



One Water for America Listening Sessions

One Water for America Policy Framework

Executive Summary



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Introduction

Each day, more and more Americans are confronting an unsettling fact of life in the 21st century—our supplies of clean, dependable, economical water are more fragile than at any time in our recent history. The tragedy in Flint, Michigan, trio of deadly storms in Texas, Florida, and Puerto Rico, drought in the West, flooding in the Midwest, bursting water mains in the East, have captured public attention and driven concern with renewed urgency. Population growth, economic development, changing weather patterns, new energy supply strategies, growing income inequality, and the needs of endangered ecosystems are threatening to overwhelm both the physical infrastructure and management systems that have previously provided for our water needs.

America is at a crossroads. Are we going to commit to a future where everyone can count on reliable and safe water service? Will we truly value water and prioritize investment in the world's most precious resource? Will we come together as a nation to protect public health and safety, grow strong economies, and sustain our communities?

Changing how we view, value, and manage water is not a simple task. Our challenges vary from place to place, and our laws and regulations can constrain innovative approaches to integrating water policy either horizontally (across water sectors) or vertically (aligned with other investments in infrastructure, agriculture, environmental protection, and social equity). And our legal frameworks for water predate modern challenges like climate change or growing income disparity. In the face of these issues, how do we create a new era of water management in America—one that secures economic, environmental, and community well-being? To answer this question, the US Water Alliance worked with more than 40 partner organizations to host 15 One Water for America Listening Sessions. These discussions, which took place all across the country, engaged more than 500 leaders, including water utility managers, public officials, business executives, farmers, environmental and watershed advocates, community and philanthropic organizations, and planners.

What we heard from these diverse stakeholders was truly inspiring. Across the nation, people from all walks of life are working to advance sustainable water management. They are collaborating, innovating, and forging positive change. Now is the time to spread and scale these successes to benefit more communities across the country. To that end, we have compiled the strongest, most consistent themes from the One Water for America Listening Sessions into seven big ideas for the sustainable management of water in the United States.

In this executive summary, we provide an overview of these seven big ideas and how they can advance One Water management. In a series of upcoming policy briefs, we will dig further into each of the big ideas—explore the key issues behind them, present policy solutions that are working at the local, regional, state, and national levels, and provide real world examples of how these solutions *are* being implemented and *do* produce positive results.

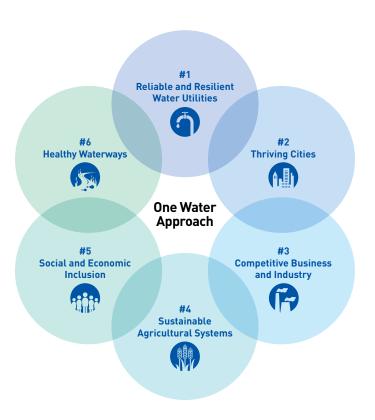
Taken together, the seven big ideas are a call to action to accelerate solutions to the water management problems of our age, through the lens of the One Water approach.

The One Water Approach

The One Water approach envisions managing all water in an integrated, inclusive, and sustainable manner to secure a bright, prosperous future for our children, our communities, and our country. One Water is a transformative approach to how we view, value, and manage water—from local communities to states, regions, and the national scale. The One Water approach can take many different forms, yet has some unifying characteristics. The hallmarks of One Water are:

- The mindset that **all water has value**, from the water resources in our ecosystems to our drinking water, wastewater, and stormwater.
- A focus on **achieving multiple benefits**, meaning that our water-related investments should provide economic, environmental, and societal returns.
- Approaching decisions with a **systems mindset**, one that encompasses the full water cycle and larger infrastructure systems.
- Utilizing watershed-scale thinking and action, that respects and responds to the natural ecosystem, geology, and hydrology of an area.
- Relying on **partnerships and inclusion**, recognizing that real progress will only be made when all stakeholders have a seat at the table.

This report, derived from the One Water for America Listening Sessions, is intended to complement the US Water Alliance's *One Water Roadmap* with a set of policy actions we can implement today to advance One Water management at the local, regional, state, and national levels.



About the Listening Sessions

The US Water Alliance worked with more than 40 partner organizations to host 15 One Water for America Listening Sessions across the country. The collaborating organizations are top leaders in their spheres of influence who brought their insights and networks to the Listening Sessions. The Listening Sessions engaged more than 500 leaders, including water utility managers, public officials, business executives, farmers, environmental and watershed advocates, community organizations, planners, researchers, and philanthropy.

In general, the sessions were organized around the following key issues:

- Accelerating water infrastructure renewal
- Ensuring safe, reliable, affordable access to water
- Breaking down silos to foster sustainable water management
- Accelerating innovation and technology

While all of the Listening Sessions covered these topics, and the topics naturally overlap, the discussion coalesced around the issues that most strongly influence water management in the region where the session was hosted.



One Water for America Listening Sessions



One Water for America— Collaborating Partners

Program and Funding Partners

The Charles Stewart Mott Foundation National Association of Clean Water Agencies Pisces Foundation Water Environment Federation Turner Foundation

National Collaborators

Alliance for Water Efficiency American Planning Association American Rivers American Society of Civil Engineers **Bipartisan Policy Center Building America's Future** Ceres The Conservation Fund National Association of Water Companies The Nature Conservancy **US Water Partnership** Water Environment & Reuse Foundation Water Research Foundation Water and Wastewater Equipment Manufacturers Association WateReuse Association

Regional Host Partners

American Water Resources Association, Washington Section Atlanta Regional Commission Bay Area Council **Cleveland Water Alliance** Current **Detroit Water & Sewerage Department Everglades Foundation** Iowa Agriculture Water Alliance Iowa Soybean Association KC Water Metropolitan North Georgia Water Planning District Mid-America Regional Council North Carolina Water Resources Research Institute Northeast Ohio Regional Sewer District San Francisco Public Utilities Commission Santa Clara Valley Water District Sewerage and Water Board of New Orleans **Tucson Water** WA State Department of Health Washington PUD Association Washington Water Utilities Council Water Supply Forum



Seven Big Ideas for the Sustainable Management of Water

The insights from the Listening Sessions have been synthesized into seven big ideas for the sustainable management of water in the United States:

- 1. Advance regional collaboration on water management
- 2. Accelerate agriculture-utility partnerships to improve water quality
- 3. Sustain adequate funding for water infrastructure
- 4. Blend public and private expertise and investment to address water infrastructure needs
- 5. Redefine affordability for the 21st century
- 6. Reduce lead risks, and embrace the mission of protecting public health
- 7. Accelerate technology adoption to build efficiency and improve water service

These ideas are not a comprehensive set of solutions to all our water challenges. Instead, they reflect the priorities, challenges, and solutions we heard consistently in Listening Sessions around the country. They are practical solutions, focused on policy and decision-making, to positively change how we manage our water resources and infrastructure.

Some of these ideas expand on proven practice, and others call for decisive change. Bold leadership and collaboration across sectors is essential for these ideas to take hold. The US Water Alliance and its members stand ready to advocate for these solutions.



Advance regional collaboration on water management.

While water knows no boundaries, the system of how we manage water is siloed. Across the nation, there are more than 51,000 community water systems¹ and nearly 15,000 wastewater treatment plants.² By contrast, there are approximately 3,000 electricity providers. Thousands of distinct municipalities, authorities, private businesses, and multiple regulatory agencies have narrow slices of authority over some aspect of water-drinking water, wastewater, stormwater, groundwater, irrigation, and more. Overcoming this fragmentation is essential to providing high-guality water service, protecting natural resources, fueling economic prosperity, and fostering social equity. The One Water for America Listening Sessions surfaced inspiring models of regional collaboration, such as watershed-scale planning, coordinating services to better operate and maintain infrastructure assets, consolidating utility service, and more.

Solutions: Local Level

- Embrace watershed-scale planning. Communities and utilities within a watershed can develop inclusive, water-shed-scale plans that better leverage resources and create durable solutions that benefit the region and all communities in it.
- Adopt governance structures that enable effective, efficient utility management. Local governance of water management sometimes impedes efficiency. By restructuring governance, utilities can focus on their missions and have the freedom to make responsible decisions.
- Develop regional partnerships to address common needs. Beyond watershed planning, utilities within a region can collaborate in areas like workforce development, disaster preparedness, and drought response. Multiple utilities can pool resources for economies of scale and potentially lower costs.

• Consider regionalization and consolidation of services. Regionalization can improve cost efficiency, and it can help ensure sustainable service in the face of growing needs and challenges. Regional governance can also help ensure appropriate representation for the jurisdictions served.

Solutions: Regional and State Level

- Use state authority to drive regional cooperation and consolidation. State governments have an important role to play in encouraging, incentivizing, and sometimes requiring regional cooperation. States can establish a menu of collaboration options, from informal agreements to special districts.
- Use state funding programs to encourage regional cooperation and consolidation. State agencies with primary grantmaking or lending authority can incentivize projects that foster regional cooperation and consolidation, as well as watershed-level planning.

- Enact policies that promote regionalization. Congress and the Administration should encourage consolidation where appropriate. The Environmental Protection Agency should remove regulatory obstacles to regionalization, and help communities better understand different models for approaching regionalization.
- Provide regulatory flexibility to encourage partnerships. Communities with water systems that have chronic compliance issues should look to partner with neighboring systems or a private provider. So-called "good neighbor" provisions should help prevent the new partner from being liable for earlier violations.
- Expand federal programs that encourage adoption of watershed and integrated planning. EPA should continue to embrace integrated planning and build incentives for collaborative, watershed-based solutions into criteria for State Revolving Funds programs and other federally supported programs.



Accelerate agriculture-utility partnerships to improve water quality.

When it comes to improving water guality and conservation, one area deserves particular attention: building partnerships between water providers and the agricultural sector. Agriculture and land management present the best opportunities to protect water quality, preserve ecosystems, and safeguard our drinking water supplies. Agriculture is one of the largest users of water in the US,³ and runoff from agricultural lands is believed to be the largest single source of non-point source pollution in our waterways.⁴ By developing and implementing best practices that balance conservation with productivity, we can greatly improve the quality of our surface and groundwater resources. In the face of declining government conservation funding, we must be creative in finding sources to fund land management best practices, and ensure that the investments provide benefits to farmers and landowners, as well as upstream and downstream communities.

Solutions: Local Level

- Incentivize collaborative water quality solutions. Communities can partner with farm alliances, local and state government agencies, and NGOs to identify the best ways to incentivize land management solutions for regional water quality challenges—in many cases, at lower costs than investing in treatment plant upgrades.
- Advance collaborative funding models. Farmers, utilities, public agencies, conservation organizations, and the private sector can collaborate to create innovative funding and financing approaches, calling on a variety of methods such as cooperative funds, green infrastructure bonds, and social impact investing, to help meet regional needs.

Solutions: Regional and State Level

- Adopt adaptive management approaches for water quality improvement. Adaptive management approaches can encourage cooperation, and help target limited resources among all those who impact water quality in a watershed—cities, utilities, farms, landowners, and others.
- Use loan and grant programs to incentivize best practices. State agencies with grantmaking or lending authority, such as the state revolving loan funds, should prioritize projects that support agricultural-municipal partnerships that achieve the largest water quality gains.
- Establish credit trading programs or dedicated funds for watershed restoration. Water quality credit trading can be an effective way to incentivize agricultural best practices. These programs can support investments in land management that provide region-wide water quality benefits, and may avoid higher costs for treatment plant upgrades to meet water quality standards.

- Incentivize collaboration, and create new sources of funding. Reauthorization of the Farm Bill presents an opportunity to continue and expand successful programs like the Regional Conservation Partnership Program (RCPP).
- Provide regulatory flexibility for utilities to partner on non-point source solutions. EPA should provide greater flexibility to utilities to engage with farmers and land managers to find more effective, non-point source solutions to meet water quality objectives in a watershed.



Sustain adequate funding for water infrastructure.

Funding for water infrastructure capital needs was a prominent theme in every one of our Listening Sessions. Capital needs are growing all the time to meet the challenges of water system development and renewal,⁵ regulatory compliance, lead service line removal, ⁶ and climate change adaptation.⁷ Those needs are compounded by the rising costs of day-to-day utility operations. Forty years ago, the federal government contributed 63 percent of total capital spending on water infrastructure. Today it funds just nine percent, though federal spending for transportation has remained constant.⁸ While the US water industry still is partly supported by tax-exempt financing and subsidized borrowing programs like SRF loans, this subsidization does not approach the levels needed for reinvestment in our aging systems. A resurgence in federal funding for water is unlikely in the near future. Therefore, revenue from water, sewer, and stormwater rates and charges continue to be the primary source of funds for our water infrastructure. Our focus must be on fully representing the cost of water management, improving the cost-effectiveness of water services, and continuing to educate the public on our infrastructure needs.

Solutions: Local Level

• Optimize utility financial management. Good financial planning helps to ensure adequate revenues for system needs, now and in the future, while stabilizing rate impacts by spreading capital cost burdens over longer periods of time, as appropriate. Utilities can also consider alternative revenue sources and borrowing vehicles that provide more flexibility than traditional approaches.

• Free up funds through operational efficiencies and technology innovation. Many utilities can increase available capital by making operations more efficient, freeing up rate revenues to invest in infrastructure. Asset management, improved project controls, contract incentives, and deployment of technology solutions for operations optimization, resource recovery, and energy generation all hold promise.

Solutions: Regional and State Level

- Prioritize funding for state loan and grant (SRF) programs. States should prioritize funding of waterrelated loan and grant programs to help communities meet spending needs. To make limited dollars go further, states can combine multiple loan funds into comprehensive programs to increase their collective impact and reach.
- Adopt stronger standards for utility management and oversight. Most state governments have some level of oversight over water utilities, often including the authority to prescribe management practices. States should consider requiring more rigorous business practices—including asset management and full cost accounting—for water utilities to help ensure the delivery of safe, efficient, sustainable service.

Solutions: National Level

• Keep what works. The federal government should preserve tax exemption for municipal debt vehicles; increase appropriations to SRF programs for water and wastewater, and expand their application; and maintain the Water Infrastructure Financing and Innovation Act (WIFIA) and increase its funding to the fully authorized level.



Blend public and private expertise and investment to address water infrastructure needs.

The US water utility sector is both public and private. Public-private partnerships (P3s), in one form or another, have been in practice for generations, with many publiclyowned utilities utilizing private companies to assist in planning, design, project delivery, operations, maintenance, and management. In addition, private water utilities account for about 15 percent of the US water market.⁹ Given the critical needs facing utilities today, many One Water for America Listening Sessions participants called for more robust engagement of private providers to help solve water challenges, while others voiced concerns. It is clear that greater national understanding is needed on how best to blend public and private resources for positive outcomes. While private expertise and investment can hold promise, each community is unique, and partnership decisions must be made locally. For the nation to attract more investment and innovation to water management, we need to address barriers to putting private money and expertise to work, while making sure that communities' needs are met and all partners benefit.

Solutions: Local Level

- Evaluate strategic partnerships as a way to boost project delivery performance. P3s for project delivery, like design-build and design-build-operate, can sometimes accelerate project delivery and/or reduce life cycle cost. In these models, the private provider takes on more delivery responsibility and risk, along with a higher potential return on its investment—often realized by reducing the delivery cost, or through incentives for meeting goals.
- Explore the feasibility of private investment to address utility challenges. Utilities struggling with financial or operational challenges might consider P3s with direct private investment. While contract operations and system acquisition have long been active models, emerging P3s

engage private investment to help fund long-term capital plans and pension programs, while the local jurisdiction maintains asset ownership.

• Utilize social impact investing. With social impact investing, communities can attract private investment to water projects in ways that achieve measurable social and/or environmental benefits—either for green infrastructure projects or larger-scale land management efforts aimed at watershed-wide improvements.¹⁰

Solutions: Regional and State Level

• Support the establishment of infrastructure accelerators for water programs. At a state or regional level, an infrastructure accelerator can function as a clearinghouse of information on different delivery models, provide case studies, and help communities in evaluating and implementing different models.

- Use federal policy to address constraints on private investment in water infrastructure. The federal government can substantially increase private sector investment in water infrastructure by removing publicpurpose water projects from the state-by-state cap on Private Activity Bonds.
- Increase overall funding for the SRF program and expand eligibility to privately owned water systems. EPA interprets the Clean Water SRF to apply only to publicly owned water systems. SRF funds should be increased and eligibility expanded to include privately owned systems.
- Increase regulatory flexibility to address barriers to investment. The federal government can make regulations more flexible to encourage public-private collaboration on infrastructure delivery solutions. Regulatory policy should not discourage collaboration with communities that are struggling with water compliance issues.



Redefine affordability for the 21st century.

In every one of our Listening Sessions, the affordability of water service was cited as a growing concern. The heart of the issue is this: how to ensure that everyone has access to affordable water and sewer service, while also generating sufficient utility revenues to cover rising costs, deal with our aging infrastructure, and protect public health. While water service is generally affordable for most Americans, the lowest 20 percent of earners pay almost one-fifth of their monthly household income for water.¹¹ Utilities in rural areas and cities with declining populations struggle to keep water affordable, while funding infrastructure needs to protect public health and comply with regulations. And, in virtually every US community, there are some vulnerable populations—including elderly, disabled, and low-income residents—who struggle to pay their water bills.

Solutions: Local Level

- Implement a comprehensive approach to affordability. The most effective affordability programs are woven into a utility's rate design and financial plans, and complemented with bill payment assistance, in-home conservation assistance, and leak detection and repair. Partnering with local social service agencies can help utilities design programs that best fit their communities' needs, including outreach to hard-to-reach customers.
- Negotiate affordable compliance solutions, and advocate for policy change. When possible, communities should negotiate with regulators for compliance solutions and timelines they can reasonably afford. Where state law prevents use of the right affordability solutions, communities should advocate for policy change.

Solutions: Regional and State Level

• Implement policy solutions to support affordability at the community level. States can offer matching funds to local water affordability programs and address legal barriers to affordability solutions. They can also define more accurate, comprehensive approaches for assessing community affordability than EPA's methodology.

- Establish a federal low-income assistance program for water and wastewater. The federal government can provide low-income citizens assistance with the costs of water, as they already do with the costs of food, electricity, and shelter through federal programs like SNAP, LIHEAP, and housing initiatives.¹²
- Change Clean Water Act enforcement to make compliance less burdensome. EPA should improve its methodology for assessing a community's financial capability so that it does not place untenable compliance burdens on stressed communities. EPA should also give communities greater flexibility to prioritize their investments in Clean Water Act compliance, balancing them with other important compliance investments.¹³
- Fund EPA's WaterSense® program. Funding this program will help make it easier for people to save water by choosing water-efficient products and services that are certified to carry the WaterSense label.



Reduce lead risks, and embrace the mission of protecting public health.

The challenge of lead in our drinking water was raised in every one of the Listening Sessions—a reflection of national attention to the water crisis in Flint, Michigan. For that reason, one of our big ideas focuses on reducing the risk of lead exposure in drinking water. Water utilities are responsible for providing safe drinking water by treating water to regulatory standards, and by maintaining safe water quality through the distribution system. Water utilities do not control the quality of plumbing systems within individual property lines. But water utilities can take the lead in collaborative efforts to find solutions to their community's lead problems, motivated by the imperative of public health protection. If we are committed to providing safe drinking water, we must reach across silos to generate communitywide solutions that engage healthcare systems, school systems, city departments, state agencies, and community groups. As ever, communities and utilities must balance limited resources across their own unique set of priorities.

Solutions: Local Level

- Make lead risk management a priority. Water utilities should prioritize completing a lead service line inventory, planning for full lead service line (LSL) removal, and reducing the risk of lead exposure associated with utility operations, maintenance, and construction.
- Take steps to minimize the interim risks of lead exposure. Since it takes years to remove all LSLs, communities should act now to reduce risks: ensure that corrosion control is in place, sample regularly, focus where lead exposure risk is highest, and utilize pointof-use treatment (filters).
- Expand public education and communication on lead risks. Communities and utilities should develop proactive education programs with accessible materials in multiple languages.

Solutions: Regional and State Level

- Strengthen Lead and Copper Rule (LCR) enforcement. LCR enforcement varies from state to state, and enforcement is uneven. States should strengthen LCR compliance.
- Boost funding for LSL removal, and tie funding allocation to LSL removal goals. States can create a dedicated pool of funding to augment local resources for LSL removal, and to fund point-of-use solutions where they are needed to manage critical risks.
- Augment local lead mitigation efforts with statewide testing and assistance. For example, some states offer residents free testing for lead in drinking water¹⁴; others have programs to help public schools voluntarily test their drinking water for lead and copper and develop lead drinking water programs.¹⁵
- Provide guidance and education on LSL inventory and removal strategies. States should collect and disseminate information on best practices for lead detection and removal, and provide stronger guidance to small and medium-sized utilities.

- Strengthen the LCR. As EPA works to update the LCR, it should clarify sampling requirements, improve enforcement provisions, and continue collaborating with state agencies to reform enforcement approaches.
- Augment funding for LSL removal. EPA should make additional funding available to supplement local and state resources for LSL programs.
- Provide more and better guidance on lead risk communication and management. The water sector needs to continue updating guidance on LSL removal, funding approaches, and risk communication strategies.
- Create a multi-agency program to remove lead from plumbing. A multi-agency program is needed to identify and remove lead sources from in-building—with priority given to schools, daycares, rental properties, and low-income and public housing.
- Create a technology incubation program for lead identification and removal solutions. EPA could host technology competitions to find innovative, scalable solutions for lead identification and risk mitigation.
- Revise regulations on plumbing components to make "lead-free" mean lead-free. EPA should strengthen regulations on the amount of lead that is allowable in plumbing components, and require more accurate labeling so customers can make informed decisions.



Accelerate technology adoption to build efficiency and improve water service.

Solving some of our most pressing water challenges requires investing in, developing, and deploying new technologies and processes that can transform water management. For example, wastewater, whether from industrial or municipal sources, can be converted into valuable resource streams. Sensors and satellites can provide precision data on water quality, water quantity, and infrastructure condition to facilitate decision making. Establishing a more enabling policy and regulatory environment is essential for innovation to flourish in the water industry.

Solutions: Local Level

- Support and grow water clusters. Nurturing clusters in the water sector—networks of companies, universities, NGOs, and other organizations that leverage a region's assets to create economic opportunity and catalyze innovation—are important vehicles for accelerating adoption of new technologies.
- Invest in solutions that build efficiency and pay for themselves. Utilities and water reliant businesses can use technological innovations (like smart metering or resource recovery) to extend asset lifetimes, operate more efficiently, and reduce costs.
- Foster idea sharing and consolidation of investments in research and development. Utilities, companies, and research entities should collaborate on platforms to test new equipment and exchange information to achieve economies of scale.

Solutions: Regional and State Level

• Fix regulatory barriers to technological innovations. States and localities should audit their regulations and adjust those that hinder development and deployment of technological innovation.

- Establish a national strategy for water research and development. The government, in partnership with the water sector, should develop and fund a national strategy for water research and development.
- Utilize regulatory flexibility to create a risk/reward framework that incentivizes technology innovation. The EPA should incorporate incentives and flexibility into regulatory programs to encourage utilities to pilot technologies that can improve service—and better protect public health.¹⁶
- Support development of a national testbed network and innovation fund. With the support of a national water innovation fund, a national water testbed network could give utilities information they need on the application, costs, and benefits of innovative technologies.
- Support development of a national clearinghouse to share and spread best practices. A national program should be developed to enable water systems, regardless of size, to share best practices, partner with public and private utilities, engage private sector expertise and technology, and access private capital markets.
- Maintain the EPA's Clusters program. The EPA's Water Cluster Program helps facilitate the creation of water technology clusters, which allow public agencies, private partners, universities, and entrepreneurs to collaborate and advance innovative water solutions.

Call to Action

The One Water for America Policy Framework is a clarion call for fundamental change in the way we value and make decisions about water and the infrastructure systems that deliver it. The stakes are too high to keep managing our water in silos and with a traditional mindset. The decisions we make and the policies we set in motion at every level—local, regional, state, and national—will impact our water resources and infrastructure and, in turn, the economy, public health, the environment, and our communities.

Now is the time to act. We much reach across sectors, we must reach beyond social, political, and generational divides and work together to change the way we value and manage water. Certainly the challenges we face are great—but as the 500 leaders who engaged in the One Water for America Listening Sessions have shown us a our collective capacity for innovation, integration, and inclusion, is even greater.

Only by working together to elevate water as a national priority among policymakers at all levels can we achieve a sustainable water future for all. Inspired by the people we met and the thoughtful dialogue we heard, we are more optimistic than ever about our nation's One Water future.

Stakeholders Engaged

The US Water Alliance is deeply grateful to the over 500 leaders from the across the country who shared their time and insights with us. This included attending listening sessions, reviewing draft documents, and offering realworld examples of innovation. The One Water for America Listening Sessions would not have been possible without the over 40 collaborating partners who are listed in this report. We greatly appreciate Gina Wammock, principal at Lakeview Strategic Services, who led the writing of this executive summary and the seven policy briefs that will follow.

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