

BALTIMORE, MARYLAND LOCAL GOVERNMENT R&D AGENDA WORKSHOP

A MetroLab Network Report Out
December 5, 2025



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Introduction

Cities are often on the front lines of addressing complex, interrelated challenges spanning infrastructure, housing, public health, safety, and service delivery, all while operating within fiscal, political, and administrative constraints. Baltimore faces a distinct set of pressures shaped by aging infrastructure, long-standing inequities across neighborhoods, climate risks, public health challenges, and the need to modernize core government systems while rebuilding trust with residents.

To help align academic expertise, community knowledge, and municipal priorities, MetroLab, in partnership with the City of Baltimore and the University of Baltimore, convened a Local Government R&D Agenda Workshop. The workshop brought together representatives from city agencies, higher education institutions, philanthropy, and community-based organizations to surface priority research questions that could directly inform policy, operations, and program design in Baltimore.

Participants emphasized the importance of applied, locally grounded research that reflects Baltimore's specific conditions, constraints, and opportunities, rather than generic best practices. Across discussions, there was strong interest in research that supports implementation, improves service delivery, strengthens financial sustainability, and connects investments in housing, transportation, and infrastructure to public health and neighborhood outcomes.

This report summarizes the research needs, collaboration opportunities, and implementation considerations identified during the Baltimore workshop that occurred on December 5, 2025.

Baltimore's Research Needs

MetroLab convened this workshop with Baltimore leaders and stakeholders to surface shared research priorities, explore collaboration models, and strengthen the relationships between institutions as drivers of evidence-based governance.

Participants identified four recurring domains where applied research could directly support policy and operational decision-making:

- Transportation and Infrastructure
- Service Delivery
- Funding and Finance
- Housing and Health

Topic 1: Transportation and Infrastructure

- What foundational investments are required for Baltimore to take advantage of smart infrastructure and data-driven transportation systems, going from “-1 to 0” to prepare for future deployment of these technologies?
- How can Baltimore modernize traffic operations and safety systems given fragmented and disconnected infrastructure?
- How can infrastructure planning better coordinate across agencies, utilities, and capital timelines, including balancing of competing capital priorities across agencies and departments?
- How do transportation investments affect equity, access, school absenteeism, and daily life across neighborhoods?
- How can community engagement be improved around infrastructure projects to build trust and improve outcomes?
- What transportation and infrastructure investments and technologies are best suited for unique challenges to Baltimore, rather than generalized best practices?
- How can advanced technologies improve specific transportation and infrastructure issues like trash and recycling truck routing optimization, identification of issues like water leak recognition, traffic and crash trouble-spot identification?

Topic 2: Service Delivery

- How do resident perceptions of service quality compare to administrative data and where do gaps emerge (e.g., 311 complaints vs. resolutions, perceptions on crime vs. crime data)?

- How can Baltimore design evaluation frameworks that support faster and more sustainable operational decisions, including using university involvement for evaluation plan development before implementation?
- What organizational or process barriers limit effective service delivery?
- How can research outputs be better translated into implementable tools for city staff, or even include researchers through the implementation of recommendations from research outputs?
- What core services are most important to residents and contribute to resident attraction and retention?

Topic 3: Funding and Finance

- What alternatives to tax sale can address delinquency without displacement and what are peer cities doing that has worked to address tax delinquency?
- How can behavioral science improve compliance with delinquent water bill payments?
- How can cities stabilize revenue while accounting for resident financial hardship?
- How do different tax systems far when compared (e.g., land value tax jurisdictions, property tax vs. income tax heavy jurisdictions)

Topic 4: Housing and Health

- How can Baltimore use existing mechanisms or innovate to better measure housing conditions, vacancy risk, and building quality?
- How do market forces and investor behavior affect neighborhood stability and health?
- How do housing investments affect health, safety, and education outcomes at the neighborhood and block levels?
- What are the costs and benefits of building code and how might reimagining building code development and governance impact them?
- How can housing be made more equitable across Baltimore and reduce segregation?
- What are proven methods for reducing overdose risk, particularly for post-incarceration?

How to Strengthen the Ecosystem for Research Collaboration

Workshop participants from local government, higher education institutions, and community organizations discussed how Baltimore can strengthen the connection between research and real-world policy and operational decision-making. Responses reflected a shared desire for more consistent collaboration, clearer pathways for engagement, and research that is designed for implementation rather than theory alone.

Participants emphasized that Baltimore does not lack expertise or ideas. Instead, challenges stem from misaligned incentives, limited capacity, fragmented data systems, and research processes that do not always match city timelines or constraints. The following recommendations reflect concrete steps Baltimore, and its partners, could take to improve research-to-impact outcomes based on how participants described both the barriers they face and the conditions under which research has been most useful.

- **Design research around Baltimore’s starting point, not the average city:** Participants noted that many research products can fail because they assume baseline systems, staffing, or infrastructure that Baltimore does not currently have. Research projects focused on city outputs should explicitly document Baltimore’s current baseline and design recommendations that move the city incrementally forward from that point rather than benchmarking against idealized peers.
- **Focus on the “last mile” from research to implementation:** Strong research ideas often stall once they encounter real-world implementation barriers. We recommend that research efforts should include an explicit implementation phase that addresses things like policy authority, staffing, procurement, data access, and operational ownership.
- **Align research timelines with political and operational realities:** Research projects should be scoped with explicit attention to mayoral terms, capital planning cycles, budget timelines, and legislative processes. Where possible, projects should include short-term outputs that inform near-term decisions, paired with longer-term analysis that can support future planning.
- **Produce research outputs in formats city staff can use:** Participants emphasized the contrast between academic incentives and what city staff actually need to act. We recommend research include things like short decision memos, implementation toolkits, or program designs that translate findings into concrete actions.
- **Embed evaluation and data collection at the start of programs:** Participants highlighted that evaluation is often introduced too late to shape learning or improvement. We recommend that new policies and programs should be paired from the outset with evaluation plans, data collection strategies, and shared metrics, leaning on university partners for assistance early in the process.

- **Co-develop research questions to ensure shared ownership:** Research can be made far more effective when city agencies help define the questions being asked. Research agendas should be co-created with city agencies and community partners, with shared agreement on goals, constraints, and expected outcomes.
- **Improve research wayfinding and visibility of local capacity:** Participants emphasized the need for clearer signals about who does what across universities and city agencies. One recommended solution would be to create a lightweight, publicly accessible directory that maps Baltimore-area university research expertise, ongoing applied projects, and primary points of contact by policy domain. Update it annually and use it as a shared reference for city agencies when scoping projects or seeking partners to reduce reliance on informal networks and ad hoc outreach.
- **Use research to strengthen institutional memory/learning:** Commission targeted retrospective analyses that document prior policies and decisions, including what was tried, what worked, and what didn't to help city agencies understand historical context and avoid repeating past approaches when leadership or priorities change.
- **Lower procurement and contracting barriers for applied research partnerships:** Develop clearer guidance and contracting pathways that allow city agencies to engage local universities for applied research and evaluation work.

Observational Takeaways from Workshop

- City, academic, and community participants expressed strong interest in applied research that directly informs policy decisions, service delivery, and implementation rather than standalone or purely academic studies.
- Baltimore's ability to adopt research-driven solutions is shaped by foundational capacity gaps, legacy systems, and uneven infrastructure baselines that must be accounted for in research design.
- Many of the city's priority challenges, including housing instability, public health outcomes, transportation access, and infrastructure conditions, are deeply interconnected and cannot be addressed through siloed research efforts.
- Participants identified persistent gaps between administrative data and resident perceptions (around crime, for example), highlighting trust, communication, and engagement as critical constraints on policy effectiveness.
- Academic and community partners demonstrated willingness to support city priorities, but noted that unclear entry points, misaligned timelines, and uncertainty about expectations often limit collaboration.
- Evaluation and data collection are widely valued but are often introduced too late in program lifecycles to meaningfully inform.

- Participants emphasized that sustained relationships and continued engagement matter more than one-time projects, with trust and impact depending on continuity beyond report delivery.

About FAS and the Local Government R&D Agenda

Cities are often on the front lines of solving difficult and complex social issues such as affordable housing, mental health, and digital equity. Universities can serve as a key partner, producing cutting-edge research, ideas, and technology that could help cities solve some of these complex issues.

And yet, there is a disconnect between research and local government programs and policies. Why? We believe for two primary reasons: 1) research is often pushed, not pulled from local government and 2) research output doesn't necessarily align with how cities and counties work – and so it's difficult to adopt.

MetroLab aims to equip cities with science and research. And with philanthropic support, MetroLab is producing a national body of work called the Local Government R&D Agenda: a list of identified priority research areas that can address local governments' complex issues and needs. MetroLab aims to do this by working with a select number of cities and hosting workshops with nearby universities and colleges to ask the question "if you could get research on [blank], what would you want?".

By intentionally bringing these key stakeholders together, we can produce actionable research addressing complex challenges. For example:

- What if R&D efforts reduced the cost of affordable housing in half?
- What if city councils received draft policy language to make starting a business as easy as getting a driver's license?
- What if we discovered ways to expedite recovery funds delivery to low- to moderate-income neighborhoods, reducing wait times after a disaster event?

At the conclusion of the city-hosted workshops, MetroLab will work with federal agencies and congressional stakeholders to fund projects that would directly support and address the Local Government R&D Agenda. We hope to bring those projects back to cities, with MetroLab serving as a matchmaker of research and programmatic outcomes back to the local communities we partner with.

Appendix: Notes Captured During the Workshop

Workshop Question Responses

During the workshop, several interactive questions were asked of the participants. Those answers informed the summary above and are listed in full below.

For local government, what is one word you think of when you hear “research”?

- Time
- Study
- Inquiry
- Question
- Data source
- Incremental
- Time-consuming
- Regional analysis of a tailored/well-defined subject, issue, etc.
- Data
- Topic
- Hypothesis
- Paper
- Knowledge
- N/A (as in the research is not applicable)

For academic partners, what is one word you think of when you hear public policy?

- Rules (x2)
- Impact
- Community values
- Values
- Politics
- Corrective
- Laws
- Squishy!
- Quality of life
- Opaque
- Guidelines
- Outcomes
- Instrumentalism

In five words or less, how do you know who to work with from the other institution?

For local government:

- Google institution and review staff profiles
- Via the grapevine
- A good match to need
- Implementation experience
- IDK
- Ask smart people in the institution who they suggest
- Ask questions about the topic/person responsible

- Networking and ask for recommendations
- BNIA events
- Johns Hopkins Research Lab
- Experience in my shoes
- Relational connections
- Previous public/private relationships
- Google Scholar
- Google Scholar/local experts

For academic partners:

- They return your calls
- Procurement
- Personal contacts/mutual friends
- Existing relationships and city agency websites
- Ask current partners/other faculty
- I ask Jason
- Call someone from the agency
- Through my colleagues and internet
- Google or networking with a contact to find right/willing person
- Ask people in professional network
- Ask my network/colleagues
- Common colleagues
- Alumni
- Website

What myth do you want to bust to the other side?

For local government:

- Government can move nimbly if given right resources (time, energy, attention, \$\$\$)
- People think we have time to wait for answers
- That no one cares
- That we want to preserve the bureaucracy
- People think we have no plan
- City employees are not smart enough to solve societal problems
- That we are unaware of the problems
- People think local government is just lazy when it is not lazy enough
- We DO read your research...but usually just the abstract and conclusion
- People think there are strict rules and guidelines
- That the internal validity of their work is more important than the external validity
- City employees are very resourceful

For academic partners:

- That it's hard to work with universities
- Not useful/helpful/applicable
- People think we want you to look bad or highlight problems or assign blame
- Researchers stay in their ivory towers and aren't interested in anything practical

- People think that all surveys and community engagement is representative of public opinion
- There are some engineering academics who care about qualitative data and outcomes
- Applied research is important
- That AI will lead to actionable outcomes
- That problems can be solved with more data
- Data findings that aren't what you want/expected are unhelpful
- Our timelines are not too long - we need to be intentional and thorough in answering our research questions
- That we are removed and distant

For local government, if you could get research on [blank], what would you want?

- Effective traffic patterns in urban planning
- Multimodal transportation implementation
- What is the impact of the absent degree of traffic enforcement in Baltimore?
- What will it take to shift control of the transit system to regional governments?
- Figuring out where our drinking water leaks before the water meter
- Machine learning/predictive analytics for crashes/traffic mitigation
- Research on 311 data - complaints vs. resolution
- Which programs are most effective?
 - Can be merged, streamlined, etc.
 - What programs should we fund at higher levels
- How local governments can best develop internal capacity to execute projects, develop technology solutions, etc. rather than relying extensively on contractors
- Optimizing trash recycling routes so they're dynamic and built for our tiny trucks
- What core services are most important for resident retention?
- Private funding for public assets that are difficult to fund under current conditions
- An effective method to collect tax revenue that isn't tax sale
- Psychological recommendations for how to approach collections on delinquent residential water accounts
- Quick/best practice literature reviews when we need it, that are valid to our context
- How to make housing more equitable across the city and reduce segregation (especially along the black butterfly)
- Financial incentives to ownership
- Reducing overdose risk post-incarceration
- Building code cost-benefit analysis
- How do land value tax-based jurisdictions in the US and around the world fare?
- How property tax vs. income tax heavy jurisdictions compare in outcomes?

For academic partners, what research do you think local governments need?

- Historical understanding of previous policy/practice decisions. People and programs turn over quickly here. We often lack institutional memory of:
 - What came before
 - What we tried before

- Whether it worked or not
- If a problem is old or new
- Pedestrian infrastructure and pedestrian experiences of the city
- Other than work/home where do different people spend time in cities in terms of both neighborhoods and activity spaces
- How do people learn about different neighborhoods and form opinions about them and how does this impact where they consider living, working, and playing
- Block level impacts of flooding (non-sanitary sewer)
- More evaluation studies about impact of city policies on health and economy that will lead to best practices
- Evaluation analysis of prior budget allocations
- Effectiveness of policies and programs of interest to mayor/council priorities (housing, safety, overdose prevention)
- Data on health by neighborhood, age group, and other socio-demographic characteristics (i.e. integrated data dashboard for decision-making)
- Impact studies on funding programs for community development
- How do we increase community preparedness and resilience to disruptions in this city/specific communities
- Qualitative impacts of transportation access
- Corporate ownership of households and market activity of corporate owned housing stock
- Impact of policies on their residents → design evaluation before/while implementation
- System-based impacts - beyond the usual silos of work. What connections can be made across various domains?
- Best practices on data collection and management (particularly qualitative/mixed methods)
- Qualitative stories, oral histories, and narratives
- Research on the integration of data sets for use across agencies and for public
- Youth and/or community participatory action research - how can we do a better job of meaningfully engaging the people who have to live with our policy decisions?
- Research evaluating funded initiatives and (positive) outcomes for residents
- Help us identify folks to work with in agencies who have aligned interests
- Providing access to city data or making access to city data easier

For local government, how can academic partners support policy development and programmatic needs?

- By providing summaries of best practices and literature reviews that are externally valid to our context quickly
- Study the right problems
- Identifying already implemented solutions to problems and identifying level (state/local/federal) and branch (executive/judiciary) required to implement
- Research on how “successful” cities (high quality of life) got there through policies, incentives, and government structure and operations and staffing
- Pursue contracting agreements that facilitate ongoing research relationships and contribute/leverage research findings

- Research best present practices and outcome to local government for implementation where needed
- Better partnerships between city staff and researchers on city programs and policies
- Working closely with analysts to understand program structures and data to build out targeted research
- Proactive research centered on current policy and conditions
- City economic development support for entrepreneurs and funders
- Be able to quickly brainstorm prototype, or experiment prior to a bigger scope of work
- Providing access to research
- Creating a pipeline to utilize research in operations
- It's not always clear how to engage academics
- Our needs are often very operational and immediate. This can sometimes be at odds with academics' research projects

For academic partners, how can local government support university innovation and economic growth?

- More open about needs and how research can help
- Hiring our graduates
- Partnership and collaboration
- By being transparent about procurement contracting - the good, the bad, the challenging
- Reduce barriers to small businesses and entrepreneurs instead of publicly financing big business, stadiums, conference centers
- We need to co-design solutions and research together - so need to find time to meet, discuss, and plan
- Put us to work - engage in long-term planning together so we can provide relevant evidence for your goals
- Partner to create robust evaluations of new city interventions and policies
- Coordinating and collaborating on applied projects - supporting and building out partnerships of knowledge sharing
- Research wayfinding - better promotion of capacity and research interests of university partners
- Partnerships and leverage their expertise
- Share data
- Use local researchers rather than consultants
- Co-create research/research questions
- Targeted specific partnerships and collaborative projects (with \$)
- Be a constituent
- Be a stakeholder/part of our strategy and decision-making
- Be a convener of experts
- Help us figure out how to get our shared work done without having to fundraise for it

**Thank you to the
University of Baltimore,
the City of Baltimore, and
partners for their
participation in this effort.**

Acknowledgements

Dr. Ralph O. Mueller, Senior Vice President for Academic Affairs and Provost, University of Baltimore

Dr. Amanda Phillips de Lucas, Director
Baltimore Neighborhood Indicators Alliance – Jacob
France Institute, University of Baltimore

Dartanion Swift-Williams, Chief Data and Performance
Officer, City of Baltimore

Dr. Jason Howard, Deputy Director, Analytics, Mayor's
Office of Performance and Innovation, City of Baltimore

MetroLab Network

1150 18th Street, NW
Suite 1000

Washington, DC 20036

www.fas.org/issues-metrolab

metrolab@fas.org