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Arizona Extreme Heat Preparedness Plan: Mobilizing Government to Protect People and Communities

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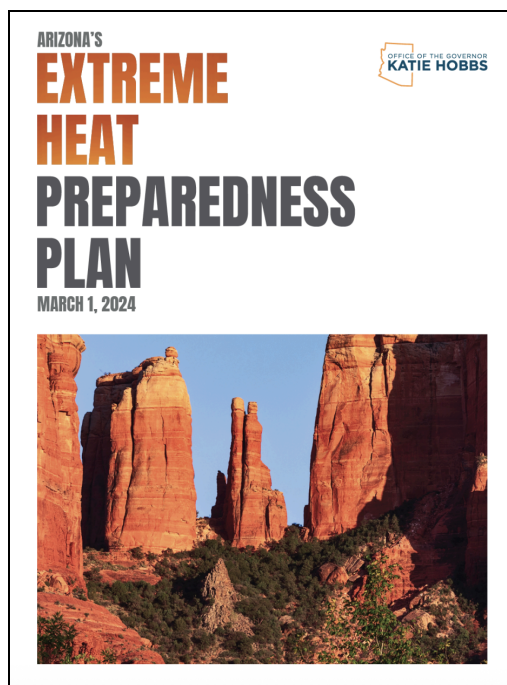
Georgetown Climate Center's Adaptation Policy in Practice series spotlights the nation's most effective state-level climate adaptation initiatives, presenting practical analysis for leaders building comprehensive adaptation programs. Each brief examines not just what works, but how it works: the legislative foundations, funding mechanisms, community engagement strategies, and replication frameworks that transform successful state innovations into actionable blueprints.

Overview

Extreme heat is the deadliest weather-related hazard in the United States, taking the lives of more than 2,000 people every year. But heat's reach disrupts the lives of millions more Americans, touching nearly every aspect of communities and the economy. Heat affects public health, household budgets, workplaces, and the systems states rely on to protect their most vulnerable residents. The day-to-day extremes of weather and temperature are beyond the power of governments to control. But unlike the harm from most climate-driven disasters, deaths from extreme heat are largely preventable. Whether a heat wave passes safely or turns tragic often comes down to a few factors: whether cooling is available and affordable, whether the people most at risk have access to the systems meant to help them, and whether the agencies responsible for reaching those people are working together.

During the summer of 2023, Arizona recorded 990 heat-related deaths,¹ sparking public outcry even in a state that has historically reported some of the highest temperatures in the nation. In response, Arizona adopted a comprehensive extreme heat preparedness plan in March 2024. The plan established a governance architecture focused on reducing heat-related mortality and improving quality of life for Arizonans. Arizona created the nation's first Chief Heat Officer, built a statewide interagency coordination network, expanded cooling center infrastructure, layered in home energy assistance programs, and targeted interventions for the most vulnerable populations. Heat-related deaths statewide stayed roughly flat in 2024, as the state worked to implement the plan, then fell to 667 in 2025, a decline of roughly one third in its first full operational year.²

Phoenix's 2024 summer delivered 100 consecutive days at or above 100 degrees, breaking the record set in 1993 by more than three weeks.³ Arizona's plan is an example of the holistic approach it takes to treat extreme heat as a governance problem, not a weather problem. By connecting and leveraging existing programs, Arizona is able to ensure they are getting the maximum benefit and efficiency from their state and local heat programs.



¹ *Heat-Caused & Heat-Related Deaths from Exposure to Excessive Natural Heat in Arizona (2012 to 2023)*, Arizona Department of Health Services, Summary Report of Heat-Related Deaths in 2023 (last visited Aug. 11, 2026)

<https://www.azdhs.gov/documents/preparedness/epidemiology-disease-control/extreme-weather/pubs/heat-related-mortality-year-2012-2023.pdf>.

² *ICYMI: Governor Katie Hobbs Reports Decline in Heat-Related Deaths, Highlights Preparedness Efforts for 2026*, Office of the Governor Katie Hobbs (May 5, 2026)

<https://azgovernor.gov/office-arizona-governor/news/2026/05/icymi-governor-katie-hobbs-reports-decline-heat-related-deaths>.

³ *Phoenix sets record with 100 straight days of 100-degree temperatures*, Office of the Governor Katie Hobbs (September 3, 2024)

<https://www.washingtonpost.com/weather/2024/09/03/phoenix-100-degree-temperatures-record/>.

Background

Extreme heat is often treated as a seasonal inconvenience rather than the public health emergency the data shows it to be.

Extreme Heat Kills More Americans Than Any Other Weather Hazard

Extreme heat kills more Americans in a typical year than floods, tornadoes, or hurricanes.⁴ Between 1999 and 2023, heat-related deaths in the United States more than doubled, from 1,069 to 2,325 per year, with the sharpest increase occurring after 2016.⁵ That figure substantially undercounts the full scope because heat is routinely omitted from death certificates even when it is the proximate cause.⁶ In Arizona, the health department reports that heat-related deaths in 2022 were nearly seven times more than a decade earlier, a trend driven by intensifying temperatures and population growth concentrated in one of the hottest areas in the United States.⁷

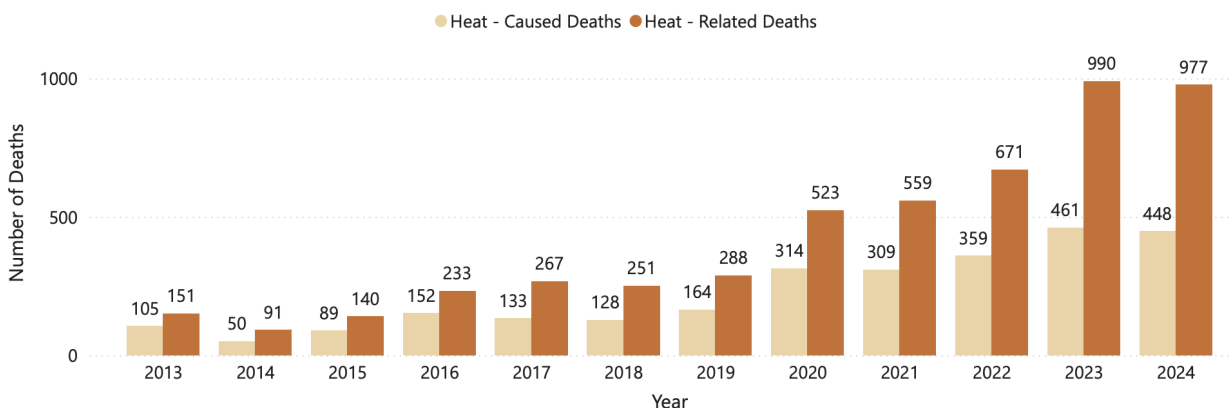


Figure 1: "Heat-caused deaths are death where the primary cause of death is listed as exposure to excessive natural heat. Heat-related deaths are deaths where exposure to excessive natural heat is listed anywhere on the death record and include those that were heat-caused" Source: Arizona Department of Health Services.

⁴ *Weather Related Fatality and Injury Statistics, 80-Year List of Severe Weather Fatalities*, National Weather Service (2024) https://www.weather.gov/media/hazstat/80year_2024.pdf.

⁵ Jeffrey T. Howard et al., *Trends of Heat-Related Deaths in the US, 1999-2023*, JAMA (2024), <https://doi.org/10.1001/jama.2024.16386>.

⁶ Ariel Wittenberg, Chelsea Harvey & E&E News, *U.S. Deaths from Heat Are Dangerously Undercounted*, Scientific American (2024) <https://www.scientificamerican.com/article/u-s-deaths-from-heat-are-dangerously-undercounted/>.

⁷ Eugene Livar, *Recent recommendations released support Gov. Hobbs' response plan to address dangerous Arizona heat*, Arizona Department of Health Services (March 12, 2024) <https://directorsblog.health.azdhs.gov/recent-recommendations-released-support-gov-hobbs-response-plan-to-address-dangerous-arizona-heat/>.

Maricopa County shows what's driving the increase

Maricopa County, home to more than half of the state's population, offers the clearest picture of why heat deaths in Arizona have risen so sharply. The county recorded 645 heat-related deaths in 2023. While the national heat-related death rate has roughly doubled over the past two decades, Arizona's has risen roughly tenfold over the same period.⁸ Researchers at the University of Arizona's Applied Health Policy Institute estimate that warming temperatures account for only part of the increase, roughly 40 percent since 2001. The larger share comes from rising vulnerability in the population exposed to that heat.⁹

That finding is important. A state cannot lower the temperature, but it can reduce the vulnerability that turns heat into a serious health threat. Unsheltered homelessness, lack of functioning air conditioning, and social isolation are the strongest drivers of Maricopa County's rising number of heat related deaths.¹⁰ Each is a condition state and local programs can address directly, through shelter capacity, utility assistance, and community connection points. Indoor deaths in particular tell a specific story. In 2023, most indoor heat deaths in Maricopa County occurred in homes with an air conditioning unit, but in 85 percent of cases the unit was inoperable.¹¹

Heat Imposes Costs Beyond Loss of Life

Heat-related mortality is the most urgent problem associated with extreme heat, but not the only one. Extreme heat also strains household budgets, hospitals, the power grid, and the buildings people live in, and those strains compound each other as temperatures rise. The compounding is direct: rising energy costs lead some seniors and residents on fixed incomes to avoid running their air conditioners even during dangerous heat, trading a health risk for a smaller utility bill.¹²

The economic toll is substantial. Heat costs the American economy an estimated \$100 billion annually in lost labor productivity, a figure expected to double by 2030 and reach \$500 billion by 2050 without mitigation.¹³ Those losses fall hardest on outdoor workers in agriculture, construction, and utilities, and on workers in manufacturing and warehouse environments where cooling is inadequate.

⁸ Slade Smith, Kirin Goff, and Sonia Kaufman, *Arizona's Heat-Related Death White Paper: Full Report*, Mel & Enid Zuckerman College of Public Health, University of Arizona (August 8, 2024) <https://mapazdashboard.arizona.edu/article/arizonas-heat-related-death-white-paper-full-report>.

⁹ *Ibid.*

¹⁰ *Ibid.*

¹¹ *Ibid.*

¹² *Arizona Extreme Heat Preparedness Plan*, Governor's Office of Resiliency, 23 (March 2024), <https://heathealth.info/wp-content/uploads/extreme-heat-preparedness-plan-2024-03-1-compressed.pdf>.

¹³ *Extreme Heat: The Economic and Social Consequences for the United States*, Atlantic Council's Adrienne Arsht-Rockefeller Foundation Resilience Center (Aug. 2021) <https://onebillionresilient.org/extreme-heat-the-economic-and-social-consequences-for-the-united-states/>.

The effects of extreme heat are especially evident in the health system. Far more Arizonans have needed emergency care and hospitalization for heat-related illness since 2008, emergency department costs are six times higher today, and hospitalizations eight times higher. Total heat-related hospitalization charges climbed from \$11 million to \$87 million over the same period.¹⁴

The infrastructure toll is also significant. Arizona's largest utilities have set new peak electricity demand records for three consecutive years, driven directly by extreme heat.¹⁵ Millions of air conditioners now run nearly continuously through stretches of summer that can last months. A widespread outage during that kind of heat would be a serious public health event, not an inconvenience. One modeled blackout scenario during a Phoenix heat wave found that most homes would reach indoor temperatures high enough to put residents at risk of heat illness.¹⁶

Low-income urban neighborhoods and rural and Tribal communities face particular risk. Rural areas often have more outdoor workers, less access to health care, and fewer resources to reach a cooling center, and the interventions that work in cities don't always translate to rural or Tribal settings.¹⁷ For example, a rural farmer may not be able to step away from livestock to reach a cooling center, and an older adult in a remote community may not be able to travel far enough to find one at all.¹⁸

Factors related to the age, type, and use of a specific building can compound heat risk in ways that go beyond neighborhood and income alone. Older housing stock, including much of the state's manufactured and mobile home inventory, is typically less insulated and cools far less efficiently than newer, site-built housing. Assisted living centers and group homes depend on continuous cooling for elderly or disabled residents who often cannot easily relocate elsewhere.¹⁹

Older multifamily and affordable housing shares the same underlying problem. Arizona allocates Low Income Housing Tax Credits through a biennial Qualified Allocation Plan (QAP), and that plan has incentivized general energy efficiency for several cycles without specifically

¹⁴ *Arizona Extreme Heat Preparedness Plan*, Governor's Office of Resiliency at 9-10.

¹⁵ Nicole Garcia, *For the Third Year in a Row, Arizona Electric Utilities Set New Records for Peak Energy Demand*, Arizona Corporation Commission (July 11, 2025) <https://azcc.gov/news/home/2025/07/11/for-the-third-year-in-a-row--arizona-electric-utilities-set-new-records-for-peak-energy-demand>; *APS Customers Served With Reliable Power During Record-Breaking Heat*, Arizona Public Service (Oct. 7, 2024) https://www.aps.com/en/About/Our-Company/Newsroom/Articles/APS_Customers_Served_With_Reliable_Power_During_Record-Breaking_Heat.

¹⁶ Ladd Keith & Sara Meerow, *Planning for Urban Heat Resilience (PAS Report 600)*, American Planning Association, 62 (April 2022) https://planning-org-uploaded-media.s3.amazonaws.com/publication/download_pdf/PAS-Report-600-r1.pdf.

¹⁷ *Arizona Extreme Heat Preparedness Plan*, Governor's Office of Resiliency at 10-11.

¹⁸ *Ibid.*

¹⁹ *Ibid.*, 20-21.

addressing extreme heat design. The plan calls for building heat mitigation directly into future QAP cycles, rather than treating it as a retrofit problem.²⁰

Heat Erodes the Social Fabric of Communities

Extreme heat's costs go beyond deaths and dollars. When it is too dangerous to be outside for months at a time, people adjust their lives around it. They stay indoors more, spend less time with neighbors, and give up activities. That adjustment makes sense, but it comes with costs that don't show up in mortality data or economic reports.

Research documents this pattern clearly. An MIT study tracking park visits found significant reductions in outdoor activity during extreme heat events, with people shifting activity to early morning hours or abandoning it altogether.²¹ A separate ASU study found that higher-income households significantly reduced their outdoor activity on extreme heat days, while lower-income households without access to a car showed almost no change, not because heat affected them less, but because they could not afford to adapt the way others could.²² Older adults face a related risk. The same behavioral changes that protect older people from heat, staying indoors and going out less, also deepen their social isolation. That isolation is dangerous on its own terms. In Maricopa County, three of every four indoor heat deaths in 2023 were discovered only after a neighbor, family member, or emergency responder came to check on someone.²³

“Extreme Heat” Has No Single Definition

In general terms, “extreme heat” refers to a sustained period of unusually hot weather for a given place and time of year. The federal Centers for Disease Control and Prevention defines an extreme heat event as one or more days of unusually hot or humid weather, and Arizona's own Emergency Information Network defines extreme heat as a period of at least two to three days of high heat with temperatures above 90 degrees. By that definition, much of the state's calendar year already qualifies. The National Weather Service (NWS) Phoenix's own climate normals put the average high temperature at 90.1 degrees by April, months before the traditional peak of summer, meaning the threshold for “extreme” heat is already the ordinary condition before the hottest part of the year has even started.²⁴

²⁰ *Ibid.*

²¹ Yichun Fan et al., *Intraday adaptation to extreme temperatures in outdoor activity*, Scientific Reports (Jan. 10, 2023) <https://doi.org/10.1038/s41598-022-26928-y>; Peter Dizikes, *Study: Extreme heat is changing habits of daily life*, MIT News Office (Jan. 12, 2023) <https://news.mit.edu/2023/study-extreme-heat-less-outside-activity-0112>.

²² Irfan Batur et al., *Understanding how extreme heat impacts human activity-mobility and time use patterns*, Transportation Research Part D: Transport and Environment (Nov. 2024) <https://doi.org/10.1016/j.trd.2024.104431>.

²³ *2023 Heat Related Deaths Report*, Maricopa County Department of Public Health, 13 (last updated April 2024) <https://www.maricopa.gov/ArchiveCenter/ViewFile/Item/5820>.

²⁴ *April 2022 Climate Summary*, National Weather Service, Phoenix, AZ, 1 (Apr. 2022) <https://www.weather.gov/media/psr/Climate/April2022Climate.pdf>.

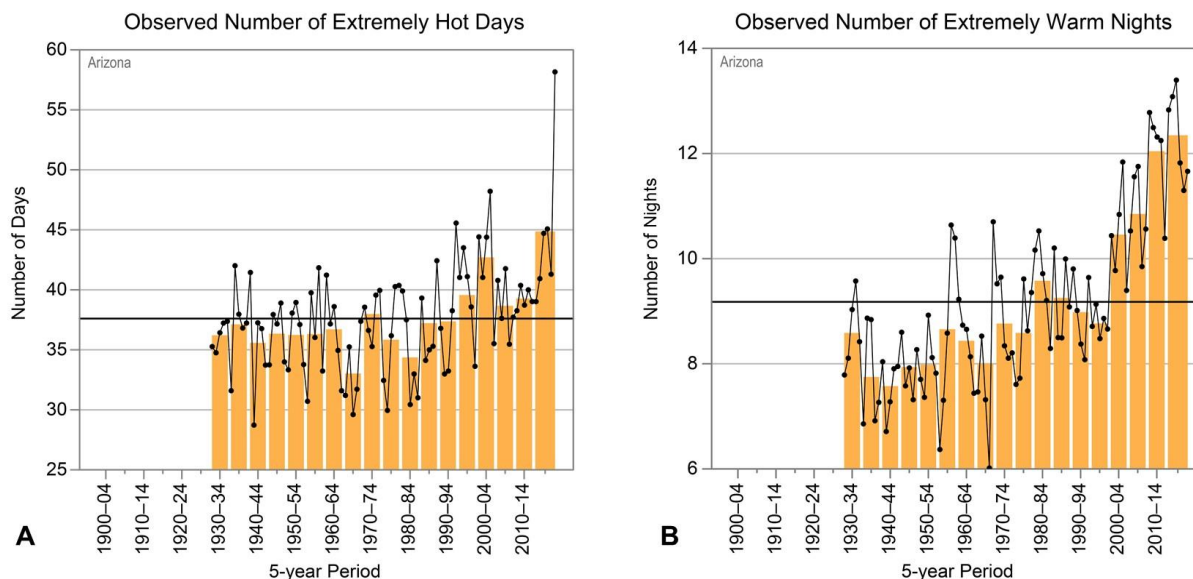


Figure 2: Extreme heat in Arizona. A. Observed number of extremely hot days (maximum temperature of 100°F or higher) for Arizona from 1930 to 2020. B. Observed number of extremely warm nights (minimum temperature of 80°F or higher) for Arizona from 1930 to 2020. Orange bars show the average number of days or nights for five year periods (the last bar is a 6-year average). Dots show annual total number of days or nights. Horizontal black line is average for the entire period: a) 38 days, and b) 9.2 nights. Adapted from the NOAA National Centers for Environmental Information 2022 State Climate Summary for Arizona. Sources: CISESS and NOAA NCEI. Data: GHCN-Daily from 18 long-term stations.

Beyond those working definitions, however, there is no single, nationally consistent threshold for dangerous heat. NWS uses a heat index that combines temperature and humidity into a "feels like" number, but each of the four NWS local forecast offices that covers a part of Arizona sets its own thresholds for advisories and warnings.²⁵ Arizona faced the same fragmentation heading into 2023. Across state agencies and jurisdictions, there was no single shared definition of an extreme heat event and no specific threshold for an extreme heat disaster in state statute. The plan assigned the Interagency Resiliency Forum to develop the plan.²⁶

The data Arizona relied on to make decisions was similarly fragmented. Responding to extreme heat requires accurate, consistent data to allocate and manage resources, but jurisdictions across the state did not track or share emergency department visits, death classifications, or cooling center usage in comparable ways. A state can't direct resources to where they're needed most if it can't see where the need actually is. Closing that gap became one of the plan's central priorities.²⁷

²⁵ Heat Index, NOAA (May 15, 2026) <https://www.noaa.gov/jetstream/synoptic/heat-index>; Understanding Heat Alerts, National Weather Service (last visited Aug. 12, 2026) <https://www.weather.gov/safety/heat-ww>.

²⁶ Arizona Extreme Heat Preparedness Plan, Governor's Office of Resiliency at 19, 25.

²⁷ Ariz. Exec. Order No. 2023-16, *Extreme Heat Planning and Preparedness* (Aug. 11, 2023) https://azgovernor.gov/sites/default/files/2023.08.11_executive_order_2023-16.pdf.

Federal Context

Federal support for dealing with extreme heat is scattered across programs built for other purposes. States managing heat risk draw on energy assistance, public health preparedness, and hazard mitigation programs, each designed with a different problem in mind.

The Low Income Home Energy Assistance Program (LIHEAP) is the closest thing the country has to a federal heat response. It was not designed as one. Congress created LIHEAP in 1981, with a primary focus on helping low-income households in cold-weather states pay heating bills. Congress updated the formula in 1984 to better serve warm-weather states²⁸, but Congress has written language into every annual appropriations act since 2009 blocking full use of that formula, regardless of funding levels.²⁹

The Weatherization Assistance Program is LIHEAP's structural complement. Where LIHEAP covers utility bills, WAP funds home improvements that reduce energy demand, including insulation and cooling system upgrades that make homes more survivable in extreme heat. WAP is scaling up. The Department of Energy approved a plan to expand Arizona's WAP funding under the Bipartisan Infrastructure Law.³⁰ But the starting point is small. Arizona's WAP served only 537 households in FY 2024.³¹ A federal audit also found DOE needs better oversight to get this new funding fully deployed.³²

The Federal Emergency Management Agency's (FEMA) role in extreme heat response is limited by design. No extreme heat event has ever triggered a presidentially declared major disaster, the mechanism that unlocks federal assistance for infrastructure damage, emergency response, and mitigation support, largely because heat causes little physical infrastructure damage, a key criterion under current statutory frameworks. FEMA's main pre-disaster mitigation program reflects the same gap. Less than one percent of its 1,235 BRIC grant projects funded between fiscal years 2020 and 2023 addressed extreme heat. A September 2025 Government Accountability Office (GAO) report recommended FEMA formally evaluate its role in helping states manage it.³³

²⁸ Libby Perl, *The LIHEAP Formula*, RL33275, Congressional Research Service (May 2, 2019) <https://www.congress.gov/crs-product/RL33275>

²⁹ *Arizona Extreme Heat Preparedness Plan*, Governor's Office of Resiliency at 22.

³⁰ *U.S. Dept. of Energy approves funds for Arizona's updated Weatherization Assistance Plan*, Arizona Technology Council (2023) <https://www.aztechcouncil.org/us-dept-energy-approves-funds-for-az-updated-weatherization-assistance-plan/>.

³¹ *Arizona Low-Income Energy Programs*, LIHEAP Clearinghouse (Apr. 20, 2026) <https://liheapch.acf.gov/profiles/Arizona.htm>.

³² *Improved Oversight and Enforcement Would Help the Department of Energy Implement the Weatherization Assistance Program Under the Infrastructure Investment and Jobs Act*, Audit Report DOE-OIG-25-01, U.S. DOE, OIG (Oct. 2024) <https://www.energy.gov/sites/default/files/2024-10/DOE-OIG-25-01.pdf>.

³³ *Extreme Heat: Limited FEMA Assistance Highlights Need for Reevaluation of Agency's Role*, GAO-25-107474, U.S. GAO (Sept. 30, 2025) <https://www.gao.gov/products/gao-25-107474>.

There is no federal workplace heat standard. The federal Occupational Health and Safety Administration (OSHA) proposed one in 2024 but the rule remains unfinalized, leaving outdoor workers in Arizona's agriculture, construction, and landscaping industries with no specific federal employer requirements for cooling, shade, or rest breaks.³⁴

National Weather Service heat advisories, watches, and warnings trigger heat response across the country. States and localities use them to open cooling centers, escalate emergency operations, and reach vulnerable populations. The alerts themselves are issued reliably. The thresholds that trigger them vary by local forecast office rather than following one national standard, but that's not the real gap. What's missing is what happens after the alert goes out. The funding programs and disaster frameworks that would turn a warning into resources on the ground aren't there.

Taken together, the federal funding and disaster-response programs offer states managing extreme heat a fragmented and insufficient foundation. The programs that exist were designed for cold-weather energy costs, not summer cooling. The emergency management framework that mobilizes federal resources after disasters was built around infrastructure damage and property loss, not the kind of public health crisis that extreme heat produces. Arizona built its heat response within these constraints, drawing on temporary federal dollars where available and state leadership where necessary.

Opportunity for State Leadership

Extreme heat is a major public health hazard that can cause sickness or death. It doesn't produce the kind of widespread property damage that qualifies for federal disaster aid. The systems capable of preventing that harm are state and local systems. Energy assistance programs, utility consumer protection offices, housing agencies, public health departments, cooling center networks, and workplace safety programs, are all state institutions. The federal government provides varying levels of funding to some of them, but the states operate them.

State leadership fills the gap that federal disaster and energy programs leave on extreme heat. What determines outcomes is whether a state has built the architecture to identify the people most at risk, match the proven interventions with the populations that need help, then deploy those interventions consistently, at scale, and across the agencies with separate mandates.

Researchers who study heat planning call this coordinated, cross-agency approach "heat governance." It refers to the dedicated institutions, plans, and coordination that turn scattered interventions into a system. Unlike flooding or wildfire, heat has historically lacked a single organization responsible for coordinating the response, what researchers call the absence of a "problem owner."³⁵ In most states, responsibility for heat is spread across agencies that rarely

³⁴ *Heat Injury and Illness Prevention in Outdoor and Indoor Work Settings Rulemaking*, U.S. DOL, OSHA (last visited Aug. 12, 2026) <https://www.osha.gov/heat-exposure/rulemaking>.

³⁵ Ladd Keith et al., *Deploy heat officers, policies and metrics*, *Nature* (Oct. 5, 2021) <https://doi.org/10.1038/d41586-021-02677-2>.

work together. That fragmentation leaves heat unaddressed by default. Only four states have adopted a plan of comparable scope to Arizona's, coordinating multiple agencies around a shared, forward-looking strategy rather than responding ad hoc to each recurring heat wave.³⁶

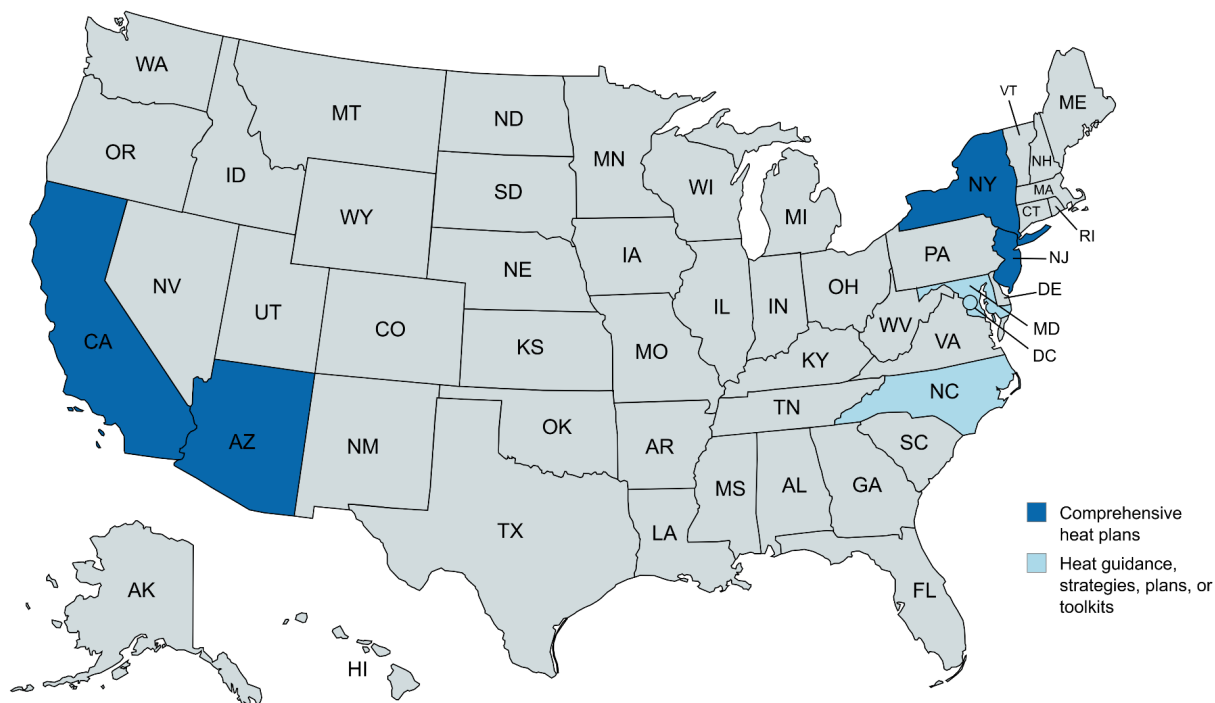


Figure 3: Dark blue states (AZ, CA, NJ, and NY) have comprehensive, forward-looking heat strategies that coordinate across multiple state agencies. Light blue states (DC, DE, MD, and NC) have components of a heat plan.

Arizona is the only one of the four that paired its plan with a permanent coordinating structure built specifically for heat: a named Chief Heat Officer and a standing interagency forum, both created by the same executive order that produced the plan itself. The other three rely on existing agencies, a general climate resilience office, or a work group assembled to produce the document, without a single dedicated, ongoing point of accountability once the plan is published.

What makes this notable isn't the Chief Heat Officer position or the interagency forum themselves. Other states will build their own versions differently. What matters is the mechanism. Executive Order 2023-16 directed the plan's development and created the

³⁶ Based on GCC review of published state heat plans as of July 2026. California, *Protecting Californians From Extreme Heat: A State Action Plan to Build Community Resilience* (April 2022); Arizona, *Extreme Heat Preparedness Plan* (March 2024); New Jersey, *Extreme Heat Resilience Action Plan* (April 2024); New York, *Extreme Heat Action Plan: Adaptation Agenda for 2024 to 2030* (June 2024). Other jurisdictions have published heat-related guidance in different forms, including public-facing strategies, single-agency emergency response plans, and toolkits for local governments to develop their own plans.

interagency forum. All aspects of the Arizona Heat Plan are established using existing Gubernatorial authority. When Arizona released the plan in March 2024, the governor's office also announced the nation's first Chief Heat Officer to carry it forward.

The second element is where that authority went. Many states hand heat to one agency, public health, emergency management, or energy, and that agency handles its piece while the rest goes unaddressed. Arizona avoided this by giving one office two things: the power to convene the other agencies, and the standing to keep them coordinated once the plan was written.

The plan Arizona produced in March 2024 treats extreme heat as a governance problem rather than a communications problem. By creating a Chief Heat Officer, establishing a standing interagency forum to coordinate the state agencies whose work touches heat, and directing those agencies toward the populations facing the highest risk, it sends a strong, tangible signal that the state is assuming leadership in responding to the challenge. That is a different kind of document than a public safety notice, and it is built to operate from one heat season to the next rather than respond to a single emergency.

Program Design and Implementation

Arizona's plan grew out of decisions made during an active emergency, then expanded once the immediate crisis had passed.

Developing the Plan

On August 11, 2023, at the peak of the deadliest summer in Arizona history, Governor Katie Hobbs declared a state of emergency and issued Executive Order 2023-16, Extreme Heat Planning and Preparedness.³⁷ The order mobilized emergency resources for the disaster already underway. It also directed the heads of seven state agencies, spanning emergency management, economic security, health, administration, industrial relations, housing, and utility consumer protection, to develop an interagency extreme heat preparedness plan, and it established a standing Interagency Resiliency Forum.³⁸ The Office of Resiliency, established by the Governor in 2023, was tasked with leading that work.³⁹

The order's findings noted Arizona had recorded 671 heat-related deaths in 2022, that functioning air conditioning "can become a matter of life and death," and that LIHEAP was designed for cold-weather states, leaving Arizona with the second lowest allocation of LIHEAP

³⁷ Ariz. Exec. Order No. 2023-16.

³⁸ *Arizona Extreme Heat Preparedness Plan*, Governor's Office of Resiliency at 6, 19.

³⁹ *About the Office*, Arizona Governor's Office of Resiliency (last visited Aug. 11, 2026) <https://resilient.az.gov/about-office/about-office>; Katherine Davis-Young, *As federal climate funding rolls out, Arizona is still setting up its new energy office*, KJZZ Phoenix (October 19, 2023), <https://www.kjzz.org/2023-10-19/content-1860618-federal-climate-funding-rolls-out-arizona-still-setting-it-s-new-energy-office>.

dollars per capita in the country.⁴⁰ The EO framed heat as a failure of systems, energy assistance, grid coordination, cooling access, and data, rather than a failure of weather forecasting.

It is important to recognize that Arizona was not starting from scratch in 2023. The state government and other relevant institutions benefited from many years of experience with heat response. In the plan, the authors describe it as building on a foundation laid by local governments, universities, and organizations. Much of that foundation was local rather than state-led. The Maricopa Association of Governments, a regional coalition of local governments, launched the Heat Relief Network in 2005, and Maricopa County began systematic heat mortality surveillance in 2006.⁴¹ A separate, informal coalition, the AZ Heat Resilience Workgroup, took shape starting in 2020, convened by Arizona State University researchers rather than by any government office, and grew to include cities, counties, state agencies, and nonprofits; its Cooling Center Subgroup became the default venue for coordinating cooling centers across the state.⁴²

In accordance with the Executive Order, seven agencies drafted the plan: the Department of Emergency and Military Affairs (DEMA), the Department of Economic Security (DES), the Department of Health Services (ADHS), the Department of Administration, the Industrial Commission, the Department of Housing, and the Residential Utility Consumer Office (RUCO).⁴³ The Governor's Office of Resiliency engaged Arizona State University's Knowledge Exchange for Resilience, the Human Services Campus, the Arizona Faith Network, cities, towns, utilities, and the public.⁴⁴ ADHS convened its first Heat Summit in October 2023, drawing nearly 150 stakeholders whose recommendations shaped the plan's agenda.⁴⁵

The plan was released in March 2024 and Governor Hobbs announced the appointment of the nation's first state Chief Heat Officer.⁴⁶ Heat response in most jurisdictions is fragmented across public health, emergency management, housing, and utility regulation with no single point of accountability. Arizona's model assigns that accountability to one position, extending heat preparedness to smaller cities and rural areas that would otherwise lack the resources to address extreme heat on their own.⁴⁷

⁴⁰ *Heat-Caused & Heat-Related Deaths from Exposure to Excessive Natural Heat in Arizona (2012 to 2023)*, Arizona Department of Health Services, Summary Report of Heat-Related Deaths in 2023 (last visited Aug. 11, 2026).

⁴¹ *Arizona Extreme Heat Preparedness Plan*, Governor's Office of Resiliency at 51.

⁴² *AZ Heat Resilience Workgroup*, Arizona State University, Sustainable Cities Network (last visited Aug. 12, 2026) <https://globalfutures.asu.edu/sustainable-cities/az-heat-resilience-workgroup/>.

⁴³ *Arizona Extreme Heat Preparedness Plan*, Governor's Office of Resiliency at 6-7.

⁴⁴ *Ibid.*

⁴⁵ *Ibid.*, 7, 49.

⁴⁶ *Ibid.*, 4.

⁴⁷ Ysabelle Kempe, *Arizona names US' first state chief heat officer, unveils summer 2024 plans*, Smart Cities Dive (March 7, 2024) <https://www.smartcitiesdive.com/news/arizona-first-state-chief-heat-officer-cooling-centers-summer-2024/709618/>.

Preparing for the 2024 Heat Season

The FY 2025 budget, enacted by the Legislature in June 2024, gave DEMA new resources to respond to heat events without waiting for a federal disaster declaration, including matching funds for federal hazard mitigation grants. A separate hazard mitigation revolving loan fund, seeded with \$200,000 in state matching money to unlock federal mitigation funds, was also funded, though at a smaller scale than the \$10 million originally proposed in the Governor's executive budget.⁴⁸

The most immediate operational work was keeping people cool where they were, though not all of it was new. The Department of Economic Security continued distributing LIHEAP energy assistance, up to \$1,200 for energy costs in FY 2024, with an additional \$1,000 for households in crisis.⁴⁹ The Department of Housing, acting on its own,⁵⁰ initiated an emergency shelter grant program in January 2024, with awards going to organizations in Tucson, Flagstaff, Phoenix, and the Verde Valley.⁵¹ ADHS hired a statewide cooling center coordinator, a position the plan created.⁵² The Department of Administration at least six new solar-powered mobile cooling centers, built from shipping containers and repositionable as heat patterns shift. None of this activity shows up yet in the mortality data. Heat-related deaths in 2024 were essentially flat with 2023,⁵³ and this transitional-year work should be read as what the state put in place, not as a demonstrated cause of any outcome.

The state's electric grid also needed attention, because a blackout in July is a mass casualty risk in Arizona. The Office of Resiliency and RUCO convened the state's electric and gas utilities to discuss summer reliability, transmission inspections by helicopter and drone, increased energy reserves, heat-hardened equipment, and customer protections including transportation to cooling centers during outages. Utilities also identified heat protections for their own employees, from water, ice, and earlier work schedules to cooling vests.⁵⁴ The Office of Resiliency prepared a \$13 million grant solicitation for grid improvements in rural areas.⁵⁵

⁴⁸ *Arizona Extreme Heat Preparedness Plan*, Governor's Office of Resiliency at 14; *FY 2025 Appropriations Report*, Ariz. Department of Emergency and Military Affairs, 186-187 (last visited Aug. 12, 2026) <https://www.azilbc.gov/25AR/ema.pdf>.

⁴⁹ *Arizona Extreme Heat Preparedness Plan*, Governor's Office of Resiliency at 14.

⁵⁰ Ariz. Exec. Order No. 2023-16 at 2.

⁵¹ *Arizona Extreme Heat Preparedness Plan*, Governor's Office of Resiliency at 15.

⁵² *Ibid.*, 31.

⁵³ *Heat-Caused & Heat Related Deaths from Exposure to Excessive Natural Heat in Arizona (2013-2024)*, Ariz. Department of Health Services (last visited Aug. 12, 2026) <https://www.azdhs.gov/documents/preparedness/epidemiology-disease-control/extreme-weather/pubs/heat-related-mortality-year-2013-2024.pdf>.

⁵⁴ *Arizona Extreme Heat Preparedness Plan*, Governor's Office of Resiliency at 16.

⁵⁵ *Ibid.*



Figure 4: “Pima County’s newest COOLTainer is located at Augie Acuña Los Niños Park.” Source: [AZPM](#)

Public health work ran through the Interagency Resiliency Forum. A steering committee of ADHS, DEMA, the Department of Housing, and the Residential Utility Consumer Office began developing shared standards for extreme heat alerts and emergency response, reporting recommendations back to the Forum. DEMA separately partnered with Arizona State University’s School of Public Administration to analyze thresholds for heat-driven disruptions to infrastructure like power and water. ADHS led development of centralized dashboards for illness and death data.⁵⁶

In July 2023, the Arizona Industrial Commission launched a Heat Stress Emphasis Program, one of the first state workplace heat enforcement efforts in the country. It completed 73 inspections by January 2024 and planned roughly a dozen per month going forward.⁵⁷ The Department of Corrections committed to converting all its inmate housing units from evaporative cooling to modern HVAC by 2026.⁵⁸

DEMA updated its emergency response and recovery framework too. It revised the State Emergency Response and Recovery Plan in December 2023 to absorb the lessons of the 2023 emergency. It also tied its readiness posture directly to National Weather Service heat alerts, escalating partner engagement and emergency operations center activation in step with forecast risk.⁵⁹

⁵⁶ *Ibid.*, 17.

⁵⁷ *Ibid.*

⁵⁸ *Ibid.*

⁵⁹ *Ibid.*, 17-18.

Long-Term Recommendations

Looking ahead, the plan sets out 16 recommendations in four categories. They are where the plan stops being an emergency response and becomes a long-term heat governance blueprint.

Safe and Affordable Housing

Much of Arizona's heat risk arises in housing units without reliable cooling systems and the basic weatherproofing that keeps a home livable through the summer. The plan calls for growing Arizona's weatherization and energy efficiency workforce to meet demand for building upgrades, heat pump installation, and HVAC repair.⁶⁰ It also directs the Department of Housing to take over local permitting for porch and driveway awnings added to manufactured homes after installation, to streamline and ensure shade structures that help keep homes cool.⁶¹

Two recommendations in this category are notable. The plan directs the Governor and DES to advocate for an equitable LIHEAP allocation. Arizona currently receives just 0.416 percent of total LIHEAP funds, ranking 44th among states. Although that share would rise to 30th under the 1984 formula update, Congress has written language into every annual appropriations act since 2009 blocking full use of that formula, regardless of how much total LIHEAP funding is approved. At current funding levels, the state can serve roughly five percent of eligible households. Governor Hobbs sent a letter to Arizona's congressional delegation seeking action on the day of the plan's release.⁶²

The plan also directs RUCO to work with the state's utilities to develop a Power and Water Service Plan that identifies the causes of service disruptions during heat emergencies, creates protocols to bridge them, and promotes bill assistance to break the debt cycles that lead households to shut off their own cooling. Existing regulation bars disconnections for customers of the major regulated utilities from June 1 through October 15.⁶³

Adapting and Updating Emergency Response

Seventy-five percent of indoor heat deaths in Maricopa County in 2023 were discovered during welfare checks by police and social service agencies looking in on elderly and disabled residents living alone.⁶⁴ These deaths reflect isolation as much as heat exposure.

The plan's emergency response recommendations aim to build the institutional connections that effective crisis response requires. One recommendation calls for a shared, Arizona-specific definition of an extreme heat event, with clear threshold criteria, developed

⁶⁰ *Ibid.*, 21.

⁶¹ *Ibid.*

⁶² *Ibid.*, 22.

⁶³ *Ibid.*, 23.

⁶⁴ 2023 Heat Related Deaths Report, Maricopa County Department of Public Health, 13 (Apr. 2024) <https://www.maricopa.gov/ArchiveCenter/ViewFile/Item/5820>.

through the Interagency Resiliency Forum.⁶⁵ Without a shared definition, agencies activate inconsistently and cannot evaluate their own performance.

Another recommendation calls for neighborhood Resilience Hubs.⁶⁶ These are trusted gathering spaces with backup power, refrigeration, water, and food service. They function as cooling centers during heat season and as aid distribution points during any disaster.

Cooling Center Network Improvements

The Maricopa Association of Governments launched the Heat Relief Network in 2005, and cooling centers have multiplied since. But the network varies widely in size, capacity, and hours. Many centers open only during the peak heat window of two to five in the afternoon, and in 2023 only one center in Maricopa County offered around-the-clock respite.⁶⁷ Operations are inconsistent statewide. Maricopa's centers run continuously from May through September, while other counties activate only on National Weather Service warnings. The network has relied on monetary and in-kind donations and temporary ARPA dollars, what the plan itself calls a critical lack of stable funding.⁶⁸

In response to the plan's recommendations, ADHS designated a full-time cooling center coordinator in early 2024. The plan requires the coordinator to develop standards for facility capacity, minimum operating hours, pet policies, staff training, and accessibility, standards that would also improve the data available for future site selection. The plan commits the state to pursue available federal funds and state-level mechanisms modeled on LIHEAP. A coordinated strategic plan is also in development to address the network's most acute gap, nighttime relief.⁶⁹

The plan recognizes that the model does not translate everywhere, and that cooling centers may not be feasible in rural Arizona. It calls for the development of rural-specific solutions instead. The six mobile solar-powered units of the Arizona Department of Administration are the first example of that flexibility, providing cooling capacity that can be deployed quickly to where it is most needed, anywhere in the state.⁷⁰

Data Sets, Knowledge, and Workforce Development

This final category builds the information base the rest of the plan depends on. The plan directs a study to quantify the full cost of extreme heat to Arizona's economy, designed so the state can document losses if heat ever becomes eligible for federal disaster declarations. The study has two parts, one on loss of life and one on loss of property, and draws on a multidisciplinary team spanning agriculture, transportation, engineering, and actuarial science. No completion

⁶⁵ *Arizona Extreme Heat Preparedness Plan*, Governor's Office of Resiliency, at 25.

⁶⁶ *Ibid.*, 28.

⁶⁷ *Ibid.*, 31.

⁶⁸ *Ibid.*, 31-32.

⁶⁹ *Ibid.*

⁷⁰ *Ibid.*, 15.

date is specified in the plan. The study also draws on existing insurance and workers' compensation data already collected by the state's Department of Insurance and Financial Institutions.⁷¹

The plan directs the state climatologist to map excessive heat in smaller cities and towns, where urban heat island effects are least understood,⁷² and calls for standardized public education materials translated into the languages of the populations most at risk, including tailored toolkits for workplaces, schools, and group care facilities like nursing homes or hospitals.⁷³ It also calls for standardizing data systems across jurisdictions, including shared data-sharing agreements and centralized dashboards, so resources flow where surveillance shows they are needed.⁷⁴

Program Impact and Outcomes

Since the Extreme Heat Preparedness Plan launched in March 2024, Arizona has completed one partial season and one full season under the infrastructure the plan created. Initially, statewide heat-related deaths remained high, totalling 997 in 2024. However, as the various programs and initiatives called for in the plan began to be deployed at scale, deaths fell to 667 in 2025, a decline of roughly one-third, according to the Arizona Department of Health Services.⁷⁵ The 2024 total reflects a year in which the plan's core structures, the Chief Heat Officer position, the heat tier communication system, and the expanded cooling center network, were still being put into place even as the high-heat season was underway. The 2025 season represented the first summer when those structures were operational from the start of the season, making it the more informative comparison point. The state has not published an analysis isolating the plan's effect from other factors, including year-to-year weather variation, so the decline is best treated as a preliminary result.

The state has also expanded the infrastructure the plan called for. The 2024 plan directed the state to build at least six solar-powered mobile cooling units out of surplus shipping containers. By the end of 2025, the state had refurbished 18, with 14 deployed to local partners across the state.⁷⁶ Emergency department reporting on heat illness now reaches 91 of Arizona's 98 emergency departments, addressing a data gap the plan identified as a barrier to coordinated response.⁷⁷ Participation is voluntary. Hospitals are onboarded individually based on technical readiness. More than 46,600 Arizonans are subscribed to ADHS heat alerts, and the department issued 22 such alerts in 2025. These figures describe capacity rather than

⁷¹ *Ibid.*, 33.

⁷² *Ibid.*, 36.

⁷³ *Ibid.*, 37.

⁷⁴ *Ibid.*, 38-39.

⁷⁵ *ADOA Cooling Centers Hosted 59% More Visits in Summer 2025*, Ariz. Department of Administration (Nov. 10, 2025) <https://doa.az.gov/news/adoa-cooling-centers-hosted-59-more-visits-summer-2025>.

⁷⁶ *Ibid.*

⁷⁷ *ICYMI: Governor Katie Hobbs Reports Decline in Heat-Related Deaths, Highlights Preparedness Efforts for 2026*, Office of the Governor Katie Hobbs (May 5, 2026).

outcomes, but they show the data and communication systems the plan recommended are operating at scale.⁷⁸

In December 2025, the Workplace Heat Safety Task Force delivered its final recommendations, the Heat Guidelines for Employers, to the Industrial Commission of Arizona, with the ADOSH Advisory Committee set to review them in February 2026 before the Commission's final consideration later in the spring. Separately, DEMA coordinated a multi-entity extreme heat exercise with 30 partner organizations ahead of the 2026 season. Both efforts extend work the plan initiated in 2024 into ongoing agency function.⁷⁹

This is still a short record. Two seasons of implementation, one of them partial, is not enough to call the decline in deaths a settled trend, and the state itself frames the 2025 figures as preliminary. Emergency department visits and workplace heat injuries are both reported to be moving in the same direction, though without published figures to size the change. What the record does show is a substantial drop in deaths in the first full season the plan's infrastructure was in place, alongside the continued build-out of the systems the plan called for. Whether that pattern holds will depend on the seasons still to come.

Building State Capacity

The Extreme Heat Preparedness Plan's most consequential effect has been structural. Rather than adding heat response to existing agency workloads, the plan focuses on building a coordinating layer: a single office and a single named official responsible for making the pieces function as a system. Two years on, that choice has shown itself to be a step forward. The plan's individual programs, cooling centers and data collection among them, have not stayed siloed inside the agencies that run them.

Centralized Coordination Authority

A Chief Heat Officer only matters if the role has something to coordinate and the standing to do it. Arizona built this structure without new legislation. The Chief Heat Officer title was added to an existing ADHS Assistant Director's role, and a new statewide cooling center coordinator was hired alongside it, both funded within ADHS's existing budget rather than through a new appropriation.⁸⁰ The Interagency Resiliency Forum, created by the same executive order, has a direct line to health, emergency management, utility policy, and housing, agencies that each touch heat but none of which can solve it alone.⁸¹ That positioning helps the cooling center network and the data infrastructure function as parts of one response, rather than separate agency initiatives that happen to share a subject.

⁷⁸ *Ibid.*

⁷⁹ *Ibid.*

⁸⁰ *Heat Preparedness*, Ariz. Department of Health Services (last visited Aug. 12, 2026) <https://www.azdhs.gov/preparedness/epidemiology-disease-control/extreme-weather/heat-safety/heat-preparedness/index.php>.

⁸¹ Ariz. Exec. Order No. 2023-16 at 2.

The Office of Resiliency was created to bring energy, water, land use, and transportation resilience under one coordinating umbrella. The extreme heat work became one of the office's central initiatives rather than a standalone program built from scratch, giving it a home inside an existing resiliency mandate and access to relationships the office had already built across those sectors. That head start is part of why the plan moved as quickly as it did, from executive order to a completed interagency plan in under seven months.⁸²

Cooling Center Network Management

Arizona's cooling centers existed before the plan. What didn't exist was a single entity accountable for whether the network as a whole was adequate, evenly distributed, or improving. Assigning that responsibility to one coordinator changed the unit of analysis from "does this county have cooling centers" to "does the state have a cooling center system," which is the precondition for identifying gaps and directing funding to close them rather than reacting county by county.⁸³

Data Infrastructure for Risk Targeting

Coordination and infrastructure are only as good as the state's ability to see where they're needed. The plan treated fragmented heat illness data as a structural failure, not a technical inconvenience, because a state that cannot see which populations are dying and where cannot target resources to them.⁸⁴ Closing that visibility gap is what makes the next kind of work, directing help to the people actually at risk, possible instead of aspirational.

Lessons for Other States

Adopt a formal statewide heat plan, and build it with knowledge of what peer states are already doing. Few states have taken this step so far. States considering their own plan do not need to start from an empty page. The core structures in Arizona's plan, a named coordinating officer, a cross-agency forum, and a standing cooling center network, are not unique to Arizona's climate and are reasonably transferable to any state with a serious summer heat season.

Establish a Chief Heat Officer with authority to coordinate across agencies. This is heat governance in its most direct form, the coordinating layer that most states' heat response lacks. A single position, working through a standing interagency body, can bring cooling infrastructure, emergency response, and home energy assistance together as one functioning

⁸² *About the Office*, Arizona Governor's Office of Resiliency (last visited Aug. 11, 2026); Katherine Davis-Young, *As federal climate funding rolls out, Arizona is still setting up its new energy office*, KJZZ Phoenix (October 19, 2023).

⁸³ *Arizona Extreme Heat Preparedness Plan*, Governor's Office of Resiliency at 31-32.

⁸⁴ *Ibid.*, 38-39.

system. Arizona also connected the position to the Interagency Resiliency Forum the same executive order created, giving it a lasting structural mechanism for coordination.

Coordinate the tools that protect people during an active heat emergency. No single tool keeps people safe once heat becomes dangerous. States typically need several working together. Cooling centers give people somewhere cool to go. Protection from losing power over an unpaid bill keeps cooling available at home. Real-time alerts reach the people most at risk before conditions escalate. Routine check-ins catch someone in trouble before it becomes an emergency. Each does something different. What matters is coordinating them as a system, run through the same office responsible for heat governance broadly.

Help people cool their own homes. States should target energy assistance toward the households that mortality data shows are most at risk. Weatherization programs can reduce the energy burden of cooling before a bill ever comes due. Utility regulators can study why service disruptions happen and build assistance that prevents them. States can also give housing agencies oversight of physical additions like shade structures, so a single set of standards governs installation across the state.

Conclusion

Arizona's Extreme Heat Preparedness Plan replaced an ad hoc, agency-by-agency response to heat with a coordinated one. A single office now sits above the cooling center network, the emergency room data, and the state's home energy programs, responsible for making sure those pieces function together. Deaths fell sharply in the plan's first full season of implementation. The record is still short enough that the state itself calls the result preliminary, but the scale of the drop suggests that something significant has changed in the state.

Arizona's experience offers other states a starting architecture they can study. A named coordinator connected to a standing interagency forum is one piece. A cooling center network run as a single system, with shared standards and shared data across every site, is another. Home energy assistance directed at the specific population the state's own data shows is most at risk is a third.

While Arizona has made real strides in addressing the drivers of heat vulnerability, there are some aspects over which the state government has limited influence. The federal LIHEAP funding formula still leaves Arizona under-resourced on the single program most tied to keeping homes cool. Arizona's response, layering state programs on top of a federal fix that hasn't come, is something other states facing the same formula problem will need to weigh.

Extreme heat is a rising public health and safety issue, and it is already costing lives in every part of the country that experiences a real summer. What Arizona has shown is that the coordination itself, the office, the network, the data, can be built quickly and can outlast the crisis that prompted it. Very few states have taken that step so far. That will not last. As more states face the same threat, Arizona offers a working example of what that first step can look like.

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