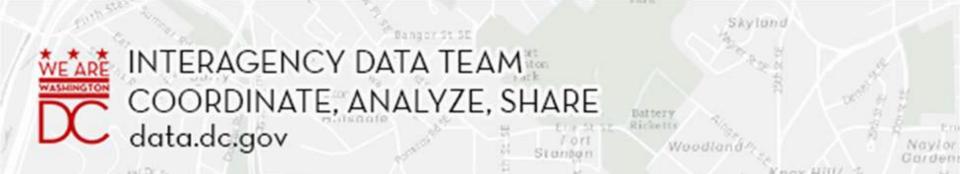


# Agency data officers September 27, 2017







#### CUSTOMER SERVICE. ACCOUNTABILITY. EFFICIENCY. SECURITY.

#### AGENDA

- Welcome, News & Updates
   Barney Krucoff, Chief Data Officer, OCTO
- Newly Published and Updated Data
   Mario Field, Data Program Manager, OCTO
- What's New in Tableau & How to Publish Server Workbooks
   Dan Melvin and Rick Evans, from Tableau
- Agency Data Inventory Progress
   Michael Bentivegna, Data Team Program Manager, Office of the Chief Technology Officer
- Working Session for Enterprise Dataset Inventory
   The latter half of this meeting will be an optional working session with OCTO staff.





### NEWS AND INTRODUCTIONS

Barney Krucoff
Chief Data Officer



#### ENTERPRISE DATASET INVENTORY TIMELINE

- May 4: Mayoral Order 2017-115, District of Columbia Data Policy Announced
- June 5: AISO and ADO selection process complete and reported to OCTO. (Section IV B and D)
- June 14: Data Inventory tool distributed

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- December 11: Agency contributions to the Data Inventory must be complete.
- March 11, 2018: Data Inventory is published as Level O, Open
- Future, updated data inventories will be published on November 1 of each year.





## NEW AND UPDATED DATASETS

Mario Field

Dr. Data



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#### DATA POSTINGS - UPDATES

- Bus Line
- Bus Stop
- Credit Trade Area
- Homeless Service
- Homeless Shelter
- Homeless Shuttle Stop
- DC property
- Triangle and Median
- Zoning Case
- ZR16 Development Standards





#### DATA POSTINGS - NEXT BATCH

- Business
- Charter School
- Federal City Boundary
- Public Body (Agency, Board, Commission, Task Force / Mayoral, non-Mayoral)\*
- Public School
- Litter Cans
- State of Washington D.C. Boundary (proposed)





## RECENT REQUEST FOR DATA

Alexandre Santos
OCTO

## DATA REQUESTS FROM CITIZENS

#### Have nots

- Metro Ridership Bus and Train
- Homeless Population Counts
- Juvenile Detention Population Counts and Type of Charges
- DC Agency Public Bodies
- Individual Income
- Street Traffic Lane Types
- Drug Related Offenses

#### Haves

- LED Street Light Installations
- Top 2015 Service Requests (311)
- LU\_CODE index for Landuse Data
- Parcel Lots
- Basic Business License (errors)
- Crash in DC (errors)
- Residential Units





## WHAT'S NEW IN TABLEAU & HOW TO PUBLISH SERVER WORKBOOKS

Dan Melvin and Rick Evans, Tableau, Inc.

## Best Practices



### Best Practices: Understand Your Goal



Know the purpose behind the visualization you are creating. Know the audience that will be reading it.

## Best Practices: Connect/Join All Your Data



Using all of your data gives you a more complete picture of your analysis. Partial data can give you skewed results leading you to make erroneous decisions.

### Best Practices: Measures that Matter



Relevant metrics to include in your dashboard is critical. Must be relevant to the job at hand. Be selective of measures to make sure they contribute to your objectives. Make sure you can design meaningful visualizations with them. Make sure every measure clearly contributes to your organizations objectives.

#### Best Practices: Visualizations Communicate



Visualizations & Dashboards are to be easy and fast to read. Columns of numbers and spreadsheets are usually not. Add variety in your visualization choices. Make interactivity meaningful. Seeing data over time often is effective in predicting the future.

## Best Practices: Interact Ability



Limit the number of visualizations on a dashboard so as not to overwhelm the on-looker. Include filters and highlighting to allow flexibility as people consume your visualizations.

## Best Practices: Emphasize Importance



Use coloration, position, and size to draw attention to important information. Design understanding that your visualization will be read left-to-right, top-to-bottom.

### Best Practices: Data Orientation



Orient the visualization to make it the most readable. Traditional up and down bar charts often limit readability. Simply rotating them so the bars are horizontal, makes it much easier to read.

## Best Practices: Limit Colors and Shapes



Avoid the temptation to use every color, every visualization type, every font, and every shape. Use these features sparingly to emphasize important information only.

#### Best Practices: Avoid Scrollbars



Your visualizations and dashboards should be understood at a glance. Scroll bars clutter the visualizations and make the user have to work to understand the entire picture.

## Best Practices: Enhance Tooltips



Use more than the default data in tooltips to give an even deeper picture into the data. Use font, color, and size to make it as readable as the visualization itself.



## BI SYSTEM UPGRADE STATUS

Michael Bentivegna, OCTO



## BI INFRASTRUCTURE UPGRADE STATUS

#### Tableau

#### Upgraded Internal Resource

- New more robust internal infrastructure should be load tested next week.
- Cut over slated for the end of October.
- Firewall changes will be needed, Agency CIO's will need to submit requests for these changes for a smooth cut over. OCTO will be sending an email to CIO's.

#### New Public Resource

- New external Tableau Server infrastructure should be load tested today.
- Data update infrastructure under development.
- Public visualizations will be through JavaScript dashboard embeds in Agencies websites.
- OCTO will start working with Agencies that have embedded public visualization needs which do not need to be updated more than



#### Tableau Public - Architecture Infographic JSON Embed SQL Server Agency Web Tableau Public Site SQL Server one way <u>DMZ</u> push Firewall **FME** ETL ETL DC INTERNAL **NETWORK** File Store

#### TABLEAU PUBLIC PUBLISHING WORKFLOW

- Provide OCTO data team with a Packaged Tableau Workbook
  - OCTO reviews workbook for performance, best practice
- Discussion/understanding of Agencies Data source(s) for public visualization
  - What type data source type (Database, excel, API)
  - Plan initial data load
  - Plan for data updates (ETL)
- Publish to a staging site for agency review
  - OCTO send a review link
- Publish to Production public site
  - OCTO send a final review link and JavaScript embed code for Agency website I frame.
- Setup Data update process (ETL, refresh) as needed.





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#### BI INFRASTRUCTURE UPGRADE STATUS

#### MicroStrategy 10.8 upgrade from 10.5

- New color palettes for Visual Insight Dashboards
- Improved Visual Insight Dashboard Export into PDF
- Improved map visualization with layers
- R Integration

#### MicroStrategy Clustering

- New servers added into the SQA environment
- The servers have been evenly distributed across the ODC1 and ODC3 datacenters
- New Firewall rules have been implemented to improve the data security
- Testing/validation of the cluster structure in the SQA environment is still in progress
- By mid-October, the SQA Clustering will be completed
- By mid-November, the PROD Clustering will be completed

#### MicroStrategy public facing servers

- After clustering is done, public facing servers will be installed
- By end of this year, public facing servers will be available





#### AGENCY DATA INVENTORY PROGRESS

Michael Bentivegna, OCTO

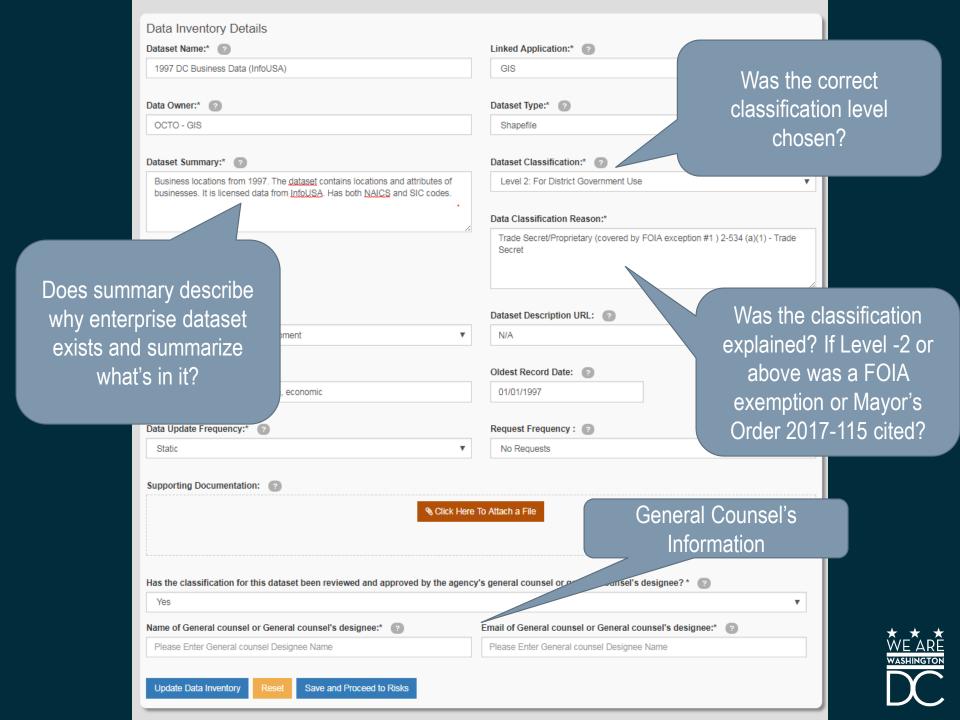
Intranet site for Help with Enterprise Dataset Inventory

http://octo.in.dc.gov/node/165549



## WORKING SESSION FOR ENTERPRISE DATASET INVENTORY







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#### FOIA EXEMPTIONS

#### (HTTPS://BETA.CODE.DCCOUNCIL.US/DC/COUNCIL/CODE/SECTIONS/2-534.HTML)

- 1. 2-534(a)(1) "Trade Secrets"
- 2. 2-534(a)(2) "Personal Privacy"
- 3. 2-534(a)(3) "Investigatory Records"
- 4. 2-534(a)(4) "Litigation Privileges"
- 5. 2-534(a)(5) "Test Questions"
- 6. 2-534(a)(6) "Other Statutory Exemptions"
- 7. 2-534(a)(7) "Executive Privileges"
- 8. 2-534(a)(8) "Anti-Trust Investigation"
- 9. 2-534(a)(9) "Arson Reporting"
- 10. 2-534(a)(10) "Emergency Response Plan"

- 11. 2-534(a)(11) "Certain Business License Information"
- 12. 2-534(a)(12) "Whistleblower"
- 13. 2-534(a)(13) "District of Columbia Homeland Security Commission"
- 14. 2-534(a)(14) "Sealed Criminal Records"
- 15. 2-534(a)(15) "Critical Infrastructure"
- 16. 2-534(a)(16) "Teachers Evaluations"





#### LEVEL 3: CONFIDENTIAL

- Attorney-Client Privileged;
- Criminal Justice Information;
- Critical Infrastructure Information;
- Family Educational Rights and Privacy Act (FERPA);
- Federal Tax Information (FTI);
- For Official Use Only (FOUO);
- Law Enforcement Sensitive;
- Legally privileged;
- Payment Card Information (PCI); or
- Protected Health Information (PHI) under the Health Insurance Portability and Accountability Act (HIPAA);
- Sensitive but Unclassified.
- PII- Personally Identifiable Information (not traditional Public Info like property)





## THANKS FOR JOINING US ©

Feedback open.data@dc.gov

