Nationwide Consequences, Rural Devastation: The Unequal Toll of Public Health Spending Reductions

Jonathon P. Leider
University of Minnesota

J. Mac McCullough
Boise State University

Jason Orr
University of Minnesota

Beth Resnick
Johns Hopkins University

Abstract

This article examines the implications of recent and proposed reductions in federal public health funding, with a focus on how these cuts disproportionately impact rural and low-resource communities. Drawing insight from national datasets, the authors document the increasing reliance of state and local public health systems on federal funds, particularly in the aftermath of COVID-19. Scenario modeling reveals that a rollback to pre-COVID federal funding levels would likely leave many local jurisdictions unable to sustain core public health services, especially where local fiscal capacity is limited. The authors argue that, while some communities may be able to partially offset federal losses with local revenues, most lack the means to do so at scale—particularly rural areas already strained by limited infrastructure. This paper offers empirical estimates of federal support, evaluates the plausibility of local revenue substitution, and analyzes the consequences of federal disinvestment on the Foundational Public Health Services. These findings underscore a key tension in federalism in which calls for local autonomy amid shrinking federal support risk exacerbating health inequities and eroding core protections, both of which lead to critical questions about the federal government's role and responsibility in ensuring a resilient and equitable public health system.

Keywords Public health workforce, public health spending, public health systems, politics and public health

Public health funding in the United States has long followed a cyclical pattern of "panic–neglect–panic," in which emergency resources surge during crises but quickly recede as attention fades—but never enough to sustain long-term preparedness (Mui et al. 2025; Richter and Zuercher 2021; Interlandi 2020). This cycle—identified across multiple epidemics such as Ebola

Forthcoming in an issue of *Journal of Health Politics, Policy and Law*. *Journal of Health Politics, Policy and Law* is published by Duke University Press. DOI: 10.1215/03616878-12262656.

and SARS-CoV-2 (COVID-19)—is an ongoing strategic failure whose consequences continue to diminish system capacity (Yamey et al. 2020; Leider et al. 2023c; Leider et al. 2023a). The COVID-19 pandemic exposed critical gaps in U.S. public health infrastructure (Leider et al. 2023a; Kirkland et al. 2022). Prior to the pandemic, many local and state agencies were underfunded and understaffed. Shortly after the onset of the pandemic, federal emergency funding temporarily bolstered capacity. In response to this increased federal funding, many health departments and federal agencies moved forward with strategic infrastructure and workforce initiatives, yet—shortly into the pandemic recovery—federal appropriations were significantly reduced.(McKillop and Lieberman 2025; Winnike 2025; Singh and Aboulenein 2025; Rodriguez 2024). The familiar "neglect of public health" cycle that emerges as the public health urgency fades and short-term emergency funding ends, was intensified during the COVID-19 pandemic by both the politicization of public health and the 2024 election campaign. President Trump and many congressional candidates campaigned on an agenda of federal austerity rooted in decentralization and local autonomy, asserting that states and localities should "pick up more of the tab" with reduced reliance on federal support. With President Trump and many of these candidates elected, this agenda resulted in federal cuts to specific programs, including reductions in state COVID-19 grants and HIV treatment and prevention efforts, as well as broader cuts to states and localities enacted through the July 2025 *One Big Beautiful Bill Act,* through recission attempts and cancellation of existing funds, and proposed substantial decreases to the Centers for Disease Control and Prevention (and HHS) in presidential budget priorities (Tharpe 2025). But this agenda overlooks the many fiscal limitations faced by state and local governments, especially amid federal funding cuts. Though, paradoxically, those regions most detrimentally affected by federal cutbacks often are the same that voted for more local control

Forthcoming in *Journal of Health Politics, Policy and Law*. DOI: 10.1215/03616878-12262656.

and reduced federal spending. In the 2024 election, these jurisdictions voted overwhelmingly for President Trump and for congressional candidates aligned with the Trump administration agenda. With the transition to the second Trump administration in January 2025, state and local governments across the US are faced with negotiating between competing pressures: insufficient federal funding and constrained capacity at home. Will localities be able to raise revenue through property taxes or other means to offset federal cuts, or to meet federal match requirements (Vondracek et al. 2025)? Although some local systems may be able to smooth short-term shocks with additional local revenue, public health infrastructure—the cross-cutting functions that are critical to ensuring health departments can function efficiently, equitably, and responsively including disease surveillance, emergency preparedness, health education and much more—cannot be reliably built and maintained across the United States without sustained federal investment (McKillop and Lieberman 2025; Leider et al. 2023b).

This article assesses the potential impacts and communities' wherewithal to maintain adequate levels of core public health services, such as maternal and child health, policy development and support, public health communications, emergency preparedness, and chronic disease prevention under the second Trump administration's planned federal spending cuts. First, we examine federal outlays for these services in local communities over the past several decades. Using data from the National Association of County and City Health Officials (NACCHO), Association of State and Territorial Health Officials (ASTHO), the Census of Governments, Centers for Medicare and Medicaid Services (CMS), and Office of Management and Budget (OMB), we document the federal share of public health funding over the past several decades. We then examine the fiscal consequences of a hypothetical rollback in federal funding, specifically, a retraction to 2019 funding levels, demonstrating that many local jurisdictions lack the resources to sustain the core public health services independently. We predict that the operational and public health consequences will be uneven, disproportionately impacting rural and lower-resourced jurisdictions that rely more on federal support.

By spotlighting where federal contributions may be most critical, this study informs a critical policy question: *What does viable public health federalism look like in a post-COVID context?* In tackling this question, the paper elevates three contributions to health policy discourse:

- Empirical quantification of federal support to local communities across core public health domains from 2010-2025.
- Scenario modeling to assess local capacity for replacing federal funding cuts.
- Discussion of the trade-offs embedded in calls for local funding responsibility amid federal fiscal constraint.

The findings forewarn repeating the neglect phase of the emergency public health funding cycle, as a federal retraction will dismantle what was only recently rebuilt. To ensure a resilient public health system, federal policy and resources must consistently support—not retreat from—core public health services, including disease surveillance and emergency response, that states and localities alone cannot sustain.

Federal Outlays and Support of Public Health Activity

Over the past 40 years, and especially in the last 15, the federal share of state and local public health activity has grown substantially as a proportion of overall revenue, and inflation adjusted totals (fig. 1). Some of this increase is inextricably tied up in the federal support of Medicaid, as much of the clinical care provided by health departments is, in part, federally funded. More substantially, however, over the past 15 years the proportion of federal support has increased across program areas within public health relative to state and local support. Once accounting for inflation and population changes, total public health spending has stagnated or declined.

[Figure 1 about here]

Though federal support for public health activities has increased, not all activities have garnered support. Beginning in the 1970s and especially throughout the 1980s Reagan era, federal support for public health functions was transformed in the United States. Less money went toward clinical and especially public hospital care, and more toward prevention, safety net care in clinic settings, and the direct subsidy of nutrition services. More recently, health and housing, as well as health and other social policy areas has muddied the waters of what is and is not ‘public health’ funding. As figure 2 shows, federal outlays to public health activities varied wildly over recent decades. Billions are sent to states and localities across several health and health-adjacent functions.

[Figure 2 about here]

The shake-up of the health and public health apparatus in the federal government under the second Trump administration is substantial and is changing the public health landscape in the US. Given this current upheaval, it is challenging to talk about the future of federal public health agencies, given their changing scope, name, or existence. Considering these programs in a pre-2025 historical context allows for greater comparability. Federal programs and activities that now in 2025 are being dissolved, diminished, or absorbed saw decades of sustained increased funding as displayed in figure 2—consider billions in outlays from the Substance Abuse and Mental Health Services Administration (SAMHSA), increases in Maternal Child Health (MCH) home visiting programs, and overall outlays from CDC and HRSA.

Forthcoming in *Journal of Health Politics, Policy and Law*. DOI: 10.1215/03616878-12262656.

Another critical function of the federal government is the provision of disaster response funding. This federal support is a major backstop against the health consequences of natural and other disasters but can also represent material support for the continuity of social functions in the aftermath of disasters. Housing, nutrition, and infrastructure remediation are particularly critical. Generally, billions are spent on these functions after disasters. However, outlays from COVID-19 were in the trillions after considering federal subsidies to small businesses, individuals, and other avenues. That level of investment is simply not possible from states and localities in the current financial environment, even if one only focuses on health-specific investments.

Given the current push to diminish federal spending to states and localities, it is worth examining the extent to which these states and localities can absorb potential cuts in federal public health funding. The best information available to inform public health investments comes from the ASTHO and NACCHO Profiles, which track revenue sources for state and local health departments, respectively. Admittedly, the COVID experience and revenue complicates this picture, with a dramatic increase both in the total amount of health department revenue and the proportion that came from federal sources. Looking prior to COVID-19 can be instructive, as federal revenue over the past decade supported about half of state health agency revenues (fig. 3) and a comparable amount of local health department revenues (fig. 4), though the proportion of federal revenues varies somewhat by the size of the local agency. Especially for larger jurisdictions, the increase in the proportion of federal spending in COVID-19 was substantial, as may be the decline. Estimates from Trust for America's Health (TFAH) over the past 6 decades also indicate limited capacity for absorbing potential federal cuts in states and localities (McKillop and Lieberman 2025).

[Figure 3 about here]

Forthcoming in *Journal of Health Politics, Policy and Law*. DOI: 10.1215/03616878-12262656.

[Figure 4 about here]

Local Spending and Revenue

While large proportions of public health care and public health dollars originate at the federal or state levels, local-level governments are a critical nexus of public health activity. Local governments are often responsible for implementation and operation of programs that are funded directly or via pass-through federal or state funding (Orr et al. 2023). Additionally, local governments directly fund activities in response to local priorities using their own sources of revenue (McCullough et al. 2015). This funding patchwork combines to support the portfolio of essential public health activities delivered by local governments, especially in states with locally decentralized public health governance structures (ASTHO & NORC at the University of Chicago 2012). Ideally, federal, state, and local sources of revenue could represent a diversified funding portfolio for public health. However, macroeconomic and fiscal trends and shocks typically affect multiple funding levels concurrently. It is often the case that local communities, especially, have limited ability to fill gaps left by federal cut backs.

The importance of intergovernmental transfers to local governmental finances is apparent when comparing total revenues, general revenues from local governments' own sources, and total intergovernmental transfer amounts (Fig. 5). According to the 2022 Census of Governments, local government revenues totaled approximately $2.345 trillion (U.S. Census Bureau 2022). Of this, $1.361 trillion was general revenues from local governments' own sources and $809 billion came from intergovernmental transfers (U.S. Census Bureau 2022). Thus, federal or state intergovernmental transfer funds accounted for approximately 33% of all local governmental revenues in the US in 2022. This share has remained roughly constant over the past several decades. Since 1977, federal or state intergovernmental transfer funds accounted

Forthcoming in *Journal of Health Politics, Policy and Law*. DOI: 10.1215/03616878-12262656.

for at least 30% or no more than 41% of all local governmental revenues in the US (U.S. Census Bureau 2022). In sum, there is a sustained historical precedent for substantial federal and state support of local governmental activities over the past several decades and no precedent for large-scale cuts or changes in the federal share of spending.

[Figure 5 about here]

Looking across states, the share of each county area's total revenues that are from intergovernmental transfers vary from state to state. This is largely due to variations in how state governments and finances are structured, what services are offered, how spending is accounted for, and other more technical considerations, rather than annual variations in state-level intergovernmental transfer levels.

The intergovernmental transfer dollars that flow from the federal government to state governments and on to local governments (federal pass-through funding), or from the federal government directly to local governments (federal direct funding), are used to support a wide array of governmental services and priorities. Health and public health are widely supported through such funds. At the height of COVID-era funding, federal direct and pass through funding accounted for 51% of local public health revenues (NACCHO 2024). In 2019, federal funding accounted for 27% of total public health revenues. Local sources (25%) and state funding (21%) also accounted for a large proportion of spending, with revenue from clinical sources accounting for most of the remainder (Alford et al. 2020). The diverse set of funders–coupled with large variation in local needs, resources, priorities, and accounting practices–result in substantial variation in total spending across communities in the US. Figure 6 shows this large variation in county area-level health spending, which includes a wide variety of non-hospital health spending activities, such as public health, behavioral health, outpatient clinics, and the like (U.S. Census

Forthcoming in *Journal of Health Politics, Policy and Law*. DOI: 10.1215/03616878-12262656.

Bureau. 2022). An important implication of this variation is that changes in the level of federal funding may have drastically different effects for different communities. Given the focus of this article, we next consider the financial effects and potential implications of federal funding cuts on local governments' ability to use local revenues to backfill against cuts in federal revenues to continue to provide core public health services.

[Figure 6 about here]

Estimating Financial Impacts of Federal Spending Cuts on Local Government Finances

As federal support to state and local governments declines, it is essential to assess the potential financial consequences for public health organizations and the communities they serve across the United States. The U.S. Census Bureau's Census of Governments provides a rich source of data for tracking state and local governmental public health finances, as described in more detail elsewhere (McCullough and Leider 2016) and are used in this article to examine the fiscal consequences of a hypothetical rollback in federal funding to state and local governments to the 2019 levels.

Analysis of the 2022 Census of Governments data (U.S. Census Bureau 2022) show that, between 2019 and 2022, total local governmental revenues rose by 16% (from $2.08 trillion to $2.41 trillion). The 16% increase in local government total revenue consisted of a 25% increase in intergovernmental transfers compared to only a 12% increase in local governments' own general revenues. In other words, COVID-era total increases in governmental spending was disproportionately driven by additional federal spending.

The increase of federal support bolstered local capacity in the 2019–2022 time period, but local governments may now be facing serious fiscal challenges if the retrenchment in federal spending continues as we have seen in the early months of the 2025 Trump administration with

Forthcoming in *Journal of Health Politics, Policy and Law*. DOI: 10.1215/03616878-12262656.

cuts to the CDC, HHS more broadly, to state grants and cooperative agreements, and additional reductions of Federal spending outlined in the July 2025 One Big Beautiful Bill Act. To estimate fiscal impacts of federal spending returning to 2019 levels, we calculated each county area's revenues from intergovernmental transfers 2019 and in 2022 to obtain an estimate of net additional federal revenues. We then compare each county's general revenues from own sources (i.e., local revenues) to the additional intergovernmental transfer revenues (i.e., federal and/or state revenues) to calculate the percentage increase needed in local spending to backfill against cuts in federal revenues. We examine several potential intergovernmental transfer cut scenarios (e.g., a 5% reduction, a 10% reduction, a return to 2019 levels, cuts 10% below 2019 levels and so on, see Appendix Table A2). Then, we comment on the historical precedent, or lack thereof, for local governments to scale up spending under these selected funding cut scenarios. Programmatically, federal dollars withdrawn from local communities would, for the most part, need to be replaced on a dollar-for-dollar basis, unless communities choose to scale back or eliminate programs. While some communities might identify new or non-governmental funding sources to offset federal losses, replacing federal funds at scale across all communities and programs is most likely not feasible. Despite the documented return on investment for public health programs, non-governmental investment in public health remains limited in the U.S. (McCullough 2019). Accordingly, this analysis assumes no major economies of scale, new alternative funding sources, or novel cost-saving mechanisms to offset proposed federal cuts.

At the crudest levels, if total public health spending reverts to pre-COVID (2019) levels of public health spending, our analysis of the 2022 Census of Governments data suggests public health spending (U.S. Census Bureau 2022) would drop by approximately $13.5 billion, or an average of $4.3 million per county (from $24.5 million to $20.2 million). Yet federal cuts

Forthcoming in *Journal of Health Politics, Policy and Law*. DOI: 10.1215/03616878-12262656.

beyond this 2019 baseline are expected, potentially affecting intergovernmental transfer revenue available for local governments to use along with their own local revenues (Krisberg 2025). We now explore various scenarios of intergovernmental transfer cuts, including cost to local communities and what percentage of their current health spending. Analysis of Census of Government data from 2019-2022 show that a hypothetical 5% reduction in ALL intergovernmental transfers would trim local governments' intergovernmental revenues by nearly $40 billion per year. This $40 billion per year budget gap would require local governments to raise their own general revenues by approximately 3.0% to fill. More generally, we estimate for each 1% cut in federal intergovernmental revenue, local revenue would need to rise by about 0.6% to sustain pre-cut spending levels. Calculations supporting scenario modeling to assess local capacity for replacing federal funding cuts are presented in the appendix (note that the percentage point cut in federal intergovernmental revenues does not match the corresponding percentage point increase in local revenues since intergovernmental revenues represent roughly one-third of total revenues whereas general revenues from local governments' own sources represent more than one-half of total revenues).

It is important to assess whether local governments could realistically offset federal intergovernmental revenue losses through increases in their own general revenues. To evaluate the plausibility of such increases, we analyzed annual general revenue changes across all U.S. counties since 2012 via the Census of Governments dataset (U.S. Census Bureau 2022) (see Appendix Table A3). The median annual increase in general revenue from local sources is 1.5%, meaning that in a typical year, counties see modest revenue growth. Since 2012, counties have seen at least a 3.0% increase in local revenues—enough to offset a 5% federal cut—only 31% of the time. This suggests that while a one-time 5% cut could potentially be absorbed, it would be a stretch for a majority of counties, not including the general cost increases these counties experience. More severe federal cuts appear far less feasible for counties. A 10% federal reduction would require a 5.9% increase in local revenue, which has occurred only 17% of the time since 2012. Returning intergovernmental revenues from their 2022 levels to their 2019 levels would entail a cut of nearly 21%, requiring an increase in local revenues of roughly 12%, which has occurred only 7% of the time since 2012 (U.S. Census Bureau 2022). These figures indicate that there is little historical precedent for local governments being able to immediately increase their own revenues by sufficient amounts to fully offset major reductions in intergovernmental revenues. In other worse, most local governments could not offset federal cuts through routine revenue growth alone. Many would likely face difficult choices between service reductions and new local revenue strategies.

Federalism and the Governmental Public Health Enterprise

Major policy and resource allocation changes as well as serious threats to public health that require federal support often raise questions about what federalism means for the governmental public health enterprise, and how that translates to funding (Galea and Vaughan 2021). Given the constitutional divisions of authority and responsibility, there is a built in assumption that states and local governments would shoulder a substantial part of the public health bill (IOM 2012). However, a countervailing claim is that core public health protections are a right for all Americans, and a decent minimum must be assured by the federal government if it would otherwise not be available in a community. Essentially, the underlying premise is that, if states and locals fail to meet their obligations, the federal government needs to be there (Tilgner et al. 2022). Yet this core notion of federal government responsibilities in state or local communities

Forthcoming in *Journal of Health Politics, Policy and Law*. DOI: 10.1215/03616878-12262656.

has become both more polarizing and partisan in public health and across other governmental sectors, including disaster relief, education, and public safety. Further, federalism may add complications for decentralized delivery of public health services and may exacerbate inequities (Huberfeld et al. 2020). Our analysis shows cuts to federal spending directly impact local communities, especially as intergovernmental transfers of federal funds are a major mediating force in the social safety net. Additionally, these federal resources are not easily replaced by states, and will significantly diminish the safety net in local communities, particularly in rural and under resourced communities facing existing health disparities, as we discuss more specifically below.

What Might a Diminished Safety Net Look Like?

Major areas of public health activity include environmental health, communicable and chronic disease control, maternal and child health, behavioral health, injury prevention, emergency preparedness and response, and assessment. The impacts of decreased federal support are vast and likely to include:

- Diminished health department capacity to perform many critical public health functions, such as food and restaurant inspections, agricultural inspections in collaboration with departments of agriculture, mine safety operations, water quality and lead remediation, and protective inspections of childcare centers, tattoo parlors, and other businesses that regularly interact with the health of the public.
- Decreased human immunodeficiency virus (HIV) support that likely translates to more HIV cases, worse health outcomes, preventable deaths, and increased transmission of HIV from mothers to babies.

Forthcoming in *Journal of Health Politics, Policy and Law*. DOI: 10.1215/03616878-12262656.

- Reduction of the *Vaccines for Children* initiative means more children will likely get sick from vaccine preventable diseases, and some will die. That burden will not be distributed equally in society, with poorer and more rural children being disproportionately impacted.
- Reductions in chronic disease control translates to less support for reducing childhood obesity, monitoring and preventing cardiac disease, challenges to nutrition services and behavioral health service provision.
- Less behavioral health prevention, more overdose, and less availability of *Narcan*, which has been critical in turning the tide of substance abuse deaths in the past five years.
- Diminished support for emergency preparedness; when disasters happen communities will not be sufficiently prepared and protected. There will be fewer staff to scale up, less technical expertise to work with hospitals and other healthcare providers, and local communities might be left holding the bill for natural disasters and other emergencies that may be very hard to pay for.

Disproportionate Impacts in Poor and Rural Communities

As analyses in this manuscript show, and others have discussed at length, poorer and more rural communities have the largest share of total revenue coming from federal transfers to sustain their social safety net including Medicaid (Harris et al. 2016; Balio et al. 2025). Yet, these communities disproportionately voted for President Trump in 2024 (Fig.7), with a key plank of his campaign platform to reduce the footprint of the federal government in local communities. Federal cuts will hit these communities particularly hard. Rural communities already struggle to preserve access to healthcare, especially hospital care and specialty care. (Harris et al. 2016;

Balio et al. 2025) Additionally, because safety net clinical care is so hard to come by, oftentimes rural jurisdictions will have a disproportionate amount of their public health staffing go toward clinical care, which diminishes their capacity to provide other public health functions, such as inspection and regulation services, and population-based prevention. The disconnect between the critical need for federal government support and political leanings and voting in local communities underscores the urgency to elevate and amplify the federal government's essential role in maintaining the safety net, especially in the communities that will be the most impacted. Greater awareness of the federal government's critical role is vital to informed voting and policy making.

[Figure 7 about here]

Conclusion

Presidential administrations, often in partnership with Congress, can transform the relationship between the federal government and the dependence of states, and localities through an expansion or contraction of its purse strings and vision of federalism. Over the past 15 years, and during COVID, there was an expansion of resources and increasing dependence of states and localities on federal sources. In 2025, the Trump administration's abrupt contraction of federal financial support and decentralization agenda aims has raised challenging questions as to whether localities can make up the difference. Population and tax bases vary widely, and it is unlikely many jurisdictions, especially rural and under-resourced communities, can sustain cuts from federal revenue streams. This means, inexorably, that reductions in federal support will drive reductions in social services and public health protections across cities and counties in the United States. This article quantifies the federal government's critical role in financing public health protections and services in local communities and the potential impacts of the proposed

Forthcoming in *Journal of Health Politics, Policy and Law*. DOI: 10.1215/03616878-12262656.

federal funding cuts to core public health programs and services. These findings should be used along with evidence from states and localities on the specific impacts of funding cuts on the health of the public to raise awareness among policymakers at all levels, the general public, and groups organizing for action. Findings from our analysis are critical for all communities, and in particular for rural and under-resourced jurisdictions that in the 2024 election voted in support of a federalist agenda of austerity and will be disproportionately impacted by the proposed cuts.

■■■

Jonathon P. (JP) Leider is an Associate Professor in the Division of Health Policy and Management at the University of Minnesota School of Public Health, and founding director of the School's Center for Public Health Systems. Previously, JP has worked in public health philanthropy and public health practice. He holds a Ph.D. in Health Policy and Management from the Johns Hopkins Bloomberg School of Public Health, as well as a bachelors from the University of Minnesota.
leider@umn.edu

J. Mac McCullough is a Professor and Associate Director of the School of Public and Population Health at Boise State University. He previously served in a unique dual role as health economist for Maricopa County Public Health and associate professor at Arizona State University. He has worked at or with public health agencies for fifteen years as part of four different academic health departments. He completed his PhD in health services at UCLA, his MPH at the University of Minnesota, and his bachelor's degree at Georgetown University.

Jason M. Orr is a researcher with the Center for Public Health Systems at the University of Minnesota School of Public Health and is experienced in policy analysis, mixed-methods research, and systems design & analysis. He holds a BS in chemical and biological engineering and an MPH with an emphasis in infectious diseases and zoonoses from Kansas State University, and a PhD in systems engineering from Colorado State University. He has 'pracademic' interests in public health services frameworks (e.g., Foundational Public Health Services), collaborative service delivery (i.e., cross-jurisdictional sharing or cross-sectoral collaboration), public health finance and workforce issues, and other transformation and innovation initiatives for public health systems.

Beth Resnick is a practice-oriented scholar and educator focused on public health practice and policy. She is a Practice Professor and Assistant Dean for Public Health Practice at the Johns Hopkins Bloomberg School of Public Health. Prior to joining the Hopkins faculty in 2002, she worked at the National Association of County and City Health Officials (NACCHO), providing technical assistance and support to over 2,800 local health departments nationwide. Dr. Resnick holds a DrPH from the University of Illinois Chicago School of Public Health, an MPH from Johns Hopkins, and a BA from the University of Michigan.

References

Alford, Aaron, Debra Dekker, Karla Feeser, Kellie Hall, Shaunna Newton, and Jonathan P. Leider. 2020. *2019 National Profile of Local Health Departments.* National Association of County and City Health Officials (Washington, DC). https://www.naccho.org/uploads/downloadable-resources/Programs/Public-Health-Infrastructure/NACCHO_2019_Profile_final.pdf.

ASTHO (Association of State and Territorial Health Officials) & NORC at the University of Chicago. 2012. *State Public Health Agency Classification: Understanding the Relationship Between State and Local Public Health.* Association of State and Territorial Health Officials (Arlington, VA: Association of State and Territorial Health Officials).

Balio, Casey P., Haleigh Leslie, Kate Beatty, Christen Minnick, and Michael Meit. 2025. "How Is Rural Public Health Different?" *Journal of Public Health Management and Practice* 31 (5): 687-690. https://doi.org/10.1097/PHH.0000000000002183. https://www.ncbi.nlm.nih.gov/pubmed/40689799.

Galea, Sandro, and Roger Vaughan. 2021. "Preparing the Public Health Workforce for the Post-COVID-19 Era." *American Journal of Public Health* 111 (3): 350-352. https://doi.org/10.2105/AJPH.2020.306110. https://www.ncbi.nlm.nih.gov/pubmed/33566667.

Harris, Jenine K., Kate Beatty, Jonathon P. Leider Alana Knudson, and Britta L. Anderson Michael Meit. 2016. "The Double Disparity Facing Rural Local Health Departments." *Annual Review of Public Health* 37: 167-84. https://doi.org/10.1146/annurev-publhealth-031914-122755. https://www.ncbi.nlm.nih.gov/pubmed/26735428.

Huberfeld, Nicole, Sarah H. Gordon, and David K. Jones. 2020. "Federalism Complicates the Response to the COVID-19 Health and Economic Crisis: What Can Be Done?" *Journal of Health Politics, Policy and Law* 45 (6): 951-965. https://doi.org/10.1215/03616878-8641493. https://www.ncbi.nlm.nih.gov/pubmed/32464666.

Interlandi, Jeneen. 2020. The U.S. Approach to Public Health: Neglect, Panic, Repeat. *The New York Times*. https://www.nytimes.com/2020/04/09/opinion/sunday/coronavirus-public-health-system-us.html.

IOM (Institute of Medicine). 2012. *For the Public's Health: Investing in a Healthier Future*. Washington, DC: The National Academies Press.

Kirkland, Chelsey, Kari Oldfield-Tabbert, Harshada Karnik, Jason M. Orr, Skky Martin, and Jonathon P. Leider. 2022. "Public Health Workforce Gaps, Impacts, and Improvement Strategies from COVID-19." *International Journal of Environmental Research and Public Health* 19 (20): 13084. https://doi.org/10.3390/ijerph192013084. https://www.ncbi.nlm.nih.gov/pubmed/36293664.

Krisberg, Kim. 2025. Advocates bracing for battles over funding for public health programs. *The Nation's Health* 55 (1): 1-16. Accessed August 27, 2025. https://www.thenationshealth.org/content/55/1/1.2.

Leider, Jonathon P., et al. 2023a. "The Exodus Of State And Local Public Health Employees: Separations Started Before And Continued Throughout COVID-19." *Health Affairs* 42

(3): 338-348. https://doi.org/10.1377/hlthaff.2022.01251. https://www.ncbi.nlm.nih.gov/pubmed/36877909.

Leider, Jonathon P., et al. 2023b. "Staffing Up and Sustaining the Public Health Workforce." *Journal of Public Health Management and Practice* 29 (3): E100-E107. https://doi.org/10.1097/PHH.0000000000001614. https://www.ncbi.nlm.nih.gov/pubmed/36228097.

Leider, Jonathon P., Valerie A. Yeager, Chelsey Kirkland, Heather Krasna, Rachel Hare Bork, and Beth Resnick. 2023c. "The State of the US Public Health Workforce: Ongoing Challenges and Future Directions." *Annual Review of Public Health* 44: 323-341. https://doi.org/10.1146/annurev-publhealth-071421-032830. https://www.ncbi.nlm.nih.gov/pubmed/36692395.

McCullough, J. Mac. 2019. "Declines in Spending Despite Positive Returns on Investment: Understanding Public Health's Wrong Pocket Problem." *Frontiers in Public Health* 7: 159. https://doi.org/10.3389/fpubh.2019.00159. https://www.ncbi.nlm.nih.gov/pubmed/31275916.

McCullough, J. Mac, and Jonathon P. Leider. 2016. "Government Spending In Health And Nonhealth Sectors Associated With Improvement In County Health Rankings." *Health Affairs* 35 (11): 2037-2043. https://doi.org/10.1377/hlthaff.2016.0708. https://www.ncbi.nlm.nih.gov/pubmed/27834244.

McCullough, J. Mac, Jonathon P. Leider, and William J. Riley. 2015. "Local Fiscal Allocation for Public Health Departments." *American Journal of Preventive Medicine* 49 (6): 921-929.

McKillop, Matt, and Dara Alpert Lieberman. 2025. *The Impact of Chronic Underfunding on America's Public Health System 2024: Trends, Risks, and Recommendations.* Trust for America's Health (Washington, DC: Trust for America's Health). https://www.tfah.org/wp-content/uploads/2024/08/2024-PublicHealthFunding-FINAL.pdf.

Mui, Paulani, Ruth Maiorana, and Beth Resnick. 2025. "A holistic and sustainable approach to public health staffing and workforce development." *Frontiers in Public Health* 13: 1493858. https://doi.org/10.3389/fpubh.2025.1493858. https://www.ncbi.nlm.nih.gov/pubmed/39906297.

NACCHO (National Association of County and City Health Officials). 2024. *2022 National Profile of Local Health Departments.* National Association of County and City Health Officials (Washington, DC). https://www.naccho.org/uploads/downloadable-resources/NACCHO_2022_Profile_Report.pdf.

Orr, Jason M., et al. 2023. "Contemporary Public Health Finance: Varied Definitions, Patterns, and Implications." *Annual Review of Public Health*. https://doi.org/10.1146/annurev-publhealth-013023-111124. https://www.ncbi.nlm.nih.gov/pubmed/38109518.

Richter, Dirk, and Simeon Zuercher. 2021. "The Epidemic Failure Cycle hypothesis: Towards understanding the global community's recent failures in responding to an epidemic." *Journal of Infection and Public Health* 14 (11): 1614-1619. https://doi.org/10.1016/j.jiph.2021.09.003. https://www.ncbi.nlm.nih.gov/pubmed/34624716.

Rodriguez, Jazmin Orozco. 2024. Public Health Departments Face a Post-Covid Funding Crash - KFF Health News. *KFF Health News*. https://kffhealthnews.org/news/article/health-brief-public-health-funding-crash/.

Singh, Kanishka, and Ahmed Aboulenein. 2025. US pulls back $12 billion in funding to state health departments. *Reuters*. https://www.reuters.com/business/healthcare-pharmaceuticals/us-government-pulls-back-over-11-billion-funding-state-health-departments-2025-03-26/.

Tharpe, Wesley. 2025. Shifting Federal Costs for Food Assistance, Health Care, Other Priorities to States Would Cause Widespread Harm. *off the charts*. https://www.cbpp.org/blog/shifting-federal-costs-for-food-assistance-health-care-other-priorities-to-states-would-cause.

Tilgner, Susan A., Beth E. Bickford, Sara Beaudrault, Jaime Bodden, Maria Courogen, and Marie Flake. 2022. "Resetting the Course for Foundational Public Health Services (FPHS) During COVID-19." *Journal of Public Health Management and Practice* 28 (4 Suppl 4): S122-S129. https://doi.org/10.1097/PHH.0000000000001479. https://www.ncbi.nlm.nih.gov/pubmed/35616556.

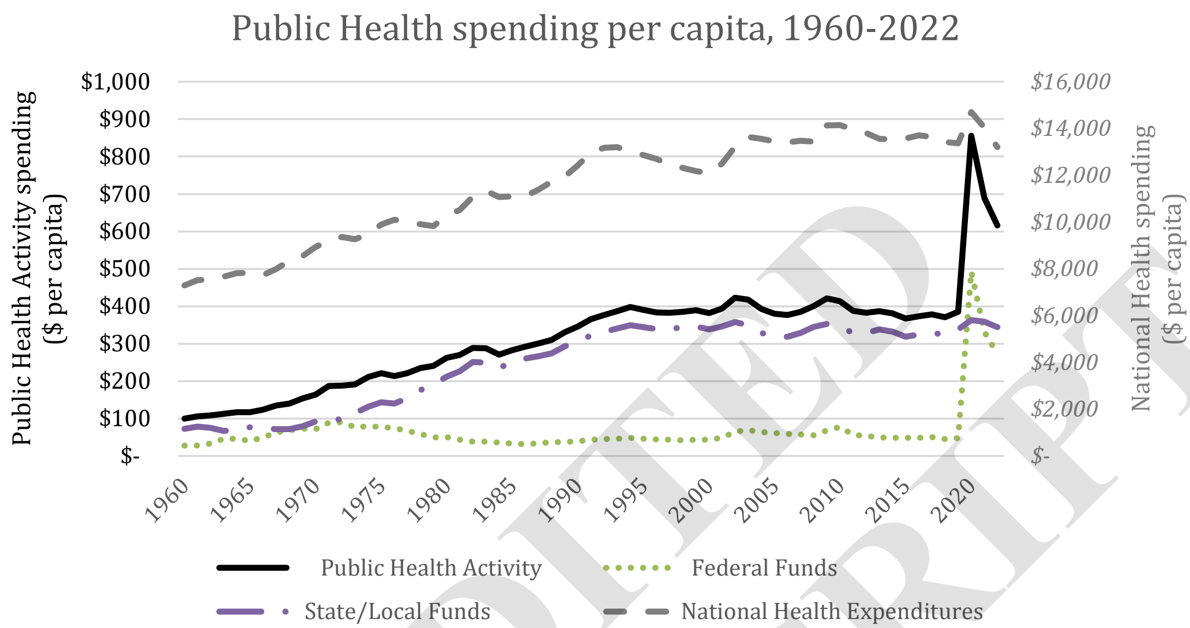
U.S. Census Bureau. 2022. 2022 Census of Governments [dataset]. Washington, DC: U.S. Department of Commerce. Original edition, Version as of October 2022. https://www.census.gov/topics/public-sector/government-organization/data/tables.html.

Vondracek, Christopher, Jp Lawrence, and Trey Mewes. 2025. Trump's spending bill could force Minnesota counties to up property taxes. *The Minnesota Star Tribune*. https://www.startribune.com/minnesota-county-property-tax-snap-benefit-food-stamp-cut-hike-trump-budget-bill/601382768.

Winnike, Allison N. 2025. Updates to HHS Restructuring and Funding Cuts: Impact on State and Local Public Health. *The Network for Public Health Law*. https://www.networkforphl.org/news-insights/updates-to-hhs-restructuring-and-funding-cuts-impact-on-state-and-local-public-health/.

Yamey, Gavin, Marco Schäferhoff, Kaci Kennedy McDade, and Wenhui Mao. 2020. Preparing for pandemics such as coronavirus—will we ever break the vicious cycle of panic and neglect? *The Brookings Institution*. https://www.brookings.edu/articles/preparing-for-pandemics-such-as-coronavirus-will-we-ever-break-the-vicious-cycle-of-panic-and-neglect/.

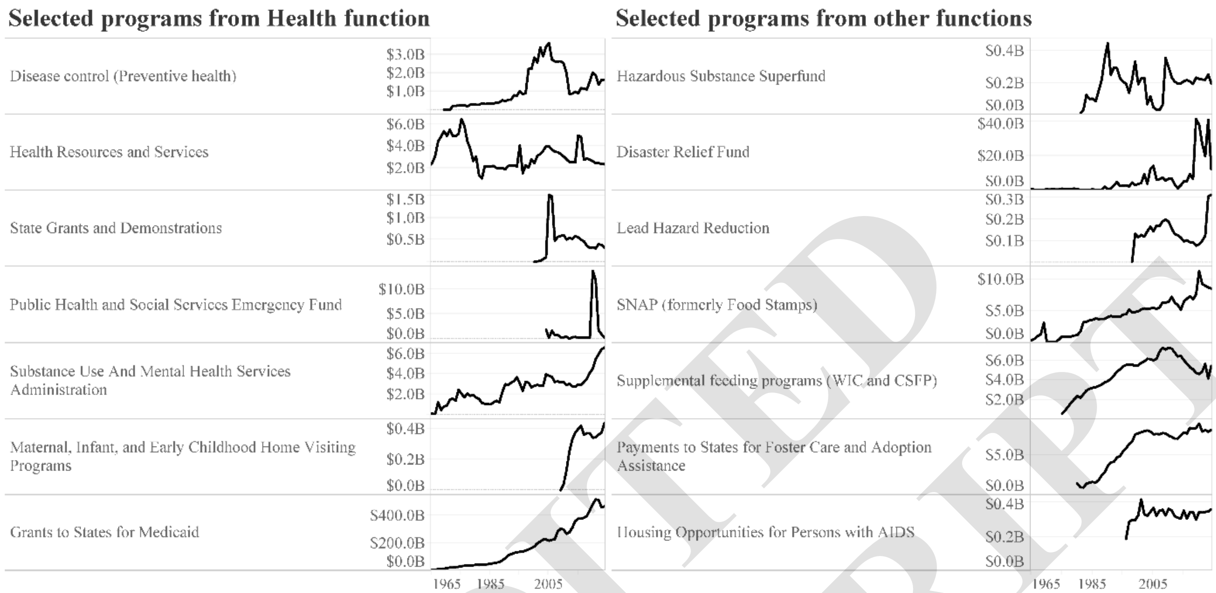
Figure 1. Per capita Public Health Activity and National Health Expenditure estimates, 1960-2023.



Source: *Centers for Medicare and Medicaid Services Office of the Actuary,* National Health Expenditures*, 2024.* Annual estimates were adjusted to represent real 2023 dollars. The total Public Health Activity Estimate (PHAE) is divided into federal and state/local components and is represented by the left axis. The National Health Expenditure (NHE) is represented by the right axis.

Alt Text: Line chart showing national health and public health expenditures rising steadily, spiking in 2020, then declining.

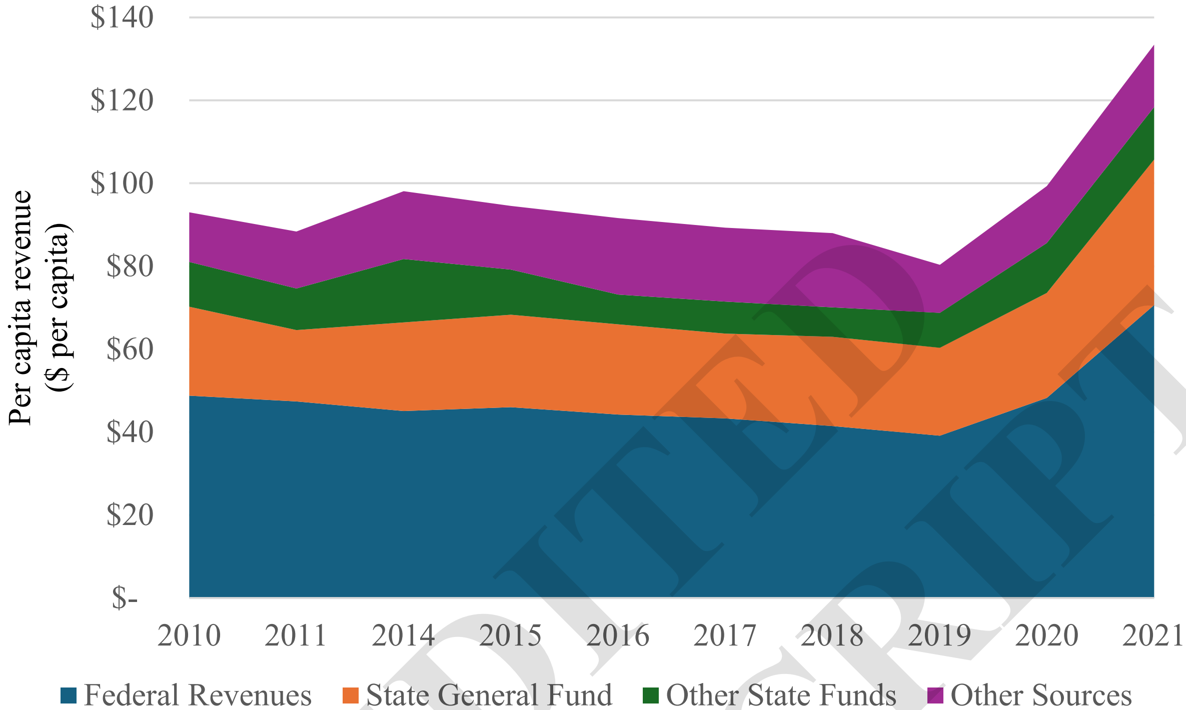
Figure 2. Federal outlays to states across selected health and non-health functions, 1965-2025.



*Source***:** Office of Management and Budget, *Historical Table 12.3 - Total Outlays for Grants to State and Local Governments by Function, Agency, and Program*, 2025. Programs are organized by OMB Function and certain programs also represent direct payments to individuals.

Alt Text: Assortment of line charts for federal health and non-health activities between 1965 and 2025, illustrating funding volatility.

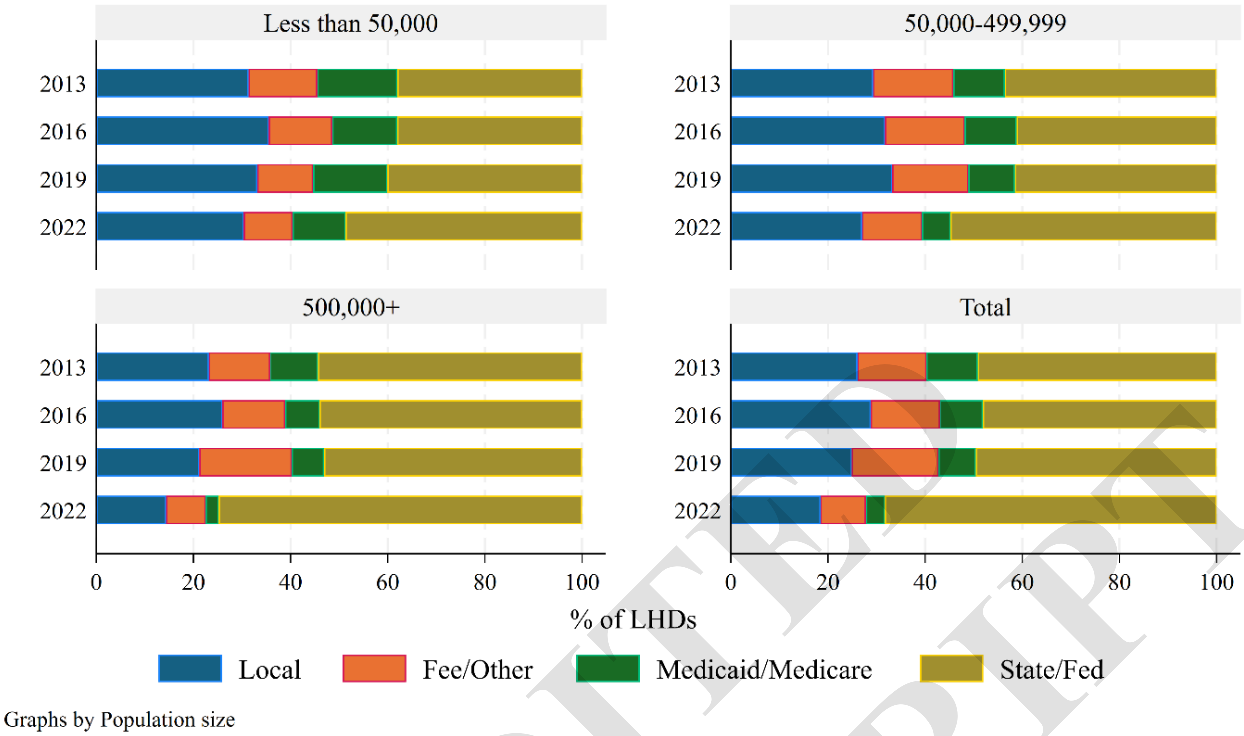
Figure 3. Distribution of revenues per capita by source among reporting state health agencies, 2010–2021.



Source: Association of State and Territorial Health Officials, Profile of State and Territorial Public Health, 2023.

Alt Text: Stacked area of state health agency revenues by federal funds, state general fund, other sources, and other state funds.

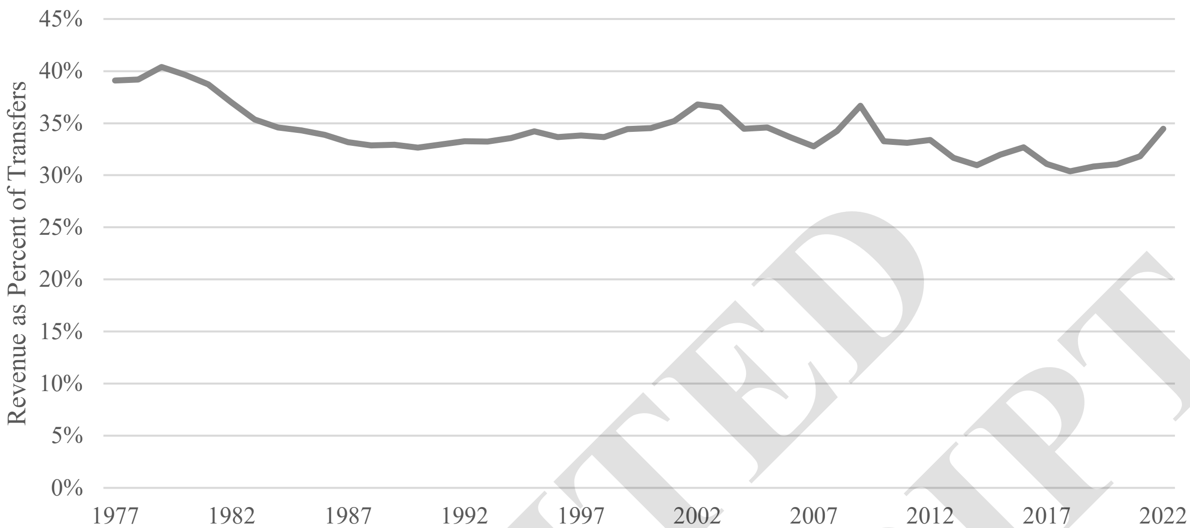
Figure 4. Distribution of revenues by source among local health department population bands, 2013-2022.



*Source***:** National Association of County and City Health Officials, National Profile of Local Health Departments, 2013-2022. Because of reporting issues, disaggregating federal pass through from state funds is not reliable, so they have been combined in this figure.

Alt Text: Assortment of bar charts for distribution of revenues by source (federal, local, other) for population bands.

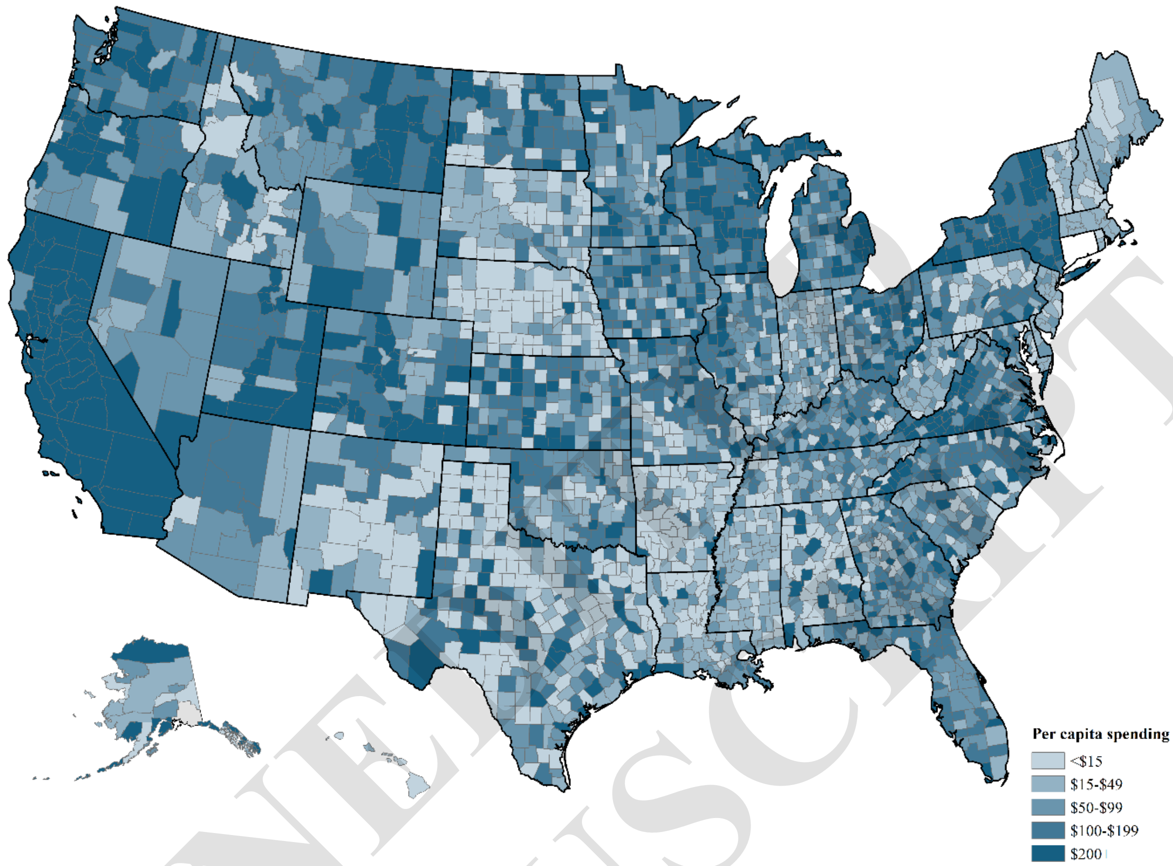
Figure 5. Share of intergovernmental transfers among total local governmental revenues, 1977–2022.



Source: U.S. Census Bureau, Census of Governments, 2023.

Alt Text: Line chart of share of intergovernmental transfers among total local governments' revenues, ranging from 40% in 1980 to 30% in 2017, then to 35% in 2022.

Figure 6. Per capita direct spending on non-hospital health services by county, 2022

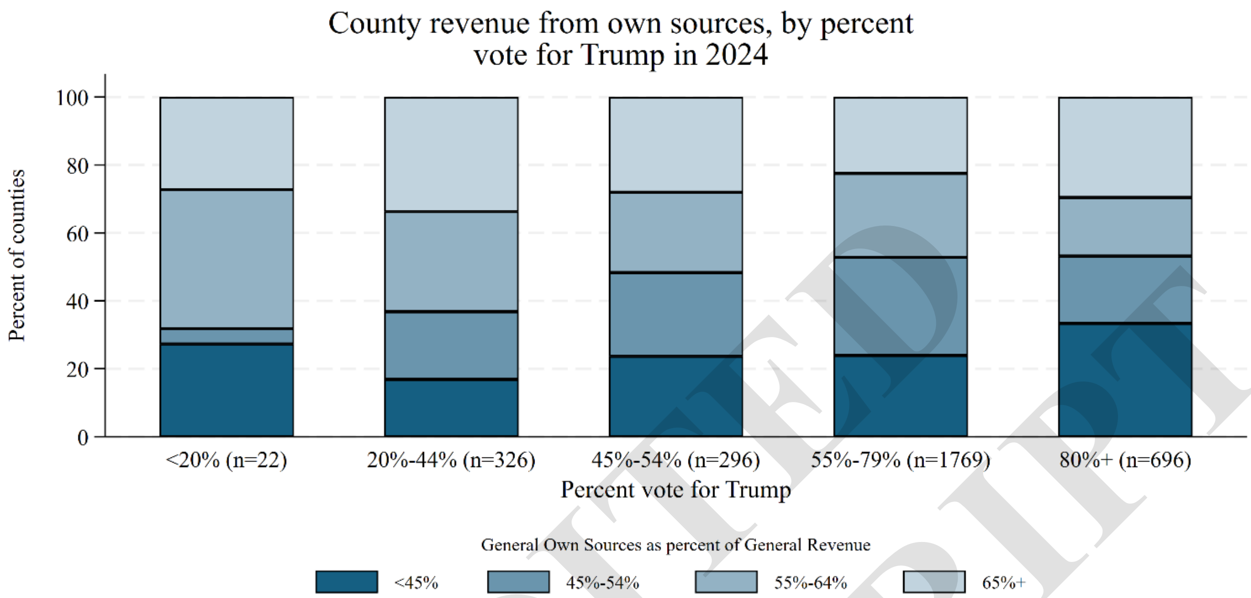


Source: U.S. Census Bureau, Census of Governments, 2022.

Alt Text: Map of U.S. with shading for per capita spending on non-hospital health services by county in 2022, ranging from less than $15 per capita to more than $200 per capita.

Forthcoming in *Journal of Health Politics, Policy and Law*. DOI: 10.1215/03616878-12262656.

Figure 7. Distribution of shares of counties' own sources of revenues by counties' overall percent vote for Trump, 2024.



Source: U.S. Census Bureau, Census of Governments – Local Finance, 2022; Github, 2024 United States General Election Presidential Results, 2024.

Alt Text: 100% stacked bar chart of share of own revenues (from less than 45% to greater than 65%) by percentage of votes for Trump.