BLOOMBERG HARVARD | City Leadership Initiative

# Solving Urban Problems

## Research on Local Government Capacity

Summaries of key findings and practical takeaways from 24 peer-reviewed journal articles

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# Contents

# Introduction

City leaders who strive to improve quality of life for their residents face myriad challenges: housing affordability and homelessness; crime reduction and public safety; inclusive growth and social mobility; extreme weather events and climate change; transportation and neighborhood development. They are often under pressure to deliver despite resource constraints and limited formal authority. Meeting these challenges requires them to be strategic and resourceful by leveraging their assets to generate new and better solutions for urban issues.

*Solving Urban Problems* presents findings from two dozen peer-reviewed studies supported by the Bloomberg Harvard City Leadership Initiative in an easy-to-read format, providing practical takeaways for city leaders, students, and others interested in building problem-solving capacity in city halls around the world. These "action insights" are organized into four sections:

1. **Leading and Managing Strategically**
What can city leaders do to navigate the strategic challenges associated with tackling complex problems under conditions of uncertainty, public pressure, resource constraints, and competing interests?

2. **Using Data and Evidence**
How can city leaders become better commissioners and consumers of data and evidence and promote an organizational culture of curiosity, high performance, and continuous learning?

3. **Collaborating Across Boundaries**
What can city leaders do to create the right conditions for collaboration across departments, sectors, and jurisdictions to deliver better outcomes for residents?

4. **Innovating and Implementing New Practices**
How can city governments generate, test, and implement new ideas and novel ways of addressing key urban issues?

The research presented in *Solving Urban Problems* employs both qualitative and quantitative methods, drawing on data from interviews, focus groups, direct observation, and surveys, as well as large-scale datasets including cellphone data and administrative records.

Informed by real-world challenges, the research of the Bloomberg Harvard City Leadership Initiative aims to bridge the gap between academia and city hall. As of fall 2025, 613 mayors and more than 4,100 senior officials from 594 cities in 62 countries have participated in the Initiative's executive education programs and fieldwork. Their challenges have informed the Initiative's research agenda, and the research findings have, in turn, informed the curriculum.

This first edition of *Solving Urban Problems* brings together all action insights published to date in one place. It is a reference for city leaders, practitioners, and scholars alike—an accessible entry point into a growing body of research on strategic leadership and management, cross-boundary collaboration, using data and evidence, and innovation in city government.

The university-wide Bloomberg Center for Cities at Harvard supports the Bloomberg Harvard City Leadership Initiative along with eleven other labs advancing research on urban problem-solving and city leadership. It also supports research on solutions for urban problems and innovation in local government through open calls for research. The Center, established in 2021 through a gift from Bloomberg Philanthropies, is designed to have a practical impact on cities, where more than half of the world's people currently live.

# Leading and Managing Strategically

# Making Sense of It All

## Using Analytical Tools in Everyday Work

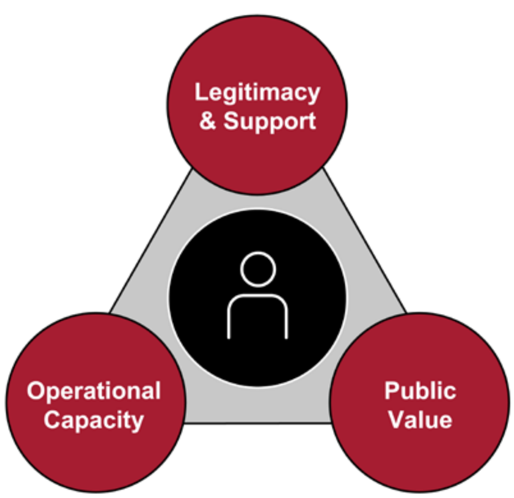
Thinking and acting strategically is central to effective public management. Public Value Theory offers analytic tools to help public managers guide inquiry and shape decisions. A study published in the journal ***Public Management Review*** examines how practitioners can take advantage of theory in practice.

In 2016, Dr. Roberto Claudio, the mayor of Fortaleza, Brazil, was determined to deliver on his election promise: tackling a drug shortage problem in public health clinics, where patients often had to wait a long time or travel far to get the medication they needed. However, not everyone in the healthcare system—or even on his own team—saw the problem the same way or felt the same urgency. With high public expectations but scarce financial resources, Mayor Claudio faced a triple strategic challenge: how to realize the goal of delivering medications to patients in a convenient and timely manner, how to reimagine the capacity to deliver with little money, and how to engage lukewarm yet essential stakeholders.

"Public value," a term coined by Harvard professor Mark Moore, is defined as "the net 'good' that public leaders produce that each of us—and all of us together—enjoy." Moore has built a robust set of analytic tools on the concept of public value that allow practitioners and scholars alike to make sense of thorny problems and tricky politics. The "strategic triangle," for example, helps managers assess available resources, support from stakeholders, and pin down the true public value of a given enterprise. Assessing a strategic challenge in this way can help distribute attention, challenge assumptions, identify blind spots, and generate new ideas.

> *Assessing a strategic challenge can help distribute attention, challenge assumptions, identify blind spots, and generate new ideas.*

***Figure 1.*** *The Strategic Triangle imagines the public manager as an agent of change seeking to align legitimacy and support on one hand and operational capacity on the other with the creation of public value.*



While the tools of public value theory are designed to help managers handle ambiguity and cope with the continuous clash between the interests, perspectives, and values that are at the core of so many public challenges, applying them can be difficult: how to use an abstract concept to take concrete action? An international group of scholars and educators, who have written about and taught public value in classrooms and boardrooms around the world, published a paper that explores how, exactly, analytic tools can help managers make sense of messy situations. They identified four ways in which analytic tools can be used in everyday work:

*How to use an abstract concept to take concrete action?*

### 1 Setting a Level of Ambition

*Analytic tools help articulate and clarify goals*. What positive change—what *value*—are you and your organization producing? How do you know you are actually producing value—i.e., improving conditions in the world? In Fortaleza, having won reelection on a campaign promise about medicines, Mayor Claudio wanted bold action rather than a vague, open-ended commitment to “improving access”—and his team came up with a very specific list of 84 essential primary-care medicines that needed to be delivered more effectively, efficiently, and equitably. His public value proposition of accomplishing concrete improvements in residents’ quality of life through innovations in delivery of medicines was compelling and galvanized both his team and external stakeholders.

### 2 Exploring the Strategic Space

*Analytic tools can help chart a path forward.* What forces within or outside the organization reinforce the status quo—or prompt it to change? What room to maneuver exists for both the organization and the individual manager? The strategic triangle helps managers take a broader view of their “strategic space” or room to operate. In Fortaleza, many people felt improving access to drugs was an impossible task given the system’s complexity and the time and money it would take to change it. The unorthodox idea of installing small pharmacy units in bus terminals was met with skepticism but once it became clear that it was operationally and financially feasible it became hard to resist. Ambiguity, conflict, inertia, and all sorts of other constraints are part and parcel of public management, but opportunities for positive change can and must be found. Systematic analysis of the immediate environment helps to identify them.

*Ambiguity, conflict, inertia, and all sorts of other constraints are part and parcel of public management, but opportunities for positive change can and must be found.*

### 3 Navigating Conflicts and Constraints

*Analytic tools help managers understand differences in perspective and interests among stakeholders.* Change-makers who experience resistance or indifference to their plans are forced to think about where others are coming from. What do they want and why? What are they concerned about? Is there a way they can see value in the proposed innovations? Public officials will always be buffeted by contradictory demands and preferences, and tensions within the team as well as externally. In Fortaleza, Mayor Claudio’s original team had run out of steam in the face of the tedious task of improving access to primary care medications. He decided to bring in new perspectives and specific financial, technical, and managerial expertise. The new team was quickly able to transcend the trade-offs that impeded progress and bring parties together around an innovative solution. The strategic triangle can help users chart perspectives on problems (and solutions) held by stakeholders and the community at large. Here, the tool helps change agents resolve conflicts through inclusive framing, open deliberation, structured negotiation, and careful process management.

*The tool helps change agents resolve conflicts through inclusive framing, open deliberation, structured negotiation, and careful process management.*

### 4 Imagining Your Personal Role

*Analytic tools help change agents focus their attention and figure out their role.* At any given time, in any particular situation, the challenge for value-seeking public entrepreneurs is to determine how and where to be most effective and where to direct one's attention: Should you do more research and work on crafting a more compelling value proposition? Should you engage in aligning stakeholder expectations; should you work on reinventing the operational capacity to deliver? In Fortaleza, Mayor Claudio started using the strategic triangle in 2018 to change the way he ran planning meetings with his staff. Rather than rattle off a list of tasks and instructions or try to control the process, he presented the triangle and articulated his vision of timely delivery of essential medicines to every patient who needed them. Mayor Claudio then asked his team where and how they felt they should focus the administration's efforts to achieve that value proposition. This created space for his team to imagine new ways to solve the puzzle and conceive new roles they could play, individually and as a team.

## Assessing Self and Situation

In each of these four dimensions, there is a need for balance. Elected officials and public managers may get carried away, feel unconstrained, or inflate their own importance, with the risk of imposing their vision onto others and putting their interests before the public's. On the other end of the spectrum, managers may retreat to conventional or conservative administrator behavior, failing to fully explore the potential to create public value. Analytic tools can help get the balance right.

**Table 1. Understanding the dimensions of a public management challenge through public value tools**

| DIMENSIONS OF CHALLENGE | RESTRAINED | BALANCED | UNRESTRAINED |
|---|---|---|---|
| Value ambition | Focus on minimizing costs and hitting targets | Focus on adding value to society | Focus on fulfilling own ambition for society |
| Strategic space | Focus on managing operations and serving politicians | Focus on alignment between public value, legitimacy and support, and operational capacity | Connect everything with everything, overextending the strategic space |
| Conflicts and constraints | Take constraints as a force of nature and aim to depoliticize or ignore value conflicts | Aim to assess and discuss constraints and facilitate the resolution of value conflicts through deliberation and structured negotiation | Ignore constraints and aim to prevail in conflicts at all costs |
| Personal role | Accepts alienation from work and does not insert oneself into the equation | Strikes a balance between loyalty to the current political or social equilibrium and commitment to changing the situation by individual exercising leadership | Regards the public domain as personal exploration space and adopts a frontier mentality |

*(Table 1 appears in the underlying study by Jorrit de Jong, Scott Douglas, Mariafrancesca Sicilia, Zoe Radnor, Mirko Noordegraaf and Peter Debus, in* Public Management Review *19:5, 605-620)*

Using analytic tools of public value theory—like the strategic triangle—can help practitioners reconnect with purpose and rethink how they operate. The tools do not prescribe definite answers or concrete solutions. Instead they help raise the right questions, identify blind spots, focus attention, and structure conversations. Using the tools takes practice, and people often find external facilitation helpful. At the same time, the example of Mayor Claudio, and many others like him, shows that the key factors to effective use of analytic tools include curiosity, openness to reflection, and a deep commitment to creating public value one way or another.

*Using analytic tools of public value theory—like the strategic triangle—can help practitioners reconnect with purpose and rethink how they operate.*

## Further Reading

"Instruments of value: Using the analytic tools of public value theory in teaching and practice"
*Public Management Review*

Public Value Toolkit
Bloomberg Harvard City Leadership Initiative

"Fortaleza: Keeping an Electoral Promise"
Bloomberg Harvard City Leadership Initiative

## Researchers

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This Action Insights summary was authored by Jorrit de Jong, Eric Weinberger.

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# All Minds on Deck!

## Engaging Employees in Strategic Work

Who "strategizes" in your organization? In a networked world, employees at every level of the organization are needed to navigate complex issues and act strategically—not only the top layer. A study published in the journal ***Review of Public Personnel Administration*** explores what leadership and human resources might do to engage and support employees.

Sander, an employee of a government agency in the Netherlands, was confused. He had been asked to manage a digital initiative to provide citizens with one email inbox for all government correspondence. While his department felt responsible for ensuring the new tool was user-friendly, secure, and widely adopted, other agencies involved in the initiative had invested more resources and had more influence. As a result, he felt he had no real mandate to engage in the design process. However, as a member of the multi-agency working group, he regularly saw opportunities to nudge the group towards a user-friendly and secure solution. He hesitated: was this his role to play?

### Strategic Work in a Networked World

No single entity holds the answers to our society's most pressing problems. Organizations of all stripes—from the private and non-profit sectors to government entities and beyond—must work together to make headway on thorny social issues. Governmental organizations at all levels are increasingly collaborating with outside partners to design and deliver solutions, in what is called a networked governance approach. This approach recognizes government must constantly reorient itself and collaborate to make progress on social goals. According to our study in the *Review of Public Personnel Administration*, networked governance requires strategic thinking and action at all levels of the organization. In other words, public sector organizations need "all minds on deck."

*Government must collaborate to make progress on social goals.*

*Strategic capacity in the public sector is the ability to align resources and support with public goals.*

*Strategic capacity in the public sector* is the ability to align resources and support with public goals; put simply, it is using what you have to get what you need to accomplish what you want in the best interest of the public.[1] *Distributed strategic capacity* is a concept referring to mid-level and front-line employees' contributions to strategic action, particularly through their coordination and communication with external partners. However, even for an organization whose leaders promote the idea that employees play a role in strategic work, the organization may not be structured to truly support having "all minds on deck" in practice.

We find that traditional tools are necessary but not sufficient to promote employee participation in strategic decision-making. For example, while strong mission statements help align everyone's work under one purpose, organizational charts map where certain strengths lie, and human resource practices can both clarify employee expectations and incentivize strategic action, none of that is sufficient to engage employees in strategic work. Two additional things, our study finds, are critical in enabling distributed strategic capacity. Namely, making space for strategic reflection amidst employees' daily demands and addressing the fact that employees are being pulled in two seemingly opposite directions: serving politicians and serving the public.

*We find that traditional tools are necessary but not sufficient to promote employee participation in strategic decision-making.*

### Making Space for Strategic Reflection amidst Daily Demands

In the study, we examined a 110-employee government department in the Netherlands. Though leadership had stressed the importance of mid-level and frontline employees accomplishing strategic work, it was clear that barriers existed. To surface these, we developed four case studies replicating real-life instances of employees facing strategic opportunities (e.g., the story in this article's introduction). Employees were asked to read the case studies and discuss the dilemmas of the strategic work. In post-discussion surveys, many of the 50 respondents shared that one barrier was that management prioritized fulfilling daily tasks, and amidst a flood of political demands, there was no time to think about how an employee could most effectively pursue the organization's mission. In other words, strategic work, as we observed, "was seen as yet another task added on top of an already long 'to-do' list." Amidst these tensions, one employee wondered, "Will strategizing ever make sense given the fact that we will always have insufficient authority, time, and resources to do what we need or want to do? Will it make sense to do it if the top is not visibly doing anything different themselves?"

*Without leadership providing clearer guidance around strategic behavior, "employees were not likely to engage.*

### Reconciling Directives from the Top vs. Expectations of the Public

Another barrier to employees' strategic work was the tension between "serving political demands or serving society." While the employees surveyed often felt their ultimate goal was to serve the public, their daily tasks of fulfilling superiors' demands overtook abstract, strategic goals, such as serving society. In fact, we found that without leadership providing clearer guidance around strategic behavior, "employees were not likely to engage." While the department performed its short-term, technical tasks well, it could not meet its expectations for long-term goals without working strategically with other stakeholders on every level (including the employee level).

### Assessing Employees' Strategic Capacity

In addition to supporting employees' strategic capacity, the study highlighted the importance of employee assessment. The case study discussions revealed that the employees' responses to different strategic opportunities varied widely. The variation in answers led us to conclude that while leadership and human resources might be aware of an employee's traditional role and expertise, they were less adept at developing and assessing an employee's softer skills that would contribute to strategic work. For example, an employee's ability to collaborate, think in the abstract, be open to new perspectives, analyze and diagnose a problem, and think innovatively were not skills the organization was prioritizing.

 

### Takeaways for Your Work

For networked governance to function effectively, organizations need dynamic people who will not just wait for orders but who will chart a course of action themselves, endeavor to align their work with the overarching goals of the organization, and adjust when new opportunities and challenges arise. To help employees feel supported in their strategic work in a networked governance environment, leadership and human resources can consider the following:

> *Organizations need dynamic people who will not just wait for orders but who will chart a course of action themselves.*

#### Routinize strategic thinking

When strategic work is a priority for employees, consider how to encourage and incentivize them to do it regularly. For example, put recurring time on the department-wide calendar for strategic thinking when employees can drop what they're doing, take a step back, and reflect on how their projects can serve the organization's purpose more effectively. Encourage employees to spend this time how they feel most productive—either independently, in groups, or a mix of both.

#### Incentivize strategic work

If employees are told strategic work is important, but they are only evaluated on whether or not they accomplished their daily outputs, they will be discouraged from participating in strategic work. Verbal encouragement by leadership is not enough; human resources management needs to ensure that systems are in place to encourage and support employees in accomplishing their strategic work goals.

#### Assess and develop strategic capabilities

Some employees who have deep expertise in their daily tasks may not be strong strategic actors. To assess and develop strategic thinking, consider using "case studies" or stories that are based on real-life dilemmas to illustrate moments when employees have an opportunity to engage in strategic work. Then hold sessions for employees to discuss how they would act in the same situation, recognizing that there is more than one "right" answer. Not only can these case sessions be an important tool for leadership to assess and train employees—it can be invaluable for leadership in understanding where employees need more support or where work needs to be redistributed based on employee strengths.

The world of networked governance can be messy, ambiguous, and volatile. To make sense of it all, leaders need input and feedback from their mid-level and frontline employees. They also need them to act and think strategically on behalf of the organization and to make judgment calls to advance the mission. In doing so, employees may find themselves managing up, down, and sideways. This is a challenging task for anyone. However, with the right support, many public sector employees can be empowered to make progress on strategic work for the organization as a whole, bringing it closer to its goals at a faster pace—all while including more people and more perspectives along the way.

> *Employees may find themselves managing up, down, and sideways. This is a challenging task for anyone. However, with the right support, many public sector employees can be empowered.*

## Further Reading

“All Minds on Deck? Assessing Distributed Strategic Capacity in Public-Sector Organizations”
*Review of Public Personnel Administration*

“Making Sense of It All: Using Analytical Tools in Everyday Work”
Bloomberg Harvard City Leadership Initiative

Public Value Toolkit
Bloomberg Harvard City Leadership Initiative

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## Endnotes

[1] This definition is based on work developed by Marshall Ganz, see: “Resources and Resourcefulness: Strategic Capacity in the Unionization of California Agriculture, 1959-1966,” *American Journal of Sociology*, Volume 105, Number 4, Jan., 2000, https://www.journals.uchicago.edu/doi/abs/10.1086/210398?casa_token=rWqj_PYcuwUAAAAA:QWnr7VEzM4vEEEEEQpwEF_81e0_hi4iMb4WwHviwn_wepVCvPwKdTjAtC8-wXy_SGXGrgtmICnIK, accessed December 2021.

# The First 100 Days

## How Time Management Shapes Mayoral Transitions

What does it really take for a new mayor to succeed in their first 100 days? Many imagine they will focus on strategic work and community presence, only to find themselves pulled into the urgent, day-to-day demands of governing. A study published in the journal ***Public Administration Review*** examines how newly elected U.S. mayors forecast their time use during transition and how they actually spent it. Understanding this gap can help leaders turn their early months from a scramble into a foundation for success[1].

New mayors often enter office with ambitious plans to transform their cities. But within days, many discover their time is quickly consumed by the immediate demands of governing. As one mayor recalled, “Once you get elected, there’s about 10 other jobs that nobody ever told you that you were going to be doing.”[2] Another described the challenge of saying no to a flood of invitations, joking that “my chief of staff jokes that I have community FOMO [fear of missing out].” Others were surprised by their sense of confinement from spending so much time in city hall, remarking that “I feel like I’m locked in my office.”

> *“Once you get elected, there’s about 10 other jobs that nobody ever told you that you were going to be doing.”*

### Entering the First 100 Days

Research published in *Public Administration Review* follows fifteen newly elected mayors of U.S. cities, revealing a striking pattern: the way mayors expect to spend their time during transition rarely matches the reality of the job. The first months in office bring a flood of unexpected demands, and how leaders manage their time during this window can shape their effectiveness for years to come. This exploratory, mixed-method study is the first of its kind to shed light on what happens when mayoral expectations collide with reality, and what leaders can do to build the foundations of effective governance.

During the transition period, mayors face competing expectations from the public, staff, and external stakeholders. Yet few leaders enter office with direct experience managing the full scope of mayoral responsibilities. For example, as one mayor explained, “Being a better communicator to the public and with the media are things that I definitely have had to learn on the fly.”

To understand how mayors navigate this period, we surveyed fifteen newly elected mayors twice—once before they entered office, to capture how they anticipated spending their time, and again shortly after the first 100 days, to record how they had actually spent it. The results revealed consistent discrepancies: mayors underestimated the time required for short-term policy work and being physically present in city hall while overestimating the hours they would devote to long-term strategy and community presence. “I think I envisioned more space in my calendar for much larger thinking,” one mayor recalled, reflecting the persistent feeling of misalignment between intention and reality.

[1] The authors used ChatGPT in the early stages of developing this Action Insight.
[2] This quote and all subsequent quotes are from “An Exploratory Study of Mayoral Transition Work” by Matthew Lee, Quinton Mayne, and Jorrit de Jong, published in *Public Administration Review* on August 6, 2025, https://onlinelibrary.wiley.com/doi/10.1111/puar.70016
* Minor inaccuracies in a previous version of this summary have been corrected in this edition.

Two rounds of follow-up interviews, first immediately after 100 days and again one year later, provided deeper insights into these discrepancies. Together, the surveys and interviews show that mayoral transitions are best understood not as a matter of routine scheduling but as an early investment in the capacities that sustain leadership throughout their term.

*Mayoral transitions are best understood not as a matter of routine scheduling but as an early investment in the capacities that sustain leadership.*

## Why Early Choices Matter

Mayoral transitions are critical windows of opportunity. During this period expectations run high and legitimacy peaks even as leaders are still learning the job. The first 100 days are often described as a sprint, but they can also be used to set long-term patterns, build trust, and strengthen core capacities.

These capacities include **personal capacity** (managing one's own time and energy), **relational capacity** (developing trust with staff and stakeholders), and **organizational capacity** (aligning people, processes, and priorities in city hall).

- **Personal capacity** refers to the knowledge, skills, and mental readiness that reside within the mayor. These internal resources shape how effectively mayors manage time, energy, and decision-making under pressure.
- **Relational capacity** consists of the networks and trust-based relationships between the mayor and key stakeholders inside and outside government. These connections enable influence, collaboration, and legitimacy.
- **Organizational capacity** includes the administrative, operational, and strategic capabilities within city government. It encompasses the systems that help mayors align priorities, delegate responsibilities, and carry out their agendas.

These dimensions reinforce one another. By treating time not as a constraint but as a strategic resource, city leaders can deliberately strengthen their capacity across all three areas and build the foundations for more effective governance.

*By treating time as a strategic resource, city leaders can transform early pressure into long-term capacity.*

This research shows that time itself is one of the most valuable resources a mayor controls and early inefficiencies can leave leaders struggling to catch up for the remainder of their tenure. Mayoral transitions are not simply about getting through immediate tasks but are also a period for strategic investment in core capacities that last well beyond the first few months.

## Implications for City Leaders

Recognizing these dynamics, what can new mayors and city leaders do to manage their early months with greater intention? Our study highlights a challenge every new mayor faces: balancing urgent demands with long-term vision. Yet the daily pull of policy crises, media inquiries, and administrative responsibilities can easily preoccupy leaders. As one mayor explained, it was "difficult to structure my own time, because, fortunately or unfortunately, outside pressures kind of demand their own gravity."

By showing the gap between expectation and reality, this research encourages leaders to acknowledge that tension and manage it deliberately rather than reactively. Understanding these patterns helps mayors and their teams make early decisions about time management that can strengthen the administration's capacity. How a mayor spends their first weeks can either deplete their energy or generate the foundations of resilience.

## Takeaways

Four lessons stand out from how mayors spend their first 100 days. These are not just time-management tips but strategic choices that help mayors build the personal, relational, and organizational capacities needed for successful leadership.

> *The first 100 days are not just a sprint to survive, but a window to set the tone for how you will lead.*

**Protect time for strategy (personal capacity).**

Carving out time to focus on the long-term vision ensures that urgent demands don't consume the entire transition. A few hours each week devoted to reflection and planning can mean the difference between reactive leadership and the ability to set a clear direction for the administration.

**Invest in relationships and teams (relational capacity).**

Building trust with staff and partners early creates the foundation for everything else a mayor hopes to accomplish. Strong relationships multiply a mayor's reach and ensure that critical work continues even when their attention is pulled elsewhere.

**Map and compare resources (organizational capacity).**

Assessing city hall's strengths and misalignments helps new mayors identify where support is needed most. This early diagnostic helps identify gaps, align priorities, and ensure that transition goals reflect the true demands of leadership.

**Review and recalibrate (all three capacities).**

Regular conversations with staff or trusted advisors create a feedback loop that strengthens personal discipline, deepens relationships, and improves organizational effectiveness. "Getting to know staff has been really key," one mayor confirmed, "and I get to know them in a way that I didn't as a council member."

 

## Conclusion

One mayor emphasized the importance of building core capacities early on: "The first 100 days is building a foundation…if you're going to implement something, and you haven't established the conversation and collaboration with those on the council or the public…you may get to where you want, but you may have less support along the way." Future research can build on these findings by exploring how differences in city size, governance structure, or prior experience shape the ways mayors-elect allocate their time.

## Further Reading

"An Exploratory Study of Mayoral Transition Work"
*Public Administration Review*

"All Minds on Deck! Engaging Employees in Strategic Work"
Bloomberg Harvard City Leadership Initiative

"Mayoral Transitions: How Three Mayors Stepped into the Role, in Their Own Words"
Bloomberg Harvard City Leadership Initiative

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# Organizing People through Storytelling

## Public Narrative as a Leadership Development Practice

Why do some words move people to action while others are quickly forgotten? A study published in the journal ***Academy of Management Learning & Education*** proposes "public narrative" as a key form of leadership development in organizations and communities.

It was the spring of 2019, and Mayor Peter Buttigieg was about to announce his candidacy for president of the United States. The thirty-seven-year-old war veteran, former Rhodes Scholar, and openly gay Christian from the Midwest had only seven years of political experience as the mayor of South Bend, Indiana. Just a few years earlier, his city had been called one of the top ten "dying cities" in America. Buttigieg was not the typical presidential candidate, and the odds were not in his favor, but he felt he could unite Americans at a divisive time in the nation's history. Could he leverage the power of storytelling to rally people behind his vision?

Two years earlier, Buttigieg had participated in the inaugural cohort of the Bloomberg Harvard City Leadership Initiative, where he had received training and then coached other mayors in the art of "public narrative." The goal of public narrative, Buttigieg and his fellow mayors learned, is not to get standing ovations but rather to motivate people to take collective action. While that may seem a high bar, a study published in the journal *Academy of Management Learning & Education* by Marshall Ganz, Julia Lee Cunningham, Inbal Ben Ezer, and Alaina Segura argues that this practice can be learned.  It defines public narrative as a way to access, articulate, and communicate shared values  and provides a framework for harnessing its power to strengthen community ties and create leadership capacity.

> *Public narrative is a way to access, articulate, and communicate shared values.*

### A Framework for Public Narrative

Stories of "hurt" (struggle, injustice) and "hope" (belief in possibility) help people realize why they care about what they care about—and how they can find the courage to do something about it. Effective stories focus on specific moments when a protagonist confronts a challenge and finds the emotional resources to take it on. Details allow listeners to empathize with the protagonist, feeling the hurt and the hope, and thus learning an experiential "moral," a lesson of the heart.

Ganz's framework links together a "story of self," a "story of us," and a "story of now" as a leadership practice connecting the leader, their constituency, and the need to act now. The leader shares the *personal* experiences that shaped their motivation, the *shared* experiences that connect members of the constituency to each other, and the urgent *challenges* and *hopes* that can enable a community to choose action.

### Developing a Public Narrative


*Source: Ganz, Cunningham, Ezer, and Segura, "Crafting Public Narrative to Enable Collective Action."*

While anyone who is called to social action can learn to practice public narrative, they cannot do so by simply reading a textbook. Learning to practice the craft is like learning to ride a bike: you get on, you fall, and you either go home or find the courage to try again. The study outlines the following four-step teaching and learning process: first, an educator explains the concepts; then the educator models the practice; third, participants craft and share their stories, and also receive feedback from their peers and coaching from an expert facilitator; and, finally, participants debrief their experiences. The experience of articulating one's story, receiving coaching, and helping peers to improve is an empowering leadership development practice for everyone involved.

> *Learning to craft narrative is like learning to ride a bike: you get on, you fall, and you either go home or find the courage to try again.*

## Public Narrative in Practice: Buttigieg's Rise to the National Stage

After Buttigieg participated in the public narrative training offered by the Bloomberg Harvard City Leadership Initiative in 2017, he and his team decided to bring storytelling to South Bend. They hoped to strengthen community ties and rewrite the city's narrative from one of post-industrial decline to a new story of resurgence and civic purpose. Over a two-day period, a group of nearly fifty city staff members, partner organizations, and community organizers came together for a workshop based on the public narrative framework. As part of the session, Buttigieg delivered his own public narrative and coached a team of participants.

The workshop generated multiple successes: The director of the public library told a powerful story about why books were so meaningful to her and the community, which helped her secure a $5 million investment. A representative from the education department later leveraged her skills to communicate her vision for the city's public schools and win a seat on the school board. Many participants reported a better understanding of their peers' motivations and a greater connection with the mayor's vision for South Bend.

Buttigieg's use of public narrative not only strengthened his local leadership, it also helped shape his story as a history-making presidential candidate. He launched his campaign with a "story of self" rooted in the isolation he felt growing up as an intellectual, gay young man in a Midwestern city recovering from economic decline, a feeling that appeared to resonate with voters who felt anxious about their own place in America. He brought to life a "story of us" through vignettes that illustrated common challenges: natural disasters, the difficulty of getting health care, and an uncertain economic future. Finally, his "story of now" depicted the 2020 election as a crucial moment of generational change where voters had the power to come together to elect a president who shared their experiences and values and who could help prepare the country to meet these challenges for decades down the line.

Buttigieg won the Iowa caucuses and came in second in the New Hampshire primaries. Although he later dropped out of the presidential race, he had made a lasting impression as a talented newcomer and was seen as a rising star in the Democratic Party. *The New York Times* and other national media largely credited his success to his ability to leverage the power of story to connect with voters and establish a sense of shared identity and purpose. In December of 2020, president-elect Joe Biden nominated Buttigieg for Secretary of Transportation, making him the youngest person to serve in that role.

## It's Your Story, but It's Not (Just) About You

What makes this framework valuable to community organizers and political leaders alike is that it focuses on building relationships, enabling collective action, and growing a movement: it helps leaders craft their own public narratives even as they learn to develop this skill in others. To be effective at building authentic relationships, leaders must be willing to be vulnerable. Sharing their personal stories of hurt and hope motivates others to find the courage to share theirs.

> *To be effective at building authentic relationships, leaders must be willing to be vulnerable.*

When asked if public narrative was not just another form of packaging or branding, Harvard student Jayanti Ravi noted: "It is not about applying a gloss from the outside; it is about bringing out the glow from the inside." Public narrative is not a recipe for slick communication, political marketing, or personal success—it is storytelling in service of collective action. Telling one's own story is only a beginning; by enabling others to master the practice, leadership capacity for positive social change can expand exponentially.

## Further Reading

"Crafting Public Narrative to Enable Collective Action: A Pedagogy for Leadership Development"
*Academy of Management Learning & Education*

"Pete Buttigieg's Focus: Storytelling First. Policy Details Later"
*The New York Times*

"Pete Buttigieg's Campaign Kickoff: Full Speech, Annotated"
*The New York Times*

"All Minds on Deck! Engaging Employees in Strategic Work"
Bloomberg Harvard City Leadership Initiative

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## Endnotes

[1] MainStreet, "America's Dying Cities," *Newsweek*, January 21, 2011, https://www.newsweek.com/americas-dying-cities-66873.

[2] Ganz, an author of this piece and the associated academic article, is a Harvard sociologist with deep experience in community organizing. Building on his time both in the field and the classroom, he has developed a framework for learning, practicing, and teaching public narrative. He and Sarah ElRaheb lead the Initiative's public narrative training programs for mayors and other city leaders.

[3] Santiago Garces, former South Bend, Indiana Chief Innovation Officer, interview by authors, September 30, 2022.

[4] Alexander Burns, "Pete Buttigieg's Focus: Storytelling First. Policy Details Later," *The New York Times*, April 14, 2019.

# Eight Types of Power City Leaders Can Use When Negotiating

City leaders often feel their hands are tied in multiparty negotiations, but a study published in ***Negotiation Journal*** offers a framework for analyzing power in public negotiations that can help mayors and their staff develop a strong negotiation strategy.

Do you know your full arsenal of power moves when you're getting to the negotiating table? Are you leaving value on the table for your city when bargaining with private sector parties, non-profits, or other government entities? As we argue in our academic article, negotiations in the public sphere demand a specific lens on how power is distributed and how it can be garnered, especially to support a mayor's policy agenda and make a difference in constituents' lives.

Every day, cities and their leaders are at the center of negotiations large and small, from simple procurement contracts for grass mowing to large-scale public-private partnerships for building a subway line. And while some citizens might think that mayors wield untold formal power, many times it's the informal power, or a mixture of the two, that ultimately gets a negotiation to the finish line with constituents' interests served.

### Where City Leaders' Power Lies

Understanding the eight types of power at a public official's disposal can help city leaders more exhaustively analyze their own power—and that of others—when preparing for the trenches of a negotiation. See the table below for definitions of the eight types of power at play in a public negotiation.

| TYPES OF POWER | DEFINITION |
|---|---|
| **Formal Power** | |
| **Institutional** | Authority granted to an individual by virtue of their job title or position within an institution |
| **Convening** | Ability to bring groups together while retaining control of the agenda |
| **Veto** | Ability to stop a deal unilaterally, often through a legislative or administrative process |
| **Shift** | Ability to switch between multiple types of acceptable deals without incurring a personal or political cost |
| **Informal Power** | |
| **Moral suasion** | The ability to reframe a negotiation in a moral or ethical light that is favorable or unfavorable to one alternative |
| **Nuisance** | A party's ability to draw attention to themselves, even if they have relatively little power in the larger negotiation context |
| **Mixed Power** | |
| **Momentum** | Power that flows from the perceived progress of an actor's chosen alternative and the attachment of others to that course of action |
| **Coalitional** | Power based on an actor's preexisting ability to tap into a large network of allies and direct their resources toward a cause |

Formal power might be what first comes to mind when one thinks of the influence of the mayor's office. We differentiate broad formal power into four subtypes: institutional power, convening power, veto power, and shift power. Institutional power might include a mayor's ability to focus on certain problems and influence the public agenda or to broadcast (or limit) certain messages, such as what's included (or not included) in a mayor's first 100 days plan. A mayor might leverage convening power by bringing together stakeholders and controlling the meeting agenda, e.g., leaving off or adding in certain discussion topics. Meanwhile, veto power might be brandished as a threat to change the negotiating field or leveraged to prevent an unacceptable deal. Mayors generally have low shift power, since they can't be seen "flip-flopping" or treating different parties unequally.

> *Formal power might be what first comes to mind when one thinks of the influence of the mayor's office.*

Informal power, though less straightforward and more nuanced than formal power, is just as important, and it includes moral suasion power and nuisance power. Moral suasion power is especially relevant in the public realm, as it tends to deal with more controversial topics that may turn on moral or ethical arguments. It is also available to weaker parties, and if expertly wielded, it can secure a "seat at the table" for someone who was not party to a negotiation at the start. Nuisance power allows a group with no formal role in a negotiation to potentially change the narrative. For example, individuals without formal authority, such as grassroots activists, can call attention to a specific issue through protests, the media, or other negative publicity. Even using nuisance power as a threat can be a potent tool in negotiations.

> *Informal power, though less straightforward and more nuanced than formal power, is just as important.*

Mixed power includes momentum power and coalitional power. Momentum power may take the form of earmarking funds for a project to send the message that the project is happening, a perception that could assist in rallying support. Coalitional power is a blend of formal authority and personal relationships. For example, a well-connected mayor can call on a diverse group of allies and other stakeholders to direct their resources to a larger cause. Coalitional power paired with nuisance power can create a formidable agent for change.

## The City Leaders' Power Move Checklist

Given the growing expectation for city leaders to navigate and negotiate complex, multiparty issues and the increasing role of public-private partnerships at the municipal level, reflecting on different types of power in public negotiations could prove beneficial to city leaders. Below, we outline several suggestions:

### Be prepared

Ideally, before a negotiation, a mayor or city leader will have evaluated the formal, mixed, and informal power held by each party to assess the balance of power. This will inform a city leader's initial strategy, even if new events and new parties require changing the strategy along the way.

### Build relationships

Well-connected mayors can more quickly rally support and get their messages amplified, which can be extremely advantageous when exercising power such as momentum power, coalitional power, and nuisance power. While a mayor and other city leaders can certainly build relationships throughout a negotiation, having a base to call on before negotiations have even started can save precious time during the throes of a negotiation.

### Limit one type of power to strengthen another

For example, low shift power can allow for increased moral suasion power. That is to say, while standing your ground limits your flexibility, putting forth moral or ethical reasons for doing so can allow you to authenticate and better leverage moral suasion power.

### Consider two-level games

In two-level games (the iterative process between separate negotiations that influence each other), leverage your knowledge of both arenas and sequence your actions to help you build power. City leaders may also want to consider which parties are included at which levels to identify overlap and to assess the barriers and opportunities at each level. For example, when a state governor vetoes legislation, it can affect the choices and decisions of that state's mayors in their negotiations.

### Leverage power parity

If one party falsely thinks that they hold an outsized portion of the power, it may be advantageous to show counterparties that the power is more balanced than they might think. When negotiators know that their power is matched, they are more likely to work toward an alternative that is mutually acceptable to more parties.

Ultimately, no matter how simple or complex a city leader's negotiation is, having a sense of where different types of power lie can be beneficial to driving a political agenda and achieving the best outcome for a city leader's constituents.

 

## Further Readings

“Sources of Power in Public Negotiations: A Framework Applied to Public-Public and Public-Private Negotiations”
*Negotiation Journal*

“Tackling Homelessness and Addiction: Coalition-Building in Manchester, New Hampshire.”
Bloomberg Harvard City Leadership Initiative

Negotiation Teaching Case Set
Bloomberg Harvard City Leadership Initiative

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# Tackling Big, Thorny Problems

## Building the Capabilities Your Organization Needs

Bringing partners together around complex social issues and sustaining a joint effort demands capabilities that are often underdeveloped in public organizations. A study published in the journal ***Perspectives on Public Management and Governance*** outlines how investing in collaborative, analytical, and reflective capabilities can help governments solve problems more effectively.

Government responses to the COVID-19 pandemic provide painful examples of how difficult it is for public organizations to tackle complex problems. Early reports point to organizational inertia, information hoarding, and a lack of leadership as some of the main causes for governments' sluggish reactions and early missteps. A few countries, however, were able to mount an effective response. South Korea, for example, quickly "flattened the curve" of infections without shutting down the country.

According to a study, one reason South Korea was able to successfully manage the first COVID-19 outbreak was its prior investment in the capabilities to become a more effective problem-solver. After the 2015 MERS-CoV outbreak, the government created several task forces and cross-sector groups to carry out testing, drills, and joint response measures. The government also established a legal framework and infrastructure to streamline contact tracing and sharing patient data. It was this combination of convening the right partners, sharing the right data, and drawing the right lessons from the past that helped South Korea respond so effectively to the first wave of the COVID-19 pandemic.

*Convening the right partners, sharing the right data, and drawing the right lessons from the past helped South Korea respond so effectively.*

### A More Responsive Government

For centuries, public organizations have been designed to perform specific functions: the tax office collects taxes; the police enforce laws; and public schools provide an education. But, as our societies evolve, new challenges emerge, requiring us to reinvent how governments function. For example, organized crime forces the police to work with the tax office (and many other public bodies) as well as the private sector, while racial disparities in educational outcomes for children require schools to look beyond the classroom for partnerships and solutions that support students as well as their families and community. And climate change, with the threats it poses to life on our planet, cuts across virtually every traditional divide within and between the public and private sectors.

While the kinds of problems we face change constantly, government structures and organizations were built to last. This relative inertia is by design: after all, governments are expected to provide stability and continuity. The question is, how can public officials get better at tackling problems without having to redesign their organizational charts for every new challenge?

## Three Core Capabilities

In recent decades, academic scholarship has examined how the practice of "problem-oriented governance," that is, governance that is more responsive to today's most pressing problems, has emerged and evolved and how organizations have advanced this kind of work. However, existing research offers little guidance on how to build the necessary skills, knowledge, working practices, and behaviors—or what the necessary capabilities are—that enable and ensure that a government can mount a more tailored response to complicated problems and unpredicted crises.

Our academic article, "State Capabilities for Problem-Oriented Governance", aims to fill this gap. It provides three essential capabilities for any public organization to be more responsive to big, thorny problems:

### 1 Collaborative capability

Collaborative capability allows organizations to create and benefit from relationships within and across organizational boundaries. Getting the breadth and depth of these relationships right is key to integrating multiple perspectives and responding to the needs of different constituencies. It's the ability to find the right partners and work well together.

### 2 Data-analytic capability

Data-analytic capability is the ability to collect, process, analyze, and ultimately learn from varied forms of information, including both the implicit and explicit knowledge that allows an organization to interact with others and engage the community most productively. It's the ability to generate the right data and information and put them to use.

### 3 Reflective-improvement capability

Reflective-improvement capability is the ability to truly reflect on a problem's complexity in order to generate a sound action plan and to continuously adapt the course of action based on what's working and what's being learned. It's the ability to ask the right questions at the right time and take the answers to heart.

In practice, these capabilities are inter-related and work together, like the cogs of a machine, to propel effective problem solving. When they are "well-greased" and synchronized, they help an organization move faster and more efficiently. When one is weak, it erodes the contribution of the others. For example, an organization needs sufficient collaborative and data-analytic capabilities to integrate perspectives and information in order to reflect, learn from its actions, and adapt. Moreover, without collaborating and analyzing data well, the organization's reflection process will be clouded, causing it to misjudge or miss opportunities to invest in collaboration and data analysis skills, severely hampering the organization's performance in a vicious cycle.

 

***Figure 1:*** *The Framework*

| CAPABILITY | EXAMPLES OF HOW YOU KNOW IT'S PRESENT IN ORGANIZATIONS |
|---|---|
| **Collaborative capability** | Organizations share work processes and routines, pool resources, share information, have depersonalized collaboration arrangements, and collaboratives have autonomous decision-making abilities. |
| **Data-analytic capability** | Organizations use hardware, software, and skills to collect, store, process, analyze, and publish data. Data are used regularly and interpreted in meetings at all levels. |
| **Reflective-improvement capability** | Organizations have an explicit theory of change, processes to discuss changes and adaptations, and incentives and accountability structures. |

## Applying the Framework to Your Organization

The above framework can help public managers think about how to be more intentional in designing and managing an effective way to problem solve that incorporates continuous learning and collaboration. Instead of solving problems through a siloed approach, put the problem front and center—whether it's organized crime, educational outcomes, climate change, or another thorny problem. Then assess not only your current collaborative, data-analytical, and reflective-improvement capabilities, but also the capability gaps and areas of growth that are hindering your organization's ability to make progress. Like our opening example of South Korea's investment in a pandemic response, developing these three capabilities will undoubtedly pay dividends not only in the short-term, but into the future.

There's no denying that new approaches to intractable problems can be difficult to implement. Still, in order to diagnose and remedy these problems, public organizations can avoid cramming a square peg into a round hole. Instead, they can routinely exercise their knack to adapt their working practices around the problems they are trying to tackle. Much like committing to a fitness routine, building the "muscles" and "connective tissue" to be able to function flexibly, reliably, and repeatedly, is what problem-oriented governance is all about.

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# Using Data and Evidence

# Using Data to Solve Urban Problems

Most city leaders use data to make decisions, but few are getting the most out of the data available to them. A study published in the journal ***Information Polity*** offers a framework for optimizing data use to solve urban problems.

When Joe Curtatone became mayor of Somerville, Massachusetts, in 2004, he believed data could transform city government. Early initiatives like a 311 call center and SomerStat, a performance management system, gave officials real-time insights into resident concerns and departmental performance. Over time, these tools helped Somerville improve services, manage resources more strategically, and communicate more effectively with residents. By the time COVID-19 hit, the city had the data infrastructure to coordinate departments, act quickly, and keep infection rates below state and national averages—even though Somerville was the most densely populated city in New England.

Somerville's experience illustrates the power of data, but it also highlights a broader challenge: despite a surge in available data, studies have revealed that many local officials lack a clear understanding of how to use data in their cities and for what purposes. To address this, we synthesized our empirical research and insights from our work in more than 275 cities, reviewed 132 academic articles, and examined existing data maturity models. The result is a framework, published in the journal *Information Polity*, that clarifies the multiple ways governments can use data—and how doing so creates public value.

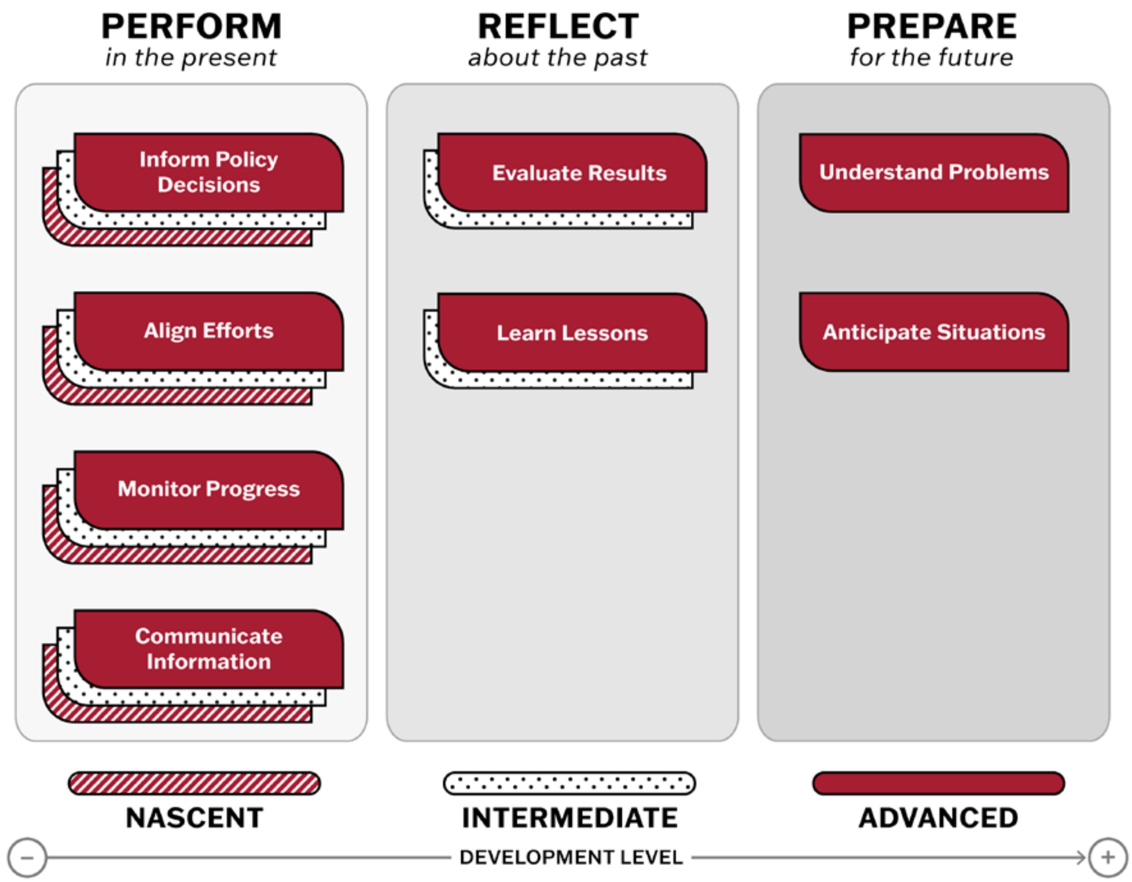
*Our framework clarifies the multiple ways governments can use data—and how doing so creates public value.*

### A Framework for Using Data to Create Public Value

Our research identified eight uses of data in government: to (1) understand problems, (2) inform policy decisions, (3) communicate information, (4) align efforts, (5) monitor progress, (6) evaluate results, (7) learn lessons, and (8) anticipate situations. Some concrete examples from our previous research can bring these data uses to life. For instance, cities used data to better understand the issues affecting veterans experiencing homelessness; they combined data from satellite imagery and police reports to design policies that better allocate resources in code enforcement; they used data during meetings with residents to keep them up to date on the status of ongoing projects; they pulled information from different departments to create a cross-agency task force to address distressed properties; they leveraged data to run a quasi-experiment to evaluate whether a city program reduced crime; and they used data from past inspections to predict which properties were most likely to be at-risk and should be prioritized.

## Framework of Data Uses




Source: de Jong, Fernandez-Monge, Mayne, and Vachon, "The Data-Informed City: A Conceptual Framework for Advancing Research and Practice."

We then mapped these uses on to the stages of government action at which data is employed, showing how governments use data to perform in the present, reflect about the past, and prepare for the future (see figure above). We also examined the level of organizational development required to use data in particular ways, identifying three levels of development for each of the eight data uses based on the kinds of resources and the sophistication of the skills, tools, and techniques required. Finally, our framework considered how using data can help create public value. We found that data can make government more effective by helping officials meet policy goals and benchmarks, improve efficiency by helping city hall prioritize the allocation of scarce resources, foster equity by helping government better align resources with the people who need them most, and hold governments accountable by empowering residents.

> *Data can help create public value by making city hall more effective, improving efficiency, fostering equity, and holding governments accountable while empowering residents.*

## Takeaways

Somerville didn't become data-informed overnight. As Mayor Curtatone put it, the process was like "turning around an aircraft carrier"—long, deliberate, and strategic. City leaders everywhere now face the same challenge: how to turn abundant data into real public value. Based on our research, here are three key lessons:

1. **Start with a problem, not just capabilities.**
Building skills, acquiring technology, and developing systems are important, but insufficient. Focus first on a concrete challenge—budgeting, crime, climate resilience—and ask how data can help.

2. **Use the framework as a compass.**
Once you've defined a problem, map how you currently use data and where you could go further. What do you need to know? Which of the eight data uses apply? What is possible given your current capacity—and what investments would expand your options?

> *One you've identified a problem, use the framework as a compass to map how you currently use data and where you could go further.*

3. **Be data-informed, not data-driven.**
Using data to make decisions can improve effectiveness, efficiency, equity, and accountability, but it can also reinforce bias or lead to privacy violations. Treat data as one input into decision making, alongside context, judgment, and community engagement.

## Further Reading and Listening

"The Data-Informed City: A Conceptual Framework for Advancing Research and Practice"
*Information Polity*

"Mayor Curtatone's Culture of Curiosity: Building Data Capabilities at Somerville City Hall"
Bloomberg Harvard City Leadership Initiative

"The Essential Capabilities for Problem-Oriented Governance with Jorrit de Jong" (podcast)
The Data-Smart City Pod

"Saving Lives, Time, and Money: Using Data to Find Unsafe and Unhealthy Buildings Faster"
Bloomberg Harvard City Leadership Initiative

"City Leader Guide on Organizational Culture Change"
Bloomberg Harvard City Leadership Initiative

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# Hidden Barriers to Open Venues

## What Big Data Can Tell You about Access to Public Spaces

Just because parks are open to everyone doesn't mean that residents can use them equally. But how do you determine who faces hidden barriers? A study published in the journal ***Landscape and Urban Planning*** shows how city leaders can leverage big data to better understand and address inequities in access to public spaces.

As COVID-19 restrictions lifted in the fall of 2020, city parks emerged as a literal breath of fresh air: a low-risk space to exercise and congregate with others, with potentially far-reaching benefits for physical and mental health. Even in normal times, however, parks and other public spaces like plazas, boardwalks, libraries, and beaches can play an important role in residents' quality of life.

*Parks and other public spaces play an important role in residents' quality of life.*

But how does your city determine who is making the most use of these resources and which communities might be facing hidden barriers? Assuming that proximity equals access—i.e., that residents of neighborhoods with the most public spaces use them the most—can lead to unreliable conclusions. And traditional approaches (such as conducting surveys or hiring workers to do real-time observation) rarely tell the full story, or are simply too difficult or costly to implement.

*City leaders can take full advantage of big datasets to better understand their communities—and leverage those insights to design more responsive, effective, and equitable policies.*

A study supported by the Bloomberg Harvard City Leadership Initiative, however, provides a promising path forward. The researchers used smartphone mobility data to analyze trends in city park visits during the COVID-19 pandemic. Beyond its implications for parks, the study serves as a proof of concept: it shows how city leaders can take full advantage of big datasets to better understand their communities—and leverage those insights to design more responsive, effective, and equitable policies for public spaces more broadly.

### Leveraging Smartphone Data to Understand Demographic Trends in Park Visits

The research team set out to answer two questions: (1) Did the frequency of city park visits change during the pandemic? And (2) did those changes differ by neighborhood racial and economic composition? To test whether park use changed during COVID-19, they used information provided by SafeGraph, a company that legally collected, aggregated, and sold GPS location data from smartphone mobile apps. (SafeGraph no longer provides mobility data, but other companies currently make it available for a fee.) They then mapped this data onto Esri demographic information to understand the characteristics (race/ethnicity and household income) of communities living within a ten-minute or half-mile walk of each park.

The magnitude of the SafeGraph data—and the fact that the company offered it at no cost for academic and public interest research during the COVID-19 health emergency—gave the researchers an unprecedented advantage. They analyzed nearly twelve thousand parks across the fifty most populous U.S. cities, equaling about 10 percent of the population and exceeding the geographic scope of any park use study available to the study authors. They found that, compared to pre-pandemic levels, park visits decreased by 43.3 percent during closures (March-April 2020) and 26.1 percent during the initial reopening (May-November 2020). In communities with a higher proportion of white and high-income residents, however, the reopening led to an 8.6 percent larger rebound in park visits.

The study adds to existing evidence that racialized economic privilege shapes access to city parks, and that COVID-19 disproportionately burdened lower-income communities of color. The study also suggests that proximity is not always the greatest barrier keeping underprivileged city residents from using parks and other public spaces. Another set of obstacles may be at play, such as lack of leisure time, suitable programming, safe walking routes, and social support. These barriers likely increased during the pandemic, as lower-income workers were more often expected to show up to work, and community violence went up dramatically in racially segregated neighborhoods.

> *Proximity is not always the greatest barrier keeping underprivileged city residents from using parks and other public spaces.*

## Takeaways

Big datasets, like the smartphone mobility data used in the study, can help city governments keep their finger on the pulse of what is going on in their communities and more quickly uncover hidden barriers in access to public spaces. Because these datasets are large, granular, and real-time, cities can get a deeper understanding of resident behavior, develop more targeted interventions to address inequities, and act faster if circumstances change. While this study focused on city parks, its approach can potentially serve cities facing a broad range of challenges—from understanding demographic trends in visits to healthcare facilities and libraries or the use of public transit, to determining the best locations to build low-income housing and public schools.

 

## Further Reading

“Use of smartphone mobility data to analyze city park visits during the COVID-19 pandemic”
*Landscape and Urban Planning*

“Using Big Data for Local Decisions: Which Demolitions Reduce Gun Violence Most?”
Bloomberg Harvard City Leadership Initiative

“Are Your City’s Policies as Dynamic as Your Residents’ Preferences?”
Bloomberg Harvard City Leadership Initiative

“Saving Lives, Time, and Money: Using Data to Find Unsafe and Unhealthy Buildings Faster”
Bloomberg Harvard City Leadership Initiative

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# Connecting the Dots

## Using Big Data to Understand Mobility Gaps in American Cities

How long, how widely, and to which types of destinations do your city's residents travel? Mobility can have a far-ranging impact on quality of life. A study published in the journal ***Cities*** explores how socioeconomic status and where people live impact mobility and shows how city leaders can use big data to better understand inequality in their cities.

Socioeconomic inequality is a key issue in cities across the globe. While many studies focus on income, education, healthcare, and housing affordability, research on the so-called mobility gap—how different socioeconomic groups move about the same city—has been limited in scope. One reason for this is that traditional datasets (e.g., the Census, built environment data, economic data, health outcomes) are relatively static; they are too small and evolve too slowly to properly capture mobility trends or allow policymakers to address inequalities in real-time.

*Traditional datasets are too small, slow, and static to capture mobility trends.*

A study by the Bloomberg Harvard City Leadership Initiative used smartphone location data to examine the mobility patterns of nearly 13 million individuals living in nine cities across the United States before and during COVID-19. Unlike other recent studies using smartphone GPS data, which have focused on one destination at a time, we were able to paint a more complex picture of urban travel by considering several destinations at once. This approach allowed us to better understand how mobility trends vary depending on residents' socioeconomic status (which we measured through a multi-dimensional socioeconomic index, or "SEI"), and how different factors—such as walkability of neighborhoods, proximity to public transportation, and the disruptive effect of the COVID-19 pandemic—can impact mobility gaps.

The study is an example of an emerging field driven by newly accessible, high-volume, high-velocity data that can provide a much more granular, timely understanding of human behavior than traditional datasets. For city leaders interested in improving the quality of life for their residents, this kind of analysis can help shine a light on the blind spots that may arise when we look only at built environments and traditional social policies.

### Mobility Gaps in American Cities before and during COVID-19

We examined how mobility differed between the lowest- and highest-SEI groups in Atlanta, Boston, Chicago, Denver, Houston, Los Angeles, Philadelphia, Seattle, and St. Louis in 2019 and 2020. Specifically, we studied differences in mean trip distances, the proportion of trips made to three types of destinations (parks, healthcare, and retail), and whether home location—walkability and proximity to public transit—affected mobility outcomes. We used data provided by SafeGraph, a company that captured the mobility patterns of smartphone users and made this information freely available for public interest purposes during the pandemic. (SafeGraph no longer provides mobility data, but other companies offer it for a fee.)

 

*We found striking differences in the mobility trends of the least- and most-advantaged residents.*

We found striking differences in the mobility trends of the least- and most-advantaged residents. Among other things, low-SEI residents made fewer trips to parks and more retail trips in 2019, and these differences grew in 2020. While disadvantaged residents made more trips to healthcare facilities before COVID-19, this difference flipped in 2020, with low-SEI groups reducing their healthcare visits while high-SEI groups increased them.

Home location affected each group differently. Neighborhood walkability allowed better-off city dwellers to make fewer and shorter trips during COVID-19 but conferred no such benefit on low-SEI residents. High-SEI residents were more likely to travel by car, even when public transit was easily accessible.

Mobility patterns also differed across cities. While the pandemic widened mobility gaps significantly in seven of the nine cities studied, Seattle and Atlanta experienced much smaller pandemic-induced changes in their mobility gaps. This disparity raises interesting questions about how the particular spatial, social, and economic aspects of cities affect mobility.

## Takeaways

Big data, like the cellphone location data highlighted in our study, offer city leaders insights into closing mobility gaps that can inform policies beyond transportation, such as investing in access to childcare, schools, and medical facilities; creating equitable opportunities to use amenities, services, and public spaces across neighborhoods; and extending affordable housing programs to commercial spaces so that low-SEI residents living in walkable neighborhoods can afford nearby goods and services.

*Big data can help city leaders better understand their particular city's mobility patterns to help devise solutions that can best address the specific challenges they face.*

More broadly, however, big data can help city leaders better understand their particular city's mobility patterns to help devise solutions that can best address the specific challenges they face. To boost your city's data-analytic capacity, consider the following:

### Take advantage of big datasets, such as smartphone location data.

The magnitude, granularity, and timeliness of this data can help cities uncover inequities more quickly, better understand its dimensions, and develop more effective policies to improve the quality of life for everyone.

### Partner with a university.

While the terms for accessing smartphone mobility data have changed since it was made freely available during the height of the pandemic, partnering with educational institutions may facilitate access for city leaders. These types of collaborations are win-win, providing academic teams with insight into relevant government challenges while allowing city governments to tap into and learn from universities' expertise and research capacity.

 

### Conduct a local study.

Don't rely on findings from other cities that appear similar to yours in size, location, or demographics. Although the relationship between mobility and SEI may be similar across cities in some ways, the specifics vary depending on the city. For example, Seattle and Atlanta are very different in terms of geography, size, and racial/ethnic makeup, but they both stood out from the others we examined for having the least inequitable pandemic-induced changes among their high- and low-SEI residents.

### Look beyond big data.

Big data can offer insight into the "what, where, and who" of mobility patterns, but it usually can't tell you the "why." This study showed a variety of patterns across cities, within cities, and over time, but understanding why patterns and gaps occur, change, or remain the same under different circumstances requires additional (likely qualitative) research and direct engagement with residents. Big data can, however, generate important questions and provide a factual basis for analysis and discussion.

> *Big data can offer insight into the "what, where, and who" of mobility patterns, but it usually can't tell you the "why."*

## Further Reading

"A tale of two Americas: Socio-economic mobility gaps within and across American cities before and during the pandemic"
*Cities: The International Journal of Urban Policy and Planning*

"Hidden Barriers to Open Venues: What Big Data Can Tell You about Access to Public Spaces"
Bloomberg Harvard City Leadership Initiative

"Using Big Data for Local Decisions: Which Demolitions Reduce Gun Violence Most?"
Bloomberg Harvard City Leadership Initiative

"Are Your City's Policies as Dynamic as Your Residents' Preferences?"
Bloomberg Harvard City Leadership Initiative

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# Are Your City's Policies as Dynamic as Your Residents' Preferences?

How do you know if people's preferences for amenities are changing? A study published in the journal ***PLOS One*** shows how big data can help cities understand people's travel behavior and respond accordingly.

Amenity clusters—main streets, business districts, and other commercial and cultural corridors—are the civic centers of community life. But as visitation preferences shift over time, what policy interventions can keep these locations relevant to residents? When it comes to understanding your city's dynamic environment and the changing preferences of residents, our study suggests that big data[3] can not only help city officials learn about their communities in real time but also with discovering where to exercise control, when to change tactics, and what the future may hold.

*Big data can not only help city officials learn about their communities in real time but also with discovering where to exercise control, when to change tactics, and what the future may hold.*

## Mining and Mapping Data on Pandemic Behaviors

In 2020, SafeGraph, a firm that legally collected and sold anonymized GPS movement data from mobile apps in the U.S., offered its datasets free to non-profits and governmental agencies to help them address the COVID-19 pandemic. (SafeGraph no longer provides mobility data, but other companies continue to make it available for a fee.) These datasets provided information on which local businesses and main streets people visited and from which Census Block Group each trip originated.[4] For our research, we used the roughly 81,000-person city of Somerville, Massachusetts, as a use case.

We paired the SafeGraph visitation data with two other types: data from the municipality and from ESRI's Business Analyst database. With this combination, we could describe the characteristics of each destination cluster: its size; business diversity; share of big-box stores versus small businesses; share of open green space and parking; and share of retail, food and beverage, and personal care stores. Connecting these various sources of data also allowed us to study how people's destination preferences shifted monthly in a regular year (before COVID-19) and in the first calendar year of the pandemic.

By using the information in this way, we could estimate how a destination's characteristics affected people's choices. It also allowed us to study whether and how people's preferences shifted during the pandemic—not only the number of trips they took, but also whether their preferences for different types of destinations changed, and if so, how? Were the shifts fleeting or longer lasting? We found the answers to be "yes" on both accounts.

[1] Big data refers to large, expanding datasets that "require a scalable architecture for efficient storage, manipulation, and analysis." (Source: National Institute of Standards and Technology, 2015)
[2] These data do not represent all smartphone users in an area, only those that have enabled the GPS location feature in certain apps. Refer to the full academic article for limitations to the research.

## Residents' Preferences: A Moving Target

Pre-pandemic, in April 2019, the roughly 350,000 trips logged indicated that people preferred areas with a diverse mix of businesses, larger store offerings, and open gathering spaces (e.g., parklets, public squares, tables, and benches). However, in April 2020, during the early phase of the pandemic—when non-essential businesses, such as apparel stores and personal care businesses were ordered to close and congregations of more than 10 people were prohibited—only 50,000 trips were taken, an 86% drop (Figure 1). We found that people were avoiding areas with larger gathering spaces, and business diversity no longer drove patronage decisions. In the early months of the pandemic, we also detected a significant change in where people chose to travel.

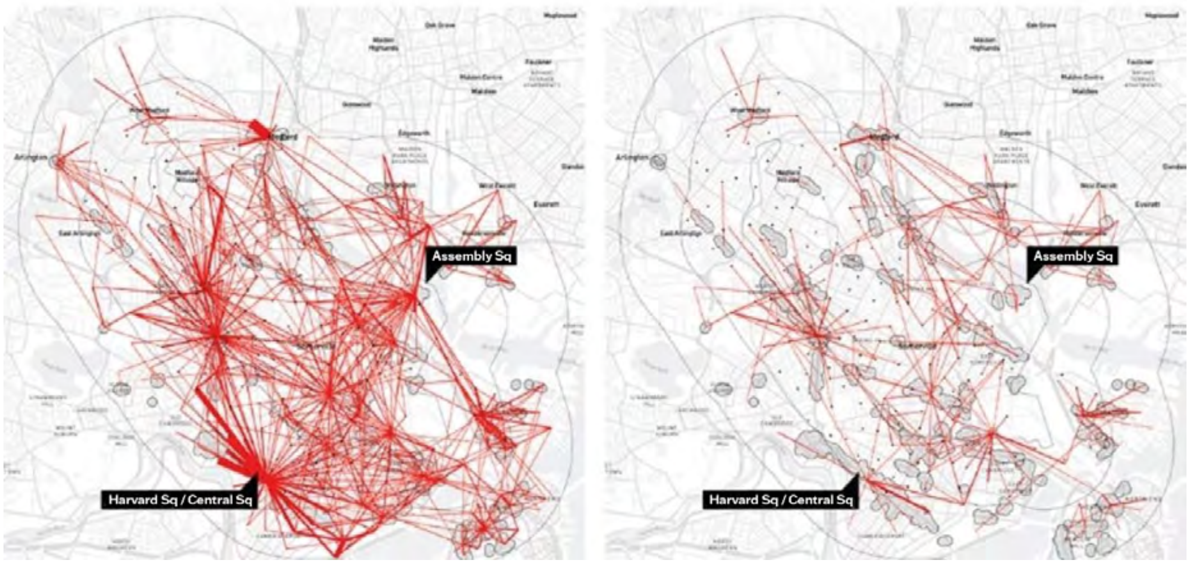


***Figure 1** illustrates the distribution of trips from Census Block Groups to amenity clusters in and around Somerville, MA, in April 2019 (left) and April 2020 (right). Trip originations are in the city or within 1 km of the city; trip destinations are in the city or within 2 km of the city.*

By fall 2020, the data showed that most people returned to their old preferences in terms of *the types* of venues or locales they were visiting, revealing that citizens' preferences and habits are resilient. Yet one key trend had also emerged: due to increased driving and more flexible work hours, people continued to be more willing to travel *farther* on their trips compared to pre-pandemic levels.

However, overall visitation numbers were still roughly 70% below pre-pandemic levels by the fall of 2020. Knowing why could help city leaders understand how to respond to business needs with policy tools and to plan for similar shocks in the future. Were city- and state-mandated business shutdown orders the primary reason for this change in behavior? Our study suggests they were only part of the reason. Combining historical data with newly formed destination preferences estimates from our model, we predicted that even if businesses had fully reopened by November 2020, the number of trips would still have been nearly 60% lower than pre-pandemic levels. More cautious consumer behavior appears to have played a bigger role in reduced business visits rather than business shut-down regulations.

Being able to monitor people's travel behavior on a month-to-month basis with big, anonymous data can help city leaders understand how regulatory decisions can change visits to certain parts of their cities. Even outside of the pandemic, such data and models can provide valuable and timely insight into how people's preferences for local centers shift over time, and which kinds of changes—in public space attributes, in the business mix or sizes, and in access characteristics—can most directly affect consumer behavior and local economic development. Ultimately, city hall could more clearly understand the preferences of its residents and local businesses and how to most effectively intervene to keep city streets vibrant.

*Big data and models can provide valuable and timely insight into how people's preferences for local centers shift over time.*

## Takeaways

The private sector routinely uses big data to understand consumer behavior changes and preferences. Our research demonstrates how city leaders might use it to make informed decisions about mobility, business regulation, and public health. Decisions about recreation, tourism and infrastructure, like drawing more people to public parks, promoting the use of public transportation, and anticipating the effects of zoning policies become easier and better informed when using big data. To be at the frontier of this practice in your city, consider the following:

**Be curious.**

Try to develop a better understanding of what residents are doing, where they're doing it, and why they're doing it. Ask questions, look for relevant data, and invite others to ask questions and challenge the status quo, too. Preferences may change by the week or year, but having a pulse on the behavior of residents in real time will help support more effective and dynamic decision making when it's needed most.

**Be creative.**

While the expertise and resources to work with big data can be a barrier, creative, data-driven leaders can identify and leverage new opportunities to use big data to tackle problems. This could include partnering with a local university for expertise and capacity, requesting and allocating funding for data in planning projects or emergency relief, or finding accessible big data that is either public or free for non-commercial uses.

**Be a connector.**

While we connected SafeGraph, city, and business data, other types of datasets abound that are accessible and add value when combined with administrative data. Other examples include aerial imagery and survey data.

Though our study focused on behavior changes during a public health crisis, these concepts are applicable beyond a pandemic environment, especially when you're looking to develop time-sensitive interventions or make long-term investment decisions based on residents' behaviors.

## Further Reading

"The impact of COVID-19 on trips to urban amenities: Examining travel behavior changes in Somerville, MA"
*PLOS One*

"A tale of two Americas: Socio-economic mobility gaps within and across American cities before and during the pandemic"
*Cities: The International Journal of Urban Policy and Planning*

"Using Big Data for Local Decisions: Which Demolitions Reduce Gun Violence Most?"
Bloomberg Harvard City Leadership Initiative

"Saving Lives, Time, and Money: Using Data to Find Unsafe and Unhealthy Buildings Faster"
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"The Impact of COVID-19 on Small Landlords: Survey Evidence from Albany and Rochester, New York"
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# Using Big Data for Local Decisions

## Which Demolitions Reduce Gun Violence Most?

Which abandoned properties should rise to the top of the demolition list? Since workloads often exceed and outpace government resources, prioritizing work strategically is a critical capability. A study published in the journal ***Injury Prevention*** demonstrates how combining satellite imagery and police data can help inform how to allocate resources in code enforcement.

How does your city prioritize projects? Do you work your way down a long list using the first-in, first-out method? Are decisions motivated by politics or the "squeaky wheel gets the grease" principle? Or are you strategically assessing what would increase the quality of life in your city the most? When it comes to selecting which abandoned buildings to demolish, a study from the Bloomberg Harvard City Leadership Initiative suggests that leveraging multiple datasets can help cities focus on impactful projects that aim to promote safer environments for their residents.

Research has already shown that demolishing abandoned buildings can be a strategy for reducing firearm violence up to several blocks away. In this study, researchers explored Rochester, New York's abandoned building demolition decisions over a ten-year period, the effect of demolishing buildings on reducing nearby gun violence, and the characteristics that surrounded the demolished properties. They found that information beyond the condition of the building itself—namely data about the surroundings of demolished buildings—affects how successful a demolition will be at reducing nearby shootings in subsequent years. And to see the larger picture, they used freely available "big data"—in this case, aerial imagery.

*Information beyond the condition of the building itself affects how successful a demolition will be at reducing shootings.*

### Seeing the Forest for the Trees

The City of Rochester, in Upstate New York, is home to roughly 200,000 people. Many of its residents experience poverty and segregation, both of which can contribute to incidence of firearm violence. (In Rochester in 2021, there were over 400 victims of gun violence.) These tragic instances are recorded in a publicly accessible database of fatal and non-fatal shootings maintained by the city's police department. By pairing this data with publicly available city administrative data on building demolitions in Rochester, the researchers were able to study how demolishing buildings affected firearm violence in surrounding areas (of 500 by 500 feet or approximately 152 by 152 meters). They found that each demolition was associated with a 14 percent reduction in shootings the following year. When they measured the cumulative effect of demolitions over an 11-year follow-up period, each demolition was associated with a 2 percent yearly drop. The research team then wanted to see if a demolished building's surroundings affected gun violence. To assess that, the team accessed publicly available, high-resolution aerial imagery—in addition to the shootings and building demolitions data—and then used machine learning to analyze the images.[1] They determined that some demolition decisions were better than others at reducing firearm violence in Rochester, as discussed in the following section.

To better understand the city's built environment, the team classified the surroundings of each demolition studied into categories that ranged from high-density areas with many street connections and smaller lots to lower-density areas with more single-use buildings.

## Demolitions, Density, and Crime

The research team found that after a demolition in a dense, mixed-use area, shootings dropped by 15 percent the following year. While these short-term effects were promising, the less-dense areas told a different story. In moderate- and lower-density areas, while an effect was not evident in the short term, when the researchers measured the cumulative effect of demolitions over an 11-year follow-up period, each one was associated with a 9 or 10 percent decrease in gun violence. In other words, the characteristics of the demolished buildings' surroundings—such as land use, density, and how connected it was by streets—all contributed to how effective demolishing a building would be at reducing gun violence in both the short term (next year) and longer term (after 11 years of follow-up). The table below offers a summary of the study's findings.

*After a demolition in a dense, mixed-use area, shootings dropped by 15 percent the following year.*

| DEMOLITION EFFECTS ON SHOOTINGS BY SURROUNDING AREA | | |
|---|---|---|
| **Urban Density** | **Affected in the Following Year** | **Affected in the Long-term** |
| **Low** | | ✓ |
| **Moderate** | | ✓ |
| **High** | ✓ | |

Overall, the study suggests that demolitions in low- and moderate-density areas achieved sizeable long-term results. In addition, in high density areas, demolitions achieved sizeable short-term effects, but the resulting vacant lots in these areas require investments to ensure long-term effects. For instance, unlike when vacant lots remain abandoned and uncared for, maintaining these properties can help reduce violent crime; and cities might look to community organizations to help. (For one example of a city reaching out to the community to engage in beautification, see Operation Clean Sweep in Buffalo, New York.)

*In high density areas, demolitions achieved sizeable short-term effects, but the areas require investments to ensure long-term effects.*

 

### Takeaways

City leaders can prioritize demolitions strategically and allocate limited resources optimally by using abundant data that is readily available. This allows them to be more effective (in reducing crime and improving quality of life in neighborhoods), efficient (accomplishing as much as possible with limited resources), and equitable (prioritizing the needs of the most vulnerable or disadvantaged). To do so, they need to:

*City leaders can prioritize demolitions strategically and allocate limited resources optimally by using abundant data that is readily available.*

- **Leverage data**, either publicly available data, such as the aerial imagery in this study, cross-departmental data, or other available information to develop a better understanding of what works, why it works, how it works, and where it works. Examples of other types of data to leverage include cellphone data, such as GPS positioning data, administrative data, and survey data, such as published data from landlord surveys.
- **Establish a scoring system** that helps prioritize code enforcement actions based on risk, need, and likelihood of equitable impact. Incorporating factors like density, long-term investment requirements, and nearby gun violence rates increases the chance that costly interventions like demolitions have optimal impact. This approach can help tailor interventions to a neighborhood and support investment and intervention decisions. (For an example of city officials applying scores for decision making, see the Initiative's work on assessing housing risk.)
- **Collaborate** across departments, agencies, and silos—among inspectors, planners, police, and others—to share data, approaches, context, and ideas about how best to use limited city funds to reduce violent crimes and improve quality of life in communities.

*Demolishing distressed properties can have a positive impact on communities by reducing gun violence.*

Demolishing distressed properties can have a positive impact on communities by reducing gun violence and having beneficial effects on public health, the environment, property values, and general quality of life. Furthermore, engaging residents to rethink the resulting open space can provide opportunities for community building. Large-scale disrepair and abandonment are often the product of longstanding, racialized disinvestment arising largely from past policy decisions, and approaching this work from a racial equity perspective is critical, given the history of redlining[2] and other forms of racial segregation in American cities. When building a scoring system based on expected impact, incorporating the notion of equity from a broader social, economic, and historic perspective will make for fairer decisions.

While this study focused on reducing gun violence through targeted demolition programs, these lessons are applicable beyond code enforcement and demolitions. City leaders face the challenge of diagnosing complex problems with limited information and responding with limited resources. Learning where and how interventions are most impactful can make city halls more effective, efficient, and equitable across the board.

 

## Further Reading

"Effects of demolishing abandoned buildings on firearm violence: a moderation analysis using aerial imagery and deep learning"
*Injury Prevention*

"Saving Lives, Time, and Money: Using Data to Find Unsafe and Unhealthy Buildings Faster"
Bloomberg Harvard City Leadership Initiative

"The impact of COVID-19 on trips to urban amenities: Examining travel behavior changes in Somerville, MA"
*PLOS One*

"The Impact of COVID-19 on Small Landlords: Survey Evidence from Albany and Rochester, New York"
Joint Center for Housing Studies of Harvard University

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## Endnotes

[1] The research team employed a cutting-edge type of algorithm, called a convolutional neural network, as part of the machine learning analysis process.

[2] "Redlining was the practice of outlining areas with sizable Black populations in red ink on maps as a warning to mortgage lenders, effectively isolating Black people in areas that would suffer lower levels of investment than their white counterparts." (Source: Andre M. Perry and David Harshbarger, "America's formerly redlined neighborhoods have changed, and so must solutions to rectify them," Brookings, October 14, 2019).

# Saving Lives, Time, and Money

## Using Data to Find Unsafe and Unhealthy Buildings Faster

Housing inspections are traditionally done periodically, in response to complaints, or when owners or renters turn over. A study published in the ***Journal of Public Health Management & Practice*** shows that machine learning can help inspectors identify risky homes nearly twice as fast as conventional practices.

Is it possible to save lives, time, and money, all at once? Could you use data that you already have to do it? As we describe in our peer-reviewed paper, the answer is yes. We found that machine learning could help a city identify properties with health-threatening housing code violations nearly twice as fast as conventional practices.

More and more cities—large and small—are harnessing machine learning and existing municipal data to help power charge a city's efforts to deliver services to those who need them most. In Chelsea, Massachusetts, a city of more than 40,000 people packed into less than two square miles just north of Boston, our research team worked with the city to do just that.

### A Fresh Look at Old Problems

Chelsea residents are predominantly recent immigrants, people of color, and low-income families. With skyrocketing rental costs and stagnant wages, overcrowded conditions in substandard housing are common. The city's housing inspectors encounter families doubling or tripling up together, living in unfinished basements, windowless closets, and open-air porches. Some lack access to bathrooms, kitchens, and even plumbing. Setups like these harken back to an earlier era, an era when we learned that unacceptable living conditions not only devastate families but offer fertile ground for disease to flourish and fires to blaze, putting us all at risk.

*Setups like these harken back to an earlier era, an era when we learned that unacceptable living conditions not only devastate families but offer fertile ground for disease to flourish and fires to blaze, putting us all at risk.*

In 2019, our research team (that holds expertise in public health, public policy, and data science) partnered with Chelsea's Inspectional Services Department (ISD) to see if we could use city data to root out long-hidden, health-threatening housing code violations and nip others cropping up in the bud. More specifically, could ISD use a data-driven model to be better and faster at finding health-threatening housing code violations?

### Finding Threats More Quickly

Housing codes represent the absolute minimum standards for safe housing—such as protection from the elements, a way to escape from fire, and working smoke detectors—and violations can be hard to find.

Many violations are never called in for fear of landlords raising rent, language barriers, or residents simply not knowing that they can. Often, the most vulnerable residents are the least likely to complain. On the other hand, cities can only inspect so many properties in a day. Finding—and prioritizing—the people that live in the riskiest places could help inspectors enforce housing codes not only more quickly and effectively, but more equitably, too.

*Many violations are never called in for fear of landlords raising rent, language barriers, or residents simply not knowing that they can. Often, the most vulnerable residents are the least likely to complain.*

To gather clues on where to find code violations, our team used data from inspections that the city had done proactively from 2015 to 2018 and the expertise of the city's housing inspectors. We then trained a computer (using a process called machine learning) to make educated guesses about which properties should be inspected first (predictive analytics). We found that "listening" to these predictions could nearly double the number of productive inspections. That is, the "hit rate" for inspections identifying health-threatening housing code violations could increase by a factor of 1.8. Chelsea could now identify and resolve more housing code violations without increasing inspection resources. In essence, the city could "do more with less."

And, as always, there is still more to do. Now that the city has become better at finding risky conditions, our team is helping to look at how to resolve those risky conditions. Currently, Chelsea is partnering with a local social service agency so inspectors can do more than issue citations. They can now make referrals for those who face challenges complying with housing codes because they experience mental illness or poverty, connecting people to the services they need to live healthier lives.

*That is, the "hit rate" for inspections identifying health-threatening housing code violations could increase by a factor of 1.8.*

## The Upshot for Other Cities

While our study demonstrated that machine learning could help a city save lives, time, and money by more accurately identifying unsafe and unhealthy housing earlier than conventional code enforcement, we believe that many more machine learning applications are waiting to be discovered. To help fulfill that potential, we offer three lessons from the Chelsea study:

**1 Machine learning does not substitute the knowledge of city officials but leverages and expands it.**

More and more, cities can pull data from tax assessors' offices, utilities, public works, and other sources to help train computers to pinpoint where city staff's attention is most needed. However, on-the-ground knowledge is imperative for checking and balancing decisions, ensuring that the actions that are based on data are human-approved. Used conscientiously, machine learning can help cities improve a wide range of operations, garnering faster, more effective, and more equitable results.

**2 Investing in data-analytics takes time, resources, and effort, but when cities leverage partnerships a lot is possible.**

While some cities may be quite far along in their data capabilities, others will need to invest substantial resources of time, money, and expertise in data integration and data norms. But it's important to note that the efforts shouldn't be shouldered for just one cause—these benefits extend far beyond single city initiatives or departments. Furthermore, if cities are willing and creative, they can forge partnerships with universities and others to integrate and analyze data, as Chelsea did. Moreover, models don't need to be developed from scratch. Code from local government machine learning projects are often published online, which can be adapted for others to use. (For instance, our code is available on GitHub.)

**3 Using data can make cities more effective, equitable, and efficient but only if protections are in place, biases are corrected regularly, and human judgement remains part of the process.**

Data-driven models are not perfect. After all, they contain assumptions that may be incorrect in certain cases and biases of the data used to create them. To ensure that models are not punitive or invasive and to protect citizens from racial profiling and other destructive biases, models need to be piloted and assumptions need to be questioned. Cities need to actively manage the models by regularly engaging diverse partners to question how they work, then using that feedback to update the models accordingly. For example, you may ask your community the following: is the model moving inspection resources to more needy parts of the city? Is it putting an unfair burden on landlords? How is it impacting tenants?

No matter the size or state of the city, machine learning and predictive analytics can help cut wasted energy by identifying high priorities faster, catching problems earlier, and finding the most vulnerable residents before it's too late. And in the world of city services, being more effective, efficient, and equitable not only saves time and taxpayer dollars, but it can also save lives.

*No matter the size or state of the city, machine learning and predictive analytics can help cut wasted energy by identifying high priorities faster, catching problems earlier, and finding the most vulnerable residents before it's too late.*

## Further Reading

"Using Integrated City Data to Identify and Intervene Early on Housing-related Public Health Problems"
*Journal of Public Health Management & Practice*

"Hiding in Plain Sight: Tackling housing-related public health problems using existing city data and machine learning"
Data-Smart City Solutions

"Can We Predict Where Housing-Related Public Health Problems Exist Using City Data?"
Data-Smart City Solutions

"Aggregate to Innovate: Lessons from Chelsea, Massachusetts"
Harvard Ash Center

"On Further Inspection: Engaging housing inspectors to improve public health in Chelsea, Massachusetts"
Harvard Ash Center

"How Cities Can Use Housing Data to Predict COVID-19 Hotspots: Lessons from Chelsea, MA"
Data-Smart City Solutions

"At the Center of the Outbreak: Researcher Katharine Robb details how housing policies affect social and health crises, like the current pandemic"
*The Harvard Gazette*

"State Capabilities for Problem-Oriented Governance"
*Perspectives on Public Management and Governance*

"Further Inspection: Integrating Housing Code Enforcement and Social Services to Improve Community Health"
*International Journal of Environmental Research and Public Health*

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# Improving Health in Underserved Neighborhoods

## Targeting Risk by Leveraging Multi-Sector Data

Densely populated, underserved neighborhoods are vulnerable to public health risks. A study published in the journal ***SSM - Population Health*** shows how linking housing and health care data can deepen understanding of public health threats and help cities take action before, during, and after public health crises.

*What makes cities attractive—proximity to people, amenities, and opportunities—makes them vulnerable, too.*

What makes cities attractive—proximity to people, amenities, and opportunities—makes them vulnerable, too. As Edward Glaeser and David Cutler argue in Survival of the City, disaster travels faster when people live close to one another. Managing healthy, safe, and affordable housing in densely populated areas is a major challenge for city leaders. A study supported by the Bloomberg Harvard City Leadership Initiative found that leveraging data from multiple sectors (e.g., education, health, housing, and social services) can help make this task easier. By combining datasets, city leaders can identify where investments, services, or enforcement are needed most. This helps them allocate scarce resources strategically to make the greatest impact before, during, and after public health crises. Insights from a study in Chelsea, Massachusetts, during the COVID-19 lockdown show how.

### Substandard Housing and COVID-19 Risk in Chelsea, MA

The City of Chelsea is located across the Mystic River from Boston and is one of the poorest cities in Massachusetts. With approximately 40,000 residents (informal estimates are as high as 75,000 when accounting for the undocumented population) crowded into just 1.8 square miles of land, it is difficult for lower income residents to secure safe and affordable housing. Most residents are Hispanic/Latino (66%), nearly half are foreign-born (47%), and almost a quarter live in poverty (23%). Chelsea is emblematic of the affordable housing crisis plaguing U.S. cities, which forces many low-income families into substandard housing. People often crowd into illegal “conversion apartments” (e.g., basements, closets, or porches) to avoid homelessness and remain close to jobs. Overcrowding can disrupt family relationships and impact depression, stress, and anxiety. Living in substandard housing—such as homes with inadequate ventilation, insect or rodent infestations, and mold—can also increase the risk of chronic illness and infectious disease.

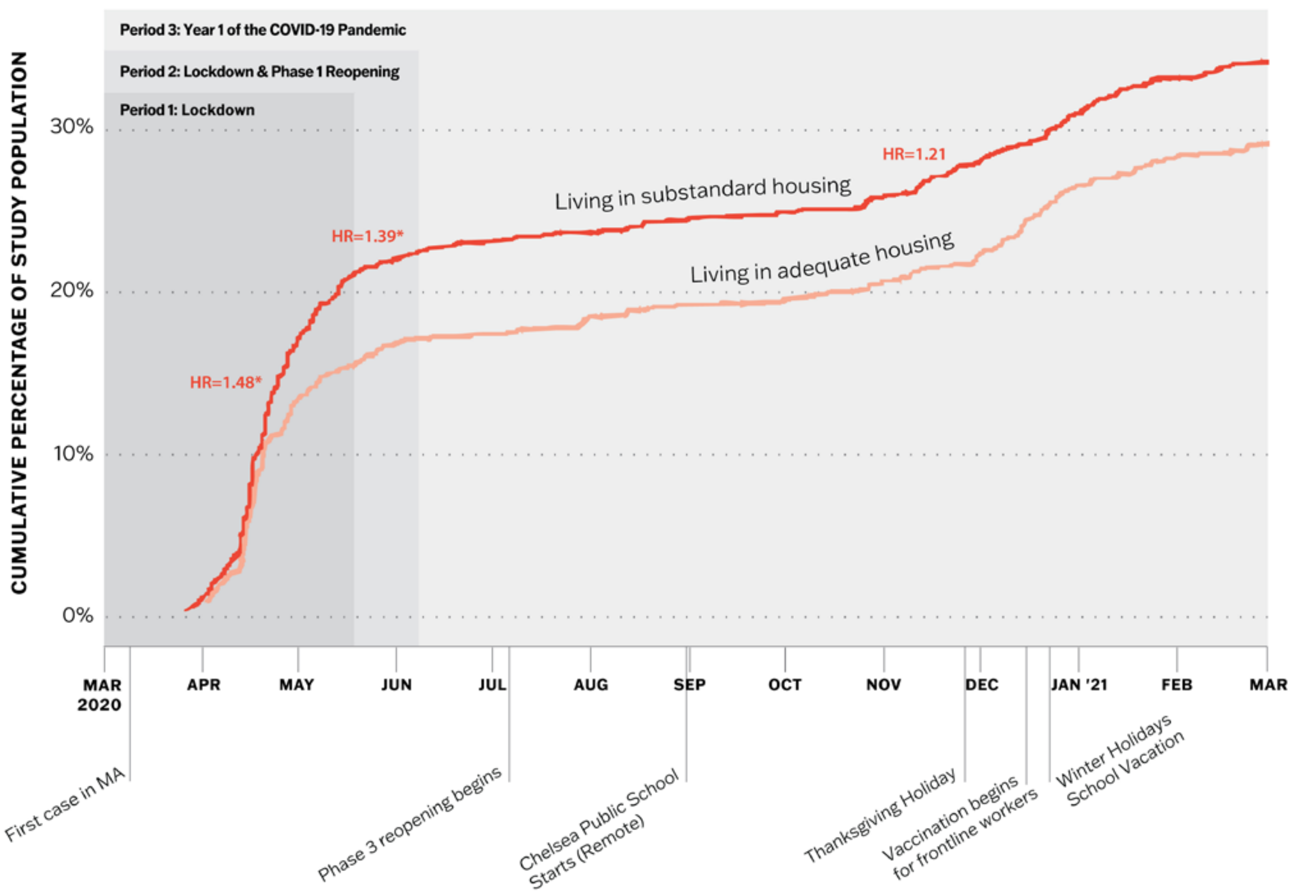
*Chelsea is emblematic of the affordable housing crisis plaguing U.S. cities, which forces many low-income families into substandard housing.*

When COVID-19 spread globally in 2020, public health leaders and city officials worried that substandard housing influenced COVID-19 risk, but there were no studies of the relationship between housing conditions and infection rates at the individual household level. To learn more about this relationship, we combined individual-level housing data from Chelsea City Hall (the city schedules housing inspections of rental properties regardless of whether residents submit a housing complaint) with health data from Mass General Brigham's Research Patient Data Registry. We used resident addresses to match housing conditions with health records of Chelsea residents who had been tested for COVID-19 during the first year of the pandemic—March 1, 2020, through February 28, 2021. We considered people living in homes with a history of housing code violations to be living in substandard conditions.

*Living in substandard housing during the lockdown period increased the risk of COVID-19 infection by 48%.*

We discovered that living in substandard housing during the lockdown period increased the risk of COVID-19 infection by 48%. However, once stay-at-home orders were lifted, the risk of COVID-19 infection was similar between people living in substandard versus adequate housing (see Figure 1).

***Figure 1.*** *Cumulative proportion of the study population testing positive for COVID-19: Comparing those living in substandard versus adequate housing*




**Note:** The figure shows the cumulative percentage of the study population testing positive for COVID-19 among those in substandard housing (red) and adequate housing (orange). The groups' risk of infection diverges significantly during the lockdown period. After stay-at-home advisories are lifted in June 2020, there is no difference in the rate of new infections between the two groups.

### Takeaways

The study demonstrated a clear link between substandard housing in densely populated neighborhoods and risk of infection during the COVID-19 pandemic. Takeaways for city leaders include:

#### Substandard Housing and Public Health

Identifying high-risk housing conditions—through data sources like city housing data—can allow local governments to distribute essential resources, such as masks, COVID-19 tests, and temporary housing, as part of short-term efforts to reduce the severity of a health crisis. Meanwhile, investing in long-term solutions that increase access to safe and affordable housing can improve community health and build resilient neighborhoods.

#### Integrate Data to Anticipate Need

These research findings have implications beyond substandard housing and public health crises. Multi-sector data—ranging from health and housing to education and transportation—can inform proactive solutions for a city's most vulnerable residents. Identifying residents' needs and risks through data analysis can guide strategies for targeted and equitable investment in residents' quality of life.

> *Multi-sector data can inform proactive solutions for a city's most vulnerable residents.*

Cities, as places with large concentrations of people, are sites of tremendous possibility as well as deep vulnerability. The COVID-19 pandemic laid bare the risk of densely populated and underserved neighborhoods in the face of infectious disease. Identifying the most vulnerable residents and neighborhoods can drive proactive and equitable solutions before, during, and after a crisis and build resiliency to survive impending shocks. City leaders can use multi-sector data and collaborations to build healthy communities capable of withstanding such crises.

## Further Reading

"Substandard Housing and the Risk of Covid-19 Infection and Disease Severity: A Retrospective Cohort Study"
*SSM - Population Health*

"How Cities Can Use Housing Data to Predict Covid-19 Hotspots: Lessons from Chelsea, MA"
Data-Smart City Solutions

"More Than the Sum of the Parts: Integrating Housing Inspections and Social Services" to Improve Community Health"
Bloomberg Harvard City Leadership Initiative

"Saving Lives, Time, and Money: Using Data to Find Unsafe and Unhealthy Buildings Faster"
Bloomberg Harvard City Leadership Initiative

"How Innovation in Housing Inspection Can Improve Public Health"
*Health Affairs*

## Researchers

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This Action Insights summary was authored by Katharine Robb, Rowana Ahmed, John Wong, Elissa Ladd, Jorrit de Jong, Jenny Folsom.

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# Collaborating Across Boundaries

# The Art and Science of Cross-Sector Collaboration

## An Overview of Findings from Research on Problem-Solving Partnerships

Tackling the toughest social challenges often requires the public, private, and non-profit sectors to join forces. What do we know about the challenges these partnerships face and how to overcome them? Research supported by the Bloomberg Harvard City Leadership Initiative offers insights for city leaders and their collaborators.

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Most mayors know—or find out the hard way—that when it comes to tackling homelessness, gun violence, traffic congestion, adapting to climate change, or any other tough challenge, city hall cannot do it alone. Municipalities rarely have the resources or authority to solve complex problems on their own. They need partners.

That was the case in the United Kingdom, when South Yorkshire Mayor Oliver Coppard convened a cross-sector group to tackle health inequalities among children. The team included leaders from three local government bodies, a hospital, a non-profit, academia, and the local planning arm of the National Health Service. Coppard tasked the team with an important job: to develop breakthrough ideas to improve health outcomes.

Cross-sector work on something so complex and ambitious makes sense, but collaboration is easier said than done. To unite around a common mission, organizations need to agree on goals, build trust, and reconcile—to some extent—their perspectives, interests, and accountability structures. That can be a tall order and a tough journey.

> *Organizations need to agree on goals, build trust, and reconcile their accountability structures.*

Academic research supported by the Bloomberg Harvard City Leadership Initiative and published in peer-reviewed academic journals has produced actionable insights for every step of the collaboration journey, from launching teams to scoping work to overcoming difficulties when they inevitably arise.

### Understand the Barriers

Cross-sector collaborations often face a similar set of recognized challenges. Local leaders and their partners should therefore enter their work together clear-eyed about the obstacles. The question is not if collaboration will be challenging, but what you will do when you hit a bump in the road, and how you can prepare yourself for that very likely scenario.

> *Local leaders and their partners should enter their work together clear-eyed about the obstacles they are likely to encounter.*

Collaboration difficulties stem in one way or another from the fact that participants in any partnership must wear two hats. They must represent the collective interests, goals, and ways of working of the collaboration team. Yet at the same time, they must remain faithful to the priorities of the organization or agency they work for. This dynamic can create friction and doubts, even among partners with shared goals and similar worldviews.

That was true in South Yorkshire when Mayor Coppard's public health cross-sector team first met. Group members had little familiarity with each other; yet they had been charged with working together to solve a seemingly enormous problem. Some felt daunted and overwhelmed. Others wondered whether the exercise could really accomplish anything meaningful.

A literature review in the journal *Public Performance & Management Review* scanned 63 studies on this topic and identified three main types of challenges for effective collaboration:

- **Substantive problem-solving challenges** are about finding alignment on the big picture. What, exactly, is the scope of the problem, and how will the group solve it?
- **Collaborative process challenges** relate to the dialogue and interactions within the group. How can team members build trust and a shared culture of joint problem solving?
- **Multi-relational accountability challenges** have to do with the unclear lines of authority. Who is accountable to whom? And for what?

A related empirical study published in *Public Management Review*, suggested the way collaborations deal with these challenges can make a significant difference. Awareness of the obstacles and knowing they are to some extent inherent to the work can help collaborators anticipate them from the get-go. When tensions do arise, knowing that it's natural and expected can help the group maintain morale and resolve issues.

*When tensions do arise, knowing that it's natural and expected can help the group maintain morale and resolve issues.*

## Set Up for Success

Another article, in *Stanford Social Innovation Review*, examines the work involved in overcoming the obstacles. It provides road-tested tools that teams can use to get off to a good start, diagnose problems they encounter, and refine their approach along the way.

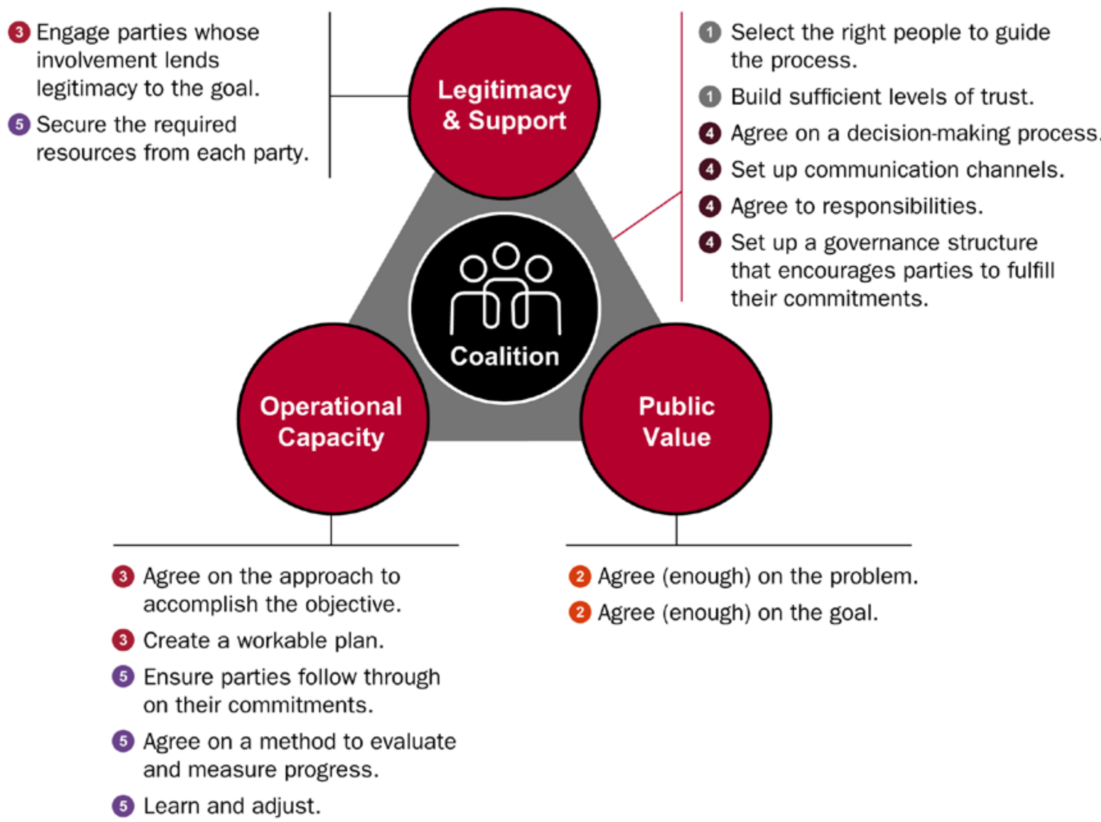
The first tool builds on the Strategic Triangle, a framework from public value theory. The **Strategic Triangle for Collaborative Solutions** takes the critical tasks needed for collaboration and overlays them with three key dimensions of social problem-solving. Teams can use the tool to understand the tasks every coalition needs to accomplish to be effective and develop a shared view of:

- **Public value**, or the social outcomes they aim to achieve together,
- **Legitimacy and support**, or the political will and resources behind them, and
- **Operational capacity**, or the structures they need to create change.

Collaboration teams may find this tool particularly useful during the startup phase, when participants, group goals, and ways of working are established for the first time. It also may be helpful anytime the group is reassessing its tasks and approach.

***Figure 1.*** *The Strategic Triangle for Collaborative Solutions*

This tool outlines the tasks needed for a successful collaboration. The suggested sequence—steps 1 through 5—reflects a scenario where parties start with a blank slate and have control over the effort's design.




*Adapted from: De Jong et al., "Building Cities' Collaborative Muscle,"* Stanford Social Innovation Review*, Spring 2021.*

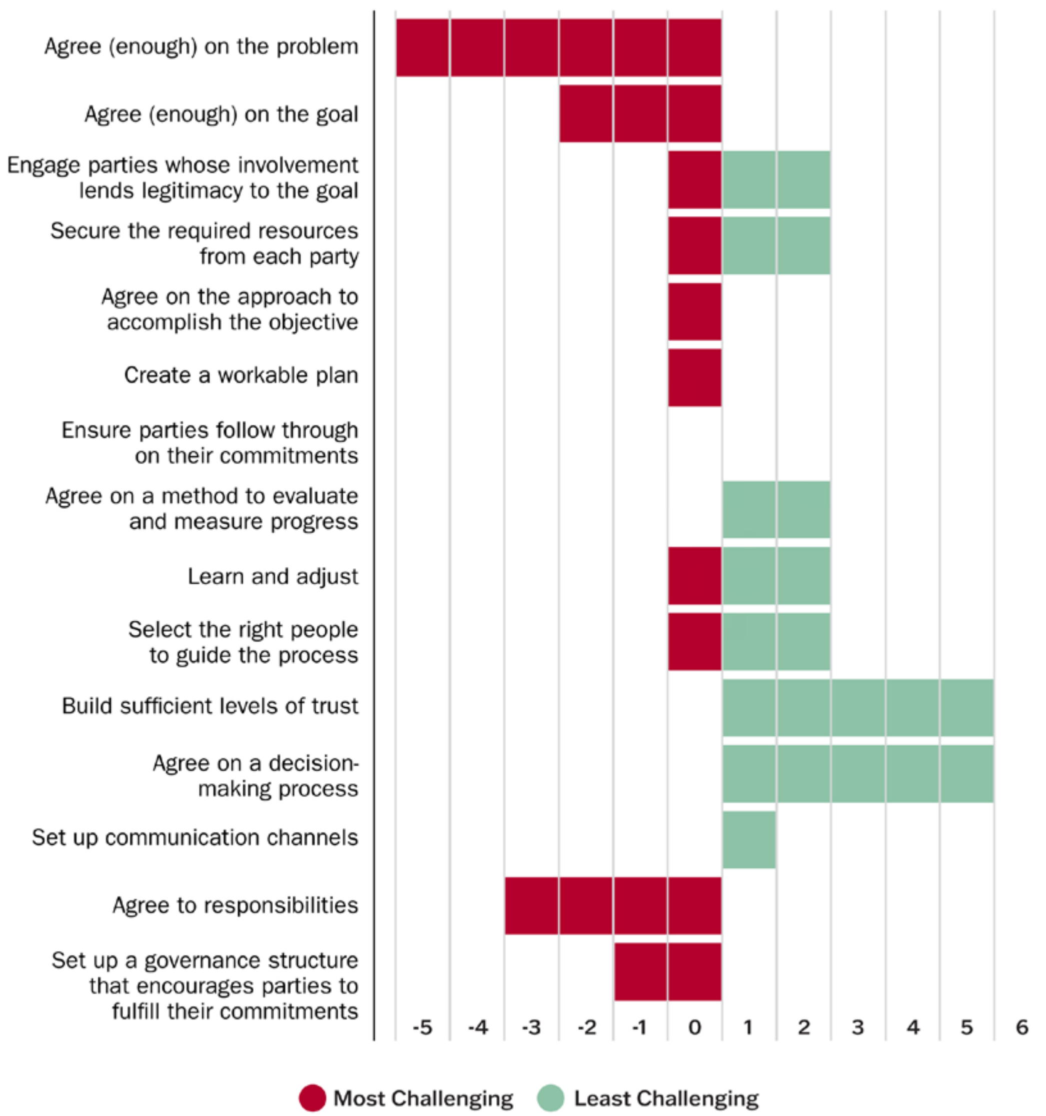
The second tool is more like a tune-up for teams that are already up and running. Groups can use the **Barrier Prioritization Tool** to surface lingering tensions and address issues that may be interfering with their work. Each team member reflects on the 15 collaboration barriers and ranks the ones they believe are most and least challenging for the group. The team then discusses the aggregate results. This exercise has been shown to help parties working in cross-sector collaborations build trust, maintain alignment, and strengthen their work together.

In South Yorkshire, the children's health cross-sector team took early steps to get in sync. For example, the group enshrined some basic principles of how they would work together in a group constitution, established a biweekly meeting cadence, and set up a WhatsApp group as their main communication channel.

Mayor Coppard also made some shrewd choices to lend the group's work authority and legitimacy. All of the team members he asked to join held senior positions within their organizations, meaning they could bring resources, make decisions, and contact the heads of other organizations that could help. In addition, Coppard made clear that he would back the group's recommendations, reinforcing the sense both inside and outside of the team that  its work would be consequential.

***Figure 2.*** *Discussing Barriers: One Example of a Ranking Exercise*




*Adapted from: De Jong et al., "Building Cities' Collaborative Muscle,"* Stanford Social Innovation Review*, Spring 2021.*

## Get Going and Build Momentum

By their nature, cross-sector groups are often tasked with complex problems with no easy answers. Workforce development. Poverty. Affordable housing. Domestic violence. Faced with such multifaceted issues, teams often become mired in debate and analysis and struggle to figure out where, exactly, to start.

That's the focus of an article in the *Journal of Applied Behavioral Science*. Researchers studied the early stages of 10 teams working on thorny social issues. Key to making progress was not immediately trying to tackle the whole problem in all its complexity. Rather, the most successful teams identified a manageable entry point into the work, where they could get moving, learn, adapt, and build momentum.

> *Successful teams identified a manageable entry point into the work, where they could get moving, learn, adapt, and build momentum.*

There's no such thing as a perfect entry point. But some work better than others. The researchers found that the most productive entry points are:

- **Meaningful** enough to create real impact on the larger problem at hand,
- **Actionable** and not too big or difficult to make progress on,
- **Acceptable** to enough team members to move forward, and
- **Provisiona**l as a jumping-off point to other actions.

Finding a suitable way into the work turned out to be critical for the South Yorkshire team. When the group first looked into children's health, it was easy to get frustrated by all the things it had absolutely no control over, such as social housing policy in the UK or low wage growth for workers. However, the team members' initial conversations also uncovered an insight that they would come back to: one in nine newborns in one of South Yorkshire's communities had no bed, crib, or bassinet to sleep in when coming home from the hospital; some babies slept on floors or in bathtubs. Not only was "bed poverty" a critical subcomponent of the larger children's health issue, but it was a problem group members could wrap their heads around.

The research found other ingredients of success during these difficult early stages. Teams that were most effective at finding entry points had diverse representation and a wide variety of perspectives. They had built trust amongst team members, often by using deliberate strategies meant to build empathy and psychological safety. And they had generated a sense of agency and shared belief that their work together could actually make a difference.

Also important is what comes after a team chooses their entry point. That is the focus of the study in *Public Management Review* mentioned earlier. It looked at eight cross-sector collaborations aimed at fighting different aspects of organized crime in the Netherlands over a period of 18 months. The study assessed why some of these initiatives got stuck and others did not.

In addition to finding suitable entry points, the study found, the most successful collaboration teams adopt a "both/and" mindset. That is, rather than getting stuck on the contradictions and tensions inherent in collaborations, participants  accepted that they were part of the work and moved on together. While that's easier for some people to handle than others, effective team facilitation can help nurture this mindset.

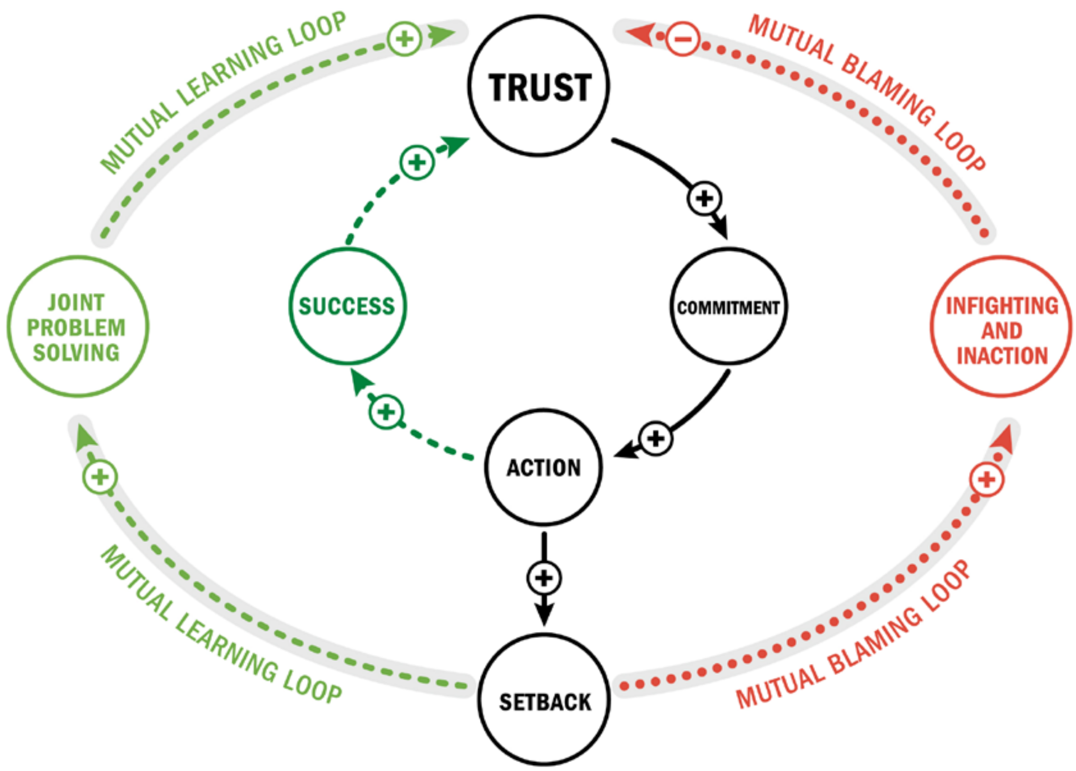
## Learn from Setbacks

Given the barriers to collaboration, it's all but inevitable that teams will face moments of failure along the way. How they respond to those setbacks matters. That's one finding of a study that looked at nine cross-sector collaborations related to education, public safety, and economic development in three U.S. cities. The paper was published in the *Journal of Public Administration Research and Theory*.

A baseline of trust is necessary for any collaboration to get started. But unexpected problems such as funding cuts, personnel changes, crisis, or conflicts can strain those bonds. When that happens, cross-sector collaborations that invest in mutual learning are more likely to reinforce trust in the group and overcome the challenges. Approaching setbacks as a joint problem-solving challenge can help groups figure out what went wrong, adjust, and bounce back. Those that don't do this are more likely to grind down in disagreement and finger-pointing.

> *Approaching setbacks as a joint problem-solving challenge can help groups figure out what went wrong, make adjustments, and bounce back.*

***Figure 3.*** *Mutual Learning and Mutual Blaming Loops*




*Source: Pulido Gomez et al.,* "Cross-Sector Collaboration in Cities: Learning Journey or Blame Game?" Journal of Public Administration Research and Theory*, 2025.*

The research identified five steps cross-sector teams can take to strengthen their capacity for mutual learning and improve odds of success. Those include:

- **Building on prior relationships** among individuals and organizations that, while diverse in perspectives, already know and trust each other
- **Relying on a trusted individual** whose strong reputation fosters cohesion among the team
- **Engaging the community** for input, legitimacy, and support
- **Using data and evidence** to better understand problems and inform discussions
- **Deliberately investing in joint problem-solving**, such as regular meetings to discuss issues as they come up

## Takeaways

Cross-sector collaboration is challenging—but essential. Municipalities can go farther faster when they combine the resources, expertise, and networks of government, non-profits, business, philanthropy, and academia. To maximize the payoff:

### 1 Design partnerships deliberately

Start with diversity of perspective. Establish simple but reliable routines for communication, decision-making, and accountability. Expect to revisit and adjust these over time as trust builds and circumstances change.

### 2 Start small to go big

Don't try to solve the whole problem at once. Identify a focused, meaningful entry point where the group can act, learn, and generate momentum. Early wins build credibility and buy-in for tackling larger challenges.

### 3 Embrace adaptation

Collaborations thrive when partners treat tensions and setbacks as normal parts of the work. Encourage a "both/and" mindset—accepting competing perspectives while keeping the group moving forward.

### 4 Make learning a habit

Build in time to reflect, gather feedback, and use data. Treat setbacks as opportunities to improve. This strengthens trust within the team and increases the chances that the partnership will endure and scale its impact.

In South Yorkshire, the cross-sector team's recommendations led Mayor Coppard to launch a new program called Beds for Babies: Safe Space to Sleep. Launched in 2024 with about $3 million (£2.2 million) in local funds and donations from IKEA and others, the program provided a free Moses basket, cot, or toddler bed to any child under the age of 5 who needs one. The program began through a series of four pilots testing different service and delivery models to find out what worked best. A year in, the effort had distributed its 1,000th bed.

Everyone involved in the program recognized that beds alone wouldn't solve the poor health outcomes South Yorkshire's children faced. But it gave the community a starting point to experiment, learn, and adapt, as well as knowledge about how to manage cross-sector collaborations needed to take the community's work in children's health to the next level.

"It's a brilliant place to start, right at the start of a child's life," Mayor Coppard told a local newspaper shortly after the program launched. "This is not the end of our investment in this space. It's just the start."

## Further Reading

Many of the academic publications referenced above have been summarized for city leaders in short, accessible articles, including:

"Building Cities' Collaborative Muscle"
*Stanford Social Innovation Review*

"Teaming Up to Tackle Crime: Making Multi-Agency Collaboration Happen in Cities"
Bloomberg Harvard City Leadership Initiative

"Cross-Boundary Collaborations in Cities: Where to Start"
*Stanford Social Innovation Review*

"Learning from Setbacks in Collaborations"
*Stanford Social Innovation Review*

## Researchers

*Journal of Applied Behavioral Science*: Eva Flavia Martínez Orbegozo, Jorrit de Jong, Hannah Riley Bowles, Amy Edmondson, Anahide Nahha, Lisa Cox

*Journal of Public Administration Research and Theory*: Santiago Pulido-Gómez, Jorrit de Jong, Jan W Rivkin

*Public Management Review*: Maurits Waardenburg, Martijn Groenleer, Jorrit de Jong, Bas Keijser

*Public Performance & Management Review*: Maurits Waardenburg, Martijn Groenleer, Jorrit de Jong

*Stanford Social Innovation Review*: Jorrit de Jong, Amy Edmondson, Mark Moore, Hannah Riley Bowles, Jan Rivkin, Eva Flavia Martínez Orbegozo, Santiago Pulido-Gomez

This Action Insights summary was authored by Jorrit de Jong, Christopher Swope, Lisa C. Cox.

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# Teaming Up to Tackle Crime

## Making Multi-Agency Collaboration Happen in Cities

Multi-agency teams often struggle to align interests and perspectives on a given problem. A study published in the journal ***Public Management Review*** shows that collaborators who pick a point of entry and forge ahead—instead of getting stuck in analysis and debate—are likeliest to make progress.

In 2017, the Dutch city of Breda was plagued by organized drug gangs who were increasingly using the spare rooms and attics of residents in low-income neighborhoods for illegal marijuana production. The gangs tapped excessive amounts of electricity to power a covert plant-growing operation, creating a dangerous fire risk for city streets. Some residents were complicit in the problem, some were intimidated into assisting or keeping silent, and others were outraged by it. The police couldn't solve this on their own; nor could the fire department, the utility company, or social workers. A multi-agency collaboration was required.

The challenge put to a group of public sector professionals—a police officer, a tax official, a utility manager, a city official, and a prosecutor—was both loosely defined and daunting: to "structurally disrupt the criminal homegrown marijuana industry." The five collaborators, who had never met before, were now supposed to be an "integrated multidisciplinary team." In their early meetings, each tended to frame the problem and the solution from the perspective of his own organization or professional background: the police officer saw a drug crime problem, while the utility manager was more worried about grow houses' illegal electricity use overwhelming the system.

The problem was complex and multifaceted. In its largest frame, this was part of an offensive to disrupt organized crime in Breda. But how do you fight something as persistent and elusive as "organized crime"? The five-member team needed to define the problem as a feasible task without losing sight of the broader context.

### Creating effective multi-agency partnerships

When a problem—or opportunity—is too large and complex for one agency to take on, cities often create multi-agency taskforces. The study "Paradoxes of Collaborative Governance" shows how many of them struggle with defining their task and coming up with a shared course of action. The challenge, on one hand, is to not get overwhelmed or paralyzed by the magnitude and complexity of a problem; and on the other, to resist focusing on symptoms and losing sight of the bigger context.

Often, difficulties lie in coming to agreement on what actually constitutes the problem, and therefore what the solution(s) can be. Accountability challenges arise when there is insufficient commitment to the collaboration, and when commitments (usually between one's "home" organization and the collaboration) clash. Sound team design and management depend not only on trust and mutual understanding, but the prior conditions of establishing ways to talk, decide, and work together.

One way to get out of a gridlock is to follow an iterative process, where a team tentatively picks an entry point, goes back and forth between analysis and action, and "learns its way forward." The Breda multidisciplinary team fighting the marijuana problem in the southern Netherlands applied this approach with four points in mind:

**1 Narrowing problem definition to a manageable level**

With thousands of marijuana plantations spread across the country, the team and its observers wondered how such a small group of individuals could make a dent in organized crime. Particularly, they considered how their intervention in one or a limited set of cases could lead to any significant, broader result. To move ahead, they took a leap of faith and narrowed their problem definition from tackling "organized crime" to attacking domestic marijuana-growing operations and related safety hazards. Identifying the problem allowed the team to decide on its entry point, an engagement strategy in one carefully chosen Breda neighborhood.

**2 Public engagement to enlarge operational capacity**

As an entry point, the engagement strategy of going door-to-door to raise awareness among residents of the dangers of home marijuana production, including fire hazards and extortion by criminal networks, provided a first opportunity to disrupt criminal networks. These visits and the team's visible action as collaborative partners generated citizen support for the approach and created informal enforcement capacity.

**3 A "both/and" way of working (instead of "either/or")**

The team focused on working in a defined time and place but did not lose sight of the broader problem of organized crime throughout the Netherlands. It framed the problem so that it was both meaningful for society and actionable for the organizations involved. And it made use of both repressive and preventive interventions, engaging professional crime-fighting organizations as well as private parties and citizens.

**4 Shared accountability and risk-taking**

The team members set and subsequently committed to joint goals and felt responsible for realizing them, even if the goals were not entirely in line with their own organization's priorities. Moreover, the team was willing to experiment, learn, and go beyond taken-for-granted approaches. They were not afraid to take some risks along the way and have tough conversations internally and with stakeholders.

## The Team at Work

The team's entry point was learning to see the problem through the residents' eyes: the danger of fire destroying their homes affected everyone in the neighborhood. With that in mind, the team got to work. Advanced data analysis of power consumption records identified at-risk buildings, while community engagement focused on awareness, prevention measures, and targeted police action. When it was time for the street operation to begin, a multi-agency team would knock on doors and ask to look inside all of the housing units on these blocks. Before any activity, residents would

> *Combining actions that residents welcomed (fire prevention) with actions the government required (fighting crime) allowed the team to make progress on their learning journey.*

be informed about the fire hazards associated with domestic marijuana production. Combining actions that residents welcomed (fire prevention) with actions the government required (fighting crime) allowed the team to make progress on their learning journey.

Before gaining approval for their plan, the team members had to win over the chain of command in their own organizations. Enlarging the conversation produced changes: the fire department, for instance, did not want to be seen as appearing in a law-enforcement role; the mayor was concerned about not stigmatizing certain Breda neighborhoods as “criminal.” Once satisfied, the mayor approved the plan and the first two days of the operation proceeded smoothly. The team requested entrance to 400 homes; two grow houses were found, including one where they had to climb in through a window where transformers for marijuana growing lights were baking at 97 degrees Celsius. Amongst themselves, the team members noted potential tweaks to the operation, while the mayor informed local media that a “new approach” was being piloted and that he was satisfied. (The police admitted that they hoped for more arrests in future operations.)

Over the next year, the team launched new operations in nearby cities and considered what it would take to implement the approach in other regions, and possibly nationwide. Reality turned out to be more complicated. Questions from mayors and police chiefs in other localities the team visited were hard to answer because the team often didn’t have information or know the local context. Initial resources and support from superiors were running out before a solid plan or strategy could be formulated; after a year, the team began to break up.

## Conclusion

A complex societal problem, of which organized crime is just one example, will not be solved by a single government agency. It requires the collective efforts of multiple organizations, both public and private, at various levels of governance from local to global. These organizations remain autonomous with their own interests, ideas and processes, but as collaboration begins and deepens, they will become more dependent on each other to achieve the goal.

Success is never a given, of course; when or if such efforts fail, it is often because governance challenges remain unresolved. These can include the political and technical challenges of actually defining the problem; designing the collaboration; and deciding what “success” looks like. With different organizations involved there are also various perspectives and hurdles in building trust among people who may not know each other prior to collaborating on the joint task. Finally, there are accountability challenges: to one’s new colleagues, one’s department or agency, to the project, and to society.

Assembling a successful team for a project that might be only brief or experimental requires effectively harnessing members’ problem-solving abilities to develop, design, and test innovative solutions. This means learning new skills and adopting a new mindset—one of problem-solving, experimentation, and trial and error—to be flexible enough to respond to shifting circumstances. This kind of teamwork entails establishing trust, frequently asking  questions, careful listening, and resolving conflicts early on. Since there is usually not enough time to get to know each other and to practice working together, a key skill is getting up to speed quickly on each other’s perspectives and ideas.

## Further Reading

"Paradoxes of collaborative governance: Investigating the real-life dynamics of multi-agency collaborations using a quasi-experimental action-research approach"
*Public Management Review*

"Designing Environments for Experimentation, Learning and Innovation in Public Policy and Governance"
*Policy & Politics*

"Growing Pains: How a Dutch Cross-Agency Team Took on Illegal Marijuana Production in Residential Areas"
Bloomberg Harvard City Leadership Initiative

"Safety in the City: Building Strategic Partnerships in the Fight Against Organized Crime"
*Partnerships for Liveable Cities*

"Building Cities' Collaborative Muscle"
*Stanford Social Innovation Review*

## Researchers

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# When Residents Report

## Hidden Insights in City Hotline Data

What does it mean when a neighborhood's emergency calls to 911 and service requests to 311 go up? Research published in the journals ***International Journal of Environmental Research and Public Health*** and ***Justice Quarterly*** finds it may not be a sign of worsening neighborhood conditions. In fact, it could be the opposite.

Imagine this: You're at city hall, looking over health and safety data for different neighborhoods in your city. And something in the numbers about 911 emergency calls and 311 service requests jumps out at you: residents' complaints are going up in an area known for drug dealing and distressed properties.

What does that mean?

At first glance, it may seem obvious that reports of crime and unsafe buildings would be higher in areas with those challenges. Viewed that way, the growing numbers of calls to 911 and 311 may be a sign of worsening conditions in the area.

But could there be another explanation? What if residents in the area are becoming more willing to report concerns in their community? In that case, more calls to 911 and 311 might actually be a good thing—not at all an indicator of a downturn, but rather of a growing belief and sense of hope that city authorities will take action to address issues facing the neighborhood.

> *What does an uptick in calls to 911 and 311 mean? It could be that residents are more willing to report crime and service needs.*

A pair of studies from the Bloomberg Harvard City Leadership Initiative explore this and other questions around residents' reporting behavior. The results can help inform how city leaders design and measure the impact of interventions aimed at building communities' trust in local government.

### Researching Impact in Buffalo

The two studies look at a long-running program in Buffalo, New York, called the Clean Sweep Initiative. Clean Sweep aims to improve quality of life in low-income areas of Buffalo. Once a week from April through October, dozens of city staff and community partners take their work to the streets in a two- or three-block area. They go door-to-door meeting with residents to hear about concerns, while work crews trim trees, remove graffiti, haul trash, board up vacant homes, and perform other cleanup activities. The program has inspired other cities to implement their own versions. *(Read this Action Insights to learn more about how Clean Sweep encourages collaborative innovation across city departments and community organizations.)*

Clean Sweep operations aim to repair the fractured relationship between local government and historically underserved communities by producing visible neighborhood improvements that residents can feel right away. They also introduce residents to community police officers, city staff, and non-profit groups who can help them address neighborhood challenges, from landlord issues to weatherization to pest control.

We wanted to see if Clean Sweep not only meets its goals of improving quality of life but also impacts how residents see local government as a partner in making their neighborhoods safer and healthier. To do that, we looked at residents' reports of crime and service needs using Buffalo's 911 and 311 hotlines. Research shows that people are generally less willing to report problems where trust in and responsiveness of authorities is low. An increase in reporting behavior could therefore be a sign of improvement in both.

In a quantitative analysis published in *Justice Quarterly*, we looked at Buffalo's 911 and 311 data to assess the effects of the Clean Sweep. Advanced statistical techniques helped us compare reporting behavior between similar properties that had received a Clean Sweep and those that did not. These methods enabled us to estimate the causal effects of the Clean Sweep program on reporting behavior over 11 years of data. We also held focus groups with residents whose neighborhoods had received a Clean Sweep and interviewed city staff involved in the operations. Through qualitative analysis, we sought to understand factors influencing changes in residents' reporting behavior.

## A Rise in Reporting

The analysis of 911 and 311 data showed a clear trend. Residents of properties that received a Clean Sweep were 42 percent more likely to report drug-related crimes via 911 over the following six months compared to similar properties that did not receive a Clean Sweep. And they were 9 percent more likely to report service needs such as trash or graffiti removal via 311. An analysis of these results supports the conclusion that reporting of crime and service needs—not actual crime and service needs—went up.

> *In Buffalo, residents who benefited from a Clean Sweep were more likely to use 911 and 311 than those who did not.*

But why? Our qualitative study, published in the *International Journal of Environmental Research and Public Health*, found three reasons for the increase in residents' reporting:

### Responsiveness

Some residents who previously felt neglected by city authorities said that seeing a Clean Sweep address long-standing problems made them feel that city authorities could be partners with whom it was worthwhile to engage.

### Trust

Some residents who previously were not inclined to trust local authorities felt encouraged by respectful and reciprocal interactions with police and other city staff during Clean Sweep operations.

### Self-efficacy

After a Clean Sweep operation, some residents felt a greater sense of ownership in their community and willingness to take individual and collective actions to improve neighborhood safety and quality of life.

### Takeaways

These results have implications not just for cities that have their own version of a Clean Sweep initiative, but for all cities that are actively trying to repair relationships with historically underserved communities. A few takeaways for city leaders include:

**Reporting data contain valuable insights.**

When a resident calls 911 or 311, they're not just reporting a problem. They're also on some level expressing faith in local authorities to do something about it. Reporting behavior can be used as an indicator of a community's trust in local government.

> *Examining changes in reporting behavior from residents in neighborhoods where the relationship with local government is strained can be particularly insightful.*

**Neighborhood context matters.**

Changes in reporting behavior are particularly relevant in neighborhoods where the relationship between residents and local authorities is strained, as is common in historically underserved areas. As governments implement programs to repair the relationship with communities, a jump in 911 and 311 calls may mean trust is rising—but this should be confirmed with residents and additional data before drawing conclusions.

**Unlocking 911 and 311 data is key.**

Our analysis in Buffalo combined call-center data from the city's 911 and 311 hotlines with parcel information in ways that unlocked new insights. This relied on the Open Data Buffalo platform, which makes data available for public use. Cities can prioritize open data protocols and data-sharing agreements across government to enable research, allowing them to look for patterns in their own communities.

Call volumes at a city's 911 and 311 centers are not perfect reflections of crime and other challenges in a community. Many factors influence whether residents report matters to authorities, including how much residents trust local government or perceive it to be responsive to their needs. But these calls are crucial; without them, residents miss out on essential services, and communities already lacking investment face increased isolation and neighborhood decline. Historic disenfranchisement, racism, and exclusionary policies have left many communities feeling deeply apprehensive about engaging with government as a partner. Local leaders who seek to rebuild these relationships through Clean Sweep or other initiatives with similar goals can use data on changes in reporting behavior as an indicator of how these efforts are working.

> *Reporting behavior can be used as an indicator of how efforts to build trust with residents are working.*

## Further Reading

"The Impact of City-Led Neighborhood Action on the Coproduction of Neighborhood Quality and Safety in Buffalo, NY"
*International Journal of Environmental Research and Public Health*

"The Effects of a Place-Based Intervention on Resident Reporting of Crime and Service Needs: A Frontier Matching Approach"
*Justice Quarterly*

"Breaking Down City Hall's Silos: Collaborative Innovation in Practice"
Bloomberg Harvard City Leadership Initiative

"Using Data to Solve Urban Problems"
Bloomberg Harvard City Leadership Initiative

"Connecting the Dots: Using Big Data to Understand Mobility Gaps in American Cities"
Bloomberg Harvard City Leadership Initiative

"More than the Sum of the Parts: Integrating Housing Inspections and Social Services to Improve Community Health"
Bloomberg Harvard City Leadership Initiative

## Researchers

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**Justice Quarterly:** Eleanor Dickens, Noah Greifer, Katharine Robb, Ashley Marcoux, Jessica Creighton, Charles Allegar, and Jorrit de Jong

This Action Insights summary was authored by Katharine Robb, Eleanor Dickens, Ashley Marcoux, Noah Greifer, Pablo Uribe, Jessica Creighton, Charles Allegar, Christopher Swope, Jorrit de Jong.

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# Inter-City Collaboration

## When to Partner Up with Other Cities?

Inter-city collaborations are on the rise, but what value do they produce for cities? A study published in the journal ***Global Policy*** explores how city leaders can make informed decisions about participation.

Inter-city collaborations (ICCs) have existed throughout history. Before national governments consolidated power, city-states collaborated on security and trade. Today, cities large and small partner up to negotiate waste management contracts, exchange policy ideas, fight a global pandemic, and tackle climate change. By joining forces, cities can achieve economies of scale, learn from each other, solve collective action problems, and amplify their voices on the national and global stages.

*By joining forces, cities can achieve economies of scale, learn from each other, solve collective action problems, and amplify their voices on the national and global stages.*

But participating in an ICC is not without costs. City leaders are busy, and their time is a scarce and valuable resource. A study published in *Global Policy* describes how and why cities collaborate and lays out a framework for understanding the main forms of value ICCs deliver. The findings can help city leaders:

1. strategically assess whether joining an ICC makes sense
2. leverage the peer-to-peer support that ICC participation can provide
3. save money and increase impact by working together

### A Framework for Inter-City Collaboration

Desk review, surveys, and interviews with dozens of city leaders and managers of ICCs in the U.S. and abroad showed that ICCs are widespread, on the rise, and focused on cities' top priorities. Table 1 distinguishes two broad categories. In operational partnerships, cities collaborate to realize growth or cost-saving opportunities via economies of scale. These collaborations can deliver value in the form of regional coordination, shared service delivery, or collective purchasing. In issue-based coalitions, city leaders act collectively to advocate for specific issues. These ICCs promote joint policymaking, learning exchanges, or political movements.

For example, the Utah Telecommunications Open Infrastructure Agency (UTOPIA) is an operational partnership that facilitates shared service delivery. When telecom companies refused to service their area, UTOPIA enabled municipalities in Utah to develop an advanced fiber optic network. Cities Coalition for Digital Rights, on the other hand, is a global issue-based coalition that facilitates learning exchange and helps cities develop policies around access to technology and data security.

 

## A Typology of ICCs

*Table 1*

| | ADVANCE SHARED POLICY GOALS | REALIZE ECONOMIES OF SCALE OR SYNERGY |
|---|---|---|
| FORMS | **ISSUE-BASED COALITION**<br>City leaders collectively act to advocate progress on a specific issue or set of issues | **OPERATIONAL PARTNERSHIP**<br>Cities partner to realize growth or cost-saving opportunities via economies of scale |
| TYPES OF VALUE | **Joint Policymaking**<br>Cities turn commitments into action by scaling effective practices in specific policy domains; often with backbone organizations that co-create and diffuse research<br>**Learning Exchange**<br>City leaders convene as peer resources to exchange ideas, develop shared perspectives, and explore new collaborations; often coordinated by backbone organizations<br>**Political Movement**<br>City leaders pledge to protect or advance values important to the future of cities; builds political will for state, federal, or global action on specific issues; may be self-organized or have a backbone organization | **Regional Coordination**<br>Cities coordinate to address shared economic, transportation, or legislative goals within or across regions; often led by a backbone organization<br>**Shared Service Delivery**<br>Cities pool their resources to deliver municipal services more efficiently or effectively; usually no backbone organization<br>**Collective Purchasing**<br>Cities collaborate to magnify their bargaining power in purchasing resources such as water or insurance |

*ICCs allow senior leaders—not just mayors—to learn, network, benchmark, and exchange ideas.*

Some ICCs advance strategic priorities that span city limits (e.g., transportation) or require innovation (e.g., broadband access, workforce development). Other ICCs allow cities to lower the cost of services and invest in technology they could not otherwise afford. Still other ICCs allow senior leaders—not just mayors—to learn, network, benchmark, and exchange ideas.

### Factors for Success

According to both members and organizers of ICCs, factors for success include shared values, dedicated staff or a backbone organization, and involving city leaders in strategy development. Factors that hinder success include politicization of issues and dependency on the commitment of elected leaders. For example, C40, which began as a climate-change initiative at the Mayor of London's office, has succeeded in part because it secured independent funding to become its own organization with specialized staff. By contrast, the Fairfield Five, a collaboration of five towns in the suburbs of New York City that worked to draw companies out of the city by showcasing the towns' assets, had each town designate a staff member and add the ICC to their existing duties. Without dedicated staff, the collaboration ceased.

*Factors for success include shared values, dedicated staff or a backbone organization, and involving city leaders in strategy development. Factors that hinder success include politicization of issues and dependency on the commitment of elected leaders.*

## Takeaways

Today's city leaders face challenges ranging from intergenerational poverty to climate change, and from public health emergencies to a changing social and political landscape. ICCs give cities the (purchasing) power to punch above their weight, the learning space to create and discover innovative policy solutions, and the organizational vehicle to develop a unified voice in state, national, and global policy debates. On the other hand, city leaders are often stretched thin, and the proliferation of ICCs can add to the stress of competing commitments. Being intentional about joining an ICC, articulating what success looks like and how it will be measured, and recognizing the factors that help and hinder collaborative success can help city leaders determine if becoming a member is in their city's best interest.

> *Being intentional about joining an ICC can help city leaders determine if doing so is in their city's best interest.*

Among other things, city leaders should bear in mind:

### Participation in ICCs should be a strategic decision.

Developing a systematic decision framework can help city officials identify what types of ICCs further their agendas and deliver the type of value they seek. Formalizing ICC entry and exit processes within city governments, based on key performance metrics, can make participation less ad hoc and more politically neutral, thereby supporting the long-term viability of ICC involvement. Helsinki, for example, has adopted a strategic method for engaging with ICCs. For narrowly focused issues, they seek out cities of similar size and demographics. To enhance their networks, resources, and influence, they prioritize ICCs with a larger variety of cities.

### Peer-to-peer support through ICCs is a big value add.

City officials spoke of the "loneliness of leadership" and the importance of ICCs in facilitating comradery and connection, especially for historically underrepresented people in leadership. The informal collaborations arising from formal networks not only help city leaders feel more supported and understood, but also enable some leaders to make quicker and better-informed decisions in response to emergencies and crises.

### Going it alone can be more costly and less impactful.

City leaders described a variety of services made possible and cheaper through ICCs ranging from pension plans for staff to expanded emergency services for constituents. In addition to the potential for cost savings, ICC participation can be a powerful vehicle to amplify a city's voice in state, national, or global policymaking on issues like climate change and economic development.

## Further Reading

"Inter-city collaboration: Why and how cities work, learn, and advocate together"
*Global Policy*

"Building Cities' Collaborative Muscle"
*Stanford Social Innovation Review*

"Cross-Boundary Collaborations in Cities: Where to Start"
*Stanford Social Innovation Review*

"Cross-Sector Collaboration: Five Cases"
Bloomberg Harvard City Leadership Initiative

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# Innovating and Implementing New Practices

# Why Your Innovation Workspace Matters

## Designing an Environment for Creating New Policy Solutions

Complex social issues cannot be solved by individual organizations. Yet cross-boundary collaboration is by no means a simple or easy process. So what can you do to innovate across organizational silos effectively? A study published in the journal ***Policy & Politics*** explores the conditions under which multi-agency teams are more likely to succeed in developing creative solutions for difficult-to-solve challenges.

Instead of rushing to come up with a solution, policymakers should pause and consider the "workspace" in which professionals from different agencies are expected to collaborate. This is not (just) a physical environment, but a designated place in space and time, and institutional context, where the work gets done. Ask yourselves: does the space foster multi-agency collaboration? Does it involve people with a diverse mix of backgrounds—and does it adequately enable their participation? Does it maximize their focus on the task at hand, while minimizing distractions? Does it engage management in a constructive way?

An effort in the Netherlands illustrates the importance of considering these and other questions when trying to innovate solutions to difficult social challenges. In June 2015, national law enforcement officials challenged a group of five Dutch professionals to find a new way to prevent drug gangs from paying or coercing residents in low-income neighborhoods to grow marijuana in their homes. In addition to being illegal, the practice put a huge strain on the power supply and greatly increased the risk of fire.

> *Tackling complex social issues requires multiple parties to come together and pool expertise, resources, and power.*

The five did not know each other and came from different professional backgrounds and organizations, all with their own perspectives and objectives: the police officer was focused on raiding grow houses, the representative of the mayor's office on developing a more sustainable approach to combating the problem, the utility company manager on ensuring customer safety, the public prosecutor on disrupting criminal gangs' exploitation of vulnerable residents, and the tax office representative on tackling money laundering and tax evasion.

Although it had nine months to develop a solution, the group understood the urgency of its assignment. "Time is running out," the head of the Dutch Prosecution Service informed the team as it gathered together for the first time. "It's up to you to put a stop to this!" Given their many differences, however, the five faced a difficult path forward. Could they find common ground? And even if they did, would their bosses accept the outcome? After a few rounds of bickering and growing tension, the group grew increasingly skeptical that it would overcome its differences and produce a collaborative solution. Yet, the team still had a chance to succeed—if the conditions of the work environment allowed for it.

 

## Action Research on Cross-boundary Collaboration

Tackling complex social issues, like the crime and poverty associated with the grow houses, is a difficult undertaking that requires multiple parties to come together and pool expertise, resources, and power. While convening the right mix of public, private, non-profit, and community organizations is a necessary condition, it is by no means sufficient. Multi-agency teams often struggle to agree on defining the issue at hand, let alone what a solution might look like.

> *Given the varied backgrounds and agendas of the participants, the work of an ad-hoc, multi-agency group can all too easily go off the rails.*

Given the varied backgrounds and agendas of the participants, the work of an ad-hoc, multi-agency group can all too easily go off the rails. However, even in the most complicated of circumstances, there are still ways to facilitate and foster collaborative innovation. One seemingly obvious but all too often overlooked strategy is the intentional creation of an environment that supports collaborative inquiry by design.

We published an article in the journal *Policy & Politics* examining the design of such environments. Drawing on a multi-year action research study, the article offers insights into how the design of a collaborative workspace can enhance the development of new policy solutions.

Our research centered around the Organized Crime Field Lab (OCFL) in the Netherlands, a multi-agency collaboration involving the Dutch Public Prosecution Service, the National Police, and our team of academics from the Netherlands and the United States. (The term “Field Lab” captures the dual nature of this government/university collaboration which involved public sector innovation projects and our academic study of the collaborations. Similar approaches to facilitating and examining cross-boundary collaborations have also been used and documented in the United States.)

Involving over 160 participants—police officers, public prosecutors, tax inspectors, local and regional government officials, and non-state stakeholders—the OCFL consisted of eighteen different multi-agency collaborations, each focused on developing a new approach to fighting organized crime (i.e., strategies that were more strategic and preventative than the traditional reactive approach of arrest and prosecution). The field lab was more than just a mechanism to facilitate collaboration among the participants, however. It also served as an environment for us, as the research team, to examine the design components that enabled and hindered collaboration.

> *The field lab was a mechanism to facilitate collaboration as well as an opportunity to examine the design components that enabled and hindered collaboration.*

As is common in action research (a “learning by doing” process), we worked to improve OCFL’s problem-solving capacity while simultaneously studying its progress. At one level, we supported the collaborations’ efforts to design new and potentially transformative solutions by providing them with training and coaching, adjusting our approach across the four years of the project by adding and removing topics from the curriculum, and changing the format of the sessions.

At another level, we studied how the collaborations responded to changes we made to our training and coaching services (i.e., the “design environment”) through both direct observation and a series of surveys and interviews. This research not only informed our efforts to improve the design of the OCFL itself but enabled us to expand our understanding of challenges to collaboration in a more general sense.

## Takeaways

After assessing the effects of changes made across the four iterations of the OCFL, we identified six critical factors regarding the design of a collaborative innovation environment:

### 1 Space and Time

Multi-agency collaboration benefits from having a dedicated place (real or virtual) and time set aside for collaborators to try, fail, and learn. In practice, this includes arranging regularly scheduled meetings for collaborators to engage with one another on a routine basis, as well as developing project timelines that feature opportunities for obtaining feedback and experimentation.

### 2 Frameworks and Scaffolding

Providing collaborators with practice-oriented analytic frameworks and diagnostic tools can help them think more systemically and more strategically about the challenge they are seeking to address and alternative paths forward.

### 3 Centrality of Participants

The composition of teams and the process for selecting team members matters. Diversity in all dimensions, when truly leveraged and well managed, leads to richer conversation, smarter solutions, and better results. Importantly, a mix of perspectives and voices can help teams avoid groupthink and overcome biases. Meanwhile, participants are likely to be more committed and successful if they are included in the process of identifying and framing the issue themselves, as well as if they have more of a say in their own level of involvement (i.e., if they join the collaboration though a self-selection process as opposed to a supervisor mandating their participation).

### 4 Support for Collaboration

Two types of facilitation are needed: external facilitation of the *collaborative process* (e.g., coaching participants on teaming practices) helps participants better understand and overcome their differences, while facilitation of the *substantive problem-solving process* helps them better diagnose the issue and devise a sound remedy.

### 5 Involvement of Direct Supervisors

To ensure that team members prioritize their participation in the collaboration and perceive it as a core part of their daily work, their managers should play an ongoing role by consistently checking in and discussing progress.

### 6 Flexible Measures of Success

Collaborative innovation takes longer than traditional design processes focused on a single product or service with limited stakeholder involvement. It is thus important to take a flexible approach when evaluating progress and success. In an early stage, the most important indicator of progress may be the amount of experimentation and learning that has been done, while in later stages, more concrete and specific indicators of success can be formulated.

> *The urgency created by the initial challenge, dedicated time and space, supervisor support, and sustained access to facilitators help teams make progress.*

 

## Applying the Research to Create Collaborative Workspaces

Returning to the multi-agency team charged with addressing marijuana grow houses in the Netherlands, we can see how the factors noted above make a difference. For instance, having **time and space** dedicated to collaboration allowed team members to overcome their initial differences, prioritize the assignment, collectively define a central issue (fire risk associated with the grow houses), and settle on a plan of action (a multi-agency inspection team would visit locations identified as having unusually high energy use, an indicator of indoor marijuana farming and a major fire risk). After receiving feedback from their supervisors, team members then made several minor adjustments to their plan in order to secure the **support of management**, another key factor for successful multi-agency collaboration.

The team considered the project's launch a success. Remaining unified and staying on message, it inspected hundreds of properties and disbanded multiple grow houses over the course of the next year. This initial success inspired the group to try and take the project nationwide. Doing so, however, proved difficult; and in the end, the time and resources made available to the team were simply not enough to scale up across the country. Meanwhile, team cohesion began to dissolve as its members became physically separated. Having returned to their respective home agencies, they were soon consumed by work associated with their main jobs. As one team member recalled, "There was no collective decision [to move on from the project]…It just happened. We worked on separate locations in different organizations and had a lot on our plates." Without the urgency created by the initial challenge, and now lacking the dedicated time, space, supervisor support, and sustained access to facilitators, the team slowly disbanded. Simply put, the conditions of the "workspace" no longer supported the collaboration or the initiative.

As this example reveals, environments for creating innovative solutions do not simply exist; they must be designed and then maintained. Before you dive into the hard work of tackling the complex social problems you are working on, it is helpful to take a step back and reflect on the "workspace" in which you plan to collaborate with others. Does it foster or hinder collaboration? What elements can be tweaked to make the workspace more conducive to collaborative inquiry and co-production? There may not be one golden formula or recipe for all types of projects, but examining the elements and aspects described above in *your particular context* will be a helpful step in designing the best environment for your purposes.

*Environments for creating innovative solutions do not simply exist; they must be designed and then maintained.*

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# More than the Sum of the Parts

## Integrating Housing Inspections and Social Services to Improve Community Health

Housing inspectors often witness hidden and serious threats to public health yet lack the tools and training necessary to respond. A study published in the ***International Journal of Environmental Research and Public Health*** shows that integrating referrals for social services within home inspections not only improves the quality of life for referred residents, but it also increases inspectors' effectiveness and job satisfaction while having far-reaching benefits for entire communities

Imagine you are a housing inspector entering the home of a family with young children. You notice the pantry and refrigerator are empty, and you overhear a conversation about an impending eviction for late rent payments. But after issuing a citation to the landlord for faulty smoke detectors, you leave and move on to the next residence on your list. The living environment you encountered weighs on you throughout the week, but you see these situations often, and you feel powerless to help.

This type of predicament is common among housing inspectors and other frontline government staff, as public organizations often work in silos: police enforce laws; postal workers deliver mail; schools provide education. This division of labor usually benefits both the service providers and recipients—each professional delivering the service at which they are best suited. But is it possible that by crossing traditional boundaries and working closely together, public entities can solve multiple problems at once?

*Is it possible that by crossing traditional boundaries and working closely together, public entities can solve multiple problems at once?*

*Cross-silo work can lead to win-win solutions that also improve the effectiveness and job satisfaction of frontline staff.*

Local governments are increasingly realizing that certain departments, via their work and network in the community, offer unique opportunities to facilitate different services and enforcement work simultaneously. The power of these pairings represents a largely untapped opportunity to tackle complex social problems by supporting difficult-to-reach populations. Better yet, this cross-silo work can lead to win-win solutions that also improve the effectiveness and job satisfaction of frontline staff, as shown in our study in Chelsea, Massachusetts.

As one of the poorest cities in Massachusetts, Chelsea suffers from many of the public health challenges that plague modern cities. Housing inspectors, by the nature of their work entering homes, encounter families living in unsafe, overcrowded, and unsanitary conditions in need of services ranging from financial assistance and home repairs to treatment for substance use disorders and other mental health issues. Yet, as illustrated in our opening example, inspectors often have limited tools to address these issues.

## The Social Service Referral Program in Chelsea

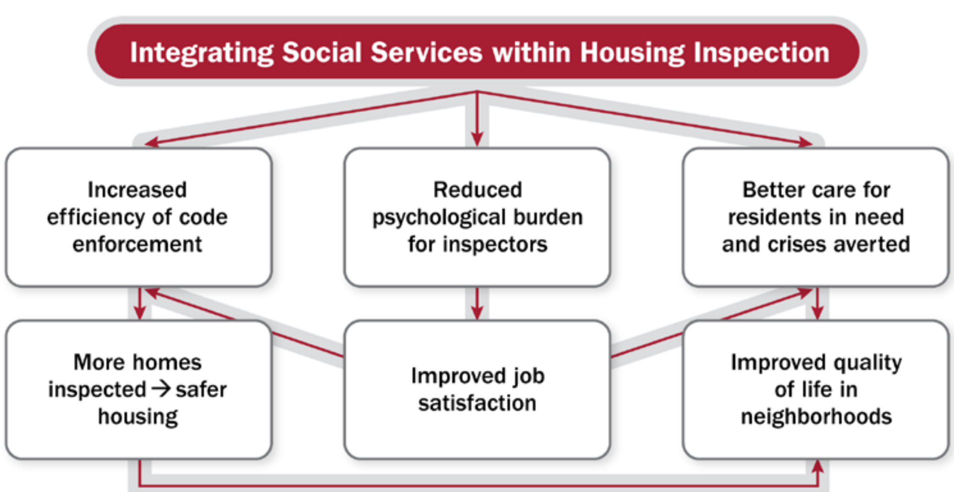
In 2017, our team partnered with the City of Chelsea to see if housing inspectors could actually help tackle some of the intractable social problems they witnessed. We asked: could the City improve social outcomes for residents and make code enforcement more effective by addressing the root causes of problems? Together, we designed a novel social service referral program within the housing inspections department to provide inspectors with the necessary training and tools to flag and refer the range of problems they encountered.

It works like this: During a routine housing inspection, an inspector identifies issues that cannot be resolved through code enforcement alone, ranging from crisis assistance (e.g., eviction) to vital access to basic needs (e.g., lack of heat or food). With the resident's consent, the inspector informs a social service case manager, who reaches out to the resident, often meeting at their home, and connects them with the appropriate social service. The social service agency then shares regular updates and progress reports with inspectors and the City Manager.

Based on data from referrals and interviews with inspectors, a social service case manager, and City leadership, the program succeeded on several fronts. Several residents were connected with social services for the first time, and some received additional services beyond what motivated the original referral. Inspectors described increased efficiency and a reduced psychological burden as a result of being able to refer residents whose problems they could not ignore with a clear conscience. Seeing the difference the program made for residents also helped inspectors tap into their sense of professional purpose and public service.

The program benefits extended beyond those receiving or providing services. City leaders gained a better understanding of the causes and consequences of poor housing and became more aware of the value of being able to rapidly and appropriately define a problem and assemble the needed resources to nip it in the bud. And interviewees described how referrals reduced the use of costly emergency services and made neighborhoods feel safer, improving quality of life for not only referred residents but also surrounding communities.

### Impact of The Social Service Referral Program



## Takeaways

Our study shows the potential of innovative collaboration to address the twin problems of housing and health. However, this kind of collaboration—which requires organizations to reimagine their encounters with one another and the populations they serve—has the potential to solve complex urban challenges beyond public health. To help realize that potential, we identified four takeaways from the Chelsea study.

*This kind of collaboration—which requires organizations to reimagine their encounters with one another—has the potential to solve complex urban challenges beyond public health.*

### 1 Take a problem-oriented approach

Enforcement work—and public policy more broadly—delivers greater value to the public when it is problem-oriented to identify and resolve risks through critical engagement. This approach allows a more holistic response and makes room for processes to adapt in the name of solving problems. Whether it's unsafe housing, climate change, COVID-19, or another thorny problem, put the problem front and center and ask how organizations can work together to fill gaps in creative ways.

### 2 Leverage existing networks and resources to solve novel problems

Equipping code enforcement officers, or other frontline staff, to be sensors of at-risk households has the potential to transform the ways cities identify and provide services to those in need. By capitalizing on existing assets and infrastructure (such as home inspections), local governments can deliver social services and support to at-risk or hard-to-reach populations more efficiently than by creating new channels from scratch. This practice of leveraging existing encounters for new public purposes has been described as "embedded education."

*Equipping code enforcement officers to be sensors of at-risk households has the potential to transform the ways cities identify and provide services to those in need.*

### 3 Transform targets of change into agents of change

The success of the Chelsea program required pairing traditionally separate types of encounters —one which imposes duties and one which provides assistance. This transformation could have led to resistance and backlash from frontline workers (in this case, inspectors) whose jobs were disrupted. Gaining their trust and buy-in as agents rather than targets of the change in the process was essential. Before implementing change, take the time to build consensus on the causes and consequences of the problem and inspire a shared vision among all stakeholders.

### 4 Create an enabling environment

Inspectors and City leadership in Chelsea described two key components that enabled the program's uptake and impact. First, the process for inspectors to refer cases was simple, and the value was tangible to them. Second, in this case, Chelsea contracted an effective and reliable social agency that built strong personal relationships. A pilot referral program also smoothed the way by showing that while housing inspection and social service providers employ very different methods, they ultimately have shared goals—housing stability, safety, health, and social welfare.

In the face of intractable social problems, city leaders have a choice: they can continue doing more of the same, or they can take a step back and reexamine their approach to the problem and endeavor to design and implement an innovative solution. The social service referral program in Chelsea shows that innovation, especially when it involves multi-agency and multi-sector collaboration, is no simple task. But by working together in innovative ways, public entities can accomplish more than the sum of their parts, delivering results that would be out of reach if they worked alone.

## Further Reading

"Further Inspection: Integrating Housing Code Enforcement and Social Services to Improve Community Health"
*International Journal of Environmental Research and Public Health*

"On Further Inspection: Engaging Housing Inspectors to Improve Public Health in Chelsea, Massachusetts"
Harvard Ash Center

"Embedding Education in Everyday Life"
*Stanford Social Innovation Review*

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# Breaking Down City Hall's Silos

## Collaborative Innovation in Practice

What happens when city leaders collaborate with residents and partners in and out of city hall to solve complex problems? A study published in the journal ***Administration & Society*** finds answers in a long-running community cleanup program in Buffalo, N.Y.

Every city leader knows the adage that city hall must "break down silos" and collaborate more across agencies. The problem is those "silos" exist for a reason. Departmental specialization and division of labor can make the routine daily work of local government—jobs like filling potholes, picking up trash, or enforcing traffic laws—more efficient.

However, cities are complex places. And increasingly, the kinds of problems they're facing, from homelessness to climate change to opioids, touch many departments, jurisdictions, and service providers at once. In this environment, collaborating across organizational boundaries is more important than ever—as is engaging residents to ensure that solutions have community buy-in and legitimacy.

> *Cities are complex places—collaborating across organizational boundaries is more important than ever.*

But when is collaboration worth the effort? And how does it really work in practice? A study in the journal *Administration & Society* explores the benefits and tradeoffs that arise from practicing "collaborative innovation." The findings can help city leaders understand and intentionally design collaborative innovation initiatives to unlock new ways of tackling tough problems.

### Learning from Buffalo

For as much as mayors, scholars, and management consultants talk about breaking down silos, few empirical studies have examined how doing so actually works at the operational level. We set out to change that by looking at a long-running city-led collaboration in Buffalo, N.Y.: the Clean Sweep Initiative.

*Buffalo Mayor Byron Brown greets a resident during a Clean Sweep.*

Clean Sweep began in the late 1990s with the goal of improving quality of life in Buffalo's poorest neighborhoods. Every Wednesday morning from May through October, dozens of city staff from more than ten departments, along with community partners, flood into a two- or three-block area and close the streets to traffic. They go door-to-door talking with residents about what problems they're facing and enhance the neighborhood through a range of city services such as tree trimming, brush cleanup, graffiti removal, boarding up vacant houses, and more. Cities across the U.S. and around the globe have replicated Buffalo's model.

Clean Sweep exemplifies collaborative innovation in action: the effort brings organizations in and out of city hall together at scale—in close coordination with block clubs and community leaders—week after week. While Clean Sweep is targeted specifically at neighborhood development issues, its structure is relevant to other policy contexts, from economic development to housing to crime reduction.

> *Clean Sweep brings together organizations in and out of city hall at scale, week after week.*

We interviewed dozens of city staff, community partners, and residents involved in these operations, and held focus group discussions with residents whose blocks had received a Clean Sweep to find out what city leaders can learn from Buffalo.


*Buffalo city staff talk with residents while work crews remove trash and make repairs during a Clean Sweep.*

### Three Ways Collaborative Innovation Works

We found three ways that collaborative innovation in the Buffalo program works in practice. Knowing what these are can help city leaders be intentional about how they structure their own collaborative efforts (see Figure 1).

> *Collaborative innovation is problem-solving, making impact, and learning together.*

#### Problem solving together

The Clean Sweep Initiative encourages city employees, community organizations, and residents to work together to define problems and co-create solutions—on the spot and in real time. The facetime matters a lot. It opens new lines of communication, helping all parties to better understand each other's priorities, capabilities, and limitations while developing a shared approach to addressing problems.

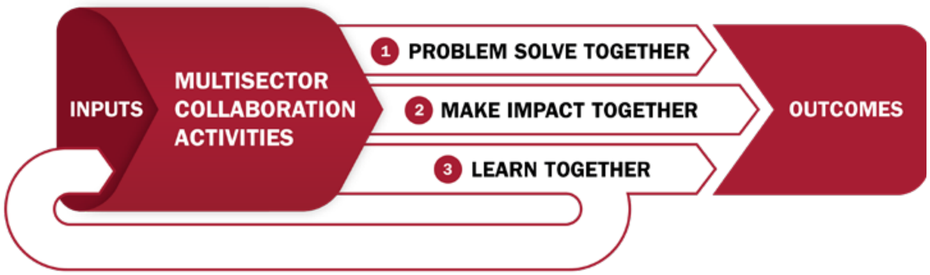
#### Making impact together

A Clean Sweep operation produces highly visible impacts that residents feel right away. The role of city hall in generating that impact is clear, thanks to the influx of city staff. Residents also describe a catalytic effect: concentrated cleanups boost a sense of community and engagement, spurring residents to keep the momentum going and even join or start block clubs.

### Learning together

Clean Sweep acts as a springboard for expanding skills, deepening knowledge, and strengthening relationships across city hall. That not only helps improve the next cleanup and the one after that. It also helps build departments' collaborative muscle in other work outside the initiative.

***Figure 1:*** *Social Outcome Generation Through Collaborative Innovation*




## Takeaways

Buffalo's Clean Sweep is just one example of a city-led collaboration; initiatives in other cities aimed at other issues may look different. However, Clean Sweep does offer a glimpse at conditions under which collaboration is more likely to work. City leaders looking to build on Buffalo's experience in their own collaborative efforts should keep the following in mind:

### Begin with a problem

When city leaders and staff hear directly from the people experiencing a problem and use that feedback as the starting point for collective action, it fuels a co-creative dynamic that enables problem solving together.

### Seek tangible benefits

Producing change residents can see and feel, in which work by one actor meaningfully enhances the work of another, is possible when collaborators make impact together.

### Take time to reflect

A commitment among all parties to take stock of what does and doesn't work, iterate, and make their collective work better over time is key to learning together.

To be sure, none of this is easy. There were plenty of complaints from all sides. Collaborative innovation can be messy. Residents don't always agree with each other on what their biggest priorities are. Distrust between agencies—or between residents and city hall—can get in the way of problem solving. The most common criticism we heard was that the intensive coordination involved in working collaboratively takes more time and effort.

But city staff, partners, and residents also found that the tradeoffs are worth it. "If you do it right, it's slower because you're engaging with the community. You're finding out what they need. You're trying to craft an appropriate response," the city's former chief building inspector told us. "But it's much more effective. Whenever you have a group of people meeting, it can be sloppy, occasionally a little unruly. But the product is so much better."

> *If you do it right, it's slower because you're engaging with the community... but it's much more effective.*

## Further Reading

"Tackling Persistent, Boundary-Spanning Problems Through Collaborative Innovation: Lessons From the Clean Sweep Initiative in Buffalo, NY"
*Administration & Society*

"Building Cities' Collaborative Muscle"
*Stanford Social Innovation Review*

"Cross-Boundary Collaborations in Cities: Where to Start"
*Stanford Social Innovation Review*

"Teaming Up to Tackle Crime: Making Multi-Agency Collaboration Happen in Cities"
Bloomberg Harvard City Leadership Initiative

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# When Innovation Causes Conflict

## Ostrich, Chameleon, and Dolphin Strategies in the Public Sector

Public sector innovation often involves disputes over what is most important. All too frequently, these "value conflicts" can undermine or even derail the new policy, tool, program, or process you are seeking to implement. A study published in the ***International Journal of Public Administration*** argues, however, that innovators can overcome such obstacles by paying at least as much attention to the design and management of the process of innovating as to the innovation itself.

What happens when a new idea is proposed in your organization? Does it trigger debate or cause conflict? Is it ignored or embraced? And if it's *your* idea that causes ripples, how do you handle the situation? Do you lean in and engage in the conversation or do you maneuver "under the radar"? What can you do to ensure broad support for your idea? *In short: how do you implement innovation in the face of different—or even conflicting—priorities, concerns, and interests?*

*What happens when a new idea is proposed in your organization? Does it trigger debate or cause conflict?*

### Innovation and Conflict

Innovation is an inherently disruptive process: when you introduce something new, it typically replaces something old. Whether it's a new product, a new technology, a new working process, or a new organizational structure, the status quo is challenged merely by suggesting that there may be something different or "better." When that happens, we are forced to reevaluate the old ways and assess the value of the new idea. This can lead to what we refer to as *value conflicts*, i.e., differences or disputes over what is most important.

*The status quo is challenged merely by suggesting that there may be something different or "better."*

Take for example the hazard mitigation policy of "managed retreat." In order to save the lives and property of people in disaster-vulnerable areas, this approach preemptively relocates whole communities. Some localities have considered or even pursued managed retreat, recognizing that it may be their only option for survival. Others, however, have flat-out rejected the policy because it uproots people from their homes, potentially weakening social cohesion, even as rising sea levels and worsening storms threaten their existence.

Value conflicts can also be found in another related public innovation: technologically sophisticated contact tracing programs that aim to contain COVID-19 outbreaks. As effective and efficient as they promise to be, they also raise concerns about privacy, confidentiality, and security in countries that highly value individual liberties.

These are but just two examples of innovations involving value conflicts. In fact, it is highly likely that as an innovator you, too, will encounter competing interests and priorities as you seek to advance new ideas. So, what can you do when that happens?

## The Framework: Ostriches, Chameleons, and Dolphins

In our study "Managing Value Conflicts in Public Innovation: Ostrich, Chameleon, and Dolphin Strategies" we explore the ways in which individuals and organizations deal with difficult-to-resolve differences centered around competing or contradictory values. Based on a review of the literature and two in-depth case studies, we provide a framework for understanding a range of approaches to navigating these conflicts. (See The Ostrich/Chameleon/Dolphin Framework on page 92).

At one end of the spectrum is the ***avoidance or ostrich* strategy** (ostriches bury their heads in the sand), focused on hiding or denying conflicts. Organizations often employ this strategy for low-intensity disputes—but also when they feel they are simply unable to manage the conflict. In the middle of the spectrum lie several ***coping or chameleon* strategies** (chameleons take on the color of their surroundings) with varying degrees of openness to conflict (usually to the extent necessary to advance the innovation). This type of approach is common when conflict is unavoidable and the willingness to engage is low. At the opposite end of the spectrum is the ***learning or dolphin* strategy** (dolphins explore and collaborate), an open process that embraces the exploration of differences and engages multiple perspectives. This approach can take one of two forms: reconciling, i.e., addressing the conflict by revising the innovation as it is developed; or deliberation, which features inclusive discussion. Although the strategy's engagement and learning processes can be quite intensive and time consuming, they are useful for organizations dedicated to finding common ground and forming consensus.

## Illustrating the Framework: Two Case Studies in Public-Sector Innovation

Drawing on our familiarity with public sector innovation in the Netherlands, we applied this framework to two different technological innovations spearheaded by Dutch officials. One case focuses on the development of a national electronic ID system; the other on the creation of a national youth-at-risk index. Although each contains particularities unique to Dutch culture and systems of government, many aspects of the cases are universally applicable and align with global government innovation trends as identified by the OECD, including: (1) building digital identity; (2) embracing systems approaches and creating/leveraging enabling conditions; and (3) fostering inclusiveness and supporting vulnerable populations.[5]

### Case Study 1: A Good ID?

When the semi-autonomous Dutch Vehicle Inspection Authority (DVIA) proposed to digitize driver's license signatures as a pilot for a national electronic ID system, value conflicts quickly emerged on several fronts. Some stakeholders prioritized efficiency of the new system. Others were more focused on privacy and security considerations. Still others worried about fairness to citizens without a driver's license. In response to the competing interests, the DVIA initially adopted an avoidance strategy, characteristic of the ostrich, in the hopes that those emphasizing privacy and fairness would back off. That strategy backfired, however, and the project stalled. The agency then leapt to the opposite end of the spectrum, taking a learning approach (i.e., the dolphin strategy) that involved extensive deliberation with a variety of stakeholders. The moment had passed, however, and the project continued to languish. More than 10 years later, at the time our article was published, the Netherlands still did not have a national e-ID.

This case reveals the dangers and limitations of both the ostrich and dolphin strategies. The initial avoidance, or ostrich, approach failed because it denied the existence of value conflicts; the subsequent learning, or dolphin, approach failed because it came too late and took too long.

[1] Organisation for Economic Co-operation and Development, "Embracing Innovation in Government: Global Trends 2018" (Paris, France: OECD, 2018).

### Case Study 2: Youth at Risk

Another instructive case from the Netherlands centers around the country's efforts to develop a national youth-at-risk index. The system's well-intentioned creators envisioned and championed it as a tool to help agencies share information and coordinate care to vulnerable clients. Yet major value conflicts developed around this innovation as well. After some iterations, the design of the system would have enabled racial profiling and information sharing for law enforcement purposes. Having remained focused on the benefits and efficiencies that the tool offered, the innovators had failed to consider the privacy risks and worries about project scope. By ignoring these valid but complicating concerns, they initially chose to avoid any conflict. Like their counterparts behind the e-ID, they had defaulted to the ostrich approach. In this case, however, strong objections raised by the national Data Protection Authority over the inadequate privacy protections motivated them to change course. In response to the agency's concerns, the innovation team pivoted to a coping (i.e., chameleon) strategy, partially adjusting system design and governance while also allowing community-based piloting to help advance the innovation.

As with the e-ID case, this example illustrates the pitfalls associated with avoidance. Yet it also shows us how innovators can succeed by making the partial adjustments typical of a coping, or chameleon, approach.

## Applying the Framework in Your Work

Ideally, an innovation is an improvement over the old way of doing things. However, as the two cases from the Netherlands reveal, having a good idea is only half the battle. In order to navigate and mitigate value conflicts, you also need a strategy for how to introduce and implement your innovation, as well as how to make it sustainable. **Anticipating the innovation's effect on others** and considering stakeholders' concerns **can help craft the appropriate approach** to managing the conflicting interests and priorities that surround it.

Our Ostrich/Chameleon/Dolphin framework offers three distinct ways to manage value conflicts: avoidance, coping, and learning. Although it is hard to imagine that burying your head in the sand is a good idea—ever—it does happen, so it is important to be able to recognize it and think about alternative strategies. In fact, the framework encourages adaptation and flexibility in a variety of instances. For instance, you may have to use different strategies at different stages of the innovation process. If, despite the attractiveness of inclusive deliberation, the learning strategy fails to generate consensus and threatens to take too much time (as occurred in the e-ID case), a coping strategy may be a more pragmatic alternative (as the developers of the youth-at-risk index discovered). Or, if you are not aware of any value conflicts at all, it might be a good idea to test for blind spots and bias by engaging others in a learning strategy to identify values or concerns you may have overlooked.

> *If you are not aware of any value conflicts at all, it might be a good idea to test for blind spots and bias.*

> *If you pay as much attention to the process of innovation as to the innovation itself, and determine the appropriate strategy to manage it, you are more likely to succeed.*

Applying the Ostrich/Chameleon/Dolphin framework to real world cases can help you understand and better manage the social, political, and organizational dynamics of an innovation process. Innovators are sometimes preoccupied with the innovation itself and overlook or ignore overt or covert resistance to their ideas. This can result in a lack of support and therefore a failed innovation. If you pay as much attention to the the **process of innovation** as to the innovation itself, and determine the appropriate strategy to manage it, you are more likely to succeed.

 

## The Ostrich/Chameleon/Dolphin Framework:
### Strategies for Managing Value Conflicts

| STRATEGY TYPE | | |
|---|---|---|
| **OSTRICH (AVOIDANCE)** | **CHAMELEON (COPING)** | **DOLPHIN (LEARNING)** |
| **DEGREE OF OPENNESS TO CONFLICT** | | |
| **Low** | **Medium** | **High** |
| **DESCRIPTION** | | |
| Focuses on hiding or denying conflicts. | A range of approaches with varying degrees of openness to conflict (usually to the extent necessary to advance the innovation). | Embraces the exploration of differences to find common ground, through either:<br>• ***reconciling***, i.e., addressing the conflict by revising the innovation<br>• ***deliberation***, i.e., inclusive discussion. |
| **PURPOSE** | | |
| For low-intensity disputes—but also when a conflict seems especially difficult to manage | When conflict is unavoidable and the willingness to engage is low. | For organizations dedicated to finding common ground and forming consensus. |
| **CASE EXAMPLES** | | |
| **Case 1:** The **Dutch Vehicle Inspection Authority** initially ignored differences over its e-ID, prioritizing the efficiencies of the new technology over privacy and fairness concerns. This avoidance approach failed to advance the innovation.<br>**Case 2:** By initially focusing almost exclusively on the benefits of their tool, developers of the **Dutch Youth-at-Risk Index** avoided privacy concerns as well as issues related to project scope. The avoidance approach also failed in this instance. | **Case 2:** In response to concerns raised by the Data Protection Authority, the designers of the **Youth-at-Risk Index** made several partial adjustments to their tool. This coping approach ultimately allowed the innovation to advance. | **Case 1:** The **Dutch Vehicle Inspection Authority** eventually adopted a deliberative strategy that featured input from many stakeholders to try and address value conflicts over its e-ID. This lengthy and exhaustive learning approach failed to advance the innovation. |

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