



U.S. Department of the Interior
Office of Financial Management
Financial Policy and Data Analysis Division

Data Analysis in Financial Management

How the Department of the Interior uses data analysis to drive results

October 2019

Agenda

- Data analysis overview
- DOI organization, systems, and tools
- Financial management use cases
- Key takeaways
- Questions

Disclaimer

The views and opinions expressed in this presentation are my own, and do not constitute an endorsement of Tableau or any other products, services or companies mentioned, by the U.S. Department of the Interior or the U.S. Government.



Data Analysis Overview



Data Analytics vs Analysis vs Visualization

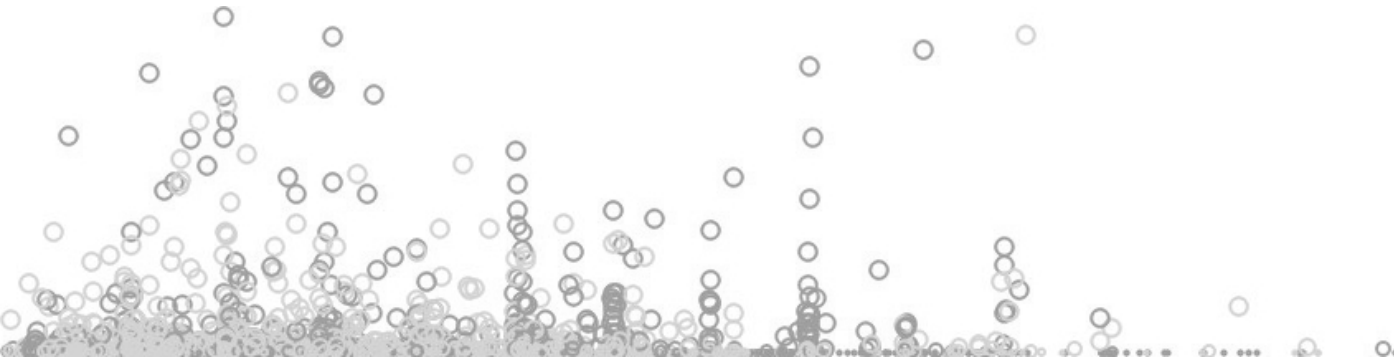
- Data analytics is the overarching process of transforming data into actions through analysis and insight in the context of organizational decision-making and problem-solving.
- Data analysis is the process of inspecting, cleaning, transforming and modeling data with the goal of discovering useful information, informing conclusions, and supporting decision-making.
- Data visualization is the graphical representation of data.

“Contrary to popular wisdom, numbers cannot always speak for themselves. Inattention to the display of quantitative data results in large but hidden costs to most organizations. Time is wasted struggling to understand the meaning and significance of numbers—time that could be better spent doing something about them.”

- Stephen Few, Show Me the Numbers

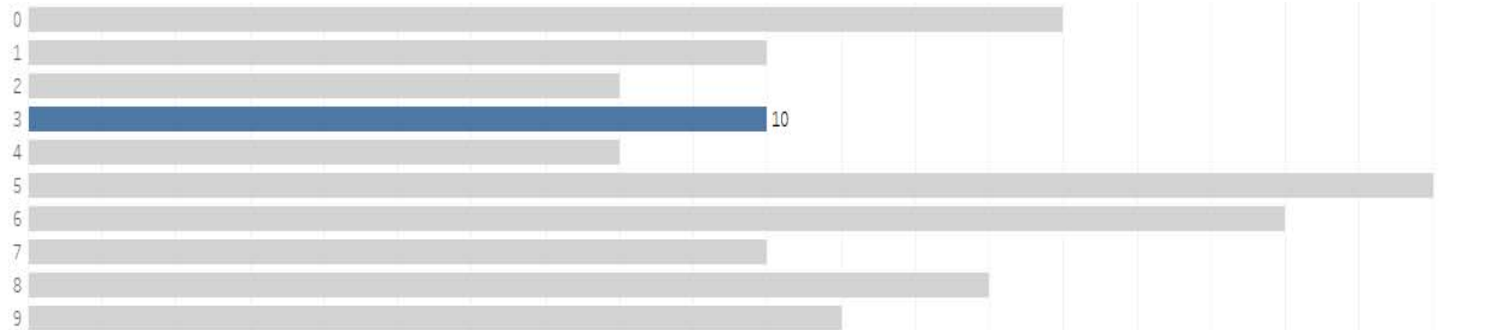
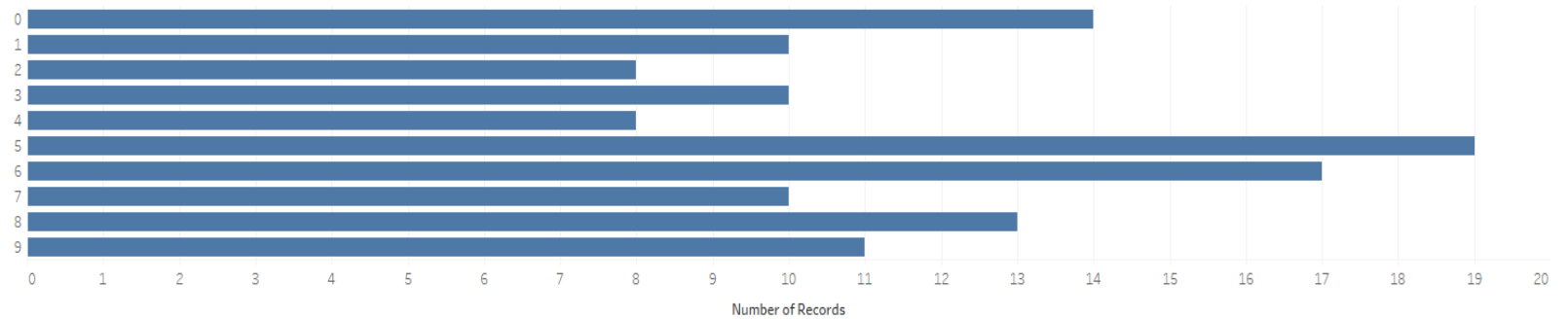
Count the 3s

7	5	6	3	9	5	0	6	8	4	7	3	6	5	8
6	6	5	0	3	7	5	7	3	8	6	0	6	7	2
6	5	8	6	0	2	8	4	6	5	8	9	1	0	7
8	3	0	5	9	4	4	3	6	9	7	5	1	2	0
9	5	7	8	3	2	0	4	8	9	5	7	4	6	0
5	9	7	1	1	5	8	6	5	5	3	2	1	5	9
5	1	4	8	9	2	1	3	5	8	0	1	6	0	9
0	3	5	6	2	9	1	6	6	0	2	8	4	0	1

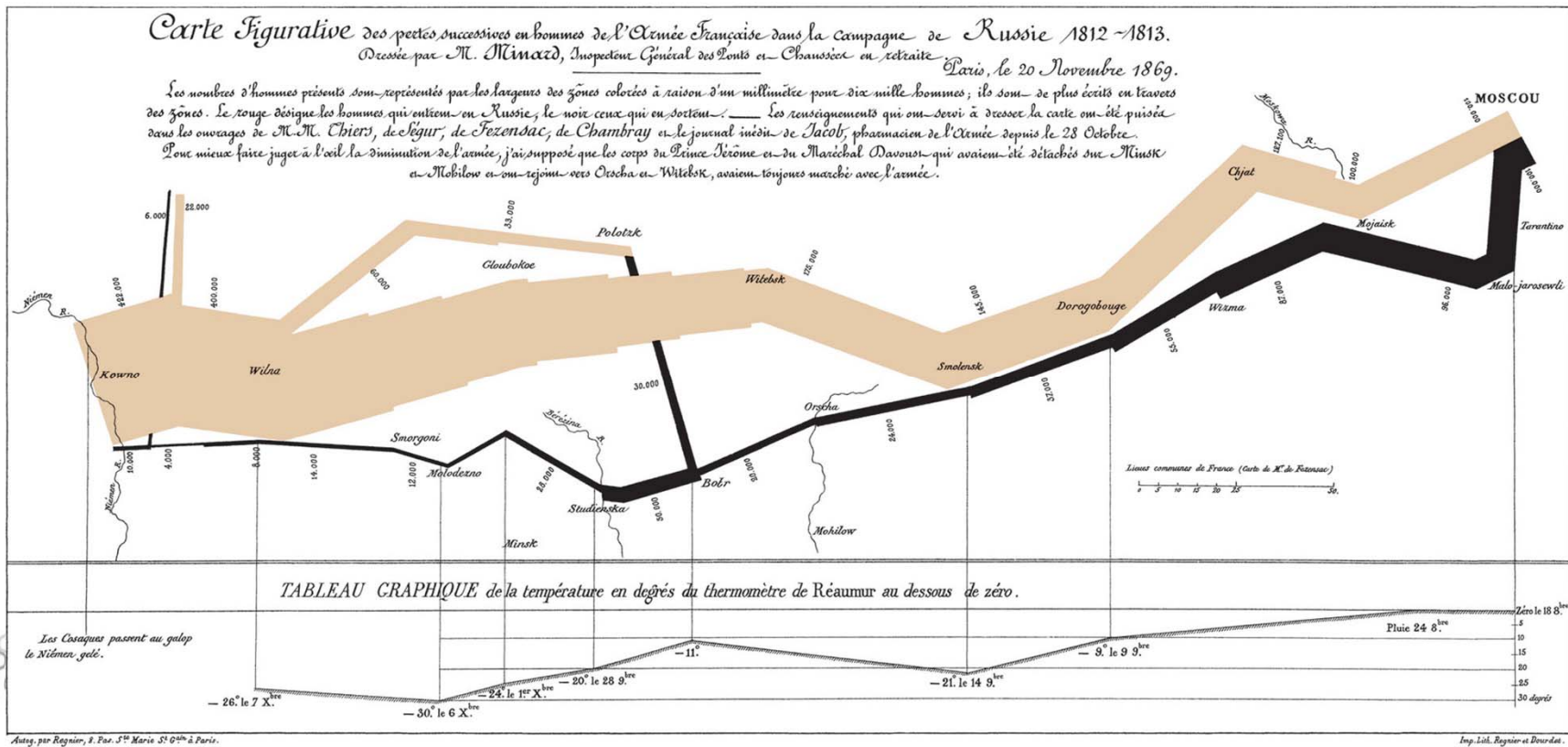


Count the 3s (cont'd)

0	14
1	10
2	8
3	10
4	8
5	19
6	17
7	10
8	13
9	11



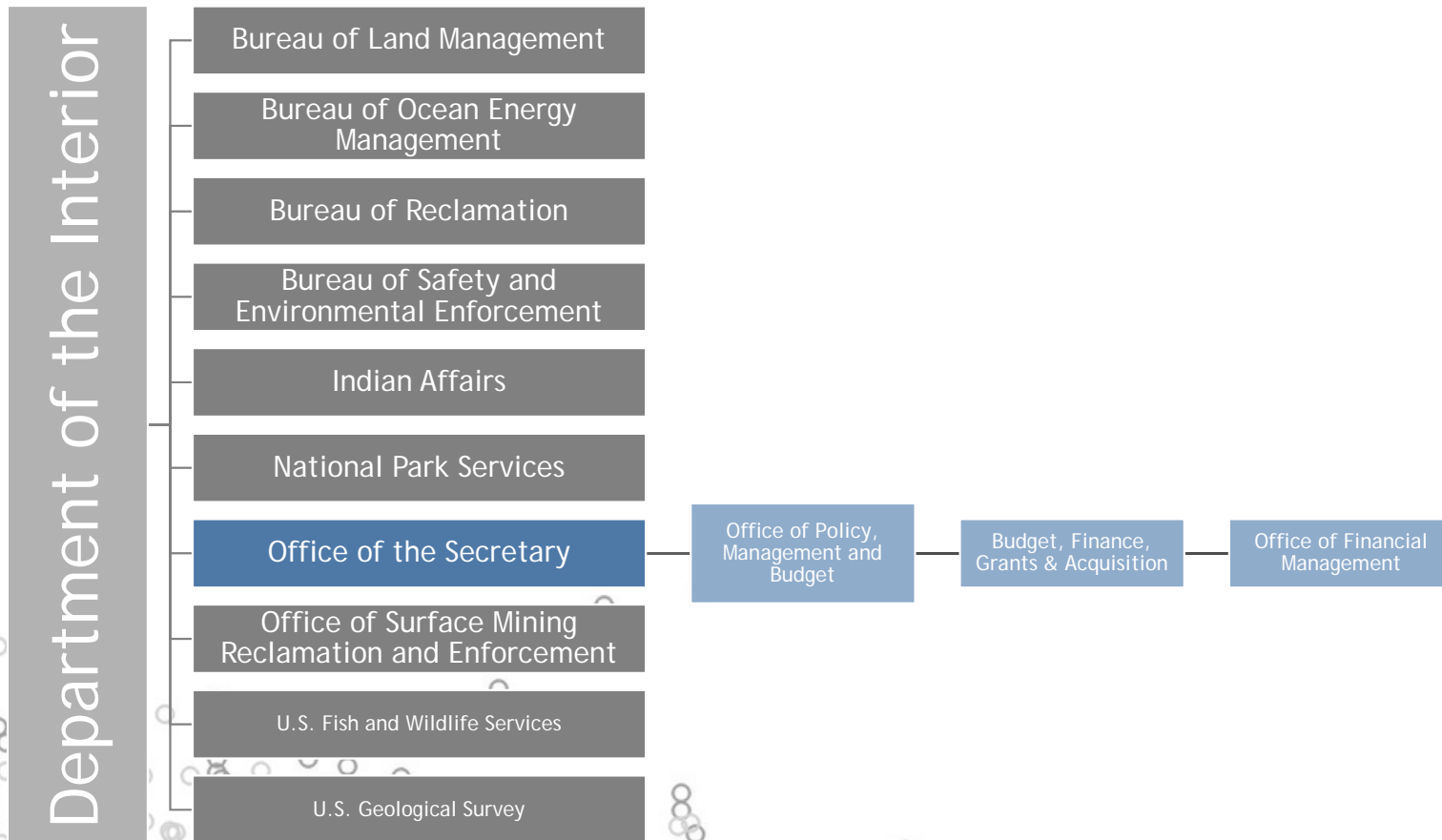
Data Visualizations are Not New





DOI Organization

DOI Organization



Systems and Tools

- Financial and Business Management System
- SAP Business Warehouse
 - Analysis for OLAP
 - Analysis for Office
 - SAP WebIntelligence
- Tableau



Financial Management Use Cases



*Natural Resource Damage
Assessment and Restoration
Program (NRDAR) Funds Analysis*

NRDAR Mission



The mission of the U.S. Department of the Interior's (DOI) Natural Resource Damage Assessment and Restoration (NRDAR) Program is to restore natural resources injured as a result of oil spills or hazardous substance releases into the environment. In partnership with affected state, tribal and federal trustee agencies, the NRDAR Program conducts damage assessments which are the first step toward resource restoration and form the basis for determining how to restore the public's loss and use of natural resources. Once the nature and extent of resource injuries are assessed and restoration options are developed, the NRDAR Program negotiates legal settlements or takes other legal actions with parties responsible for the spill or release. Funds from these settlements or actions are then used to restore the injured resources at no expense to the taxpayer.

Premise

- What we heard: *No one knows how much money we have available, or why we are "sitting" on the money.*
- What we knew for a fact: *That is just simply NOT the case.*

NRDAR Projects in FBMS

NRDAR Status Reports

State: ALL

Project: 00035 - Gateway National Recreation Area (SURPA) NY

Fiscal Year: 2019

[Get Reports](#) [Cancel](#)

RESTORATION OTHER

PROJECT 00035 - Gateway National Recreation Area (SURPA) NY FOR FY2019

Summary of Transactions Year to Date for RESTORATION

At Start	Collections	Investment Income	Investment Expense	Investment Activity (Net Earnings)	Allocation/Adjustment	Current
\$8,484.46	\$2,900.00	\$81.91	\$0.00	\$81.91	\$0.00	\$11,466.37

RESTORATION OTHER

PROJECT 00035 - Gateway National Recreation Area (SURPA) NY FOR FY2019

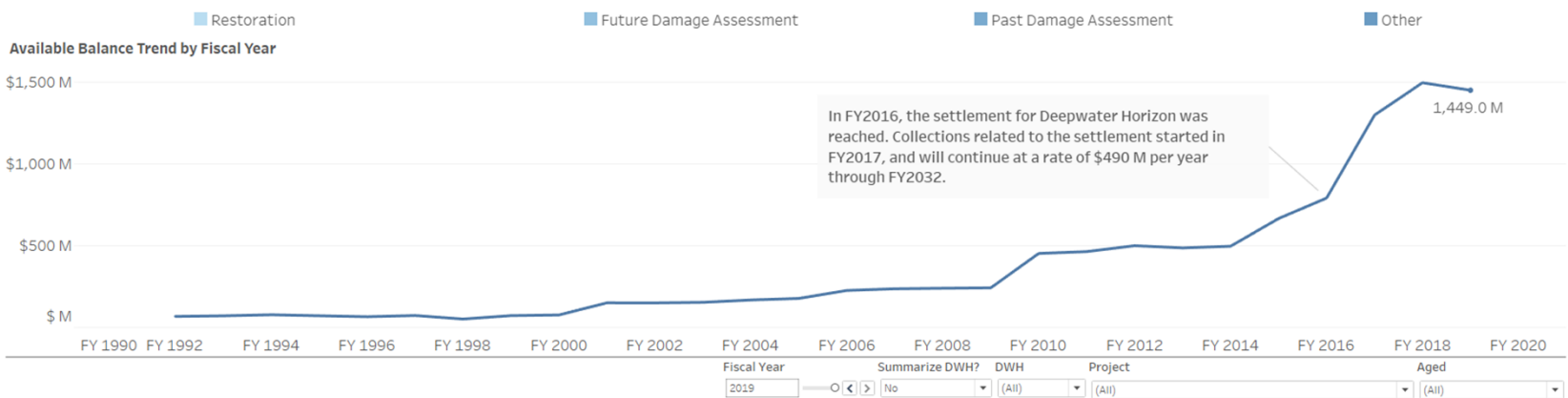
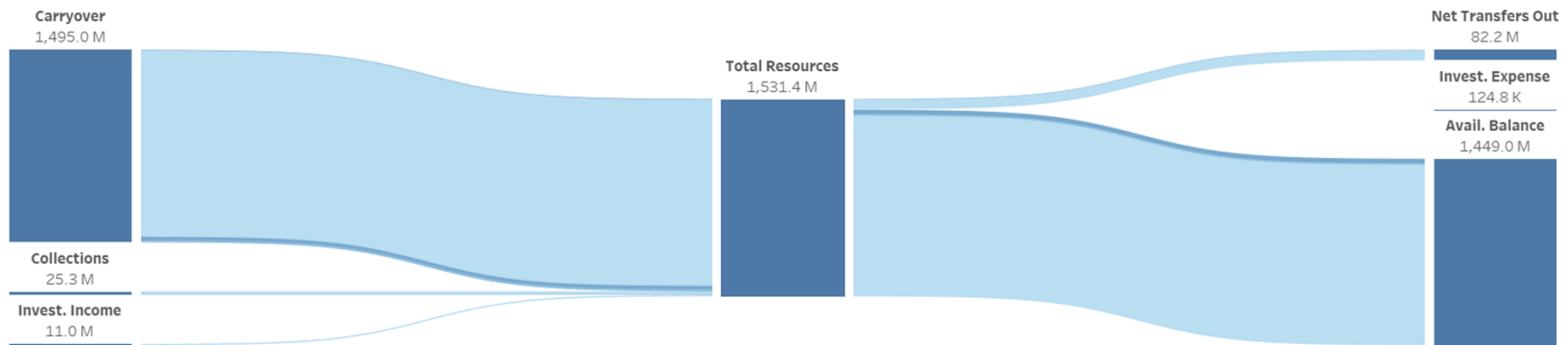
Summary of Transactions Year to Date for OTHER

At Start	Collections	Investment Income	Investment Expense	Investment Activity (Net Earnings)	Allocation/Adjustment	Current
\$1,654.87	\$0.00	\$14.20	\$0.00	\$14.20	\$0.00	\$1,669.07

NRDAR Status of Funds Visualized

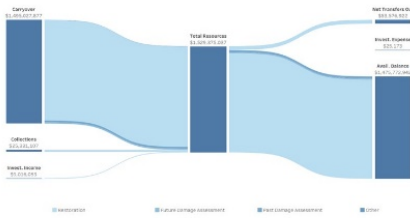
Natural Resource Damage Assessment and Restoration

Status of funds received by DOI from responsible parties for FY 2019 (through 3/1/2019)



Presenting Results to Leadership

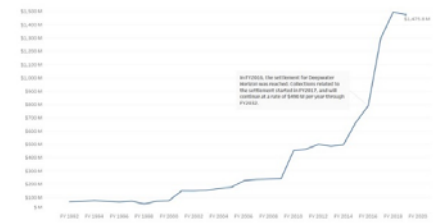
Status of funds received by DOI from responsible parties for FY2019



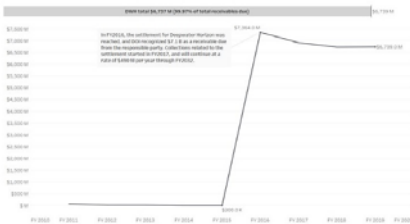
Projects with over \$10M available balance



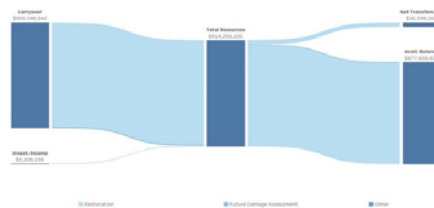
Available balance trend by fiscal year



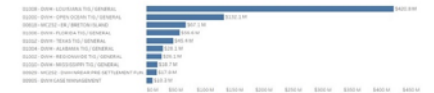
Settlement amounts due to DOI from responsible parties for FY 2019 (through 2/20/19)



Status of DWH funds received by DOI from responsible parties for FY2019



DWH projects with over \$10M available balance





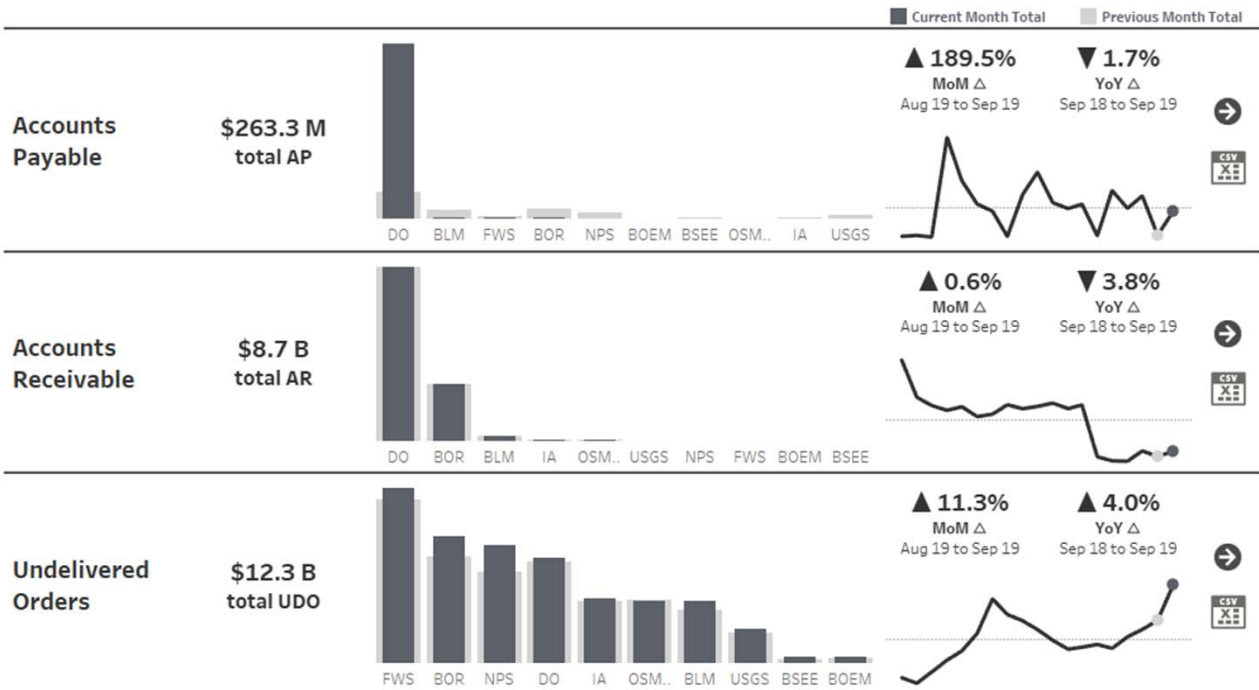
Risk Assessments

Risk Assessments

Risk Assessment Summary

Department of the Interior
As of September 30, 2019

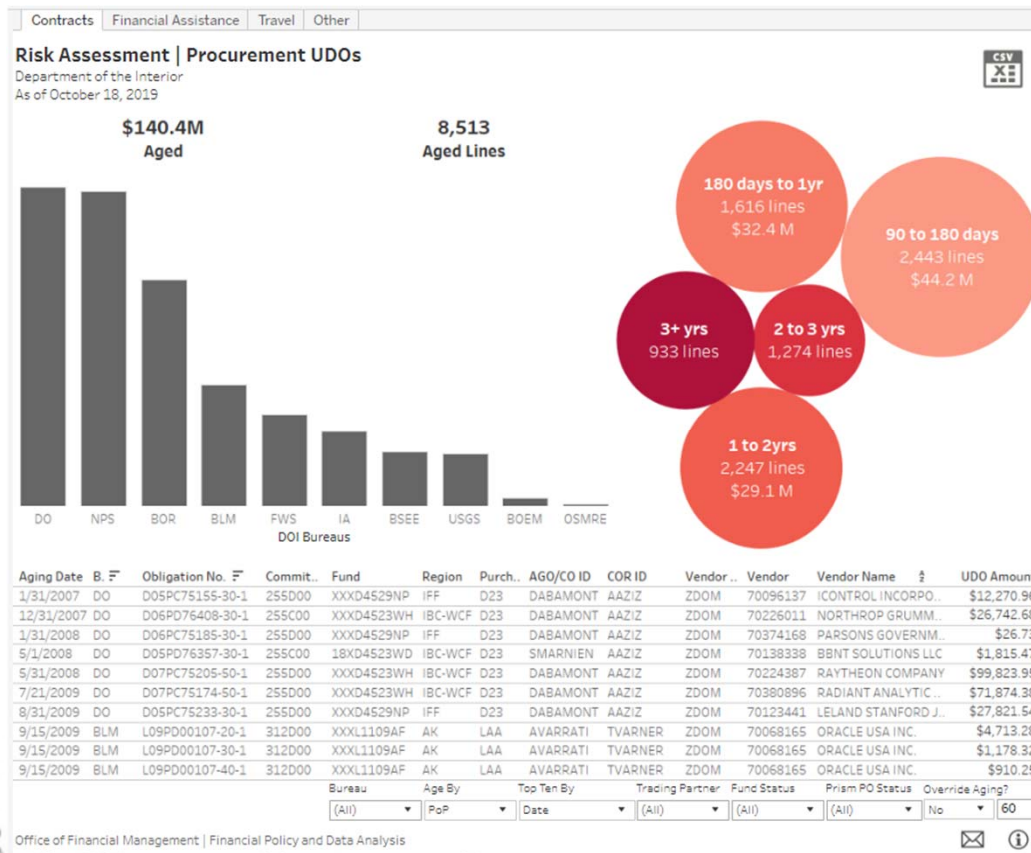
Report As of Date: September 30, 2019
Bureau: All
Display: Total
Measure By: Absolute Value



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Risk Assessment: Undelivered Orders





Other

Assets Under Construction

Assets Under Construction Monitoring

Department of the Interior
As of October 18, 2019



Targeted AUC
\$1.1B
44 projects
47 WBS



BOR NPS IA BLM

\$744.1M
Ongoing

\$301.2M
Nearing
Completion

Project	WBS	Bureau	WBS Foreca..	Cost (units)	Timeline	AUCs to Include in View
RA 03441132	RA 03441132.1520000	BOR	12/31/2019	\$132.0M		Targeted
RA R3441001	RA R3441001.1520000	BOR	12/31/2019	\$85.4M		
RA 19490101	RA 19490101.0019800	BOR	9/30/2035	\$72.4M		
RA 16957100	RA 16957100.00191A1	BOR	6/30/2024	\$54.7M		
RA E2146442	RA E2146442.1511S0D	BOR	9/30/2021	\$50.6M		
RA E2146440	RA E2146440.1511S0D	BOR	9/30/2021	\$45.1M		
RA 19490101	RA 19490101.1520000	BOR	9/30/2035	\$43.9M		
RA 08091251	RA 08091251.1520000	BOR	9/30/2041	\$35.1M		
RA Z0661080	RA Z0661080.0000000	BOR	12/31/2026	\$33.7M		
RA 169588BP	RA 169588BP.1520000	BOR	6/30/2020	\$29.7M		
RA 00690034	RA 00690034.1528285	BOR	6/30/2020	\$28.5M		
RA 17460101	RA 17460101.0019800	BOR	9/30/2019	\$27.1M		
RA 16958AW0	RA 16958AW0.1300000	BOR	6/30/2020	\$25.4M		
RA E2146400	RA E2146400.1510001	BOR	9/30/2021	\$25.3M		
RA 08052681	RA 08052681.1301001	BOR	12/31/2019	\$24.8M		
RA R0331051	RA R0331051.1510000	BOR	6/30/2025	\$24.2M		
RA 12921200	RA 12921200.2015001	BOR	9/30/2020	\$23.3M		
RA Z0660015	RA Z0660015.2000000	BOR	12/31/2026	\$20.8M		
RA 05570006	RA 05570006.1750000	BOR	12/31/2019	\$19.7M		
RA 169577HS	RA 169577HS.1300000	BOR	6/30/2024	\$19.6M		
RA A3250001	RA A3250001.1510000	BOR	12/31/2020	\$18.2M		
RA E2146460	RA E2146460.151S0DS	BOR	9/30/2021	\$17.0M		
AA 601REHAB.000.	AA 601REHAB.00000	IA	9/1/2025	\$16.1M		
RA A2361000	RA A2361000.15200W1	BOR	3/31/2021	\$14.2M		
RA 07690195	RA 07690195.1520000	BOR	12/31/2023	\$14.0M		
RA 03441139	RA 03441139.0019200	BOR	12/31/2025	\$14.0M		
RA 52221521	RA 52221521.16001CY	BOR	12/31/2019	\$13.7M		
RA 20222500	RA 20222500.0019310	BOR	6/30/2024	\$13.3M		
PX.P0158675E	PA.P0158675B.01.1	NPS	12/31/2019	\$13.2M		
RA 08052681	RA 08052681.0019100	BOR	12/31/2019	\$12.3M		
RA 169588P0	RA 169588P0.1520000	BOR	6/30/2020	\$12.1M		
RA A2581000	RA A2581000.15200W5	BOR	6/30/2021	\$11.9M		
RA F2476400	RA F2476400.15105W0	BOR	Null	\$11.2M		

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AFR Financial Performance Measures

ANALYSIS OF SYSTEMS, CONTROLS, AND LEGAL COMPLIANCE

Compliance with Other Key Legal and Regulatory Requirements

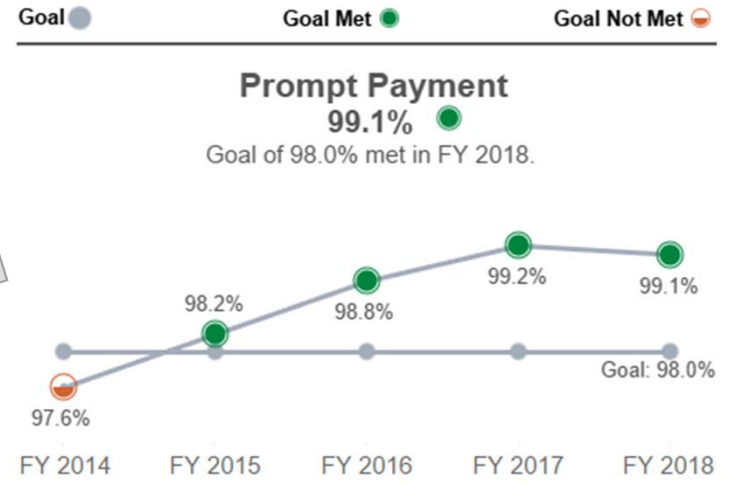
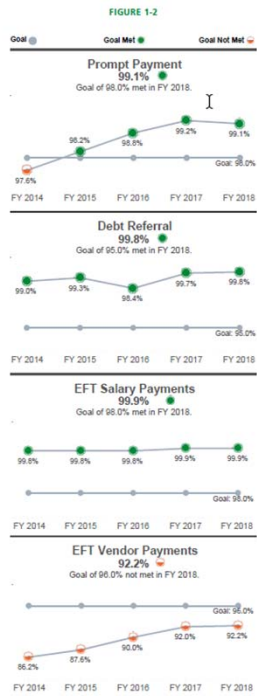
The DOI is required to comply with several other legal and regulatory financial requirements, including the Prompt Payment Act (PPA), the Debt Collection Improvement Act (DCIA), and the criteria for Electronic Funds Transfers (EFT). See Figure 1-2.

Prompt Pay, Debt Collection, and Electronic Funds Transfer

In FY 2018, DOI exceeded its performance goal for PPA and DCIA but did not meet its performance goal for vendor payments made by EFT. The PPA requires that eligible payments be made within 30 days of receipt of invoice; otherwise, the Federal Government is required to pay interest. The DCIA requires any non-tax debt owed to the United States that has been delinquent for a period of over 120 days be referred to the U.S. Department of the Treasury (Treasury) for collection. The EFT provision of the DCIA mandates all recipients of Federal vendor payments and salary payments receive their payments electronically, except for tax refunds.

The shortfall of the FY 2018 EFT performance goal has been carried over from FY 2017 and continues to be attributed to a high volume of transactions that DOI has for tort claims, legal settlements, financial assistance, social service payments to individual Indians, and realty payments that are consistently being processed with EFT waiver requests or non-EFT mechanisms. A large number of the waivers were converted from legacy financial systems. Those waivers were given a two-year grace period and have now expired. A system change has been developed to automatically block vendor records with expired waivers so that vendors are required to re-submit their requests. Requiring resubmission for waiver requests should effectively reduce the number of vendors who receive checks.

However, transitioning to the use of electronic payment methods requires time for vendors located in remote communities to make the appropriate adjustments to their financial processes. Logistical issues, such as the remote proximity of vendors to banks and the lack of transportation in isolated communities, are reflected in the EFT shortfall. Nonetheless, the EFT performance metric has incrementally risen each year and this trend is expected to continue going forward.

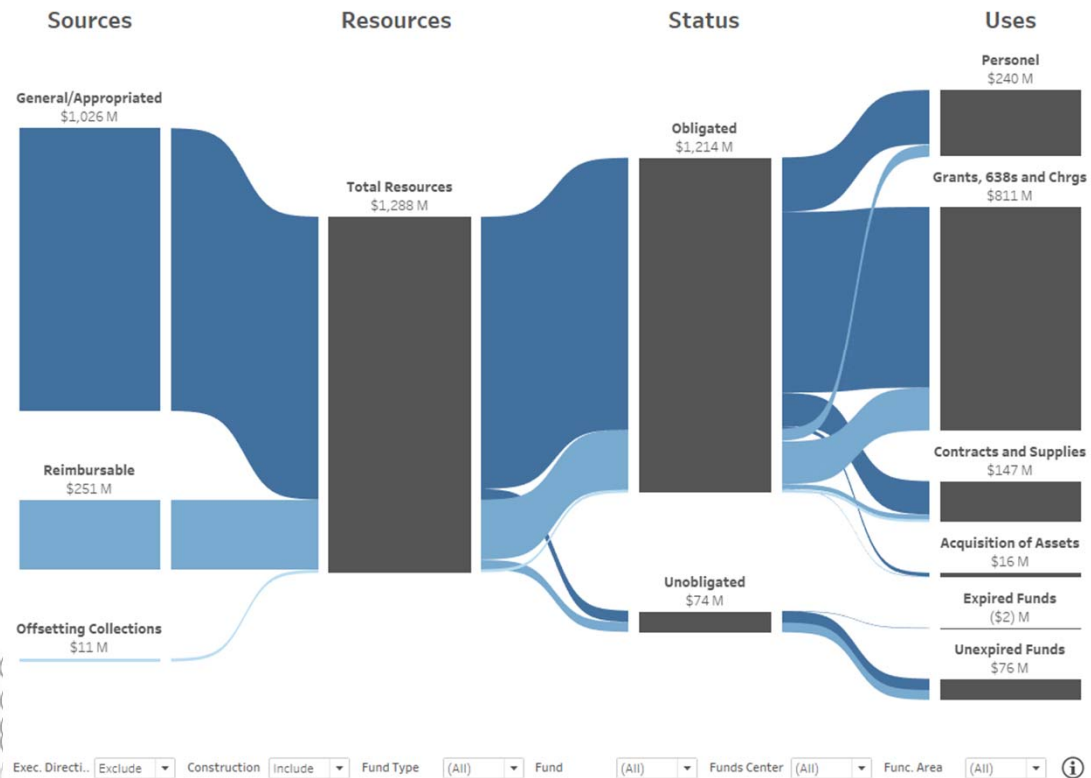


Sources and Uses of Funds

Sources and Uses of Funds

Department of the Interior, Bureau of Indian Education

Last refreshed on 10/01/2018.

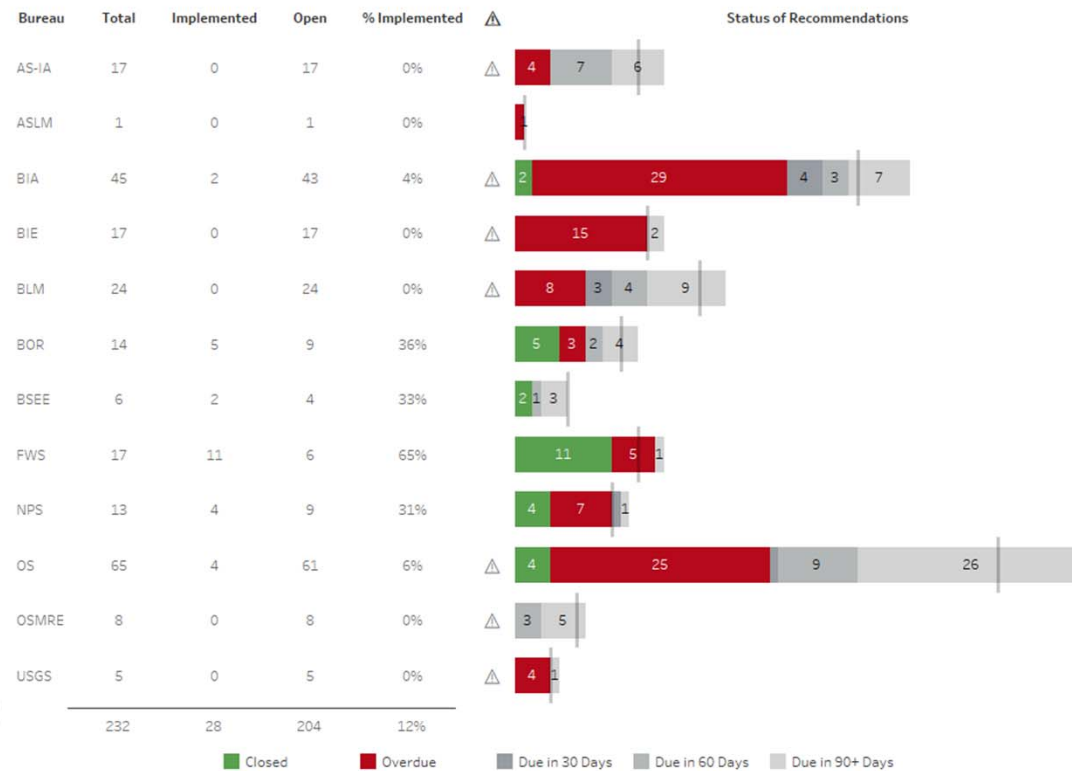


OIG and GAO Audit Recommendations

OIG and GAO Audit Recommendations

Departmental Summary

As of 2/26/2019



Key Takeaways

- “What gets measured, gets done.”
- Data analysis allows financial managers to leverage data to make better, more timely decisions.
- Good data is of utmost importance; data must be accurate, complete, consistent and timely.
- Data analysis and data visualization consistently ranked as top priorities impacting financial management operations per the AGA’s 2018 Annual CFO Survey (Beyond Disruption: Maximizing CFO Tools in the New Reality).



Questions?

Carla Flores, CGFM
E: carla_flores@ios.doi.gov
LinkedIn: [carlabflores](#)
M: 202-322-3511