

Data Analytics for Managers

Follow along at: <http://bit.ly/data-driven-gov>

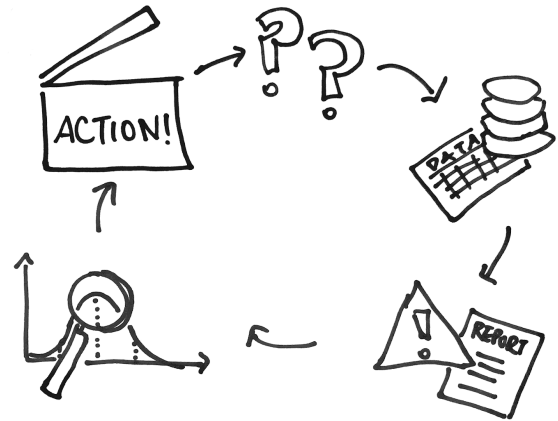
See the code at: <http://bit.ly/data-driven-gov-code>

Key Questions for the Morning

- What is the value of data?
- What is analysis?
- What does it mean to be data-driven?

The Analytics Value Chain

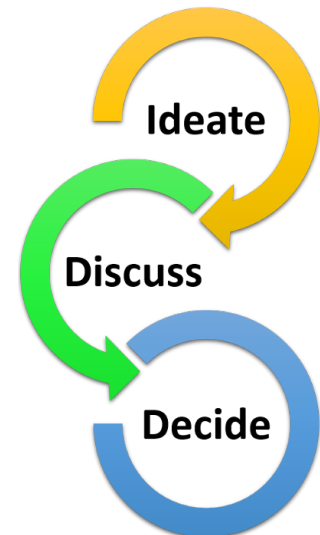
- What are the key steps?



- What are the key things to keep in mind?

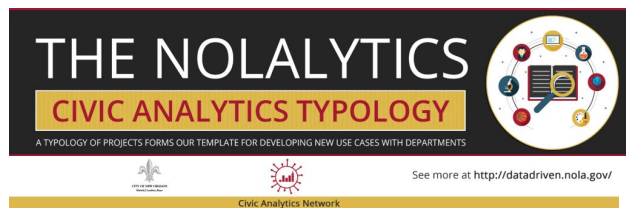
Problem Scoping

- **Ideate:** On your own, generate at least 3 ideas (ideally more), each on their own Post-It Note
- **Discuss:** Review the ideas generated
- **Decide:** Come to a consensus as a group



Process Mapping Steps

- Identify the key problem/question
- Identify the desired outcome
- Identify key outcome measures (**How do we know we've got it right?**)
- Identify the key inputs (data)
- Identify the key steps to use inputs to achieve the outcome



Based on the work of the [City of New Orleans, Office of Performance and Accountability](#)

Graphics: Copyright © [Harvard University Ash Center](#) (Used with Permission)



Finding the
needle in a
haystack



Prioritizing
work for impact



Early warning
tools



Better, quicker
decisions



Optimizing
resource
allocation



Experimenting
for what works

4 Concerns to Be Mindful Of

1. Technical

2. Legal

3. Cultural

4. Political

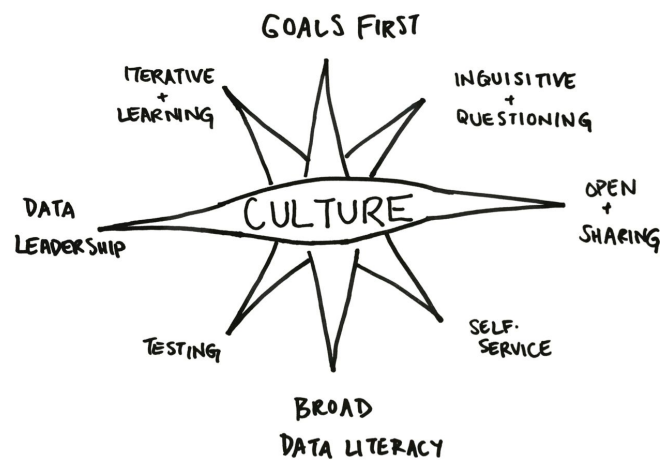
Key Benefits of Good Analysis

Key Questions for the Afternoon

- What is open data?
- What are the benefits of open data?
- What are some of the concerns with open data?

-
- What is exploratory data analysis? Why is it important?

- What is a data-driven culture?



- How do we create it in our organization?

Data Exercise

Filter

Filter this dataset based on contents.

Created Date ▼ is between ▼

☒ 01/01/2016 12:00:00 AM and 04/01/2016 12:00:00 AM

☐ and

Complaint Type ▼ contains ▼

☒ noise

Download

Download a copy of this dataset in a static format

Download As

CSV

CSV for Excel

JSON

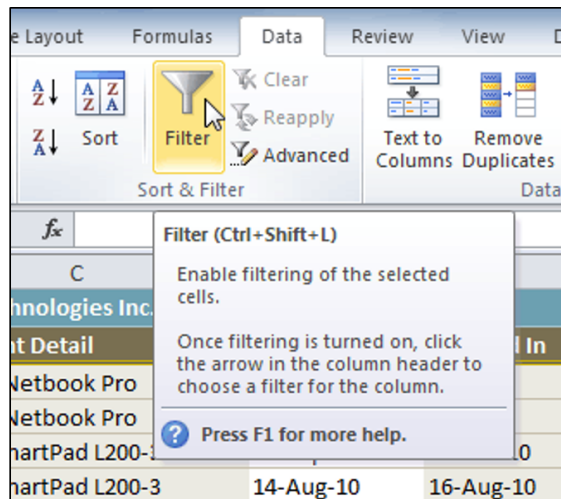
RDF

RSS

TSV for Excel

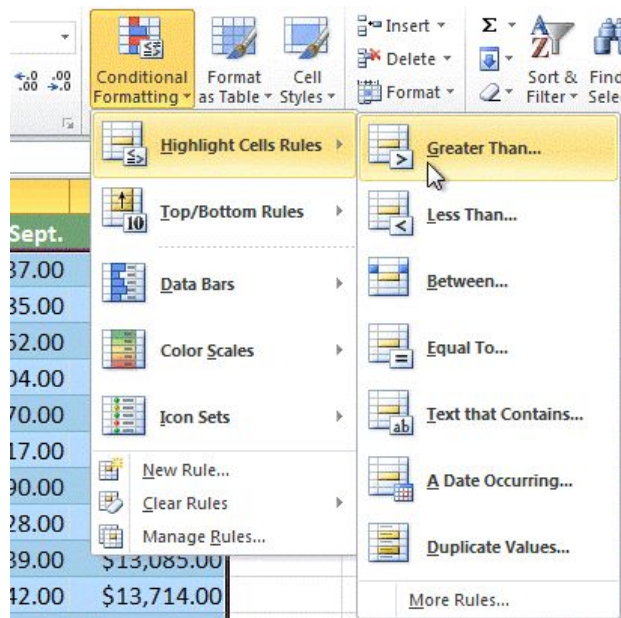
XML

Filtering

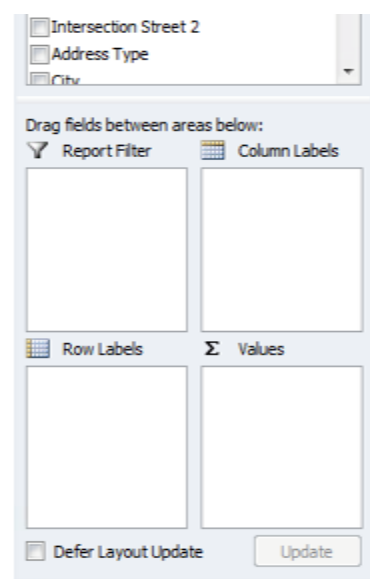
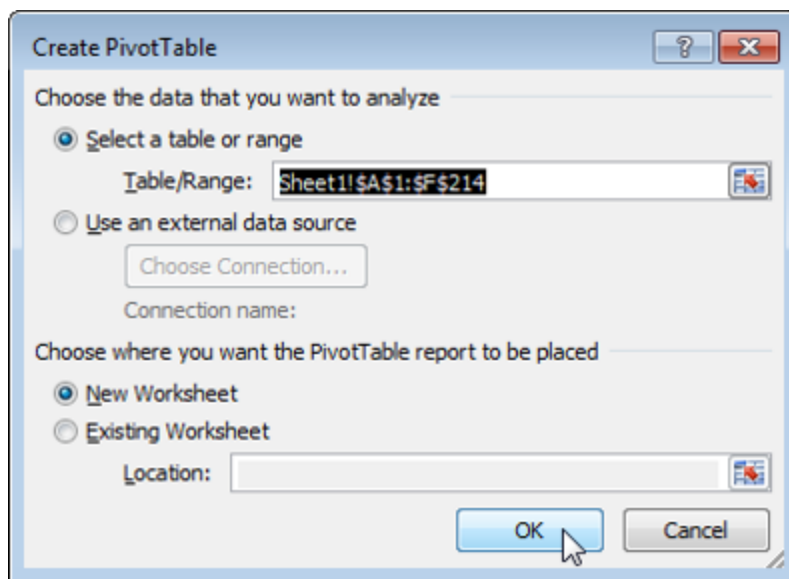
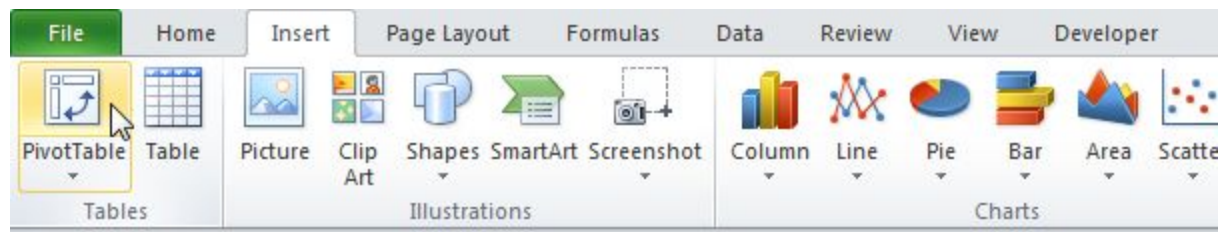


	A	B	C	D	E	F
1	Unique Key	Created Date	Closed Date	Agency	Agency Name	Complaint Type

Conditional Formatting



PivotTables



Useful Functions in Excel

=**SUM()**: Calculates the sum for a range of numbers

=**COUNT()**: Counts the number of cells containing numbers in a range

=**COUNTA()**: Counts the number of non-blank cells in a range

=**HOUR()**: Extracts the hour from a timestamp

=**WEEKDAY()**: Extracts the day of the week from a timestamp

=**CHOOSE()**: Uses an index number to return a result from an ordered list of values

Technical Support

- Microsoft Office Support <http://office.microsoft.com/en-us/support>
- Excel Tips <http://excel.tips.net>
- Data Science Cheatsheet <https://github.com/govex/Data-Science>
- Open Data Handbook <http://opendatahandbook.org>

Resources

- Data Driven New Orleans <https://datadriven.nola.gov>
- Harvard Government Performance Lab <https://govlab.hks.harvard.edu>
- Carl Anderson **Creating a Data-Driven Organization**
- DJ Patil & Hilary Mason **Data Driven: Creating a Data Culture** <https://www.oreilly.com/ideas/data-driven>
- Datapolitan training classes <http://training.datapolitan.com/>

Contact Information

Email: training@datapolitan.com
[@datapolitan](mailto:training@datapolitan.com)

Website: <http://www.datapolitan.com>

Twitter:

Your Notes