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Request for Information: Development of a 2025 National Artificial Intelligence Research and Development Strategic Plan

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General Comment

Attached, please find a comment from my Urban Institute colleagues Alena Stern, Karolina Ramos, and Christina Prinvil.

Attachments

2025 NSF-2025-OGC-0001 RFI Response National AI R and D Strategic Plan_Stern et al

2025.5 NSF-2025-OGC-0001 RFI Response National AI R and D Strategic Plan_Stern et al

URBAN INSTITUTE · ELEVATE · THE · DEBATE

May 29, 2025

Brian Stone, Acting Director
2415 Eisenhower Ave
Alexandria, Virginia 22314

Re: NSF-2025-OGC-0001-0001

Dear Acting Director Stone,

We write to offer public comment on the National Science Foundation's Request for Information on the Development of a 2025 National Artificial Intelligence Research and Development Strategic Plan (NSF-2025-OGC-0001) published on April 28, 2025. We are a group composed of policy researchers and data scientists employed by the Urban Institute, a nonprofit research and policy organization, who have researched local government deployment of AI and generative AI (genAI) tools. The views expressed here are our own and do not represent the Urban Institute, its trustees, or its funders.

An emerging narrative in AI policy is that regulation stifles American innovation and competitiveness. While overly cumbersome regulations can stall AI progress, our work finds that too little regulation can do the same.

Local governments play an essential role in national AI strategy as laboratories for AI testing across critical public services. **While local governments have expressed excitement about the transformative potential of AI, they have largely held back from testing applications with the greatest potential impact due to the risk that the current lack of guidance, resources, and guardrails for safe AI experimentation could result in unintended public harm**. This significant missed opportunity for innovation and impact hinders American efforts to be the unrivaled world leader in AI. To ensure that America continues to lead in AI development for transformative public impact, we encourage the inclusion or expansion of language referencing the following principles in the 2025 National AI R&D Strategic Plan:

1. **Further commitments to investments in AI and genAI testing, use, and evaluation** by expanding upon language in Strategies 1, 3, 8, and 9 to explicitly include subnational governments in public–private partnerships to support investments in foundational and emerging AI technologies, use case research, and AI performance evaluation.
2. **Center intergovernmental engagement and knowledge sharing throughout Strategies**. Expanding upon language in Strategies 5, 8, and 9 to commit to intergovernmental partnerships and data sharing can accelerate knowledge sharing.
3. **Expand references to community and stakeholder engagement to inform responsible and responsive AI research and use**, particularly in service of Strategies 2 and 6 to bolster public trust in AI and ensure AI tools and performance evaluation criteria are responsive to public needs.

We look forward to continued American leadership in AI research and development that spurs innovation while prioritizing security and responsible use. For questions or to schedule a follow-up dialogue, please reach out to

Sincerely,

Alena Stern, MS
Chief Data Scientist
Urban Institute

Karolina Ramos, MPP
Policy Program Manager
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Local governments are critical to achieving the Trump administration's goals of accelerating AI-driven innovation and promoting human flourishing. Cities and counties are uniquely positioned to integrate AI into essential public services—such as transportation, housing, and public health—where its impact can be most directly felt by communities. Due to their proximity to the public, local governments can play a critical role in national AI strategy as laboratories of AI innovation, testing public sector AI applications and incorporating feedback from residents to produce learnings for the entire sector that can help ensure America's security, competitiveness, and innovation in AI.

Through research on local governments' adoption of AI and generative AI (genAI), we have learned that many localities are enthusiastic about the potential for AI to streamline services for constituent engagement, bolster operational efficiency, and address complex public policy challenges. While they have begun to experiment with genAI, we found that most governments are hesitant to go beyond internal-facing productivity applications and would benefit from regulatory frameworks that enable safe experimentation within bounds that reinforce AI ethics, quality, and accuracy (Stern et al. 2025). As the 2023 Strategic Plan notes, AI presents opportunities to tackle complex societal challenges for a more transformative impact. Our research also finds that the greater the complexity of issues AI is addressing, the greater the difficulty of implementation and the need for sound governance guidance. Government agencies also express the need for trusted, vetted AI tools that have been tested within and for specific policy use-case contexts, a principle noted in the 2023 Strategic Plan's Strategy 1.

While over-regulation can produce barriers to AI adoption, our research on local governments' AI deployment finds that **responsible and responsive AI use requires thoughtful regulatory guardrails and strategic investments that encourage government agencies to experiment with transformative use cases within bounds that minimize potential risks and harms**. To that end, we encourage the inclusion or expansion of the following principles in the 2025 National AI R&D Strategic Plan:

Further commitments to investments in AI testing, use, and evaluation, including generative AI

Local governments are highly risk-averse to being the first mover to adopt genAI applications due to concerns about potential harm and erosion of resident trust if applications are not properly vetted prior to implementation (Stern et al. 2025). For more complex genAI applications that directly interface with residents—such as using AI to improve efficiency of benefits eligibility determinations to address backlogs or AI-powered chatbots that can answer resident questions about government programs—government staff shared the importance of testing within their specific policy and data context of focus prior to implementation. The 2025 Strategic Plan should call for federal investment in rigorous and context-specific genAI testing to encourage local government adoption of more complex and high-impact potential genAI applications.

We encourage the Trump administration to maintain elements of the 2023 Strategic Plan that will support local government testing and adoption. Strategies 1 and 3 of the 2023 Strategic Plan lay a critical foundation for local government testing and innovation through long-term investment in foundational AI technology, ongoing AI use case research, testing of emerging technologies, and thoughtful evaluation of AI performance that accounts for accuracy, quality, responsiveness to pressing societal and public policy challenges, and representative experiences of a range of stakeholders and end users. Strategies 5 and 6 enable more efficient testing through the creation of shared infrastructure, such as training and testing datasets, establishing AI benchmarks and standards in collaboration with diverse stakeholders, and increasing the availability of AI testbeds to support secure testing on government data.

While continuance of these strategies is necessary, they are not sufficient to enable local government AI testing and adoption. Our research found that most local governments do not have the internal capacity and resources to enable them to leverage the resources created by the strategies described above to conduct their own testing. We encourage the administration to update Strategy 8 to explicitly include subnational government partners in the proposed public–private partnership efforts to draw upon local government lessons learned from experimentation with AI across operational and public policy domains, and to aid

localities with the technical expertise, data resources, and capacity support to continue AI innovation for transformative policy impact. For example, Strategy 8 could be modified to call upon the National Science Foundation to provide research funding to support research institutions to test genAI applications in local government and support the deployment of federal government or private AI experts to work in local and state governments.

Center Intergovernmental Engagement and Knowledge Sharing throughout Strategies

The 2023 Strategic Plan includes valuable references to interagency knowledge sharing, fostering international collaborations on AI use, bolstering public trust in AI, and making continued investments in AI research and testing that is responsive to public interests. There is an opportunity to expand on this language and further serve these strategies by centering not only public–private (Strategy 8) and international partnerships on AI use (Strategy 9), but also intergovernmental engagement. Intergovernmental engagement can help federal agencies draw upon lessons from state and local governments who have begun implementing AI on the specific technical and data infrastructure needed to adopt AI tools in public sector contexts, and provide approaches for applying AI to both operational efficiency and staff support, such as file management and institutional knowledge preservation, as well as to more public-facing applications, such as proactively identifying infrastructure that requires maintenance or streamlining permitting processes for planning and development. Networks of government actors in this space, such as the GovAI Coalition, can offer insights on best practices for applying AI as well as guidance on research and application gaps that would benefit from federal investment. In service of Strategy 5, partnerships with subnational governments could also feature data-sharing agreements that widen access to testing data in various policy domains to allow for testing on relevant, responsive AI uses that meet public needs. These investments in local government capacity would also bolster government efficiency by avoiding duplicate efforts to develop AI templates and resources for specific policy applications, helping localities achieve scale on AI deployment.

Expand References to Community and Stakeholder Engagement to Inform Responsible and Responsive AI Research and Use

The 2023 Strategic Plan references stakeholder engagement and the need to advance both public trust in AI and understanding of effective human-AI partnerships. We encourage the expansion of language directly encouraging community engagement in AI tool development, deployment, and evaluation, particularly in cases where AI tools serve specific end users and policy contexts. For instance, there is emerging research on the role of AI and "human in the loop" practices for determining eligibility for disability benefits to reduce substantial claim backlogs (National Academy of Social Insurance 2025). Directly engaging Supplemental Security Income beneficiaries can help assess AI quality and fairness, inform standards for human-AI partnerships for public-facing services (Strategy 2), and spur collaboration on identifying benchmarks for AI performance (Strategy 6). There are opportunities to apply this same principle of end-user and other public engagement as an essential component of AI testing and performance evaluation processes across different AI and genAI use cases and sectors.

Increased public engagement can also bolster understanding of and trust in AI systems as tools become socialized with nontechnical audiences, and local governments are especially well-equipped to facilitate public outreach given their proximity to their constituents. Engagement with state and local governments can also inform approaches to Strategic Plan language on community engagement, as some localities have begun encouraging community engagement in their AI use policies and guidelines (City of Boston 2023).

We are encouraged by the federal government's continued commitment to investing in rigorous AI research and testing to address critical societal challenges. In the 2025 Strategic Plan, reaffirming the value of ongoing testing and evaluation while expanding language that acknowledges the importance of intergovernmental and community-engaged approaches to AI innovation in partnership with local governments will position federal agencies, public and private sector partners, and technology developers

to pursue transformative applications of AI that retain appropriate parameters for safe, ethical, and secure AI use.

Citations

City of Boston, Massachusetts. 2023. *City of Boston Interim Guidelines for Using Generative AI*. https://www.boston.gov/sites/default/files/file/2023/05/Guidelines-for-Using-Generative-AI-2023.pdf

National Academy of Social Insurance Task Force on Artificial Intelligence, Emerging Technology, and Disability Benefits. 2025. *Phase One Report*. https://www.nasi.org/wp-content/uploads/2025/04/Phase-One-Report-Task-Force-on-Artificial-Intelligence-Emerging-Technology-and-Disability-Benefits.pdf

Stern, Alena, Karolina Ramos, and Christina Prinvil. 2025. *Practical AI Insights for Local Leaders: An Early Look into How Local Governments Are Adopting AI*. Washington, DC: Urban Institute. https://www.urban.org/research/publication/practical-ai-insights-local-leaders