



# City of Cleveland

## Open Data Policy & Governance Framework

### **I. Scope and Purpose**

The City of Cleveland recognizes data as a strategic asset that is critical to meeting the demands of a modern government. By leveraging data as a strategic asset, the City can address challenges proactively, optimize resource allocation, improve service delivery, and increase transparency. And as a strategic asset, the City must proactively manage and maintain our data much like our capital and financial assets.

This Open Data Policy and Governance Framework aims to accomplish those ends and is issued in accordance and in furtherance of Executive Order 2023-01. Through this policy, the City commits to managing data and information in accordance with current industry practices; increasing institution-wide understanding of our data assets and the purposes they serve; and using data to proactively plan for and meet the needs of an ever-changing city. At its core, the framework established through this policy appropriately manages data as a strategic asset of the City of Cleveland.

All City of Cleveland departments must adopt this framework to support the ongoing, proactive management of data, and all City of Cleveland officials and employees are directed to abide by it. The framework includes:

- **Data Inventory:** Identify and classify all city-owned and managed data in data sources and datasets as part of an annual inventory.
- **Data Standard:** Set standards for data including data quality, security, and sharing.
- **Data Use & Infrastructure:** Implement tools and processes to facilitate interdepartmental and public data sharing as well as the use of data for decision-making.
- **Open Data:** Implement standards, processes, and technology for appropriately sharing data publicly.
- **Governance Board:** Establish a Data Governance Board to provide thought leadership and advice related to the City's data.

This policy applies to all information resources operated by City departments, offices, and commissions working on behalf of the City of Cleveland. This includes all data regularly maintained by, created by or on behalf of, and owned or licensed by a department in non-narrative, alphanumeric, geospatial or other relevant format. Data includes any subset of information, whether quantitative or qualitative, and all forms of data including those in

electronic form and non-electronic form. Data is an asset independent of the systems or formats in which it resides.

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## **II. Definitions**

### **1. Analytics**

Computational analysis of data or statistics used for discovery, investigation, and communication of meaningful patterns in data.

### **2. Data Source**

Any data that is regularly maintained by, created by or on behalf of, owned or licensed, or utilized by a department. This includes all forms of data in electronic form and non-electronic form. Data is an asset independent of the systems or formats in which it resides.

### **3. Dataset**

A collection of data organized or formatted in a specific or prescribed way, often in tabular form, and accessed by a method that is based on the data set organization. Datasets are typically subsets of Data Sources.

### **4. Department**

Department includes City departments, offices, and commissions established by the Charter, Codified Ordinances and/or the Board of Control.

### **5. Derivative Dataset**

A derivative dataset is a new dataset that has been created through the modification, transformation, or processing of an existing dataset. It is derived from the original data but may involve content removal or changes in format, structure, or representation to serve a specific purpose or analysis.

### **6. Metadata**

Metadata refers to descriptive and contextual information that provides details about other data. It provides context with details such as the source, type, owner, and relationship to other datasets. This can include: a description of an enterprise dataset, such as date of creation or last update; author, maintainer, or point of contact; a dictionary to support the correct interpretation of data; and documentation of methodology or business rules.

### **III. Roles & Responsibilities**

The roles and responsibilities outlined below will govern management, access, and accountability for data.

#### **1. Director of Urban Analytics and Innovation (Urban AI) (the “Director”)**

Urban AI is responsible for implementation and oversight of this policy. The Director or a designee is responsible for the following:

- Manage and communicate data-related strategies, initiatives, and governance.
- Conduct the annual inventory of data sources and datasets, ensure ongoing compliance with data standards, and identify areas for improvement.
- Establish and operate the City’s Enterprise Data Platform including implementing clear processes and procedures for ingesting data, sharing data, and governing the platform.
- Establish, operate, and continuously improve a City of Cleveland Open Data Catalog.
- Convene the Data Governance Board.
- Amending the Open Date Policy from time to time as needed, consistent with this Executive Order.

#### **2. Director of Law and Chief Legal Counsel (aka, “Law Director”)**

The Law Director or a designee is responsible for the following:

- Legal review and analysis of data source and dataset classifications based on the Dataset Classification Levels established in this policy for compliance with laws related to public records.
- Manage and coordinate the Public Records Requests process.

#### **3. Information Security Manager (ISM), or similar role**

The Information Security Manager or their designee is responsible for the following:

- Determine and ensure compliance with policies and procedures to ensure security and compliance of City systems.

#### **4. Data Owner**

Data Owners are staff members who have primary administrative and management responsibilities for data within their respective department(s). They oversee specific data, which may include but is not limited to, generating datasets, serving as an expert in how the department uses a data source system, vendor management, training staff, governance, documentation, and compliance.

Data Owners are responsible for the following:

- Comply with the requirements of the Open Data Policy and Governance Framework, including ensuring all staff are aware of their roles and responsibilities as defined within.
- Inventory and designate the data source and dataset classification levels of their enterprise datasets, in consultation with the Law Director.

- Identify appropriate staff to implement data management best practices and ensure respective data sources meet the data quality standards.
- In partnership with the Data Manager, implement data management best practices, work toward the data protection standards, respond to open records requests, and update datasets published to the Open Data Catalog.

### **5. Data Manager**

Data Managers are staff identified by the respective department(s), such as DBAs, Data Analysts, or System Managers with operational or administrative responsibilities for data. Data Managers serve as experts in the technical aspect of how data is organized, stored, processed, accessed, and reported. Data Managers may also be asked to produce system documentation.

Data Managers are responsible for the following:

- Provide access to and act as an expert for departmental data sources.
- In partnership with the Data Owner, implement data management best practices, work toward the data protection standards, respond to open records requests, and update datasets published to the Open Data Catalog.

### **6. Subject Matter Expert (SME)**

SMEs are department staff with administrative and management responsibilities for data within the relevant department(s) but are not the lead for the department. These staff may include program managers, staff with strong technical abilities, and those with expertise in a process or activity.

SMEs may be called on to support the Data Owner and/or Data Manager by answering questions about how data is generated, their business processes, and needs for data use.

## **IV. Data Inventory**

Managing data as an asset starts with an understanding of the range and type of data under the control of the City. The Director shall conduct an annual inventory of all data sources and datasets. The respective inventories shall include, but not be limited to:

- Name
- Location and relevant technical details
- Data Owner
- Data Manager
- Description of purpose of the data

To establish the inventories, the following actions shall be taken:

- Director shall provide departments with a data inventory tool and train Business Owners on its use.
- Departments shall inventory and designate the classification levels of their data sources and datasets. (See ‘Dataset Classification’ section for level criteria.)
  - Each Department shall consult with the Law Director or their designee for the department (and as appropriate, other individuals necessary to determine whether the disclosure of data in the dataset may jeopardize the safety, security, or privacy of an individual or individuals) in determining the appropriate classification level of each dataset.
  - Where data sources and datasets are not classified as Level 1: Open, an explanation for the higher classification shall be included in the inventory.
- A version of the Data Inventory shall be published as a Level 1, Open dataset.
- Departments shall update the Data Inventory on a regular basis as new data sources and datasets are discovered, created, or archived.
- The Data Inventory shall be updated annually through a process developed by the Director. The updated inventories shall be published no later than July 1 of each year.

### **1. Data Classification**

Each data source and dataset at the City of Cleveland is to be classified as Level 1, 2, 3, or 4 based on the definitions below and in accordance with Ohio Public Records Act and other applicable laws, regulations, or judicial orders.

Nothing in this policy shall be construed to supersede existing requirements for review and redaction of information exempt from disclosure under the Ohio Public Records Act and other applicable laws, regulations, or judicial orders.



Departments shall:

- Review classifications on a regular basis, but no less than annually as part of the annual Data Inventory process.
- Review and modify the data classification as appropriate when the data is de-identified, combined or aggregated.

a. Table. Data Classification

Data class	Description	Potential Adverse Impact
<p><b>Level 1</b> Open</p>	<p>Data that documents the organization, functions, policies, decisions, procedures, operations, or other activities of the office. Available for public access or release pursuant to R.C. 149.43(A)(1).</p> <p><i>All data defaults to Level 1 unless otherwise classified at a higher level.</i></p>	<p>None - Low</p>
<p><b>Level 2</b> Operating Information</p>	<p>Data is normal operating information or is not commonly requested. Viewing and use is intended for City employees as part of normal operations of the City.</p>	<p>None - Low</p>
<p><b>Level 3:</b> Compliance Requirements</p>	<p>Data is subject to exemptions that cannot be waived and must not be released, including data regulated by other state or federal laws, data that triggers requirement for notification to affected parties or public authorities in case of a security breach, and data that could expose the City to legal liability and monetary damages if released. Data that is not a public record can be restricted by contract, grant, or other agreement terms and conditions.</p> <p>Such datasets generally contain data that qualifies for designation by a federal agency or City department, such as, but not limited to:</p> <ol style="list-style-type: none"> <li>1. Security records;</li> <li>2. Critical Infrastructure Information;</li> <li>3. Trade secrets;</li> <li>4. Sealed/expunged records;</li> <li>5. Family Educational Rights and Privacy Act (FERPA);</li> <li>6. Federal Tax Information (FTI);</li> <li>7. Recreational activities of minors;</li> <li>8. Payment Card Information (PCI); or</li> <li>9. Protected Health Information (PHI) under the Health Insurance Portability and Accountability Act (HIPAA);</li> </ol>	<p>Moderate - High</p>

<b>Level 4</b> Restricted Confidential	Data the City may possess that is not a public record pursuant to R.C. 149.43 Records, the release of which is prohibited by state or federal law.  <i>Data the City may possess that does not document the organization, functions, policies, decisions, procedures, operations, or other activities of the office is not a public record pursuant to R.C. 149.011(G).</i>	High

## 2. Data Release

Data shall be released in accordance with the following standards:

- **Level 1, Open**, data shall be distributed publicly pursuant to the provisions of this policy. Publish all Level 1 datasets on the enterprise data platform and Open Data Catalog.
- **Level 2, Operating Information**, data shall be made available upon request via the Public Records Request process in GovQA or other appropriate system. The data may be distributed without special security controls among City departments.
- **Level 3, Compliance Requirements**, data shall be managed, transmitted, and accessed in accordance with applicable compliance requirements. External parties accessing this information for authorized department business must have a formal relationship with the department and meet compliance requirements. Information identified as Level 3 or above shall not be accessible to the public without redaction.
- **Level 4, Restricted Confidential**, data shall be managed and transmitted in accordance with applicable compliance requirements. Disclosure, transmission, or dissemination of Level 4 data to other agencies within the City shall not occur unless it is approved in advance by the agency director and Law Director, and each such disclosure, transmission, or dissemination shall be documented. Level 4 datasets shall not be accessible to the public in any way.

## V. Data Standard

A data standard is a set of established guidelines that govern the format, structure, content, and quality of data to ensure consistency in how data is collected, stored, processed, and exchanged. These standards facilitate efficient data management, enhance data integration, and enable effective communication and collaboration among various stakeholders.

### 1. Data Quality

Data quality is crucial for making informed decisions, providing efficient services, and maintaining transparency. Departments shall identify appropriate staff to implement data

management best practices and ensure respective datasets meet the data quality standards outlined in this policy.

The City shall strive for data that is:

- **Accurate:** Regular data validation and verification processes should be in place to identify and rectify any inaccuracies promptly.
- **Complete:** All relevant and required information is collected and stored without any omissions.
- **Timely:** Data is up-to-date and reflects the most current information available.
- **Consistent:** Data formatting is consistent across different sources, systems, and time periods. Data integration, interoperability standards, and standardized data entry protocols shall be established to help maintain consistency across critical data systems.
- **Secure and Private:** Data complies with data protection and privacy regulations. Adequate measures shall be implemented to safeguard sensitive information, ensuring that only authorized personnel have access to specific data sets. Compliance with data protection laws and regulations shall be rigorously upheld.

Regular audits and assessments shall be conducted by the Director or a designee to ensure ongoing compliance with these standards and identify areas for improvement.

## **2. Data Sharing**

Collaboration and data sharing within and between departments is vital for maximizing the potential of data. Breaking down data silos and encouraging information exchange can lead to more comprehensive analyses, better data quality, and a better understanding of the community's needs.

Departments shall work to maximize the value of data and data sharing while appropriately managing risk. Departments should pursue interdepartmental data sharing for reasons such as program evaluation, research, analysis, care coordination, operations, or other public good purposes. Data sharing will comply with citywide standards and resources for data sharing and protection.

### **a. Interdepartmental Sharing**

To lower the cost and increase the speed of the intradepartmental data sharing, all datasets classified as Level 1 and Level 2 shall be shared among all City Departments without restrictions.

For Level 3 datasets, the Director shall develop uniform data-sharing agreements, as well as a method of collecting requests to share data and requirements for data-holders to respond in a timely way. A Department shall not require another Department to enter into a data-sharing

agreement other than the uniform data-sharing agreement to have access to view, utilize, or transfer datasets, unless a different data-sharing agreement is approved by the Mayor.

**b. External (Public) Sharing**

Level 1, Open, data shall be distributed publicly pursuant to the provisions of this policy.

For one-time sharing of datasets above Level 1 with external entities, data shall be made available upon request via the Public Records Request process in GovQA or other appropriate system, and data-holders must work with their respective departments and the Law Director to respond to the request in a timely manner.

For routine sharing of datasets above Level 1 with external entities, a data-sharing agreement and process shall be developed jointly by the applicable Department, Urban AI, and Law, and, as appropriate, Communications.

**c. Selective Redaction**

For Levels 2 and 3 data, Departments shall make a reasonable effort to create a derivative dataset at a lower-level classification for open distribution through redaction and de-identification.

The redaction processes shall be determined and documented jointly by the Department, Urban AI, and Law. Redacted datasets will be classified appropriately by the Law Director.

**3. Data Security**

Departments shall minimize risk by limiting the collection, use, and retention of private identifying information (PII) and its subsets, such as private health information, to what is necessary to accomplish the agency's business purpose and mission.

**4. Paper**

Departments shall endeavor to minimize data tracked on paper by optimizing data systems and business processes. In cases where paper records are to be digitized for archival storage, the Director shall partner with the Department and, where appropriate, the Records Retention Committee to determine appropriate storage, metadata, search functionality, and security for digitized records.

## **VI. Data Use & Infrastructure**

### **1. Enterprise Data Platform**

An organized and well-maintained data infrastructure is essential for accessing and using data easily and efficiently. The City, through the Director and in collaboration with the Department of Finance shall establish a mechanism to combine essential data sources from across City departments and functions in the form of an enterprise-wide data platform such as a data warehouse, data lake, or other appropriate system and implement data governance practices to ensure data integrity, privacy, and compliance.

The purpose of the enterprise data platform is to facilitate reporting, interdepartmental data sharing, data integration and cross-source analytics, and appropriate public release of data.

### **2. Governance of Enterprise Data Platform**

The Director shall establish clear processes and procedures for ingesting data, managing, and governing the enterprise data platform. The procedures shall facilitate and standardize performance monitoring and increase the accessibility of data between departments.

The process shall include but is not limited to:

- **Memorandum**

A memorandum which shall include, but is not limited to, a summary of data and data systems to be ingested in the enterprise data platform, classification of the data, data security and confidentiality requirements, and initial analytics requests/use cases of the Department.

- **Source System Profile**

The Source System Profile serves as a high-level technical description of the source system and database of the source system. Urban AI will provide a template to the Data Manager who shall complete and update the profile as changes occur.

### **3. Data Visualization and Analysis**

Presenting data in a visual and easily understandable format is crucial for effective communication. Data visualization and dashboards can help policymakers quickly grasp complex information and trends, enabling better-informed decisions.

The City shall use appropriate data visualization, analysis, and evaluation tools. Analytics tools shall be modern, easily accessible, and readily available for staff analyzing data. Analytics tools shall connect to the enterprise data platform as well as enable sharing with City employees and the public, as appropriate.

The City may utilize multiple tools based on the types of data and analysis required by the business, including in-platform as well as stand-alone analytics tools.

## **VII. Open Data**

### **1. Open Data Catalog, aka “Open Data Portal”**

The Director shall establish, operate, and continuously improve a City of Cleveland Open Data Catalog, aka “Open Data Portal”. The purpose of this portal is to establish transparency and increase public trust by providing timely, easy access to Level 1 datasets.

The open data portal will adhere to the following standard:

- a. **Accessible:** Data is easily and freely accessed. Data shall not require an account or monetary fee to access, view, or download.
- b. **Machine-Processable:** Able to share tabular, spatial, visualized, and other relevant data. Data is reasonably structured, based on industry data standards, to allow for automated processing.
- c. **Timely:** Data is available to the public in a timely manner.
- d. **Searchable:** Provide a searchable interface with clear categorization and tagging of datasets to help users find data based on key terms and other metadata.
- e. **Metadata and Documentation:** Contain appropriate metadata, documentation, and data dictionaries explaining the meaning and structure of the datasets, aiding users in understanding the data's context and facilitating accurate usage.

To facilitate data sharing, the Director shall:

- Embed elements of the Catalog on department websites and intranet sites;
- Not impose incremental fees on departments for the publication or listing of data on the Open Data Portal;
- Assist departments with dataset and metadata publication; and
- Implement a procedure for soliciting feedback to identify data quality issues and improve the quality of publicly shared datasets.

Additionally, the Director shall determine, in consultation with the department(s) responsible for the data, the frequency of updates to each dataset and the mechanism to be utilized to update the dataset. Each department of the City then shall update each dataset as frequently as practical to maintain the utility of the data. To the extent possible, datasets shall be updated through an automated process.

### **2. Governance of Open Data**

The Director shall establish clear standards for tabular, spatial, visualized and any other appropriate type of data before it is published to the Open Data Portal as well as a process for release. Standards include but are not limited to accuracy, colors and branding, readability, design, clarity, and accessibility.

An administrative committee of City staff, convened by the Director, shall draft standards and ensure compliance with the standards when data and data products are published to the Open Data Portal. The administrative committee shall meet at least once quarterly. The Data Governance Board shall review and approve the standards.

### **3. Open Data Legal Policy and Licensing**

City of Cleveland Open Data is licensed under Creative Commons 1.0 Universal License. A version of the following statement shall be published on the Open Data Portal and may be edited as needed for clarity and consistency:

- *“This dataset is classified by the City of Cleveland as Level 1, Open and is placed in the public domain. The data should be treated as if covered by a Creative Commons 1.0 Universal License. There are no restrictions on copying, publishing, distributing, or using the data for a non-commercial or commercial purpose. Attribution and notification to the City is requested but not required.*

*This dataset is provided as a public service, on an ‘as is’ basis. The City makes no warranty, representation, or guaranty of any type as to the content, accuracy, timeliness, completeness, or fitness for any particular purpose or use of any public data provided on this portal; nor shall any such warranty be implied, including, without limitation, the implied warranties of merchantability and fitness for a particular purpose. The City assumes no liability by making data available to the public or other departments.”*

*The City reserves the right to discontinue open availability of this data at any time and for any reason.”*

Failure to comply with any provision of this policy shall not result in any liability to the City of Cleveland, including, but not limited to, Urban AI or any department or third party that establishes or maintains data on behalf of the City of Cleveland data catalogs required under this policy.

## **VIII. Data Governance Board**

Data as a strategic asset requires continuous improvement and innovation. The City shall regularly evaluate its data practices, assess data quality, and update data strategies to align with changing needs and advancements in technology. The Director shall convene a Data Governance Board (“Board”) to provide thought leadership, advice, and oversight related to managing data as a strategic asset of the City, in accordance with Executive Order 2023-01.

At minimum, this committee will include representation from the following departments, offices, and divisions of the City:

- Chair: The Director
- Law
- Finance
- Urban Analytics and Innovation (Urban AI)
- Information, Technology and Services
- Communications
- Human Resources
- Mayor’s Office

Topics can include but are not limited to:

- Implementation of the Data Policy and Governance Framework
- Organizational capacity, training, and staff skills
- Hiring and retention of talent
- Data quality standards
- Risk management, including security and privacy
- Infrastructure, tools, and data access
- Training and skill development
- Community engagement
- Prioritization of projects and new initiatives
- Development of an equity framework
- Data trends and processes for adoption

The Data Governance Board will meet at least once quarterly.



## **IX. Implementation**

The City recognizes that implementation of technology and associated processes takes time. The City shall actively work to be in reasonable compliance with this policy as monitored by the Data Governance Board.

City reserves the right to amend this order to reflect the industry best practices, applicable laws and regulations, and the needs of the City. Amendments to this policy shall be approved by a vote of the majority of members of the Data Governance Board.