Challenges to Becoming Data Driven: Lessons from the Government Analytics Program

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UMASS BOSTON

GAP Quick Summary

➢ **Mission:** Change the culture of local government to be data-driven. Use data to fix stuff.

➢ **Founding:** Launched as a 6-month pilot in August 2012 with a grant from the state. Now fully funded by client fees.

➢ **Service Model:** Team of analysts working with several dozen municipalities (and other government entities). Analysts each work with a portfolio of clients.

➢ **Clients:** Served 60 clients to date, ranging in population from 1,500 to over 600,000 and representing the full diversity of Massachusetts municipalities.

What do efforts to use data look like?

http://s.newsweek.com/sites/www.newsweek.com/files/2015/09/04/cobra.jpg



https://www.paws.org/assets/Uploads/544-Norway-Rat.jpg

➢ **The Cobra Effect (aka the Rat Effect, Goodhart's Law, Campbell's Law, etc.)**

➢ **Goal today: Help you think about data use and becoming data driven more strategically**

Major Challenges to Becoming Data-Driven

1. Lack of a culture of data usage;
2. Lack of data, data systems, and IT;
3. Lack of training in or full implementation of IT;
4. Insufficient chief executive time and attention;
5. Insufficient staff time and attention;
6. Department head and staff anxiety;
7. Organizational culture resistant to change;
8. Organizational structure impediments; and
9. Challenges of follow-up and implementation.

- ➢ **Outdated IT and insufficient training on it, which means…**
- ➢ **Insufficient data for analysis, which means…**
- ➢ **Little experience using data for management, which means…**
- ➢ **No advocacy for upgrading IT or providing sufficient training, which means… [repeat]**
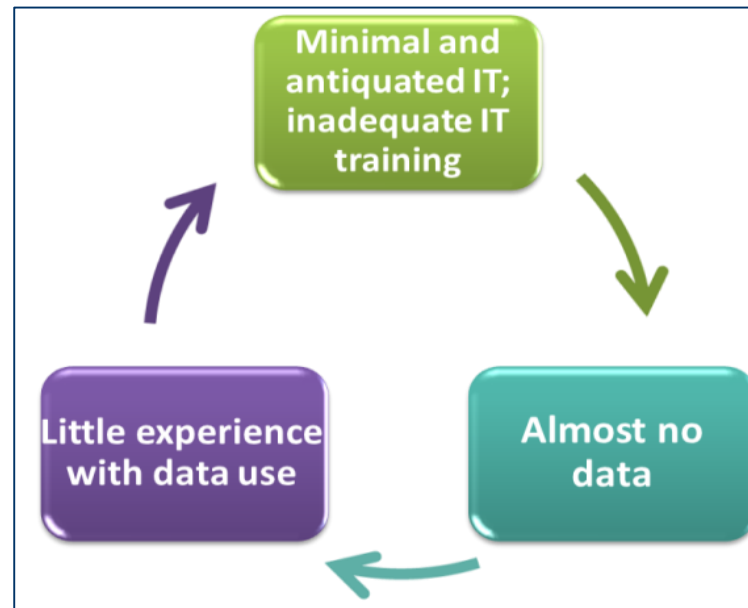
Key Principles - 1

In response to those challenges, GAP has developed key principles to guide the work:

- ➢ Look for "quick wins"
- ➢ Work collaboratively
- ➢ Focus on issues most important to clients
- ➢ Empower staff to take over the work
- ➢ Become an idea-sharing catalyst
- ➢ Experiment

Key Principles - 2

Equally important, GAP is <u>not</u> focused on:
- ➢ **"Gotcha"-type data work**
- ➢ **Big Data**
- ➢ **Expensive dashboards**
- ➢ **Upfront strategic planning exercises**
- ➢ **Traditional benchmarking**

Statement of Problem:

- City with population over 50,000.
- Mayor and CFO wanted to "get a handle" on the fleet.
- DPW Director constantly complained about old vehicles and breakdowns.
- Numerous costly emergency repairs completed by outside contractors.
- Only mechanic was out injured-on-duty with no prospect for returning.

Process and Obstacles:

- Asked for fleet inventory and maintenance records for work done in-house.
- DPW had no inventory; paper maintenance records were in disarray or nonexistent.
- Created an up-to-date vehicle inventory in Excel as a starting point.
- Walked through DPW yard to assess vehicles and gather information for inventory.
- Discovered that 22 of 23 vehicles did not have an up-to-date inspection sticker.
- Presented data on vehicles and fleet replacement best practices to mayor and team.
- Completed vehicle equivalency unit analysis to determine optimal mechanic staffing.

Outcomes:

- Created DPW's first electronic fleet inventory.
- Uncovered inspection stickers issue and oversaw correction of the issue.
- Vehicle equivalency unit analysis demonstrated understaffing issue.
- Mayor and DPW management determined that additional in-house staff was needed.
- Mayor agreed that fleet replacement had been ad hoc and launched the city's first CIP.
- DPW studying the need for vehicle maintenance management solution to replace paper work orders/records.

Statement of Problem:

- City with population of 40,000 people.
- OT spending in Police was consistently higher than budgeted.
- When department began tracking the causes of OT, it noticed that "incident-related OT" was responsible for a considerable amount, but it was unclear what was included in the category.
- Department set out to determine what was included in this category and what could be done to control it.

Process and Obstacles:

- The analyst worked with the Chief's assistant to create mechanism for tracking the specific causes of incident-related overtime.
- When court time emerged as an issue area, the analyst and the assistant developed a system to track how much OT was paid for court duty after officers had been released.
- There had been no previous tracking of court OT, which meant it was necessary to do significant data entry from paper records.
- The analyst collected and analyzed two years of court attendance data.
- Court OT turned out to be a major driver of the costs.

Outcome:

- Department is now working with courts prior to sending officers to determine what personnel will be needed that day.
- The mayor is working to adjust the policy to require that officers are working for the entire 4 hours that they are paid.
- If successful, this will lead to more hours of officers on duty for little additional cost.

Pulling it all together

➢ **"Culture eats strategy for breakfast" (most commonly attributed to Peter Drucker)**

➢ **Becoming data-driven means trying to find ways to work *WITH* your municipality's culture**

➢ **Start internally, collaboratively, and in ways that strengthen department heads and others**

➢ **Start with the data you have (and make sure you know what you have)**

Questions?

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