



dataMontgomery: Setting Up a Solid Open Data Foundation

Maryland Council on Open Data October 3, 2014

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About the Speakers

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dataMontgomery Interagency Lead and PMO Manager, Technology Services

- ▶ **Victoria Lewis**

dataMontgomery Project Manager, Technology Services



About Montgomery County

- ▶ **1,000,000 population**
- ▶ **\$4.97B Total Approved budget**
- ▶ **Enterprise Project Deployment Highlights:**
 - ▶ ERP system
 - ▶ 311 system & call center
 - ▶ Electronic timesheet reporting
 - ▶ Tax Assessment System Implementation
 - ▶ Public Safety Systems Modernization (in process)
 - ▶ Open Government initiative (including dataMontgomery)



Agenda

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Introduction

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Getting Started

3

Setting up a Framework

4

Making a Plan

5

Open Data Outcomes and Future Plans

6

Opportunities and Closing Thoughts





Montgomery County Introduction to Open Data

▶ **Executive Branch Open Data Pilot 2012**

- ▶ Project Charter approved by DTS CIO
- ▶ Established project governance
- ▶ Outreach and education to departments on the potential benefits of an open data program

▶ **Montgomery County's Open Data Act**

- ▶ Enacted on December 4, 2012
- ▶ Provide a centralized site to publish County data
- ▶ Develop a Technical Standards Manual for publishing public data
- ▶ Develop an Open Data Implementation Plan, including an inventory of all public data and a schedule for publication to be updated annually
- ▶ Publish Maryland Public Information Act Responses



dataMontgomery Overview

▶ dataMontgomery Launch – December 2012

The screenshot shows the dataMontgomery website interface. At the top right, it says "Hello, MC Open Data Administration Sign Out". The main header features the dataMontgomery logo and navigation links: "Montgomery County Home", "openMontgomery", "engageMontgomery", "MC311", "Video Guides", and "Help". There are also social media icons for Facebook, Twitter, and YouTube. A large banner image shows a cityscape with speech bubbles and a map overlay. Below the banner, there are three featured content boxes:

- Welcome to dataMontgomery**
Direct access to County datasets in consumable formats is available here, offering the public an opportunity to review and analyze raw data, and the opportunity to use it for a variety of purposes. Included is the opportunity to use datasets in the development of Smartphone apps that create value for residents and better connect them to County government services.
- Food Inspection**
Inspection results for all licensed retail food establishments in Montgomery County.
- dataMontgomery Dataset Publishing Plan**
Current and future plans for dataMontgomery data.
- Leaf Collection Posting Log**
When are they coming to get my leaves? Find out here!

▶ dataMontgomery today – Almost 50 datasets representing multiple departments:

- ▶ Employee Salaries
- ▶ Food Inspection Data
- ▶ Permits
- ▶ Traffic Violations
- ▶ Budget, Spending and Contract Data



Technical Standards & Implementation Plan

▶ **Technical Standards Manual**

- ▶ Defines the technical standards for the publication of a public dataset on dataMontgomery
- ▶ Internal Data Format in preparation to load to dataMontgomery:
 - ▶ Data should be in raw, structured form (disaggregated)
 - ▶ Geocoding should be used wherever possible
 - ▶ Manual and automated processes for uploading data
- ▶ External Data Format for public use
 - ▶ Export format and API defined by our vendor

▶ **Open Data Implementation Plan (ODIP)**

- ▶ Must inventory, prioritize and schedule public datasets for publication
- ▶ Required by law 18 months after Open Data Act effective date
- ▶ Required by law to be updated annually
- ▶ In addition, the ODIP and supporting Open Data Operations Manual (ODOM) details many aspects of the County's Open Data Program, including program governance, data inventory process, establishing publishing priority for datasets, data privacy concerns, processes for revising the data inventory and priorities, etc.



Getting Started with Open Data – Lessons Learned

- ▶ **Start small with a “pilot” or “proof-of-concept” project**
 - ▶ Begin with compelling, “non-controversial” datasets
 - ▶ Look for data that is already published in other forms
- ▶ **Clearly define the purpose for publishing data**
 - ▶ Transparency and accountability in government
 - ▶ Improve efficiency in report generation, MPIA requests
 - ▶ Increased communication and engagement with citizens
 - ▶ Easy and inexpensive collaboration and data sharing among departments, agencies and other government organizations
- ▶ **Formalize it**
 - ▶ Project Charter signed by an Executive Sponsor
 - ▶ Project Governance document to establish roles, governing bodies, authority to publish data



dataMontgomery Governance

▶ **Executive Steering Committee**

- ▶ Chaired by County Executive's Office, includes CIO and directors
- ▶ Governing executive body that is responsible for supporting and resolving any issues that effect the open data project

▶ **dataMontgomery Working Group**

- ▶ Members from County Executive's Office, Public Information Office, Office of County Attorney, Department of Technology Services, CountyStat Office
- ▶ Establishes priorities for datasets in the pipeline
- ▶ Reviews selected datasets prior to publication. (Examples: Datasets that span multiple departments or datasets containing politically sensitive subject matter)
- ▶ Escalates issues (with recommendations) to the ESC

▶ **Departments**

- ▶ Department director must sign off on all datasets owned by the department
- ▶ Department must identify personnel to respond to questions about the dataset



Defining the Dataset – Structured Process

▶ **Dataset Identification**

- ▶ Defines the scope, source location, timeframe, purpose and potential uses of the data

▶ **Dataset definition**

- ▶ Data schema is defined for all data columns and criteria for any rows to be included/excluded

▶ **Identify the Data Owner (or Data Team)**

- ▶ The Data Owner is the “data expert” for the department that owns the data.
- ▶ The Data Owner knows how the data is derived and formatted.



Establish the Authority to Publish a Dataset

▶ **Legal Authority – Review Process**

- ▶ Establish that the data is owned by the publishing organization
- ▶ Establish that the data may be published in accordance with all applicable laws (PCI, HIPAA, Privacy / PII)

▶ **Executive Level Authorization**

- ▶ Montgomery County's dataMontgomery program requires department directors to authorize the publication of data owned by their department

▶ **Datasets Impacting Multiple Departments**

- ▶ Montgomery County has established a Working Group & Steering Committee structure to review and approve publication of datasets impacting multiple departments
- ▶ Example: 311 Call Center data



Publishing Datasets

- ▶ **Policy to Automate All Datasets**
 - ▶ Remove room for manual delays or errors
 - ▶ Enables us to refresh data more frequently
- ▶ **Enterprise Service Bus (ESB) Technology Enables Automatic Updates from:**
 - ▶ Spreadsheets
 - ▶ Databases
 - ▶ MS Access Databases
 - ▶ Maps
- ▶ **What if something is wrong?**
 - ▶ eMail notifications built in to notify owning Department and dataMontgomery team



Making an Implementation Plan

▶ **What did we need to do?**

- ▶ Inventory datasets available Countywide
- ▶ Prioritize datasets
- ▶ Compile an implementation plan

▶ **Tools Available:**

- ▶ Countywide application inventory
- ▶ Resources from dataMontgomery team
- ▶ Open data product

▶ **Challenges**

- ▶ Involving all Departments in inventory effort
- ▶ Determining objective method to rate datasets
- ▶ Clock was ticking....



Staffing the effort and Ramping Up

▶ **Dataset Pipeline Team**

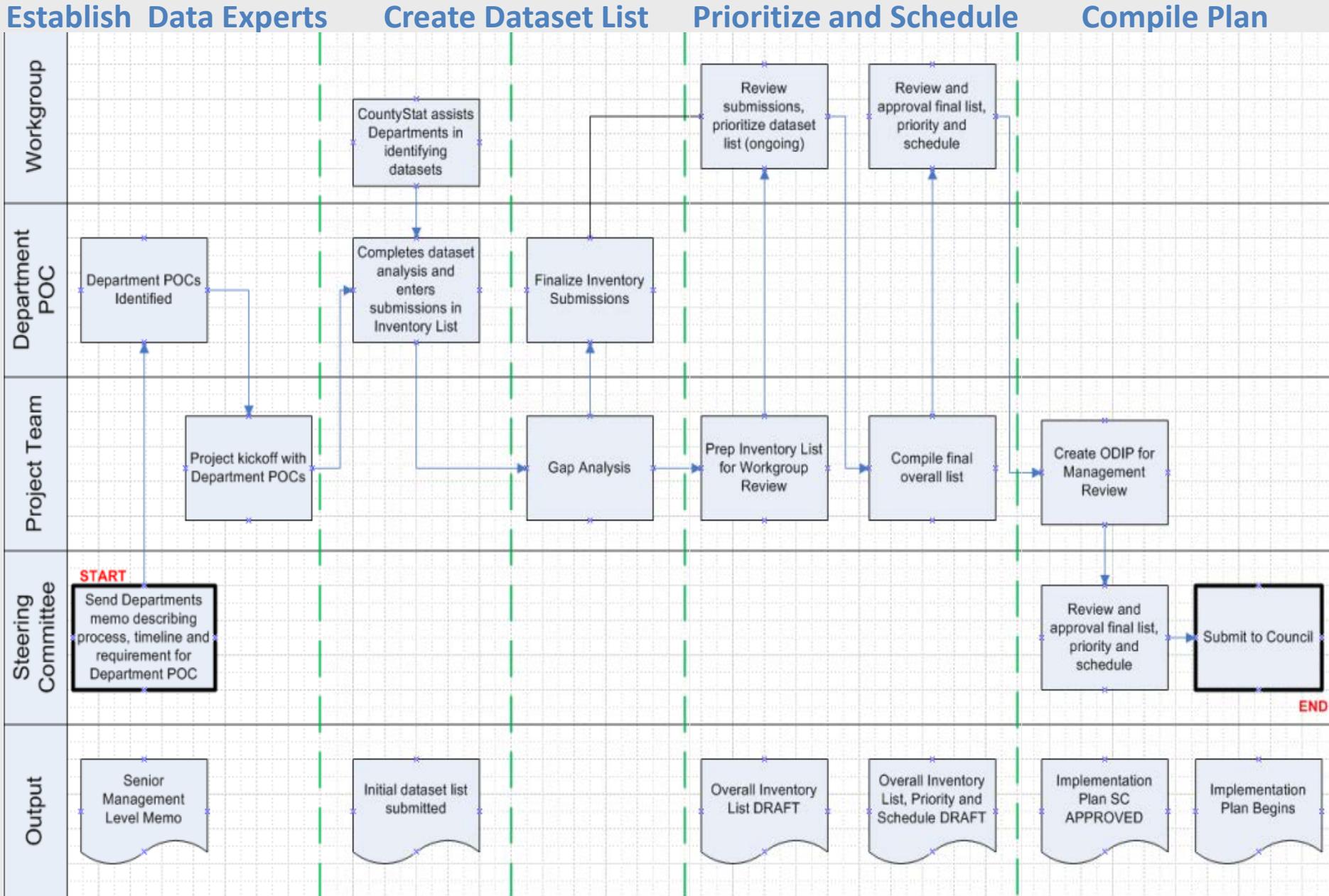
- ▶ CountyStat Analysts (Internal Data Experts)
- ▶ Chief Innovation Officer (External Stakeholder Liaison)
- ▶ Department Points of Contact (Department Data Experts)
- ▶ dataMontgomery Workgroup and Steering Committee
- ▶ dataMontgomery Project Team

▶ **Ramping Up**

- ▶ Centralized Tool for Dataset Submissions
- ▶ Department Points of Contact Education
 - ▶ What is open data and dataMontgomery
 - ▶ What is a “dataset”
 - ▶ How to inventory
 - ▶ Recurring meetings and ongoing education
- ▶ Determine dataset prioritization method and timeline



Dataset Pipeline Strategy (9-month process)





Dataset Prioritization Weighted Scorecard



Is the data aligned with the core function of the department?



Do we use this data to measure performance?



Will this data save us administrative time?



Is this data easily accessible?



Will this data foster collaboration across departments?



Will this data allow us to retire a legacy system?



Dataset Prioritization Weighted Scorecard



Is the data typically used to decide policy?



Will this data make life easier for a resident or business?



Are we the only source of this data?



Will this data contribute to civic engagement?



Will this data create economic opportunity?



Will this data improve public knowledge of the function of a department?



Implementation Plan Highlights

- ▶ **Educating the Resident on**
 - ▶ our Open Data Act and what we are required to do
- ▶ **Describing**
 - ▶ How we identified and prioritized datasets
 - ▶ Near and long term dataset plan
- ▶ **Plan Objective**
 - ▶ Comply with Open Data Bill and produce plan
 - ▶ Provide a way to communicate our plans and obtain feedback from both County Council and the public



Overall Results

- ▶ **A prioritized inventory of 550+ datasets**
- ▶ **A government full of open data champions**
- ▶ **An open data program with public buy-in**



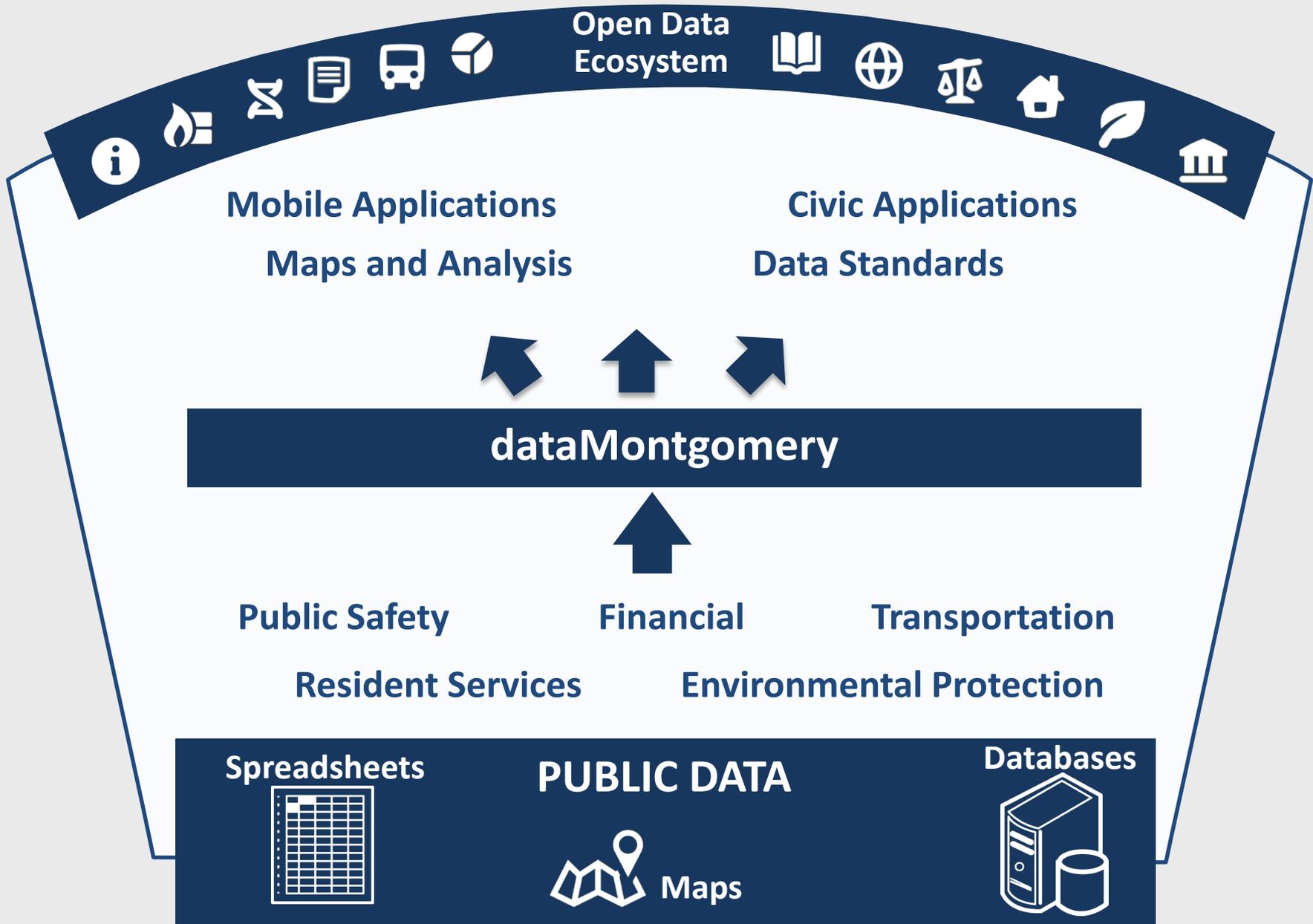
Community Outreach



- ▶ **Open Data Town Halls**
 - ▶ What data does the public want to see
- ▶ **Data centric Focus Groups**
 - ▶ Neighborhood Crime
 - ▶ Financial Transparency
- ▶ **General Feedback**
 - ▶ Taxonomy (How we categorize datasets)



Gaining Value by Extending our Open Data Platform



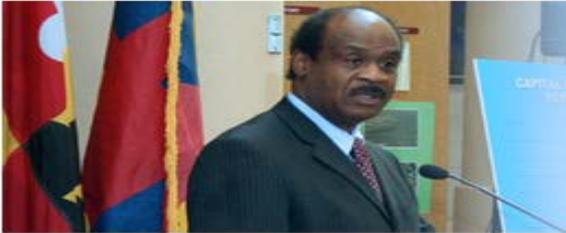


Measuring County Performance



[Sign Up](#) | [Sign In](#)


[Home](#) | [Initiative Overview](#) | [Performance Reports](#) | [Calendar](#) | [FAQs](#)

"Our residents have the right to expect every Count department and employee to be responsive and accountable for every aspect of the services they are providing."
 - County Executive Ike Leggett



County Executive's Priority Objectives

 A Responsive and Accountable County Government	 Affordable Housing in an Inclusive Community	 An Effective and Efficient Transportation Network	 Children Prepared to Live and Learn
 Healthy and Sustainable Communities	 Safe Streets and Secure Neighborhoods	 A Strong and Vibrant Economy	 Vital Living for all of our Residents

Departments

 Department of Correction & Rehabilitation (DOCR)	 Department of Economic Development (DED)	 Department of Environmental Protection (DEP)	 Department of Finance (FIN)
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Online Budget Book

Operating Budget and Public Services Program



Office of Management and Budget
Montgomery County Maryland

Home Table of Contents Glossary Acronyms Financial Transparency Module Help

Search



Welcome to the Operating Budget and Public Services Program Online Publication

This website contains the latest (FY15 APPROVED) Operating Budget and Public Services Program for Montgomery County, Maryland. In the future, this site will contain an archive of previous years for both the recommended and approved publications.

<https://reports.data.montgomerycountymd.gov/omb>



Budget Overview

Includes County Executive's message, budget highlights, debt service, mission statement, about montgomery county, fiscal policy, revenues, Workforce / Compensation, Capital Improvements Program, credits, director's memorandum, and how to read the budget.



Health and Human Services

Includes Aging and Disability Services, Behavioral Health Crisis Services, Children, Youth and Family Services, Public Health Services, Special Needs Housing, Administration and Support.



Agency Summaries

Includes Montgomery County Government, Montgomery County Public Schools, Montgomery College, Maryland-National Capital Park and Planning Commission, Housing Opportunities Commission, Revenue Authority and Washington Suburban Sanitary Commission, Cable Communication Plan, Liquor Control, Non-Departmental Accounts, Utilities



Libraries, Culture and Recreation

Includes Community Use of Public Facilities, Public Libraries, Recreation

Legislative and Judicial

Community Development



Financial Transparency Suite Overview

budgetMontgomery
Complex budget data presented in a guided manner

spendingMontgomery
Multi-dimensional view of spend data

contractsMontgomery
Contract Spending and Vendor Information



Fiscal Year 2014 Budget
This dataset includes the Fiscal Year 2014 Council-approved operating budget for Montgomery County. The dataset does not include revenues and agency budget information; each agency, such as Montgomery County Public Schools, maintain their...

Function	Department	Program Name	Cost Center Name	Fund
57	Environment	Environmental Protection	Dickerson Compost Facility	Yard Trim Composting
58	Environment	Environmental Protection	Dickerson Compost Facility	Yard Trim Composting
59	Environment	Environmental Protection		
60	Environment	Environmental Protection		
61	Environment	Environmental Protection		
62	Environment	Environmental Protection		

Spending Disclosure - Fiscal Year 2014
The purpose of this Spending Disclosure FY14 dataset is to allow the public to search and view summary information on...

Supplier Name	Zip Code	Department
1 1109 SPRING HOLDINGS LLC	20910	Transportation
2 1335 PICCARD LLC	21401	Health and Human Services
3 1335 PICCARD LLC	22192	Non-Departmental Accounts
4 1CALLHELP LLC DBA PUSHBUTTONEMERGENCY	20070	Health and Human Services
5 1ST CHOICE STAFFING LLC	20910	Board of Elections
6 1ST CHOICE STAFFING LLC	20910	Consumer Protection

contracts
The following dataset is a listing of all active County contracts. This list is updated...

Contract Number	Solicitation Number
1 0164AAA	0164AAA
2 934300109AA	934300109
3 06476AA	
4 184800109AA	184800109
6 16891AA	16891
6 6645005AA	6645005
7 650900080AA	650900080
8 650900088AA	650900088
9 672100027AA	672100027
10 0721103015AA	0721103015
11 150800041AA	150800041
12 96440264202	964402642
13 650900060AA	650900060

Fiscal Year 2015 County Executive Recommended Operating Budget
This dataset includes the Fiscal Year 2015 County Executive Recommended operating budget for Montgomery County. The dataset does not include revenues and agency budget information; each agency, such as Montgomery County Public Schools, maintain their...

Function	Department	Program Name	Cost Center Name	Fund Type	Fund SubType	SubFund Name	Fund Name	Personnel Costs & Operating Expense	Object Name	Account Name		
1	General Government	Zoning and Administrative Hearings	Zoning and Administrative Hearings	Office Of Zoning And Admin Hearings	Tax Supported Funds	General Fund	General Fund	Operating Expenses	Contract and Services	Preparation Of Tras		
2	General Government	Zoning and Administrative Hearings	Zoning and Administrative Hearings	Office Of Zoning And Admin Hearings	Tax Supported Funds	General Fund	General Fund	Operating Expenses	Maintenance	Other Office Equip		
3	General Government	Zoning and Administrative Hearings	Zoning and Administrative Hearings	Office Of Zoning And Admin Hearings	Tax Supported Funds	General Fund	General Fund	Operating Expenses	Rental Leases	Copiers		
4	General Government	Zoning and Administrative Hearings	Zoning and Administrative Hearings	Office Of Zoning And Admin Hearings	Tax Supported Funds	General Fund	General Fund	Operating Expenses	Office Supplies/Equipment/5000 or Less	General Office Sup		
5	General Government	Zoning and Administrative Hearings	Zoning and Administrative Hearings	Office Of Zoning And Admin Hearings	Tax Supported Funds	General Fund	General Fund	Operating Expenses	Office Supplies/Equipment/5000 or Less	Other Supplies & Ec		
6	General Government	Zoning and Administrative Hearings	Zoning and Administrative Hearings	Office Of Zoning And Admin Hearings	Tax Supported Funds	General Fund	General Fund	Operating Expenses	Books/Videos/Subscriptions	Books / Reference		
7	General Government	Zoning and Administrative Hearings	Zoning and Administrative Hearings	Office Of Zoning And Admin Hearings	Tax Supported Funds	General Fund	General Fund	Operating Expenses	Printing - Central Duplicating Services	Imaging		
8	General Government	Mert System Protection Board	Mert System Oversight	Mert System Protection Board	Tax Supported Funds	General Fund	General Fund	Personnel Costs	Social Security	Social Security-Pr		
9	FY15	P470301	6th District Police Station (P470301)					Construction	1.0	http://www.montgomerycountymd.gov/ODS: 39.04535	+76.9906333	5
4	FY15	P470400	Animal Services and Adoption Center (P470400)					Completed	1.0	http://www.montgomerycountymd.gov/ODS: 39.1508833	-77.14755	3
5	FY15	PS41300	Children's Resource Center (PS41300)					Preliminary Design	1.0	http://www.montgomerycountymd.gov/ODS: 39.082698	-77.1134299	3
6	FY15	P450300	Clarksburg Fire Station (P450300)					Preliminary Design	1.0	http://www.montgomerycountymd.gov/ODS: 39.240600	-77.282500	2
7	FY15	PS00709	Colesville Depot (PS00709)					Under Construction	1.0	http://www.montgomerycountymd.gov/ODS: 39.090174	-76.996114	5
8	FY15	P421100	Criminal Justice Complex (P421100)					Preliminary Design	1.0	http://www.montgomerycountymd.gov/ODS: 39.070691	-77.16254	3
9	FY15	PS41106	Dennis Avenue Health Center (PS41106)					Under Construction	1.0	http://www.montgomerycountymd.gov/ODS: 39.025107	-77.843231	5
10	FY15	P421101	DOCRC Staff Training Center (P421101)					Preliminary Design	1.0	http://www.montgomerycountymd.gov/ODS: 39.2310078	-77.286786	7
11	FY15	PS09303	Equipment Maintenance and Operations Center (EMOC) (PS09303)					Completed	1.0	http://www.montgomerycountymd.gov/ODS: 39.1295	-77.868033	3

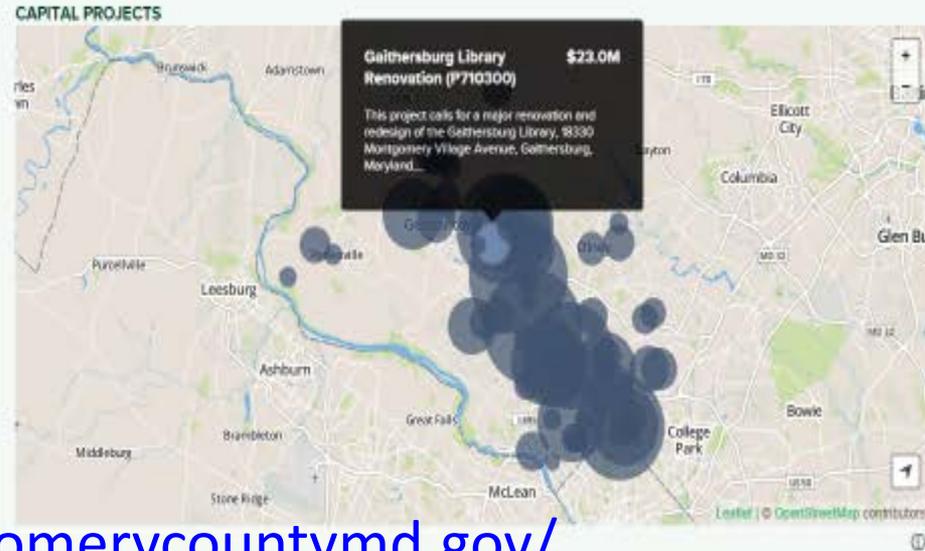
budgetMontgomery

Welcome to budgetMontgomery

In 2012, Montgomery County launched dataMontgomery as part of its openMontgomery initiative, a program designed to promote greater transparency and accessibility to residents. Our next step towards transparency and greater engagement is to provide a guided view to complex financial information, such as budget data. This site, budgetMontgomery, will provide you with a way to understand how our budget is structured and get the answers you need. It has rich content such as charts, graphs and maps to view our budget from different levels, such as how much we budget for services, Departments, programs and capital improvement programs. You also have the ability to convert the graphs to table view and download the raw data.

Simply click on a bar in each bar chart to drill down for further information, or click on one of the bubbles in the map to view project details from the Capital Budget.

[Read More](#)

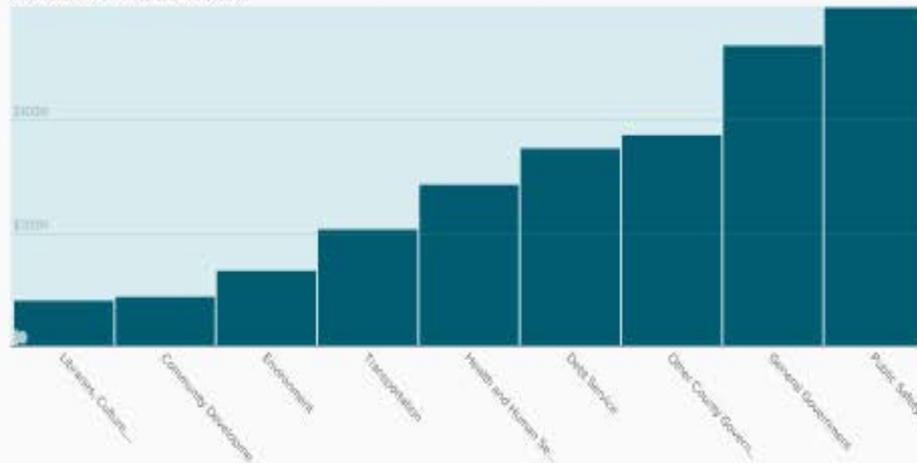


<http://budget.data.montgomerycountymd.gov/>

\$2.63 BILLION FY 2015
OPERATING BUDGET

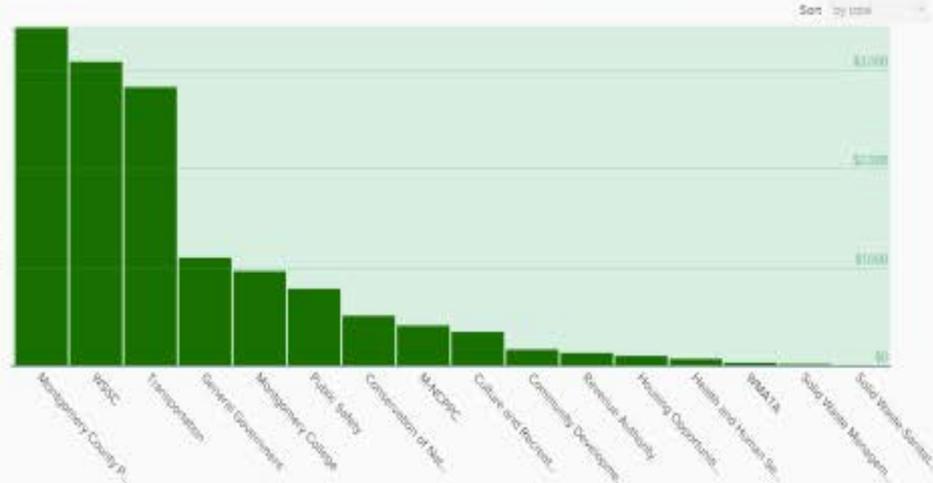
provides funding to keep the county's ongoing programs running.

SERVICES IN MONTGOMERY COUNTY



\$13.8 BILLION CURRENT
CAPITAL BUDGET

goes toward one-time infrastructure and improvement projects.





spendingMontgomery

Montgomery County

Show the biggest spenders within the entire ledger paying (any vendor) for (any category)

Search

Welcome to spendingMontgomery

In 2012, Montgomery County launched dataMontgomery as part of its openMontgomery initiative, a program designed to promote greater transparency and accessibility to residents. Our next step towards transparency and greater engagement is to provide a guided view to County spending data. This site, spendingMontgomery, will provide County stakeholders with a multi-faceted view into the ways Montgomery County spends public funds. This data will be updated on a quarterly basis.

The interface is highly interactive, inviting you to click your way through summary information down to a detailed payment level. One can see how much the County spends, what we spend it on and who we do business with. You also have the ability to convert the graphs to table view and download the raw data.

Start your exploration by either clicking on items of interest on the charts below, or build your own question using the drop down options in our interactive tool bar (on the top and side of this page).

Read More

Browse by spending type



or

Search for a specific thing



Department, Program, Expense Category, or Vendor

or simply select a tab or bar below to get started

Ledger

This is what all the services within Montgomery County spent

\$4.36 billion Spent so far FY2014
\$4.80 billion Spent total FY2015

Spent so far FY2014 Spent total FY2015

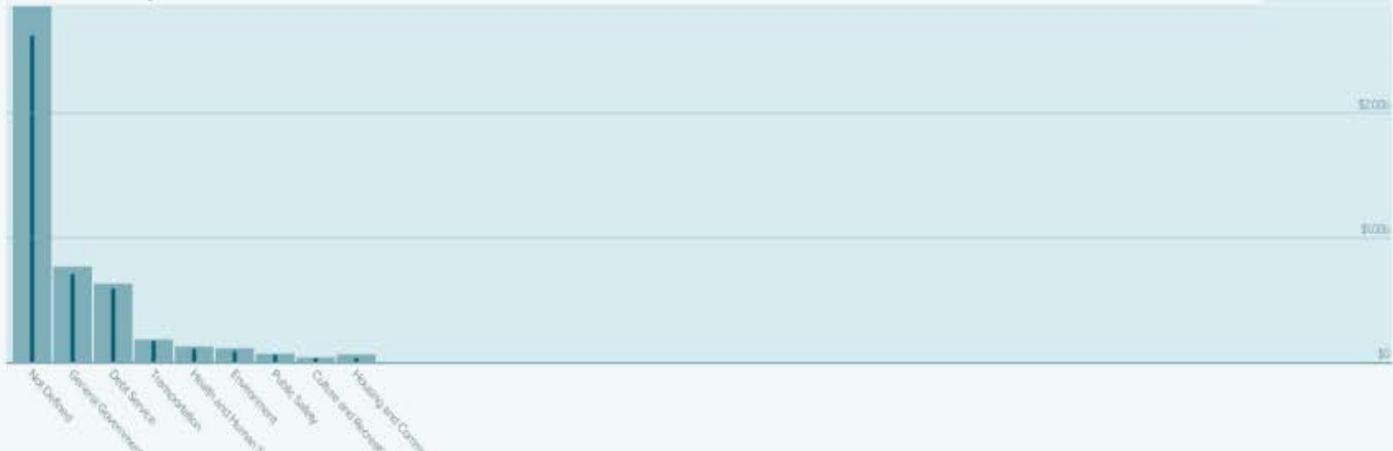
Who's spending it?

On what?

Who's being paid?

9 Services in Entire Ledger

Sort by current fiscal year





What Kinds of State Data Could Help Montgomery County?

Results of Informal Survey Sent to Departments

▶ Types

- ▶ Data that gets loaded into our systems for use
- ▶ Data that compares counties or cities to one another
- ▶ Ongoing reports

▶ Examples

- ▶ SDAT property tax data
- ▶ School data
- ▶ Traffic and pedestrian collision/injury/fatality data
- ▶ Uniform Crime Report
- ▶ Grants data
- ▶ Consolidated Transportation Plan
- ▶ Election data
- ▶ State-issued permits and licenses



Opportunities and Closing Thoughts

- ▶ **Keys to a Successful Open Data Program**
- ▶ **Maryland Data Community Opportunities**
 - ▶ Collaborative approach to identifying common data standards
 - ▶ Solution sharing with common datasets (responses to MPIA requests)
- ▶ **dataMontgomery Resources Available**
 - ▶ Technical Standards Manual
 - ▶ Operations Manual