

# City of Milwaukee Data Survey Results

## Overview

In July 2025, the Department of Administration conducted a survey to gather information on data usage across city government. The survey was designed for city data users and included questions on data collection, management, sharing, analysis, and visualization. The purpose was to learn about the experiences of city departments, including common data challenges, and identify potential needs for data training, skill development, and technical support.

## Key Takeaways

- **Current Data Use:** While most departments collect, create, and manage data on a frequent basis, publishing data and disposing of obsolete data occur much less frequently, or in some cases, not at all.
- **Data Collection and Management:** Excel spreadsheets and custom Access databases continue to be common across city departments; two-thirds of participants use them for data collection and management. Outdated and non-integrated systems as well as lack of data standardization and data quality were highlighted as challenges.
- **Data Access:** City data users access a variety of information systems as a part of their work. Users report struggling to access data due to: a lack of documentation and training for the systems they use; systems that can be slow, glitchy, or prone to technical issues; and a lack of centralized data access.
- **Data Sharing:** Most departments report sharing their raw data on at least some level. Data sharing within the department and with other departments is fairly common, while public data sharing is less common.
- **Data Analysis:** Excel is by far the most common tool for data analysis. There is a strong demand for beginner to advanced Excel training, on topics including pivot tables, queries, and data structure fundamentals. Broadly speaking, there is a need for fundamental training in data analysis, interpretation, and visualization across departments for all staff (not just analysts), including at the manager level.
- **Data Dashboards:** Although there is widespread interest across city government in using data dashboards, adoption is limited within most units or divisions. Additionally, readiness is mixed across city government for increased implementation of data dashboards.
- **Additional Opportunities:** Survey participants identified several additional ideas to improve how city departments collect, manage, interact with, or analyze data. Those ideas centered around topics including the improved use of technology, strengthened data procedures, and increased automation.

## Survey Participation

Outreach to survey participants was done by email to cabinet members and through a list of ITMD-identified data users. A total of 104 responses were received and 92% of participants said that data collection, maintenance, or analysis tasks were a part of their job description. Because multiple data users from the same department could submit responses and response rates were not equal across departments, the results do not necessarily represent a complete picture of the city's data use. Instead, the survey offers insights into some of the more common experiences of data users across the city.

The number of responses by department is shown below. The greatest number of responses came from the Department of Public Works (across all of its divisions, including Infrastructure, Operations, and Water Works). Departments that are not directly supported by ITMD generally had fewer responses, which was likely due to how potential participants were made aware of the survey.

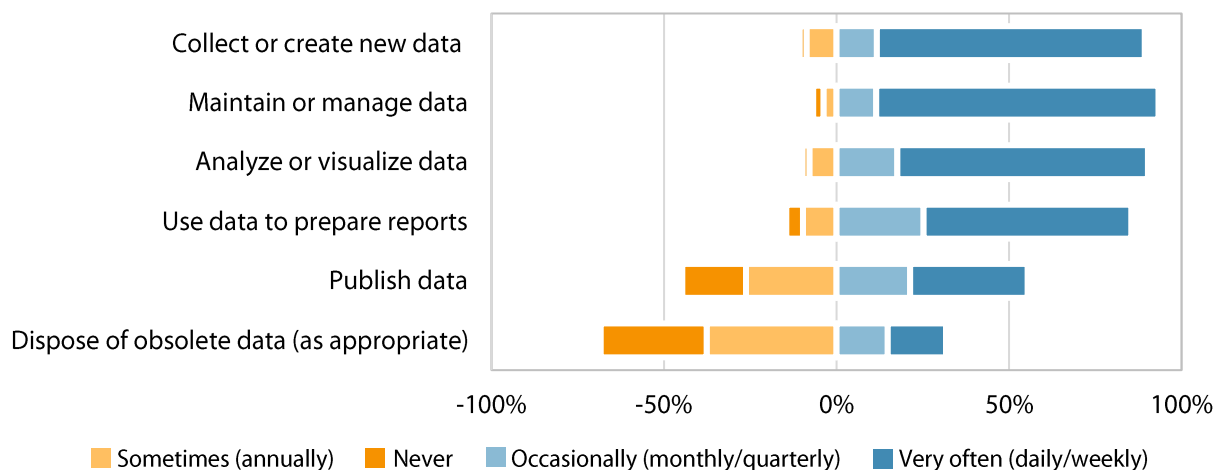
Survey Responses by Department

<b>Department</b>	<b>Responses</b>		
Department of Public Works	53	Common Council City Clerk	2
Neighborhood Services	12	Police Department	4
City Development	11	Assessor's Office	1
Milwaukee Health Department	7	Election Commission	1
Department of Administration	7	Fire Department	1
Employee Relations	4	Milwaukee Public Library	1
		<b>Total</b>	<b>104</b>

## Current Data Use

While most departments collect, create, and manage data on a frequent basis, publishing data and disposing of obsolete data occur much less frequently, or in some cases, not at all. In fact, roughly 31% of participants said their department never disposes of obsolete data.

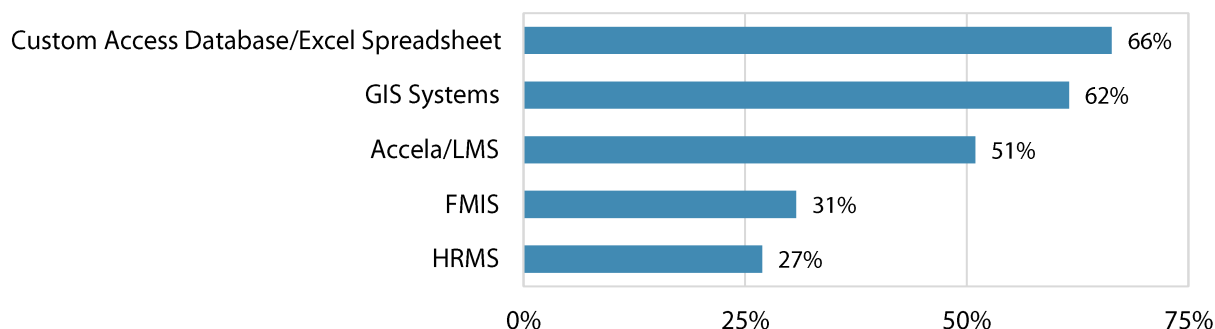
Current Data Use



## Data Collection and Management

Excel spreadsheets and custom Access databases continue to be very common across city departments; two-thirds of participants use them for data collection and management. GIS systems also are widely used.

### Top Systems for Data Collection and Management



Outdated and non-integrated systems as well as lack of data standardization and data quality were highlighted as challenges for data collection and management. This contributes to issues such as inconsistent, incomplete, and duplicated information. Additionally, a lack of dedicated staff and resources for data management were noted as difficulties.

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*"The volume of data we collect and maintain is massive and it is stored in a variety of formats. We don't have dedicated staff to manage and maintain our records."*

*"We have created our own system of data retention using an excel spreadsheet, which is better than nothing but it does feel quite precarious."*

*"We use excel for lack of better options."*

*"Ideally, we would like to use one single system of record, but we are forced to use multiple systems and report from multiple systems, combining data in cumbersome, time-consuming ways."*

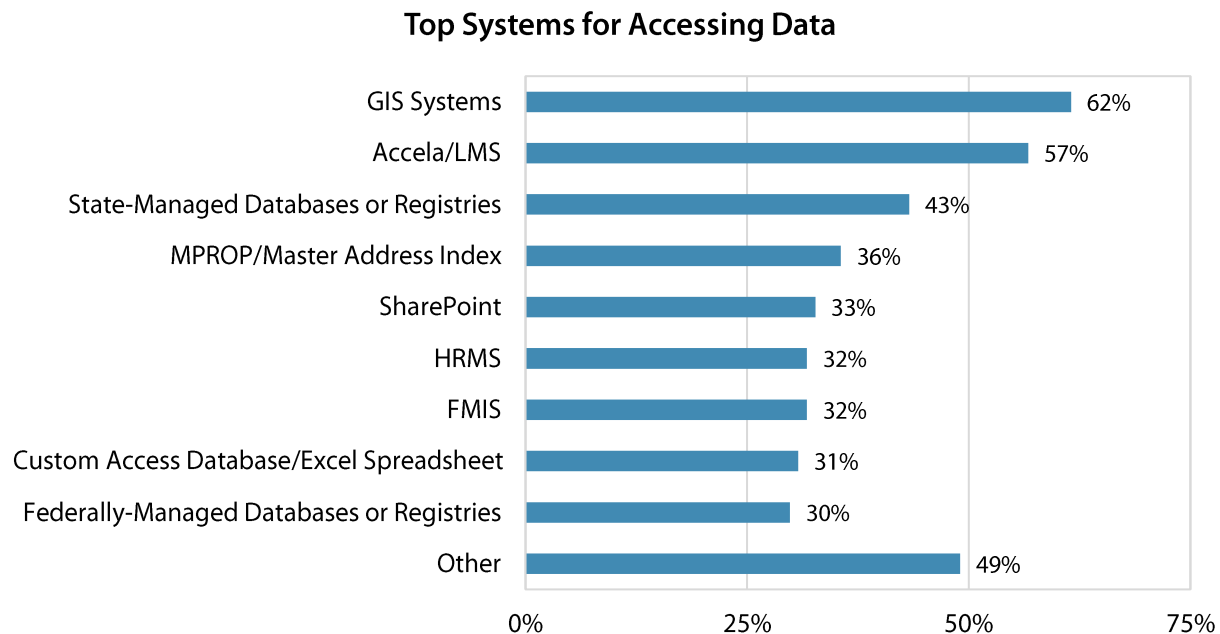
*"We are currently in the process of migrating from custom SQL databases to off-the-shelf private products for some of our core functions. These transitions have been a challenge."*

*"Transfer of knowledge of how to update and maintain data throughout departments does not happen when someone leaves their position so it is hard to track down who and how something should be getting updated."*

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## Data Access

City data users access a variety of information systems as a part of their work. This include the city's GIS resources, systems such as Accela/LMS, HRMS, and FMIS, as well as external systems including state and federally-managed databases or registries.



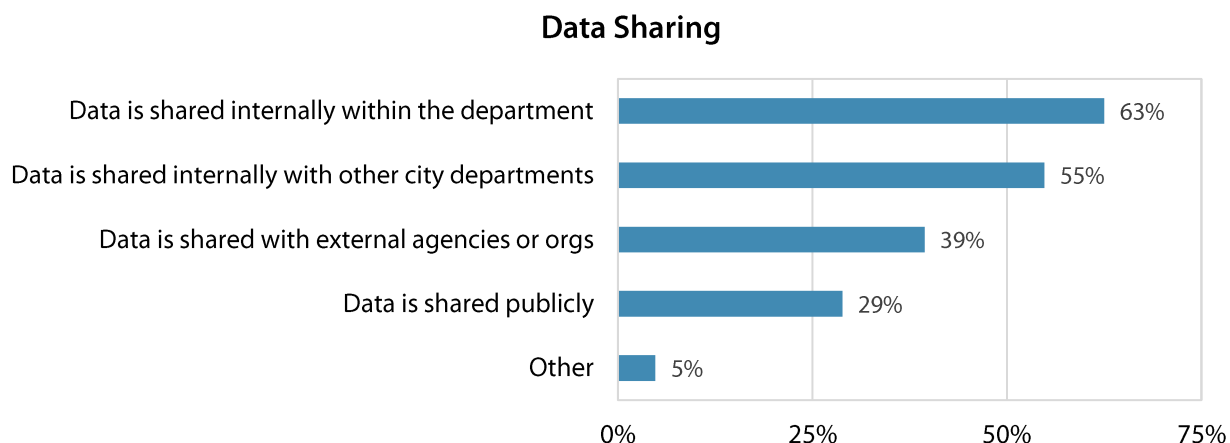
Participants noted several issues related to accessing data. One is a lack of documentation and training for the systems they use. Second, systems can be slow, glitchy, or prone to technical issues. And third, a lack of centralized data access was highlighted as a barrier, making it hard to understand what data exists or how to request permission to use it.

When asked what improvements they would like to see around data access, users offered a variety of suggestions, including the following:

- Creating a user guide / access guide to understand the city's data landscape, to know who has what data and in what systems, and how to request access
- A single launching page for the city that allows for some data to be viewed and analyzed by the public and other, internal data, to be protected
- Fixing known inaccuracies in commonly referenced datasets
- Improving access to historical data that may be in different systems than current data
- Building address verification into address fields to improve accuracy
- Developing tools to improve the functionality of location-based data (for example, an automated process to add Aldermanic District to a spreadsheet of addresses)
- Adding commonly referenced information to existing data resources (for example, Land Use symbols on Map Milwaukee, re-adding tax delinquency to MPROP)
- Improving internal access to data around city assets, infrastructure, utilities, etc.

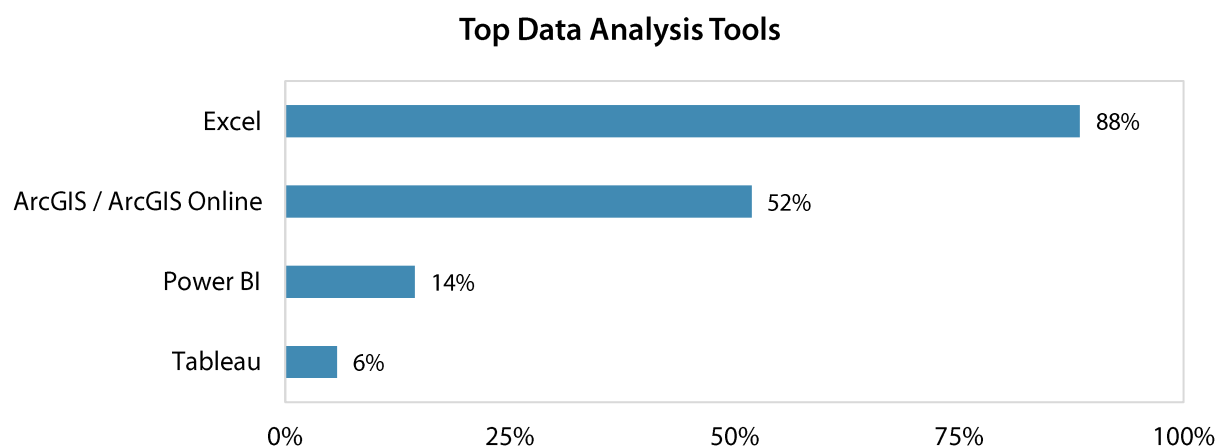
## Data Sharing

Most departments report sharing their data on at least some level. Data sharing within the department and with other departments is fairly common, while public data sharing is less common. However, some data users experience difficulties getting data from other units and divisions within city government. For those departments that do not share their data, the top reasons include the sensitive or confidential nature of the data and the fact that data sharing is not a departmental priority.



## Data Analysis

Excel is by far the most commonly used data analysis tool among city data users. There is a strong demand for beginner to advanced Excel training, on topics including pivot tables, queries, and data structure fundamentals. A similar demand for training exists for mapping platforms including Map Milwaukee and ArcGIS/ArcGIS Online. While the use of Power BI is not as widespread, there is interest among staff in getting licenses to create data visualizations and dashboards.



Broadly speaking, there is a need for fundamental training in data analysis, interpretation, and visualization across departments for all staff (not just analysts), including at the manager level. Access to support is another identified need for some data users. Because it is unclear who to contact for help, staff often rely on informal advice from colleagues. Even when IT support is available, high demand and lack of capacity can sometimes delay response times.

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*"I think an overarching issue is not knowing who else in the City is doing analytical work and what analyses may already exist."*

*"When ITMD was centralized, the connection of IT expertise to a specific Department's needs was lost. As Departments want to move forward, our internal IT systems are growing again, because IT no longer has the understanding of Department needs and how to advance them."*

*"I sought out excel training to help with my data analysis and visualization work. I paid for this out of my tuition reimbursement and have been able to share the training videos with the rest of the team. Additional technical assistance on best practices from other experts at the City would be amazing."*

*"The data culture I come from at the federal level does not appear to be adopted here."*

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## Data Dashboards

Although there is widespread interest across city government in using data dashboards, adoption is currently limited within most units or divisions. For those who do, dashboards are used for a variety of both internal and external purposes, with ArcGIS and Power BI among the common tools for creating dashboards.

When considering how departments could utilize data dashboards in their work, several participants noted benefits including the ability to showcase key performance metrics, consistent messaging and shared mapping tools, and improved transparency and information sharing with the public. However, readiness is mixed across city government for increased implementation of data dashboards.

## Additional Opportunities

The final survey question asked participants to share additional ideas to improve how city departments collect, manage, interact with, or analyze data. Many of the responses touched on themes that emerged throughout the survey, including the following:

- **Improved use of technology:** Maximize use of the Microsoft suite of tools including Forms and SharePoint in place of paper files and network drive folders to more effectively manage and share data.
- **Strengthened processes:** Provide additional staff training, develop data standards, and improve communication between departments to strengthen processes around data management and analysis.
- **Increased automation:** Move away from manual processes and automate data workflows to reduce human errors and increase efficiencies.