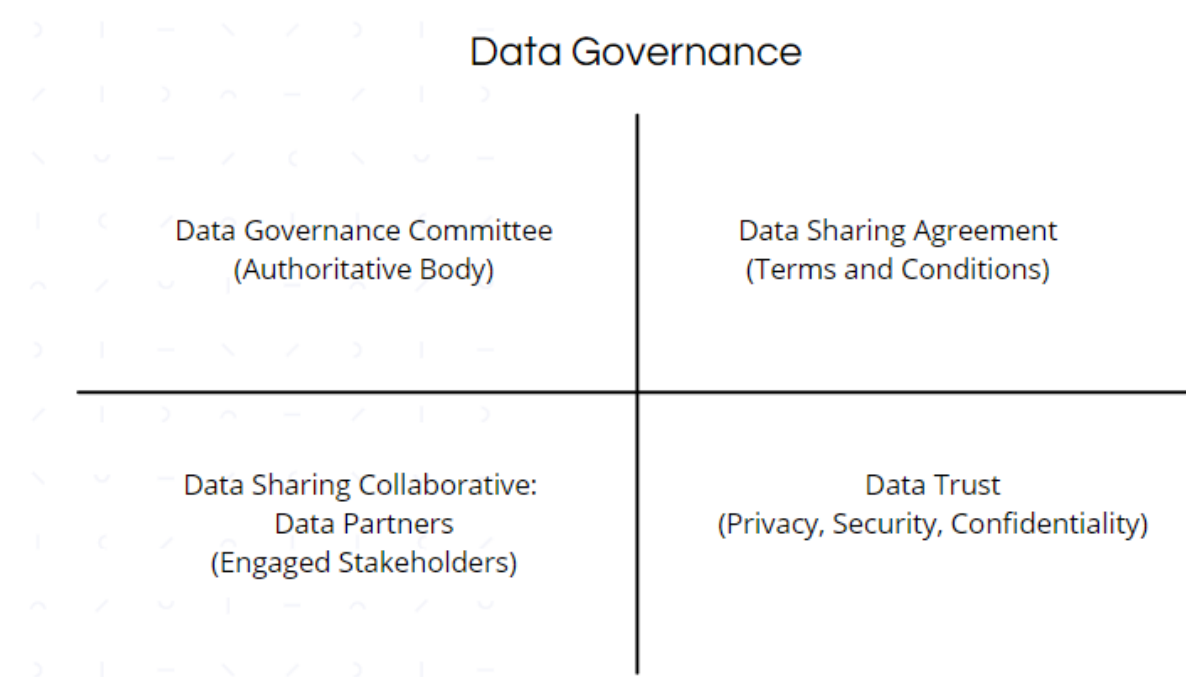


Data Governance Guide

Background and Purpose

The City of Irving is dedicated to improving government efficiency and effectiveness through data governance and data management. The purpose of the data governance guide is to establish responsibility for the stewardship necessary to manage data in all departments, ensure that all datasets are accounted for, inventoried, and organized in a transparent fashion, and to guarantee that all data are of the highest quality possible, securely stored, and have clearly documented data access policies. Robust data governance practices include improving data access, quality, and communication. Strengthening these practices will enhance data inventories and collaboration on datasets between city departments.

The city has been working on a number of data initiatives that benefit both internal and external partners including a data sharing collaborative, a data governance committee, data analytics programs, an open data portal, and tactical data engagements. Internal departments and external partners are impacted by these initiatives as well as residents. Internal departments will be responsible for the collection and maintenance of their specific information so that they may benefit from projects made possible by their data. External partners will then have a wider access to cleaner data that they can rely upon to be valid and will benefit from a standardized process of data sharing. Residents benefit through informed budget decisions and increased transparency as a result of the Open Data Portal and other online platforms. Some of the largest concerns around data sharing include privacy, security, and accuracy. Implementing data sharing agreements and a standardized process of data sharing will equip departments with the knowledge, skills, and abilities to view data as an asset and prioritize the department's functions.



Ongoing Oversight and Management

The data trust comprises of the data sharing collaborative and the data governance committee. One of the key responsibilities of the data trust is to put into place a process that is sustainable. All tasks and actions should be able to be addressed by any member of the trust and the body should operate on the principle that members change. An essential part of that is the widespread creation and use of internal documentation. All processes need to be mapped and all meetings need to have notes. Furthermore, as members cycle out of the trust, they will need to follow specific procedures to hand off their responsibilities and outstanding tasks to other or new members to ensure continuity.

Guiding Ethical Principles for the Data Sharing Collaboration and Governance Committee

To ensure that the city is exercising ethical data practices, the Data Governance Committee and all other data governance bodies will adopt the following principles:

- Fairness. The city will make a dedicated effort to understand, mitigate, acknowledge, and communicate the presence of bias in both data practices and consumption and work to foster diversity by making efforts to ensure inclusion of participants.
- Openness. The city will practice responsible transparency as the default where possible and throughout the entire data life cycle and will make best efforts to guarantee the security of data to prevent unauthorized access, policy violations, tampering, or other harm.
- Reliability. The city will ensure that every effort is made to glean a complete understanding of what is contained within the data, where they came from, and how they were created.
- Trust. The city will work hard to build public confidence in data practices and practitioners and consider, if not collect, informed and purposeful consent of data for all projects and discard resulting data when that consent expires.
- Social Benefit. The city will place people before data and be responsible for maximizing social benefit and minimizing harm.

Data sharing agreements will include clarity and specificity to define length of contract, scope parameters, and technical requirements. Clear and defined roles and responsibilities of each party will also be included to ensure projects stay on track and conflicts minimized. Additional principles about collaborating in good faith will also be added to build trust between departments.

Data Sharing Agreements

The city will create an internal, standardized data sharing agreement to ensure accurate data, streamline duplicate work, provide cross sectional data, and reduce data isolation. Understanding concrete goals, methods, and needs from the outset will help to build partnerships between departments and set early expectations. The documentation, scope, and goals of each party laid out in writing will allow everyone involved a common language and starting point. Any future disagreements can reference the original goals in the document for accountability. Without data sharing agreements it is difficult to gain access to data sources and to find documentation and metadata around what is being provided, how the data was collected, if the data is accurate, and if the data provided is the entire data set. Opening data pipelines through internal agreements allows departments to work on a wider scope of strategic projects and to better identify and manage sensitive data. Having a standardized data sharing process will cut down on time spent understanding, validating, and cleaning data.

Data Sharing Collaborative

The data sharing collaborative is comprised of any and all data partners from city departments, authorities, and agencies who are responsible for reviewing and updating datasets and/or performance measurement data. These partners should maintain a basic level of data management knowledge and will meet monthly to review data inventories, address quality concerns, create data sets for the portal, and complete training. The data partners will also engage with the Data Governance Committee when needed.

Data Governance Committee

The Data Governance Committee (DGC) was established to act as an authoritative body for tactical decision making and to oversee the execution of the city's data governance mission through the Strategic Plan, Comprehensive Plan, Open Data Policy, and other initiatives. The DGC is comprised of selected city department representatives whose responsibilities for data management within the city include fostering buy-in from key stakeholders, actively encouraging internal and external participation, determining the process, policies, housing, and standards of data sharing, ensuring data quality and accuracy, and managing the city's open data program.

The Data Governance Committee consists of selected department representatives from the City Manager's Office, City Secretary's Office, City Attorney's Office, Information Technology, GIS, and Communications. 3-5 seats can be selected from other data rich departments.

There are currently no sub-committees. If needed or created, sub-committees would have no decision-making abilities except to determine the best and appropriate practices, requirements, processes, and procedures for the subject.

- **Meetings**

The Data Governance Committee meets quarterly and on an ad hoc basis depending on the workload. The City Manager's Office appointee organizes and manages the meetings, but any member may request a meeting. As appropriate, meetings will be either physical or virtual and documents are shared through the shared drive.

- **Voting Guidelines**

New initiatives will require a majority vote by the DGC. Committee members can vote "aye", "nay", or abstain. Every DGC member has one vote and in the event of a tie, the City Manager's Office appointee will provide the tie-breaking vote. As needed, additional non-voting members may be invited by members to provide guidance and expertise to inform decisions made by the DGC. Non-voting member may include employees or subject matter experts from city departments or agencies.

- **Communication Protocols**

The DGC will communicate using the Microsoft Teams platform or through email. All members will receive upcoming meeting notifications via calendar updates and email, as well as being posted on the applicable Microsoft Teams channels. Members will be emailed agendas in advance and will be notified by email of any decisions made by the committee.

- **Operational Processes**

Directors may request a change in their department's representative on the DGC by emailing the City Manager's Office appointee. The previous member will be removed from DGC communications and the new member will receive an introductory email and be added to communications channels.

The DGC may adopt additional rules by majority vote. Any voting member of the DGC may propose a change to this Charter and the Charter will be amended by majority vote. Regardless, the DGC will review the Charter on an annual basis and may update the Charter with any proposed amendments that receive a majority vote.

Data Inventories

Data inventories are fully described records of data assets managed by the city. They record metadata and leverage the most data possible through analytics, research, and data science projects. Knowing what data the city collects leads to efficiency and increases accountability as well as eases citywide reporting, decision making, and performance optimization. Managing a data inventory reduces risk and uncertainty by creating a checklist for security and compliance requirements and improves the city's ability to designate accountability for the quality of data collected and created, including where information may be duplicated or shared among departments. The data inventory also helps the city know what data is no longer needed or valuable to the organization.

The city must establish an oversight authority to manage the inventory process. Oversight duties are usually defined in the city's Open Data Policy and can be led by committees or other existing enterprise data management groups that include public representation. Currently, the Data Governance Committee manages and oversees the scope and plan by providing deadlines, performance metrics, and guidelines. The committee considers any relevant data definitions or inventory requirements included in the Policy, outline any government record definitions, and identify all data assets. The plan requires metadata, deadlines, guidance, and performance metrics. Department data liaisons or representatives are responsible for cataloging data assets in accordance with the inventory plan in readable formats (spreadsheets) and the DGC establishes quality checks and the extent to which the inventory is made public. The committee also establishes priority scheduling of publication of datasets described in the data inventory.

Data Quality

Data is considered high quality "to the degree it is fit for the purposes data consumers want to apply it" ([DAMA International](#)). The cost of using data that is incorrect, improper, or low quality is high as it affects decision making and program analysis. Departments should be actively identifying data quality problems through data quality assessments of data inventories. Values must be correctly formatted, complete, overall useful for the intended work, and achieve other related aspects of data quality.

Six Dimensions of Data Quality:

- Accuracy - When data accurately reflects an event or object described. Is the data even correct?
- Completeness - When data fulfills expectations of comprehensiveness or is complete even if optional data is missing. (i.e. first and last name but no middle name) Is all the requisite information available? Are any data values missing information?

- Consistency - When data across all systems reflects the same information and in the same format. Is there conflicting information across datasets?
- Timeliness - When data is available when it is expected or needed and reflects the correct point in time. Consider the proper frequency of the data set- is it annual, monthly, weekly, etc.? Is the data available when you need it?
- Validity - When data conforms to a format, type, or range that has been established by the department or organization. Do data values comply with specified formats?
- Uniqueness - When no data will be recorded more than once based on how it is identified. Uniqueness tells you what makes data one of a kind when it is not maintained and cuts out duplicates. Is this the only instance in which this information appears in the dataset?

Performance Assessment for the Data Governance

The purpose of the city's data governance charter is to provide a strong foundational framework for effectively managing and governing the city's data as a shared and organization-wide resource with the stated goals of:

- Effective resource allocation, streamlining of operations, and efficient processes
- Data-informed decision-making
- Increased engagement opportunities for residents including the Open Data Portal, Tactical Data Engagements, Irving 360 Civic Academy, and Irving 360 2.0

Milestones for the program include:

- 90% of non-charter departments have a completed data inventory, that is audited annually.
- Documented methodology for routinely collecting and updating data inventories.
- Data inventories published online.
- A data governance process that is guided by a statement of purpose and documented set of goals and objectives.
- DGC engagement in data governance responsibilities at least quarterly.
- Documented processes to reduce the possibility of inadvertently releasing private or confidential data.
- Staff information or training about how to assess and reduce security risks associated with its data offered.
- A process for engaging residents and other external stakeholders in the security risk management program.
- A written process documenting how to share data internally or with trusted partners.
- A user-friendly method of collecting requests to share data and requires the data trust to respond in a timely manner.
- Data-sharing agreements limited to publicly shared datasets.
- Using data-sharing agreements where there is a risk of liability.
- Creating a governance structure for the proactive release of public information.
- Plans to collect regular public input on the open data program.
- Periodic review of policy language and implementation practice through at least annual reporting.

- Commitment to public disclosure of decision-making pertaining to the collection, prioritization, storage, use, analysis, and publication of public data and information, including explanations for sensitive, protected, or other ineligible information