322	1,770	$130,800,682
Michigan	$259,763,633	$530,155,034	$285,060,118	2,516	$150,197,654
Minnesota	$135,040,800	$265,512,041	$152,399,541	1,166	$76,415,371
Mississippi	$92,555,000	$190,748,800	$90,566,680	1,009	$44,446,251
Missouri	$177,170,467	$353,940,595	$191,429,975	1,670	$96,714,815
Montana	$73,370,000	$148,885,263	$75,688,447	747	$40,067,634
Nebraska	$73,922,000	$140,969,064	$76,720,671	657	$37,392,223
Nevada	$74,567,000	$132,172,138	$79,136,506	551	$35,519,944
New Hampshire	$86,976,000	$187,722,026	$99,361,527	910	$54,074,255
New Jersey	$247,324,300	$483,291,904	$276,743,135	2,120	$141,182,643
New Mexico	$73,370,000	$141,567,674	$74,186,920	679	$38,528,272
New York	$557,238,467	$1,052,133,106	$625,054,068	4,422	$319,186,467
North Carolina	$222,343,333	$445,525,056	$238,103,928	2,107	$119,386,850
North Dakota	$73,370,000	$137,136,346	$74,686,287	633	$39,933,382

Table A-6 con'd:

2025 Economic Impact of IIJA Funding By State*

State	IIJA Funding Amount	Output	GDP	Employment	Labor Income
Ohio	$385,481,233	$787,828,108	$425,304,187	3,755	$214,184,261
Oklahoma	$96,608,000	$199,751,842	$99,614,273	1,003	$49,951,061
Oregon	$106,871,000	$212,503,049	$118,229,104	979	$63,086,576
Pennsylvania	$363,141,800	$729,467,507	$405,107,064	3,367	$209,968,294
Rhode Island	$78,202,000	$155,166,162	$85,604,982	734	$43,981,651
South Carolina	$98,831,700	$189,918,185	$102,979,251	897	$48,326,101
South Dakota	$73,370,000	$145,305,303	$75,208,633	710	$38,074,070
Tennessee	$180,413,133	$385,037,262	$203,765,757	1,840	$101,662,320
Texas	$523,108,133	$1,083,183,662	$590,919,736	4,949	$294,594,381
Utah	$74,334,000	$141,783,534	$81,504,714	617	$36,506,377
Vermont	$73,370,000	$158,149,250	$77,637,646	820	$42,355,668
Virginia	$148,775,767	$272,799,245	$155,485,724	1,195	$73,932,682
Washington	$148,743,000	$273,908,370	$164,486,620	1,071	$78,370,450
West Virginia	$101,950,000	$193,099,735	$101,575,971	942	$52,707,474
Wisconsin	$206,559,233	$416,375,588	$225,312,675	1,959	$117,380,524
Wyoming	$73,370,000	$132,914,929	$69,224,832	640	$34,405,197
District of Columbia	$73,370,000	$129,805,967	$76,271,136	559	$43,869,195

**Note: The total sum of state-level impacts may differ from the national totals presented in Section 7 for two key reasons. First, state-level IIJA funding figures do not include allocations for American Indian Nations or Island Territories. Second, IMPLAN applies different spending assumptions in state-level impact calculations compared to those used in the national assessment. IIJA funding by state estimates lead service line replacement funding for each state since those levels were not available at the time of this report.*

Table A-7:

State-Level Funding Decrease by Reverting back to pre-IIJA Funding Levels in 2027 ($ Millions, 2021 and 2024 Dollars)*

State	FY24 Total SRF Funding Including IIJA (2024 Dollars)	Expected Reduction in Federal Funding in 2027	Expected Reduction in Federal Funding in 2027 (Nominal Dollar Difference)
Alabama	$41.7	$128.3	-$86.6
Alaska	$20.6	$83.9	-$63.3
Arizona	$30.6	$112.9	-$82.3
Arkansas	$27.1	$109.5	-$82.4
California	$211.8	$648.0	-$436.1
Colorado	$34.6	$121.3	-$86.7
Connecticut	$30.7	$104.8	-$74.2
Delaware	$18.9	$80.3	-$61.4
Florida	$97.5	$468.6	-$371.2
Georgia	$53.1	$211.6	-$158.5
Hawaii	$23.4	$89.8	-$66.4
Idaho	$18.9	$80.3	-$61.4
Illinois	$114.1	$498.9	-$384.8
Indiana	$55.5	$206.8	-$151.3
Iowa	$39.2	$128.3	-$89.1
Kansas	$27.3	$98.1	-$70.9
Kentucky	$38.6	$120.4	-$81.9
Louisiana	$34.1	$151.5	-$117.4
Maine	$23.4	$89.8	-$66.3
Maryland	$59.0	$183.9	-$125.0
Massachusetts	$80.0	$239.1	-$159.1
Michigan	$96.0	$285.9	-$189.9
Minnesota	$46.3	$201.3	-$155.0
Mississippi	$26.3	$102.9	-$76.6
Missouri	$63.9	$193.9	-$130.0
Montana	$18.9	$80.3	-$61.4
Nebraska	$19.2	$81.0	-$61.8
Nevada	$20.6	$81.6	-$61.0
New Hampshire	$27.0	$97.3	-$70.2
New Jersey	$84.4	$322.1	-$237.7

Table A-7 con'd:

State-Level Funding Decrease by Reverting back to pre-IIJA Funding Levels in 2027 ($ Millions, 2021 and 2024 Dollars)*

State	FY24 Total SRF Funding Including IIJA (2024 Dollars)	Expected Reduction in Federal Funding in 2027	Expected Reduction in Federal Funding in 2027 (Nominal Dollar Difference)
New Mexico	$18.9	$80.3	-$61.4
New York	$222.1	$662.3	-$440.2
North Carolina	$62.8	$233.7	-$170.9
North Dakota	$18.9	$80.3	-$61.4
Ohio	$118.0	$451.8	-$333.8
Oklahoma	$28.6	$106.9	-$78.3
Oregon	$32.6	$119.4	-$86.8
Pennsylvania	$97.5	$400.9	-$303.5
Rhode Island	$21.8	$86.3	-$64.6
South Carolina	$30.7	$109.5	-$78.8
South Dakota	$18.9	$80.3	-$61.4
Tennessee	$42.4	$192.9	-$150.4
Texas	$159.6	$462.5	-$302.9
Utah	$19.5	$81.5	-$62.1
Vermont	$18.9	$80.3	-$61.4
Virginia	$50.8	$167.5	-$116.7
Washington	$52.5	$167.5	-$115.0
West Virginia	$36.0	$116.0	-$79.9
Wisconsin	$62.1	$233.9	-$171.8
Wyoming	$18.9	$80.3	-$61.4
District of Columbia	$18.9	$80.3	-$61.4

**Note: Values come from Banner Public Affairs, The Water Federal Funding Cliff, version 1.0, accessed October 1, 2025, https://cdn.prod.website-files.com/5f8d9b0df18924408870e070/681533c2fc051d09977869ea_The%20Water%20Federal%20Funding%20Cliff%20V1.0.pdf*

REFERENCES

[1] U.S. Environmental Protection Agency. Drinking Water Infrastructure Needs Survey and Assessment: 7th Report to Congress. Washington, D.C.: U.S. Environmental Protection Agency, September 2023. https://www.epa.gov/system/files/documents/2023-09/Seventh%20DWINSA_September2023_Final.pdf; U.S. Environmental Protection Agency. 2022 Clean Watersheds Needs Survey: Report to Congress. Washington, D.C.: U.S. Environmental Protection Agency, April 2024. https://www.epa.gov/system/files/documents/2024-05/2022-cwns-report-to-congress.pdf; American Water Works Association (AWWA). Comments on the Proposed "PFAS National Primary Drinking Water Regulation Rulemaking." Docket ID No: EPA-HQ-OW-2022-0114; Water Environment Federation (WEF). Municipal Separate Storm Sewer System Needs Assessment and Survey. Alexandria, VA: WEF Stormwater Institute, June 2023. https://www.wef.org/topics/practice-areas/stormwater-and-watershed-management/ms4-survey/.

[2] Congressional Budget Office (CBO). Public Spending on Transportation and Water Infrastructure, 1956 to 2023. Washington, D.C.: Congressional Budget Office, February 2025. https://www.cbo.gov/publication/60874.

[3] Congressional Budget Office (CBO). Public Spending on Transportation and Water Infrastructure, 1956 to 2023. Washington, D.C.: Congressional Budget Office, February 2025. https://www.cbo.gov/publication/60874.

[4] 117th United States Congress. H.R. 3684 - Infrastructure Investment and Jobs Act. Washington, D.C.: United States Congress, November 2021. https://www.congress.gov/bill/117th-congress/house-bill/3684.

[5] U.S. Environmental Protection Agency. Drinking Water Infrastructure Needs Survey and Assessment: 7th Report to Congress. Washington, D.C.: U.S. Environmental Protection Agency, September 2023. https://www.epa.gov/system/files/documents/2023-09/Seventh%20DWINSA_September2023_Final.pdf; U.S. Environmental Protection Agency. 2022 Clean Watersheds Needs Survey: Report to Congress. Washington, D.C.: U.S. Environmental Protection Agency, April 2024. https://www.epa.gov/system/files/documents/2024-05/2022-cwns-report-to-congress.pdf.

[6] Congressional Budget Office (CBO). Public Spending on Transportation and Water Infrastructure, 1956 to 2023. Washington, D.C.: Congressional Budget Office, February 2025. https://www.cbo.gov/publication/60874.

[7] American Society of Civil Engineers (ASCE) and Value of Water Campaign. The Economic Benefits of Investing in Water Infrastructure. Federal Way, 2020. https://uswateralliance.org/wp-content/uploads/2023/09/VOW-Economic-Paper_1.pdf.

[8] Water Environment Federation (WEF). Municipal Separate Storm Sewer System Needs Assessment and Survey. Alexandria, VA: WEF Stormwater Institute, June 2023. https://www.wef.org/topics/practice-areas/stormwater-and-watershed-management/ms4-survey/;

American Water Works Association (AWWA). Estimating the National Cost to Remove PFAS from Drinking Water Using UCMR 5 Data. Black & Veatch and Corona Environmental Consulting, March 2023. https://www.awwa.org/wp-content/uploads/Final-Technical-Memorandum-Updating-National-Cost-Estimate-for-PFAS-Standards-using-UCMR-5.pdf. U.S. Environmental Protection Agency. Drinking Water Infrastructure Needs Survey and Assessment: 7th Report to Congress. Washington, D.C.: U.S. Environmental Protection Agency, September 2023. https://www.epa.gov/system/files/documents/2023-09/Seventh%20DWINSA_September2023_Final.pdf.

[9] U.S. Bureau of Reclamation. Asset Management Report: Major Rehabilitation & Replacement Activities. April 2021. https://www.usbr.gov/infrastructure/mrr/docs/asset-management-report-to-congress.pdf.

[10] U.S. Environmental Protection Agency. Drinking Water Infrastructure Needs Survey and Assessment: 7th Report to Congress. Washington, D.C.: U.S. Environmental Protection Agency, September 2023. https://www.epa.gov/system/files/documents/2023-09/Seventh%20DWINSA_September2023_Final.pdf.

[11] U.S. Environmental Protection Agency. "Our Current Understanding of the Human Health and Environmental Risks of PFAS." EPA.gov. October 10, 2025.

[12] U.S. Environmental Protection Agency. 2022 Clean Watersheds Needs Survey: Report to Congress. Washington, D.C.: U.S. Environmental Protection Agency, April 2024. https://www.epa.gov/system/files/documents/2024-05/2022-cwns-report-to-congress.pdf; Water Environment Federation (WEF). Municipal Separate Storm Sewer System Needs Assessment and Survey. Alexandria, VA: WEF Stormwater Institute, June 2023. https://www.wef.org/topics/practice-areas/stormwater-and-watershed-management/ms4-survey/.

[13] U.S. Census Bureau. "Demographic and Housing Estimates." American Community Survey 5-Year Estimates Subject Tables, Table DP05, 2023; U.S. Census Bureau. "Per Capita Income in the Past 12 Months." American Community Survey 5-Year Estimates Subject Tables, Table B19301, 2023.

14 U.S. Department of the Treasury. "Fiscal Year 2025 Federal Spending Overview." Washington, D.C.: U.S. Department of the Treasury, August 2025. https://fiscaldata.treasury.gov/americas-finance-guide/federal-spending/#spending-categories.

[15] U.S. Bureau of Labor Statistics. "Income before taxes: Annual expenditure means." Consumer Expenditure Survey Table 1203, 2023.

[16] Steven L. Barfuss, PE. Water Main Break Rates in the USA and Canada: A Comprehensive Study. Utah Water Research Laboratory, 2023. https://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=1681&context=water_rep

[17] E. A. Ambler. The Economics of Water Main Failures. Water Finance & Management, April 2020. https://waterfm.com/the-economics-of-water-main-failures/.

[18] C. Hyer and E. Bindler. "Demystifying Intelligent Water: Realizing the Value of Change With Advanced Asset Management." Florida Water Resources Journal, May 2020: 50–55. https://fwrj.com/techarticles/0520%20tech%203.pdf.

[19] K. Sjöstrand, J. Klingberg, N. Zadeh, M. Haraldsson, L. Rosen, and A. Lindhe. "The Value of Water – Estimating Water-Disruption Impacts on Businesses." Water (Switzerland) 13, no. 11 (June 2021). http://dx.doi.org/10.3390/w13111565.

[20] U.S. Federal Emergency Management Agency. Benefit-Cost Analysis Sustainment and Enhancements: Standard Economic Value Methodology Report Version 13.0. September 2024. https://www.fema.gov/sites/default/files/documents/fema-standard-economic-values-methodology-report-v13-2024.pdf.pdf.

[21] U.S. Census Bureau. "Average Household Size of Occupied Housing Units by Tenure." American Community Survey 1-Year Estimates Subject Tables, Table B215010, 2024.

[22] U.S. Bureau of Labor Statistics. "Average Hourly Earnings of All Employees, Total Private." Current Employment Statistics Survey, Table CES0500000003, August 2025.

[23] C. Heflin, J. Jense, and K. Miller. "Understanding the Economic Impacts of Disruptions in Water Service." Evaluation and Program Planning 46 (2014): 80–86. http://dx.doi.org/10.1016/j.evalprogplan.2014.05.003.

[24] K. Sjöstrand, J. Klingberg, N. Zadeh, M. Haraldsson, L. Rosen, and A. Lindhe. "The Value of Water – Estimating Water-Disruption Impacts on Businesses." Water (Switzerland) 13, no. 11 (June 2021). http://dx.doi.org/10.3390/w13111565.

[25] U.S. Water Alliance and DigDeep. Closing the Water Access Gap in the United States: A National Action Plan. DigDeep Right to Water Project and U.S. Water Alliance, 2023. https://uswateralliance.org/wp-content/uploads/2023/09/Closing-the-Water-Access-Gap-in-the-United-States_DIGITAL.pdf.

[26] DigDeep. Draining: The Economic Impact of America's Hidden Water Crisis. 2022. https://www.digdeep.org/draining.

[27] Water Environment Federation (WEF). Valuing the Circular Water Economy: A $47 Billion Opportunity for U.S. Utilities. 2022. https://go.wef.org/WC-2025-07-22-CWE-White-Paper_LP-2025-CWE-White-paper.html.

[28] IMPLAN® Model. IMPLAN System (data and software), using inputs provided by the user and IMPLAN Group LLC. Huntersville, NC: IMPLAN Group LLC, 2023. www.IMPLAN.com.

[29] IMPLAN® Model. IMPLAN System (data and software), using inputs provided by the user and IMPLAN Group LLC. Huntersville, NC: IMPLAN Group LLC, 2023. www.IMPLAN.com.

[30] IMPLAN® Model. IMPLAN System (data and software), using inputs provided by the user and IMPLAN Group LLC. Huntersville, NC: IMPLAN Group LLC, 2023. www.IMPLAN.com.

[31] IMPLAN® Model. IMPLAN System (data and software), using inputs provided by the user and IMPLAN Group LLC. Huntersville, NC: IMPLAN Group LLC, 2023. www.IMPLAN.com.

[32] J. Kane and A. Tomer. Renewing the Water Workforce: Improving Water Infrastructure and Creating a Pipeline to Opportunity. Metropolitan Policy Program at Brookings, June 2018. https://www.brookings.edu/articles/water-workforce/.

[33] U.S. Bureau of Labor Statistics. Employed Persons by Detailed Industry and Age. 2025

[34] U.S. Department of Education. "Awards/degrees conferred by program" Integrated Postsecondary Education Data System, National Center for Education Statistics, 2025. https://nces.ed.gov/ipeds/datacenter/InstitutionByName.aspx?goToReportId=5&sid=b0b3567a-29f8-431b-a45e-ae393686a920&rtid=5.

[35] U.S. Bureau of Labor Statistics. Occupational Employment and Wage Statistics. Occupational Employment and Wage Statistics (OEWS) Survey, May 2023.

[36] IMPLAN® Model. IMPLAN System (data and software), using inputs provided by the user and IMPLAN Group LLC. Huntersville, NC: IMPLAN Group LLC, 2023. www.IMPLAN.com.

[37] Banner Public Affairs. The Water Funding Cliff. 2024. https://cdn.prod.website-files.com/5f8d9b0df18924408870e070/681533c2fc051d09977869ea_The%20Water%20Federal%20Funding%20Cliff%20V1.0.pdf.

NOTES

i The IIJA provided over $55 billion in STAG funding to EPA. Of which, the IIJA appropriates $48.4 billion in drinking water and wastewater infrastructure funding from 2022-2026, not all funding becomes available for water infrastructure. Annual reductions occur due to Congress changing the destination of the IIJA funds, EPA administration costs, OIG oversight, and National Iron and Steel administration. In total, it is estimated that 30% of funding did not go to state revolving funds for water infrastructure funding.

ii Funding levels for the gap analysis were adjusted from the Congressional Budget Office (CBO) baseline to account for funding available to stormwater from sources not captured in the CBO spending data. This was estimated based on an increase in spending that was proportional to the increase in needs after including the WEF stormwater data into the capital funding needs analysis.

iii Unemployment rates are based on NAICS code 22, which is for all utility employees, not just those for the water and wastewater industries.