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How NYC Can Leverage Data to Strengthen Social Services

This is the era of data. But while individuals, businesses, and governments are now using data analytics in countless ways to get smarter about how to allocate resources and deliver services, this data revolution has only just begun to transform one vital area of city government: New York's social services system. This report shares insights from experts on how to realize this missed opportunity.

by Eli Dvorkin

This is the era of data. From global systems to the individual consumer, analytics and algorithms are informing decisions big and small. Data has transformed how individuals choose what products to purchase, movies to watch, and books to read; revolutionized how sports franchises build teams; changed how police departments deploy personnel; and altered how banks underwrite loans.

But while individuals, businesses, and governments are now using data analytics in countless ways to get smarter about how to allocate resources and deliver services, this data revolution has only just begun to transform one vital area of city government: New York's social services system.

This is a missed opportunity.

Data analytics offer the promise of more informed, preventive, efficient, effective, and humane social services. Automated early warning systems can alert a caseworker when a child is repeatedly absent from school or when a low-income college student is in danger of losing financial aid. Data tools can help city agencies allocate resources more proactively and effectively—for instance, by linking databases to ensure that an individual who has contact with one city agency is quickly made aware of and enrolled in other programs and services for which they are eligible. Digital wallets can save New Yorkers hours of time and incalculable stress by enabling users to store vital documents electronically, rather than obligating social service clients to travel to multiple government offices with physical documents and photocopies.

Although obstacles remain—including complex privacy and legal considerations, agency siloes, a lack of standardization across systems, and capacity challenges—data has great potential to strengthen and improve the design and delivery of vital

social services, all while making the client's experience more frictionless and user-friendly.

"Data is the glue," says Rosanne Haggerty, president of Community Solutions, a nonprofit dedicated to ending homelessness. "We can provide better services with less money. It's an essential and untapped opportunity to create a more equitable and successful city."

Data tools hold significant untapped promise for strengthening the city's social services system. These tools can help city agencies and nonprofit organizations get ahead of problems before they grow: providing financial counseling to low-income New Yorkers who have fallen behind on paying bills, or supporting families with counseling and services before missing multiple days of school snowballs into chronic absenteeism. Data analytics can also improve the city's ability to target programs with limited resources to maximize their impact, drawing some relevant lessons from the New York Police Department's CompStat performance management system. As the city and nation teeter on the edge of a potential economic downturn—and with New York projecting multibillion dollar municipal budget deficits—innovations that can maximize the efficacy of limited public dollars for social services will be essential for maintaining, let alone expanding, the reach of these vital programs.

Fortunately, clear opportunities exist for city leaders to build on important but nascent efforts already underway—from data-enabled interventions that can better address street homelessness and early warning systems that can prevent homeowners from falling into foreclosure to a digital wallet tool for storing secure personal documents that could be expanded for use among every social service agency. As New York works to reduce poverty, combat homelessness, and support its most vulnerable residents through the pandemic recovery and beyond, Mayor Adams and the City Council should invest in piloting and scaling data-powered tools and services to achieve these goals more effectively.

The past two years of the COVID-19 pandemic has underscored the need for better data integration in the city's social services system. From combating food insecurity and responding to a surge in mental health crises to addressing an increase in homelessness and supporting families through protracted periods of unemployment, city agencies and nonprofit human services organizations have worked to tackle multiple overlapping challenges at an unprecedented scale. However, a lack of robust data-sharing protocols and tools has meant that these efforts have been sometimes duplicative and often uncoordinated.

Agencies and nonprofit providers spend precious hours inputting data into multiple systems—often without the ability to retrieve it—and interactions with a client at one agency or provider are often invisible to others. As a result, programs and services are not consistently targeted where the need is greatest or coordinated among agencies and service providers and vulnerable New Yorkers must seek assistance from multiple agencies and organizations in order to access the full range of programs and services for which they may be eligible—or end up with vital needs left unaddressed.

"We know social service problems don't exist in isolation," explains Matthew Klein, former executive director of the Mayor's Office for Economic Opportunity and current chief program and impact officer at Robin Hood, the poverty-fighting philanthropic organization. "Struggling New Yorkers face multiple challenges. Their issues are interrelated and complex, but our approaches to them are too often single-issue. Data and technology can help address this."

To help inform the continued adoption and scaling of data-powered tools by city government designed to improve social services, the Center for an Urban Future (CUF) convened a roundtable discussion with five City Hall officials. This discussion focused on opportunities for the administration of Mayor Eric Adams to leverage advances in data analytics to make social services delivery more efficient, effective, responsive, and humane. This policy brief outlines key insights and findings from that discussion and CUF's ongoing research on data and social services. All participants spoke with us on the condition of anonymity in order to speak candidly about current challenges and opportunities.

NEW YORK CITY HAS MADE PROGRESS HARNESSING DATA TO TACKLE SOCIAL SERVICES CHALLENGES AND SHOULD BUILD ON THESE IMPORTANT INNOVATIONS.

Although much of the work has remained under the radar, New York City has made notable progress toward a more data-powered social services ecosystem in recent years. For example, the Administration for Children's Services (ACS) and the Department of Homeless Services (DHS) have entered into an important new collaboration that allows for secure, encrypted alerts to be generated to caseworkers when a young adult formerly in foster care enters the shelter system; NYPD and DHS made improvements in data-sharing that allows data on non-criminal police-civilian encounters to be used to help develop interventions around street homelessness; the Mayor's Office of Data Analytics (MODA) developed an innovative method of matching records of families with a four-year-old child to drive outreach for the launch of the city's Universal Pre-K program; and NYC Opportunity worked with DHS to develop MyFile NYC, a digital wallet where residents can store and share vital documents with the Department of Homeless Services.

Some of these policy innovations have significant room for expansion. For example, one current official who leads data-focused initiatives at City Hall cited the data-sharing relationship between ACS and DHS as a potential model for further replication. "Youth often voluntarily discharge themselves from the foster system and wind up cycling into the homeless shelter system," he says. "The real trick is being able to know when a foster youth has arrived in a homeless shelter. By using data to do a secure match between the foster youth and homeless services we can identify these individuals."

When these individuals are detected, which happens on a near-daily basis, "there's a group at ACS that actually mobilizes to contact the shelter and reach out to the youth and try to get them into permanent housing or some other type of services if they are willing to accept it," he says. "That concept can be used in a number of ways; it's just a matter of if [the outcome of concern] is known and if there's data that makes it available within a legal framework."

Expanding the collection and sharing of location data within stringent privacy frameworks is an area where further progress can be made. For instance, limited data and communications capabilities makes it highly challenging for DHS to maintain relationships with homeless individuals once they've left the shelter system. However, teams at City Hall have developed "data-sharing relationships with NYPD" which allows information from "non-criminal civil encounters" to reach City Hall, "which can then alert Homeless Services of where the encounter may have occurred." This allows DHS to target resources and support where they're needed, while maintaining an important separation between NYPD and DHS.

The nascent use of city-managed data to help market new programs is another important area of progress. "A big success story lies in how we were able to put together a legal framework to bring together data around clients, families, and individuals that could be targeted for outreach and made aware of the universal pre-K program," the official says. That data allowed the city to market the program directly to many of the city's most vulnerable families.

MAJOR CHALLENGES REMAIN, INCLUDING ESTABLISHING LEGAL FRAMEWORKS, DEVELOPING FOUNDATIONAL DATA STANDARDS, AND BOOSTING GOVERNMENT CAPABILITIES.

The Adams administration should prioritize developing new legal frameworks for data sharing among agencies and social services organizations.

In order to replicate and scale up the data tools that are working to tackle social services challenges, the Adams administration will need to develop innovative strategies to protect New Yorker's privacy while establishing ethical, consistent, and scalable data-sharing frameworks.

"The ability for clients to give consent to allow their information to be shared across agencies using technology" remains a major challenge, says the former City Hall official. Although data sharing among government agencies and between government and social services nonprofits faces a number of legal and ethical obstacles, officials say that creative legal

engineering can help chart a path forward.

“You need legal involved in designing any of these processes,” says an attorney who works for City Hall. “You need to make sure that the programs work together” by involving legal teams and privacy experts from the outset of a new initiative.

In some cases, the city’s legal experts should be enlisted to help develop new laws and regulatory guidance that can help break down silos and deliver better results, while protecting individuals from harm. “There are legal frameworks that are required or that need to be evolved with new laws to facilitate some of the things you need to do on the programmatic side,” says the former official.

Creative, results-focused lawyering can help ensure the ability to scale operations. The City Hall attorney noted, “The successful projects I’ve seen are ones where you have the lawyers and the IT people and the program people and operational staff all involved so that the requirements are sensible to everyone.”

By standardizing data collection and dissemination through the use of application programming interfaces (APIs), the Adams administration could significantly expand the ability of city agencies to share data.

Making sustained progress on leveraging data tools to improve social services will require a high-level focus on improving the city’s data governance policies and basic data-sharing infrastructure. “I want to give a shout out to getting the basics right,” says one City Hall official. This means “getting decent infrastructure together, frameworks for bringing data together, frameworks for understanding that data, and making sure that data is standardized.”

These improvements need not require a complete overhaul of the city’s existing systems. Rather, the most strategic approach is to link existing systems together with new applications. “The key is not trying to build these monster systems, but trying to figure out how to do a lightweight modular approach that leverages APIs,” says one City Hall official. Rather than porting all of the city’s data into a single, new system—an extremely complex and costly task—the expanded use of APIs can “allow data to move around and be utilized more easily across agencies, rather than trying to say, ‘everyone ought to use one system.’”

Prioritizing user-centered design could help make the client’s experience of the social services system far more humane, improving outcomes and saving clients both time and aggravation.

To ensure that new technology tools are meeting the needs of social services clients, developments in client-facing social services platforms need to start with extensive user testing, ensuring that the New Yorkers who could benefit from these systems are able to inform their design.

“I would really hate for the city to invest huge amounts of time and money in building some huge new platform for citizens without ever bothering to talk to a citizen and ask them what they want to see or what they need or test it with different users,” says another City Hall official and data expert. Conversely, developing a single portal to access all city services and benefits—building on and going beyond the ACCESS HRA platform—could make navigating city programs far easier, but only if the system is designed in collaboration with its users.

While data alone cannot ensure a culture of respect across the city’s social services system, it can help make interactions more productive and less stressful, while addressing the persistent challenge of “time poverty” experienced by the vast majority of low-income New Yorkers. Says the City Hall attorney, “We can’t leave the clients out of it. They need to be empowered to decide what services they want. We can provide them information about the services available and clarity about how the information they share will be used, but ultimately give them agency over what the city is going to do with their data.”

Improving the city's capacity to expand the use of data tools will require new investments to bringing technology in-house and bolster the city's tech workforce.

The Adams administration will face challenges realizing the promise of new approaches to data analytics without policies and procedures designed to attract and retain a skilled technology workforce.

“We spend so much time and money and effort to work with external technology vendors because the city doesn't have the capacity to actually build things themselves in a lot of cases, or at least not on the timeline that people want,” says one City Hall official. “Once that contract is up, you lose access to those people.”

City government will have to “enhance capacity beyond hiring major outside vendors. There needs to be more mechanisms to access more tech talent,” he says, “including different types of contracts to engage with external providers so it's not just producing a whole long list of requirements and hand it off to a big tech firm.”

At the same time, the city struggles to compete on salary or flexibility with most firms in the private sector, further straining the city's ability to source the talent that these initiatives will need to grow. “City government has to rationalize the way that it treats its employees,” says one City Hall official. “We can't compete with technology talent in private companies if we are going to be super rigid about the way we treat and train employees.”

The power of a talented, in-house workforce lies in its ability to think creatively about novel solutions and bring pilot programs to scale quickly and flexibly. “As we standardize the legal frameworks and the way projects roll out so that they're not all boutique data projects, then we can really gain some momentum,” says a current City Hall official. “The way to do that is to make the information discoverable across agencies so that a staffer can pitch it, scope it, and see where it goes.”

Creating a Universal Service Catalog and expanding message testing across agencies would drive impact.

There are no shortage of important steps that city government should take to better leverage data to improve social services. Arguably the most important next step should be to create a universal service catalog that will enable individuals to search and connect with every service provided by New York City government. “Every front-line worker would be able to tell every resident they're in touch with about all the potential services the city can provide. That's very executable,” says one former City Hall official.

The Adams administration should also consider deploying a range of new experiments that use data to test messaging and outreach strategies. “This is very common in industries or political campaigns, you have a couple of different ideas of ways to market,” says another current official focused on municipal data. “A lot of times when an agency does outreach for a particular program or on particular issues, there's one message or one set of messages that gets approved or sent out and there's no effort on the back end to see which of these messages work with these sets of people. I think we could improve the efficacy of those outreach programs by understanding that these messages are really resonating in this particular neighborhood or with this particular population.” Despite its prevalence in the private sector, this sort of iterative, personalized targeting designed to drive uptake for city programs remains “a great untrodden frontier.”

CONCLUSION: HARNESSING DATA ANALYTICS TO IMPROVE SOCIAL SERVICES IN NEW YORK CITY

New York City has made important progress over the past decade bringing city data systems into the twenty-first century. But faced with a mounting array of social challenges exacerbated by the pandemic—from mental illness and homelessness to social isolation, unemployment, and gun violence—Mayor Adams and the City Council will need to develop new ways to leverage advances in data analytics and tools to help make government and its social services partners more efficient, effective, preventive, proactive, and humane. Doing so will require new legal and privacy frameworks, better infrastructure for

managing and sharing data across agencies, a stronger focus on the user experience, a continually updated universal service catalog, and a strengthened municipal tech workforce to drive innovation and scale. With a new level of attention from City Hall and long-term investment, New York City can harness data tools to strengthen the social safety net and make the city's social services ecosystem more effective and responsive to the needs of the city's most vulnerable residents.

How NYC Can Leverage Data to Strengthen Social Services is a publication of the Center for an Urban Future.

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