




Data-Driven Decision Making on a Shoestring Budget

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For Ohio City/County Management Association
February 28, 2024

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Overview

-  What is Data-Driven Decision Making
-  Basics of how to identify, capture, and use data on a programmatic, or department level
-  How to bring data together into a data system for your organization
-  Free and low-cost tools you can use to replicate this for your organization

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Data-Driven Decision Making



- ▶ Using facts, metrics, and insights to guide strategic business decisions.
- ▶ Frequently featured in publications
- ▶ Taught in MPA and MBA programs
- ▶ Generally expected by the public
 - ▶ Pandemic Era Dashboards and Federal Reports
- ▶ When done right, makes the decision making easy.

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Perceived Hurdles

Staff

Training/Education

Software

Funding

Data Sources

Data Capture/Control

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- ▶ The ability to track and effectively analyze key performance indicators.
 - ▶ Key Performance Indicators - Metric used to evaluate the success of an organization, program, employee, etc. in meeting objectives.

- ▶ Much less frequently discussed in publications
- ▶ Rarely taught outside of database design classes
- ▶ Generally uninteresting to the public

- ▶ The hardest but most important piece of establishing a data system.

Data Capture and Control

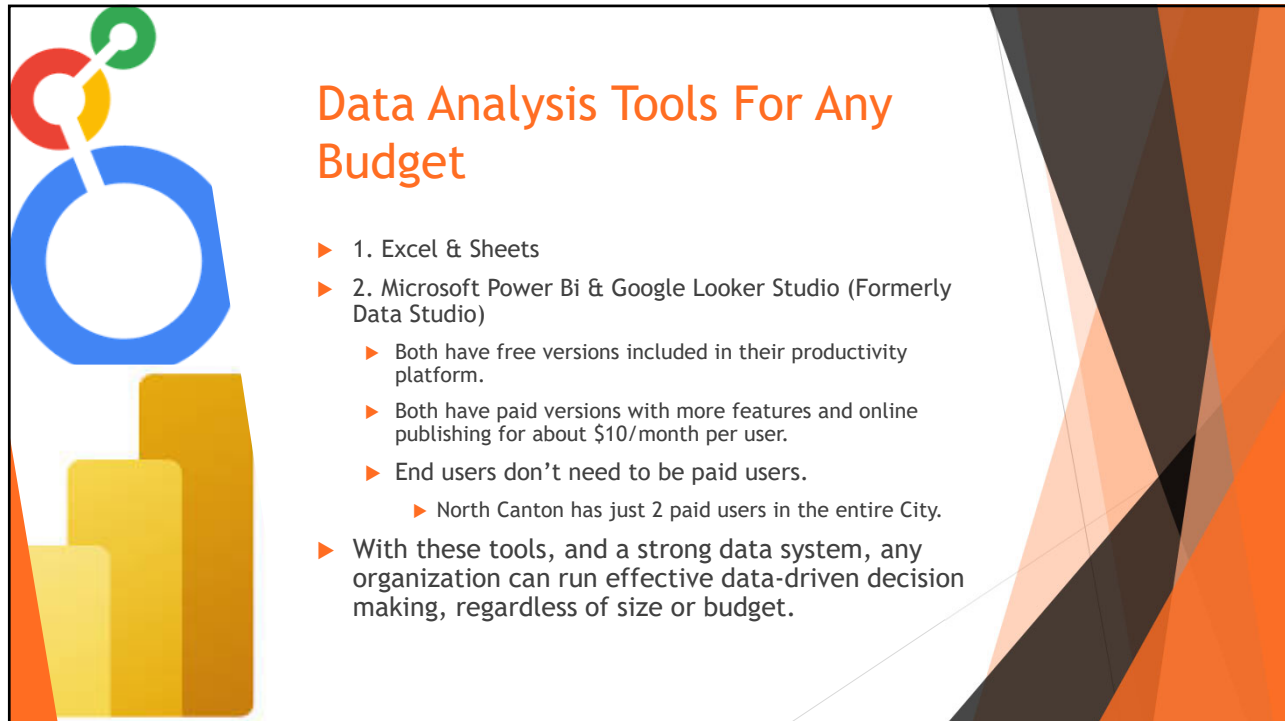
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North Canton's Data Analysis System

- ▶ Fulfills Five Use Cases
 - ▶ Active Management
 - ▶ Program/Service Evaluation
 - ▶ Deliver Services
 - ▶ Solve Problems
 - ▶ Enhance Transparency
- ▶ Currently contains more than 2 million data points.
 - ▶ Adds an average of 8,000 more every month (100,000 per year).
- ▶ Requires no additional reporting from front-line staff.
- ▶ Costs \$20/month to maintain.
- ▶ Requires 1 day a month to maintain.

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Data Analysis Tools For Any Budget


- ▶ 1. Excel & Sheets
- ▶ 2. Microsoft Power Bi & Google Looker Studio (Formerly Data Studio)
 - ▶ Both have free versions included in their productivity platform.
 - ▶ Both have paid versions with more features and online publishing for about \$10/month per user.
 - ▶ End users don't need to be paid users.
 - ▶ North Canton has just 2 paid users in the entire City.
- ▶ With these tools, and a strong data system, any organization can run effective data-driven decision making, regardless of size or budget.

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Keys to a strong Data System: 3-C's



CONTINUOUS

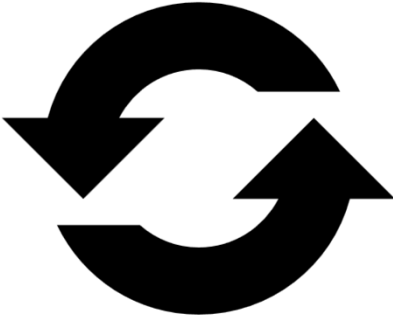


CONSISTENCY



CONNECTORS

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Continuous

- ▶ The data has no significant gaps.
- ▶ The data is frequently or reliably updated.
- ▶ Establish a schedule to export information.
 - ▶ Stick to it! It is easy to fall behind.
- ▶ Be aware of your schedule and the built-in shortcomings it can create for your data.

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Get the same information every time you update.

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Don't subtract, only add.

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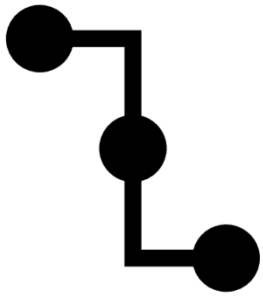
Ensure the format or coding doesn't change.

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Set an export size window.

Consistency

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Connectors

- ▶ Every database should have connectors.
- ▶ Core pieces of information that are common across all your data.
- ▶ Allow you to link otherwise unrelated data.
- ▶ Must remain static (relatively) in perpetuity.
- ▶ Most common examples are addresses, date/time stamps and system-generated identifiers such as permit numbers.

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The Data You Need...

-  Reflects the department's operations
-  Provides sufficient detail
-  Is routinely collected
-  Requires minimal added effort, if any

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You Have Data All Around You




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Data Capture Done Simply

- ▶ Identify the data you already collect.
- ▶ Export/record the data as it is, even if it is imperfect or encoded.
- ▶ Save the file/information in Excel, Sheets, CSV, etc.
- ▶ Save-over it when updating/adding.


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Use Case: Active Management - Calls for Service

- ▶ Police Departments log every action they take as a call for service.
 - ▶ While much of this information is LEADS protected, most software has a basic information export that excludes LEADS information.
- ▶ **Connector:** Address, Most calls will be logged by a location/address.
- ▶ **Continuous:** As your department continues to operate, they continue to generate this information as they log their activity, without extra effort.
- ▶ **Consistent:** The export will give the same information every time and each export can give an update to the previous.
- ▶ [North Canton CFS Tracker](#)

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The Importance of Evaluating Software Capabilities

- ▶ Make sure your programs are supported by a software that will provide exports for use in your data system.
- ▶ Many conglomerate or older software companies have limited export capabilities.
- ▶ **Red Flags:**
 - ▶ Only talks to their other software.
 - ▶ Requires a support ticket to extract data.

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Active Records (1268)

Record #	Record Type	Applicant Name
WSL-771	Water Service Line Inventory	Mark Morris
RBLD-24-24	Residential Building Permit	Alex Lyogky
WSL-770	Water Service Line Inventory	Larry Stroll
WSL-769	Water Service Line Inventory	KIP ROWLAN
WSL-768	Water Service Line Inventory	Claudia Hab
CREG-462	Contractor Registration	Jerry Bell
CREG-461	Contractor Registration	Nicole Sk
WSL-767	Water Service Line Inventory	Kimberly
WSL-765	Water Service Line Inventory	Tonya H
WSL-764	Water Service Line Inventory	
HVAC-24-32	HVAC/Mechanical Permit	Adria
WSL-762	Water Service Line Inventory	Paul
FIRE-2	Annual Business Fire Inspection	TES
WSL-761	Water Service Line Inventory	To

Example: Permitting Systems

- ▶ Old system exported a permit number, address, category, some date/time stamps, and a maximum of 100-character description.
 - ▶ Not in sufficient detail to review operations.
 - ▶ Required their help to export any more data.
- ▶ In 2021, North Canton started looking for a new system.
- ▶ Ultimately chose OpenGov permitting and licensing. Selling Point?
 - ▶ Highly customizable exports. Any field on any permit type you want, all exportable to CSV for inclusion in a data system.

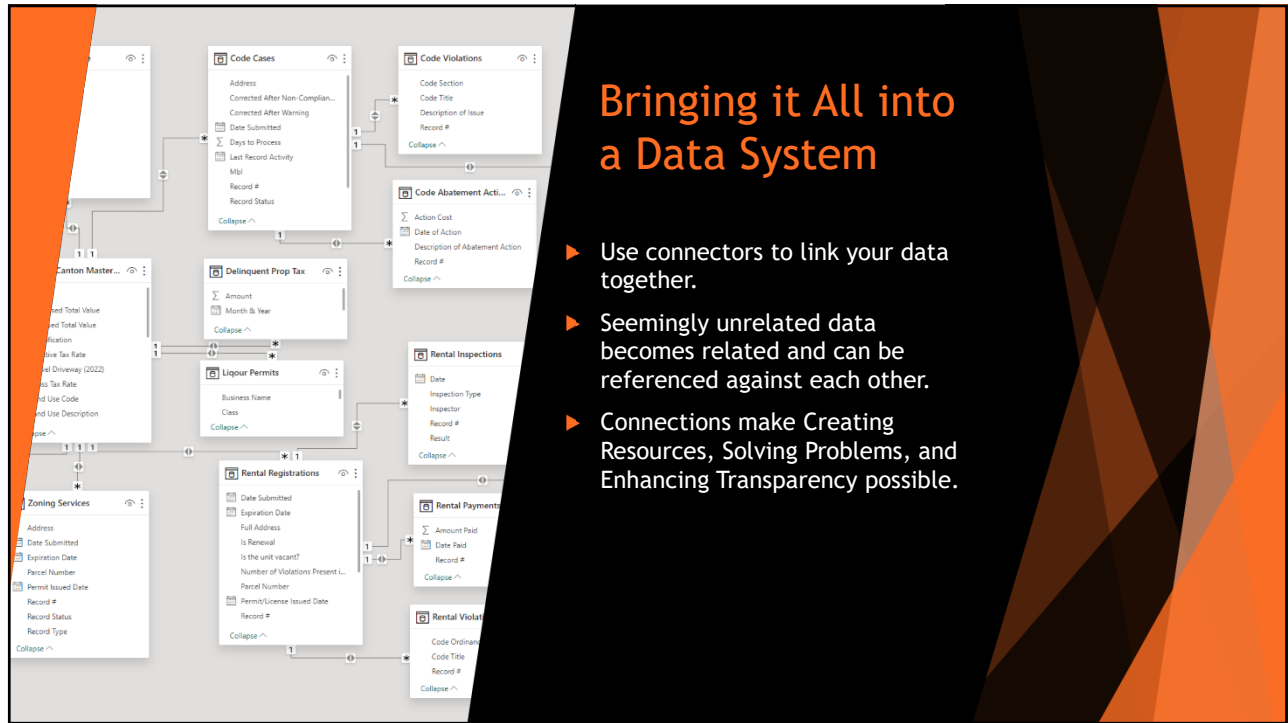
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Use Case: Program Evaluation - Rental Registration

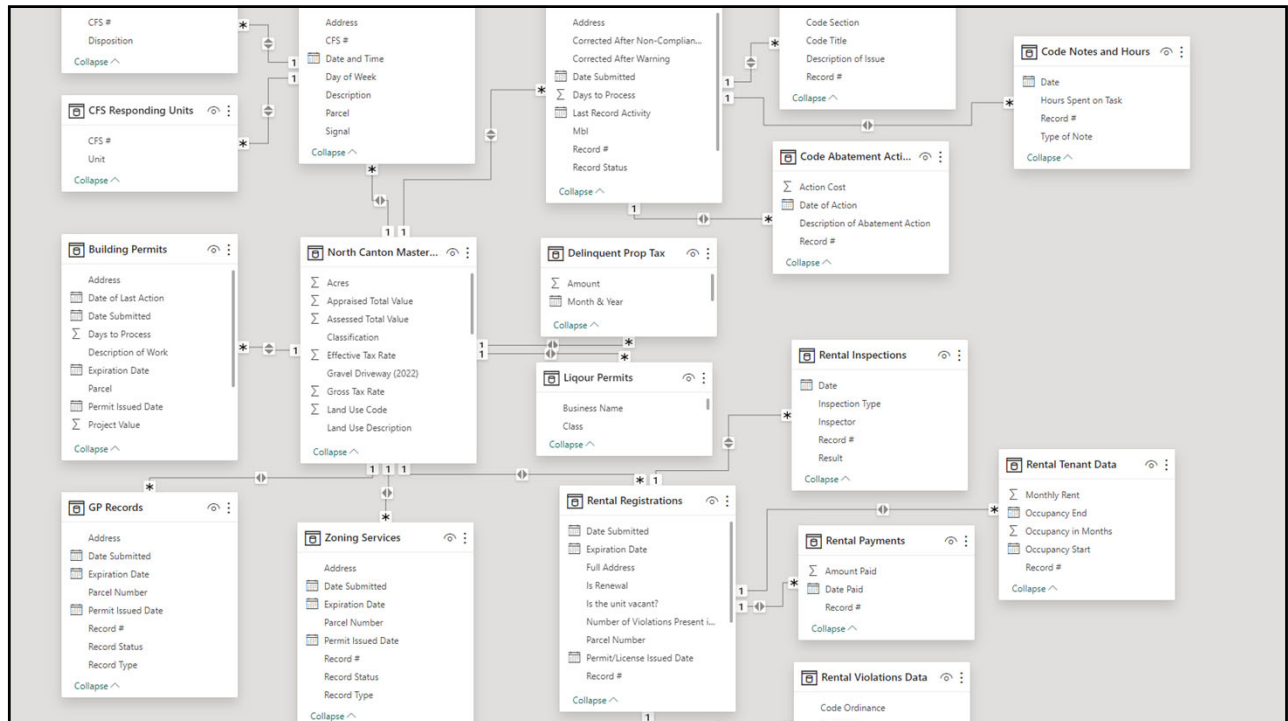
- ▶ On January 1, 2023, North Canton started a rental registration program.
- ▶ Any unit rented for residential use, including single-family homes, duplexes, second-story walk-ups, triplexes, and apartments.
- ▶ Data is collected continuously by registration software.
- ▶ Program performance reports are updated at the beginning of each month and given to the City Administrator.

North Canton Rental Registration Program Report

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Use Case: Creating a Resource - The Property Search Dashboard

- ▶ One single search engine for all addresses in the city.
- ▶ Links together 911 calls, Fire/EMS runs, permits, code enforcement, zoning, and more.
- ▶ Displays a picture of everything the city knows about that address.
- ▶ Allows city staff, who have a reason to interact with a specific property, identify trends, issues, or potential problems when responding to service needs.

[North Canton Property Search Dashboard](#)

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Creating a Culture of Informed Decision Making



- ▶ Easy access to information makes you, and your department heads, more likely to use it.
- ▶ The biggest reason leaders ignore information and make gut decisions is because they don't have access to the information.
- ▶ Instead, they act on perception and belief.
- ▶ Show them that using the data will help them and make their jobs easier.

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Use Case: Solving Problems - Fire/EMS Staffing

- ▶ Known Issues:
 - ▶ More part-timers than should be necessary
 - ▶ Heavily reliant on callbacks
 - ▶ Large amounts of overtime eating up the budget
 - ▶ Staff burn out

[5 Week Time Study](#)

[5 Week Time Study \(Cross Referenced\)](#)

- ▶ Solutions:
 - ▶ Standardized 3 shift schedule
 - ▶ Required minimum shifts
 - ▶ Added more staff per shift

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Use Case: Adding Transparency - Contractor Registration

- ▶ These tools can be used to create transparency.
- ▶ The modern public expects governments to have access to easily sharable information.
- ▶ The public loves to see reports and dashboards.
- ▶ Just like internal resources, you can build external ones for transparency.

Example: [Contractor Registration Search](#)

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Review

- ▶ Low-cost data tools are likely already included in your productivity platform.
- ▶ This makes the biggest hurdle to data-driven decisions data capture, not resources.
- ▶ In looking for data make sure it is Continuous, Consistent, and has Connectors.
- ▶ Start with data your departments already capture while doing their jobs.
- ▶ As you collect and report data, share what you can to create a culture of informed decision making and build public support.

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Thank You!

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